

# ***Self-Employment and Job Satisfaction: Investigating the Role of Self-Efficacy, Depression, and Seniority***

by Don E. Bradley and James A. Roberts

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*Are self-employed workers more satisfied with their jobs compared to wage and salary workers? Using The National Survey of Families and Households: Wave I, 1987-1988, and Wave II 1992-1994 several expectations are evaluated in this article. First, self-employed persons should enjoy higher job satisfaction than others. Second, a portion of the association between job satisfaction and self-employment should be explained by higher levels of self-efficacy and by lower levels of depression among the self-employed compared to others. Third, self-employment veterans are a select group and should be different systematically from self-employment newcomers with respect to reported job satisfaction. Findings offer support for the first and second arguments above but not the third. Post-hoc analysis suggests that among the newly self-employed, the association between job satisfaction and self-employment depends on both the quantity and quality of time invested in the business. Implications of these findings and directions for further research are discussed.*

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## ***Introduction***

Entrepreneurs play an important role in the free-enterprise economic system. Much of the impetus for change, innovation, and progress in the U.S. economy will come from entrepreneurs (for example, Reynolds 1997; Light and Rosenstein 1995; Drucker 1985; Schumpeter 1934). Moreover, small firms create important new employment opportuni-

ties (Reynolds and White 1997; Light and Rosenstein 1995).

Conventional wisdom suggests that the United States is increasingly a nation of entrepreneurs and self-starters. Indeed, the portion of the labor force accounted for by nonfarm self-employment, having declined steadily between 1870 and 1973, generally has been expanding since 1976 (Bregger 1996; Steinmetz and Wright

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1989; Mills 1951), and this expansion is projected to continue into the near future (Silvestri 1999). Moreover, according to Gartner and Shane (1995), entrepreneurship, measured as the number of commercial firms per capita, nearly has tripled between the late 1970s and the mid 1990s and is significantly higher than at any time in the past hundred years. According to some observers, the contemporary period is the "era of the entrepreneur," in which the entrepreneur is viewed increasingly as a folk hero (Goffee and Scase 1987).

Certainly not all self-employed individuals properly may be considered entrepreneurs, but self-employment and entrepreneurship are linked in the popular imagination. Evidence of public fascination with self-employment readily is available. In the United States, "being one's own boss . . . is a deeply held ideal," with historical roots dating to the nation's founding (Steinmetz and Wright 1989, p. 974). Further, evidence from a cross-national survey research suggests that over 60 percent of Americans report a preference for self-employment as opposed to employment (Blanchflower, Oswald, and Stutzer 2001; Blanchflower and Oswald 1998).<sup>1</sup> In addition, some four percent of working-age adults may be engaged actively in starting a business at any particular time (Reynolds 1994). Moreover, results from the Entrepreneurial Research Consortium Study reported in the trade press suggest that approximately 33 percent of U.S. households "have had an intimate involvement in a new or small business" (as cited by Richman 1997).

Why are individuals so positively disposed toward the prospect of starting a business? For many, more than expected financial rewards, the desire to be self-employed may be rooted in

the perception that small business ownership promises greater autonomy and challenge than employment by a large bureaucratic organization (Vivarelli 1991). Indeed the notion that self-employed individuals gain greater satisfaction from their jobs than do other individuals is commonplace in both the popular press (for example, Leonard 2001; Willax 1998; Chun 1997) and in entrepreneurship textbooks (for example, Scarborough and Zimmerer 2000; Kuratko and Hodgetts 1998; Hatten 1997; Zimmerer and Scarborough 1996).

Are the self-employed generally more satisfied with their jobs than comparable wage and salary workers? This is an important question because job satisfaction may be associated positively with productivity (for reviews, see Judge and Bono 2001; Brief 1998; Spector 1997). Job satisfaction has been linked to important organizational outcomes such as employee absenteeism, tardiness, intentions to turnover, actual turnover, job performance, organizational citizenship behavior, burnout, physical and psychological well being, and life satisfaction (Judge and Bono 2001; Kirkman and Shapiro 2001; Brief 1998; Spector 1997; Brown and Peterson 1993; Judge and Locke 1993). By contrast, dissatisfied workers especially may be likely to engage in a range of unproductive behaviors including the following: (1) wandering around trying to look busy; (2) using the phone or computer for nonwork reasons; and (3) drinking alcohol or taking drugs (Necowitz and Roznowski 1994). Moreover, employee satisfaction may enhance customer satisfaction in service industry firms (Sousa-Poza 2000).

If the self-employed enjoy a job satisfaction advantage over their employed counterparts, then small business owners

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<sup>1</sup>Across a sample of industrial nations, the relative number of persons who reported a preference for self-employment ranged from 27 percent in Norway to 80 percent in Poland (Blanchflower, Oswald, and Stutzer 2001).

may be more productive than they otherwise would be. Moreover, a job satisfaction advantage may enhance the "perceived desirability" of small business ownership and thus may contribute to sustaining the supply of "potential entrepreneurs" (Krueger, Reilly, and Carsrud 2000; Krueger 1993; Shapero and Sokol 1982), a resource critical to the ability of local economies to exploit opportunities and to foster continued economic development (Light and Rosenstein 1995; Krueger and Brazeal 1994).

Many believe that they would be happier if they were self-employed, but does this notion enjoy empirical support? A review of the existing scholarly literature suggests a modest positive relationship between job satisfaction and self-employment. Moving beyond existing studies, it is argued here that the relationship between job satisfaction and self-employment (1) may partly reflect distinct personality characteristics that predispose self-employed individuals to evaluate their jobs in a positive manner; and (2) is likely to differ between those who are newly self-employed as compared to those who have employed themselves for several years. Data from the *National Survey of Families and Households: Wave I, 1987-1988, and Wave II 1992-1994* (NSFH) are used in order to evaluate these arguments.

