4-20-2012

Navigating the Skills of Successful Leaders in Business and Sailing

Aras Karaitis
Western Michigan University, aras.a.karaitis@wmich.edu

The Health Care Debate and Health Care Coverage in the U.S.A. Today

A descriptive Analysis of the Issue

By Antonio Giraldi
04/25/2012

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I) Introduction

The health care system in the United State has struggled during the past few decades. This has been accompanied by many controversies and debates among U.S. policy makers and health insurance providers. Dissatisfaction with health care in the United States today can be divided into three main aspects of health care; coverage, cost, and quality. The first problem, coverage, is a major issue because about 15 percent of the population of the U.S. (45 million) is uninsured today. The first and second problems, coverage and cost, are somewhat related since the rising cost of obtaining health services is one of the main reasons why many individuals are currently uninsured. The third problem, health care quality, is as important as the other two problems because there is no point in providing health services to the public if the services provided are inefficient and of bad quality. For these and other reasons, there is a call for improvement in the U.S. health care system. In fact, studies show that the majority of individuals in the United States believe that the health care system in the U.S. requires major changes.

In response to the health crisis and the desire of the people in the U.S., President Barack Obama along with the congress passed a law, the Patient Protection and Affordable Care Act (PPACA), on March 23 of 2010 in order to address the three major issues regarding health care in the United States. The PPACA is expected to reduce the number of uninsured by 32 million, which is about 71 percent of the number of uninsured in the United Sates today. In addition, the PPACA will attempt to reduce, or at least slow down, the steady rising costs of health care and it will provide incentives to doctors and hospitals to provide high quality services.

Although the PPACA is intended to improve the health care system in the U.S. by providing potential solutions to the major issues faced nowadays, the law has been strongly criticized by many,

especially by members of the opposing party. Some argue that the law is not going to be effective at all, whereas others believe it will provide partial answers to part of the issue, while other methods would be more effective. For instance, many believe that a universal health care system or a single-payer health care system would be more effective in terms of expanding coverage and controlling cost (Clemmitt, 2010). However, thesetwo ideas have been opposed by many, including the opponents of the PPACA.

This research is intended to provide a descriptive analysis of the current state of the health care system in the U.S. and discuss part of the debate that has taken place during the past few years. Moreover, it will discuss some of the approaches that are being implemented in order to provide solutions to the problems. Finally, alternative solutions to the problem and its consequences will be discussed and analyzed. In order to analyze how the health care system is doing, we use the American Community Survey to determine the insurance rate in the U.S. today. Furthermore, we use data collected by other surveys on different health issues tosupport the results obtained in this analysis.

II) Public views of the US Health Care System

Recent studies have shown that the health care system in the United States needs to be modified in several dimensions, particularly in areas in which the system is inadequate. It fails in providing access, it is not efficient and the quality of the health care services provided to the public is somewhat lacking. The extent to which the system needs to be changed is of great importance and has caught the attention of policy makers and the public in general. According to a survey conducted by the Commonwealth Fund, more than seventy percent of the population in the United States believes that the health care system needs to be rebuilt to a great extent(Stremikis, Schoen & Fryer, 2011).In addition, other surveys, such as one conducted by the New England Journal of Medicine, agree that the Health System in the U.S. fails to provide adequate care to the public(McDougall, Duckett&Manku,

2003). The major areas in which the Health System needs to improve are: access to care, coordination of care, and efficiency of care. These areas are discussed in more detail below, focusing also in the differences between individuals with insurance and without insurance.

a) Access to Care

The first issue regarding health care is that individuals need to be able to receive care when they need it. If the public does not have access to health services when they are ill, then, basicallythereis no health care system at all. Therefore, the first major step in providing health care is to extend health services to as many individuals as possible.

Now, the question to answer is how the health system in the United States is doing with respect to providing health care to the public. The answer to this question is “not very well”. Individuals in the U.S. are having problems getting access to doctors either through an appointment or by phone. The Commonwealth Fund reports that 71 percent of the individuals that participated in the survey reported issues with respect to making an appointment or contacting a doctor. In addition, the survey showed that it is difficult for adults to receive advice from their doctors via phone or to get care during nights, weekends, or holidays without going to the emergency room(Stremikis, Schoen & Fryer, 2011, p.3).

The survey conducted by the Commonwealth Fund indicates that about 30 percent of adults have difficulties making an appointment with a doctor the same or next day, and about 40 percent of adults reported difficulties in contacting their doctors via phone during regular office hours. Moreover, more than 55 percent of adults reported difficulties in getting care outside of regular hours, or during holidays. Another important fact that the survey found is that the uninsured are less likely toget care without having to go to the emergency room. This is important if we take into account that about 15 percent of the population is uninsured.

b) Coordination of Care

While access to care is very important in order to guarantee that patients receive care when they are ill, it is also important that individuals receive adequate care and that they have access to the results of their medical tests. The Commonwealth Fund reported that adults are having problems accessing their medical records, and that it is difficult for medical records to follow individuals, especially when they have to go to different doctors(Stremikis, Schoen & Fryer, 2011. P.3-4).

The results of the survey conducted by the Commonwealth Fund show that about 25 percent of adults have difficulties getting the results of their medical tests, and that their doctors did not provide other doctors and nurses with important information about their medical history. The survey also reports that coordination problems between primary care physicians and specialists are common. Individuals reported that primary care doctors and specialists do not receive their medical reports after a medical examination. In addition, the survey reports that the likelihood of failure in coordination significantly increases with the number of doctors a person sees.

