WELFARE FRAUD AND WELFARE STIGMA

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ABSTRACT

The paper argues that welfare fraud and welfare stigma, apparently two phenomena of opposite nature, may be modeled with the aid of a single apparatus, thus allowing a comparative investigation of participants’ take-up of welfare benefits. Focusing on public exposure stigma generated through excessive reporting or work requirements in welfare programs, it is shown that under fairly reasonable conditions stigma will constitute a stronger deterrent to participation than the expected punishment on dishonest claiming (in both discouraging participation and reducing its duration). This result (which is in line with sociologists’ contention that the threat of informal sanctions has much greater effect on behavior than the threat of legal sanctions) suggests that the truly needy could be more effectively assisted if less effort were directed towards the enforcement of reporting and work requirements, and more resources shifted to enforcing eligibility conditions and combating dishonest claiming.

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1. Introduction

Welfare fraud and welfare stigma are, at first sight, two welfare-related phenomena of opposite nature: while the latter often prevents individuals from participating in a welfare program despite being eligible for a welfare receipt, the former involves participation of individuals whose true characteristics (which are not fully known to the welfare authority) disqualify them from receiving benefits. However, fraud and stigma do share a common feature, as they both imply that participation incurs a cost (or disutility) to the participant, aside from that involved in applying for the program and complying with possible reporting or work regulations. Stigma involves negative feelings of shame and disrespect arising from being on welfare (whether of a social assistance or a social insurance type), whereas fraud involves the risk of getting caught and punished for illegal benefit collection. While the cost of stigma may be strong enough to prevent participation in a welfare program, the (expected) cost of fraud may be weak enough to induce participation. Indeed, Moffitt (1983) estimated that in 1976 only about 45 percent of the families eligible for AFDC (Aid to Families with Dependent Children) participated in the program, attributing non-participation to welfare stigma, whereas Simon and Witte (1982) reported that in 1974 approximately one fifth of all errors uncovered in the AFDC program resulted from the incorrect reporting of earned income for benefit fraud purposes.

Despite widespread concern with minimizing abuse and dishonesty in welfare programs and the extensive flow of research on the closely related issue of tax evasion [see Cowell (1990) for an integrated survey of the tax evasion literature], welfare fraud has gained relatively modest attention in the public finance literature. Greenberg et al. (1981), Greenberg and Hasley (1983), and Wolf and Greenberg (1986) have addressed the issue of fraud in transfer programs that results from earnings misreporting. Yaniv (1986) and Burgees (1992) have modeled the fraudulent receipt of unemployment benefits, incurring through claiming while working and avoiding job-search activity, respectively, whereas Lantto (1989) has analyzed the fraudulent collection of disability benefits by capable working claimants. Hessing et al. (1993) have enriched the economic perspective of welfare fraud, considering also social psychological variables that affect the fraudulent collection of unemployment benefits. Kingston et al. (1981, 1986) and Loveland (1989) have studied some administrative aspects of reducing overpayments and combating fraud in the unemployment and housing benefit programs, respectively.

Welfare stigma has even been less successful in drawing economists’ attention, the only contributions being made by Weisbrod (1970), Moffitt (1980, 1983), Bishop (1983), Ranney and Kushman (1987), and Besley and Coate (1992b). While most researchers weigh the utility derived from the added purchasing power of the cash transfer against the disutility attached to a fixed amount of stigma associated with benefit take-up, Moffitt (1983) distinguishes between two different ways by which stigma can manifest itself in welfare programs: a flat amount of disutility arising from the mere fact of
participation itself, and a variable amount which varies with the size of the benefit. These two stigma components are essentially self-afflicted, emanating from one’s own recognition that he or she is engaging in an action which he or she views as self-demeaning. They are independent of other people’s knowledge of one’s participation, and could arise even if one’s identity were kept in complete secrecy. Still, the rubric “stigma” contains more than that, as it involves other people’s evaluation of one’s actions [or, as more accurately phrased by Cowell (1990, p. 8), it involves “his perception of other people’s perception of his own actions”]. Indeed, Besley and Coate (1992b) focus their attention on social stigma, which results from people’s disapproval and resentment of those who choose to go on welfare and whose benefits are financed by mandatory taxation. A necessary prerequisite for one to be personally stigmatized, which Besley and Coate do not explicitly consider, is public exposure.

