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SOCIAL SECURITY AND RETIREMENT

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Empirical evidence suggests that social security causes many individuals
to retire earlier than otherwise. An important policy question is whether
the program should be designed to lessen or eliminate this induced retire-
ment effect. This paper proposes a framework for analyzing the socially
desirable relationship between social security and retirement. Two common
rationales for the program, forced saving and retirement insurance, are
examined. If importance is attached to either of these rationales, then it
is shown that retirement neutrality should probably not be a feature of social
security.

## SOCIAL SECURITY AND RETIREMENT

### Introduction

Quantitative estimates of the retirement impact of social security generally show that the current structure of the program causes many elderly individuals to retire earlier than they would in absence of the program.[1] The awareness of a negative retirement effect generates a set of important policy questions. Should the program be redesigned to eliminate the induced early retirement effect? In other words, should social security be neutral with respect to the retirement decision? Or, should only marginal changes in the existing structure be made to slightly decrease (or increase) the retirement impact on the average individual? Specifically, should the earnings test be abolished or altered, or should the factors used to adjust benefits for early (before age 65) or delayed (after 65) retirement be changed?[2] The purpose of this paper is to propose a framework for analyzing the socially desirable relationship between social security and retirement.

A social security program that is retirement neutral connotes the lack of governmental interference in individual decision making. In the absence of other considerations, non-interference is typically an important goal of public policy. Non-interference is costly, however, if it forces society to sacrifice other goals. The best policy is likely to be a compromise. The marginal gain from a move toward the non-interference goal should balance the marginal loss from movement away from other goals.

Hence, the case for structuring social security so that it has no impact on retirement (i.e., it is retirement neutral) hinges on two conditions.

First, non-interference with the retirement decision must be a social goal. Second, the marginal gain from retirement neutrality must exceed its marginal cost in terms of other social goals. If either of these conditions is not met, then redesigning social security to achieve retirement neutrality may generate a net social loss.

The socially desirable extent of retirement interference depends on the basic rationales or goals of social security. This paper will analyze the implications of two widely accepted rationales. One perspective is that social security forces people to prepare for old age by saving when young.[3] As will be shown later, this perspective tends to imply that people should retire earlier than otherwise. In other words, retirement interference becomes a goal of social security under the forced saving rationale.

A second perspective holds that social security provides people with insurance against the loss of earned income.[4] Taking this perspective in isolation, retirement neutrality is a policy goal. But, as will be shown later, the provision of earnings loss protection necessarily results in induced early retirement. Some retirement interference cost is thus an unavoidable byproduct of the insurance gains provided by social security.

In the next sections the forced saving and insurance rationales and their relations with the retirement decision are examined in more depth.[5] The overall conclusion is that both perspectives are inconsistent with the goal of retirement neutrality. Under forced saving retirement interference is a goal per se, while from the insurance viewpoint it is a necessary negative side effect. The extent and form of retirement interference in general depends on the relative weights society gives to the alternative rationales for social security and other social goals.

## The Forced Saving Rationale

This perspective is based on the belief that people are often short-sighted or myopic in their retirement planning. Under myopia, people end up in old age with insufficient wealth.[6] If they remain in good health, they cannot afford retirement, and if ill health forces them to retire, they fall at the mercy of their family or public or private charity.

In many other types of private decisions society has chosen a policy of non-interference, letting people bear the consequences of their own free choices. The possibility of trial and error for most types of decisions (flavor of ice cream, choice of residence, etc.) is probably important in explaining why this strategy dominates public policy, given the underlying goal of freedom in our society. Free choice, however, may be considered too costly regarding the decision about how much to save for old age. Since people cannot "rerun" their lives, the trial and error adjustment process isn't possible.

Observing the consequences others incur because of their saving plans is one substitute for the trial and error process. Another alternative is some form of governmental interference. For example, the state might educate the young about the harmful effects of undersaving for retirement. It might also use price incentives to encourage more saving by subsidizing private pensions through the tax system. The government might finally require individuals to save some minimum amount privately or publicly (social security).

If governmental efforts to offset myopia are successful,[7] then people end up in old age with more wealth. The extra wealth is spread across all

normal goods including leisure. The result is that people consume more and retire earlier than otherwise. In other words, the early retirement effect is fully consistent with the forced saving rationale for social security. Note, however, that it has not been argued that social security is the best way to overcome myopia; other methods would also lead to early retirement. Nor has it been argued that myopia is in fact a widespread phenomenon. The point is that under the forced saving rationale early retirement is, to some extent, a reflection of the success of the program.

