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# RACE, TRUST IN GOVERNMENT, AND SELF-EMPLOYMENT

by Gregory N. Price\*

## Abstract

This paper examines the effects of trust in government on the self-employment decision. For black Americans the decision to be self-employed, and the associated returns are likely to be particularly sensitive to trust in the federal government, as the history and political economy of race in the United States required federal government to introduce laws, legislation and institutions to alter the future behavior of whites in their market interactions with blacks. Utilizing General Social Survey Data, I find that among the self-employed, race—being black—is a negative determinant of various measures of trust and confidence in federal government. Parameter estimates from a Bivariate Probit estimator of the likelihood of black self-employment and income reveal that both increase with respect to several measures of trust and confidence in the federal government. The results suggest that as the relative growth and performance of black self-employment is trust and confidence sensitive, the underrepresentation of black-owned firms can possibly be explained by the relatively low trust and confidence in the federal government among black Americans.

**Key Words:** Social Capital, Trust, Discrimination, Self-Employment, Black Entrepreneurs

**JEL Codes:** H5, L2, Z13

## I. Introduction

As a form of social capital, trust can be defined as the willingness to permit the future decisions of others to influence your welfare (Sobel 2002).<sup>1</sup> The absence of trust can inhibit the level of economic activity in an economy, as many individual investment and consumption decisions depend upon the expected future actions of others (Knack and Keefer 1997). When trust is high, individuals can expect future actions by others to be favorable to an investment and/or consumption decision with returns and costs in the future. In contrast, when trust is low, negative expectations about the future actions of others serves to reduce incentives to make investment and/or consumption decisions with long term benefits/costs. As such, the amount of trust that exists in a given society can matter for overall economic performance (Fukuyama 1995) and for the success realized by individuals (Glaeser et.al 1999).

Empirically, trust as a form of social capital appears to matter for economic growth. In cross-country analyses of the determinants of growth,

Knack and Keefer (1997), Moesen, Van Puyenbroeck and Cheryche (2000), and Zak and Knack (2001), all find that high levels of trust are positively and significantly related to economic growth. One key factor of economic growth is the introduction and diffusion of new technologies and management innovations by self-employed entrepreneurs. New technologies and management innovations can affect economic growth by increasing total factor productivity. Self-employed entrepreneurs also affect, perhaps disproportionately, the income distribution by creating new jobs (Davis, Haltiwanger, and Schuh 1993). Given such a nexus, trust as a form of social capital may also be important for the number and performance of self-employed individuals in a given economy (Casson and Giusta 2007; Howorth and Moro 2006; and Welter and Smallbone 2006)

If trust matters for the number and performance of self-employed individuals, observed racial differences in the number and performance of self-employed individuals may be possibly explained by racial differences in trust.<sup>2</sup> This paper examines the effects of trust in government on the black

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self-employment decision. While trust in general is theoretically interesting, with plausible empirical consequences, trust in federal government is likely to be more important for self-employed blacks. Historically, the entry and performance of self-employed blacks has been constrained by institutional barriers engendered by a political economy of race that denied blacks equal protection and citizenship in the eyes of the formal law (Woodward 1955). As such, formal remedies by the federal government emerged, linking the welfare of blacks to the contemporary and future actions of federal government.

This paper is related to an existing but small literature examining the effects of social capital on the performance of black-owned firms (Fratone 1988; House 2000). I extend this literature by examining the effects of a particular form of social capital on self-employed blacks—trust in the US government. Given the federal government's role in discouraging and penalizing behavior that lowers the welfare of others, it is plausible that the number and performance of self-employed blacks will be sensitive to whether or not the black self-employed believe federal government can successfully protect them against future actions by others that lower welfare. It is within this context that trust in federal government is potentially important for self-employed blacks. I find that among the self-employed, being black is a negative determinant of various measures of trust and confidence in federal government. Parameter estimates from a Bivariate Probit estimator of the likelihood of black self-employment and performance reveal that both the likelihood of being self-employed and performance—as measured by earnings—increase with respect to trust and confidence in the federal government.

While the results of the paper have implications for entrepreneurship, being self-employed is a necessary condition for being an entrepreneur. It is not sufficient however. The entrepreneurial venture/firm is usually construed to be a particular type of organizational form—such as a partnership or corporation, solely owned by an individual or majority-owned, and requiring significant amounts of capital. A self-employed individual can be a sole proprietor barbershop or beauty salon—enterprises that do not necessarily require significant amounts of capital in a relative sense. The General Social Survey—the source of data—does not allow iden-

tification of firm capitalization or ownership structure. As such it cannot be decisively claimed that the self-employed in the data are entrepreneurs in the sense described above. However, as the decision to be an entrepreneur is also a decision to be self-employed, the analysis provided in this paper is relevant to the decision to be an entrepreneur. In the empirical analysis, following Gentry and Hubbard (2000), self-employment status can be viewed as an indicator of entrepreneurial status.

The remainder of this paper is organized as follows. Section II provides a theoretical perspective that rationalizes how trust in the federal government is potentially important for the black self-employment decision. The data are described in section III. Section IV reports for a sample of self-employed, latent variable parameter estimates for the determinants of several measures of trust in federal government institutions, and the effects of trust on the likelihood of black self-employment, and performance and entry of black self-employed entrepreneurs. The last section is the conclusion.

## II. Trust in Federal Government And The Self-Employment Decision

The decision to be self-employed is a trust-sensitive decision for at least two fundamental reasons. First, expected future returns depend upon expected future sales for the firm. Future sales depend upon the private decisions of other agents—customers—to patronize the firm in the future. In this general way, every decision to be self-employed is a proclamation of trust in other private agents. The decision to be a self-employed is also a proclamation of trust in government institutions, as one of the formal roles of government is to protect and assure property rights. As such, the decision to be a self-employed is based on a belief that government authorities will not make future decisions that compromise the value of property rights represented by the investment and assets in the firm. In a society where these two forms of trust are important for the self-employment decision, aggregate self-employment activity will be proportional to individual levels of trust.

To the extent that trust also conditions for the self-employed, optimal decisions about, for example, the ratio of debt to equity and organizational form, levels of trust can also condition performance as

measured by earnings and profitability. If, for example, a sole proprietorship is the optimal organizational form for a self-employed entrepreneur that maximizes performance, but low trust in government to protect or resolve the interests of firm owners vs. customers in lawsuits, the self-employed entrepreneur may elect to organize suboptimally as a partnership. If self-employed entrepreneurs have low trust in government's ability to resolve the legal conflicts that could emerge between debtors and creditors, decisions about the ratio of debt to equity could be distorted, resulting in suboptimal revenues, profitability and return on assets.