Welfare programs, although not publishing their list of participants in the papers, very often set periodic checkups, reporting, active job-search, vocational training, and public-work requirements on claimants which involve outdoor contacts with professional staff as well as with other claimants and familiar community members. As reported by Gueron (1990), a central component of the U.S. Family Support act (FSA) of 1988 is “the effort to transform welfare from a means-tested entitlement into a reciprocal obligation, in which getting a welfare check would carry with it a requirement to look for and accept a job, or to participate in activities that prepare people for work” (p. 79). Under the latter requirement, a welfare recipient who is not engaged in job skills training, must either participate in group or individual assistance in locating a job, or acquire work experience through taking entry-level jobs in public or nonprofit agencies involving maintenance, clerical, park upkeep or human service functions (“workfare”). Nightingale and Burbridge (1987) report that in 1986, 37 states were already operating some form of job search assistance or workfare programs, whereas Besley and Coate (1992a) claim that workfare schemes, aimed mainly at ensuring that only the truly needy apply for benefits, are popular today in both developed and less developed countries. Ravallion (1991), for example, discusses the current practice in India, which relies heavily on public-work projects as a tool for providing poor relief, and Doron and Kramer (1991, Ch. 9) describe the vast Israeli experience, during the state’s first two decades, with highly stigmatizing (mostly low-productive hard physical labor) ‘relief work’ programs. While Israel has abandoned the notion of relief work during the years that followed, mandatory work in forestry has nevertheless been imposed on able-to-work (income support) claimants in the early 1990s.

The shame, embarrassment, and social disapproval afflicting a claimant whose participation in a welfare program is observed by others or becomes known to significant others (i.e., family, friends neighbors, employers, etc.) have strongly been stressed by sociologists addressing the issue of welfare stigma [e.g. Goffman (1963), Waxman (1983), Spicker (1984)]. Rainwater (1983), for example, highlights the role of other people’s knowledge of one’s participation in generating negative feelings of self-disrespect, arguing that “individuals know that they are on welfare, and the people close to them are likely to know. Therefore, recipients show a great preoccupation with their special situation of being unable to support themselves” (p. 37). He also notes that stigmatizing interactions are more common in the Food Stamp program, because one has to display the stamps in public. While Ranney and Kushner (1987)
ignore variable (with stamp use) stigma in analyzing participation in the Food Stamp program (assuming a fixed amount of stigma resulting from mere participation only). Pettigrew (1980) observes that “some markets make the program even more salient by having specially marked check-out lines for those with food stamps. Little wonder that some users of food stamps report that each week’s trip to the market is a tense, traumatic occasion” (p. 222). Pettigrew concludes that the tendency for social stigmatization is greatest “for the visibly poor who are held responsible for their condition” (p. 188).

Social resentment following exposure has also been in the very heart of sociologists’ inquiry of criminal behavior, stressing the importance of informal sanctions in shaping the compliance decisions of individuals. As argued by Wrong (1961), man is “especially motivated by the desire to achieve a positive image of self by winning acceptance or status in the eyes of others” (p. 185). Thus, aside of the threat of legal sanctions and of guilt feelings that individuals might impose upon themselves when they offend their own conscience by engaging in behaviors they consider morally wrong, there is also the threat of shame, embarrassment, and social disapproval that individuals might experience when they violate norms which people they value support [e.g., Grasmick and Green (1980), Meier et al. (1984), Hirschi (1986), Braithwaite (199 )]. Economists, investigating the determinants of the decision to evade taxes, have also considered the potential ‘stigma-cost’ resulting from adversely affecting one’s reputation as a citizen of the community if caught and convicted of tax evasion [e.g., Allingham and Sandmo (1972), Benjimini and Maital (1985), Gordon (1989)]. Cowell (1990) has even suggested that in the design of penalties the authorities may exploit the taxpayer’s self-esteem and fear of disgrace through “publicly pillorying the culpable wealthy” (p. 176). He then concludes that “It is the potential stigma that such exposure would produce that acts as the lever” [by which ‘social conscience’ influences economic behavior] (p. 108).