Some implications about public policy toward social security follow. First, empirical studies on the effect of social security on retirement should be carefully interpreted. In many studies the probability of an elderly person retiring at a given age is estimated to increase with the level or existence of social security benefits. This is the induced early retirement effect. However, if these benefits are the result of a desired forced saving program, then there is no compelling reason to restructure the program to eliminate the effect. Second, further research on the exis-tence and dimensions of myopia should be encouraged. The importance of the forced saving rationale for social security would be reduced if evidence indicated that only a very small fraction of the population was prone to myopic saving behavior. Third, the alternative strategies for dealing with myopia should be assessed. For example, it is by no means clear that the uniformity imposed by a forced saving program is superior to one that encourages saving using price subsidies.[8] Even if myopia is present social security may not be the best policy response.

## The Insurance Rationale

The provision of insurance against the random loss of earnings due to death, disability, or retirement is another goal of social security. The focus here will be on retirement insurance since it is most clearly related to the issue of retirement neutrality.[9]

To understand the nature of retirement insurance, assume for the moment that retirement is an involuntary act. Later the implications of voluntary retirement are explored. Since insurance is a response to uncertainty, it is instructive to first consider a world of certainty where retirement insurance is inapplicable. Consider the following simplified economy. Individuals begin to work at age 25, are retired at age 65, and die at age 75. Annual earnings are $10,000 and the interest rate is 0. Lifetime income is then $400,000 and the ten years of not working from age 65 to age 75 result in an income loss of $100,000. If individuals are farsighted, this loss is anticipated and they save while working to finance retirement consumption. For example, if a constant lifetime consumption stream is desired, by saving $2000 per year while working individuals can achieve $8000 of consumption in each year of their lives.

There is a potential role for retirement insurance when there is uncertainty about the age of retirement. For the moment we shall not investigate the sources of this uncertainty, but simply assume it is present. Continuing with the assumption that retirement is involuntary, suppose individuals face a 50% chance of being retired at age 60 and a 50% chance at age 70. While ten years remains the expected length of retirement, consider the implications of the $2000 per year saving plan that was appropriate in the case of certain retirement at age 65. When retirement occurs early at age 60 individuals have accumulated only $70,000 of wealth, allowing only $4667 of annual consumption during

their fifteen years of retirement. On the other hand, if retirement occurs

at age 70, then $18,000 of annual retirement consumption can be financed out

of accumulated wealth. Without insurance, risk averse individuals would prob-

ably increase pre-retirement saving above $2,000 to protect themselves against

the downside risk of low retirement consumption due to early retirement.[10]

Extra "precautionary" saving aids in evening out consumption before and after

retirement for early retirees, but it exacerbates the uneven consumption

levels for late retirees.[11]

Retirement insurance is an alternative to precautionary saving. Under

insurance those with small losses (because of late retirement) transfer wealth

to those with large losses (because of early retirement). Retirement insur-

ance can be viewed as contingent saving. Continuing with our example, suppose

individuals pay $2,000 per year as retirement insurance premiums while working.

Insurance benefits of $8,000 per year contingent upon retirement can be financed

by these premiums.[12] As with the certainty case, insurance allows individuals

to achieve a constant annual consumption level of $8,000 over their lifetimes

in spite of the fact that the retirement age is random.[13]

Social security provides some insurance protection against the risk of

an uncertain retirement age. The degree of protection is related to the benefit

adjustments for those retiring before or after age 65.[14] If these adjustments

were actuarially fair, then the total benefits individuals receive would be

unaffected by the age retirement occurs and benefits are first collected.[15]

In this case early retirees receive the same total benefits as late retirees.