While the self-employment decision is trust-sensitive in general, it is conceivable that the black self-employment decision is relatively more trust-sensitive. In markets where black-owned firms are possibly subject to consumer discrimination, whereby nonblack customers experience disutility when purchasing from black sellers (Becker 1971), black sellers can only make sales to nonblacks at a price lower than an identical good/service sold by a nonblack seller. Borjas and Bronars (1989) show that this type of discrimination inhibits both the number and performance of self-employed blacks. In an economy where consumer discrimination persists across time, the black self-employed can never completely trust that future nonblack customers will not experience disutility as a result of making a purchase that will result in a lower future price for output. In this context, self-employed blacks have low trust in the future decisions of nonblack customers, who could lower the welfare of black-owned firms by continuing to indulge in discriminatory tastes that decreases the return on black self-employment.<sup>3</sup>

Possible discriminatory behavior of future white customers is not the only source of potential welfare reductions for self-employed blacks. The existence and viability of self-employed blacks can also be a function of the future behavior of lending institutions, and special purpose government institutions designed to assist black-owned firms. Given discrimination in the market for business credit (Blanchflower, Levine and Zimmerman 1998), self-employed blacks can potentially be denied credit in the future. Given discrimination in the provision of assistance by special purpose government institutions/agencies (Bates 1998; 2002), self-employed blacks can potentially be denied valuable special assistance such as subsidized credit, government contracts, and

equity placements needed for ongoing viability. Thus, similar to the case of possible future discriminatory behavior by customers, the self-employment decision for blacks can be more trust-sensitive relative to nonblacks in general as a result of possible welfare reducing future behavior by lending and special purpose government institutions/agencies.

Being subject to discrimination has been a long-standing salient feature of the black American experience, and it can explain relative black social disadvantage.<sup>4</sup> In response to the historical discrimination suffered by blacks, federal institutions, laws, executive orders, and regulations emerged to constrain and discourage discriminatory behavior that lowered the welfare of blacks. It is in such an environment that trust in the federal government by the black self-employed is relevant. When the federal government formally commits to constraining/discouraging discriminatory behavior against blacks, the decision to become a self-employed black entrepreneur can be viewed as a proclamation of trust in the federal government's willingness and capacity to condition favorably the future behavior of customers, lenders, and the institutions of government itself, in their interactions with black-owned firms.

Federal antidiscrimination and equal opportunity laws need not of course change preferences, nor can they coerce whites into customer-seller type relationships with blacks. As Loury (2002) has indicated, antidiscrimination and equal opportunity laws can only effectively prohibit "discrimination in contract" but not "discrimination in contact." It is for example, one thing to legally prohibit discrimination in employment, but quite another to prohibit a white customer from either discounting, or refusing to purchase goods and services from a black-owned firm. In this context, it is not entirely clear why a black-owned firm should trust federal government to condition favorably the future behavior of white customers. However, the federal government is part of a society's institutions—and institutions provide incentives that order human interactions by making human behavior more predictable and trustworthy (Moesen, Puyenbroeck, and Cherchye 2000). As individuals discover that trust improves efficiency and economic performance, they will also discover that behavior consistent with "nondiscrimination in contact" complements rules against "discrimination in contract" enabling even higher returns to trust. In this context, trust in federal government by

self-employed blacks is warranted as it is based on a belief that federal government desires to maximize economic performance by providing incentives that maximize trust.

The role of trust in the federal government can be incorporated into a simple model of the self-employment decision. Assume that entry into self-employment is an increasing function of expected profit:  $E_i = f(\pi_i^e)$ , where  $E_i$  is entry into self-employment by individual  $i$ , and  $\pi_i^e$  is expected profit. The expected market price  $p_i^e$ , of self-employment output is subject to discounting at rate  $d \in (0, 1)$ . The discount rate  $d$  reflects the myriad of ways in which the future behavior of others can cause total revenue received for self-employment output  $y_i$  to decrease relative to the total cost  $C(y_i)$  of producing it. In the case of the black self-employed, future behavior by others that results in a discounted price of  $p_i^e = p(1 - d)$  for  $y_i$  includes, but is not limited to, customer discrimination by nonblack customers faced by a black-owned firm. It could also reflect uncertainty as to whether or not special purpose government programs designed to assist black-owned firms will continue, say as a result of uncertainty about how the U.S. Supreme Court will decide upon the constitutionality of such programs, and/or how a particular presidential administration, U.S Congress, or other federal agencies with relevant regulatory oversight, will condition policy on such programs.

While the typical self-employed individual recognizes that the price received for  $y_i$  can be possibly discounted at rate  $d$ , he also has a degree of trust in federal government defined by  $\theta_i \in [0, 1]$ . In general, for the self-employed, as an index  $\theta_i$  measures the extent to which government enforces property rights. For the black self-employed  $\theta_i$  can measure the degree to which he believes the federal government can condition favorably the behavior of agents faced by the black self-employed in such a way that they will not discount the price of black-owned firm output. Expected market price for self-employed output is  $p_i^e = p[1 - d(1 - \theta_i)]$ , and  $\partial p_i^e / \partial \theta_i > 0$ . Given  $d$  and  $\theta$ , expected profit for the typical self-employed individual producing output  $y_i$  is  $\pi_i^e = p[-d(1 - \theta)]y_i - C(y_i)$ . It is easy to show that for  $E_i = f(\pi_i^e)$ ,  $\partial E_i / \partial \theta_i > 0$ , as  $\partial \pi_i^e / \partial \theta_i > 0$ . Both the self-employment decision and expected net income are increasing functions of the level of trust in federal government.

In general, the theoretical perspective of the firm considered above of how the self-employment

decision is conditioned by trust, views the decision to be self-employed and the subsequent performance, as a function of trust in federal government. In general, to trust the federal government reflects the extent to which the self-employed believe that federal government will enforce property rights. For the black self-employed, trust in federal government can reflect the extent to which it is believed that federal government will not only enforce property rights, but can and will condition favorably the future behavior of the customers, lending institutions, and government institutions that interact with black-owned firms. In this context, there could be racial differences in trust among the self-employed that translate into racial differences in the self-employment decision. Below, this is explored empirically by examining for various measures of trust in federal government, the determinants of trust in federal government, and its effects on the number and performance of self-employed blacks.

### III. Data

The General Social Survey (GSS) is the source of the data. GSS data constitute a nationally representative sample of adults living in the United States.<sup>5</sup> Conducted by the National Opinion Research Center (NORC) at the University of Chicago, the GSS was initiated in 1972. Since 1975 the GSS has used full-probability sampling of households designed to give each household an equal probability of being included in the GSS. Thus, for the household-level variables utilized for the analysis in this paper, the GSS is self-weighting, parameter estimation requires no weighting, and parameter estimates are free of any sample size bias. The first 19 surveys were annual, and has samples of approximately 1500 adults. Black Americans are oversampled in 1982 and 1987. Starting in 1994, the GSS is biennial with a sample of 3,000 adults. GSS data are generated by in-person interviews and are based on questions relating to various demographic and attitudinal variables. In addition, variables relating to topics of special interest—so-called topical module questions—are included on a rotational basis in particular years of the GSS.