While negative self-perceptions and social resentment emanating through other people’s stigmatizing of a welfare recipient may be captured by Moffitt’s (1983) or Besley and Coate’s (1992b) flat disutility component if there is just a one-time reporting requirement (upon filing an application, for example), it necessitates a different modeling structure if public exposure (and thus the number of significant others who become aware of one’s participation) varies with the amount of time on welfare. With this in mind, the present paper sets up a simple model of welfare take-up which allows for both benefit-related and public exposure stigma. It is shown that benefit-related stigma plays the same role as the expected punishment in a welfare fraud model, enabling therefore a comparative investigation of fraud and stigma behavior. Section 2 introduces the model, Section 3 derives comparative behavioral implications, and Section 4 concludes with a summary of the main results and some related remarks. A major conclusion of the paper is that under fairly reasonable conditions on the parameters of the model, public exposure stigma will constitute a stronger deterrent to participation than the expected punishment for dishonest claiming (in both discouraging participation and reducing its duration). This result, which is buttressed by sociologists’ findings that informal sanctions often have a much greater effect on behavior than legal sanctions [e.g., Paternoster et al. (1983), Bishop (1984), Berger and Snortam (1986), Grasmick and Bursik (1990)], seriously questions the effectiveness of work-intensive welfare programs in adequately assisting the
truly needy population. It extends Besley and Coate’s (1992a) argument that work requirements may be flawed as a means of achieving a more accurate targeting of welfare benefits; while Besley and Coate point out that work requirements might deter the *unemployable* needy, the present paper stresses that work requirements might not only be insufficiently harsh to deter the greedy, but it might also generate stigma disincentives to deter the *employable* needy.

2. The Model

Consider an individual who is entitled to participate in some means-tested welfare program which offers a benefit of $b$ dollars per week to individuals of insufficient means. Suppose, however, that the benefit payment is conditioned upon spending a fraction, $0 < k < 1$, of the workweek on complying with a certain attendance regulation (such as reporting to demonstrate availability for work, receiving assistance in job search, enrolling in job skills training, or engaging in public work), which we may generally term “work requirement”. Thus, the benefit paid by the welfare program may be viewed as a compensation to a participant’s work effort. However, since the benefit is paid for less than a full workweek, the participant actually faces (relative to the effort required) a weekly wage rate, $b/k$, which is higher than the nominal benefit, $b$. We will hereafter refer to $b/k$ as the “effective benefit” per week of participation in the program.

Suppose now that participation in the program gives rise to stigma of two possible components: a benefit-related component, which deflates the value of the benefit to a participant by a fraction, $0 \leq \gamma \leq 1$, and a public exposure (work-related) component, which augments the time spent on complying with the work requirement by some multiple, $1 \leq \delta \leq 1/k$. Thus, a dollar received from welfare may be worth less than a dollar received from any other income and an hour spent in mandatory public work may seem longer than an hour spent in any other work. Suppose further that the individual must decide on whether and to what extent to participate in the program during a given period (a year, for example). Suppose, for simplicity, that he or she does not work elsewhere but receives $N$ dollars of non-labor income, which is not high enough to disqualify him/her from receiving benefits. The utility derived from participation, $U$, is assumed to be [in line with Besley and Coate (1992a), for example] quasi-linear in income, $Y$, and total working time, $K$, positively related to the former and negatively related to the latter. That is,

$$ U = Y - Z(K), \quad (1) $$

where $Z(K)$ is increasing and strictly convex (i.e., $Z'(K) > 0$, $Z''(K) > 0$). The individual’s problem can thus be stated as that of choosing the number of weeks on welfare, $L$, so as to maximize (1) subject to

$$ Y = N + \gamma bL, \quad (2) $$

and

$$ K = \delta kL. \quad (3) $$
Substituting (2) and (3) into (1), differentiating (1) with respect to \( L \), and equating to zero, the first-order condition for utility maximization (at some \( L > 0 \)) is

\[
\frac{dU}{dL} = \gamma \frac{b}{k} - \delta k' \frac{Z'}{kL} = 0,
\]

(4)

where the second-order condition, \( d^2U/dL^2 = - (\delta k)^2 Z'' (\delta kL) < 0 \) is satisfied by the assumptions on \( Z(K) \). Rearranging terms, (4) can also be written as

\[
\frac{\gamma \frac{b}{k}}{\delta} = Z' (\delta kL),
\]

(5)

which states that participation in the program should be carried out until the marginal disutility of work equals the “stigma adjusted” effective benefit per week of participation (SAEB). Obviously, both stigma coefficients act to decrease the effective benefit.

