

**Economics, Health Care, and Life Expectancy**

Working Paper

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Abstract: In this paper I study the United States' health care system relative to the other member countries in the Organization for Economic Cooperation and Development (OECD). I find the United States performs very poorly relative to its peers. While the United States spends more per capita by far than any other member country, it has a lower life expectancy, a higher infant mortality rate, and fewer medical resources than most other member countries. The low life expectancy cannot be blamed on the usual culprits of tobacco and alcohol. The United States consumes less tobacco than any other member country except Canada and less alcohol than most other member countries. Also, alcohol consumption is positively correlated with longevity. The poor health of Americans is most likely caused by America's huge obesity rate and its lack of health care resources relative to other member countries. The best available explanation for the high cost of the United States health care system is long term government interference in the free market.

## **Economics, Health Care, and Life Expectancy**

### Introduction

In this paper I study the United States' health care system relative to the other member countries in the Organization for Economic Cooperation and Development (OECD). I find the United States performs very poorly relative to its peers. While the United States spends more per capita by far than any other member country, it has a lower life expectancy, a higher infant mortality rate, and fewer medical resources than most other member countries. The low life expectancy cannot be blamed on the usual culprits of tobacco and alcohol. The United States consumes less tobacco than any other member country except Canada and less alcohol than most other member countries. Also, alcohol consumption is positively correlated with longevity. The poor health of Americans is most likely caused by America's huge obesity rate and its lack of health care resources relative to other countries (figure 1). This paper includes both time series and cross-sectional analysis using data obtained from the *International Journal of Health Services*, *OECD Health Data*, and the *Statistical Abstracts of the United States*.

Previous researchers have come to mixed conclusions about the effect of government intervention in the health care industry. Himmelstein and Woolhandler (1986) believe that a nationalized health care system can increase life expectancy while controlling health care costs. Shortell and Hughes (1988) believe that increased competition in the health care industry would lead to a decreased quality of health care. Ohsfeldt (2003) examined survival rates of cancer patients in developed countries and showed that the United States health care system did significantly out perform other countries for those who could obtain treatment. The theory of government enterprise (Ahlbrandt 1973), and the

theory of economic regulation (Stigler 1971) both suggest that government interference in the health care industry increases cost and does not increase health care quality. Santerre, Grubaugh, and Stollar (1991) found no direct effect of government intervention on infant mortality or health care costs, but concluded that government intervention in the economy will negatively impact economic growth which will then negatively impact health care.

## Cross Sectional Analysis

I regressed life expectancy (tables 1 and 2) and infant mortality (tables 3 and 4), against a variety of variables available for the member countries in the *OECD Health Data*. I also regressed many of the variables against each other to check for multicollinearity problems. As can be seen in table 5, t-statistics of many of the "independent variables" are strongly significant, making multiple regression analysis of limited value.

## Life Expectancy

As can be seen in table 1, life expectancy is positively correlated with health care spending (figure 2) and the availability of health care resources (figure 3). The most statistically significant health care resources are nursing staff, MRI units, and CT scanners. The lack of health care resources in the United States relative to other OECD countries likely contributes to America's low life expectancy relative to its peers (figure 1). Life expectancy is positively correlated with the percent of health care spending that comes from the public sector, but this correlation is not statistically significant. Life expectancy is negatively correlated with the percent of health care spending that goes to pharmaceuticals indicating that this method of treatment may be less effective than other treatment methods. Life expectancy is negatively correlated with

tobacco consumption and positively correlated with alcohol consumption, but neither of these relationships is statistically significant. Life expectancy is negatively correlated with the obesity rate and this relationship is of borderline statistical significance (figure 4). Since the United States has by far the largest obesity rate among the OECD countries, it is likely that America's weight problem contributes to its low life expectancy relative to its peers. Use of the obesity data is somewhat limited since obesity is measured differently in different countries.

Table 2 shows the result of a multiple regression analysis using variables that are reasonably independent. Table 5 shows that many of the "independent" variables are correlated with each other. Since health care spending is strongly correlated with all health care resources, it is used as a proxy for those resources. The two variables that are shown to be of statistical significance are health care spending and obesity. The United States spends more on health care per capita than any other country in the world and also has a higher obesity rate. Since the United has a relatively low life expectancy relative to other OECD countries, obesity appears to win out.

## Infant Mortality

As can be seen in table 3, infant mortality is negatively correlated with health care spending and the availability of health care resources. The most statistically significant health care resources being physician staff, nursing staff, and the availability of acute care beds. The lack of health care resources in the United States relative to other OECD countries likely contributes to America's high infant mortality rate relative to its peers (figure 1). Infant mortality is negatively correlated with the percent of health care spending that comes from the public sector, and positively

correlated with the percent of health care spending that is spent on pharmaceuticals. Both of these relationships are of borderline statistical significance. Infant mortality is positively correlated with tobacco consumption and negatively correlated with alcohol consumption. The relationship with tobacco consumption is not statistically significant, but interestingly the alcohol consumption relationship is statistically significant. Infant mortality is positively correlated with the obesity rate of a country, but this relationship is not statistically significant.

