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Recent Trends in Ethnic and Racial Business Ownership

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Abstract

Using Current Population Survey (CPS) microdata, I examine trends and the causes of the trends from1979 to 1998 in entrepreneurship among several ethnic/racial groups in the United States. I find rapid growth rates for the number of self-employed blacks, Hispanics, Asians and Native Americans relative to whites over the past decade or two. I find that the rapid growth rates were primarily due to expansions in the labor force for these groups. With the exception of female rates in the 1980s, trends in business ownership rates were fairly flat over the past two decades. There were, however, important differences across groups in changes in self-employment rates over the past decade or two. I use a dynamic decomposition technique to explore the causes of these differential trends and find some interesting patterns. For example, I find that increasing levels of education and relative declines in the age distribution of the workforce for some minority groups contributed to increasing racial gaps in self-employment.

1. Introduction

The Survey of Minority-Owned Business Enterprises (SMOBE) indicates that the number of minority-owned businesses grew rapidly over the 1980s and early 1990s. From 1982 to 1992, the number of black-owned businesses grew by 101 percent, the number of Hispanic-owned businesses grew by 230 percent, and the number of Asian-owned businesses grew by 201 percent (U.S. Bureau of the Census 1990, 1996b and U.S. Small Business Administration 1999). Fueled by arguments that business ownership increases opportunities for economic advancement, political power, and job creation among disadvantaged groups, these estimates of a large increase in the number of minority-owned firms were viewed as important and received a great deal of attention in the press.[1] Also contributing to the interest in these trends were arguments that business ownership provides a potential route out of poverty and an alternative to unemployment or discrimination in the labor market, and that disparities in rates of business ownership contribute to racial tensions in urban areas throughout the United States.[2]

Although the SMOBE indicates that the number of minority-owned businesses has risen over the past two decades, we know very little about the underlying causes of these trends. In this paper, I use microdata from the Current Population Survey (CPS) to analyze the determinants of trends in the number of white, black, Hispanic, Asian and Native American business owners from 1979 to 1998. The CPS microdata are especially useful for this type of analysis because they provide detailed information on a

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[1] See Loewen (1971), Light (1972), Baron et al. (1975), Bonacich and Modell (1980), and Min (1989, 1993) on business ownership and economic mobility, and see Brown, Hamilton, and Medoff (1990) on political power.

[2] See Glazer and Moynihan (1970), Light (1972, 1979), Sowell (1981), and Moore (1983) on discrimination and blocked opportunities, and see In-Jin Yoon (1997) and Min (1996) on racial tensions.

comparison group of workers who do not own businesses. These data may also provide a more accurate representation of recent trends in minority business ownership than the SMOBE. The scope of businesses included in the SMOBE has changed over the past two decades and the data possibly include a large number of side or "casual" businesses owned by wage/salary workers or individuals who are not in the labor force.[3]. The CPS microdata include all individuals who identify themselves as self-employed in their own not incorporated or incorporated business on their main job, and thus capture only primary business owners.[4]

Using CPS microdata from 1979 to 1998, I first document trends in the number of minority business owners. I find rapid growth rates for the number of self-employed blacks, Hispanics, Asians and Native Americans relative to whites over the past decade or two. I then explore potential causes for the rapid growth in the number of black, Hispanic, Asian and Native American business owners. I find that the large increases in the number of business owners in these groups over the past two decades were primarily due to expansions in the labor force for these groups. With the exception of female rates in the 1980s, trends in business ownership rates did not increase substantially over the past two decades.

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[3] The data include individuals who file an IRS form 1040 Schedule C (individual proprietorship or self-employed person), 1065 (partnership), or 1120S (subchapter S corporation). Estimates from the confidential 1992 Characteristics of Business Owners (CBO), which is a sample partly drawn from the SMOBE, indicate that 44.2 percent of owners in the survey report that their businesses provided less than 25 percent of their total personal income (U.S. Bureau of the Census 1996a). Bates (1990b) suggests addressing this problem with the CBO microdata by removing all businesses with no financial capital investment and annual sales of less than $5000. Applying these restrictions, he finds that the number of observations in the CBO surveys drops by at least 50 percent.

[4] Published estimates based on the CPS, such as those reported in *Employment and Earnings* by the Bureau of Labor Statistics, do not classify owners of incorporated businesses as self-employed, and thus understate the total number of business owners.

In the second part of the paper, I use a dynamic decomposition technique to explore the causes of racial differences in trends in self-employment rates over the past one to two decades. Several interesting patterns are revealed. For example, increasing levels of education among black men relative to white men contributed to the narrowing of the white/black self-employment rate gap from 1979-81 to 1996-98. In contrast, the white/Hispanic gap increased over the past two decades partly because Hispanic men did not experience gains in education relative to white men. Differential trends in the age distribution of the workforce across racial groups also contributed to relative trends in self-employment rates. For all minority groups, the workforce aged less rapidly than for whites reducing the self-employment rates of these groups relative to the white self-employment rate.