## ***A Review of Research Self-Employment and Job Satisfaction***

With respect to the job satisfaction of the self-employed, there is reason to doubt conventional wisdom. The draw-

backs of self-employment are well established. Self-employment is stressful and requires hard work, long hours, emotional energy, heightened job stress, role ambiguity, and above all, risk (Kaufmann 1999; Buttner 1992; Lewin-Epstein and Yuchtman-Yaar 1991; Min 1990; Eden 1975). Any benefits that may accrue to the self-employed are gained at the cost of increased risk.

Though the existing research literature is not unequivocal (Jamal 1997; Vanden Heuvel and Wooden 1997; Buttner 1992), a number of studies indicate support for the contention that persons who are self-employed typically express higher levels of job satisfaction than others. Findings from this literature typically suggest a modest job satisfaction advantage associated with self-employment equal to less than half a point on three-, four-, and five-point scales (Blanchflower, Oswald, and Stutzer 2001; Hundley 2001; Blanchflower and Oswald 1998; Eden 1975; Katz 1993; Thompson, Kopelman, and Schriesheim 1992; Naughton 1987a, 1987b).<sup>2</sup>

The authors hasten to add, however, that the literature pertaining to job satisfaction and self-employment must be interpreted cautiously because a number of studies employ small nonrepresentative samples (Jamal 1997; Buttner 1992; Thompson, Kopelman, and Schriesheim 1992), while others rely on data collected no less than 20 years prior to this writing (Hundley 2001; Branchflower and Oswald 1998; Katz 1993; Naughton 1987a, 1987b; Eden 1975).<sup>3</sup> Given greater autonomy and flexibility afforded

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<sup>2</sup>Branchflower and Oswald (1998) may form an exception to this pattern, reporting a job satisfaction advantage to self-employment, which they describe as "quantitatively large." However, because all the respondents in Blanchflower and Oswald's (1998) data were 23 years of age, it is difficult to generalize to the broader population based on their results.

<sup>3</sup>Findings reported by Eden (1975) and Katz (1993), for example, result from analyses of the 1969 *Quality of Working Conditions Survey*. Also, the data employed by Naughton (1987a, 1987b) and Katz (1993) from the *Quality of Employment Survey* were collected in 1977. The

workers by the expansion of “intrapreneurship” (for example, Russell 1999; Zahra, Anders, and Bogner 1999; Jelinek and Litterer 1995; Carrier 1994, 1996; Pryor and Shays 1993; Hisrich 1986; Pinchot 1985) and the extension of family responsive benefits (Scandura and Lankau 1997), findings from data collected prior to the early 1980s may not generalize to the contemporary situation.

Even so, results from studies using recently collected data from a large nationally representative sample consistently suggest a modest positive association between self-employment and job satisfaction that appears to depend, at least in part, on the level of autonomy enjoyed at work (Blanchflower, Oswald, and Stutzer 2001; Hundley 2001; Vanden Heuvel and Wooden 1997). The review in this article of the existing research literature leads to the following expectation.

*H1: Self-employment will be associated positively with job satisfaction, net of sociodemographic controls.*

### **Considering the Role of Personality and Self-Employment Seniority**

However, the apparent positive association between job satisfaction and self-employment may be spurious. Building on previous work, the present study

introduces two factors that partly may explain the self-employment job satisfaction advantage. In particular, it is suggested (1) that selected personality characteristics may be positively associated with both job satisfaction and the likelihood of becoming self-employed; and (2) that high failure rates during the critical first years of self-employment may select out less-satisfied business owners.

*The Role of Personality.* Blanchflower and Oswald (1998) provide evidence of a positive association between self-employment and job satisfaction but caution that “self-employed people may be intrinsically more optimistic and cheerful than others. . . .” (p. 49). Though this certainly is an intuitively appealing thesis, previous research has given little consideration to the possibility that self-employed persons may share select personality characteristics that condition the manner in which they evaluate their jobs, Hundley (2001) notwithstanding.<sup>4</sup> In the discussion to follow, it is argued that the process of self-employment entry may select positively for personality traits, namely self-efficacy and low levels of depressive symptomology, which in turn may be associated with job satisfaction.

To begin, self-efficacy may be an especially common personality charac-

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1977 *Quality of Employment Survey* also informs a substantial portion of Hundley’s (2001) results. Similarly, the 1981 *National Child Development Study* forms the basis for Branchflower and Oswald’s (1998) analysis.

<sup>4</sup>Hundley (2001) comprises an exception to this critique, using the 1979 and 1986 waves of the *National Longitudinal Study of the High School Class of 1972* to show that the mean job satisfaction score for persons moving into self-employment in 1986 is indistinguishable from the level of job satisfaction observed among persons organizationally employed at both time periods. But Hundley’s results should be read cautiously in light of several considerations. First, personality and job characteristic variables are unmeasured by Hundley (2001). Second, as Brockhaus (1980) notes, job dissatisfaction may precede a shift to self-employment so that persons preparing to enter self-employment may report temporarily low levels of job satisfaction despite their psychological predisposition. Third, the seven-year gap between waves of data collection allows for multiple changes in job status such that it is difficult to be clear on what is being measured when status in 1979 is compared to status in 1986.

teristic among self-employed individuals as compared to others. The term self-efficacy is derived from social learning theory and refers to a person's belief in his or her capacity to perform a given task (Bandura 1997, 1986), or more broadly, to exercise control over their lives (Judge et al. 1998). As such, self-efficacy is related to perceptions of competence and control and tends to be associated with specific behaviors such as risk taking, opportunity recognition, and persistence (for review, see Krueger and Brazeal 1994).

Self-efficacy is a particularly useful concept here because it is a predictor of career choice. In particular, perceived breadth of career options as well as persistence in a chosen field appear to be conditioned by self-efficacy, net of measures of individual ability (Lent, Brown, and Hackett 2000; Lent and Worthington 1999; Lent, Brown, and Larkin 1986, 1987). Persons are most likely to develop enduring interests in activities at which they perceive themselves to be competent. Where self-efficacy is low, individuals are likely to perceive self-competence in a narrower range of activities as compared to others (Lent and Brown 1996; Brown and Lent 1996).