Table 4 shows the result of a multiple regression analysis using variables that are reasonably independent. Table 5 shows that many of the "independent" variables are correlated with each other. Since health care spending is strongly correlated with all health care resources, again it is used as a proxy for those resources. The two variables that are shown to be of statistical significance are health care spending and strangely alcohol consumption. The United States spends more on health care per capita than any other country in the world, but this does not give it a very low infant mortality rate (figure 1).

## Health Care Spending

As can be seen on table 5, as expected, health care spending is correlated with the availability of most health care resources. Health care spending is strongly negatively correlated with the percent of spending that is dedicated to pharmaceuticals indicating that the use of drugs may be a cheaper alternative to other available treatments. Since, as discussed in the section on life expectancy, the percent of health care spending that is absorbed by pharmaceutical spending is negatively correlated with life expectancy, this may not be an effective cheaper alternative. The percentage of health care spending

that comes from the public sector is strongly positively correlated with the per capita number of physicians, nurses, and acute care beds which gives support for the efficiency of single payer systems relative to multiple insurance provider systems. The time series data discussed in the section on Health Care Spending and Third Party Payments, on the other hand, indicates the extreme inefficiency socialized medicine.

The most striking observation about health care spending is the disconnection in the United States between spending, life expectancy, and available health care resources. The United States has fewer medical resources than most of the of the 30 member countries of the OECD. In life expectancy at birth, the United States is ranked 21<sup>st</sup> out of the 30 member countries of the OECD. In per capita number of physicians the U.S. is ranked 23<sup>rd</sup>, in per capita number of nurses it is ranked 18<sup>th</sup>, and in per capita number of acute care beds the United States is ranked 23<sup>rd</sup>. The data on CT scanners and MRI units is not very useful do to inconsistent statistics between countries, but the U.S. is ranked 15<sup>th</sup> in per capita number of CT scanners and 10<sup>th</sup> in per capita number of MRI units (figure 1).

One of the reasons for this lack of health care resources has been the effort of the medical establishment to limit resources to keep profits high. The American Medical Association for many years has attempted to limit the number of doctors to keep salaries high. In 1997, claiming that there was a "doctor glut", they even got the U.S. government's Federal Health Care Financing Administration to pay some medical schools not to produce doctors (Allen 1997).

Another common method used for limiting competition in the health care industry is the Certificate of Need Program. "The Certificate of Need (CON) program is a regulatory process that requires health care providers to obtain state approval before offering new or expanded services or making major capital expenditures." "The program prevents unnecessary duplication of services by

selecting the best proposal among competing applicants who wish to provide a particular health service." The claim is that multiple different businesses offering the same service in the same area, also known as competition, drives up costs (Certificate 2005) (Fitzgerald 2004).

The Pharmaceutical industry uses tactics similar to the American Medical Association to limit competition and keep profits high. For example, they lobby to prevent the importation of less costly drugs from Europe and Canada under the claim that "Canadian drugs are unsafe" (Dolinski 2004). Many of the "unsafe" Canadian drugs are the exact same drugs that are produced in the U.S., and in both Canada and all of the western European countries human life expectancy is longer than in the United States.

### Physicians' Salaries

The results of regression analysis on physicians' salaries can be seen on tables 6 and 7. Table 6 is the result of an international cross-sectional analysis. It strangely shows that physicians' salaries increase with the per capita number of physicians in a given country, but the correlation is not statistically significant. Table 7 will be discussed in the section on time series analysis.

While the United States has more lawyers per capita than any other country in the world, America has fewer doctors than many other countries. As of 2001 the United States had about 2.4 physicians per 1000 population. According to the *OECD Health Data*, as of 2001 France and Germany had 3.3 and Switzerland had 3.5 physicians per 1000 population (OECD 2004b). Most of the major western European countries had more doctors than the United States, but the U.S. had more doctors than Canada which only has 2.1 doctors per 1000 population. Physicians' salaries in Europe are generally significantly lower

than those in the United States, but it cannot be said that countries with more doctors always have lower physicians' salaries (Leigh 1992: 217-9). Medical services are heavily regulated and normal laws of supply and demand do not seem to completely apply.

## Time Series Analysis

### Life Expectancy and Infant Mortality

Tables 8 shows the results of single regression analyses of life expectancy verses a variety of independent variables using the OECD data. While these results are shown for completeness, they are of limited value due to limited data. Only two to five data points are available for each variable making multiple regression analysis useless. Most of the results are as expected. Life expectancy increases with total health care spending (corrected for inflation), and with the availability of physicians and nurses. Life expectancy decreases with tobacco consumption, but strangely increases with an increasing obesity rate. Since only three data points are available for obesity, results like this are not surprising. Life expectancy increases with the percent of spending that comes from the public sector and decreases with the percent of health care funding that is dedicated to pharmaceuticals.

