ABSTRACT

KRISTEN E. TULLOS
Using a Single-threshold Asset Test to Determine Medicare Eligibility
Under the Direction of DR. WILLIAM D. LASTRAPES

Since 1965, Medicare, a government program providing subsidized health insurance for the elderly and disabled, has been a major player in the American health care system. Upon inception, it immediately doubled the number of elderly citizens with health insurance, increasing their use of health care goods and services. While Medicare succeeded in providing the elderly with access to mainstream health care and reducing their risk of catastrophic care expenditures, the program's sustainability is currently in question. Major reforms are needed to reduce spending, or else the tax burden placed on the current workforce will grow exponentially in the coming decades.

This paper investigates one of the popular proposals aimed at increasing Medicare's solvency: implementing an asset test to serve as a barrier to entry for the wealthiest elderly Americans. I conduct a test to determine the effects of excluding the wealthiest ten percent of eligible beneficiaries from Medicare. In addition to reducing government spending and Medicare's distortionary effects, I conclude that implementing the asset test would delay the HI trust fund from spending down its reserves for seven years. However, the asset test cannot address the problem of rising costs, the principal challenge facing Medicare and the larger health care system.

INDEX WORDS: Medicare, Health Care, Asset Test, Means Test, Entitlement Spending, Barrier to Entry, Retirement, Medicare Trust Funds

USING A SINGLE-THRESHOLD ASSET TEST TO DETERMINE MEDICARE ELIGIBILITY

by

KRISTEN E. TULLOS

A Thesis Submitted to the Honors Council of the University of Georgia
In Partial Fulfillment of the Requirements for the Degree

BACHELOR OF ARTS

in ECONOMICS

with HIGHEST HONORS

Athens, GA

2009

USING A SINGLE-THRESHOLD ASSET TEST

TO DETERMINE MEDICARE ELIGIBILITY

by

KRISTEN E. TULLOS

Approved:

Dr. William D. Lastrapes — 5/5/09
Dr. William D. Lastrapes — Date
Faculty Research Mentor

Approved:

Dr. David Robinson — 5/5/09
Dr. David Robinson — Date
Reader

Approved:

Dr. David S. Williams — 5/8/09
Dr. David S. Williams — Date
Director, Honors Program, Foundation Fellows and
Center for Undergraduate Research Opportunities

Approved:

Dr. Pamela B. Kleiber — 5/8/09
Dr. Pamela B. Kleiber — Date
Associate Director, Honors Program and
Center for Undergraduate Research Opportunities

ACKNOWLEDGEMENTS

I would like to thank Dr. William D. Lastrapes for his kind assistance with this paper and many other projects throughout my undergraduate career. His advice and friendship have been invaluable. I would also like to express my appreciation to Dr. David Robinson for his guidance and edits throughout the writing process.

TABLE OF CONTENTS

Page

LIST OF TABLES

Page

LIST OF FIGURES

Page

CHAPTER 1
MEDICARE

Origin of Medicare

Medicare was enacted in the mid-1960s through the Social Security Amendments of 1965. The original program provided compulsory hospital insurance to all citizens over the age of 65 through Medicare Part A, in addition to optional coverage for physician services through Part B. As Ball explains, many citizens and policymakers viewed Medicare as a first step towards a universal health insurance system (1995, p. 62).

Prior to passage of the legislation, proponents of national health insurance decided to target covering the elderly, because they were considered to be among the most vulnerable and deserving sect of the population. In 1965, only 50 percent of persons over the age of 65 had hospital insurance, compared with over 70 percent of those between ages 35 and 54 (Andersen, Anderson, and Lion, 1976, p. 1). In addition, the elderly were largely excluded from the employment-based insurance plans that emerged due to wage and price controls enforced during World War II.

Field and Shapiro discuss the impact that the post-World War II economic environment had on access to health care. Labor was scarce during World War II, and because employers were unable to attract additional workers through higher wages, they offered generous benefits like subsidized health insurance plans. Government policies excluding health insurance from taxable income created an implicit subsidy that furthered the growth of employer-based plans (1993, p. 70). Robert Helms argues that government policies excluding health insurance coverage from taxable income further expanded the employer-based health insurance model,

leading to greater demand for health services than would have existed without the implicit subsidies. Thus, government policies contributed to the rising cost of health care goods–making health care less affordable for elderly members of society on fixed incomes.

Helms also expounds upon the effect of technology on the rising cost of health services. A number of medical breakthroughs in the mid-20th century made curative care, care provided to relieve symptoms and/or cure an ailment, more successful. Thus, the availability of effective medical treatments precipitated greater consumption. The unique growth in demand for health care services along with overall growth in consumption after World War II led to higher prices for medical goods and services. The confluence of these factors caused hospital admissions per thousand to increase from an average of 56.7 between 1923 and 1943 to 99.4 in 1957 (1999).

In summary, higher health care costs and the expansion of employer-based insurance left many elderly persons without insurance coverage options at any price. After several failed attempts, universal hospital insurance for the elderly became law in 1965. American citizens over the age of 65 became immediately eligible for enrollment. Today, an individual must also qualify for Social Security benefits in order to receive Medicare. Medicare's inception doubled the number of elderly citizens over the age of 65 with health insurance. In addition, the percentage of income spent by the elderly on health care dropped from 19 percent in 1965 to 11 percent in 1968. According to Marilyn Moon, the optional Part B plan was popular as well, with 17.6 million of 19 million eligible seniors choosing to enroll when it first became available in 1965 (2006, pp. 2-4).

Over the years, Medicare expanded to include additional subgroups. In 1972, Congress added disabled persons to Medicare's beneficiary rolls. Individuals had to be permanently and totally disabled, as determined by receiving Social Security disability for at least 24 months. The

1972 amendments also allowed persons with end-stage renal disease to enroll in Medicare. The final expansion of eligibility took place in 2000, when individuals suffering from amyotrophic lateral sclerosis (ALS), commonly known as Lou Gehrig's disease, and receiving Social Security disability became eligible for Medicare. Forty-four years after its inception, Medicare provides health care insurance for approximately 44 million Americans, 16 percent of the insured population and 13.5 percent of the total population.

Medicare Parts A – D

Qualifying individuals are automatically enrolled in Medicare Part A, or Hospital Insurance (HI). Part A covers inpatient hospital care and post-acute care. After an initial deductible of $1,068 dollars in 2009 (adjusted annually for inflation), a beneficiary pays a fixed rate or percentage for care depending on the number of days treatment is received.

Medicare Part B, Supplementary Medical Insurance (SMI), is an optional plan that covers ambulatory expenses, physician services, and outpatient care. More than 94 percent of eligible beneficiaries enroll in Part B, largely because beneficiary payments account for only 25 percent of the actuarially fair cost of care, resulting in a 75 percent subsidy. Reform efforts in 2007 established an income threshold that required wealthier beneficiaries to pay a higher premium. However, according to the Centers for Medicare and Medicaid Services, the change impacts only five percent of Part B enrollees in 2009 (2008, p. 1).