This indicates that there exists a big communicationgap between doctors, specialists, and nurses, which can lead to different complications and waste of time for both the doctors and the patients. For this reason, individuals believe that it is important to improve the information between doctors, and between the doctor and the patient. According to the Commonwealth Fund survey, nearly all adults (about 95 percent) believe it is important to have one place or doctor responsible for their medical records, but they also believe that all doctors should have access to their medical record. Moreover, about 90 percent of adults support the use of computerized medical records, and that doctors should be able to obtain information electronically from other doctors.

c) Efficiency and Quality of Care

Once individuals are able to receive care, it is important to guarantee that the health care they receive is both of high quality and efficient. Different studies show that the health care system in the United States is inefficient and does not provide the public with the necessary care. For instance, in a survey conducted by the New England Journal of Medicine, the results showed that the participants in the survey receive only 55 percent of the recommended care they need(McDougall, Duckett&Manku, 2003, p.2641). In addition, the report shows that the quality of care received by the participants range from 10 percent to about 78 percent of recommended care, depending on different medical conditions.

Other surveys show that the United States health care system is not providing health care efficiently to the public. The Common Wealth Fund survey reports that 54 percent of adults experienced waste and inefficiency in the health system during the last two years (Stremikis, Schoen & Fryer, 2011). These problems in efficiency and in the quality of healthcare delivery is a major concernfor the health system here in the United States because the United States is the country that spends most on healthcare, both in terms of percentage of GDP and per capita expenditure. In fact, the National Audit Office (NAO) compared the United States with 9 other industrialized countries, Germany, Japan, Sweden, France, Canada, United Kingdom, Australia, Italy, and New Zealand. The NAO reported that in 2000, the US spent $4,631 per head in health care, which was twice as much as the average of the 10 countries at that time ($2,220). Moreover, they showed that since the mid 1980s, not only has the US had the highest expenditure as a percentage of GDP, but the rate of change of expenditures as a percentage of GDP has been increasing rapidly from 1980 to 2000, whereas the expenditure of other countries seem to have stayed constant over time (NAO, 2002).

In addition to these findings, the 2010 National Healthcare Quality and Disparities report found that the two major sources of inefficiency in the health care system are inappropriate medication use,

and preventable emergency department visits and hospitalizations(Clancy, Munier&Crosson, 2011). The report states that improving efficiency will help to reduce the cost of health care and to use resources in ways that best support high quality care.

d) Insured vs. Uninsured

As mentioned on the "Access to Care" section, the Commonwealth Fund reported that people who are uninsured are less likely to receive care without going to the emergency room. More than 40 percent of the adults who are uninsured presented problems of this type, according to the survey. Uninsured individuals also presented difficulties getting care during nights, weekend, or holidays without going to the emergency room (65%). They also were not able to get advice from their doctors by phone during office hours (45%). Overall, 82 percent of uninsured adults reported having experienced at least one of those three problems, receiving care without going to the emergency room, getting care during weekend and holidays, and getting advice via phone. This percentage was the highest among the different groups of participants in the survey. The surveyed groups were categorized according to annual income, insurance status, health status, U.S. region, and political affiliation(Stremikis, Schoen & Fryer, 2011, p.17-21). The data on problems accessing care for both the insured and the uninsured is presented in table 1 below:

Table 1: Difficulties Accessing Primary Care

Percent reporting very difficult/difficult to do the following:	Get doctor appointment same or next day when sick, without going to ER	Get care nights, weekends, or holidays, without going to ER	Get advice from your doctor by phone during office hours	Any access problem
Insured all year	26	56	38	68
Uninsured during year	42	65	45	82

Source: "A Call for Change: The 2011 Commonwealth Fund Survey of Public Views of the U.S. Health System," Appendix Table 3.

However, access to care was not the only area in which the uninsured had problems. The data from the survey shows that a high percentage of uninsured adults reported more difficulties in terms of

getting safe, less wasteful and efficient care. They also reported more payment difficulties, and greater future worries. For instance, 30 percent of the uninsured experienced a safety problem, as described in table 2. This group had the second highest percentage of the groups presenting safety issues. In addition, 71 percent of uninsured adults experience potential waste and inefficient care, and 56 percent presented issues with payment difficulties. Table 2 and table 3 below show the data for individuals who experience problems in safety and inefficient care:

Table 2: Safety Issues

Percent reporting yes to the following:	In the past two years, doctors made a surgical or medical error or mistake	You or your family member ended up with an infection or complication as a result of medical care	Any safety problem
Insured all year	14	10	18
Uninsured during year	19	23	30

Source: "A Call for Change: The 2011 Commonwealth Fund Survey of Public Views of the U.S. Health System," Appendix Table 4.

Table 3: Potential Waste and Inefficient Care

Percent reporting yes to the following:	In the past two years, doctors ordered a test that had already been done	Time spent on paperwork related to medical bills and health insurance problem	Health care system poorly organized	Any waste problem
Insured all year	17	23	31	48
Uninsured during year	44	34	50	71

Source: "A Call for Change: The 2011 Commonwealth Fund Survey of Public Views of the U.S. Health System," Appendix Table 5.

Table 4 shows the proportion of insured and uninsured individuals who had payment difficulties. The data shows that 30 percent of the uninsured population experienced payment difficulties, whereas only 18 percent of the insured population experienced this type of problem. Again, the percentage of uninsured individuals who experienced payment problems was in general the highest across the different groups examined in the survey.

Table 4: Payment Difficulties			
Percent reporting yes to the following:	**Problem paying medical bills**	**Insurance denied payment for medical care or did not pay as much as expected**	**Any payment problem**
Insured all year	14	10	18
Uninsured during year	19	23	30
Source: "A Call for Change: The 2011 Commonwealth Fund Survey of Public Views of the U.S. Health System," Appendix Table 6.			

As mentioned previously, uninsured adults had more difficulties getting access to care and receiving quality and efficient care relative to any other groups of individuals. Individuals were divided into different groups, according to income level, health status, U.S. region, and political affiliation. In particular, we are interested in the differences between the insured and the uninsured populations. The data on the tables show that the proportion of uninsured individuals who had issues in any of the categories described on each table is greater than that of the insured individuals. An important point to notice here is that almost 90 percent of the uninsured population worries about their healthcare future. Although the proportion for the insured that worry about their future is also high (69%), the uninsured proportion is 20 percentage points higher as shown in table 5 below.