Tables 9 shows the results of single regression analyses of infant mortality verses a variety of independent variables using the OECD data. Infant mortality decreases with total health care spending (corrected for inflation), and with the availability of physicians and nurses. Infant mortality increases with tobacco consumption. Again the results for obesity are anomalous. Infant mortality decreases with the percent of spending that comes from the public sector and increases with the percent of health care funding that is dedicated to pharmaceuticals

## Physicians' Salaries

Table 7 shows the result of a time series analysis of physicians' salaries using U.S. data. It shows a negative correlation with the per capita number of physicians and a positive correlation with the percent of health care spending that comes from third party payments. As the per capita number of physicians increases competition increases which drives down salaries and as a larger fraction of health care spending comes from third party payments competition among physicians decreases which increases physicians' salaries. The per capita number of physicians comes from the *OECD Health Data*. Mean physicians' income and the percent of health care spending that comes from third party payments is taken from the *Statistical Abstracts of the United States*.

The relationship between physicians' salaries and the supply of physicians can be seen more clearly in figure 5. In 1940, in inflation adjusted 2004 dollars, the mean income for American physicians was about \$50,000 or a little over 6.0 times the U.S. per capita GNP. By 1950 mean physicians' income had increased to about \$100,000 or 6.5 times the U.S. per capita GNP. By 1960 physicians' mean net income had increased to \$150,000 or 8.0 times the U.S. per capita GNP, and by 1970 to \$200,000 or somewhat over 8.5 times the U.S. per capita GNP (U.S. Bureau of the Census 1940-2004a, 19402004b). In the 1960s there was much more demand for physicians' services due to Medicare and Medicaid with little change in the per capita number of physicians, and the doctors no longer needed to worry as much about charity cases - the government would pick up the tab.

With this massive increase in physicians' salaries many more Americans choose to attend medical school. The per capita number of physicians in the United States increased from about 1.5 per 1000 in both 1950 and 1960 to 1.7 per 1000 in 1970 to about 2.5 per 1000 in 1995. Physicians' salaries continued to increase in the 70s, 80s, and 90s, but not nearly at the same rate as in the 1960s. Today physicians' salaries are around \$210,000 which is only about 6.0 times the U.S. per capita GNP (U.S. Bureau of the Census 1940-2004a).

A common justification for high physicians' salaries is the financial investment and the number of years of education involved in attending medical school, but doctoral degrees in the liberal arts take as much labor as medical degrees and many Ph.D.s in the liberal arts cannot even find employment. What determines salaries is supply and demand, not the labor that goes into developing a skill or product.

### Health Care Spending and Third Party Payments

The conversion, in the United States, from a direct payment system to a third party payment system is directly related to the changes in the tax code and entitlement system through out the later part of the twentieth century. The structure for financing the modern American health care system has its roots in World War II. As part of the war effort, the United States government imposed wage and price controls on its citizens. It was illegal for U.S. employers to compete for scarce employees by offering them better salaries, so employers came up with a new concept - we now call it the benefit. During this time, employers started providing their employees with health insurance. When the IRS realized what was being done they issued regulations that this benefit should be taxed. These regulations were countermanded after a backlash from the voters resulted in Congressional legislation. This was the origin of the pre-tax benefit (Friedman 2001: 3-30).

The modern American insurance system is structured so that if employers pay for their employee's insurance, they make the payments with pre-tax dollars. If employees pay for their own health insurance, they must pay for it with post tax dollars - an extra 30 percent expense for someone in the typical American tax bracket. As a result most employers buy insurance for their employees that covers not only catastrophic illness, but all medical expenses. This is the equivalent of people buying auto insurance that covers oil changes. Since employers are paying for most of their employee's medical expenses, there is little incentive for employees to shop around to control health care costs and demand for health care is not very price sensitive. Sometimes employees pay into a pool that is then used to cover the company's medical bills, but the result is the same. A third party is responsible for most patients' medical bills. This is one of the reasons health care costs have increased so drastically in the United States since World War II.

Another reason for increases in health care costs is the creation of Medicare and Medicaid in the 1960s. Again because of third party payments, eligible Americans could demand health care at some one else's expense. There is very little incentive for patients to be cost sensitive for their health care demands. The percentage of health care expenditures covered out of pocket has decreased from about 65 percent in 1950 to 55 percent in 1960 to 40 percent in 1970 to only 15 percent in 2002 (U.S. Bureau of the Census 1950-2004). During the same time period health care has gone from absorbing only about 4.5 percent of GNP in 1950 to 5 percent of GNP in 1960 to 7 percent of GNP in 1970 to about 15 percent of GNP in 2002 (figure 6)(OECD 2004c)(U.S. Bureau of the Census 1983).