The Balanced Budget Act of 1997 added a Part C option to the traditional fee-for-service (FFS) plan provided by Parts A and B. Part C, now referred to as Medicare Advantage, sought to inject competition into Medicare by allowing beneficiaries to select a private insurance plan rather than receive benefits through traditional Medicare. At a minimum, participating private insurers must provide those benefits covered in Parts A and B as well as an optional drug benefit.

These private plans usually provide additional coverage, for which beneficiaries must pay an additional premium.

Originally, by offering a subsidy worth 95 percent of the cost of covering a qualified individual in Medicare, the plan was designed to allow insurance providers who could offer better benefits at a lower cost than traditional FFS Medicare to enter the market – a strategy intended to promote greater efficiency and reduce costs. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (also referred to as the Medicare Modernization Act, or MMA) increased the scope of the program and offered more generous reimbursements to participating firms. However, according to Dr. Mark Miller, Director of the Medicare Payment Advisory Commission, successive payment increases to these private plans has removed the incentive to provide care more efficiently than traditional Medicare (2008, p. 12). A study conducted by the Kaiser Family Foundation found that more than 19 percent of all Medicare beneficiaries choose to enroll in a Part C plan, with more than 800,000 enrolling in the first four months of 2008 alone. The Kaiser Family Foundation paper also concluded that recent growth rates, particularly in private FFS plans (as opposed to managed care), were due largely to the overgenerous subsidies given to private firms offering Medicare Advantage plans (2008, p. 4).

Medicare Part D, the Prescription Drug Plan, was enacted through the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 and went into effect in 2006. Part D represented the largest expansion of benefits since Medicare's inception in 1965. The program allows private insurers to offer prescription drug plans to Medicare beneficiaries. Like Part C, the Prescription Drug Plan seeks to use the private sector to provide more comprehensive health care for seniors. In 2007, 24 million people, more than half of all Medicare beneficiaries, signed up for a Part D. After determining a national average bid based on prices negotiated by

dozens of participating private firms, Medicare beneficiaries pay approximately 25 percent of total program costs. Medicare subsidies cover approximately 75 percent. If a beneficiary selects a more expensive plan, he or she must pay the difference. Conversely, if the plan is less expensive, his or her premium is lower than the average of $30.36 per month reported by the Medical Payment Advisory Commission (2008, p. 3).

Like Part C, Part D is essentially a voucher system that offers beneficiaries more options in selecting their insurance plan. Duggan and Morton found that private firm entry was greater than the Centers for Medicare and Medicaid Services originally projected. In 2008, there were 55 firms offering stand-alone prescription drug plans, amounting to 54 plans available in each of 34 defined regions (2008, p. 4). Finally, a third of all Part D participants receive drug benefits through Medicare Advantage.

CHAPTER 2
MEDICARE FINANCING

Medicare is financed through two trust funds managed by a Board of Trustees comprised of the following individuals: the Secretary of the Treasury; the Secretary of Labor; the Secretary of Health and Human Services, the Commissioner of Social Security, two rotating Board members appointed by the President, and the Administrator of the Centers for Medicare & Medicaid Services (CMS), who serves as Secretary of the Board. The Trustees produces an annual report on the state of Medicare's two trust funds: the Hospital Insurance (HI) trust fund, which manages Medicare Part A financing, and the Supplementary Medical Insurance (SMI) trust fund, which manages the accounts of Part B and Part D. Part C draws from both accounts.

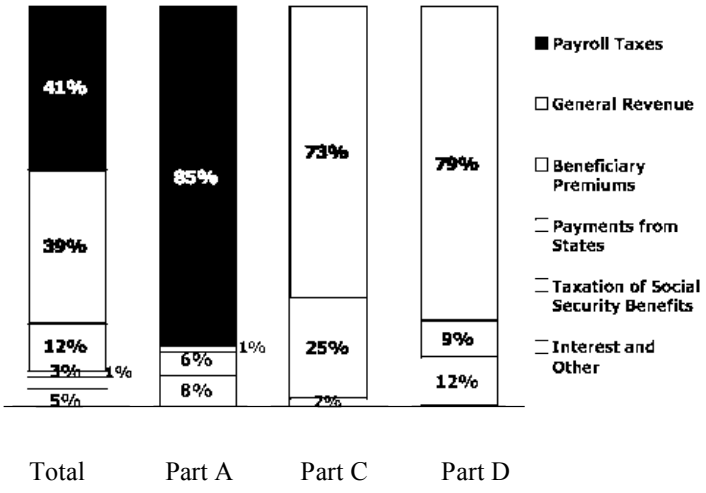


Figure 2.1: Estimated Sources of Medicare Revenue, FY2009

SOURCE: Kaiser Family Foundation, based on the Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, 2008.

The HI and SMI trust funds have different sources of funding, as depicted in Figure 2.1. The HI trust fund, modeled after the Social Security trust fund, is financed largely through

mandatory payroll tax withholdings. The tax is currently set at 2.9 percent of earnings and is divided evenly between employers and employees. However, unlike the Social Security payroll tax, the upper limit of the HI payroll tax was abolished in 1993. After grandfathering in the initial group of beneficiaries, all future beneficiaries would be forced to pay into the HI system throughout their working years. Reasonably, future beneficiaries expect to be provided with heavily subsidized hospital insurance as a result of the wages they were forced to forego during their working years. Thus, HI was primarily financed as a pay-go system, shifting the cost of grandfathering in beneficiaries in 1965 to those individuals who were currently employed. This is a sustainable method of funding hospital insurance coverage unless the number of beneficiaries rises relative to the working population and/or cost of providing insurance increases at a rate that outpaces wages. These conditions currently exist and threaten Medicare's sustainability, an issue that will be discussed in greater detail later in this section. According to the 2008 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, in 2007, HI expenditures totaled $203.1 billion and HI revenues amounted to $223.7 billion (2008, p. 16).

The SMI trust fund, which manages Part B and Part D, receives revenue through a combination of general Treasury funds and premiums, as well as state payments for dual eligibles (those concurrently enrolled in Medicaid). As discussed above, beneficiaries pay approximately 25 percent of the actuarial rate of insurance; thus, their contribution adjusts annually as health care costs rise. Taxpayers subsidize the remaining 75 percent. According to the Annual Report, SMI expenditures (including part B and part D) reached $228.5 billion in 2007 (2008, p. 24).

Medicare is both progressive and proportional to income: payroll taxes and Part B premiums are proportional to income; revenues drawn from general funds are obtained from a progressive tax structure. Researchers, such as McClellan and Skinner, have not detected any significant wealth redistribution stemming from Medicare's funding structure. Individuals with higher incomes contribute more funding over the course of their lifetime, but they also receive greater benefits because they tend to live longer and receive more intensive treatment (1997, p. 25). There is, however, a redistribution of wealth from the healthy to the unhealthy because the disabled are insured under Medicare and the program's design does not incorporate risk-based premiums.