2. Data

I use data from the 1979 to 1998 Current Population Survey (CPS) Merged Outgoing Rotation Group (ORG) files. The ORG files contain annual samples that are roughly three times larger than those from a monthly CPS, such as the commonly used March Annual Demographic Files. The large sample sizes are needed to examine trends in self-employment for smaller groups such as Asians and Native Americans and provide more precise estimates of the number and rates of self-employment for all groups.

Self-employed workers are defined as those individuals who identify themselves as self-employed in their own not incorporated or incorporated business on the class of worker question.[5] The class of worker question refers to the job with the most hours

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[5] Unpaid family workers are not counted as self-employed.

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during the reference week.[6] I restrict the sample to include only individuals (ages 16 to 64) who worked at least 15 hours during this week. The hours restriction is imposed to rule out very small-scale business activities. As in most previous studies of self-employment, agricultural industries are excluded.

I create five distinct ethnic/racial groups by interacting responses to the race and Spanish/Hispanic origin questions available in the CPS. The groups are white (non-Hispanic), black, Hispanic, Asian and Pacific Islander, and Native American (American Indian, Aleut and Eskimo). The black, Asian and Native American groups include individuals reporting Spanish ethnicity. This classification does not, however, lead to a substantial undercount of Hispanics as only 2.3, 0.7 and 0.5 percent of Hispanics report being black, Asian, and Native American, respectively.

3. Trends in the Number of Self-Employed

In Figure 1, I display trends in the number of self-employed workers from 1979 to 1998 by race/ethnicity. The number of white, non-Hispanic business owners is plotted using the left Y-axis and the numbers of black, Hispanic, Asian and Native American business owners are plotted using the right Y-axis. During this period, whites experienced the largest increase in the number of business owners. In 1979, there were 6.5 million self-employed whites. By 1998, there existed 8.9 million white business owners -- an addition of 2.4 million business owners over this 19-year period. Most of

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[6] I use the unedited class of worker question for 1979 to 1988 and the edited class of worker question from 1989 to 1998. The edited class of worker question prior to 1989 did not class owners of incorporated businesses as self-employed.

this increase in the number of self-employed whites occurred in the 1980s. In fact, the

number of self-employed whites increased by only 95,000 from 1990 to 1998.[7]

A few industries accounted for a large share of the growth in the number of white

business owners over the past two decades. Estimates of the number of self-employed by

race/ethnicity and industry group are reported in Table 1. I report three-year averages for

the endpoints to provide more accurate counts for the smaller ethnic/racial groups. These

estimates indicate that the growth in the number of business owners in professional

services accounted for slightly more than 40 percent of the growth in the total number of

white business owners. Increases in the number of self-employed in other services,

construction, and finance, insurance and real estate also contributed substantially to the

increase in the total number of self-employed.

Although the increase of more than 200,000 black business owners from 1979 to

1998 was dwarfed by the increase in the number of white business owners, the growth

rate for this group was much higher. Over the past two decades the number of self-

employed blacks grew by 87 percent -- far outpacing the 36 percent growth rate for

whites. The rapid rise in black self-employment, however, did not occur until the mid-

1980s. Prior to 1984, the trend in the number of black business owners was essentially

flat. In contrast, the number of self-employed blacks increased from 269,000 in 1983 to

393,000 in 1988 -- an increase of 46 percent. The growth in the number of black

business owners during this period of time may be due to the creation of minority-

business set-aside programs in most major cities in the early- to mid-1980s (see Boston

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[7] The large decrease in the number of self-employed whites that occurred from 1993 to 1994 may
in part be due to the 1994 redesign of the CPS. Interestingly, however, the estimates presented
below indicate that most ethnic/racial groups did not experience a large decline in the number of
self-employed over this two-year period. I discuss these issues further below.

1998 and Chay and Fairlie 1998). After a slight drop in the early 1990s, the number of

black business owners started to rise again in the mid- to late-1990s. In 1998, blacks

owned 4.7 percent of all businesses, which represents an increase from the 3.8 percent of

businesses owned by the group in 1979.

The industries primarily responsible for the growth in the number of black

business owners were similar to those responsible for the growth in the number of white

business owners. The main exception was that transportation, communications, and

public utilities accounted for 15 percent of the increase in the number of black business

owners from 1979 to 1998 instead of only 6 percent for whites. The expanding industries

over the past two decades were roughly the same as those experiencing rapid growth

from 1960 to 1980 for self-employed minorities (Bates 1987).