The sample is selected on the basis of a GSS respondent being self-employed and having provided a valid response to a question asking the extent to which the respondent trusted federal government. The sample was restricted to the 1987 GSS, as this

was the only year in which the question on trust in federal government was asked of respondents. Given this criterion, the following demographic variables on a sample of 184 self-employed respondents were constructed: age, years of education, number of hours spent working, real income, and binary variables indicating whether or not the respondent is foreign born, has a father that is foreign born, had a father that was self-employed when the respondent was a child, is black, is married, is female, and lives in the South. As measures of trust in the federal government, the following ordinal variables are utilized: the extent to which the respondent has trust in federal government, confidence in the U.S Congress, confidence in the Executive branch of federal government, and confidence in the U.S Supreme Court.

The GSS questions upon which each variable is based, along with its coding are provided in the appendix. The choice of what demographic variables to select from the GSS is motivated by a desire to mitigate unobserved heterogeneity in our estimates of the effects of trust in federal government on the black self-employment decision and performance. Obviously, the GSS does not measure every individual characteristic that may be important for a particular behavior. However, the limited set of demographic variables are a set of confounding covariates that potentially eliminate unobserved heterogeneity. Hout and Rosen (2000) found that the primary factors that determine self-employment for an individual are whether or not one's father was self-employed, and the father's foreign ancestry. When conditioned on race, the father's ancestry and self-employment status also explain the intergenerational transmission of self-employment. Given the significant explanatory power of the father's ancestry and self-employment status, the use of these two variables mitigate, if not eliminate entirely, any unobserved heterogeneity in parameter estimates of the effects of trust in the federal government on the performance, and decision to be self-employed.

Table 1 reports the mean and standard deviation of each derived variable. Relative to the overall sample of self-employed, the black self-employed are: younger, less educated, less likely to have had a father who was self-employed, more likely to be foreign-born, work fewer hours, have lower incomes, less likely to be married, and more likely to be in the south. The measures of confidence and

trust in the federal government are such that higher values starting at one indicate diminishing levels of trust. Relative to the overall sample, the black self-employed have less confidence in the Executive branch of government, less confidence in the U.S Supreme Court, less confidence in the U.S Congress, and less trust in the federal government. All of these black relative to nonblack differences were significant in pairwise t-tests at the 5 percent level, suggesting significant differences in the determinants of the self-employment decision for blacks and non-blacks.

The observed racial differences in trust and confidence in federal government motivate the analysis below. The differences in the levels of trust and confidence in federal government between black and the non-black self-employed in general suggest that if the self-employment decision is trust-sensitive, the black self-employment decision could possibly be constrained, relative to the non-black self-employed, by low levels of trust and confidence in federal government. Given the trust-sensitivity of the self-employment decision, the goal is to determine whether or not being black matters for the level of trust and confidence in federal government among all self-employed. Given the underrepresentation of the black self-employed, I then explore whether or not the level of trust and confidence in federal government matters for the black self-employment decision and performance.

## IV. Results

I first examine whether or not among the self-employed, race is a determinant of several measures trust and confidence in federal government. Only one question in the GSS asked specifically about trust in federal government. Three other questions measured respondents levels of confidence in several federal government institutions. In general trust and confidence are similar, as both reflect one's beliefs and sentiments about the capacity, commitment, and intent of others. As such, one can view the trust and confidence variables as representing the willingness of respondents to let government and its institutions impact their future welfare.

Table 2 reports Ordinal Probit estimates of the determinants of trust/confidence on our four measures of trust/confidence in federal government. Identification of the parameters required constraining the

TABLE 1.  
Sample Means and Standard Deviations\*

| Variable                        | Sample                 | White<br>Self-Employed | Black<br>Self-Employed | Other<br>Self-Employed |
|---------------------------------|------------------------|------------------------|------------------------|------------------------|
| Age                             | 50.94<br>(17.64)       | 51.64<br>(17.71)       | 46.52<br>(17.39)       | 49.6<br>(16.87)        |
| Black                           | .125<br>(.332)         | -<br>-                 | 1<br>(0.0)             | -<br>-                 |
| Confidence In Executive Branch  | 2.08<br>(.698)         | 2.07<br>(.689)         | 2.23<br>(.752)         | 2.00<br>(.816)         |
| Confidence In U.S Supreme Court | 1.75<br>(.653)         | 1.74<br>(.639)         | 1.86<br>(.757)         | 1.5<br>(.577)          |
| Confidence in U.S Congress      | 2.09<br>(.578)         | 2.09<br>(.573)         | 2.13<br>(.625)         | 1.75<br>(.500)         |
| Foreign Born Father             | .044<br>(.205)         | .045<br>(.208)         | .043<br>(.208)         | 0.00<br>(0.0)          |
| Father Self-Employed When Child | .534<br>(.501)         | .561<br>(.498)         | .312<br>(.479)         | 1.0<br>(0.0)           |
| Years of Education              | 12.01<br>(3.36)        | 12.21<br>(3.07)        | 10.83<br>(4.85)        | 11.20<br>(3.35)        |
| Foreign Born                    | .076<br>(.266)         | .045<br>(.208)         | .217<br>(.422)         | .400<br>(.548)         |
| Trust in Federal Government     | 2.71<br>(.668)         | 2.68<br>(.660)         | 2.91<br>(.668)         | 2.60<br>(.894)         |
| Female                          | .348<br>(.477)         | .359<br>(.481)         | .261<br>(.449)         | .400<br>(.548)         |
| Hours spent working             | 42.21<br>(19.28)       | 42.69<br>(19.13)       | 40.62<br>(20.96)       | 34.67<br>(16.16)       |
| Real Income                     | 24390.87<br>(25724.61) | 25691.76<br>(26601.39) | 17833.89<br>(20449.88) | 14750.00<br>(13562.36) |
| Married                         | .587<br>(.494)         | .615<br>(.488)         | .348<br>(.487)         | .800<br>(.447)         |
| Lives in South                  | .342<br>(.476)         | .301<br>(.460)         | .609<br>(.499)         | .400<br>(.548)         |
| <i>N</i>                        | 184                    | 156                    | 23                     | 5                      |

Notes:

\* Standard deviations are in parentheses.

*N* = number of observations.

constant term to be zero.<sup>6</sup> Pseudo- $R^2$  is reported as a goodness-of-fit measure. There is variance in the number of observations across the specifications, which results from a given specification having missing observations on at least one of the variables. The parameter estimates suggest that among the self-employed, being black is a significant determinant of trust/confidence in federal government. For all four measures, being black significantly reduces trust/confidence, whereas being black and living in the South increases trust/confidence.