## Malpractice Insurance

It may be a problem in some states and some specialties, but the primary cause of high health care costs in the United States is not medical malpractice insurance. As of 2000, the mean liability premium for all physicians was \$18,400 per year. This is a large amount, but only about 9 percent of the mean physician net income of \$205,700 per year. This is significantly higher than the liability premium in the early 1970s, which was only about 2 percent of mean physicians' net income (U.S. Bureau of the Census 1976). The highest liability insurance premium is in the specialty of obstetrics/gynecology at \$39,200, but this is still only 17 percent of the mean net income of \$227,000. The growth rate in malpractice insurance premiums for the last 10 years has been about the same as the growth rate in physicians' salaries. Malpractice liability insurance premiums have increased by only about one percent per year for OBGYN and at about a two percent annual rate for all physicians. The annual increase in physicians' salaries has been about two percent per year during the same time period (U.S. Bureau of the Census 2004). Since someone making \$200,000 a year generally pays over \$60,000 a year in taxes, it would be far more appropriate to say that taxation is responsible for high health care costs.

## Socialized Medicine

A common solution that is proposed to solve America's health care problems is socialized medicine, but when national health insurance has been tried, rationing and long lines have commonly followed (Goodman 2005). Single payer systems are now being abandoned by many of the countries that have tried them. Recently Germany and Spain began selling state-owned hospitals to for-

profit companies to raise money and increase efficiency (Goldsmith 2005), and in June of 2005 the Canadian Supreme Court struck down two provincial laws in Quebec banning private health care and private insurance. According to Chief Justice Beverley McLachlin and Justice John Major, "The evidence in this case shows that delays in the public health care system are widespread, and that, in some serious cases, patients die as a result of waiting lists for public health care" (Gratzer 2005).

Even with all of their problems, it does appear that European health care systems deliver more health care resources to their citizens at a lower price than the U.S. system does. As shown on table 5, the percent of spending that comes from the public sector is strongly correlated with the per capita number of physicians, nurses, and acute care beds. Also, the United States government spends about as much as the European governments do on health care, plus the United States private sector spends significantly more than other OECD countries (figure 7).

## Conclusions

In this paper I studied the United States' health care system relative to the other member countries in the Organization for Economic Cooperation and Development (OECD). I found that the United States performs very poorly relative to its peers. While the United States spends more per capita by far than any other member country, it has a lower life expectancy, a higher infant mortality rate, and fewer medical resources than most other member countries. The low life expectancy cannot be blamed on the usual culprits of tobacco and alcohol. The United consumes less tobacco than any other member country except Canada and less alcohol than most other member countries. Also, alcohol consumption is positively correlated with longevity. The poor health of

Americans is most likely caused America's huge obesity rate and its lack of health care resources relative to other countries.

The drastic increase in health care costs in the United States is directly related to government interference in the economy during the later part of the twentieth century. This interference was in the form of tax code changes, regulatory restrictions, and government subsidies for health care. It is likely that the easiest way to lower health care costs while increasing the quality of medical care available to American citizens would be to completely deregulate the health care system. While this is unlikely, moving as many drugs as possible to over-the-counter status, and moving the insurance system towards the use of Health Savings Accounts (HSAs) to increase competition would help somewhat.

While the free-market seems to be the best solution, it is also apparent that many of the European systems, while having significant government control, deliver more health care resources to their citizens at a lower price than the U.S. system does. It does appear that single payer systems have less bureaucratic overhead than the very complicated system of overlapping Medicare, Medicaid, and multiple employer provided insurance schemes that exist in the United States today (Himmelstein 2002). It is, however, likely that a direct payment system, without barriers to competition, would be the most efficient system of delivering health care. Such a system largely existed in the United States before the tax code changes of the 1940s, the creation of Medicare and Medicaid in the 1960s, and the expansion of the authority of the Food and Drug Administration in 1962.

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STATISTICAL RESULTS FROM REGRESSION ANALYSIS

(t-statistics are in parenthesis)

Cross Sectional Analysis

Single Regression Analysis

Life Expectancy (in years) vs

Table 1	Y - Intercept (t-stat)	Slope (t-stat)	Observations	R <sup>2</sup>
Total Health Care Spending	74.37 (71.78)	0.001664 (3.75)	29	0.3423
Physicians per Capita	75.29 (40.15)	0.9109 (1.46)	29	0.0727
Nurses per Capita	74.57 (63.65)	0.4173 (3.09)	29	0.2612
Acute Care Beds	77.18 (53.50)	0.1395 (0.44)	28	0.0074
MRI Units	76.33 (114.86)	0.2177 (3.04)	28	0.2622
CT Scanners	76.56 (111.75)	0.0724 (2.43)	29	0.1832
% Public	75.65 (24.05)	0.02982 (0.70)	29	0.0176
% Pharmaceutical	82.20 (65.24)	-0.2471 (-3.70)	30	0.3278
Tobacco Consumption	80.72 (28.74)	-0.1037 (-1.01)	29	0.0366
Alcohol	76.15 (44.87)	0.1846 (1.10)	29	0.0426
Obesity	79.68 (67.48)	-0.1266 (-1.64)	29	0.0906

Multiple Regression Analysis

Life Expectancy (in years) vs.