The number of Hispanic business owners grew substantially over the past two

decades. There were 435,000 more Hispanic business owners in 1998 than in 1979,

representing a growth rate of 193 percent. This growth rate far surpasses the growth rates

in the number of white and black business owners. Furthermore, the rapid rate of growth

in the number of Hispanic business owners appears to have been fairly steady during the

past two decades. It has led to the group's ownership of 6.2 percent of all businesses in

1998, which is higher than for any other minority group. It also represents a large

increase from 1979 in which Hispanics owned only 3.2 percent of all businesses.

Similar to whites and blacks, an expansion in the number of Hispanic business

owners in construction and other services accounted for large portions of the total growth.

An important difference, however, was that there was also a large increase in the number

of Hispanic business owners in retail trade -- compared to declines in the number of

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white and black business owners in this industry. Another difference was that there was a much smaller increase in the number of Hispanic business owners in professional services.

Unfortunately, the CPS does not allow identification of Asians and Native Americans prior to 1989. Therefore, I only present evidence of patterns of self-employment for these two groups over the past decade. There were 306,000 Asian business owners in 1989. By 1998, the total had grown to 475,000 -- an increase of 55 percent over this 9-year period. The dominant growth industries over this period were retail trade, other services and professional services. The growth rate for Asian business owners during this period was higher than for white, black, or Hispanic business owners. Although the Asian population is much smaller, this group owned nearly as many businesses in 1998 as blacks. This is consistent with estimates of the higher propensity of Asians than blacks to choose self-employment reported in previous studies and presented below.

Native Americans, which are by far the smallest ethnic/racial group examined, experienced the largest growth rate in the number of business owners since 1989. From 1989 to 1998, there was an increase of 31,000 business owners, representing a growth rate of 81 percent. The industries with the largest contributions to this expansion were retail trade, construction and professional services. These estimates, however, should be interpreted with caution as the sample sizes for this group are small (approximately 110 observations in each year). In 1998, Native Americans owned only 0.7 percent of all businesses.

Estimates of growth rates for the number of minority business owners from the CPS are lower than estimates for the number of minority-owned small businesses from the SMOBE using a comparable time frame. The SMOBE estimates indicate that the number of black-owned businesses increased by 101 percent from 1982 to 1992 (308,260 to 620,912). The estimates reported here show an increase in the number of black business owners over the same time period of 35 percent (277,000 to 374,000). For Hispanics, the SMOBE estimates indicate an increase of 230 percent (233,975 to 771,708), whereas the CPS estimates indicate an increase of 56 percent (206,000 to 322,000). Finally, the number of Asian-owned firms estimated by SMOBE grew by an annual rate of 10 percent from 1987 to 1992 (376,711 to 606,426). CPS estimates indicate that the number of Asian business owners grew by an annual rate of 7 percent from 1989 to 1992 (306,000 to 373,000).

The larger SMOBE estimates of the number of minority-owned businesses in all years are most likely due to the inclusion of side or "casual" businesses owned by wage/salary workers or individuals who are not in the labor force as noted above. In fact, the SMOBE numbers would be slightly larger if I reported estimates of the number of minority business owners because of the multiple ownership of businesses.[8] Estimates from the 1992 CBO, which is based on the SMOBE, indicate that the number of black, Hispanic, and Asian business owners are 2.8, 5.1, and 15.1 percent larger than the number of black-, Hispanic-, and Asian-owned businesses, respectively. Although the focus on changes over time in this analysis should remove some of these problems, the

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[8] Working in the opposite direction, however, individuals may own more than one business. This appears to be a minor issue as Boden and Nucci (1997) find that less than 3 percent of small business records in the CBO pertain to owners of multiple businesses.

comparison suggests that growth rates for the number of minority business owners from 1982 to 1992 were much lower when we focus on only primary business owners.[9]

Several studies provide evidence that levels of female self-employment have been increasing rapidly in recent decades (see Aronson 1991, Devine 1994 and Small Business Administration 1998 for example). Are these trends in female self-employment responsible for the large increases in the number of business owners in each ethnic/racial group over the past two decades? In Figures 2 and 3, I display the number of self-employed men and women by race/ethnicity. Apparently, the growth in the number of business owners is not due solely to the growth in the number of female business owners. In fact, for all groups except whites the increase in the number of self-employed men was larger than the increase in the number of self-employed women. Among whites there was an increase of 1.4 million female business owners compared to an increase of 965,000 male business owners from 1979 to 1998.

Growth rates for women, however, far outpaced those for men for most groups. From 1979 to 1989, female business owners grew by 93 percent for whites, 146 percent for blacks, and 317 percent for Hispanics. The growth rates for white, black and Hispanic men were 19, 64, and 159 percent, respectively. Overall, these estimates indicate that the rapid growth rates among self-employed women exerted an upward influence on the total growth rates, but were not solely responsible for the large increases in the total number of businesses owners in each race/ethnic group. Male self-employment was also on the rise during this time period.