A sufficient condition for participating in the welfare program is that for \( L = 0 \), SAEB > \( Z'(0) \). In labor economics terms, \( Z'(0) \) represents the individual’s “reservation wage”, which is the wage rate at which the individual is indifferent between entering the labor market and not working at all. Participation thus requires that the effective benefit offered by the welfare program (filtered, however, through a stigma prism) exceeds the participant’s reservation wage. As pointed out by Gueron (1990, p.89), workfare programs usually set the work requirement such that \( b \) equals the minimum wage for that amount of work, aiming at assisting individuals who are willing to accept minimum wage jobs (i.e., whose reservation wage is lower than the minimum wage) but are unable to find them in the market. In terms of the present model, this implies that \( k \) is set such that the effective benefit, \( b/k \), equals the minimum wage for a full workweek. However, in the presence of stigma, setting the effective benefit at the minimum wage level may not suffice to induce participation: a sufficiently low value of \( \gamma \) or a sufficiently high value of \( \delta \) would decrease the effective benefit below the reservation level - discouraging the eligible individual from participating in the program. Even when the work requirement is almost nil (i.e., when \( k \) approaches zero), a free-of-effort benefit (although deflated by \( \gamma < 1 \)) may be rejected, if it involves a strong feeling of shame and discomfort (i.e., a high value of \( \delta \)) accompanying the one-time act of filing an application for benefits at the welfare authority office.

Consider now a non-working individual whose (relatively high) non-labor income disqualifies him/her from receiving welfare benefits. Suppose, however, that the individual is an amoral utility maximizer, who may decide to underreport his/her true income to qualify for the program if he or she finds that it might be worth his/her while financially. Suppose further that dishonest claiming may be detected with some probability, \( 0 \leq p \leq 1 \), and that in case of detection the individual will be obliged to pay a penalty, which is a multiple \( \pi > 1 \) of the fraudulently received benefits, \( bL \). The expected gain from participation is thus \( (1 - p\pi)bL \), where \( p\pi \) denotes the expected penalty per dollar of dishonest claiming, hereafter referred to as the expected penalty rate. Substituting \( 1 - p\pi = \gamma \) into equations (2) - (5) and setting \( \delta = 1 \), the welfare stigma model is easily transformed into a welfare fraud model. While \( p\pi \geq 1 \) would
obviously deter the individual from participating in the program (as the expected gain would drop to zero or become negative), a sufficiently low value of the expected penalty rate below unity may induce participation. The harsher the work requirement or the lower the nominal benefit, the less attractive is the program and the lower will have to be the expected penalty rate to induce dishonest claiming. Indeed, equation (4) implies that an incentive for dishonest claiming exists only if \((1 - p\pi)b/k > Z'(0)\), or, by rearranging, if \(p\pi < 1 - (k/b)Z'(0)\). Hence, as intuitively expected, the incentive to fraudulently participate in the program is positively related to \(b\) and negatively related to \(k\) and \(p\pi\).

3. Behavioral Implications

Given that the participation condition is satisfied, equation (5) may be used to determine the relative stay on welfare of participants who differ in their stigma and honesty characteristics, as well as their response to possible changes in the parameters of the program. To simplify the comparative analysis, we assume now that welfare stigma is generated through public exposure only, abstracting, as Ranney and Kushman (1987), from benefit-related stigma [indeed, Moffitt’s (1983) estimates failed to support the hypothesis that stigma varies also with the amount of the benefit, i.e., that \(\gamma < 1\)]. We also restrict the discussion to welfare stigma (i.e., stigma stemming from receiving social assistance), ignoring stigma that might afflict a person if his wrongdoing were to be exposed (i.e., stigma emanating from being caught and branded as an offender). Allowing for different values of \(\delta\) and \(\gamma\) (perceived now as \(1-p\pi\)), we hereafter distinguish between four types of participants (Table 1): honest non-stigmatic (HNS), honest stigmatic (HS), dishonest non-stigmatic (DNS), and dishonest stigmatic (DS). Assuming that all participants have identical utility functions, consider first the following proposition:

**Proposition 1**: (a) An HS participant will stay on welfare a shorter duration than an HNS participant. Similarly, a DS participant will stay on welfare a shorter duration than a DNS participant. (b) A DNS participant will stay on welfare a shorter duration than an HNS participant. Similarly, a DS participant will stay on welfare a shorter duration than an HS participant. (c) An HS participant will stay on welfare a shorter duration than a DNS participant if (but not only if) the product of their stigma and fraud coefficients equals or exceeds unity. If the coefficient product is strictly greater than unity, a DNS individual might also participate in the program when an HS individual does not.