Table 2	Coefficient (t-stat)	Observations	R <sup>2</sup>
Y - Intercept	77.63 (16.08)	28	0.4771
Total Health Care Spending	0.001516 (3.18)		
% Public	0.006536 (0.18)		
Tobacco Consumption	-0.0851 (-0.89)		
Alcohol	0.1037 (0.07)		
Obesity	-0.1506 (-2.10)		

Single Regression Analysis

Infant Mortality vs.

Table 3	Y - Intercept (t-stat)	Slope (t-stat)	Observations	R <sup>2</sup>
Total Health Care Spending	14.15 (4.64)	-0.003457 (-2.65)	29	0.2059
Physicians per Capita	20.19 (4.51)	-4.645 (-3.11)	29	0.2634
Nurses per Capita	15.67 (4.98)	-1.109 (-3.06)	29	0.2570
Acute Care Beds	13.41 (3.79)	-1.540 (-1.98)	28	0.1487
MRI Units	8.861 (4.52)	-0.2910 (-1.38)	28	0.0678
CT Scanners	8.66 (4.49)	-0.1066 (-1.27)	29	0.0562
% Public	19.74 (2.50)	-0.1778 (-1.65)	29	0.0858
% Pharmaceutical	1.24 (0.32)	0.3134 (1.53)	30	0.0750
Tobacco Consumption	-0.26 (-0.03)	0.2611 (0.95)	29	0.0323
Alcohol	19.45 (5.01)	-1.317 (-3.42)	29	0.3024
Obesity	4.29 (1.31)	0.1790 (0.84)	29	0.0252

Multiple Regression Analysis

Infant Mortality vs.

Table 4	Coefficient (t-stat)	Observations	R <sup>2</sup>
Y - Intercept	19.89 (1.56)	28	0.5147
Total Health Care Spending	-0.00248 (-2.02)		
% Public	-0.09194 (-0.96)		
Tobacco Consumption	0.2569 (1.04)		
Alcohol	-1.1341 (-2.98)		
Obesity	0.2030 (1.10)		

Cross t-statistics for "independent" variables

Table 5	Physicians	Nurses	Acute Care Beds	MRIs	CTs	%Public	%Pharm	Tobacco	Alcohol	Obesity
Spending	1.10	3.46	-0.13	1.54	0.82	-0.20	-6.09	-1.67	1.59	0.35
Physicians		0.99	0.65	-0.07	-0.44	2.09	-0.72	0.16	2.18	-0.42
Nurses			0.64	1.11	0.36	2.03	-4.95	-0.80	1.41	-0.13
Acute Care Beds				2.69	4.00	2.27	1.16	1.75	1.70	-1.33
MRIs					9.81	0.64	-1.27	0.86	-0.70	-2.69
CTs						0.73	-0.48	1.26	-0.16	-2.40
%Public							0.18	-0.21	1.32	-0.87
%Pharm								0.67	-0.66	0.13
Tobacco									0.72	-1.94
Alcohol										-0.12

Physicians Salaries vs.

Table 6	Coefficient (t-stat)	Observations	R <sup>2</sup>
Y - Intercept	1.32423 (0.86)	14	0.0575
Per Capita Number	0.689685 (0.86)		

Time Series Analysis

Physicians Salaries vs.

Table 7	Coefficient (t-stat)	Observations	R <sup>2</sup>
Y-Intercept	8.2309 (4.54)	6	0.6368
Per Capita Physicians	-3.994 (-1.43)		
Third Party Payments	0.1078 (1.35)		