The differential impact on trust/confidence in federal government of being black and being black and in the South, seems paradoxical. However, it

could simply reflect the legacy of the civil rights movement in the South. Blacks in the South may have more confidence and trust in federal government as a result of the region having benefited from high profile and effective government civil rights interventions. The South for example, witnessed federal troops assisting the integration of schools, a disproportionate share of court-mandated school integration, and was the primary beneficiary of the Voting Rights Act. These episodes may have had a positive effect on the level of trust and confidence in federal government for blacks in the South, relative to blacks elsewhere, with persistence over time.

TABLE 2.  
Determinants of Trust and Confidence: Ordinal Probit Estimates

| Measure of Trust/Confidence:    | Confidence In Executive Branch | Confidence In US Supreme Court | Confidence In US Congress    | Trust In Federal Government |
|---------------------------------|--------------------------------|--------------------------------|------------------------------|-----------------------------|
| <b>Regressors:</b>              |                                |                                |                              |                             |
| Foreign Born Father             | .181<br>(.472)                 | 1.06<br>(.485) <sup>c</sup>    | .579<br>(.506)               | -.178<br>(.453)             |
| Father Self-Employed When Child | .353<br>(.219)                 | -.584<br>(.224) <sup>a</sup>   | -.095<br>(.226)              | -.021<br>(.212)             |
| Foreign Born                    | .642<br>(.586)                 | .716<br>(.527)                 | .637<br>(.562)               | -.055<br>(.498)             |
| Lives in South                  | -.122<br>(.643)                | .257<br>(.251)                 | -.199<br>(.263)              | -.005<br>(.245)             |
| Log of Age                      | -.643<br>(.337) <sup>b</sup>   | -.084<br>(.345)                | .112<br>(.357)               | -.435<br>(.335)             |
| Log Years of Education          | -.545<br>(.121)                | -.637<br>(.409)                | .801<br>(.435) <sup>c</sup>  | .486<br>(.398)              |
| Female                          | -.121<br>(.218)                | -.055<br>(.223)                | -.427<br>(.231) <sup>c</sup> | -.075<br>(.215)             |
| Married                         | .087<br>(.219)                 | .090<br>(.223)                 | -.341<br>(.231)              | .183<br>(.216)              |
| Black                           | 1.06<br>(.558) <sup>b</sup>    | .974<br>(.521) <sup>c</sup>    | 1.05<br>(.563) <sup>c</sup>  | 1.11<br>(.509) <sup>b</sup> |
| Black × Lives in South          | -1.36<br>(.745) <sup>c</sup>   | -1.78<br>(.699) <sup>a</sup>   | -1.04<br>(.729)              | -.888<br>(.665)             |
| <i>Pseudo-R</i> <sup>2</sup>    | .059                           | .098                           | .100                         | .051                        |
| <i>N</i>                        | 128                            | 129                            | 129                          | 131                         |

Notes:

Standard errors in parentheses

*N* = Number of observations

<sup>a</sup> Significant at the .01 level

<sup>b</sup> Significant at the .05 level

<sup>c</sup> Significant at the .10 level

While the magnitudes and significance of being black, and being black and in the South are sensible, the insignificance of many of the other demographic variables across the four measures of trust/confidence in Table 2 are a cause for concern. That so many variables are insignificant raises the possibility that the trust and confidence in federal government specifications are misspecified. As such, unobserved heterogeneity could a source of bias in the parameter estimates and inflation in the standard errors of the parameters.

The unobserved heterogeneity could also result from the fact that for a given self-employed respondent, his answer to a given trust and confidence question is some linear or nonlinear combination of his

response on another trust and confidence question. This would constitute a clustering of responses on the trust/confidence questions by individuals. Unobserved heterogeneity in this context is simply the failure to observe how a similar or dissimilar an individual's level of trust/confidence for one measure is to another.

Given the possibility of unobserved heterogeneity, we the trust/confidence specifications in Table 2 are reestimated with: (1) robust standard errors, and (2) robust standard errors with adjustment for individual clustering on the set of trust/confidence in government questions (Zorn 2006). The robust standard errors are standard sandwich-type estimators of the covariance matrix. For the cluster adjustment, the robust standard error is adjusted for clustering



around individuals response to the four questions on trust/confidence in government:

$$V_R = V \sum_{i=1}^N [u_i' u_i] V$$

Where  $V$  is the information matrix, and  $\mu_i$  is a consistent estimate of the residuals. If there are a total of  $C$  clusters, each with  $n_i$  observations, the robust estimate of the covariance matrix adjusted for clustering ( $V_C$ ) is:

$$V_C = V \sum_{j=1}^N [(\sum_{i=1}^n u_{ij})' (\sum_{i=1}^n u_{ij})] V$$

Our clustering variable (question) is binary representing whether or not all four of the questions on

trust/confidence in government were answered. This binary variable mimics the actual positive correlation in responses to the four questions on trust/confidence in government. The estimation of the standard error proceeds on the assumption that there is independence across question clusters, but not within—as there may be correlated responses for individuals.

Table 3 reports the determinants of trust/confidence in the federal government with robust standard errors. The significance of the parameters approximate the results in Table 2. The coefficient on black is still significant across all four measures of trust. Table 4 reports parameter estimates with robust standard errors, and with adjustment for individual level correlation between the four questions on trust/confidence in federal government. The increase in

TABLE 3.  
Determinants of Trust and Confidence Ordinal Probit Estimates: Robust Standard Errors

| Measure of Trust/Confidence:    | Confidence In Executive Branch | Confidence In US Supreme Court | Confidence In US Congress    | Trust In Federal Government |
|---------------------------------|--------------------------------|--------------------------------|------------------------------|-----------------------------|
| <b>Regressors:</b>              |                                |                                |                              |                             |
| Foreign Born Father             | .181<br>(.514)                 | 1.06<br>(.551) <sup>c</sup>    | .579<br>(.619)               | −.178<br>(.609)             |
| Father Self-Employed When Child | .353<br>(.201) <sup>c</sup>    | −.584<br>(.214) <sup>a</sup>   | −.095<br>(.223)              | −.021<br>(.209)             |
| Foreign Born                    | .642<br>(.480)                 | .716<br>(.303) <sup>b</sup>    | .637<br>(.418)               | −.055<br>(.438)             |
| Live in South                   | −.122<br>(.239)                | .257<br>(.243)                 | −.199<br>(.241)              | −.005<br>(.218)             |
| Log of Age                      | −.643<br>(.303) <sup>b</sup>   | −.084<br>(.336)                | .112<br>(.338)               | −.435<br>(.371)             |
| Log Years of Education          | −.545<br>(.396)                | −.637<br>(.418)                | .801<br>(.356) <sup>b</sup>  | .486<br>(.371)              |
| Female                          | −.121<br>(.221)                | −.055<br>(.230)                | −.427<br>(.235) <sup>c</sup> | −.075<br>(.219)             |
| Married                         | .087<br>(.213)                 | .090<br>(.207)                 | −.341<br>(.225)              | .183<br>(.207)              |
| Black                           | 1.06<br>(.477) <sup>b</sup>    | .974<br>(.259) <sup>a</sup>    | 1.05<br>(.547) <sup>b</sup>  | 1.11<br>(.481) <sup>b</sup> |
| Black × Lives in South          | −1.36<br>(.740) <sup>c</sup>   | −1.78<br>(.598) <sup>a</sup>   | −1.04<br>(.717)              | −.888<br>(.578)             |
| Pseudo- $R^2$                   | .059                           | .099                           | .100                         | .051                        |
| $N$                             | 128                            | 129                            | 129                          | 131                         |