Table 5: Future Worries			
Percent reporting very or somewhat worried looking into the future:	**Will not get high-quality care when you need it**	**Will not be able to pay your medical bills in the event of serious illness**	**Either/both of the above**
Insured all year	58	59	69
Uninsured during year	82	77	89
Source: "A Call for Change: The 2011 Commonwealth Fund Survey of Public Views of the U.S. Health System," Appendix Table 7.			

Unfortunately, here we cannot determine whether the differences in proportion between the insured and the uninsured population are statistically significant or not, because there is not enough information about the sample size used in the 2011 Commonwealth Fund survey. However, the data presented on this survey gives us reasons to believe that individuals without insurance are more likely to

incur problems in receiving the care they need when they are ill. Furthermore, as mentioned in the access to care section before, uninsured adults have more difficulties accessing or receiving care without going to the emergency room. For these reasons, we proceed to investigate who is insured and who is not in the United States. In order to do this, we use the data collected by the American Community Survey (ACS) and divide the sample into different groups, according to race, gender, ethnicity, age, and other factors, to analyze which groups present the higher uninsured rates and to understand the state of healthcare coverage in the United States today.

The ACS is a continuous survey that provides data every year in order to help communities in the country to make decisions about the distribution of budget spending and other factors that affect our society. The survey collects data on different characteristics including respondent's age, sex, race, disabilities, income, health insurance, education, and others factors that affect our life (ACS, US Census Bureau). The next section describes in detail insurance rates in the U.S. and provides some important results about differences in coverage for different groups. In this research, we use the 2008-2010 ACS database, which contains a sample of about 9.1 million persons, collected in 2008, 2009 and 2010. We intended to use a database that contained a longer period of time, which would have been better for our analysis. However, this was not possible because the ACS began asking questions about health care on their survey in 2008. So, we limited ourselves to this time frame for the analysis offered below.

In order to obtain the results about who is insured and who is not, we worked with question 16 on the 2010 ACS which asks the following to the respondents: Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans? The participants could mark either YES or NO to the following options:

a) Insurance through a current or former employer or union.

b) Insurance purchased directly from an insurance company.

c) Medicare, for people 65 and older, or people with certain disabilities.

d) Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or disability.

e) TRICARE or other military health care.

f) VA (including those who have ever used or enrolled for VA health care).

g) Indian Health Service.

h) Any other type of health insurance or health coverage plan- Specify.

Based on the response to this question, each participant was classified as either insured or not insured. We used this classification in order to obtain the insurance rate in this analysis.

III) Insurance Rate in the US

In order to obtain information on health insurance coverage, I used the responses collected by the ACS and classified each individual as either insured or uninsured. Table 6 above shows the insurance rate across states in the United States. The table shows that the uninsured rate changes from state to state, ranging from 3 percent to about 20 percent. The overall uninsurance rate in the United States, shown in the last box of the table, is around 13 percent based on the data fromthe ACS. The state with the lowestuninsurance rate is Massachusetts with 3.36 percent.

Table 6:U.S. Insurance Rate by Sate

States	Insured	Uninsured	States	Insured	Uninsured	States	Insured	Uninsured	States	Insured	Uninsured
AK	79.2	20.8	**ID**	84.77	15.23	**MT**	84.5	15.5	**RI**	90.96	9.04
AL	88.05	11.95	**IL**	89.46	10.54	**NC**	86.62	13.38	**SC**	85.58	14.42
AR	84.75	15.25	**IN**	87.44	12.56	**ND**	91.53	8.47	**SD**	89.8	10.2
AZ	84.9	15.1	**KS**	89.13	10.87	**NE**	90.51	9.49	**TN**	87.82	12.18
CA	84.27	15.73	**KY**	87.58	12.42	**NH**	91.04	8.96	**TX**	79.92	20.08
CO	86.9	13.1	**LA**	84.5	15.5	**NJ**	89.94	10.06	**UT**	87.67	12.33
CT	92.83	7.17	**MA**	96.64	3.36	**NM**	81.9	18.1	**VA**	90.08	9.92
DC	94.05	5.95	**MD**	90.63	9.37	**NV**	81.55	18.45	**VT**	92.66	7.34
DE	90.72	9.28	**ME**	90.19	9.81	**NY**	90.37	9.63	**WA**	88.69	11.31
FL	82.6	17.4	**MI**	89.46	10.54	**OH**	89.61	10.39	**WI**	92.05	7.95
GA	83.64	16.36	**MN**	92.41	7.59	**OK**	82.85	17.15	**WV**	87.03	12.97
HI	93.72	6.28	**MO**	88.22	11.78	**OR**	85.43	14.57	**WY**	87.17	12.83
IA	92.5	7.5	**MS**	84.15	15.85	**PA**	91.18	8.82	**Total**	87.11	12.89

Notes: Computed by the author using the 2008-2010 ACS

In 2006, the state of Massachusetts implemented a health care reform, which is similar to the PPACA law passed by president Obama in 2010. Because Massachusettsexhibits such a low uninsurance rate, it gives reasons to believe that the reform implemented by Massachusetts in 2006 has helped to reduce the number of uninsured, since it decreased the uninsurance rate by about 7 percentage points (from 10.3% to 3.336%) from 2005 until today(Steinbrook, 2008). In what follows, we compare

Massachusetts with the other states in the United States. We compare theuninsurance rate across states according to race, age, employment status, income, and other factors.

a) Insurance Rate by Region

First, we divide the US into different regions in order to determine whether there are differences in the insurance rate between the regions of the United Sates. Tables 7(a) and 7(b) below show the insurance rate by division and by regions of the country. Table 7(a), on the left, show the insurance rate by divisions, which are just subdivisions of each region described in table 7(b). On the right hand, table 7(b) shows the insurance rate for the different regions of the US: North-East, Mid-West, South, and West. For more information about the regions and its divisions, please refer to appendix A (p.29).