Since there is no transfer of wealth from late to early retirees no insurance

is provided. However, if the benefit adjustments result in larger total benefits

for early retirees, then there is insurance protection. Table 1 presents the

relationship between total benefits and the retirement age for a single average

earner who reaches age 65 in 1982. For men total benefits are $52,662 if

retirement occurs at age 62 and $33,840 at age 70 - - a transfer from late

retirees to early retirees of $18,822. For women the corresponding transfer

is $16,258. In the third and fourth columns of Table 1 the total earnings

losses for the average male and female earners are given as functions of the

retirement age. Table 2 presents a series of replacement rates. These rates

have been constructed from Table 1. In the first column the average replace-

ment rates by retirement age are given for average single earners. The average

replacement rate is simply the fraction of total earnings lost due to retirement

that is replaced by total benefits. Note that the average replacement rate

increases with the retirement age, but not as rapidly as it would if the bene-

fit adjustments were actuarially fair. The actuarially fair average replacement

rates for men and women are shown in the third and fourth columns. These cal-

culations use total benefits at age 65 as the benchmark. In other words, if the

adjustments for early or delayed retirement were fair, all the values in Table

1 would be $49,961 in column 1 and $65,271 in column 2. Note that while the

benefit adjustments for women for early retirement are approximately actuarially

fair, for men they are slightly too small. This difference arises because women

are expected to live and collect benefits longer than men. The reduction for

early retirement and the increase for delayed retirement should be larger, the

shorter the life expectancy. Under the present system, however, both male

and female benefits are adjusted by the same factors.

The final two columns of Table 2 measure the degree of insurance pro-

tection provided by social security. The marginal replacement rate is the

change in total benefits divided by the change in total earnings lost because

retirement occurs a year earlier. If this rate equals 100%, then insurance is

Table 1.--Relation Between Total Benefit, Total Earnings Loss, and the
        Retirement Age for Single Average Earner 1/

| Age | Total Benefit 2/ | | Total Earnings Loss 3/ | |
|-----|------------------|--------|------------------------|--------|
|     | Men | Women | Men | Women |
|     | (1) | (2) | (3) | (4) |
| 62 | $52,662 | $65,270 | $150,749 | $186,840 |
| 63 | 52,195 | 65,792 | 137,919 | 173,848 |
| 64 | 51,279 | 65,779 | 125,820 | 161,397 |
| 65 | 49,961 | 65,271 | 114,413 | 149,475 |
| 66 | 46,639 | 62,105 | 103,696 | 138,081 |
| 67 | 43,345 | 58,878 | 93,644 | 127,202 |
| 68 | 40,103 | 55,611 | 84,255 | 116,838 |
| 69 | 36,926 | 52,318 | 75,503 | 106,975 |
| 70 | 33,840 | 49,012 | 67,388 | 97,600 |

1/ Worker reaches age 65 in 1982 and has always earned average earnings in employ-
   ment covered by social security.

2/ Total Benefit is the expected age 61 value of the stream of annual benefits
   that begin at retirement. 1969-71 U.S. Life Tables are used and the interest
   rate is assumed to be 3%. Annual benefits are based on the age 65 benefits
   for an average single earner reported in the Report of the 1979 Advisory
   Council on Social Security, p. 59. Benefits for other retirement ages are
   obtained by adjusting age 65 benefits downward by 6-2/3% for early retirement
   and upward by 3% for delayed retirement. This procedure assumes that the net
   effect on the total benefit (extra benefits less extra payroll taxes) of
   covered employment from age 62 on is insignificant.

3/ Total Earnings Loss is the expected age 61 value of the stream of lost annual
   earnings that begin at retirement. Annual lost earnings are based on the
   gross monthly earnings of a single average earner reported in the 1979 Advisory
   Council Report, p. 59. This annual earnings level is assumed to be constant
   from age 62 on.

Table 2.--Relation Between Average, Actuarially Fair, and Marginal Replacement
Rates and the Retirement Age for Single Average Earner

| Age | Average Replacement Rate 1/ | Actuarially Fair Replacement Rate 2/ | | Marginal Replacement Rate 3/ | |
|---|---|---|---|---|---|
| | | Men | Women | Men | Women |
| | (1) | (2) | (3) | (4) | (5) |
| 62 | 34.9% | 33.1% | 34.9% | 3.6% | -4.0% |
| 63 | 37.8 | 36.2 | 37.5 | 7.6 | .1 |
| 64 | 40.8 | 39.7 | 40.4 | 11.6 | 4.3 |
| 65 | 43.7 | 43.7 | 43.7 | 31.0 | 27.8 |
| 66 | 45.0 | 48.2 | 47.3 | 32.8 | 29.7 |
| 67 | 46.3 | 53.3 | 51.3 | 34.5 | 31.5 |
| 68 | 47.6 | 59.3 | 55.9 | 36.3 | 33.4 |
| 69 | 48.9 | 66.2 | 61.0 | 38.0 | 35.3 |
| 70 | 50.2 | 74.1 | 66.9 | 0 | 0 |

1/ Total Benefit as a percentage of Total Earnings Loss.