Life Expectancy vs

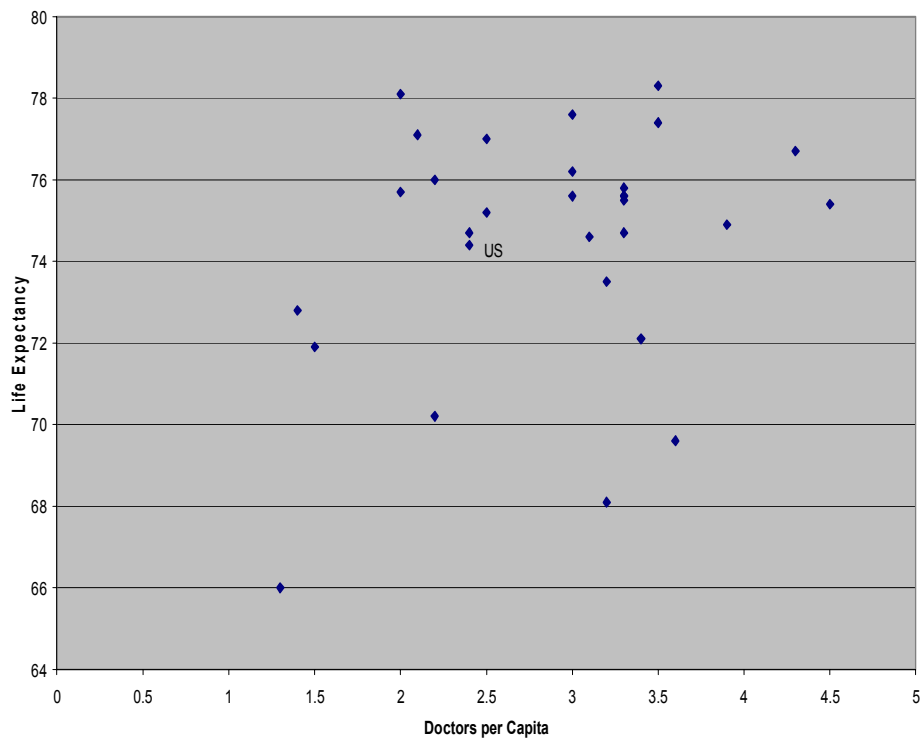
Table 8 Time Series	Y - Intercept (t-stat)	Slope (t-stat)	Observations	R <sup>2</sup>
Total Health Care Spending	68.54 (103.39)	0.0019 (8.17)	5	0.9570
Physicians per Capita	63.47 (52.08)	6.31 (8.34)	5	0.9586
Nurses per Capita	66.06 (213.86)	1.32 (24.94)	5	0.9952
Acute Care Beds	81.17 (8.18)	-2.11 (-0.80)	5	0.1753
MRI Units	74.04 (65535)	0.34 (65535)	2	1.0000
CT Scanners	71.68 (22.88)	0.31 (1.19)	3	0.5842
% Public	62.20 (15.05)	0.30 (2.74)	5	0.7149
% Pharmaceutical	80.81 (16.28)	-0.63 (-1.55)	5	0.4444
Tobacco Consumption	82.75 (46.07)	-0.30 (-4.92)	4	0.9236
Alcohol	70.04 (4.89)	0.36 (0.23)	5	0.0174
Obesity	70.68 (0.20)	0.20 (44.78)	3	0.9995

Infant Mortality vs

Table 9 Time Series	Y - Intercept (t-stat)	Slope (t-stat)	Observations	R <sup>2</sup>
Total Health Care Spending	27.55 (9.69)	-0.00495 (-5.02)	5	0.8937
Physicians per Capita	40.48 (6.78)	-16.37 (-4.42)	5	0.8669
Nurses per Capita	34.39 (14.30)	-3.55 (-8.58)	5	0.0961
Acute Care Beds	2.04 (0.07)	3.47 (0.45)	5	0.0636
MRI Units	11.13 (65535)	-0.52 (65535)	2	1.0000
CT Scanners	16.69 (3.25)	-0.61 (-1.44)	3	0.6733
% Public	47.92 (5.76)	-0.89 (-4.04)	5	0.8449
% Pharmaceutical	-9.26 (-0.83)	2.04 (2.23)	5	0.6236
Tobacco Consumption	-6.57 (-1.19)	0.65 (3.50)	4	0.8597
Alcohol	35.87 (0.96)	-2.31 (-0.56)	5	0.0950
Obesity	18.02 (29.29)	-0.37 (-14.26)	3	0.9951