To take this idea further, because starting a business requires planning and forethought, the formation of intent is likely an important precursor to small business ownership. But the intention to enter self-employment is expected to depend on the perceived feasibility of opening a new enterprise. Self-efficacious persons especially are likely to perceive a business start-up as feasible (Krueger, Reilly, and Carsrud 2000; Kolvereid 1996; Krueger and Brazeal 1994; Krueger 1993). It therefore is expected that such individuals will be overrepresented among the self-employed.

The prospect that self-employed individuals may report higher levels of self-efficacy than others is important in the

present context because self-efficacy may be associated positively with job satisfaction. Compared with others, people with high self-efficacy may be more likely to demonstrate intrinsic interest in the tasks they perform, may show greater persistence in the face of obstacles and setbacks, and may expend greater effort at their jobs (Chen, Greene, and Crick 1998). Given these considerations, it may be that self-efficacy enhances the likelihood that persons will enjoy occupational success and the satisfaction that accompanies success (Judge and Bono 2001; Judge et al. 1998). Moreover, that self-efficacious persons tend to expend greater effort at work is important because invested effort may increase a person's tendency to evaluate positively outcomes earned by means of their exertions (Brown and Peterson 1994).

A second relevant personality characteristic is depression, which implies an overall negative orientation and a tendency to think and to act in ways that result in negative emotional experiences (Brief 1998; Spector 1997; Judge and Locke 1993). Specifically, depressed individuals tend to have difficulty initiating action and making decisions (Peterson, Maier, and Seligman 1993; Seligman 1975) and experience "low energy or fatigue" and "feelings of hopelessness" (American Psychiatric Association 1987). Moreover, depression often is characterized as "learned helplessness," produced by a pessimistic explanatory style where the events in one's life are experienced as uncontrollable (see Peterson, Maier, and Seligman 1993; and Seligman 1991 for reviews). Depressed persons especially may be unlikely to act on existing opportunities and therefore to be underrepresented among the self-employed (Krueger, Reilly, and Carsrud 2000).

Moreover, given that pessimism and depression are closely associated concepts, it is noteworthy that pessimists may give up more easily than others (Seligman 1991; Seligman and Schulman

1986). The challenge of establishing a small business might be expected to weed out pessimists. Not surprisingly, there is evidence to suggest that “extreme optimism” is pervasive among the self-employed (Cooper, Woo, and Dunkelberg 1988).

Given these considerations, it seems reasonable to suggest that depression should be uncommon especially among self-employed persons. The proposed relative scarcity of depressed persons among the self-employed is an important argument in the present context given that depression tends to be associated with lower levels of job satisfaction (Shaw, Duffy, and Jenkins 1999; Judge et al. 1998; Spector 1997; Brief, Butcher, and Roberson 1995; Decker and Borgen 1993; Judge and Locke 1993; Watson, Pennebaker, and Folger 1986). The kind of self-defeating thought that accompanies depression “virtually guarantees negative affect with respect to one’s life in general and one’s job in particular” (Judge and Locke 1993, p. 485).

To this point it has been argued that self-efficacy should be associated positively with both job satisfaction and the likelihood of being self-employed and that depression should be associated negatively with both job satisfaction and the likelihood of being self-employed. Specific expectations based on these arguments are articulated easily.

*H2: An observed positive association between job satisfaction and self-employment will diminish in magnitude after controlling for self-efficacy.*

*H3: An observed positive association between job satisfaction and self-employment will diminish in magnitude after controlling for depression.*

*Self-Employment Seniority.* This argument may be extended to include an additional consideration beyond the role of self-efficacy and depression. Specifi-

cally, it may be that the relationship between self-employment and job satisfaction reflects ongoing selection effects that favor satisfied small business owners.

Previous studies—with one exception (Naughton 1987a)—aggregate newly and senior self-employed. However, there are likely to be systematic differences between self-employment veterans and those individuals who are new to self-employment. To begin, as a firm grows the owner is likely to have a larger number of people working for him or her and may be required to perform tasks increasingly removed from his or her central occupational expertise (Katz 1994; McCarthy, Krueger, and Schoenecker 1990).

In addition, given the high failure rates for new businesses, there is good reason to argue that self-employment veterans should report higher job satisfaction than recently self-employed individuals. Evidence pertaining to small business failure indicates that approximately 40 percent of recently self-employed individuals may be expected to fail within one year (Evans and Leighton 1989). Moreover, only a minority of those who become self-employed appear to remain self-employed for more than four years (Shiller and Crewson 1997; Hamilton 2000; Evans and Leighton 1989). The early years therefore are crucial for small business owners. Those who persist are likely to be different from those who return to wage or salary employment.

Cooper and Artz (1995) argue that among business owners higher levels of job satisfaction may enhance commitment to a particular venture and so positively impact the odds of business survival. Conversely, if self-employed individuals who are unsatisfied with their work suffer declining commitment, they also may be less willing to put in the long hours and to meet the demands associated with operating a small busi-

ness. Because less satisfied business owners are likely to be selected against during the critical early years, we therefore would expect to find higher levels of satisfaction among the senior self-employed. What is more, the effect of seniority should persist despite socio-demographic and personality controls because job satisfaction is derived from a range of factors, only a portion of which are measurable.