2/ Average replacement rate assuming Total Benefit is independent of retirement age and equal to age 65 Total Benefit.

3/ Change in Total Benefit as a percentage of change in Total Earnings Loss.

complete since lost earnings from retirement a year earlier are totally offset

by a benefit increase. Symmetrically, the earnings gain from retirement a year

later is completely offset by a reduction in benefits. When the marginal replace-

ment rate is less than 100%, then only a fraction of the lost earnings is offset by

a benefit increase. In this case partial or coinsurance protection is provided.[16]

As Table 2 makes clear, there is very little protection for the average single

earner against the risk of retiring at age 62 compared to age 63. For men only

about 3.6% of the extra income loss is compensated by higher benefits. For

women total benefits fall when they retire at age 62 compared to age 63. In

other words, women retiring at age 62 transfer wealth toward later retirees --

a sort of negative retirement insurance scheme. As can be seen, however, the

degree of protection grows as the retirement age increases. For men 34.5% and

for women 31.5% of the extra earnings loss due to retirement at age 67 compared

to age 68 is offset by higher benefits.[17]

In our discussion of retirement insurance thus far the act of retirement

has been treated as uncertain, but involuntary. This latter assumption is un-

realistic and now relaxed. Studies of the retirement decision generally show

that it depends on many factors: declining health, stamina, and motivation;

institutions such as mandatory retirement and the structure of social security

and private pensions; and economic variables such as accumulated wealth and

the net market wage rate.[18] Few if any of these factors are known with certainty

when individuals are young. In other words, the age of retirement is uncertain

from a lifecycle perspective even though it is a decision variable to some

extent when old. In our discussion of forced saving, the relationship between

accumulated wealth and retirement was stressed and showed why an effective

forced saving program induced earlier retirement. In this discussion the relation-

ship between the net market wage and retirement is crucial. As we saw

earlier, under insurance late retirees receive smaller total benefits than

early retirees. This total benefit reduction can be interpreted as the "insur-

ance tax" on continued work. As the marginal replacement rate increases and the

degree of insurance protection grows, the tax increases causing the net market

wage to decrease. The likely outcome is that retirement insurance discourages

work by those eligible for benefits, resulting in induced early retirement.

This effect, common to many other types of insurance, is often called the problem

of adverse incentives or moral hazard: insurees tend to alter their behavior

in order to receive greater awards. Health insurance provides an example of

this problem. There is evidence that third party payments by the insurer tend

to cause insurees to overconsume medical services.[19] Another example is unemploy-

ment insurance. Individuals may be less reluctant to become unemployed and may

search less intensively for another job when unemployed if they are covered by

unemployment insurance.[20]

The induced retirement effect of insurance is an efficiency loss for the

economy and should be counterbalanced by the efficiency gain that results from

the reduction in earnings loss risk.[21] The optimal insurance structure represented

by the marginal replacement rate balances the marginal efficiency gain from in-

surance protection and the marginal efficiency loss due to induced retirement.

It should be stressed that the insurance induced retirement effect could be elim-

inated, moving the system toward retirement neutrality, by setting the marginal

replacement rate equal to 0. This could be achieved by setting the benefit

adjustments for early or delayed retirement at their actuarially fair values.

The inevitable result of such a change, however, would be the removal of retire-

ment insurance protection from the social security program. If this protection

is valued by society, then some induced early retirement is a necessary cost.

Likewise, if society wishes to increase its protection against earnings loss risk it should increase the marginal replacement rate. But this change would move the social security program farther away from a retirement neutral structure.