Notes:

Standard errors in parentheses

$N$  = Number of observations

<sup>a</sup> Significant at the .01 level

<sup>b</sup> Significant at the .05 level

<sup>c</sup> Significant at the .10 level

TABLE 4.  
Determinants of Trust and Confidence: Ordinal Probit Estimates  
Standard Errors Robust, and Adjusted for Clustering On Trust and Confidence Questions

| Measure of<br>Trust/Confidence:    | Confidence In<br>Executive Branch | Confidence In<br>US Supreme Court | Confidence in<br>US Congress | Trust In<br>Federal Government |
|------------------------------------|-----------------------------------|-----------------------------------|------------------------------|--------------------------------|
| <b>Regressors:</b>                 |                                   |                                   |                              |                                |
| Foreign Born Father                | .181<br>(.016) <sup>a</sup>       | 1.06<br>(.198) <sup>a</sup>       | .579<br>(.069) <sup>a</sup>  | -.178<br>(.047) <sup>a</sup>   |
| Father Self-Employed<br>When Child | .353<br>(.071) <sup>a</sup>       | -.584<br>(.051) <sup>a</sup>      | -.095<br>(.096)              | -.021<br>(.012)                |
| Foreign Born                       | .642<br>(.010) <sup>a</sup>       | .716<br>(.400) <sup>c</sup>       | .637<br>(.252) <sup>b</sup>  | -.055<br>(.012) <sup>a</sup>   |
| Lives in South                     | -.122<br>(.019) <sup>a</sup>      | .257<br>(.015) <sup>a</sup>       | -.199<br>(.080) <sup>b</sup> | -.005<br>(.040)                |
| Log of Age                         | -.643<br>(.172) <sup>a</sup>      | -.084<br>(.304)                   | .112<br>(.001) <sup>a</sup>  | -.435<br>(.002) <sup>a</sup>   |
| Log Years of Education             | -.545<br>(.044) <sup>a</sup>      | -.637<br>(.145) <sup>a</sup>      | .801<br>(.016) <sup>a</sup>  | .486<br>(.124) <sup>a</sup>    |
| Female                             | -.121<br>(.125)                   | -.055<br>(.075)                   | -.427<br>(.089) <sup>a</sup> | -.075<br>(.056)                |
| Married                            | .087<br>(.013) <sup>a</sup>       | .090<br>(.067)                    | -.341<br>(.049) <sup>a</sup> | .183<br>(.068) <sup>b</sup>    |
| Black                              | 1.06<br>(.058) <sup>a</sup>       | .974<br>(.015) <sup>a</sup>       | 1.05<br>(.091) <sup>a</sup>  | 1.11<br>(.041) <sup>a</sup>    |
| Black × Lives in South             | -1.36<br>(.075) <sup>a</sup>      | -1.78<br>(.313) <sup>a</sup>      | -1.04<br>(.281) <sup>a</sup> | -.888<br>(.011) <sup>a</sup>   |
| <i>Pseudo-R</i> <sup>2</sup>       | .059                              | .099                              | .100                         | .051                           |
| <i>N</i>                           | 128                               | 129                               | 129                          | 131                            |

Notes:

Standard errors in parentheses

*N* = Number of observations

<sup>a</sup> Significant at the .01 level

<sup>b</sup> Significant at the .05 level

<sup>c</sup> Significant at the .10 level

the significance of the parameters is dramatic, with only father's self-employment status, age, gender and marital status. failing to achieve significance in at least one trust/confidence in federal government specification. Being black, and being black living in the South are significant across all the specifications.

That being a black and self-employed is positive and significant for all the parameter estimates reported in Table 2 - 4 suggests that the trust/confidence specifications identify the effects of being a self-employed black on trust and confidence in federal government. The parameter estimates suggest that relative to the self-employed in general, self-employed blacks outside the south have lower levels of trust/confidence in federal government. If the self-employment decision in general is trust-sensitive,

the significantly lower levels of trust/confidence in federal government of the black self-employed could have implications for their entry and performance.

To consider the role of trust on the black self-employment decision, the measure of the black self-employment decision is based upon whether in the GSS sample of self-employed individuals, a given respondent is black. GSS data provide no information on the date in which the individual became self-employed. I cannot therefore identify whether or not a given self-employed respondent is actually a new entrant into self-employment.<sup>7</sup> Nonetheless, the GSS is a random sample. As such, the proportion of blacks in the sample of self-employed individuals approximates the probability that blacks in the U.S. population as a whole select

into self-employment. In this context, specifying and estimating conditional mean functions for the black self-employment decision within a random sample of the self-employed, even if they are not actual new entrants into self-employment, enables identification of the parameters that explain actual de novo entry into self-employment.

To examine the effects of trust on the entry and performance of the black self-employed, it is posited that entry and performance are related through a correlated error structure. The measure of performance is the income reported by the black self-employed. To the extent that the black self-employment decision and income are both a function of trust and confidence in the federal government, the disturbances due to trust/confidence in the federal government can be correlated. The measure of the black self-employment decision is binary, taking on a value of unity if the self-employed respondent is black—which constitutes approximately 12.5 percent of the sample of self-employed. Black self-employed income is also measured as binary variable, based upon whether or not log of income is greater than the overall sample average. As both entry and income are binary, and are possibly related through a correlated error structure, we estimate the parameters of the two conditional mean functions in a Seemingly Unrelated Probit Regression (*SUPR*) model:

$$\text{Prob}(Y_1 = 1 | \mathbf{x}_1) = \varphi(\mathbf{x}_1' \beta) + \varepsilon_1$$

$$\text{Prob}(Y_2 = 1 | \mathbf{x}_2) = \varphi(\mathbf{x}_2' \beta) + \varepsilon_2$$

where  $\varphi(\cdot)$  is a standard normal distribution, and conditional on the vector of explanatory variables  $\mathbf{x}_1$  and  $\mathbf{x}_2$ :  $E(\varepsilon_1) = E(\varepsilon_2) = 0$ ,  $\text{Var}(\varepsilon_1) = \text{Var}(\varepsilon_2) = 1$ , and  $\text{Cov}(\varepsilon_1, \varepsilon_2) = \rho$

The *SUPR* specification of the entry and performance of black entrepreneurs specifies the conditional mean of both as a function of demographic control variables, and a measure of trust/confidence in government. As the original trust/confidence in federal government measures are ordinal, I constructed four binary variables measuring black self-employed confidence in the U.S. Supreme Court, in the U.S. Congress, in the Executive Branch, and Trust in the U.S. Government.<sup>8</sup> In each case the binary variable captures the highest level of trust or confidence possible.