*H4: Job satisfaction will be higher among senior self-employed individuals compared to those persons recently self-employed, net of sociodemographic variables, depression, and self-efficacy.*

## **Methodology**

### **Data**

Others have noted the value of secondary data analysis for entrepreneurship research (Katz 1993, 1992, 1988). The present study introduces a rich database with which entrepreneurship researchers may be unfamiliar. In the analysis to follow, data from the *National Survey of Families and Households: Wave I, 1987–1988, and Wave II 1992–1994* (NSFH) are used in order to examine the relationship between self-employment and job satisfaction. James Sweet and Larry Bumpass from the University of Wisconsin at Madison were the principal investigators responsible for the collection of the NSFH data. Both waves of the NSFH were funded by the Center for Population Research of the National Institute of Child Health and Human Development (NICHD) (see Sweet and Bumpass 1996). Hundreds of scholarly peer-reviewed journal articles based upon the NSFH offer evidence of the quality of these data (see Sweet

and Bumpass 1996). The NSFH has been used to study a range of issues, including marriage and family relationships and labor force participation. As will be evident, the NSFH also has potential that previously was untapped for the study of self-employment.

Data are representative of the noninstitutionalized population in the contiguous United States, either married or older than 18 years of age. In the initial data collection, population projections for each standard metropolitan statistical area and nonmetropolitan county for 1985 were employed in drawing a national, stratified, multistage area probability sample of households. Minorities and persons in selected family types were oversampled. For each selected household, one adult was chosen randomly to serve as the primary respondent ( $n = 13,008$ ).

The fieldwork for the first wave of the NSFH project was conducted in 1987 and 1988. Data from primary respondents were collected via in-person interviews along with a series of self-administered questionnaires. In addition, spouses and cohabiting partners of the primary respondent were asked to complete a short self-administered questionnaire.

The second wave of data collection occurred between 1992 and 1994, five years after the initial interviews. Surviving respondents were reinterviewed face to face ( $n = 10,007$ ). Face-to-face interviews also were conducted with the primary respondent's current spouse or cohabiting partner ( $n = 5,624$ ) and, where appropriate, with the former spouse or partner ( $n = 789$ ). With one exception, all types of respondents completed identical interviews and questionnaires.<sup>5</sup> New spouses or cohabiting partners, those not present during the initial wave of interviews, were asked

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<sup>5</sup>Supplementary questionnaires pertaining to a particular topic were completed as relevant (for example, only parents completed the instrument on parenting).

additional questions regarding their status in 1987 and 1988, including whether or not they had been self-employed.

The extract created for analysis is limited to persons who typically worked at least 35 hours per week ( $n = 7,176$ ). Of the cases included in these analyses, 51.41 percent represent primary respondent interviews; 34.2 percent represent interviews with current spouses or partners who were present at the time of the initial wave of data collection; 5.03 percent represent interviews with former spouses or cohabiting partners; and 9.36 percent represent interviews with a new spouse or partner of a given primary respondent.<sup>6</sup> Data from the first wave are used to disaggregate those recently self-employed from self-employment veterans; however, all other substantive items were measured during the second round of interviews.

## Measures

*Job Satisfaction.* The dependent variable, job satisfaction is one of several measures attached to the stem question, "Overall, how satisfied are you with . . ." Among other facets of their lives, respondents were asked to rate "your present job." Responses were coded on a scale from 1 to 7, where 1 = "very dissatisfied" and 7 = "very satisfied" (mean = 5.248, std. dev. = 1.529). The distribution of job satisfaction approximates normality and is characterized by the following: (1) unimodality; (2) moderate negative skew (skewness =  $-0.858$ ); and (3) "peakedness" similar to what be

expected in a normal distribution (kurtosis = 0.259).<sup>7</sup>

*Self-Employment.* Self-employment was measured using the following item: "(On your main job) Do you work: 1 'for yourself,' 2 'in a family business,' or 3 'for someone else?'" This item was asked in both waves of the NSFH project. If the respondent had not changed jobs between the two data collection efforts, they were coded as missing on this item in the NSFH wave II data. Respondents were considered self-employed if they worked either for themselves or in a family business at NSFH1 and had not changed employers or if they worked at NSFH2. This measure identifies 854 respondents or 11.9 percent of the sample as self-employed.

A distinguishing feature of the analysis here is the fact that the self-employed are disaggregated into the following two subcategories: (1) The newly self-employed are those individuals who were not self-employed when the first wave of data were collected but are self-employed in the NSFH2 data ( $n = 432$ ); and (2) the senior self-employed are those who are identified as self-employed in both the first and second waves of data ( $n = 422$ ).

*Personality Characteristics.* In addition, as has been argued already, persons who are self-employed may be predisposed psychologically to evaluate their jobs in a positive manner. Depression is measured using a slightly modified

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<sup>6</sup>Readers may suppose that reported job satisfaction or the association between job satisfaction and self-employment should vary systematically across different types of respondents. However, ancillary analysis failed to generate support for this notion. No significant differences were detected across respondent types with respect to either typical job satisfaction or the magnitude of the relationship between job satisfaction and self-employment.

<sup>7</sup>Estimates of skewness and kurtosis drawn from analysis on the 6,111 cases included Models 4 and 5 presented in Table 1. The distribution of job satisfaction across the total sample is almost identical to that described in the text ( $n = 6,990$ ; skewness =  $-0.867$ ; kurtosis = 0.25).

version of the scale developed by the Center for Epidemiological Studies Depression (CES-D) available in the NSFH2 data (see Radloff 1977). Previous research has found the CES-D to be highly reliable (Hann, Winter, and Jacobsen 1999). Each item in the CES-D index follows the interviewer's question, "Next is a list of the ways you might have felt or behaved during the past week. On how many days during the past week did you (1) feel bothered by things that usually don't bother you; (2) not feel like eating; your appetite was poor; (3) feel that you could not shake off the blues even with help from your family or friends; (4) have trouble keeping your mind on what you were doing; (5) feel depressed; (6) feel that everything you did was an effort; (7) feel fearful; (8) sleep restlessly; (9) talk less than usual; (10) feel lonely; (11) feel sad; and (12) feel you could not get going?"

Responses for each item in the index were coded from 0 to 7, where high scores indicate relatively frequent occurrences of depressive symptomology. Depression is measured as the arithmetic mean across the items described above ( $\alpha = 0.915$ ; mean = 1.036; std. dev. = 1.134). Respondents missing on only one item in the CES-D index received a score reflecting the arithmetic mean of the 11 items on the index for which a response was given ( $n = 141$ ). The CES-D was coded as missing for those persons who were missing on more than one item in the index ( $n = 334$ ).