As Feldman and Dowd discussed in "Structuring Choice Under Medicare," the largest redistributionary effect occurs between generations. Using the population first qualifying for Medicare in 1994 as a base unit, the authors calculated that the group would receive $5.19 in Part A benefits for every dollar they and their employers contributed through payroll taxes (1998, p. 79). A study conducted by Sandra Christensen concluded that, on average, beneficiaries retiring in 1992 would contribute $15,416 in taxes and receive benefits from Medicare equal to $44,368 (1992, p. 261).

A report by the Federal Interagency Forum on Aging-Related Statistics highlighted that FFS Medicare (Parts A and B) covers only 54 percent of beneficiaries' health-related expenditures, giving rise to a significant market for private supplemental plans (2004, p. 56). For example, FFS Medicare does not cover dental and optical care, nor does it limit cost sharing. Public and private supplemental plans are often used to bridge the gap between Medicare's benefits and the desirable level of risk mitigation. In *Medicare: A Policy Primer*, Marilyn Moon lists the three most common types of supplemental coverage: Medicaid, employer-based plans,

and private Medigap plans. Over 90 percent of Medicare enrollees have some form of supplemental health insurance (2006, pp. 5-7).

Projected Fiscal Shortfalls

In its 2008 Annual Report, the Boards of Trustees issued a third consecutive "Medicare funding warning." The Trustees issue the warning when they anticipate that general revenues will account for more than 45 percent of Medicare outlays within seven years. Further, the Trustees projected that HI trust fund outlays would begin exceeding income in 2008, and that the trust fund would be exhausted by 2019 (2008, p. 4). Maintaining the HI trust fund will require an increase in the payroll tax, a reduction in benefits, or a revision of eligibility conditions. In addition to the elimination of an upper bound on taxable income, the Medicare payroll tax rate has already increased from 0.7 percent in 1965 to 2.8 percent (Vogel, 1999, p. 19). If the HI trust fund reaches negative equity, Medicare will either default on its liabilities or Congress will have to pass a law allocating general revenues to the HI trust fund.

Taxes also indirectly fund Part B and Part D through the contribution of general Treasury revenue amounting to 75 percent of total SMI funding. In *Markets without Magic*, Mark Pauly explains that 90 percent of the costs of Medicare are paid, either directly or indirectly, through taxation. To maintain the effective tax rate of 2 to 2.5 percent of GDP necessary to support current Medicare expenditures, real growth in spending per beneficiary must be zero. If the Medicare expenditure growth rate in the next 25 years matches its historical rate of 4.7 percent, this would require the tax burden to reach 10.2 percent of GDP by 2035 (2008, p. 5). The Annual Report estimates that Part B annual expenditure growth will average between 6.2 and 8 percent over the next decade (2008 to 2017). Part A expenditures are expected to grow at a yearly rate of 7.4 percent during the same period (2008, pp. 21, 15).

While the SMI trust fund is in a less precarious position due to its flexible funding sources, the rate at which its expenditures are outpacing inflation is troublesome. As discussed above, this necessitates allocating a larger percentage of general revenues towards subsidizing insurance coverage for elderly persons. In the short run, however, deficits can be accommodated in subsequent years by increasing premiums and the amount of revenue attained from general Treasury funds.

Two conditions have contributed to Medicare (and particularly HI) sustainability concerns: rising health care costs and the increasing ratio of beneficiaries to workers. Health care is becoming more expensive because of increased demand for services and intensity of care. Technological progress, while making some treatments more efficient, has an even greater effect by making high-cost treatments available for a wide range of ailments. Centers for Disease Control and Prevention data summarized by Elizabeth Arias reveal that life expectancy has increased by more than seven years on average since Medicare's inception; as a result, contemporary enrollees remain on Medicare for a greater period of time (2007, p. 34). In addition, the ratio of beneficiaries to workers is expected to rise sharply with the retirement of the "baby boom" generation in the next couple decades.

Gokhale and Smetters estimate the amount of resources in present value that the government must produce, either by cutting spending or increasing revenues, to put Medicare on a sustainable path to be $36.6 trillion. They measure fiscal imbalance by *FIt* (Fiscal Imbalance) = *PVEt* (Present Value of Expenditures) – *PVRt* (Present Value of Revenues) -- *At* (Current Value of Trust Fund). Thus, if the present value of expenditures exceeds the present value of revenues and the trust fund reserves, a present value deficit exists (2003, pp. 4, 12). Aaron and Lambrew list five ways to alleviate Medicare's financial challenges: control prices, reduce use,

improve efficiency, scale back coverage, and raise revenue (2008, p. 39). After discussing the effects of Medicare on the larger market for health care, this paper will consider one proposed solution to pending shortfalls: creating an asset test to scale back coverage for the wealthiest seniors.

CHAPTER 3
THE EFFECT OF MEDICARE ON THE MARKET FOR HEALTH CARE GOODS AND SERVICES

A brief from the Kaiser Family Foundation reveals that Medicare expenditures currently account for 13 percent of the federal budget and 22 percent of total health care spending in the economy (2008, p. 1). After signing Medicare into law, President Lyndon Johnson proclaimed:

> No longer will older Americans be denied the healing miracle of modern medicine. No longer will illness crush and destroy the savings that they have so carefully put away over a lifetime so that they might enjoy dignity in their later years. No longer will young families see their own incomes, and their own hopes, eaten away simply because they are carrying out their deep moral obligations to their parents, and to their uncles, and their aunts (1965).

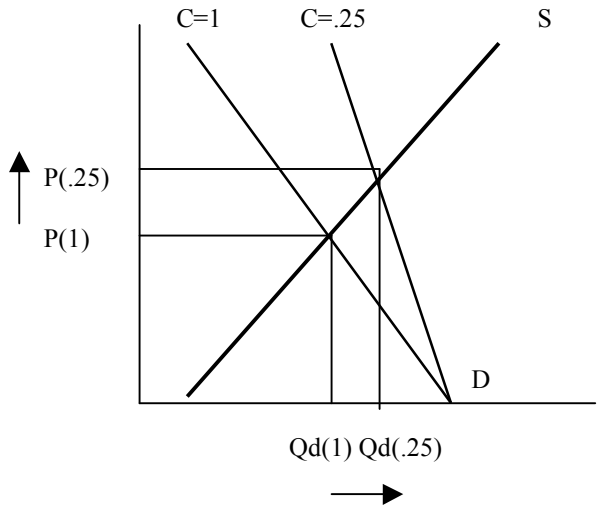
Medicare intended to provide the elderly with access to mainstream health care and reduce their risk of large out-of-pocket medical expenditures. Unequivocally, it has done both of these things. Daniel Shaviro lists the three major functions of the entitlement program: forced saving, limiting portfolio choice, and redistribution (2004, p. 3).