Table 5 reports *SUPR* parameter estimates for conditional mean function specifications of the black self-employment decision and performance across four different measures of trust/confidence in government. Given the possibility of unobserved heterogeneity, robust standard errors are estimated. For economy of space, the parameters on the control variables are only reported for the entry specification.<sup>9</sup> As a check of model adequacy, the Chi-square statistic for the null hypothesis of zero correlation in the errors is reported. The parameter estimates reveal that jointly, the black self-employment decision and performance are an increasing function of confidence in the Supreme Court, U.S. Congress and U.S. Government. All the confidence and trust variables are statistically significant at the .01 level, suggesting that empirically, increases in confidence and trust of government by black Americans increases the likelihood of actual entry into self-employment and performance as measured by income.

To examine the sensitivity of the parameters to possible correlation in responses to the questions on trust/confidence in government, Table 6 reports the *SUPR* parameter estimates with robust standard errors, and with individual clustering on the trust/confidence in government questions. The results show that the coefficients on the government trust/confidence variables are positive and significant for both entry income for all four measures of trust/confidence in government. In addition, virtually all of the control variables in the conditional mean functions for the black self-employment decision and income are significant.<sup>10</sup>

Overall, the parameter estimates in Tables 5 - 6 suggest that trust and confidence in government matters for the black self-employment decision and performance. As the level of trust and confidence in government by the black self-employed increases, so does their entry and performance. As trust and confidence constitute a willingness to let one's welfare be determined by the future choices of others, the parameter estimates suggest that the entry and performance of the black self-employed are conditioned by beliefs regarding how the U.S. Supreme Court, U.S. Congress, Executive branch, and government overall will condition their future welfare. That the coefficients on the trust and confidence in government variables are large relative to the other demographic control variables also suggests that trust/confidence in government

TABLE 5.  
Seemingly Unrelated Bivariate Probit Estimates:  
Black Entrepreneur Entry and Performance Robust Standard Errors

| Measure of<br>Trust/Confidence:    | Confidence In<br>U.S Supreme Court | Confidence In<br>U.S Congress | Confidence In<br>Executive Branch | Trust In<br>U.S Government   |
|------------------------------------|------------------------------------|-------------------------------|-----------------------------------|------------------------------|
| <b>ENTRY:</b>                      |                                    |                               |                                   |                              |
| CONSTANT                           | -1.17<br>(3.52)                    | -.160<br>(3.35)               | -1.25<br>(3.66)                   | -.895<br>(3.59)              |
| Foreign Born Father                | .786<br>(.536)                     | .549<br>(.519)                | .702<br>(.543)                    | -2.39<br>(.549) <sup>a</sup> |
| Father Self-Employed<br>When Child | -.985<br>(.545) <sup>c</sup>       | -.693<br>(.411) <sup>c</sup>  | -.881<br>(.381) <sup>b</sup>      | -.402<br>(.456)              |
| Foreign Born                       | 1.30<br>(.543) <sup>b</sup>        | 1.54<br>(.530) <sup>a</sup>   | 1.29<br>(.567) <sup>b</sup>       | 1.19<br>(.589) <sup>b</sup>  |
| Lives in South                     | .313<br>(.279)                     | .547<br>(.325) <sup>c</sup>   | .562<br>(.433)                    | .499<br>(.448)               |
| Log of Age                         | .699<br>(.713)                     | .250<br>(.668)                | .731<br>(.714)                    | -.327<br>(.645)              |
| Log Years of Education             | -.991<br>(.605) <sup>c</sup>       | -.663<br>(.601)               | -.946<br>(.652)                   | .374<br>(.763)               |
| Female                             | -.196<br>(.413)                    | -.256<br>(.409)               | -.263<br>(.386)                   | -.242<br>(.479)              |
| Married                            | -.272<br>(.424)                    | -.516<br>(.342)               | -.471<br>(.381)                   | -.238<br>(.407)              |
| Confidence in US Supreme Court     | .72<br>(.673) <sup>a</sup>         | —                             | —                                 | —                            |
| Confidence in US Congress          | —                                  | .62<br>(.413) <sup>a</sup>    | —                                 | —                            |
| Confidence in Executive Branch     | —                                  | —                             | .01<br>(.544) <sup>a</sup>        | —                            |
| Trust in US Government             | —                                  | —                             | —                                 | .53<br>(.705) <sup>a</sup>   |
| <b>PERFORMANCE = INCOME:</b>       |                                    |                               |                                   |                              |
| CONSTANT                           | 3.77<br>(4.16)                     | 1.12<br>(3.70)                | .671<br>(3.65)                    | 1.25<br>(4.15)               |
| Confidence in<br>US Supreme Court  | .23<br>(.683) <sup>a</sup>         | —                             | —                                 | —                            |
| Confidence in US Congress          | —                                  | .28<br>(.373) <sup>a</sup>    | —                                 | —                            |
| Confidence in Executive Branch     | —                                  | —                             | .65<br>(.459) <sup>a</sup>        | —                            |
| Trust in US Government             | —                                  | —                             | —                                 | .11<br>(.847)                |
| $\chi^2_1 : \rho = 0$              | 54.16 <sup>a</sup>                 | 29.32 <sup>a</sup>            | 36.44 <sup>a</sup>                | 483.47 <sup>a</sup>          |
| <i>N</i>                           | 96                                 | 97                            | 95                                | 97                           |

Notes:

Standard errors in parentheses

*N* = Number of observations

<sup>a</sup> Significant at the .01 level

<sup>b</sup> Significant at the .05 level

<sup>c</sup> Significant at the .10 level

**TABLE 6.**  
Seemingly Unrelated Bivariate Probit Estimates: Black Entrepreneur Entry and Performance  
Standard Errors Robust, and Adjusted for Clustering On Trust and Confidence Questions