Long-term depression is measured as the arithmetic mean of the following three items ( $\alpha = 0.644$ ): (1) "In the past year have you had two weeks or more during which you felt sad, blue, or depressed or when you lost all interest in things that you usually cared about or enjoyed?" (2) "Have you felt depressed or sad much of the time in the past year?" and (3) "Have you had two years or more in your life when you felt depressed or sad most days, even if you felt okay some-

times?" Responses for each item are coded such that 1 = yes and 0 = no (mean score = 0.219; std. dev. = 0.315). Cases missing data on any of the three items in the long-term depression index were removed from subsequent analyses ( $n = 337$ ).

A self-efficacy index was constructed using items available in the NSFH2 data (Pearlin et al. 1981). Self-efficacy is measured as the arithmetic mean across a four-item index ( $\alpha = 0.633$ ): (1) "I can do just about anything I really set my mind to do;" (2) "Sometimes I feel that I'm being pushed around in life;" (3) "There is really no way I can solve some of the problems I have;" and (4) "I have little control over the things that happen to me." Responses for each item, with one exception, are coded as follows: 1 = strongly agree; 2 = agree; 3 = neither agree nor disagree; 4 = disagree; and 5 = strongly disagree. Coding for the first item in the index was reversed (for example, 5 = strongly agree). Thus, high scores on the index indicate higher levels of self-efficacy (mean score = 3.69; std. dev. = 0.704). Those cases with missing data on any of the items in the index were removed from analysis ( $n = 232$ ).

*Other Control Variables.* The association between self-employment and job satisfaction is evaluated after controlling for a range of sociodemographic variables, such as gender (1 = male; 52.86 percent); age (measured in tens of years; mean = 4; std. dev. = 0.975); education (measured in years; mean = 13.421; std. dev. 2.596); marital status (1 = married; 67.99 percent); professional worker (1 = members of "managerial and specialty occupations" as defined by the 1990 U.S. Census of Population and Housing; 35.4 percent). Racial and ethnic background is introduced using a range of dichotomous variables where non-Hispanic whites constitute the omitted reference category (1 = Hispanic, 5.4 percent; 1 = black, 14 percent; 1 = American Indian, 0.7 percent; 1 = Asian, 0.4 percent).

Finally, job satisfaction among the self-employed may be conditioned by the particularly demanding nature of business ownership and operation. Two measures of work environment are employed here. Work demands are measured as the arithmetic mean across a five-item index ( $\alpha = 0.618$ ): (1) "Do you work some of your hours (on your main job) in the evening between 6 p.m. and midnight?" (2) "Do you sometimes work (on your main job) on Saturdays or Sundays?" (3) "Do you ever have to go to work unexpectedly (on your main job) at times when you are not scheduled to work?" (4) "Do you sometimes unexpectedly have to work (on your main job) more than an hour later than you are scheduled to work?" and (5) "Does your (main) job sometimes require you to travel and be away from home overnight?" Responses are coded such that 1 = yes and 0 = no (mean score = 0.457; std. dev. = 0.297). For the cases that were missing data on one of the items in the index, scores were calculated as the arithmetic mean across the remaining four items ( $n = 17$ ). Those cases that were missing information for more than one item in the index were removed from further analysis ( $n = 366$ ). Also included was a measure of hours worked in a typical week, constructed as the sum of hours worked on a "main job," hours worked on a "second job" (if any), as well as hours worked at home related to either job (mean = 46.962; std. dev. = 11.436).

## **Findings**

### **Central Findings**

Findings generated by the present study indicate that the relationship between self-employment and job satisfaction is a complex one. The zero-order

association between self-employment and job satisfaction is both positive and significant ( $b = 0.374$ ;  $t = 6.57$ ). Table 1 presents findings from four ordinary least-squares (OLS) regression models, retaining only significant controls. Model 1 indicates that the magnitude of the relationship between self-employment and job satisfaction holds steady when sociodemographic controls are added. Net of controls, self-employed persons on average rated their job satisfaction 0.443 points higher than did others.<sup>8</sup>

It has been argued that personality characteristics likely to be common among business owners partly may explain the association between self-employment and job satisfaction. Consistent with these expectations, the magnitude of the effect of self-employment on job satisfaction from Model 1 is reduced by 35 percent after controls for depression, long-term depression, and self-efficacy are introduced in Model 2. In ancillary analysis, when added separately to the variables in Model 1, self-efficacy is associated with a 32 percent decline in the magnitude of self-employment; and the two depression variables are associated with a 28 percent decline (not shown). This finding suggests that both self-efficacy and the depression variables contribute to the diminution of the coefficient for self-employed between Model 1 and Model 2.

Moreover, as is evident in Model 2, self-efficacy is related positively to job satisfaction. Findings presented in Model 2 suggest that an individual with a "perfect score" on the self-efficacy index will, on average, report 0.401 higher job satisfaction than others. Also consistent with expectations, from supplemental analysis using logistic regression

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<sup>8</sup>Readers will note that in Model 1, quadratic terms have been added to account for curvilinearity in the association between both age and job satisfaction and education and job satisfaction.