Table 7(a): U.S. Insurance Rate by Division

	Insured	Uninsured
New England	94.03	5.97
Mid-Atlantic	90.53	9.47
East North Central	89.54	10.46
West North Central	90.40	9.60
South Atlantic	85.61	14.39
East South Central	87.24	12.76
West South Central	81.20	18.80
Mountain	85.32	14.68
Pacific	85.18	14.82
Total	87.14	12.86

Table 7(b): U.S. Insurance Rate by Region

	Insured	Uninsured
North-East	91.45	8.55
Mid-West	89.80	10.20
South	84.41	15.59
West	85.22	14.78
Total	87.14	12.86

Notes: Computed by the author using the 2008-2010 ACS

The tables above show that the insurance and uninsurance rates appear to be similar across regions of the country. The lowest uninsurance rate in both tables is in the North-East region, and the New England division, which may indicate that these two regions are related. In fact, New England is a subdivision of the North-East region, so the North-East region contains all the states in the New England Division. One important fact here is that Massachusetts, the state with the lowest uninsured rate,

belongs to New England and therefore to the North-East region. This raises the question of whether Massachusetts has such a low uninsurance rate that can drive the uninsured rate of a whole region to be smaller than the rest of the regions. Later, we will test whether the uninsurance rate in MA is significantly lower than the rest of the United States.

Another explanation for the lower uninsured rate in these regions, may be that the uninsurance rate of the states in the region are about the same, and when we add MA to the cumulative uninsured rate of the North-East region, this one goes down and falls under the other regions. If we look at the states that fall under the divisions of New England and Mid-Atlantic, this seems to be the case. For this reason, we will also test whether the uninsurnance rate is significantly lower in North-East and in New England than in the rest of the regions and divisions. The result of this test is shown in table 14 later.

b) Insurance Rate by Employment

Now, we compare the insurance rate in the U.S. by employment status. Table 8 below shows the rate of insured and uninsured for both Massachusetts and the United States. The left side of the table shows the insurance rates for the United States, whereas on the right side is displayed the insurance rates for Massachusetts.

Table 8: Insurance Rate by Employment Status				
	United Sates		Massachusetts	
	Insured	Uninsured	Insured	Uninsured
Employed	86.46	13.54	96.59	3.41
Unemployed	58.96	41.04	86.89	13.11
Not in Labor Force	88.36	13.64	96.82	3.18
Total	85.71	14.29	96.17	3.83
Notes: Computed by the author using the 2008-2010 ACS				

The table shows that overall the uninsured rate in Massachusetts is lower than in the United States in all categories, as we would expect. The difference between the employed and the proportion

uninsured of the population that is not in the labor force is about 10 percentage points lower in Massachusetts than in the United States. The biggest difference is noted with the unemployed population, which shows that about 13 percent of the unemployed are uninsured in Massachusetts versus 41 percent in the United States. This represents a big difference since the rate of uninsured differs by about 30 percentage points in the two areas being compared. Moreover, it is important to note that the group with the highest rate of uninsurance is the unemployed, both in Massachusettsand in the United States. In the United States the unemployed presents a rate of uninsured of more than 40 percent, which is very high.

c) Insurance Rate by Age

One of the aspects that the PPACA focuses on is increasing health insurance among "young adults."The law allows young adults from age 19 to 26 to be covered under their parent's health insurance unless they are provided health insurance by some other agent, such as an employer. Again, we compare how the rate of insurance differs between Massachusetts and the U.S. Table 9 shows these differences, the category denominated as "Young Adults" in the tables are individuals aged between 18 and 26 years old.

Table 9: Insurance Rate by Age

	United Sates		Massachusetts	
	Insured	**Uninsured**	**Insured**	**Uninsured**
Under 18	91.86	8.14	98.51	1.49
Young Adults	70.3	29.7	91.29	8.71
Over 26	87.75	12.25	96.77	3.23
Total	87.11	12.89	96.64	3.36

Notes: Computed by the author using the 2008-2010 ACS

The results on the table show that the uninsured rate is lower in Massachusetts than in the United States for the three groups, again. An important point to note is that the age group with the highest uninsured rate is "Young Adults." This is true for both categories, but especially for the United

States, which exhibits an uninsurance rate of about 30 percent. The policy to cover young adults could play an important role in reducing the uninsurance rate. Based on the data I obtained from the ACS, about 10 percent of the population is inthe young adults' category (from 18 to 26 years old). If the law can decrease the uninsured rate by more than 20 percentage points, which is the difference between the United States and Massachusetts, then the law would take a big step towards meeting its goal of reducing the number of uninsured by 32 million. The effects of the PPACA will be discussed in more details later.

d) Insurance Rate by Education

Now, let's consider differences in the insurance rate by level of education, both in Massachusetts and in the United States. Table 10below shows the insurance rate for different levels of education groups. The data show some interesting differences between Massachusetts and the United States in general. For the U.S., we note that the group with little or no education has a higher uninsurance rate than those with more education. In fact, the table for the U.S. insurance rate shows that, overall, the groups with more education, have a lower proportion of uninsured. The table for Massachusetts insurance rate shows a similar pattern, but in Massachusetts the rate of uninsurance is lower for each of the groups.