To prove this proposition, denote by \(L^0\) the solution of (5) for an HNS participant (\(\gamma=\delta=1\)). Suppose now that the HNS participant develops stigma syndromes, which turn him into an HS participant (\(\delta>1\)). This would decrease SAEB and increase \(Z'(\delta kL^0)\), implying that \(SAEB < Z'(\delta kL^0)\). Since \(Z'(\delta kL)\) increases in \(L\), the new equilibrium would obtain at \(L^\delta < L^0\). Similarly, denoting by \(L^\gamma\) the solution of (5) for a DNS participant, the same argument implies that a DS participant would reach equilibrium at \(L^\delta < L^\gamma\). This proves Proposition 1(a). Now consider alternatively an HNS participant who experiences an increase in his/her non-labor income which
disqualifies him/her from participation. Suppose, however, that law enforcement provides incentives for dishonest claiming, which turn him/her into a DNS participant \((\gamma < 1)\). This would decrease SAEB, leaving \(Z'(\delta k L^\delta)\) unchanged. Consequently, SAEB < \(Z'(\delta k L^\delta)\), leading to a new equilibrium at \(L^\gamma < L^0\). The same argument applies to showing that a DS participant must reach equilibrium at \(L^\delta < L^\delta\), thus proving Proposition 1(b).

Table 1: Participation Typology

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<thead>
<tr>
<th></th>
<th>Honest</th>
<th>Dishonest</th>
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<tbody>
<tr>
<td>Non-Stigmatic</td>
<td>HNS</td>
<td>DNS</td>
</tr>
<tr>
<td></td>
<td>(\gamma = 1)</td>
<td>(0 &lt; \gamma &lt; 1)</td>
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<tr>
<td></td>
<td>(\delta = 1)</td>
<td>(\delta = 1)</td>
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<tr>
<td>Stigmatic</td>
<td>HS</td>
<td>DS</td>
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<tr>
<td></td>
<td>(\gamma = 1)</td>
<td>(0 &lt; \gamma &lt; 1)</td>
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<tr>
<td></td>
<td>(\delta &gt; 1)</td>
<td>(\delta &gt; 1)</td>
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The above results imply that both HS and DNS participants will stay on welfare less than an HNS but more than a DS participant (i.e., the north-eastern and south-western occupants of Table 1 will stay on welfare somewhere between their side neighbors). While an HNS participant would clearly stay the longest time on welfare and a DS participant the shortest, the relative stay on welfare of HS and DNS participants is not unambiguous. However, equation (5) implies that

\[
\delta Z'(\delta k L^\delta) = \frac{b}{k} = \frac{Z'(k L^\gamma)}{\gamma},
\]

since both participants face the same effective benefit, \(b/k\). Thus, \(\gamma \delta Z'(\delta k L^\delta) = Z'(k L^\gamma)\) at equilibrium. Notice now that when (but not only when) \(\gamma \delta \geq 1\), \(Z'(\delta k L^\delta) \leq Z'(k L^\gamma)\) at equilibrium. Since \(\delta > 1\), this is only possible if \(L^\delta < L^\gamma\). This proves the first part of Proposition 1(c). Given that \(\gamma \delta \geq 1\), the order of participation will be \(L^0 > L^\gamma > L^\delta > L^\delta\) (that is: HNS, DNS, HS, DS, in descending order). The order of the middle pair, \(L^\gamma > L^\delta\), is of special importance, as it implies that if \(\pi \pi\) is sufficiently low or \(\delta\) is sufficiently high such that \((1 - \hat{\pi}) \delta \geq 1\), public exposure stigma will unambiguously reduce participation more than the risk of getting caught and punished for dishonest claiming. Moreover, given that public exposure stigma discourages an HS individual from participating in the program [and that equation (5) is neatly solved, for \(\gamma = 1\) and \(\delta > 1\), at \(L^\delta = 0\)], equation (6) implies that \(L^\gamma\) will be positive if \(\gamma \delta > 1\). This proves the second part of Proposition 1(c).