**Table 1**  
**Unstandardized OLS Coefficients Based on Regression**  
**of Measures of Self-Employment on Job Satisfaction**  
**Net of Selected Covariates**

	Hypothesis Tests			Post-Hoc Analysis
	(1)	(2)	(3)	(4)
Intercept	7.125 (0.444)	5.067 (0.310)	5.063 (0.310)	5.100 (0.311)
Self-Employed	0.443*** (0.104)	0.288*** (0.057)		
Newly self-employed (NS)			0.334*** (0.077)	0.211* (0.084)
Senior Self-Employed (SS)			0.237** (0.080)	0.234** (0.081)
Age (In Tens of Years)	-0.36* (0.15)	-0.27* (0.13)	-0.27* (0.13)	-0.29* (0.13)
Age <sup>2</sup>	0.05** (0.02)	0.04** (0.02)	0.04** (0.02)	0.04** (0.02)
Education	-0.188*** (0.046)	-0.058*** (0.008)	-0.058*** (0.008)	-0.058*** (0.008)
Education <sup>2</sup>	0.005** (0.002)			
Hispanic	0.443*** (0.091)	0.488*** (0.085)	0.487*** (0.085)	0.486*** (0.085)
Asian	0.612 (0.331)	0.605* (0.269)	0.610* (0.269)	0.611* (0.269)
Professional Worker	0.179*** (0.050)	0.151*** (0.044)	0.151*** (0.044)	0.148*** (0.044)
Income (1000s of Dollars)	0.002** (0.001)			
Depression		-0.190*** (0.021)	-0.190*** (0.021)	-0.190*** (0.021)
Long-Term Depression (LTD)		-0.263*** (0.071)	-0.262*** (0.071)	-0.259*** (0.072)
Self-Efficacy (SE)		0.401*** (0.029)	0.402*** (0.029)	0.402*** (0.029)
NS * Centered Hours Worked				0.012* (0.005)
NS * Centered Work Demands				0.718** (0.273)
<i>n</i>	5,441	6,130	6,130	6,111
Adjusted <i>R</i> <sup>2</sup>	0.023	0.101	0.101	0.103

Note: OLS regression estimates are presented as:  $\frac{B}{(\text{Std. Error})}$ .

Note: \*indicates  $p < 0.05$  \*\*indicates  $p < 0.01$  \*\*\*indicates  $p < 0.001$ .

Source: *National Survey of Families and Households*.

evidence is found to suggest that self-efficacy is associated positively with the likelihood of self-employment (not shown).

Model 2 also indicates that depression is associated negatively with job satisfaction, as expected. Supplemental logistic regression models where depression and long-term depression are entered as predictors of the likelihood of self-employment suggest that depression is associated negatively with the likelihood of self-employment. These analyses failed to generate evidence of an association between long-term depression and self-employment (not shown).

Readers also will note that the introduction of personality variables in Model 2 is associated with a dramatic increase in the proportion of variance explained as compared to Model 1. Evidence presented thus far suggests that self-efficacy, depression, and long-term depression are important predictors of job satisfaction and partly explain the estimated effect of self-employment on job satisfaction. In ancillary analysis (not shown), hours worked and work demands were added to Model 3, but because they failed to reach significance, both were excluded from the final model.

The self-employed category is disaggregated in Model 3 into the newly self-employed and the senior self-employed. Though the coefficients for newly self-employed and senior self-employed are not identical, neither are they statistically distinguishable. In ancillary models where senior self-employed is treated as the omitted reference category, the coefficient for newly self-employed fails to reach significance (not shown). Findings presented thus far fail to suggest differences in average job satisfaction between the newly self-employed and senior self-employed.

### **Results of Post-Hoc Analyses**

Perhaps the impact of self-employment on job satisfaction depends

on time investments. It may be that only those willing to work long hours at irregular times enjoy success and satisfaction in self-employment. In order to evaluate this possibility, models including hours worked and work demands together were estimated with multiplicative interaction terms for each measure of self-employment and each measure of job circumstances. Only significant terms have been retained. Multiplicative interaction terms often are highly correlated with their component variables. In order to avoid problems associated with multicollinearity, both work demands and hours worked are centered as recommended by Cronbach (1987) and Jaccard, Turrisi, and Wan (1990).

Because hours worked and work demands have been centered, the newly self-employed in Model 4 represent its average effect. Thus, findings presented in Model 4 suggest that for those persons working an average number of hours and scoring average on the work demands index, the newly self-employed tend to report job satisfaction 0.211 points higher than others. Of note the inclusion of newly self-employed  $\times$  hours worked and newly self-employed  $\times$  work demands in Model 4 is associated with a 37 percent decline in the magnitude of the coefficient for newly self-employed as presented in Model 3 and thus provides important information for specifying the nature of the relationship between newly self-employed and job satisfaction.

Findings presented in Model 4 further suggest that the relationship between newly self-employed and job satisfaction depends upon both work demands and hours worked. This interpretation is buttressed by supplementary analyses in which separate regression models were estimated across the distribution of work demands and hours worked (not shown). These analyses suggest that the strength of association between self-employment and job satisfaction is associated posi-

tively with hours worked and work demands. For example, the coefficient for newly self-employed among those working less than 40 hours per week ( $b = -0.0001$ ) was significantly weaker ( $t = -3.138$ ) than among those working more than 50 hours per week ( $b = 0.616$ ). Also, with respect to work demands, in a subsample comprised of persons scoring 0 on the work demands index, the coefficient for newly self-employed ( $b = -0.133$ ) was significantly weaker ( $t = -2.245$ ) than among those who answered in the affirmative on four of the five items comprising the scale ( $b = 0.596$ ).

An intuitive interpretation of changes in the estimated net effect of newly self-employed across the distribution of hours worked and work demands is allowed by Figure 1.<sup>9</sup> Figure 1 illustrates the estimated net effect of newly self-employed (Y-axis) across different levels of hours worked (X-axis) and work demands (Z-axis). The net effect of newly self-employed for a given level of work demands but at different levels of hours worked is depicted along the X-axis. The net effect of newly self-employed for a person working so many hours per week but with varying work demands is depicted along the Z-axis. The net effect of newly self-employed is significant at or beyond the 0.05 level where the slope of the line depicting its changing effect across the distribution of hours worked is shaded darkly.<sup>10</sup>

It is apparent from the findings shown in Figure 1 that a substantial portion of the newly self-employed are not distinguishable from the non-self-employed

with respect to level of job satisfaction ( $n = 122$ , or 33 percent of the newly self-employed).<sup>11</sup> For example, higher levels of job satisfaction among the newly self-employed as compared to the non-self-employed are not observed among those whose work posed none of the proposed demands in the work demands index. Further, among those whose work required one of the proposed demands, only those individuals working at least 78 hours per week could expect higher job satisfaction than their non-self-employed counterparts.