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[9] In a comparison of estimates from the CBO to estimates from the CPS Annual Demographic Files, Boden and Nucci (1997) also find higher growth rates for white business owners from 1982 to 1987 using the CBO. This is even after removing S-corporations from the CBO and incorporated business owners from the CPS, and including all individuals receiving any self-employment income in the CPS to make the data more comparable.

4. Trends in Self-Employment Rates

A potential explanation for the rapid growth in the number of business owners, especially Hispanics and Asians, is that these increases were simply due to population growth. In recent decades, the adult workforce grew substantially for most ethnic and racial groups. To explore this hypothesis, I examine ethnic and racial trends in rates of self-employment. I display these trends in Figure 4 for men and Figure 5 for women. Consistent with previous research on self-employment, I define the self-employment rate as the fraction of workers who are self-employed.

Before discussing the trends by race and ethnicity, it is useful to compare overall rates of self-employment across groups. Although the figures indicate that there exist ethnic and racial differences in growth rates, there appears to be a fairly clear ordering of self-employment rates across groups over the entire time period. Therefore, I simplify by focusing on a comparison of 1998 rates. Whites and Asians have the highest self-employment rates. Among white men and women, 13.1 and 7.4 percent are self-employed, respectively. The Asian self-employment rate is slightly lower for men (12.4 percent), but is higher for women (8.4 percent). The ethnic/racial group with the next highest self-employment rates is Native Americans. For this group, the male self-employment rate is 10.0 percent and the female rate is 5.1 percent.

Hispanics have the fourth highest self-employment rates. For both men and women, however, these rates are considerably lower than white, non-Hispanic rates. The male Hispanic self-employment rate of 6.9 percent is approximately 1/2 the white male rate, and the female Hispanic rate of 4.5 percent is slightly more than 60 percent of the

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white female rate. Finally, of the five ethnic/racial groups identified in this paper blacks

have the lowest rates of business ownership. The black male self-employment of 5.1

percent is only 39 percent of the white male rate, and the black female self-employment

rate of 2.7 percent is 36 percent of the white female rate. Clearly, blacks, Hispanics, and

to a lesser extent Native Americans, are substantially underrepresented in business

ownership in the United States.

The ordering of self-employment rates across ethnic/racial groups is similar to

that reported in previous studies using alternative data sources and years. These include,

but are not limited to, estimates for some or all groups from the 1980 Census (Borjas

1986, Borjas and Bronars 1989, Light and Rosenstein 1995), the 1990 Census (Fairlie

and Meyer 1996 and Razin and Light 1998), the General Social Survey (Hout and Rosen

2000), the Panel Study of Income Dynamics (Fairlie 1999), and the Survey of Income

and Program Participation (Meyer 1990, Bates 1997).

I now turn to an analysis of trends in self-employment by race/ethnicity. Because

the trends differ between men and women, I discuss them separately. The white male

self-employment rate rose by slightly more than 2 percentage points from 1979 to 1993.[10]

It then dropped by over a full percentage point the next year and has essentially remained

at this lower level. Some caution is warranted, however, in interpreting the drop from

1993 to 1994 as it may simply be a result of the 1994 CPS redesign.[11] Perhaps, the most

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[10] Estimates reported in Aronson (1991), Blau (1987), and Fairlie and Meyer (2000) indicate that the upward trend in the male self-employment rate dates back to the early 1970s.
[11] Fairlie and Meyer (2000) find by comparing estimates from the CPS ORG to estimates from the CPS ADF that are for the same year, but were subject to the redesign in different years, that the redesign may have led to a fall in the reported white male self-employment rate of one percentage point. Using the same comparison, however, they find that the redesign led to an increase in the black male self-employment by almost a full percentage point. Additional conflicting evidence on the impact of the redesign on male self-employment rates is provided in

important finding for this group is that the self-employment rate increased by only 4

percent from 1979 to 1998, which is notably smaller than the 19 percent growth rate for

the number of business owners.

This finding suggests that the large increase in the number of white male business

owners over the past two decades was mainly due to an increase in the white male

workforce. To quantify this contribution, I decompose the change in the number of self-

employed into the part that is due to the change in the size of the workforce and the part

that is due to the change in the self-employment rate. Specifically, the change in the

number of self-employed (S) from time t to time t+s can be expressed as follows:

(4.1) $S_{t+s} - S_t = (W_{t+s} - W_t)R_t + (R_{t+s} - R_t)W_{t+s}$,

where W_t is the number of workers in time t and R_t is the self-employment rate in time t.