A number of implications for social security policy and research follow from this discussion of retirement insurance. First, studies showing that the benefit adjustments for early or delayed retirement are actuarially unfair should be interpreted cautiously. The resulting induced early retirement is an undesirable, but essential feature of earnings loss risk pooling because of moral hazard. Second, there is little reason to believe that this efficiency cost is either too high or too low without further information. Additional empirical work on the sensitivity of elderly labor supply to the net or after tax (including the insurance tax) wage is necessary.[22] This should yield estimates of the social costs of differing amounts of insurance protection. Similarly, estimates of the values of alternative levels of protection should be developed. This task is likely to be extremely difficult since individuals do not clearly reveal their demands for governmentally supplied retirement insurance. Third, the private alternatives should be evaluated. Even without myopia, there are some reasons why private markets may fail to provide the efficient quantity of earnings loss insurance. For example, the inability of private providers of insurance to differentiate riskiness may result in adverse selection. In that case, the good risks are priced out of the market by the bad risks.[23]

## Conclusion

This paper has advanced a framework for analyzing the relationship between social security and retirement behavior. The focus was on the desirability of redesigning the program to eliminate the induced early retirement effect documented by many researchers. Whether retirement neutrality is desirable depends

on the importance of the different rationales for social security. By examining

two commonly held views of the program, it was shown that retirement neutrality

is unlikely to be a feature of the socially desirable structure. The obvious

link between program design and rationales implies that further research on the

rationales for social security would be helpful.[24]

## Footnotes

1.  For example, Michael Boskin and Michael Hurd used the Retirement
History Survey (1971 wave) to estimate that a $1,000 increase in social
security benefits increases the probability of retirement for a white male
aged 62-65 by 8.2 percentage points. See "The Effect of Social Security on
Early Retirement," Journal of Public Economics 10 (December 1978): 361-377.
Anthony Pellechio used 1948-73 aggregate Canadian data to estimate that a
$1,000 increase in social security wealth increases the retirement rate by
about 2.4 percentage points. See "Social Security and Retirement: Evidence
from the Canada Time Series," National Bureau of Economic Research, May 1979.

2.  Under the current law the earnings test reduces benefits by $1 for
every $2 of earnings in excess of an exempt amount. The exempt amount for
beneficiaries aged 65 through age 71 (age 69 starting in 1982) is $5,000
in 1980 and increases to $6,000 by 1982. Thereafter it increases with the
level of covered earnings. For beneficiaries under age 65 the exempt amount
was $3,480 in 1979. It will also increase with covered earnings. Annual
benefits are reduced by 6-2/3% per year for early retirement and increased
by 3% per year for delayed retirement under the current law.

3.  See Joseph Pechman, Henry Aaron, and Michael Taussig, Social Security:
Perspectives for Reform (Washington: Brookings Institution, 1968), ch. 6.

4.  See Robert Ball, Social Security. Today and Tomorrow (New York:
Columbia University Press, 1978), ch. 11.

5.  It is important for the reader to understand that there are other
possible ways of looking at social security that are not explored in this
paper because their relationships with the retirement issue are less direct.
Specifically, social security can be viewed as an income transfer mechanism

between and within generations. Transfers between generations depend on how social security is financed (i.e., current cost, full reserve, or partial reserve). See Peter Petri, "Perspectives on Long-Term Social Security," Report of a Social Security Administration Task Force, February 1980. Transfers within a generation depend on the benefit structure. See Dean Leimer, Ronald Hoffman, Alan Freiden, "A Framework for Analyzing the Equity of the Social Security Benefit Structure," Studies in Income Distribution, Social Security Administration, 1978.

6. The evidence on the existence of myopia is limited and mixed. See Peter Diamond, "A Framework for Social Security Analysis," Journal of Public Economics 10 (1977): 275-298 and Laurence Kotlikoff, Ann Spivak, and Lawrence Summers, "The Adequacy of Savings for Retirement," unpublished manuscript, 1979.

7. Social security may have no effect on total saving if individuals can borrow against future benefits or reduce other saving.

8. On the other hand, social security provides individuals with protection against inflation. No such protection is currently available privately and before an alternative strategy is relied upon, one may have to be created. There are several arguments for federal government issuance of an index bond. See James Tobin, "An Essay on the Principles of Debt Management," Essays in Economics I (Chicago: Markham Publishing Co., 1971). It should be noted that if alternatives to social security are successful in overcoming myopia, then they too will have the same impact on retirement.

9. For recent theoretical work on retirement insurance see Peter Diamond and James Mirrlees, "A Model of Social Insurance with Variable Retirement," Journal of Public Economics 10, No. 3 (December 1978): 295-336 and John Hagens, "Social Security as Retirement Insurance," Social Security Administration, 1979.