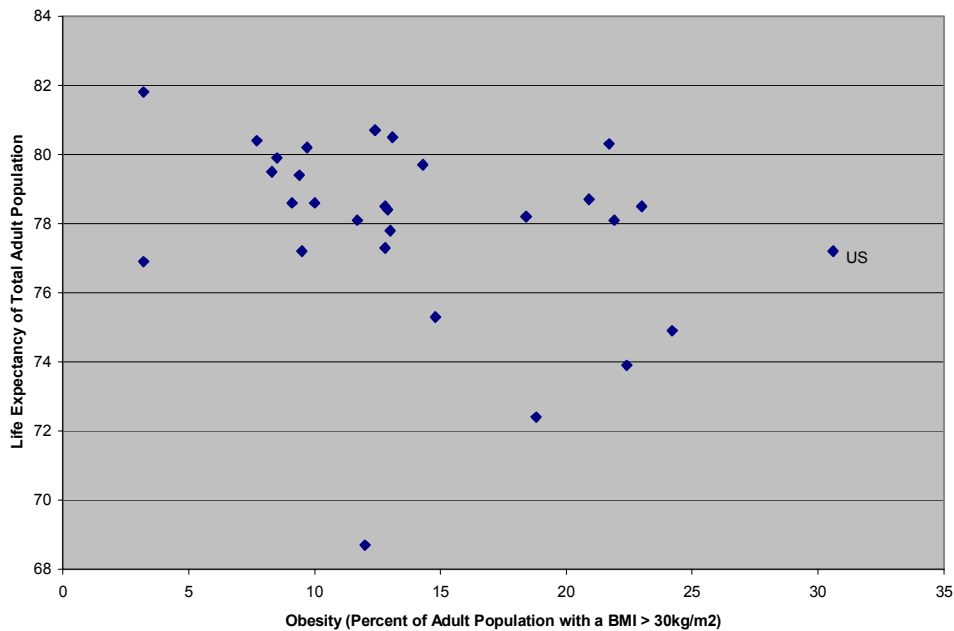


Life Expectancy vs. Doctors per Capita in OECD Countries

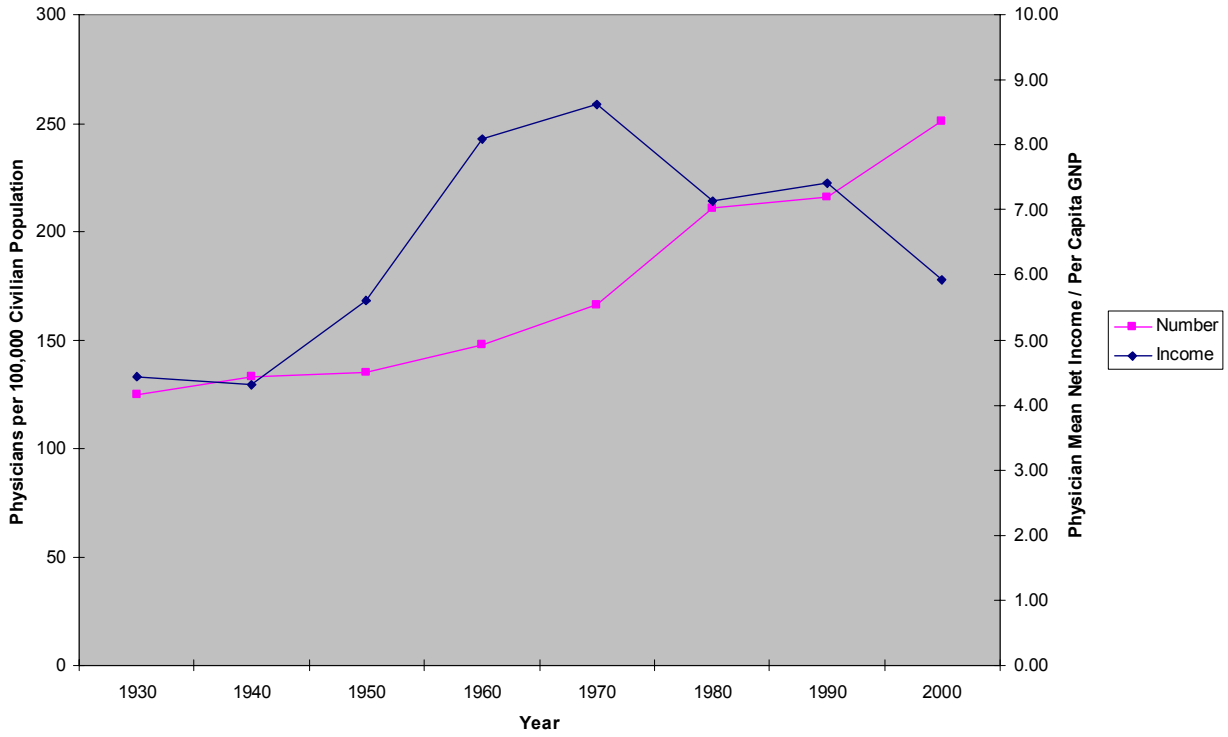


(figure 3) and (figure 4)