The first part of the decomposition provides an estimate of how much of the change in

the number of business owners is due to the change in the size of the workforce. Using

(4.1), I find that the increase in the white male workforce accounted for 73 percent of the

increase in the number of business owners over the past two decades. Thus, the large

growth in the number of white male business owners was primarily due to the expansion

of the white male workforce by 5.7 million workers from 1979 to 1989.

The estimates displayed in Figure 4 indicate that the male black self-employment

rate increased from 4.7 percent in 1979 to a high of 5.9 percent in 1994. By 1998,

however, the rate dropped to 5.1 percent. The slight upward trend in the black self-

employment rate over the past two decades suggests that most of the rapid growth in the

number of black male business owners is due to an expansion of the workforce.

Polivika and Miller (1998) from a "parallel survey." They conclude from their thorough analysis
of the redesign that it resulted in an increase in the male self-employment rate of approximately
one-half of a percentage point.

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Estimates of (4.1) verify this claim: 82 percent of the increase in the number of self-employed black men was due to an increase in the size of the black male workforce.

Although these estimates indicate that there has been some improvement in black male self-employment over the past 19 years, business ownership remains much less common among this group than other groups. The low rate of self-employment among black men relative to white men also appears to date back to at least 1910 when black men were one-third as likely to be self-employed as white men (Fairlie and Meyer 2000).

Estimates reported above indicate that the number of male Hispanic business owners increased by 281,000 or 159 percent from 1979 to 1998. This remarkable growth rate, however, was entirely due to an increase in the male Hispanic workforce. The male Hispanic self-employment rate actually decreased from 7.4 percent in 1979 to 6.9 percent in 1998. In fact, estimates from (4.1) indicate that the number of business owners in this group would have decreased by 12 percent in the absence of the large expansion in the workforce. There may exist more male Hispanic business owners now than 19 years ago, but Hispanic men continue to be much less likely to own a business than white men and current trends do not suggest that their propensity to become self-employed is increasing.

The rapid growth in the number of Asian male business owners was also entirely due to a large expansion in the workforce. From 1989 to 1998, the number of Asian male workers increased by slightly more than 1 million. In contrast, the self-employment rate for the group decreased over the past decade. It was 13.3 percent in 1989, climbed to a high of 14.9 percent in 1991, then dropped to 12.4 percent in 1997-8. These changes in the self-employment rate imply that the number of Asian business owners would have decreased by 21 percent without the expansion in the workforce. Although the group's

self-employment rate declined over the past decade, Asian men continue to have the highest rate of business ownership among minority groups and have rates that are roughly comparable to those of white men.

Finally, the rapid growth in the number of self-employed Native American men also appears to be due almost solely to an expansion in the workforce. Estimates of (4.1) indicate that the increase in the workforce accounts for 95 percent of the growth in the number of business owners in this group. The self-employment rate for this group increased by only 2 percent from 1989 to 1998. Some caution is warranted, however, in interpreting these results as the sample sizes are small.

To summarize, estimates of trends in self-employment rates from the CPS and estimates of (4.1) indicate that the rapid growth rates for the number of male Hispanic, Asian and Native American business owners were entirely driven by increases in the workforce and not by increases in the propensity of these groups to choose self-employment. Large expansions in the workforce also accounted for a substantial part of the growth in the number self-employed white and black men.

In contrast to the male trends, female self-employment rates increased sharply from 1979 to 1998. Female self-employment rates rose by 40 percent among whites, 30 percent among blacks, and 39 percent among Hispanics. Most of the increases for these groups, however, occurred in the 1980s as the only group that experienced a sizeable gain in the self-employment rate from 1989 to 1998 was blacks. The female black self-employment rate rose by 26 percent over this period.

These estimates suggest that the sizeable gains made in the number of self-employed minority women in the past two decades were not entirely due to increases in

the workforce. Using (4.1), I find that increases in the workforce account for 41, 61 and 63 percent of the increases in the number of white, black and Hispanic business owners, respectively. In the 1990s, however, increases in the female workforce were the main factor behind the increase in the number of female business owners with the only exception being black women.

5. Causes of Relative Trends in Self-Employment Rates

The findings presented above reveal some important differences in trends in self-employment rates across ethnic/racial groups. I now investigate the causes of these relative trends in self-employment rates. To simply, I focus on changes from 1979-81 to 1996-98 and use whites as the comparison group. I employ the decomposition methodology used by Smith and Welch (1989) in their study of trends in racial earnings differences. The decomposition is a dynamic generalization of the familiar method of decomposing intergroup differences in a dependent variable into those due to different observable characteristics across groups and those due to different returns to characteristics across groups (i.e. Blinder 1973 and Oaxaca 1973).

