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## Gender and Business Outcomes of Black and Hispanic New Entrepreneurs in the United States<sup>†</sup>

By MARIE T. MORA AND ALBERTO DÁVILA\*

Women of color have become ever more present in the entrepreneurial sector of the United States. The number of businesses owned by black women in 2007 exceeded the number owned by black men (912,000 versus 857,000), driven by a disproportionate growth of the former group (66.7 percent) compared to the latter (49.9 percent) between 2002 and 2007.<sup>1</sup> The number of Hispanic-female-owned businesses, too, grew more rapidly than the number of Hispanic-male-owned firms (45.6 percent versus 33.3 percent) during the same time, although the former group remained smaller than the latter in 2007 (788,000 versus 1.23 million).

This escalating presence of female entrepreneurs of color, as we report here, has come with the expense of a high business failure rate for these demographic groups. Indeed, nearly half of the new businesses formed by black and Hispanic women in 2007 had closed down by the end of the year. Arguably, an understanding of the reasons for these high failure rates has important implications for the economic and social direction of the United States. Are these high failure rates related to the socioeconomic characteristics of women of color who choose self-employment? Is the policy infrastructure in the United States sufficient or efficient enough

to promote the success of growing numbers of women of color in the business sector?

To be sure, this policy debate should be grounded in the extant literature. Economists and other social scientists have found ample evidence that socioeconomic characteristics are important in determining the success of new minority business ventures (see Bates 2011 for a recent review). The literature, however, points to other possible reasons for business success along gender lines. For example, in many cases women pursue self-employment for household production whereas men tend to pursue self-employment as a vehicle for higher earnings (e.g., Hundley 2000; Boden 1996; Carr 1996). Self-employment, then, provides women the benefit of a more flexible work environment. However, this logic also argues for a more selective, and thus more restrictive, set of job options for women than for men. To the extent that these employment choices block the labor market mobility of women, monopsonistic wage outcomes might arise in addition to other biases or statistical types of labor market discrimination.

Moreover, the literature suggests that labor-market discrimination “spills over” to the self-employment sector. According to intersectionality theory, such types of discrimination might be further compounded for women of color. That is, a black woman might experience discrimination because of her gender, and additional discrimination due to her race. Clark and Drinkwater (1998) give structure to how this discrimination dynamic might work. They argue that managerial ability, net of observable human-capital characteristics, is normally distributed within groups. Their model predicts that those groups with rising self-employment tendencies due to discrimination will experience declining managerial quality. Given the growing numbers of black and Hispanic female entrepreneurs, one implication would be lower average managerial quality among the newest firm owners; if so,

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<sup>1</sup>In comparison, the national growth rate in the number of businesses was 18.0 percent during this time. We obtained these estimates using the 2002 and 2007 Survey of Business Owners; 2007 is the most recent version.

TABLE 1—PERCENTAGE OF NEWLY ESTABLISHED FIRMS THAT CEASED OPERATIONS BY THE END OF 2007  
BY RACE/ETHNICITY AND GENDER OF THE MAJORITY OWNERS

Race/ethnicity of owners	Percentage that ceased operations		Ratio to firms owned by non-Hispanic white men	
	Female owned	Male owned	Female owned	Male owned
Black	48.73	41.90	1.34	1.15
Hispanic	46.87	40.45	1.28	1.11
Non-Hispanic white	40.36	36.50	1.11	—

*Notes:* Hispanics can be of any race. See the text for the sample selection. These results were obtained while employing the SBO-provided statistical weights. Our sample includes 3,020 black-female-owned firms; 3,561 Hispanic-female-owned firms; 29,689 non-Hispanic-white-female-owned firms; 3,026 black-male-owned firms; 5,321 Hispanic-male-owned firms; and 40,061 non-Hispanic-white-male-owned firms; these samples represented, respectively, 50,148; 59,023; 495,545; 42,362; 82,063; and 718,668 new firms.

*Source:* Authors' estimates using 2007 SBO PUMS data.

women of color recently joining the entrepreneurial sector would have a higher probability of failure than other business owners.

### I. Data and Sample Characteristics

To analyze these issues, we employ data from the 2007 Public Use Microdata Sample of the Survey of Business Owners (SBO PUMS), a large nationally representative dataset containing information on the characteristics of businesses and their owners operating in 2007.<sup>2</sup> The SBO PUMS identifies when businesses were established; it also identifies those that ceased operations in 2007. The short-term success rate of newly formed firms can thus be analyzed. While the survival rate of businesses over longer periods of time is also of interest, SBO PUMS data for other years do not currently exist to permit such an analysis.

Our sample selection includes newly established businesses of which Hispanics, blacks, or non-Hispanic whites owned the majority, as did men or women. (For the latter, this means we exclude firms equally owned by men and women.) Of the 84,161 firms in our initial sample, we exclude 583 with missing information on whether they shut down. We also exclude 5,930 businesses that ceased operations because they were established for a one-time event or their owners passed away. Our final sample includes

77,648 new firms, representing over 1.34 million businesses operating in 2007. Of these, 38.7 percent had closed by the end of the year.