By comparison, members of the newly self-employed who answered "yes" to each of the items in the work demands index tend to report high levels of job satisfaction at every value of hours worked. Of the proposed work demands, those respondents whose work called for five of the five proposed demands (1) the newly self-employed working 40 hours per week enjoy a 0.491 point job satisfaction advantage compared to employees; and (2) the newly self-employed working 60 hours per week enjoy a 0.731 point job satisfaction advantage compared to employees. As is evident, newly self-employed persons with high values on both work demands and hours worked may be expected to report job satisfaction scores a full point higher than comparable non-self-employed individuals.

In short, the existence and magnitude of a job satisfaction advantage among the newly self-employed depends on both hours worked and work demands. Findings depicted in Figure 1 suggest that where both hours worked and work

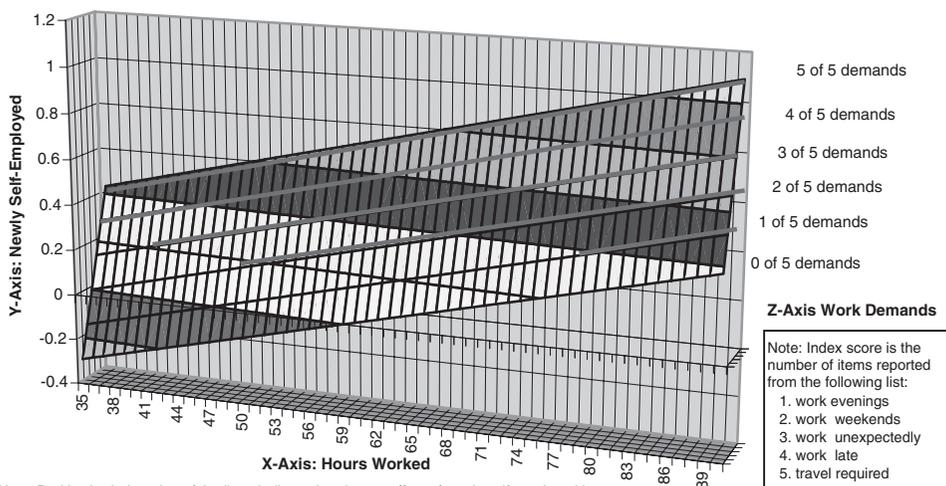
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<sup>9</sup>With respect to hours worked, 90 was chosen as the ceiling because at least one respondent at each level of work demands reported working 90 hours per week. The presented range with respect to hours worked (35–90) represents 97 percent of the total distribution but avoids problems associated with presenting estimates outside of the range of observed values at a given level of work demands.

<sup>10</sup>Tests of statistical significance employed here are based upon standard errors calculated using a procedure described by Jaccard, Turrisi, and Wan (1990).

<sup>11</sup>Figures based upon the 6,111 respondents included in Models 4 and 5.

**Figure 1**  
**Net Effect of Newly Self-Employed on Job Satisfaction across the Distribution of Hours Worked and Work Demands**



Note: Darkly shaded portion of the lines indicate that the net effect of newly self-employed is significant for a given combination of hours worked and work demand.

demands are relatively low, the newly self-employed are not likely to differ from their organizationally employed counterparts with respect to job satisfaction. However, persons who work relatively long hours and characterize their work as calling for each of the proposed demands in the work demands index are likely to report a large job satisfaction advantage over the non-self-employed.<sup>12</sup>

### ***Discussion and Conclusions***

The findings presented here broadly are consistent with expectations. To begin, findings suggest that the self-employed tend to report higher levels of job satisfaction than others, though the magnitude of the difference is relatively modest. This positive association persists after controlling for a range of sociode-

<sup>12</sup>The authors also investigated the possibility that the association between self-employment and job satisfaction depends on personality variables. Ancillary analysis, not shown, suggests that long-term depression is significantly less negative among the newly self-employed ( $b = -0.345$ ) as compared to either the senior self-employed ( $b = -1.382, t = 3.296$ ) or the non-self-employed ( $b = -0.831, t = 2.109$ ). However, it is important to note that for most, long-term depression is equal to zero so that the preceding discussion applies to a minority of cases ( $n = 291$ ).

Additional analysis suggests that the positive association between efficacy and job satisfaction is significantly weaker among the senior self-employed ( $b = 0.249$ ) as compared to the non-self-employed ( $b = 0.497; t = -2.372$ ). No significant difference was observed between the senior self-employed and the newly self-employed ( $b = 0.469; t = 1.587$ ).

mographic factors. Moreover, consistent with the second and third hypotheses, evidence presented here suggests that the overall positive association between job satisfaction and self-employment partly may be explainable as the result of personality characteristics that are both especially common among self-employed persons and that enhance the likelihood that individuals will derive satisfaction from their work. This analysis failed, however, to generate support for the fourth hypothesis; no evidence was found to suggest that the senior self-employed were either more or less satisfied with their jobs than the newly self-employed.

A central contribution of the present study is to provide evidence suggesting support for the idea that a portion of the association between job satisfaction and self-employment may be due to psychological characteristics of small business owners. Results presented here are consistent with the following ideas: (1) Depressed persons report lower levels of job satisfaction as compared to others; (2) Self-employed persons are less likely than others to be depressed; and (3) Lower levels of depression among the self-employed explain a portion of the observed positive association between job satisfaction and self-employment. Similarly, these findings suggest support for the argument that (1) persons reporting relatively high levels of self-efficacy generally are more satisfied with their jobs than are others; that (2) the self-employed typically report higher levels of self-efficacy than do others; and that (3) a portion of the relationship between job satisfaction and self-employment may be explained by relatively high self-efficacy among the self-employed.