Put differently, Proposition 1(c) states that an amoral utility maximizer, who is ineligible to participate in the program, but whose expected penalty for dishonest
claiming is sufficiently low to induce participation, might participate in the program more intensively than he or she would if he or she were eligible but stigmatic. The threat of social disapproval might thus constitute a stronger deterrent to participation than the threat of legal penalties. But consider also the next proposition, which focuses on a DS participant:

**Proposition 2**: A one-percent increase in a DS participant’s stigma coefficient will decrease his/her stay on welfare more strongly than a one percent increase in the expected penalty rate if the latter equals or falls short of one half. A one percent increase in the stigma coefficient will discourage a DS individual from participating in the program more strongly than a one percent increase in the expected penalty rate if the latter is strictly less than one half.

To prove this proposition, we implicitly differentiate equation (4) with respect to \( \delta \) and \( \gamma \), obtaining

\[
\frac{dL^g}{d\delta} = -\frac{Z'}{k\delta^2Z^n} \frac{L^g}{\delta} \quad (7)
\]

\[
\frac{dL^g}{d(p\pi)} = -\frac{b}{(k\delta)^2Z^n} \quad (8)
\]

respectively. Define now the elasticities (in absolute terms) of \( L \) with respect to \( \delta \) and \( p\pi \) as \( \varepsilon_{L,\delta} = -(dL/d\delta)/(\delta/L) \) and \( \varepsilon_{L,p\pi} = -(dL/d(p\pi))/(p\pi/L) \), respectively. Each elasticity captures the percentage change in \( L \) following a one percent change in the respective parameter. Substituting (7) and (8), as well as (5), into the elasticity definitions yields

\[
\varepsilon_{L,\delta} = 1 + \frac{(1-p\pi)b}{(\delta k)^2L^gZ^n} \quad (9)
\]

\[
\varepsilon_{L,p\pi} = \frac{p\pi b}{(\delta k)^2L^gZ^n} \quad (10)
\]

Thus, \( \varepsilon_{L,\delta} > \varepsilon_{L,p\pi} \) if (9) > (10), or if \( p\pi < 1/2 + (\delta k)^2L^gZ^n/2b \). Evidently, this is satisfied for \( p\pi \leq 1/2 \), which proves the first part of Proposition 2. Consider now a DS individual who is on the verge of fraudulent participation in the program [i.e., equation (5) is neatly solved, for \( \gamma \leq 1 \) and \( \delta > 1 \), at \( L^g = 0 \)]. Substituting \( L^g = 0 \) into the above condition proves the second part of Proposition 2. Given, for example, that a fraudulent claimant would pay twice as much as his illegally collected benefits upon detection (i.e., \( \pi=2 \)), and that the probability of detection is 10 percent (which is still above the actual probability in existing programs), the conditions underlying Proposition 2 are clearly fulfilled. Also, since the expected penalty rate would be 0.2, the conditions underlying Proposition 1(c) are fulfilled if \( \delta > 1 / 0.8 \) (that is, if an hour spent in mandatory public work seems just 1.25 times longer than an hour spent in any other work).
The last results [Propositions 1(c) and 2] imply that stigma might easily be a stronger deterrent to participation than the expected penalty for dishonest claiming, not only through reducing the duration of participation, but also through discouraging participation altogether. While the comparative deterrential effect of formal and informal sanctions has not been investigated by economists [who have, however, examined extensively the comparative deterrential effect of the certainty and severity of punishment, e.g., Becker (1968) and Ehrlich (1973)], it has, during the past twenty years, gained considerable research effort of sociologists [e.g., Lempert (1981), Eckland-Olsen et al. (1984), Lanza-Kaduce (1988), Williams and Hawkins (1986)]. Paternoster et al. (1983), for example, who measured “informal sanctions” as the respondents’ perception of the disapproving reactions of significant others to their involvement in crime, found that apart from past criminal involvement, informal sanctions had the greatest effect on subsequent criminal involvement. Moreover, when the measure of informal sanctions was statistically controlled, the effect of the perceived certainty of arrest became statistically insignificant, hence “informal social influences are the most important factors in explaining conformity” (p. 472). The emerging conclusion of the recent sociological literature appears to be that “the effect of legal sanction threat is not as great as the effects of variables from other theories, and, in fact, the perceived threat of legal sanctions might have no deterrent effect at all” [Grasmick and Bursik (1990), p. 839]. These findings, which are in line with this paper’s results, shed doubts on policy makers’ ability to ensure that work-oriented welfare programs serve indeed the truly needy.