| <b>Measure of<br/>Trust/Confidence:</b> | <i>Confidence In<br/>US Supreme Court</i> | <i>Confidence In<br/>US Congress</i> | <i>Confidence In<br/>Executive Branch</i> | <i>Trust In<br/>US Government</i> |
|---|---|--------------------------------------|---|-----------------------------------|
| <b>ENTRY:</b>                           |   |                                      |   |                                   |
| CONSTANT                                | −1.17<br>(.277) <sup>a</sup>              | −.160<br>(1.79)                      | −1.25<br>(.039) <sup>a</sup>              | −.895<br>(.453) <sup>b</sup>      |
| Foreign Born Father                     | .786<br>(.004) <sup>a</sup>               | .549<br>(.187) <sup>a</sup>          | .702<br>(.002) <sup>a</sup>               | −2.39<br>(.002) <sup>a</sup>      |
| Father Self-Employed<br>When Child      | −.985<br>(.345) <sup>a</sup>              | −.693<br>(.422) <sup>c</sup>         | −.881<br>(.008) <sup>a</sup>              | −.402<br>(.412)                   |
| Foreign Born                            | 1.30<br>(.097) <sup>a</sup>               | 1.54<br>(.382) <sup>a</sup>          | 1.29<br>(.005) <sup>a</sup>               | 1.19<br>(.284) <sup>a</sup>       |
| Lives in South                          | .313<br>(.077) <sup>a</sup>               | .547<br>(.078) <sup>a</sup>          | .562<br>(.007) <sup>a</sup>               | .499<br>(.149) <sup>a</sup>       |
| Log of Age                              | .699<br>(.286) <sup>a</sup>               | .250<br>(.632)                       | .731<br>(.010) <sup>a</sup>               | −.327<br>(.609)                   |
| Log Years of Education                  | −.991<br>(.319) <sup>a</sup>              | −.663<br>(.159) <sup>a</sup>         | −.946<br>(.001) <sup>a</sup>              | .374<br>(.651)                    |
| Female                                  | −.196<br>(.230)                           | −.256<br>(.111) <sup>b</sup>         | −.263<br>(.005) <sup>a</sup>              | −.242<br>(.061) <sup>a</sup>      |
| Married                                 | −.272<br>(.246)                           | −.516<br>(.012) <sup>a</sup>         | −.471<br>(.001) <sup>a</sup>              | −.238<br>(.166)                   |
| Confidence in US Supreme Court          | .72<br>(.223) <sup>a</sup>                | —                                    | —   | —                                 |
| Confidence in US Congress               | —   | .62<br>(.151) <sup>a</sup>           | —   | —                                 |
| Confidence in Executive Branch          | —   | —                                    | .01<br>(.177) <sup>a</sup>                | —                                 |
| Trust in US Government                  | —   | —                                    | —   | .53<br>(.102) <sup>a</sup>        |
| <b>PERFORMANCE = INCOME:</b>            |   |                                      |   |                                   |
| CONSTANT                                | 3.77<br>(1.17) <sup>a</sup>               | 1.12<br>(.391) <sup>a</sup>          | .671<br>(.028) <sup>a</sup>               | 1.25<br>(.495) <sup>a</sup>       |
| Confidence in<br>US Supreme Court       | .23<br>(1.03) <sup>b</sup>                | —                                    | —   | —                                 |
| Confidence in US Congress               | —   | .28<br>(.217) <sup>a</sup>           | —   | —                                 |
| Confidence in Executive Branch          | —   | —                                    | .65<br>(.176) <sup>a</sup>                | —                                 |
| Trust in US Government                  | —   | —                                    | —   | .11<br>(.093) <sup>a</sup>        |
| $\chi^2 : \rho = 0$                     | 102.12 <sup>a</sup>                       | 63.54 <sup>a</sup>                   | 28.57 <sup>a</sup>                        | 84.86 <sup>a</sup>                |
| <i>N</i>                                | 96  | 97                                   | 95  | 97                                |

*Notes:*

Standard errors in parentheses

*N* = Number of observations

<sup>a</sup> Significant at the .01 level

<sup>b</sup> Significant at the .05 level

<sup>c</sup> Significant at the .10 level

matters more than other factors that condition entry and performance.

## V. Conclusion

As a form of social capital, trust can be important for individual decisions with outcomes that depend upon the future behavior of others. The self-employment decision is one such trust-sensitive decision. Given the history and political economy of race in the U.S., the black self-employment decision is likely to be sensitive to trust in federal government. The extent to which it is believed that federal government can favorably condition the future behavior of customers and lenders faced by black-owned firms, will warrant high trust, and make attractive the decision to be a self-employed black. This paper provides evidence that in the US, social capital matters for the black self-employment decision as it is sensitive to trust and confidence in the federal government.

I find that the black self-employment decision and performance as measured by self-employment income is proportional to several measures of trust and confidence in US federal government. I also find that race—being a self-employed black—is a negative determinant of trust in the US federal government, suggesting that among the self-employed, trust in government is lower for self-employed blacks. Given the positive effects of trust on the black self-employment decisions and performance, our findings suggest that relative to all firms, the growth and performance of black-owned firms has been inhibited by their relatively low levels of trust in US government. As for the sources of this low level of trust, the theoretical perspective of our analysis suggests that it is based upon the strength of self-employed blacks beliefs as to whether or not government can favorably condition the future behavior of customer, lenders, and even government institutions themselves, faced by black-owned firms.

That living in the South has differential impact on trust/confidence in federal government for the black self-employed could partially explain why the southern US is home to a disproportionate number of black-owned firms, and where their growth rate has exceeded the national average growth rate of black-owned firms. (U.S. Census Bureau 2007). This could reflect the legacy of high-profile federal government intervention in the South that secured civil

rights for black Americans. For black Americans in the South, such a legacy may serve as a boost to black confidence/trust in government than renders the self-employment decision more attractive relative to other geographic regions where federal government intervention to secure black civil rights was pursued with less vigor and/or a lower profile.

The findings on the determinants and impact of confidence in the US Supreme Court are instructive and illustrative. Low confidence by actual or potential black-owned firms in the US Supreme Court could be based on uncertainty regarding how the court will view the constitutionality of race-based set-aside programs in the future.<sup>11</sup> To the extent that minority set-asides induce black-owned firms, (Chay and Fairlie 1998), uncertainty among actual and potential black-owned firms, about how the US Supreme court will view the constitutionality of such programs in the future could be a source of low trust in the court.<sup>12</sup> The results in this paper are consistent with such a causal nexus. For black Americans, the self-employment decision appear to be relatively more sensitive to trust and confidence in government. As such, this paper identifies trust and confidence in government as another factor that possibly explains the underrepresentation and differential performance of black-owned firms.

As for limitations, at least two stand out. First, GSS survey data constitute stated preference data, and it is possible that an individual's stated preferences understate or overstate his actual preferences (Bohm 1972). This leads to stated preferences being a biased measure of actual preferences. In this context, the reported trust and confidence measures for GSS respondents may not be representative of their actual levels of trust and confidence. Murphy et al. (2005) found that in a meta-analysis of 28 stated preference studies that at the median, stated preferences exceeded actual by approximately 35 percent. However, if this upward bias is uniform across GSS respondents, unbiased inferences based on these stated preferences, conditional upon group membership (e.g. black, non-black) is still possible.