An important point is that newly established enterprises owned by Hispanic women, black women, Hispanic men, black men, and non-Hispanic white women were over-represented among those that ceased operations. Respectively, these groups accounted for 5.4 percent, 4.8 percent, 6.5 percent, 3.5 percent, and 39.2 percent of the firms that closed, but 3.9 percent, 3.2 percent, 6.0 percent, 3.0 percent, and 36.5 percent of those that remained open.

Moreover, Table 1 shows that businesses formed by black women in 2007 had the highest likelihood of failure, as nearly half (48.7 percent, or 1.34 times the share of firms owned by non-Hispanic white men) had closed by the end of the year, followed by Hispanic women (46.9 percent), and then by black men (41.9 percent). Of the six groups shown, only those owned by non-Hispanic white men had a shut-down rate below 40 percent, although more than one out of three (36.5 percent) of this group ceased operating by the end of 2007.

However, the human capital levels of the owners and other characteristics need to be considered, given the well accepted relationship between human (and financial) capital and business success. For example, college graduates represented 26.9 percent of new businesses owned by black women (and 21.3 percent of those owned by Hispanic women) among those that stayed open, but 16.8 percent (and 15.5 percent) of those that closed by the end of 2007.

<sup>2</sup> The US Census Bureau conducted the 2007 SBO by mailing questionnaires to a random sample of businesses in operation in 2007 that had receipts of \$1,000 or more.

## II. Empirical Analysis of the Likelihood of Ceasing Operations

To control for owner- and firm-level characteristics affecting the likelihood of business closures, we estimated the following probit regression model:

### (1) *Ceased Operations*

$$= f(\text{Race}, \text{Gender}, \text{Race} \times \text{Gender}, X),$$

where the *Ceased Operations* dependent variable equals one for the firms that shut down in 2007 (and equals zero for those that remained open). The vector *Race* contains a set of binary variables identifying the race/ethnicity of the majority owners, *Gender* identifies female- versus male-owned firms, and *Race*  $\times$  *Gender* includes interaction terms between race/ethnicity and gender. The latter terms identify whether women of color had a different likelihood of shutting down than men or non-Hispanic white women. The vector *X* contains other traits of the owners (including birthplace, education, and age)<sup>3</sup> and firm-level characteristics identified in the literature as predictors of business outcomes [including the natural logarithm of sales (to account for firm size)<sup>4</sup> and industry]. In light of the SBO PUMS sampling design, throughout our analyses, we employed random groups variance estimation (e.g., Kolenikov 2010; Shao 1996).

The first column in Table 2 reports the results from estimating equation (1). Businesses started by women, blacks, and Hispanics in 2007 were significantly more likely to cease operations by the end of the year than those formed by non-Hispanic white men. Moreover, the interaction terms between race/ethnicity and gender indicate that new firms owned by black and Hispanic women were at a particular disadvantage in this regard compared to those owned by non-Hispanic white women and black and Hispanic men.

<sup>3</sup> Unfortunately, the SBO PUMS does not provide information on marital status or family structures.

<sup>4</sup> The SBO PUMS reports sales information in \$10,000 increments and indicates \$0 in sales for firms with less than \$5,000. However, we reset the \$0 to \$1,000 because firms had to have at least \$1,000 in sales to be part of the SBO.

TABLE 2—SELECTED PROBIT REGRESSION RESULTS FOR THE LIKELIHOOD OF CEASING OPERATIONS AMONG NEWLY ESTABLISHED FIRMS IN 2007

Characteristic	Full model	Full model with own group unemp.
<i>Owner characteristics</i>		
Hispanic $\times$ female	0.077* (0.040)	0.073* (0.040)
Black $\times$ female	0.110** (0.039)	0.120** (0.039)
Female	0.030** (0.013)	0.034** (0.014)
Hispanic	0.068*** (0.021)	0.071*** (0.021)
Black	0.073* (0.035)	-0.003 (0.037)
Immigrant	-0.029 (0.020)	-0.029 (0.020)
College graduate	-0.246*** (0.009)	-0.246*** (0.009)
Did not complete high school	0.182*** (0.031)	0.182*** (0.031)
Less than 35 years old	0.237*** (0.019)	0.237*** (0.019)
ln(sales)	-0.155*** (0.007)	-0.155*** (0.007)
Industry	<i>included</i>	<i>included</i>
Own group unemployment rate	—	0.011*** (0.003)
Constant	1.004*** (0.086)	0.951*** (0.084)

*Notes:* Dependent variable = 1 if firm ceased operations; = 0 if firm remained open. Hispanics can be of any race. See the text for the sample selection. The “own unemployment rate” refers to the unemployment rate of one’s own gender and racial/ethnic group at the state level, based on our estimates using 2007 ACS data in the IPUMS. These results were obtained while employing the SBO-provided statistical weights and the random group variance estimation procedure. The parentheses contain standard errors. Other variables in the full model include the industry [professional services (base); education and health care services; arts, entertainment, and services; blue collar and construction; and trade and transportation]; a binary variable for owners who were 55 years and older; and a binary variable indicating missing information on the owners’ birthplace. The unweighted sample size is 77,648, representing 1,342,730 newly established businesses in the United States.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

*Source:* Authors’ estimates using 2007 SBO PUMS data.