Medicare subsidizes health insurance coverage for almost all elderly citizens in the United States; thus, the elderly enjoy a much higher rate of health insurance coverage than the rest of the population. The resultant wealth transfer from young to old was explored earlier in this paper. As growth in Medicare expenditures is expected to outpace GDP growth in the foreseeable future, the financial burden placed on each generation will continue to increase.

Moral Hazard

The insurance coverage provided by Medicare results in greater use of health care services by the elderly than they would demand otherwise. According to Finkelstein, Medicare decreased the average co-insurance rate among beneficiaries by approximately 7 percentage points (2007, p. 23). A recent empirical study by Card et al. concluded that Medicare results in a 10 percent increase in hospitalization between ages 64 and 65, especially for discretionary procedures such as hip replacements and bypass surgeries (2004, p. 38).

Moral hazard leads to inefficient outcomes because, by reducing the price of medical care to seniors, the marginal benefit of some care received is worth less than its marginal cost. The federal subsidy reduces beneficiaries' demand elasticity and encourages the elderly to consume more health care goods than they would if they paid for the goods directly or the actuarial price of insurance coverage. For example, see the following model of the effect of federal subsidization of Plan B at 75 percent of the actuarial rate. Economic theory predicts that demand elasticity for Part A services, although already very inelastic due to the types of services covered, also becomes more inelastic, especially because the co-insurance rate is a fixed dollar amount rather than a percentage of health care goods and services consumed.



C: percentage of costs paid by beneficiaries
C=1 (without Medicare subsidy)
C=.25 (with Medicare subsidy)

Figure 3.1 Moral Hazard Created by 75 Percent Subsidy of Part B and D

By the law of demand, the effect of greater consumption of health care services by Medicare beneficiaries leads to higher costs for everyone else. A randomized experiment conducted by Manning et al. for the RAND Institute found that the price elasticity of demand for medical services is -.01 to -.02, making it highly inelastic, or only slightly responsive to changes in price. This suggests that the effect of insurance premiums on demand is small at the individual level, although very significant because of the size of Medicare. Using this information, the study provided evidence of welfare loss stemming from increasing the coinsurance rate. If the population of adults in the United States spent $200 billion on health care, welfare loss incurred from moving from 95 percent universal insurance coverage to 100 percent (or completely free) coverage would total $37 to $60 billion (1988, p. 10). Finkelstein's 2007 paper concluded that increased utilization as a result of Medicare was accompanied by a 37 percent increase in overall real hospital costs between 1965 and 1970 (p. 23).

When Medicare beneficiaries comprise a large percentage of the market for a particular health care good or service, this creates an incentive for its maker to increase prices for other health care consumers, especially when the Medicare reimbursement rate falls at or below than the cost of providing care. Medicare also increases the rate of technological diffusion. Finkelstein found that the geographic adoption pattern of cardiac technologies is significantly skewed toward areas where Medicare beneficiaries are more prevalent (2007, p. 21). In addition to dissemination, Duggan and Morton found that the price the government pays to providers for any health care treatment influences firms' incentives to develop treatment substitutes. (2008, p. 2). If the government reimbursement rate is too high, it increases consumption, sometimes induced by health care providers, and overinvestment in research and development. The opposite is true for a low reimbursement rate.

Reimbursement Rates for Hospitals and Physicians

Attempts to control costs have led Medicare to change the way it reimburses hospitals and physicians for care. In 1983, Medicare changed its hospital reimbursement scheme from paying "reasonable costs" to reimbursing based on a Prospective Payment System (PPS). In this system, each patient is placed into a Diagnosis Related Group (DRG) to determine payment for care based on primary and secondary diagnoses, complications, and personal characteristics of the individual. Because this does not reflect the actual cost of care, hospitals are often reimbursed more or less than the price of services received by Medicare beneficiaries.

Before 1992, physicians participating in Part B were reimbursed all "reasonable costs" for treatment rendered to Medicare beneficiaries. The 1989 Omnibus Budget reconciliation act changed this reimbursement formula to a Resource-Based Relative Value Scale (RRVS) that limited the amount physicians could be reimbursed for various procedures. Doctors must decide

whether to "take assignment," which means they are willing to accept Medicare's approved payments.

An increasing number of medical providers refuse to take assignment because of Medicare's low reimbursement rates. The Physician's Foundation conducted a national survey of physicians, finding that for 36 percent of respondents, Medicare reimbursement payments are less than the cost of care. As a result, 12 percent decided not to take assignment (2008, p. 3). The results are even more dramatic when studies are limited to primary care physicians. In Texas, for example, a survey by the Texas Medical Association found that only 58 percent of primary care physicians are accepting new Medicare patients, the lowest percentage ever recorded (2008, p. 3). A study by Himmelstein, Lasser, and Woolhandler concluded that government medical reimbursement policies result in income differentials, leading to shortage of primary care physicians because of low reimbursement rates and even generating differences in payment coverage between specialties (2008, p. 1480).

Risk Pooling

As mentioned in the earlier quote from President Johnson, Medicare also reduced the risk of large out-of-pocket medical expenditures for the elderly population and their caretakers through large-scale risk pooling. Medicare features very limited eligibility requirements for the elderly (65 or older and eligible for Social Security), automatic enrollment for Part A, and a large government subsidy to entice beneficiaries to enroll in its optional coverage plans. This creates an inclusionary risk pool that not only negotiates for lower prices; it also reduces risk exposure and adverse selection for all beneficiaries, especially those who were spending the most out-of-pocket before Medicare's inception.

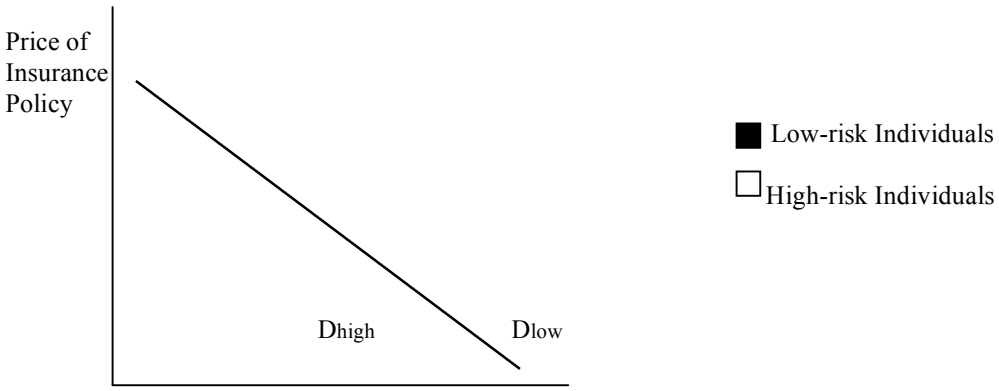


Figure 3.2 Adverse Selection in Health Insurance

Finkelstein studied the top quartile of medical spending by the elderly and found that the introduction of Medicare was associated with a forty percent decline in out-of-pocket spending by 1970 (2008, p. 18). The study also assumed that the elderly were underinsured prior to Medicare; thus, reductions in risk exposure would improve overall welfare. For the population of elderly who attained Medicare at its inception, welfare gains from reduced risk exposure were estimated to equal $11 billion (2007, pp. 24-25).