Life Expectancy vs. Obesity in OECD Countries

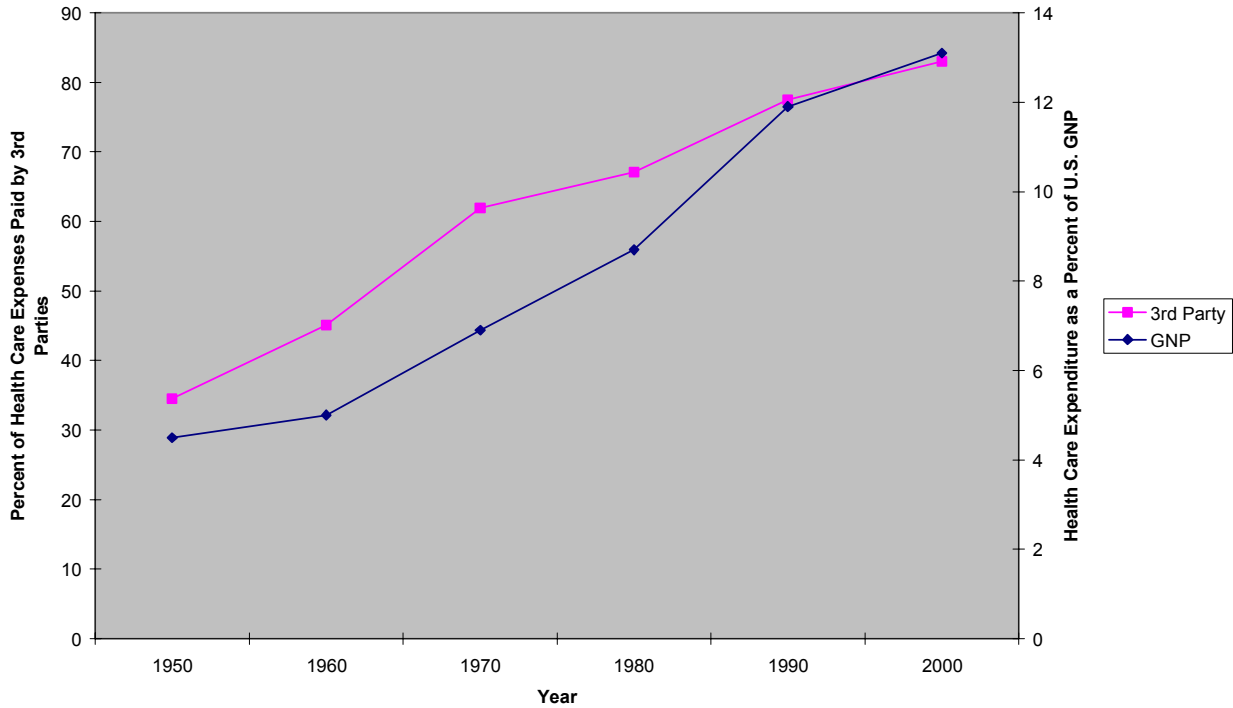


Physician Income and Number as a Function of Year

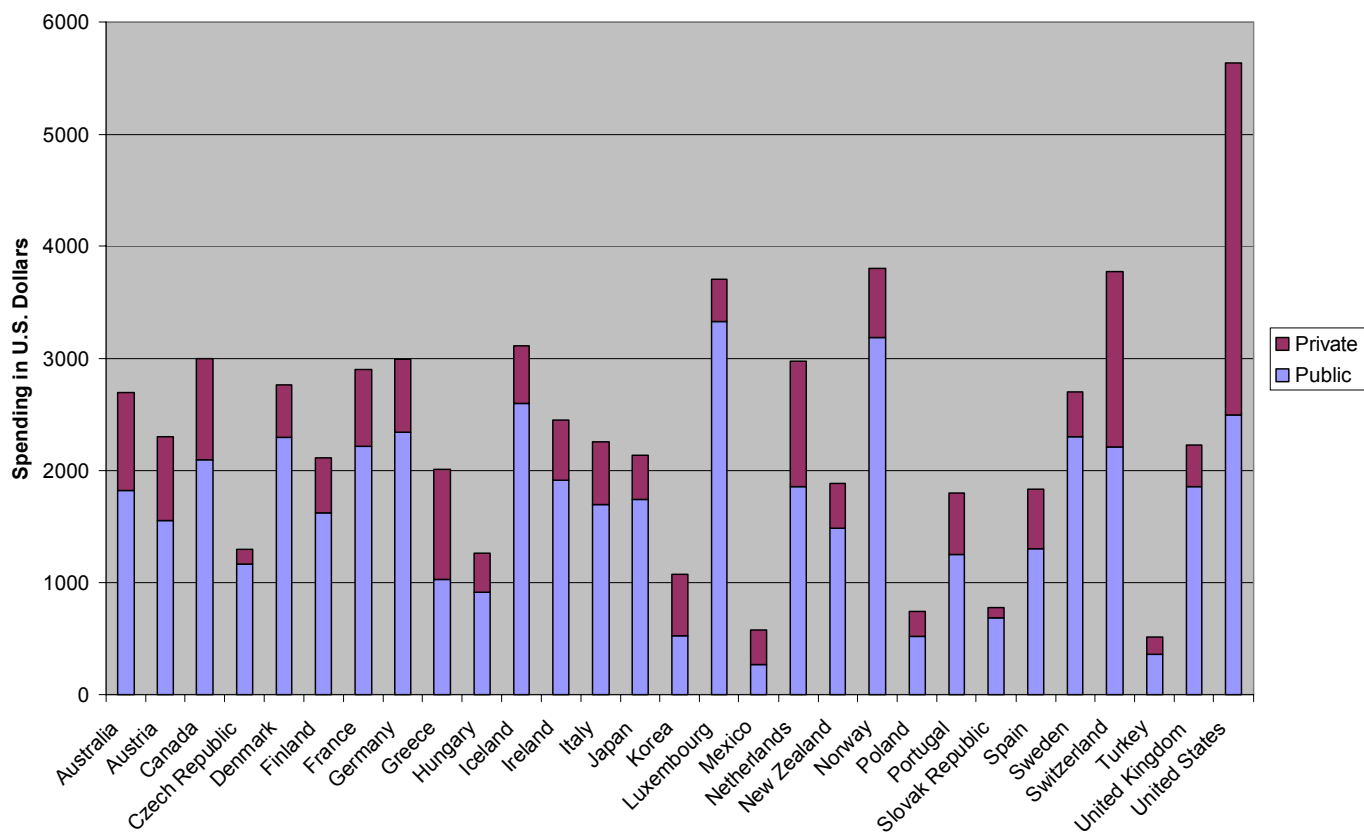


(figure 5) and (figure 6)

Health Care Expenses Paid by 3rd Parties and Health Care Expenditures as a Percent of U.S. GNP vs. Year



### Per Capita Spending in OECD Countries



(figure 7)