Consider now the effects on welfare duration of possible changes in the parameters of the program, summarized by the following proposition:

**Proposition 3**: a) An increase in the benefit level, \( b \), would increase every participant’s stay on welfare. (b) An increase in the work requirement, \( k \), would decrease every participant’s stay on welfare. (c) An increase in the benefit level “compensated” by an equal percentage increase in the work requirement (so as to leave the effective benefit, \( b/k \), unchanged) would decrease every participant’s stay on welfare.

The proof of this proposition is straightforward. An increase in \( b \) increases SAEB, implying that SAEB > \( Z'(\delta kL) \) at any \( L \). The new equilibrium must thus obtain at a higher \( L \), proving Proposition 3(a). An increase in \( k \) decreases SAEB and increases \( Z' (\delta kL) \), leading to SAEB < \( Z'(\delta kL) \) at any \( L \). The new equilibrium must thus obtain at a lower \( L \), proving Proposition 3(b). A “compensated” increase in \( b \) and \( k \) does not affect SAEB, but increases \( Z' (\delta kL) \). The new equilibrium must again obtain at a lower \( L \), proving Proposition 3(c). This result implies that a given level of the effective benefit may correspond to different participation levels of either participant, depending on the absolute values of \( b \) and \( k \). Notice, however, that while a sufficiently large increase in \( k \) (or a sufficiently large decrease in \( b \)) will drive any participant out of the program, a “compensated” increase in \( k \) and \( b \), although decreasing welfare duration, has no such power, as it leaves the exit (entry) condition [SAEB > \( Z'(0) \)] unchanged.

Finally, notice that welfare stigma has been captured in the present model by a constant, greater than unity, coefficient (\( \delta > 1 \)), independent of the effective benefit. One may speculate, however, that the stigma coefficient is some function of the effective
benefit, i.e., that $\delta = \delta(b/k)$, so that the first-order condition for utility maximization should actually be stated as

$$\gamma b \frac{\delta b}{\delta (\frac{b}{k})} = Z'(\delta \frac{b}{k})kL]. \quad (5')$$

This reformulation may affect Proposition 3, depending on the exact relationship assumed between the stigma coefficient and the effective benefit [i.e., the sign of $\delta'(b/k)$]. On the one hand, one may argue that the higher the effective benefit, the higher the pay for public work, thus the more respectable it becomes relative to labor market alternatives; hence, the stigma coefficient should decline with the effective benefit [$\delta'(b/k) < 0$]. On the other hand, the higher the effective benefit, the lower the effort required relative to the size of the nominal benefit, thus the greater the assisting nature of the program and the more demeaning it becomes to engage in public work; hence, the stigma coefficient should rise with the effective benefit [$\delta'(b/k) > 0$]. It can easily be verified that under the latter assumption the effect on welfare duration of an increase in $b$ or $k$ becomes ambiguous, whereas under the former assumption the effect on welfare duration remains the same as stated in Proposition 3(a) and 3(b). Notice, however, that under both assumptions, Proposition 3(c) still holds.

4. Conclusions

We have shown that welfare fraud and welfare stigma, apparently two phenomena of opposite nature, may be modeled with the aid of a single apparatus, thus allowing a comparative investigation of participants’ take-up of welfare benefits. Focusing on social stigma generated through public exposure in welfare programs, it has been found that stigma is likely to constitute a stronger deterrent to participation than the expected penalty for dishonest claiming (in both discouraging participation and reducing its duration). This conclusion emerges either from comparing the participation decisions of individuals who differ in their stigma and honesty characteristics, or from observing the participation decision of an individual who is both stigmatic and dishonest. From the first perspective, it has been shown that not only might a dishonest (and non-stigmatic) individual participate in a given welfare program while an honest (but stigmatic) individual may not, but if participating, the former might stay on welfare a longer duration than the latter (even though they are both identical in any other respect). In other words, an amoral utility maximizer, who is ineligible to participate in the program, but whose expected penalty for dishonest claiming is low enough to induce participation, might participate in the program more intensively than he or she would if he or she were eligible but stigmatic. From the second perspective, it has been shown that not only may a dishonest and stigmatic individual who is on the verge of fraudulent participation be more discouraged by an increase in his/her stigma coefficient than by a same percentage increase in the expected penalty, but if participating, the former change may also cause him/her to reduce his/her stay on welfare more strongly than the latter. Another interesting result is that participants are more sensitive to changes in the work requirements than to
(same percentage) changes in the benefit rate, highlighting the strong deterrent effect embodied in workfare programs.