Crowding Out

Crowding out becomes a concern when one is discussing the effects of a large-scale government program like Medicare. Crowding out occurs when the public sector provides goods or services that might be provided more efficiently by the private sector. In addition, Medicare penalizes those who enroll at a later date than when they first become eligible by charging late enrollees higher premiums. This leads to further concerns that the program is going too far in pressuring seniors to sign up for its optional coverage plans.

CHAPTER 4
A SINGLE THRESHOLD ASSET TEST FOR MEDICARE

Definition and Programs That Employ Asset Testing

An asset test is a specific type of means test undertaken to determine whether or not an individual qualifies for a program. It serves as a barrier to entry for prospective enrollees. An asset test uses wealth rather than income as measure of ability to pay, using personal property as a metric. Often, measurements of personal property for eligibility purposes exclude the primary home and items like furniture and clothes.

In the United States, filing for bankruptcy requires an individual to undergo a means test to determine whether he or she can repay creditors; in addition, an income test is employed to ensure individuals do not unnecessarily file for bankruptcy. Income tests are commonly used to determine eligibility for social welfare programs, such as food stamps and the earned income tax credit. Some states use an asset test along with an income test to determine eligibility for Medicare.

Part B and D of Medicare employ means tests. The Medicare Modernization and Authorization Act of 2003 enacted a low-income subsidy in Part D, the prescription drug plan, and an income test for Part B, the optional medical insurance plan. Under Part D's low-income subsidy, individuals with little wealth and whose income falls below 135 percent of the federal poverty level have no deductibles and their copayments are limited to $5 per prescription. Beneficiaries whose incomes are below 150 percent of the federal poverty level and who meet an asset test have reduced premiums and copayments.

Part B premiums rose over a five-year period for individuals making over $80,000 a year ($160,000 for those who file jointly). Premiums are adjusted on a sliding scale, with the highest annual income level being $200,000 ($4,000 for individuals who file jointly). According to O'Sullivan et al., this change is estimated to increase revenues by $13.3 billion between 2004 and 2013 (2003, p. 26).

An asset test is preferable to an income test as a determinant of the elderly population's ability-to-pay. Retirees only receive income from pensions, investments, and other government programs, such as Social Security, but they save and invest throughout their working years to cover their consumption needs after retirement. This paper will now investigate the results of implementing a single-threshold asset test to determine eligibility for all parts of Medicare.

Enrollment

The U.S. Department of Health and Human Services releases the Health and Retirement Study (HRS), a dataset that contains wealth estimates for the age groups 65-74, 75-84, and 85 and older. The estimates are separated into quintiles and then the median of each quintile is reported. See Figures 4.1 and 4.2.

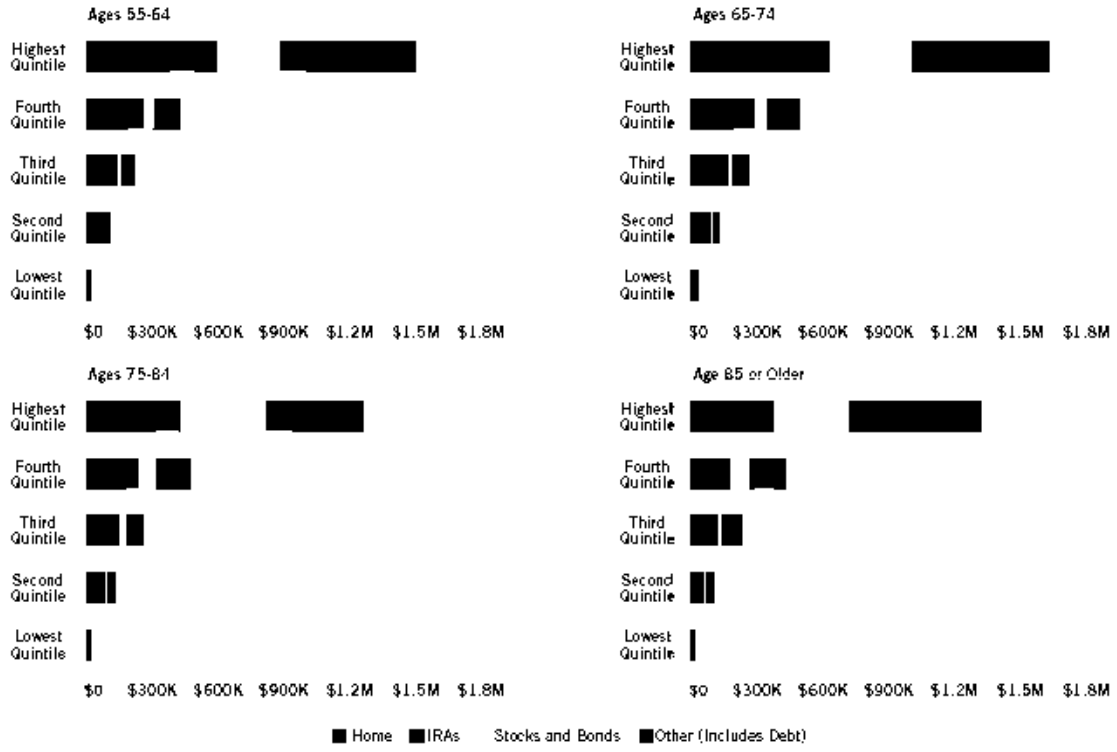


Figure 4.1: Components of Net Household Worth for Married Respondents, Per Household, By Age and Wealth Quintile: 2002

SOURCE: Health and Retirement Study, University of Michigan, 2002.