The first step in computing the decompositions is to estimate a linear probability model of the relationship between self-employment, S, and demographic characteristics, X, using separate cross sections for each race and time period:

(5.1) $\quad S_t^i = X_t^i \beta_t^i + \varepsilon_t^i,$

where t indexes the time period (1979-81, 1989-91 or 1996-98) and i indexes the race (W-white, B-black, H-Hispanic, A-Asian, N-Native American). Based on the findings from previous research, I include age, education, family characteristics and region as

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determinants of self-employment. Having obtained estimates of the linear probability models by time period and race, the self-employment rate is equal to the inner product of the mean characteristics and the vector of coefficients. I am interested in decomposing changes in the racial self-employment rate gap, defined as the white rate minus the minority group's rate. Therefore, the change in the racial self-employment rate gap between two Censuses, t=1 and t=2, is simply

$$(5.2) \qquad (\overline{X}_2^W \beta_2^W - \overline{X}_2^M \beta_2^M) - (\overline{X}_1^W \beta_1^W - \overline{X}_1^B \beta_1^B).$$

The decomposition of (5.2) requires first choosing a base year and base race. I use the earlier Census year (t=1) as the base year and white as the base race.[12] Using white as the base race, (5.2) can be expressed as:

$$(5.3) \qquad \begin{aligned} &(i)[(\overline{X}_2^W - \overline{X}_2^M) - (\overline{X}_1^W - \overline{X}_1^M)]\beta_1^W + \\ &(ii)(\overline{X}_2^M - \overline{X}_1^M)(\beta_1^W - \beta_1^M) + \\ &(iii)(\overline{X}_2^W - \overline{X}_2^M)(\beta_2^W - \beta_1^W) + \\ &(iv)\overline{X}_2^M[(\beta_2^W - \beta_2^M) - (\beta_1^W - \beta_1^M). \end{aligned}$$

Given the linearity of the decomposition, each of the four components can be further decomposed to capture the contributions of specific variables. I calculate separate contributions from age, family characteristics, education, and region. To provide an interpretation of each of the components (i-iv) in the decomposition, it is useful to select a specific variable, such as region, in the discussion. The interpretations of the components for the variable, region, are as follows. (i) The "Characteristics Effect" is positive if minorities relative to whites move into low self-employment regions of the country. It is positive because it increases the racial gap measured as the white minus the

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[12] Smith and Welch (1987) argue for using the white or majority parameter estimates because these estimates more closely resemble market prices of attributes.

minority rate. (ii) The "Characteristics-Race Interaction" is positive if minorities relative to whites move into regions that have large racial self-employment rate gaps. Part of this component may be due to the effect of minorities moving to areas of the country that have high levels of consumer discrimination against self-employed minorities. (iii) The "Coefficients-Race Interaction" is positive if minorities are overrepresented in the regions of the country that have falling self-employment rates over time. Thus, the effect of demand shifts for the goods and services produced by the self-employed are partly captured in this term. (iv) The "Coefficients Effect" is positive if the racial self-employment rate gap is increasing within regions.[13]

In Tables 2 and 3, I report the decomposition of the gap between the white self-employment rate and each group's self-employment rate from 1979-81 or 1989-91 to 1996-98. In the underlying regressions, I include a constant, age, dummy variables for marital status, three educational categories (high school graduate, some college, and college graduate), and eight Census divisions.[14] I first discuss the results for men (reported in Table 2).

Although the white/black gap in the male self-employment rate remains large, the black rate increased slightly relative to the white rate over the period from 1979-81 to 1996-98. The white/black gap declined by 0.414 percentage points. Part of this decline was due to increasing levels of education among black men relative to white men as

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[13] The interpretation of this term for specific subsets of variables is problematic, because it is sensitive to the choice of excluded category. Therefore, I only report the total contribution of this component for all of the variables.

[14] The coefficient estimates from these regressions have the anticipated signs. I find that self-employment generally increases with age, education level, marriage, and living in the Pacific division.

indicated by the negative value of contribution (i).[15] Education has a positive effect on the probability of being self-employed. Interestingly, however, the positive estimate for contribution (ii) indicates that higher levels of education are associated with larger white/black gaps in self-employment rates. Thus, the additional effect of rising education levels among blacks worked in the opposite direction, widening the gap. Finally, self-employment rates increased for less-educated workers relative to college-educated workers over the past two decades, thus leading to an improvement in black self-employment relative to white self-employment (as evidenced by the negative value for (iii)).

Racial differences in age, and to a lesser extent marital status, also affected changes in the white/black self-employment rate gap. Most notably, the white male labor force aged more rapidly than the black male labor force increasing the white/black gap in self-employment. The positive value of contribution (i) is due to an increase in the probability of being self-employed with age. Finally, trends in regional distributions and self-employment rates by region essentially had very little effect on the change in the white/black self-employment rate gap from 1979-81 to 1996-98.