Although the model presented in this paper has depicted a means-tested public assistance program (which conditions eligibility on insufficient means), it may easily apply to an unemployment insurance program (which conditions eligibility on involuntary unemployment). While fraudulent benefit collection in a means-tested program involves the underreporting of one’s actual income and assets - in an unemployment insurance program it may involve (aside of claiming while working) the falsifying of evidence relating to the voluntary nature of one’s actual job separation. Under the former program, the attendance requirement is likely to be in the form of public work, whereas under the later - in the form of reporting at an official labor exchange (even if a suitable job offer is not expected to show up). Since even highly trained professionals can lose their jobs, claiming unemployment benefits is likely to be less stigmatizing than claiming public assistance, although particular systems for administering the program (such as frequent reporting requirements) could be highly stigmatizing. The model may also be applied to a (means-tested) in-kind program, such as food stamps, which allows participants to purchase food below the market price. The length of participation in the program would then be determined by weighing the weekly savings on purchases of food (‘benefit’) against the stigmatizing experience involved in waiting in a marked check-out line (‘work requirement’).

Opponents to the application of the economics-of-crime approach to tax evasion and welfare fraud, often argue that the penalty on (moderate) tax evasion and welfare fraud in the U.S. (or elsewhere) do not exceed twice the amount evaded or fraudulently collected, and that the probability of detection is less than 1 percent. The expected penalty rate for cheating the government is thus 0.02; that is, far below unity, which is the sufficient condition of ‘entry’ into tax evasion or fraudulent benefit collection in most economic models based on ‘rational’ decision making. Why is it then that compliance with the individual income tax is relatively high? Why is it that not everyone attempts to collect benefits dishonestly? There must be other factors affecting the decision to cheat the government which the economic models ignore [e.g., Alm et al. (1992), Hessing et al. (1993)]. While socio-psychological factors are often recruited to reconcile the discrepancy between actual behavior and the implications of economic models, the present paper offers economic explanations to the welfare fraud dilemma: a potentially dishonest claimant who is not employed elsewhere might still avoid participation in a welfare program (even though he or she is unlikely to get caught and punished), either because the reporting, search activity, or work requirements involved in participation are too harsh relative to the paid benefit or his/her reservation wage is greater than his/her ‘stigma adjusted’ effective benefit.

A major argument, analyzed by Besley and Coate (1992a), in favor of work requirements in welfare programs is that they may serve as a means of screening claimants so that only the truly needy apply for benefits. This is argued for developing economies, where setting administrative mechanisms to determine need is too costly, as well as for developed economies, where the welfare agency may be able to attain reliable estimates on claimants’ incomes, yet is unable to observe their opportunities (i.e., whether they have deliberately reduced their work hours to qualify for benefits). Besley and Coate point out, however, that to the extent that some fraction of the poor
is unemployable, work requirements may be flawed as a means of achieving more accurate targeting of benefits, since truly needy individuals who cannot work would be deterred from participation. The present paper stresses that work requirements may give rise to public exposure stigma, deterring also truly needy individuals who are employable. This is, on the other hand, in contrast to Besley and Coate (1992b), who argue that workfare could help reduce stigma, since the non-needy (who are able to find jobs) might be deterred from participation, leaving on workfare the truly needy whose participation might not be subject to social resentment. Besley and Coate’s conclusion rests, however, on the (explicit) assumption that workfare requires the same effort as any other job (thus deterring individuals who could earn more elsewhere). Moreover, implicit in their analysis is the assumption that there is no difference in exposure between welfare and workfare claimants, whereas the present paper views (differential) public exposure as the mechanism by which social stigma is inflicted upon a claimant. To counteract the stigma effect, given that the employable needy are willing to accept minimum wage jobs, work requirements should be set low enough to raise the effective benefit above the minimum wage. Alternatively, less effort could be directed towards the enforcement of work requirements. The resulting savings in supervision costs may be shifted to increasing enforcement of eligibility conditions and combating dishonest claiming.
REFERENCES


