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Effects of positive attitude on earnings: Evidence from the US longitudinal data

Madhu S. Mohanty*

California State University, Los Angeles, Economics and Statistics, 5151 State University Drive, Los Angeles, CA 90032, United States

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ABSTRACT

To examine whether or not the worker's attitude to life affects his/her earnings, this study estimates wage equations with positive attitude as an explanatory variable under different econometric specifications. The results obtained from both cross-sectional and panel data confirm that positive and optimistic attitude to life influence the worker's wages positively, and that the magnitude of this effect is comparable to or even higher than the individual effects of the standard human capital variables on earnings. The study further demonstrates that in addition to its direct effects, positive attitude also affects earnings indirectly through its effects on schooling.

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1. Introduction

The marginal productivity theory of wage suggests that, other characteristics held constant, the wage rate depends on the worker's marginal productivity. Consequently, any variable that affects the worker's productivity positively is likely to have positive effects on his/her wages. The literature on wage determinants focuses primarily on two groups of variables that enhance the worker's productivity. The first group consists of the traditional human capital variables, such as education, experience, job tenure and job training, which by improving the worker's human capital endowments increase his/her productivity leading to higher earnings (Becker, 1964; Mincer, 1962, 1974). The second group of variables, which are of more recent origin, is related to the worker's psychological capital, such as self-esteem, motivation, personality and attitude to work. Several studies have recently demonstrated that some of these variables have significant positive effects on the worker's productivity and hence on wages (Nollen and Gaertner, 1991; Goldsmith et al., 1997, 2000; Dunifon and Duncan, 1998; Bowles et al., 2001; Groves, 2005; Nyhus and Pons, 2005; Gelissen and de Graaf, 2006; Waddell, 2006).[1] While recognizing the role of human capital variables, these studies further demonstrate that the effects of psychological capital variables in predicting wages are even stronger than the effects of traditional human capital variables (Goldsmith et al., 1997). All these recent studies agree that it is the worker's sense of self that determines his/her economic performance to a large extent (Akerlof and Kranton, 2000).

The current study, while recognizing the importance of both types of variables just mentioned, emphasizes the crucial role played by a unique psychological capital variable, "positive attitude to life," in the determination of workers' wages. Note that unlike Rosenberg (1965) self-esteem index that is generated from a host of psychological and physical characteristics (Goldsmith et al., 1997; Waddell, 2006), the variable "positive attitude to life" focuses only on a specific component of this widely used index that represents a human value.[2] It is important to note further that all variables

[1] The effects of psychological variables on productivity are not new in the literature. Recent research by several psychologists suggests that the relationship between the worker's job performance and personality, such as conscientiousness, extraversion, emotional stability, etc., is significantly different from zero (Barrick and Mount, 1991; Salgado, 1997). In fact, Bowles et al. (2001) demonstrate that some of these personal characteristics are incentive enhancing, and consequently they motivate workers to work hard and produce more. Due to higher productivity, these workers receive higher wages under competitive equilibrium.

[2] Human values are the ideal norms established by a society for its citizens. Possession of these values by an individual makes him/her an ideal human being in

* Tel.: +1 323 343 2930; fax: +1 323 343 5462.
E-mail address: mmohant@calstatela.edu.

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that affect the worker's self-esteem are not necessarily value oriented. For example, physical attributes like height and beauty may improve ones self-esteem and hence earnings (Hamermesh and Biddle, 1994), but they do not necessarily represent human values. Positive attitude to life, on the other hand, represents a psychological capital endowment that not only enhances ones self-esteem, but also makes a person more desirable in society. A person with a positive attitude always sees the brighter side of every situation and thus concentrates on good aspects only. Such a person has the conviction that whatever is going to happen will work out well. Positive attitude thus brings optimism to life. This variable therefore may be treated as a psychological value capital variable (value capital, in short) as distinct from the general psychological capital variables examined in the literature. The current study, unlike earlier studies, examines exclusively the role of this value capital variable in the determination of workers' earnings.

The motivation for the study of the effects of this value-based psychological capital variable on earnings came from the author's acquaintance with the phenomenal success stories of the Education-in-Human-Values (EHV) program introduced all over the world during the last four decades by the eminent spiritual leader Sri Sathya Sai Baba. Sai Baba (2007, p. 3) suggests that both secular education and value education should go hand in hand to promote individual well being because the former is for earning a living whereas the later is for living a good (happier) life.[3] The current study, following the findings of earlier studies on psychological capital just mentioned, goes a step further and suggests that possession of human values not only promotes good life, but also helps in augmenting the worker's earnings. This study tests exactly that hypothesis by focusing on the effects of positive attitude, a value-based psychological capital variable, on earnings.