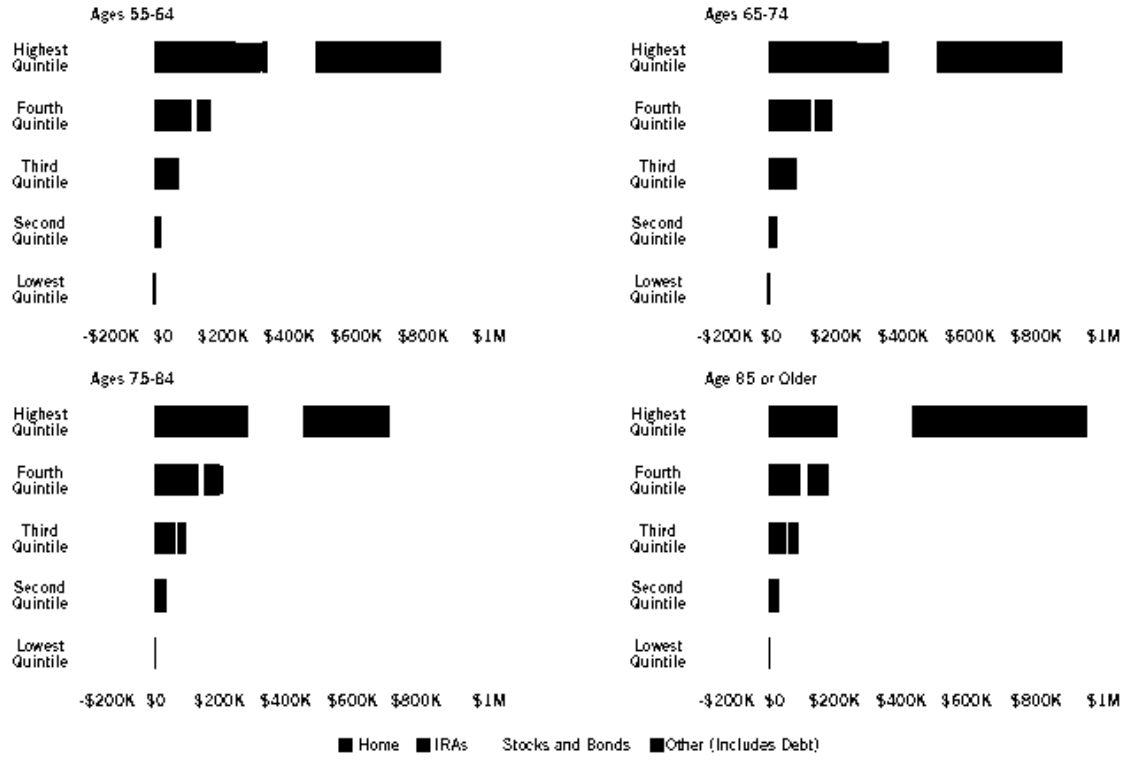


Figure 4.2: Components of Net Household Worth for Unmarried Respondents, Per Household, By Age and Wealth Quintile: 2002

SOURCE: Health and Retirement Study, University of Michigan, 2002.

For the purpose of examination, this study excludes the wealthiest ten percent of individuals, as determined by household assets, from Medicare who would otherwise be eligible. If enacted, this proposal would exclude approximately 3.9 million currently eligible citizens from Medicare. Using the HRS data displayed in Figures 4.1 and 4.2, I obtain the median level of wealth for the highest quintile for the three age groups containing citizens aged 65 and older. Then, using U.S. Census data, I weight the medians by the number of citizens in each age group to determine the median wealth of the highest quintile for all individuals aged 65 and older. I estimate that the threshold would need to be approximately $840,000 for individuals and

$1,400,000 for couples to exclude the wealthiest ten percent of elderly beneficiaries from Medicare. This threshold includes the primary home in its estimate of total worth.

Fidelity Investments estimates that retiring elderly couples will need at least $240,000 in savings to afford basic medical coverage even with Medicare. Fidelity's 2009 estimate represents a $15,000 increase from its 2008 estimate (2009). Thus, with this asset test, even if the primary home were not included in the estimate, retirees in the tenth decile should have enough resources to cover medical expenses without a generous subsidy from Medicare.

Estimated Change in Demand for Health Services

One can infer that this change will not have a significant effect on the demand for medical services. Removing 3.9 million people from the Medicare pool who can afford private insurance or already receive coverage from another third-party provider will not dramatically alter the amount of health care goods and services consumed in the economy. Medical care is already a highly inelastic good, and it is even more inelastic for those in the highest wealth decile.

Estimated Effect on Trust Funds

While this proposal would not have a significant effect on cost because of its negligent effect on demand, it would reduce the total number of elderly enrollees receiving benefit payments by 10 percent. By combining beneficiary projections and expected growth in HI and SMI Trust funds expenditures, one can calculate average expenditures per beneficiary into the near future. Table 4.1 displays the population above the age of 65 receiving Medicare benefits, total expenditures by both trust funds for that population of beneficiaries, and the estimated reduction in expenditures resulting from a single-threshold asset test.

Table 4.1. Projected Savings Per Year, in Thousands

Year	65+	HI Benefits	SMI Benefits	HI Savings	SMI Savings	Annual Savings
2008	38,691	$189,737,956	$212,489,811	$18,973,796	$21,248,981	$40,222,777
2010	40,299	$215,516,231	$242,936,074	$21,551,623	$24,293,607	$45,845,230
2015	46,837	$299,546,502	$350,445,675	$29,954,650	$35,044,567	$64,999,218

SOURCE: Author's calculations, data from the U.S. Census Bureau and the Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, 2008.

In obtaining the estimates found in Table 4.1, it was necessary to factor out the beneficiaries and costs attributable to disabled enrollees under the age of 65. Moon reports that almost 15 percent of beneficiaries receive Medicare due to disability only (2006, p. 22). According to the Kaiser Family Foundation, annual expenditures for disabled enrollees under 65 years of age are 25 percent less than expenditures for beneficiaries aged 65 and older (2005, p.131). To factor out disabled beneficiaries, I first found the average annual expenditure per beneficiary. Then, I reduced the total number of projected beneficiaries by 15 percent. I found the average annual expenditure for each population using the equation .15 (.75x) + .85x = average annual expenditure for all beneficiaries. Finally, for 2008, 2010, and 2015, I multiplied the number of beneficiaries aged 65 and older by the average annual expenditure for beneficiaries aged 65 and older. Thus, under the assumption that all beneficiaries over the age of 65 receive the same amount in annual benefits on average, this asset test would reduce Medicare expenditures by approximately $45.8 billion dollars in 2010 and $65 billion dollars in 2015. Savings increase over time as the expected cost of health care and the number of eligible beneficiaries rise.

As discussed earlier in this paper, McClellan and Skinner found that higher-income enrollees receive more benefits over the course of their lifetime because they are more likely to live longer. Figure 4.3 displays the cumulative mortality rates for beneficiaries in 1987. There is

a twelve-point difference between the top and bottom income deciles for men and a six-point difference for women (1999, p. 54). Thus, implementing an asset test is expected to generate more in total savings than the calculation above suggests.