Table 10: Insurance Rate by Education

	United Sates		Massachusetts	
	Insured	**Uninsured**	**Insured**	**Uninsured**
No Education	89	11	97.25	2.75
Nursery School	95.3	4.7	99.11	0.89
Incomplete HS	83.73	16.27	96.27	3.73
High School Diploma	83.95	16.05	95	5
Bachelor's Degree	93.13	6.87	97.79	2.21
Associate's Degree	89.25	10.75	97.18	2.82
Masters Degree	96.5	3.5	98.92	1.08
PhD	97.1	2.9	99.07	0.93
Total	86.85	11.15	96.57	3.43

Notes: Computed by the author using the 2008-2010 ACS

Table 11: Insurance Rate by Poverty Level				
	United Sates		Massachusetts	
	Insured	Uninsured	Insured	Uninsured
Below 133%	74.50	25.5	92.65	7.35
Above 133%	90.3	9.7	97.39	2.61
Total	87.11	12.89	96.64	3.36
Notes: Computed by the author using the 2008-2010 ACS				

Since the tables for education show that more education appears to imply a lower uninsurancerate, it would be interesting to see the relation between income and insurance rate. Research has shown that there is a positive relation between income and education. That is, the more a person studies, the higher is her income. So, based on this relationship, a higher income would imply a higher education, which would imply a lower uninsured rate according to the previous table. Hence, we would expect the higher income people to have a lower uninsured rate than lower income people. Table 11 above shows the insurance rate for individuals below and above 133 percent of poverty level. The poverty level is defined as income less than $14,404 for an individual and $29,327 for a family in 2009("Summary of coverage," 2011).

e) Insurance Rate by Poverty Levels

Both table 10 and table 11support the relation explained above. The uninsured rate is higher for individuals below 133 percent of the poverty level both in the United States and in Massachusetts. In addition, the uninsured rate in Massachusetts is about 18 percentage points lower than in the United States. This raises an interesting point regarding the attempts to reduce the uninsured rate by the PPACA. The law is intended to expand coverage to individuals below 133% of the poverty level("Summary of coverage," 2011), which will help to reduce the level of uninsurance in the

countrysubstantially if it reduces the uninsured rate to about the level in Massachusetts. The effect of the PPACA on the uninsured rate will be discussed in more detail later.

f) Insurance Rate by Nativity and Race/Ethnicity

Finally, we compare the differences in the insurance rate by nativity and among the different races/ethnicities in the United States. First, we look at the difference between foreigners versus native U.S. individuals. Table 12 below shows the insurance rate for these two groups. The data shows that the uninsured rate is much higher for the foreigners than for the natives, both in the United States and in Massachusetts. The uninsured rate for immigrants is about 18 percentage points higher than for natives in the United States overall. This difference may be due to the number of undocumented immigrants in the United States. The reason for the difference in the insurance rate may be due to the fact that undocumented immigrants are less likely to have jobs and, as shown in table 7 previously, the unemployed are more likely to be uninsured.

Table 12: Insurance Rate US Native vs. Foreign

	United Sates		Massachusetts	
	Insured	**Uninsured**	**Insured**	**Uninsured**
Foreign	71.50	28.5	92.59	7.41
US Native	89	11	97.23	2.77
Total	87.11	12.89	96.64	3.36

Notes: Computed by the author using the 2008-2010 ACS

Now, we look at the uninsured rate for different race and ethnicity. The next tableshows the insurance rate for ten different groups of individuals: white, black, Hispanic, Indian, Alaska native, Alaska native and Indian tribes, Asian, Hawaiian, two or more races, and some other race.

Table 13: Insurance Rate by Race/Ethnicity				
	United Sates		Massachusetts	
	Insured	Uninsured	Insured	Uninsured
White	88.83	11.17	97.2	2.8
Black	82.5	17.5	93	7
Indian	71.6	28.4	88.37	11.63
Alaska	65.00	35	85.71	14.29
Alaska/Indian	76.3	23.7	93.46	6.54
Asian	86.8	13.2	96.32	3.68
Hawaiian	85.00	15	95	5
Other	68.55	31.45	89.71	10.29
Two or more	86	14	93.77	6.23
Total	87.11	12.89	96.64	3.36
Notes: Computed by the author using the 2008-2010 ACS				

Table 13 shows that the white population presents the lowest uninsured rate among the different groups, both in the United States and in Massachusetts. The rest of the groups present similar uninsured rates, except for the Indians and Alaska natives, who have the highest uninsured rate among all the groups with a uninsurace rate ofabout 30 percent or higher. The Hispanic population also presents a high uninsurancerate with 28 percent uninsured. As in the previous comparisons, the uninsured rate in Massachusetts is considerably lower than in the United States for each of the groups. However, the differences between the groups appear to be about the same in the United States and in Massachusetts (For a detailed illustration of the uninsurance rate for each group refer to Appendix B on page 30).

IV) Statistical Analysis

From the previous tables, we observed that the uninsured rate was considerably lower in Massachusetts compared to the United States. It would be reasonable, then, to ask if there is a significance difference in the uninsured rates between Massachusetts and the United States. We will approach this question by using statistical inferences about the proportion of uninsured individuals in the two areas. In this

analysis, we test the hypothesis H_0: $P_{US} = P_{MA}$ vs H_1: $P_{US}>P_{MA}$,where P_{us} and P_{MA} represent the proportion of uninsured individuals (the uninsured rate) in the United States and in Massachusetts respectively.

In order to test our hypothesis, we use the standardized format for approximating proportions to the normal curve in order to obtain a conclusion based on the normal curve probabilities, which are simple to work with. To obtain the standardized Z-value, we use the formula $Z_0= (P_{US} - P_{MA})/(P_0*(1-P_0)*(1/n_1+1/n_2))^(1/2)$, where $P_0=(x_1+x_2)/(n_1+n_2)$. In this case, $P_{US}= 0.1289$, $P_{MA}=0.0336$, $P_0= 0.1268$, $n_1= 9093077$, and $n_2= 195777$. By plugging these values into the previous formula, the result obtained for the standardized normal variables is $Z_0 = 125.3$, which gives us a p-value of $\rho= 0$. Therefore, we reject the hypothesis H_0: $P_{us} = P_{MA}$ and accept H_1: $P_{US}> P_{MA}$. This implies that the uninsured rate in the United States is significantly higher than in Massachusetts. The results show that the uninsured rate is lower for the population of Massachusetts than for the population of the United States at any significance level.