2. Rationale for the proposed hypothesis, and gaps in the literature

It is important to note that the widely accepted positive relationship between the worker's human capital endowment and the wage rate is not independent of the attitude of the worker. A worker with fewer years of schooling but a positive attitude towards life and work may be more productive and hence may earn more than a worker with more schooling but a negative attitude to life. In fact, Nollen and Gaertner (1991) demonstrate that it is the performance (productivity) of the worker and not necessarily the training (human capital endowment) that determines his/her earnings. Education and training affect earnings positively only through their positive effects on performance. In other words, any variable that has positive effects on productivity is likely to increase earnings (Barrick and Mount, 1991; Salgado, 1997; Nyhus and Pons, 2005). Since positive attitude, a component of the worker's psychological capital endowment, possesses the incentive enhancing property described in Bowles et al. (2001), it is expected to augment productivity, leading to higher earnings. Moreover, it can easily be shown that the positive relationship between positive attitude and productivity is also supported by the marginal productivity theory.[4] This value capital variable, like other human capital variables, thus plays an important role in determining the wage the worker receives. In fact, Goldsmith et al. (1997) demonstrate that the effects of psychological capital variables on wages are even larger than those of the skill-based human capital variables.

Despite the importance of the attitude variable in the determination of the worker's wages, it has not been used frequently as a standard explanatory variable by researchers estimating wage equations.[5] This may be due to several reasons. First, the information on this variable is not available in most widely used economic data sets. The few data sets that contain this variable report it only in a few selected years,[6] and consequently researchers using other data sets did not have the opportunity to include this variable in their regression. Second, most traditional economists believe that psychological variables are hardly measurable and consequently any such variable available in a data set may not be reliable (Goldsmith et al., 1997). Finally, it has been generally accepted that other factors remaining constant, a worker with good attitude is likely to be more productive. This relationship therefore may have been conceived by the past researchers as too trivial to test in a formal manner. Goldsmith et al. (1997) provide a host of other reasons why the psychological capital variables are not traditionally included in standard wage regression even though the information on this variable is available in some data sets. Such an omission, however, is problematic for several reasons.

First, if the attitude of the worker is in fact a significant determinant of the wage rate, its exclusion is likely to introduce omitted variable bias in wage estimates. In fact, Nyhus and Pons (2005) claim that the effects of education on wages may be overestimated when psychological capital variables are excluded completely from the traditional wage regression. Inclusion of this variable therefore not only corrects this bias, but also provides a suitable framework to test whether or not positive attitude has an impact on earnings. Second, like the skill-based human capital endowment, the value-based psychological capital endowment of the worker as a determinant of his/her wage rate has significant policy implications. It is important to note that the attitude of the worker is not necessarily a time invariant characteristic. It can be improved through proper counseling, training and value education, especially during childhood and adolescence, in the same way as the worker's human capital endowments are augmented through formal school-

the society. For example, the qualities like honesty, truthfulness, positive attitude, sincerity, etc., are treated as human values because the society considers them as desirable qualities of an ideal human being.

[3] Due to its phenomenal success in reshaping the character of youth, the EHV program introduced by Sai Baba in India in 1968 has spread to more than a hundred countries all over the world including the developed countries like England, France, Germany, Canada and United States. Interestingly, this program has been adopted in some public schools in India, England, Zambia, Mexico, Brazil, New Zealand, Taiwan, Australia, Venezuela, Denmark, Japan, Thailand, Malaysia, Canada and several other South American countries (Sai Baba, 2007, Ch. 4).

[4] A simple neoclassical production function may be used to illustrate how positive attitude increases productivity and earnings. Define a production function in which the output (Q) depends on two inputs: capital (K) and labor hours (L). Thus, $Q=f(K, L)$. Note that a worker's actual contribution to production depends not necessarily on how many hours he/she works (L), but essentially on how many hours he/she works sincerely with proper attitude (L^*). Thus, $L^*=a\times L$, where $0\leq a\leq 1$ indicates the percentage of the time the worker works with proper attitude. The marginal productivity of the worker can therefore be computed as $\text{MPL}=\partial Q/\partial L=((\partial Q/\partial L^*)\times(\partial L^*/\partial L))=(a\times(\partial Q/\partial L^*))=(a\times\text{MPL}^*)$. Assuming that the MPL for an hour of work with positive attitude (=MPL*) remains the same for all otherwise identical workers, a worker with a higher level of positive attitude (say, $a=.9$) will have a higher marginal productivity ($=.9\times\text{MPL}^*$) than a worker with a lower level of positive attitude (say, $a=.5$) for whom the $\text{MPL}=.5\times\text{MPL}^*$. In a competitive market, where the workers are paid according to their marginal productivities, the worker with a better attitude therefore will receive a higher wage.

[5] The few studies that recognized the role of this variable in wage regression used it along with other psychological capital variables to generate an index for the worker's self-esteem. Hardly there is any study in the literature that uses "positive attitude" as a separate explanatory variable in the estimation of wage equations. The article by Nollen and Gaertner (1991) is the only study known to the author that uses "willingness to work hard," a different variant of positive attitude, as a separate explanatory variable.

[6] The National Longitudinal Survey of Youth (1979), a US longitudinal data set, reports this variable only in 1980, 1987 and 1992 surveys.