Last, but not least, the parameter estimates are based on a cross-section, and any causal interpretations assume the exogeneity of all regressors, both at a point in time, and longitudinally across time. As the cluster-adjusted robust standard error parameter estimates do not cause a change in sign or significance that undermines our theory of self-employment and trust in government, the parameter

estimates identify causal effects if the source of any unobserved heterogeneity is based on the level of trust and confidence held by individuals—both at a point in time and across time. Indeed, Harden (2011) provides Monte Carlo evidence suggesting that parameter estimates with clustered robust standard errors enable unbiased estimates of causal effects. If the source of the unobserved heterogeneity is otherwise, our results only provide conditional mean probabilities, that are only suggestive

of the causal effects of trust and confidence in government on the self-employment decision. If indeed this is the case, the findings of this paper at least show that for whatever reason, the self-employment decision for blacks appears to be more sensitive to trust and confidence in the federal government relative to non-blacks, which could possibly explain the underrepresentation of black Americans among the ranks of the self-employed and firm owners.

#### APPENDIX: CORE GSS VARIABLES

| Variable                                     | Definition  | GSS Question   | GSS Coding  |
|--|---|--|---|
| Age  | Age of respondent   | Respondents age  | Numeric value for age   |
| Black  | Binary variable equal to one if the respondent is black                               | What race do you consider yourself?  | White = 1, Black = 2, Other = 3   |
| Confidence in executive branch of government | Respondent's level of confidence in the Executive branch of government.               | Would you say that have a great deal of confidence, only some confidence, or hardly and confidence at all in the executive branch of government? | A Great Deal = 1, Only Some = 2, Hardly Any = 3                         |
| Confidence in Supreme Court                  | Respondent's level of confidence in the US supreme court.                             | Would you say that have a great deal of confidence, only some confidence, or hardly and confidence at all in the US Supreme Court?               | A Great Deal = 1, Only Some = 2, Hardly Any = 3                         |
| Confidence in Congress                       | Respondent's level of confidence in the US Congress.                                  | Would you say that have a great deal of confidence, only some confidence, or hardly and confidence at all in the US Congress?                    | A Great Deal = 1, Only Some = 2, Hardly Any = 3                         |
| Father foreign-born                          | Binary variable equal to one if the respondent's father was foreign born.             | Were both your parents born in this country?   | Father only = 2   |
| Father self-employed                         | Binary variable equal to one if father was self-employed when respondent was a child. | Was your father self-employed or did he work for someone else?   | Self-employed = 1   |
| Education                                    | Highest year of school completed by respondent.                                       | What is the highest grade in elementary school, high school or college that you got credit for?  | Numeric value for years completed.                                      |
| Foreign-born                                 | Binary variable equal to one if the respondent is foreign-born.                       | Was respondent born in this country?   | Yes = 1   |
| Trust in the federal government              | Respondent's level of trust in the federal government                                 | How much does respondent trust federal government  | Almost always = 1, Most of time = 2, Some of time = 3, Almost never = 4 |
| Female                                       | Binary variable equal to one if the respondent is a female                            | Respondent's sex   | Female = 2  |

(Continued)

## APPENDIX: CORE GSS VARIABLES

(Continued)

| Variable      | Definition  | GSS Question  | GSS Coding  |
|---------------|---|---|---|
| Hours         | Number of hours spent working                                     | How many hours did you work last week, at all jobs?               | Numeric value of hours worked   |
| Income        | Respondent's annual income  | Respondent's annual income in 1986 dollars                        | Numeric value of annual income  |
| Married       | Binary variable equal to one if the respondent is married         | Marital status  | Married = 1   |
| South         | Binary variable equal to one if the respondent lives in the South | Region of Interview   | New England = 1, Middle Atlantic = 2, E. North Central = 3, W. North Central = 4, South Atlantic = 5, E. South Central = 6, W. South Central = 7, Mountain = 8, Pacific = 9 |
| Self-employed | Binary variable equal to one if the respondent is self-employed   | Are (or were) you self-employed, or do you work for someone else? | Self-employed = 1   |

### Notes

1. The term "social capital" was initially coined by Louny (1977). The most flexible definition of what constitutes social capital is that it consists of the networks, norms and trust that facilitate coordination and cooperation (Putnam 1993).
2. The relative performance and numbers of black entrepreneurs and self-employed are similar. U.S. Commerce Department (2001) data indicate that only 4 percent of all U.S. firms are black-owned—a more formal measure of entrepreneurship. In terms of performance, black-owned firms also have lower average gross receipts relative to all firms, and relative to other minority-owned (American Indian and Alaskan Native, Asian and Pacific Islander, Hispanic) firms. The self-employment rate of black Americans was 3.3 percent in 1997, which was low relative to the population as a whole, and with respect to all other racial minorities (Georgellis and Wall 2000). The observed racial differences in self-employment also appear to have persistence, as they have existed throughout the twentieth century (Fairlie and Meyer 2000; Bogan and Darity 2008).
3. Given customer discrimination by whites against blacks, segregation—blacks selling to blacks only—could be an optimal response by black entrepreneurs. This however would constrain the number of black entrepreneurs as a result of the limited size of the black only market. Borjas and Bronars (1989) also demonstrate that segregation does not improve the incomes of black relative to nonblack entrepreneurs when output is a function of entrepreneurial ability, given tastes for discrimination by white customers.
4. The black disadvantage engendered by racial discrimination affects various social and economic outcomes such as employment and earnings (Darity and Myers 1998), wealth (Oliver and Shapiro 1997), law enforcement (Kennedy, 1997), and health (LaVeist 2002). Borjas and Bronars (1989) find that the relatively low rate of black self-employment can be explained by white customer discrimination. Hout and Rosen (2000) find that even after controlling for family, and other factors that plausibly explain self-employment, there still remain residual differences between the selfemployment rates of blacks relative to whites—which suggests



discrimination. Walker (1998) provides historical insight into the effects of discrimination on black entrepreneurship.

5. GSS data are available at <http://www3.norc.og/GSS+Website>
6. An Ordinal Probit specification is a latent variable regression model that divides a latent variable  $y^*$  into  $J$  ordinal categories, where  $y_i = m$  if  $\tau_{m-1} \leq y_i^* \leq \tau_m$  for  $\sum_1^J m_i$ . In Stata, estimation of the model's parameters, which includes the  $J$ -thresholds  $(\tau_{m-1}, \tau_m)$ , proceeds by making an identifying assumption that the constant term is zero. See Long and Freese (2001).
7. The GSS does not contain repeated observations on the same individuals prior to 2008, which does not permit an determination as to whether a given individual entered into, or exited out of, self-employment.
8. See the Appendix for the definition and coding of the initial ordinal variables.
9. For the performance specification, the controls are: number of hours spent working, the log of age, the log of years of education, marital status, and gender.
10. For the conditional mean function for black entrepreneurial income, all of the control variables are significant when the robust standard errors are adjusted for individual clustering on the trust/confidence in government questions.
11. See for example *Richmond vs. Croson* (488 US 489) and *Adarand vs. Pena* (515 US 200).
12. For a contrary view on whether minorities actually benefit from set-side programs, See Myers and Chen (1996).

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