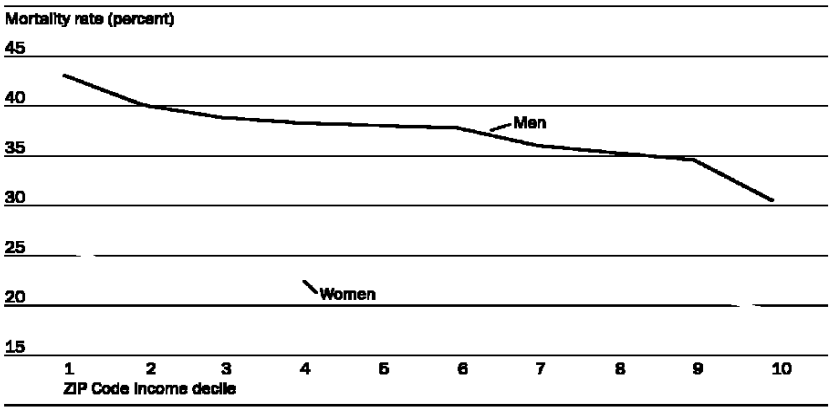


Figure 4.3. 1987-1995 Cumulative Mortality Rates By Income Decile for Medicare Beneficiaries Aged 65-69 in 1987

SOURCE: McClellan and Skinner, "Medicare Reform," based on 1987-1995 data summarized by J. Lee, M. McClellan, and J. Skinner in "The Distribution of Medicare Benefits"

By reducing HI and SMI beneficiary outlays by more than 10 percent, an asset test would delay the exhaustion of the HI trust fund beyond 2017. Although the SMI trust fund's financing mechanism gives it greater flexibility to adjust to rising costs and enrollment, creating a barrier to entry would reduce the size of the program, as well as the general revenue contributions that comprise almost 75 percent of SMI funding.

Although implementing an asset test would reduce government spending and improve the HI trust fund's short-term balance between revenues and expenditures, it avoids addressing the more difficult and systemic challenge of rising health care costs. Figure 4.4 reveals that while enrollment plays a role in rising Medicare expenditures, the long-term challenge is controlling health care costs.

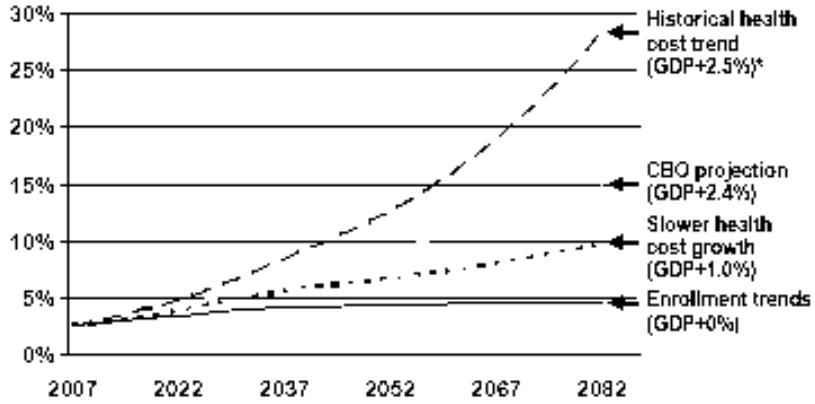


Figure 4.4. Contribution of Health Care Costs and Enrollment to Medicare

SOURCE: Kaiser Family Foundation, data obtained from the Congressional Budget Office, 2008

Table 4.2 estimates the short-term changes in the trust funds' accounts that will result from implementing a barrier to entry for the wealthiest elderly Americans. The inclusion of an asset test delays the depletion of HI trust fund reserves for seven years at best. If this policy were enacted, it would be effective only as a stopgap measure, unable to keep the HI trust fund from depleting its reserves beyond 2015.

Table 4.2. Change in HI Trust Fund Balance 2008-2015, Excluding and Including Asset Test

Year	Total Income	Total Expenditures	Net Increase in Fund	Expenditures with Asset Test	Net Increase with Asset Test
2008	$221.2	$229.5	$-8.4	$210.5	$10.70
2010	$258.9	$260.5	$-1.6	$238.9	$20
2015	$321.9	$361.4	$-39.5	$331.4	$-9.5

SOURCE: Author's calculations, data from the U.S. Census and the Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, 2008.

CHAPTER 5
ADDITIONAL CONSIDERATIONS

Equity and Political Support

If an exclusionary asset test were implemented, Medicare would become a social welfare program, with the wealthiest Americans subsidizing health care insurance for the rest of the population through payroll taxes and payments to general Treasury funds. As a result, it would be politically difficult to enact an asset test, especially if it were not gradually implemented in stages. Individuals who would be excluded under an asset test planned their retirements assuming that Medicare would provide and subsidize their health insurance. Without adequate notice, they might not be able to afford the cost of unsubsidized medical insurance.

Public opinion surveys also reveal that Americans are more likely to oppose than support turning Medicare into a social welfare program. A recent survey reported by Public Agenda for Citizens found that 58 percent of the general public strongly oppose turning Medicare into "a program that only serves low income seniors;" 13 percent somewhat oppose the proposal; 11 percent are somewhat favor it; and 13 percent are strongly in favor of the idea (2006). Although this particular question applies to an income test, the general sentiment is clear.

The Private Sector

It is more efficient to allow the private insurance market to price and provide health insurance wherever possible. If the wealthiest decile of the elderly population can afford health insurance at the actuarially fair rate, it is preferable to allow the private market to provide their desired level of coverage. While market failure exists in the health care sector, justifying some

degree of government involvement, where it does not exist, private markets should be free from the distortionary effect of unnecessary government intervention.

A Multiple-Threshold Asset Test

This paper does not consider the effect of implementing an asset test with multiple thresholds. A multi-tiered test would charge adjusted premiums and copayments based on ability-to-pay as measured by total wealth. Although an asset test with multiple-thresholds could reduce costs to taxpayers and market distortions, it would not mitigate the problems caused by rising health care costs. In addition, the process of calculating the total wealth of an individual or family and adjusting that value over time is time-consuming and costly. The existence of multiple thresholds increases the administrative costs needed to ensure an accurate calculation of each beneficiary's wealth.

Changing Incentives

A barrier to entry would create an incentive to transfer assets to qualify for Medicare coverage. Spending down or transferring wealth becomes even more likely when the barrier affects elderly populations. Elderly individuals can reasonably estimate the amount of money they will need in retirement and then spend or transfer the difference between their current holdings and the Medicare threshold. They can also place their assets in the care of their children or heirs in advance of their death to avoid inheritance taxes and qualify for Medicare.

Fuchs points out that a means-tested system would reduce work and savings incentives because it would impose a very high implicit marginal tax rate; some young people may choose to work less rather than face a high implicit tax rate after the age of 65 (2000, p. 61).

CONCLUSION

I would not recommend implementing a single-threshold exclusionary asset test for Medicare. Benefits to the larger market for health care goods are negligible. Although the asset test will delay the exhaustion of the HI trust fund and reduce government spending, its impact is limited. I also anticipate that creating a barrier to entry would distract attention from the real issue of containing health care costs. I recommend that future reform proposals view implementing a means test as a way to reduce market distortions and government spending rather than a potential solution to Medicare's financial troubles.

WORKS CITED

"Americans Are Opposed to Requiring Seniors to Pay More Out-of-pocket Costs, Cutting Back on the Prescription Drug Benefit, and Turning Medicare into a Program for Only Low-income Seniors," Public Agenda, 2006, http://www.publicagenda.org/charts/americans-are-opposed-requiring-seniors-pay-more-out-pocket-costs-cutting-back-prescription-drug-benefit-0

Aaron, Henry J., and Lambrew, Jeanne M., Reforming Medicare: Options, Tradeoffs, and Opportunities, Washington, D.C.: Brookings Institution Press, 2008.