But post-hoc analyses also generated important results. Whereas the authors failed to find systematic differences in the association between job satisfaction among the newly self-employed

compared to the senior self-employed, there is some evidence that the mechanisms accounting for the job satisfaction of the newly self-employed compared to the senior self-employed may differ. In particular, findings presented here suggest that the association between job satisfaction and self-employment among the newly self-employed may depend upon the number of hours worked in a typical week as well as irregular work demands, such that recently self-employed individuals working long hours, at nights, on weekends, and so forth may report an especially large advantage over non-self-employed with respect to job satisfaction. No such interaction was observed among the senior self-employed.

However, a straightforward interpretation of these post-hoc results is not available immediately. Findings are consistent with the idea that working long hours, whenever and wherever it may be required, generate successful businesses from which new owners may derive greater satisfaction than comparable wage or salary workers. But perhaps more appealing is the notion, suggested by Cooper and Artz (1995), that recently self-employed individuals who are satisfied with their work are more likely than less satisfied new business owners to commit their time and energy to their enterprise. The causal order is undetermined.

The relationship between time investments and job satisfaction should be a focus of future research efforts. Longitudinal studies or experimental designs that could help establish the flow of causality between time investments and job satisfaction particularly would be enlightening. Future research employing a multiwave panel study design would be useful not only for clarifying the causal order linking job satisfaction and time investments among the newly self-employed but also as a way to study changes in job satis-

faction among the self-employed across time.

Additional research employing a panel study design also might investigate profitably the role that personality plays in the processes of self-employment entry and exit. In particular, does self-efficacy at time one predict self-employment at time two, as an “entrepreneurial intentions” model would expect? Alternatively, among the self-employed, are optimists more likely than others to remain self-employed from one wave of data collection to another?

As a further consideration, it has been assumed here that personality characteristics shape the manner in which individuals perceive their work—in this case the amount of satisfaction they derive from self-employment. However, the demands of small business operation may require that persons develop new modes of thinking and acting, perhaps exhibiting higher levels of optimism than they had demonstrated previously. It may be that self-employment shapes personality.

Finally, the discussion to this point has examined the association between job satisfaction and self-employment in terms of how the latter influences the former. An important observation in this context is that among the more common reasons given for entering self-employment are that small business ownership offers an escape from routine, boring, and unchallenging jobs as well as freedom from the level of supervision common in bureaucratic organizations (Vivarelli 1991). Indeed, some of the earliest work in the area argues that for employees, job dissatisfaction is an important precursor to self-employment entry (Brockhaus 1980). Research employing longitudinal data based on a nationally representative sample could update findings from earlier literature. An additional research question that might be considered in such an analysis is whether observed job satisfaction

among the self-employed is conditioned by the level of satisfaction associated with previous employment.

Given the limitations of the present study, the findings offered here should be interpreted as tentative. In the *National Survey of Families and Households*, the authors do not have precise measures of job characteristics (for example, job autonomy, task variety) such as those employed by other scholars (for example, Hundley 2001; Katz 1993; Eden 1975). However, despite this limitation, the *NSFH* data are well suited to the authors’ purposes. Of the datasets used by these previous researchers, and those described by Katz (1992) in his analysis of secondary data appropriate for entrepreneurship research, none are appropriate for addressing the authors’ specific research questions. The advantage of the *NSFH* data over other datasets is that they have been collected recently, employ a panel design allowing newly self-employed to be separated from self-employment veterans, and provide measures of depression and self-efficacy.

Also, the authors would have liked to have analyzed change in job satisfaction. However, in the initial wave of data collection, job satisfaction was measured using a different set of items than the one used in the second wave of the project. This change means that direct comparisons between job satisfaction at the time of the initial interviews and job satisfaction at the time of the second wave of interviews are problematic. As a result, the research design employed here effectively is cross-sectional.

In short, these findings suggest that the self-employed report higher levels of job satisfaction than others, but the magnitude of the difference is modest. Moreover, a portion of this relationship appears to be explained by personality characteristics overrepresented among the self-employed. Furthermore, at least among the newly self-employed, job satisfaction seems to vary according to the

number of hours worked per week and the extent to which working hours extend into nights and weekends. The relationship between job satisfaction and self-employment is an important one, and this study raises a number of important questions. Future research employing data based on a panel study design will be invaluable in advancing the state of knowledge pertaining to self-employment and job satisfaction.

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## Appendix A Correlation Matrix of Study Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Job Satisfaction	—												
(2) Self-Employed	0.08**	—											
(3) Age	0.07**	0.09**	—										
(4) Education	-0.04**	0.04**	-0.02	—									
(5) Hispanic	0.07**	-0.04**	-0.003	-0.16**	—								
(6) Asian	0.02	-0.01	-0.01	0.04**	-0.02	—							
(7) Professional Worker	0.04**	0.03**	0.07**	0.47**	-0.07**	0.02	—						
(8) Income	0.04**	0.01	0.12**	0.36**	-0.07**	0.02	0.26**	—					
(9) Depression	-0.22**	-0.02*	-0.09**	-0.13**	0.05**	0.003	-0.11**	-0.15**	—				
(10) Long Term Depression	-0.17**	-0.02	-0.04**	-0.13**	0.04**	-0.003	-0.09**	-0.13**	0.52**	—			
(11) Self-Efficacy	0.23**	0.05**	-0.06**	0.19**	-0.04**	-0.01	0.14**	0.14**	-0.37**	-0.33**	—		
(12) Work Demands	0.02	0.12**	-0.04**	0.17**	-0.08**	-0.01	0.12**	0.22**	-0.01	-0.04**	0.09**	—	
(13) Hours Worked	0.02	0.20**	-0.01	0.12**	-0.05**	-0.02	0.10**	0.20**	-0.03*	-0.03*	0.07**	0.31**	—

\*\* $p < 0.01$  \* $p < 0.05$