Before continuing, it should be noted that in light of the potential difficulty in interpreting interaction terms in probit regression models (e.g., Ai and Norton 2003), we used an alternative technique to assess the qualitative consistency of these results. When comparing the difference in actual shut-down rates with the difference in the predicted likelihood of ceasing operations between firms started by non-Hispanic white men and each racial/ethnic and gender group,<sup>5</sup> we find a pattern similar to the results in Table 2. Indeed, relative to their otherwise similar non-Hispanic-white-male counterparts, the likelihood of shutting down was 9.6 percentage points higher for black women, 7.7 percentage points higher for Hispanic women, 3.7 percentage points higher for black men, 3.0 percentage points higher for Hispanic men, and 1.8 percentage points higher for non-Hispanic white women.

Minority- and female-owned new firms thus had a higher risk of closing down within one year than those owned by non-Hispanic white men; being a female entrepreneur of color exacerbated this risk. This finding is consistent with Clark and Drinkwater's (1998) prediction regarding the managerial quality of new entrepreneurs; it is also consistent with intersectionality theory of race/ethnicity and gender.

As in other studies, Table 2 further shows that new firms with more educated and older owners (as well as larger firms, as measured through sales) were more successful in terms of staying open than companies with less educated and younger owners (and smaller firms). Industries (not shown to conserve space) also mattered. These findings support the call by some entrepreneurship scholars who point to the importance of accounting for the heterogeneity of the self-employed in studies relating macroeconomic conditions to self-employment rates.

#### A. Extension—Labor Market Conditions

Macroeconomic conditions in a region or over time have been used in the entrepreneurship literature to explain entry into and exit from self-employment. These self-employment flows are typically modeled in a “push” versus

<sup>5</sup> We obtained these predicted values by estimating equation (1) only for firms started by non-Hispanic white men.

“pull” framework. The unemployment rate represents a common macroeconomic variable used in this regard, although theoretical and empirical findings linking unemployment and self-employment have been mixed (e.g., Thurik et al. 2008; Storey 1991). On the one hand, higher unemployment rates might push individuals into self-employment without paid-employment prospects. On the other hand, workers in areas with high unemployment might find self-employment to be risky due to a high probability of business failure under weak economic conditions; if so, low unemployment rates would pull individuals into self-employment.

Regardless of which case holds, including a variable for labor market conditions in our probit regression might shed further light into our results for race/ethnicity and gender. To control for these conditions, we construct the unemployment rate for one's own racial/ethnic and gender group at the state level using data from the 2007 American Community Survey (ACS).<sup>6</sup> This “own-group” unemployment rate better captures labor market conditions faced by racial/ethnic and gender groups compared to an overall state-level unemployment rate.

When reestimating equation (1) that includes the own-group unemployment rate, the results (reported in the second column of Table 2) continue to show that new female entrepreneurs of color were significantly more likely than non-Hispanic white women and male entrepreneurs of color to close their businesses by the end of 2007. Therefore, local labor market conditions do not appear to explain away the results discussed above.

Also of interest, the coefficient on black-owned firms becomes indistinguishable statistically from zero in this specification. This finding suggests that businesses established by black men are particularly sensitive to local labor market conditions, as they are not more or less likely to shut down than firms started by

<sup>6</sup> Specifically, we use 2007 ACS data in the Integrated Public Use Microdata Series, made available by Ruggles et al. (2013). For black women, we estimated the share of unemployed women in the black female civilian labor force ages 16 and above for each state in 2007. We similarly estimated the “own group” unemployment rates for the other populations. In the SBO, a handful of small-population states were grouped in pairs (Delaware and DC, North and South Dakota, Alaska and Wyoming, and Rhode Island and Vermont); we used the same groupings for the ACS.

non-Hispanic men when controlling for own-group unemployment rates. In general, being located in states with high unemployment rates also raised the likelihood that newly established enterprises ceased operating a short time later, emphasizing the importance of local economic conditions in new business survival.

### III. Policy Discussion and Concluding Remarks

In the first decade of the 2000s, the numbers of businesses owned by black and Hispanic women grew more rapidly than those owned by their male counterparts. However, our findings using SBO PUMS data indicate that nearly half of the firms opened by female blacks and Hispanics in 2007 ceased operating by the end of the year. Even when controlling for other owner- and firm-level characteristics as well as own-group unemployment rates, these businesses had a significantly higher likelihood of shutting down than other new firms.

These differences occurred despite the existence of public programs designed to help female and minority entrepreneurs. While investigating the efficiency of public programs is beyond the purview of this paper (e.g., see Baker 2000 for a review of these issues), we note the potential importance, given our results, of these programs for women of color seeking entrepreneurial opportunities. In this light, we further note there have been several unsuccessful legislative attempts aimed at amending some of the current programs in recent years, including the Small Business Administration (SBA) Women's Business Programs Act of 2007, the Minority Business Development Improvements Act of 2010, and most recently the Women's Procurement Program Equalization Act of 2013, which was assigned to congressional committee on June 30, 2013 and still pending four months later.

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