Andersen, R., Anderson, O.W., and Lion, J., Two Decades of Health Services: Social Survey Trends in Use and Expenditure. Cambridge, MA: Ballinger Publishing Co., 1976.

Arias, Elizabeth, "National Vital Statistics Reports: United States Life Tables, 2004," Center for Disease Control and Prevention, December 28, 2007, http://www.cdc.gov/nchs/fastats/lifexpec.htm

Ball, Robert, "Perspectives on Medicare," Health Affairs, Winter 1995, 14 (4), 62-72.

Boards of Trustees of the Federal Hospital Insurance Trust Fund and the Federal Supplementary Medical Insurance Trust Fund, "2008 Annual Report," March 25, 2008, http://www.cms.hhs.gov/ReportsTrustFunds/

Card, David, Dobkin, Carlos, and Maestas, Nicole, "The Impact of Nearly Universal Insurance

Coverage on Health Care Utilization and Health: Evidence from Medicare," National Bureau of Economic Research Working Paper 10365, March 2004, http://www.nber.org/papers/w10365

Centers for Medicare and Medicaid Services, "CMS Announces Premiums, Deductibles for 2009," Press Release, September 18, 2008, http://www.cms.hhs.gov/apps/media/press/factsheet.asp?Counter=3272

Christensen, Sandra, "The Subsidy Provided under Medicare to Current Enrollees," Journal of Health Politics, Policy, and the Law, Summer 1992, 17, 255-264.

Duggan, Mark, and Morton, Fiona, "The Effect of Medicare Part D on Pharmaceutical Prices and Utilization," NBER Working Paper W13917, April 2008, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1116593

Federal Interagency Forum on Aging-Related Statistics, "Older Americans 2004: Key Indicators of Well-Being," Washington, DC: U.S. Government Printing Office, 2004.

Feldman, Roger, and Dowd, Bryan, "Structuring Choice Under Medicare," in Robert Danton Reischauer, Stuart Butler, Judith R. Lave, eds., Medicare: Preparing for the Challenges of the 21st Century, Washington, D.C.: Brookings Institute Press, 1998, pp. 75-123.

Fidelity Consulting Services, "Paying for Health Care in Retirement," Fidelity Investor's Publications, April 24, 2009, http://publications.fidelity.com/investorsWeekly/application/loadArticle?pagename=IW090417health

Field, Marilyn J., and Shapiro, Harold T., Employment and Health Benefits: A Connection at

Risk, Institute of Medicine (U.S.), Committee on Employer-Based Health Benefits, Washington, DC: National Academies Press, 1993.

Finkelstein, Amy, "The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare," Quarterly Journal of Economics, 2007, 122 (1), 1-37.

Finkelstein, Amy, and McKnight, Robin, "What Did Medicare Do? The Initial Impact of Medicare on Mortality and Out of Pocket Medical Spending," Journal of Public Economics, 2008, 92 (7), 1644-1669.

Fuchs, Victor R., "Medicare Reform: The Larger Picture," Journal of Economic Perspectives, 2000, 14(2), 57-70.

Gokhale, Jagadeesh and Smetters, Kent, "Fiscal and Generational Imbalances: New Budget Measures for New Budget Priorities," Federal Reserve Bank of Cleveland, Policy Discussion Paper No. 5, December 2003, www.clevelandfed.org/Research/PolicyDis/no5dec03.pdf

Health and Retirement Study, U.S. Department of Health and Human Services, 2002, http://hrsonline.isr.umich.edu/index.php?p=dbook

Helms, Robert, "The Origins of Medicare," The American Enterprise Institute for Public Policy Research, March 1, 1999, http://www.aei.org/publications/pubID.10089/pub_detail.asp

Himmelstein, David, Lasser, Karen, and Woolhandler, Steffie, "Sources of U.S. Physician Income: The Contribution of Government Payments to the Specialist–Generalist Income Gap." Journal of General Internal Medicine; September 2008, 23(9): 1477-1481.

Johnson, Lyndon B., "Remarks with President Truman at the Signing in Independence of the Medicare Bill," Lyndon Baines Johnson Library and Museum, July 30, 1965, http://www.lbjlib.utexas.edu/johnson/archives.hom/speeches.hom/650730.asp

Kaiser Family Foundation, "Medicare at a Glance," November 2008, http://www.kff.org/medicare/1066.cfm

_____, Medicare Chartbook, Third Edition, Summer 2005, mwww.kff.org/medicare/upload/Medicare-Chart-Book-3rd-Edition-Summer-2005-Report

Manning, Williard G. et al., "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," RAND Health Insurance Experiment Series, Santa Monica, CA: The RAND Corporation, 1988.

McClellan, Mark, and Skinner, Jonathan, "Medicare Reform: Who Pays and Who Benefits," Health Affairs, January/February 1999, 18(1): 48-62.

_____, "The Incidence of Medicare," National Bureau of Economic Research, Working Paper 6013, 1997, http://www.nber.org/papers/w6013

Medicare Payment Advisory Commission, "Medicare Payment Basics: Part D Payment System," October 2008, www.medpac.gov/documents/MedPAC_Payment_Basics_08_PartD.pdf

Miller, Mark E., Testimony before the Committee on Finance, "Private Fee-for-Service Plans in Medicare Advantage," U.S. Senate, January 30, 2008, www.medpac.gov/documents/MedPAC_Jan08_testimony_PFFS.pdf

Moon, Marilyn, Medicare: A Policy Primer, First Edition, Washington, DC: The Urban Institute Press, 2006.

O'Sullivan, J. et al., "Overview of the Medicare Prescription Drug and Reform Conference Agreement, H.R. 1," Congressional Research Service, December 4, 2003, www.law.umaryland.edu/marshall/crsreports/crsdocuments/RL31966c.pdf

Pauly, Mark V., Markets without Magic: How Competition Might Save Medicare, Washington, D.C.: American Enterprise Institute, 2008.

The Physician's Foundation, "The Physician's Perspective: Medical Practice in 2008," October 2008, http://www.physiciansfoundations.org/news/news_show.htm?doc_id=728872

Shaviro, Daniel, Who Should Pay for Medicare?, Chicago: University of Chicago Press, 2004.

Texas Medical Association, "Survey Results and Analysis: TMA 2008 Medicare Survey," 2008, https://www.texmed.org/

U.S. Census Bureau, "Projections of the Population by Selected Age Groups for the United States: 2008 to 2050," National Population Projections, 2008, http://www.census.gov/population/www/projections/tablesandcharts.html

Vogel, Ronald J., Medicare: Issues in Political Economy, Ann Arbor: Michigan University Press, 1999.