Hispanic men slipped further behind white men in rates of business ownership over the past two decades. The white/Hispanic gap grew from 5.664 percentage points to 6.243 percentage points. Although Hispanic men made gains in education levels over this period their gains were substantially smaller than those for whites. For example, the percent of white men who were college graduates grew from 23.9 to 30.7, whereas the percent of Hispanic men who were college graduates grew from 8.4 to 10.6. As

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[15] These results represent the average effect of education on racial trends in self-employment, however, education may have different effects on trends in self-employment across industries (Bates 1997).

expected, these relative trends in education partly contributed to the widening white/Hispanic gap in self-employment. Interestingly, however, the increase in self-employment rates among less-educated workers relative to college-educated workers over the past two decades contributed greatly towards reducing the racial self-employment rate gap. In other words, the white/Hispanic gap would have increased by approximately a full percentage point over what it had if these trends did not occur in self-employment by education level.

The positive estimate of contribution (i) for age implies that the Hispanic workforce did not age as rapidly as the white workforce from 1979-81 to 1996-98. As noted above the probability of self-employment increases with age. Regional factors also had an influence on the change in the white/Hispanic self-employment rate gap. For example, Hispanics relative to whites moved into regions of the country that had smaller racial gaps in self-employment rates (as evidenced by the negative value of contribution (ii)).

The self-employment rate gap between Native American and white men increased by more than half a percentage point from 1989-91 to 1996-98. The increase appears to have been partly driven by a Native American workforce that did not age as rapidly as the white workforce. The notable factor working in the opposite direction was the combination of lower average levels of education among Native Americans than whites and the relative improvement in self-employment rates among less-educated workers.

The white/Asian male self-employment rate gap also increased from 1989-91 to 1996-98. The most notable factor contributing to this change was that the average age of the Asian workforce increased only slightly over this period, whereas the average age of

the white workforce increased by more than a full year (as evidenced by the positive value of (i)). These differential trends in the age distribution increased the white/Asian gap by 0.368 percentage points.

I now turn to the results for women (reported in Table 3). Unlike the white/black gap for men, which decreased over the past two decades, the gap for women increased by a startling 1.468 percentage points. A less rapidly aging workforce and a declining average probability of being married among black women contributed to the increase in the self-employment rate gap (positive values for contribution (i)). The probability of self-employment is higher for those who are married, all else equal. The negative estimate of (ii) implies that the lower racial gap for single women and the rapidly increasing proportion of black women who were single worked to reduce the gap in self-employment. Finally, changes in education also contributed slightly to the change in the racial gap.

The white/Hispanic self-employment rate gap among women also increased substantially over the past two decades. Interestingly, however, none of the contributions reported in Table 3 are large relative to the increase in the gap of nearly a full percentage point. This even includes the education contributions, which were found to be very important in the decomposition of the white/Hispanic gap for men. The causes of these differences are that education is less important in determining female self-employment and that Hispanic women made faster gains in educational attainment than Hispanic men.

From 1979-81 to 1996-98, the white/Native American female self-employment rate gap increased by nearly two full percentage points. None of the reported contributions, however, are large relative to this change. For example, the largest

contribution was 0.261, which was contribution (i) from age. This contribution only represents only 14 percent of the total change in the gap. Therefore, the dramatic increase in the white/Native American gap was primarily due to changes in unexplained factors.

The last racial gap to discuss is the white/Asian gap for women. Asian women had a higher self-employment rate than white women in both 1989-91 and 1996-98. The gap, however, became smaller in absolute value over time. The only factor that provided a large contribution toward this positive change in the white/Asian gap was from age. The Asian female workforce increased in age only slightly, whereas the white female workforce aged by nearly a year and a half.

ADDITIONAL EXPLANATIONS

Several previous studies find that asset levels play an important role in determining who enters into or exits from self-employment.[16] Furthermore, recent studies show that blacks have substantially lower levels of assets than whites and that these differences contribute to the current racial difference in levels of self-employment.[17] Finally, Blanchflower, Levine and Zimmerman (2001) provide evidence that black-owned businesses experience higher loan denial probabilities and pay higher interest rates than white-owned businesses even after controlling for differences in credit-

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[16] See Evans and Jovanovic (1989), Evans and Leighton (1989), Bates (1990a), Holtz-Eakin, Joulfaian, and Rosen (1994a,1994b), Dunn and Holtz-Eakin (1999), and Fairlie (1999) and Blanchflower and Oswald (1998).

[17] See Blau and Graham (1992), Oliver and Shapiro (1995) and Menchik and Jianakoplos (1997) for racial differences in assets, and Bates (1989), Meyer (1990) and Fairlie (1999) for evidence on their contributions to racial differences in self-employment.

worthiness and other factors. These findings suggest that racial differences in trends in

asset levels may partly explain relative changes in rates of business ownership.