Other hypotheses were also tested using the same statistical method in order to see if there are statistically significant differences between the uninsured rates of different groups. For instance, based on the data shown in table 12, we can see that the uninsured rate for the native U.S. population is lower than that of the foreigners. So, we tested whether this difference is significant or not. We found that the uninsured rate for the foreigner is significantly higher than the uninsured rate of U.S. native. The reason for this difference may be due to the large number of undocumented immigrants that reside in the United States, as mentioned before. Given that we found the uninsured rate of foreigners to be higher than U.S. native, we chose a few specific groups of non-native individuals to see if the difference between these groups holds. The groups compared against the U.S. native were the Hispanics and the Asian, which are two of the largest groups of immigrants in the United States. The results for both groups were similar to the ones found for the foreigners in general. The uninsured rate for both the Hispanics and the Asians are significantly higher than that of U.S. natives.

Finally, we tested whether there is a difference between the uninsured rate of blacks and whites. In a study conducted to measure the magnitude of health and wealth disparities over time in the United States, the authors Jena and Philipson, find that the life expectancy of whites has been higher than that of blacks from 1940 to 2004. Although the difference in life expectancy between the two groups has decreased over time, by 2004 there was a difference of 6.2 years between the two groups (Jena, Philipson& Sun, 2010). In that study, the authors used life expectancy as a measure of health for both groups. In the study, life expectancy for whites was higher than for blacks, meaning that whites were healthier than blacks in terms of who live longer. Here, from table 14, we can see that the uninsured rate of blacks is higher than the uninsured rate of whites (17.5% for blacks against 11.2% for whites). For this reason, we tested to see if there is a significant difference between the two groups, and we found that the uninsured rate for blacks is significantly higher than for whites. So, it appears that there might be some similarities between the life expectancy outcome of the study mentioned before and the uninsured rate shown here. Table 14 below shows the results for the different tests conducted about the differences in the uninsured rates.

Table 14: Hypothesis Tests for Uninsured Proportions

	$P_0=\frac{x1+x2}{n1+n2}$	Standard Errors	Z-stat	P-value
H_0: $P_{US} = P_{MA}$ H_1: $P_{US} > P_{MA}$	0.1268	0.00076	125.30	<.0001
H_0: $P_{Foreign} = P_{Native}$ H_1: $P_{Foreign} > P_{Native}$	0.1289	0.00035	493.68	<.0001
H_0: $P_{Hisp} = P_{Native}$ H_1: $P_{Hisp} > P_{Native}$	0.1314	0.00033	513.22	<.0001
H_0: $P_{Asian} = P_{Native}$ H_1: $P_{Asian} > P_{Native}$	0.1106	0.00051	43.62	<.0001
H_0: $P_{Black} = P_{White}$ H_1: $P_{Black} > P_{White}$	0.1190	0.00036	177.71	<.0001
H_0: $P_{MW} = P_{NE}$ H_1: $P_{MW} > P_{NE}$	0.0946	0.00035	53.43	<.0001

V) Obama Care: The Patient Protection and Affordable Care Act

The patient protection and affordable care act (PPACA), which President Barack Obama passed into law on March 23 of 2010, focuses on two major aspects of the American health care system. The law targets certain group of individuals or entities in order expand and improve the health care market, by providing insurance to more individuals at a lower cost ("Summary of coverage," 2011). The two aspects of health care that the PPACA targets can be divided into six different parts, which are summarized as follow:

1) **Individual Coverage:** all individuals must have health insurance from 2014 and on, except for some specific group of persons. If an individual does not have health insurance, he will be required to pay a penalty fee from $695 to $2,085 a year, or 2.5 % of the household income. Some exceptions will be made depending on different factors such as income, religious beliefs, among other reasons.
2) **Public Coverage:** Eligibility for Medicaid will increase to 133% below poverty level for adults under 65 years old. That is, individuals with income below $14,404 or families with income below $29,327 will now qualify for Medicaid benefits. The federal government will cover 100% of the costs for individuals who are eligible for Medicaid from 2014 to 2016, 95% on 2017, 94% on 2018, 93% on 2019, and 90% from 2020 and on. In addition, Medicaid payments will cover 100% of the payments to primary care doctors for primary care services. This expansion on the eligibility for Medicaid will eliminate the current limitations that exist on the program, which prohibit most adults without dependent children from enrolling in Medicaid. However, undocumented immigrants still will not be eligible to enroll in the program.
3) **Private Coverage:** The private insurance market will be regulated in order to promote competition among health insurance providers, which will attempt to reduce market prices.

Moreover, health insurance providers will not be allowed to deny coverage to any individual regardless of their health status, gender, or any other reason.

4) **Employer's Coverage:** Employers will be penalized if they don't provide employees with health insurance or if their employees receive premium through an Exchange. Some exceptions will be made for small employers.
5) **Health Benefit Exchanges:** the Health Benefits Exchanges are subsidized markets that will be implemented in every state so that individuals and small employers can purchase health insurance at a low cost.
6) **Cost Estimates:** the law is expected to reduce the number of uninsured by 32 million in 2019. Moreover, it will expand coverage to some 40 million individuals through the new health insurance Exchanges and the new inclusion of more individuals to Medicaid and the Children's Health Insurance Program. Finally, the PPACA is expected to reduce the current deficit by about 124 billion within ten years.

The coverage aspect of the law will be discussed in more details below, as well as other implications of the PPACA. In addition, an analysis of some of the economic focus of the debate will be provided.

a) Expanding Coverage

The PPACA attempts to increase health coverage by expanding public programs such as Medicaid and the Children's Health Insurance Program, and by imposing a tax to individuals who don't have health insurance and employers who don't offer insurance to their employees. Furthermore, the law allows young adults to stay covered under their parents' health insurance up to age 26, and it will create a new exchanges insurance market, where individuals will be able to acquire health insurance at a low cost. The goal is to reduce the number of uninsured by 32 million during the first ten years of implementation of the law, which accounts for more than 70% of the population that is currently uninsured.

The health coverage expansion is the part of the Affordable Care Act that is more aggressively pursued because it mandates that most individuals acquire health insurance and requires employers to provide health insurance to their employees, or otherwise pay a penalty. In order to analyze the effect of the coverage expansion provision of the PPACA, we use the data obtained from the American Community Survey (ACS), which will help us to have an idea of how much the law will affect the insured and uninsured population.