10.  For an analysis of the saving response to future income uncertainty see Hayne Leland, "Saving and Uncertainty: The Precautionary Demand for Saving," Quarterly Journal of Economics 82, No. 3 (August 1968): 465-473.

11.  Longevity uncertainty presents a similar problem and, in the absence of annuities, is also likely to lead to precautionary saving for the same reason.  Annuities are an insurance alternative that allow individuals to pool the longevity risk.  While there is an annuity feature to social security, it will not be discussed here since its connection with the retirement neutrality issue is weak.

12.  Average total premiums per individual, given that the probability of retirement at age 60 and age 70 is .5 equal (.5)(35)($2,000)+(.5)(45)($2,000) = $80,000.  Average total benefits per individual are (.5)(15)($8,000)+(.5)(5)($8,000) = $80,000.  Assuming no operating costs, this scheme is feasible if there are a sufficient number of insurees facing independent retirement age risk.

13.  Note the difference between precautionary saving and insurance. Precautionary saving leads to reduced consumption before retirement and higher consumption after retirement in both the early and late retirement states.  Insurance has no effect on pre-retirement consumption, but increases post-retirement consumption in the early retirement state and decreases it in the late retirement state.  From an aggregate viewpoint, precautionary saving results in higher capital formation and a larger national output than insurance.  The gain to individuals from a larger economy should be compared with the insurance gain of a more even lifetime consumption profile.

14.  This discussion sidesteps the issues surrounding the earnings test by assuming that people either work full time or retire. The earnings test determines whether an individual's earnings have dropped sufficiently to define his state as retirement and thus making him eligible for retirement benefits.  For a discussion of the earnings test see the Report of the 1979 Advisory Council on Social Security.

15.  By total benefits I mean the expected present value (at some fixed age) of annual retirement benefits less the expected present value of annual taxes paid after the age of first eligibility for benefits - age 62 under the current system.

16.  The marginal replacement rate is one minus the coinsurance rate, a concept commonly used in describing partial insurance.  The coinsurance rate is that fraction of a marginal loss that is borne by the individual.

17.  Similar calculations for single maximum earners and single full time minimum wage earners shows that the degree of insurance protection increases as earnings drop.  The marginal replacement rates for single males reaching age 65 in 1982 are:

| Age | Full Time Minimum Wage Earner | Maximum Earner |
|---|---|---|
| 62 | 4.7% | 2.1% |
| 63 | 9.8 | 4.4 |
| 64 | 15.0 | 6.7 |
| 65 | 40.3 | 18.0 |
| 66 | 42.6 | 19.0 |
| 67 | 44.9 | 20.0 |
| 68 | 47.2 | 21.1 |
| 69 | 49.5 | 22.2 |
| 70 | 0 | 0 |

Based on earnings and benefits given in the Report of the 1979 Advisory Council on Social Security, p. 59.  1969-1971 U.S. life tables have been used with the interest rate assumed to be 3%.

18. For a survey of the determinants of retirement see Robert Clark, Juanita Kreps, and Joseph Spengler, "Economics of Aging: A Survey," _Journal of Economic Literature_ 16 (September 1978): 919-962.

19. For example, see Martin Feldstein, "The Welfare Loss of Excess Health Insurance," _Journal of Political Economy_ 81, No. 2, Part I (March/ April 1973): 251-280.

20. See Martin Baily, "Some Aspects of Optimal Unemployment Insurance," _Journal of Public Economics_ 10, No. 3 (December 1978): 379-402.

21. The reduction of earnings loss risk increases expected utility, resulting in an efficiency gain, if there is negative correlation between the retirement age and the marginal utility of income for an individual.

22. The nonlinearity and nonconvexity of the budget constraint as a result of social security makes this estimation quite difficult. See Alan Blinder, Roger Gordon, and Donald Wise, "Market Wages, Reservation Wages, and Retirement Decisions," unpublished manuscript, 1978.

23. See George Akerloff, "The Market for 'Lemons': Qualitative Uncertainty and the Market Mechanism," _Quarterly Journal of Economics_ 84, No. 3 (August 1970): 488-500.

24. The effect of social security on saving has also been the subject of intense study. For an attempt to link program effect and rationale for this issue see John Hagens, "A Re-examination of the Link Between Social Security and Saving," ORS Working Paper No. 1, Social Security Administration, 1979.