Using data from the 1983-1998 Survey of Consumer Finances, Wolff (2000) finds

that the black/white ratio of mean net worth remained essentially the same from 1983 to

1998. The black/white ratio of median net worth, however, increased from 0.07 in 1983

to 0.12 in 1998. This may partly explain the increase in black self-employment relative

to white self-employment among men over the 1980s and 1990s, but does not appear to

explain the decrease in the black/white self-employment rate gap among women. Wolff

(1998) also reports estimates for Hispanics. He finds that the Hispanic/white, non-

Hispanic ratio in mean net worth increased from 0.16 to 0.25 from 1983 to 1998, but that

the median net worth ratio was the same. These trends do not appear to explain the

downward trend in the Hispanic/white self-employment rate gap in the 1980s and 1990s.

Several previous studies have also examined the effects of taxation on business

ownership. The argument is that high income taxes induce a shift to self-employment in

large part because self-employment income can more easily be hidden or sheltered from

tax authorities (see Long 1982). In fact, Blau (1987) attributes most of the rapid increase

in self-employment from the early 1970s to the early 1980s to tax changes. Using more

recent data for the United States and Canada, Schuetze (2000) finds that higher income

taxes increase self-employment and recent changes in the tax environment explain trends

in self-employment from 1983 to 1994.[18] It is unclear, however, why racial groups

would differ in their propensity to underreport income or otherwise respond differently to

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[18] Interestingly, however, Fairlie and Meyer (1999) examine trends in self-employment and the
average marginal tax rate from 1910 to 1990 and do not find evidence of a strong relationship
between the two over this period of time.

changes in the tax environment. Nevertheless, changes in the tax environment may be partly responsible for the relative racial trends in self-employment discussed above.

Additional factors that may explain relative trends in self-employment are racial differences in the trends in parental self-employment, sector-specific human capital, and lending and consumer discrimination. Although measures of these factors are not available in the CPS, there is evidence of their importance in explaining current racial differences from other sources (see Bates 1989, 1997, Blanchflower, Levine and Zimmerman 1998, Borjas and Bronars 1989, Meyer 1990, Fairlie 1999, Hout and Rosen 2000 for example).

6. Conclusions

Using CPS microdata, I examine trends in ethnic and racial self-employment over the past two decades. I find that from 1979 to 1998 the number of black business owners increased by 83 percent and the number of Hispanic business owners increased by 193 percent. From 1989 to 1998, the number of Asian and Native American business owners grew by 55 and 81 percent, respectively. In contrast, the growth rates for the number of white business owners were markedly lower. The number of self-employed whites increased by 36 percent from 1979 to 1998 and only 2 percent from 1989 to 1998.

It would be unwise, however, to argue that these estimates provide evidence of improving business ownership conditions for minorities. In contrast to the sharp upward trends in the number of black, Hispanic, Asian and Native American business owners, the trends in rates of business ownership for these minority groups were fairly flat. The main exception was the rapid rise in female self-employment rates over the 1980s. Indeed,

using a simple decomposition technique, I find that the large increases in the number of

business owners among racial groups over the past two decades were primarily due to

expansions in the labor force for these groups. This finding suggests that broad policies

to increase labor force participation among minorities may represent a method to increase

the number of minority-owned businesses.

I also use a dynamic decomposition technique to explore the causes of racial

differences in trends in self-employment rates over the past one to two decades. Several

interesting patterns are revealed. For example, increasing levels of education among

black men relative to white men contributed to the narrowing of the white/black self-

employment rate gap from 1979-81 to 1996-98. In contrast, Hispanic men did not

experience gains in education relative to white men contributing to the large increase in

the white/Hispanic gap over the past two decades. Differential trends in the age

distribution of the workforce across racial groups also contributed to relative trends in

self-employment rates. For all minority groups, the workforce aged less rapidly than for

whites reducing their self-employment rates relative to the white rate.

Although these and other factors contributed to differential trends in self-

employment rates across groups, perhaps the most striking finding from the CPS data is

that the ranking of self-employment rates across groups was very stable over the past two

decades. Blacks were much less likely to own businesses than any of the other groups,

typically one third the white rate of business ownership. Hispanics had the next lowest

self-employment rates, which were approximately one half white rates. Native

Americans also had low rates of business ownership, whereas whites and Asians had the

highest rates. These racial disparities in business ownership are unlikely to diminish

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substantially over the short term as trends over the past few years do not reveal rapidly increasing rates of business ownership among blacks, Hispanics or Native Americans. Innovative minority business development policies are needed to change these patterns, especially in light of the recent judicial and legislative challenges to affirmative action programs targeted towards minority-owned businesses.

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