The data obtained from the ACS, presented in table 9, shows that about 13 percent of the employed population is uninsured, which represents more than half of the total population that is uninsured. In addition, the data shows that about 30 percent of young adults between ages 19 and 26 are uninsured. This accounts for about 20 percent of the uninsured population. Although we cannot estimate how big the impact of the tax imposed on the employers will be to reduce the number of employees that are uninsured, we can expect the number of employees not insured to reduce substantially either by receiving coverage through their employers or by acquiring health coverage through the new "Exchange Markets." To this, we need to add the number of young adults that will receive coverage through their parents. Based on the data obtained from the ACS, if we consider that about 10 percent of the population is between 19 and 26 years old, and that about 30 percent of these young adults are uninsured, we can estimate that the number of young adults that would fall under the category of uninsured will be about 9 million. If we estimate that the law will have an effect similar to that in Massachusetts, we can estimate the total number of individuals that the law would affect based on the uninsurance rate in Massachusetts. In order to do this, we calculate the 95% confidence interval for the proportion of uninsured in Massachusetts and use the upper bound as the rate that the law will attain. Table 15 below shows the number of uninsured individuals that may be affected by the PPACA for some of the categories analyzed before, using the method just described.

Table 15: Estimates of Coverage for the PPACA

	Uninsured Rate	Percentage of Uninsured Population	Estimate of US population	Total of uninsured Covered by the PPACA based on the MA 95% CI
Employed	13.54%	57.7%	23 million	-
Young Adult	29.75%	9.3%	9 million	8.2
Below 133%	8.38	51.5%	13.5 million	12.5

In addition to the previous estimates, which should reduce the number of uninsured, we need consider the number of individuals who will acquire insurance to avoid the penalty involved on the individual mandate part of the law, and we need to consider the number of people who are going to be eligible to receive Medicaid coverage due to the expansion of the eligibility for Medicaid services, which are shown in table 15 above. In order to estimate these numbers, we use the data from the ACS as well. Table 15 shows the proportion of insured and uninsured persons with income below and above 133% poverty level (here we use $15,000 as the poverty level for an individual in order to adjust for inflation since 2009). The data shows that 9% of the individuals with income below $15,000 are uninsured. In addition, the distribution between below $15,000 and above $15,000 on income is about half and half. So, if we calculate using these proportions on the U.S. population, we can estimate the number of insured individuals to increase by about 12.5 million by the expansion of Medicaid.

By adding the numbers obtained above, we obtain a rough estimated increase of about 21 million people through the expansion of Medicaid (12.5 million) and the increase in young adults covered under their parents' insurance (8.2 million). If we add the number of individuals who will acquire insurance through either their employers or the Exchange Market, or because of the individual mandate, we should expect the PPACA to fulfill its goal of expanding coverage to about 32 million people.

VI) Conclusion

The US healthcare system needs major changes in order to provide the public with more accessible and efficient services. The areas in which the system needs to improve are, access, efficiency and quality of care. Recent studies show that the majority of adults in the United States are demanding a better system that meets the appropriate standards to serve the nation.

The major area in which the United States needs to improve is in providing access to the public. About 15 percent of the population is uninsured right now, which represent a big issue for that portion of the population. Uninsured individuals are less likely to receive care when needed, and tend to experience more problems in the efficiency and quality of the care they receive. In addition, those who are uninsured worry about their healthcare future more than those who are insured.

The Patient Protection and Affordable Care Act is expected to address the majority of the problems of the United States Healthcare system. The law is intended to dramatically reduce the number of uninsured individuals in the country, and will attempt to reduce the costs of receiving care, as well as improve the quality of the care received.

Based on the data collected by the American Community Survey, we estimate that the law will fulfill its goal of reducing the number of uninsured by 32 million in 2019. We compared the uninsurance rate in the United States with that of Massachusetts in order to determine if the law passed in that state in 2006 has significantly decreased the uninsurace rate in Massachusetts. Our results show that the uninsurance rate in Massachusetts is significantly lower than that of the United States. In addition, the uninsurance rate in the North East, which is the region where Massachusetts is located in, is significantly lower than the rest of the United States regions. Furthermore, we find that the uninsurance rate for foreign individuals is significantly higher than the uninsurance rate for the Native American. In

particular, we considered the uninsurance rate for both Hispanic and Asian in the United States and both groups presented an uninsurance rate significantly higher than the U.S. natives.

Based on these result, we conclude that the PPACA can fulfill its goal of reducing the uninsurance rate by 32 million. However, because of the high number of undocumented immigrants in the country and the high number of individuals who are able to avoid the requirements on the PPACA, there will always be a portion of the population that will be uninsured. Perhaps a single-payer system, in which every individual is provided with have health insurance, as it is used in other countries, would be more effective in reducing the number of uninsured in the country. However, this type of system has been opposed by the U.S. congress and the U.S. people.

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Appendix A: US Regions and Divisions

In section III, Insurance Rate in the United State, we divided the United States by divisions and regions. Here, the United States is divided into four main regions, which are: North-East, Mid-West, South, and West. Then, each region is divided into a set of divisions. The different divisions in which the country is divided are the following: New England, Mid-Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific. Table 16 and 17 below show the distribution of the states and divisions in which each region and division is divided into.

Table 16: Divisions of the United States

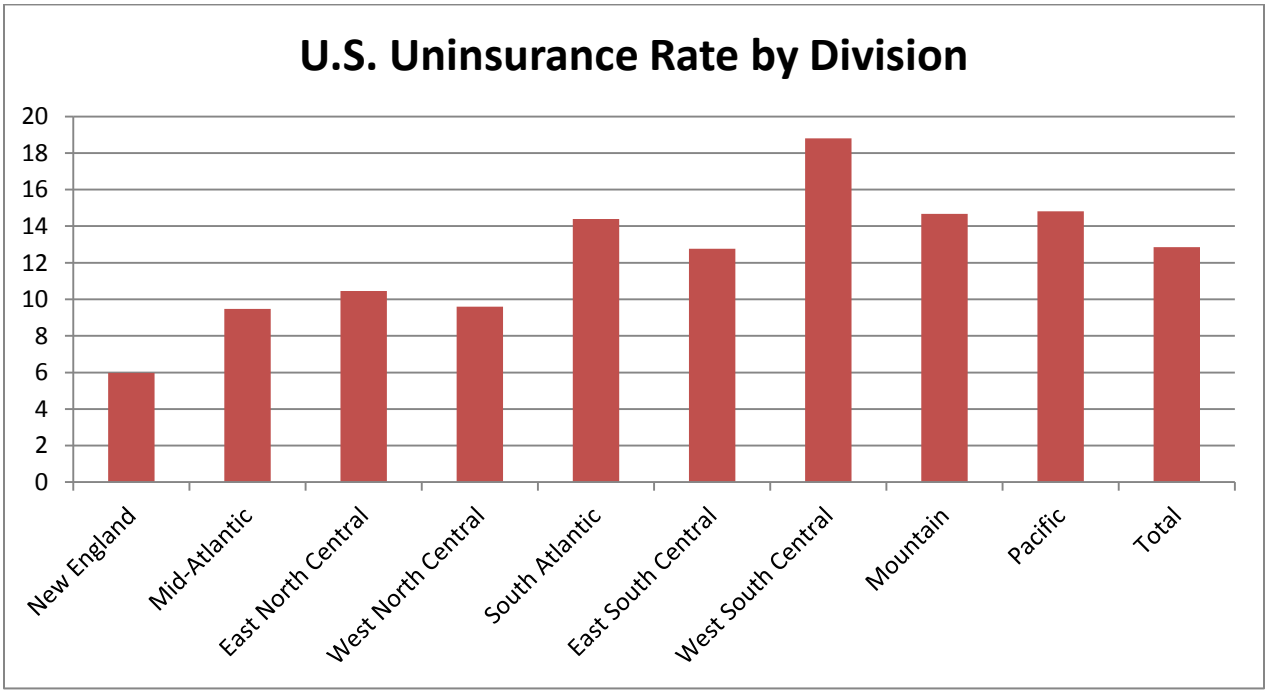
Division	**States**
New England	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
Mid-Atlantic	New York, Pennsylvania, New Jersey
East North Central	Wisconsin, Michigan, Illinois, Indiana, Ohio
West North Central	Missouri, North Dakota, Nebraska, Kansas, Minnesota, Iowa
South Atlantic	Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida
East South Central	Kentucky, Tennessee, Mississippi, Alabama
West South Central	Oklahoma, Texas, Arkansas, Louisiana
Mountain	Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico
Pacific	Alaska, Washington, Oregon, California, Hawaii

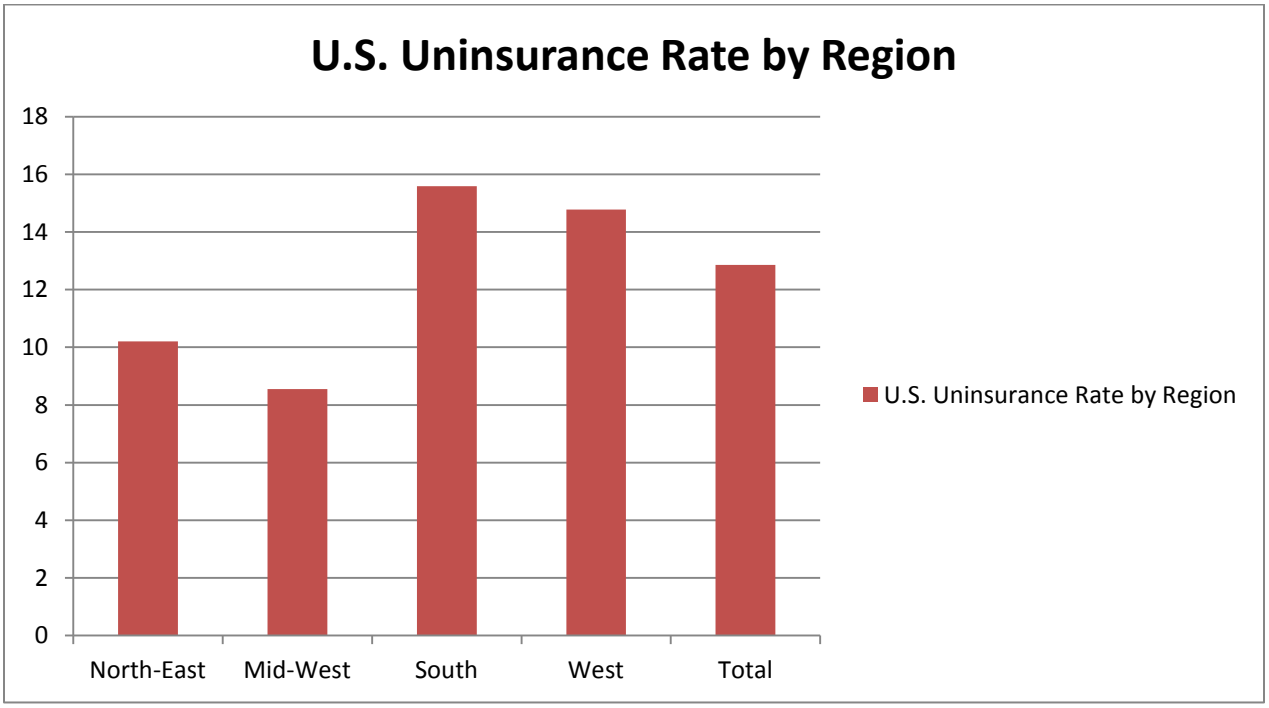
Table 17: Regions of the United States

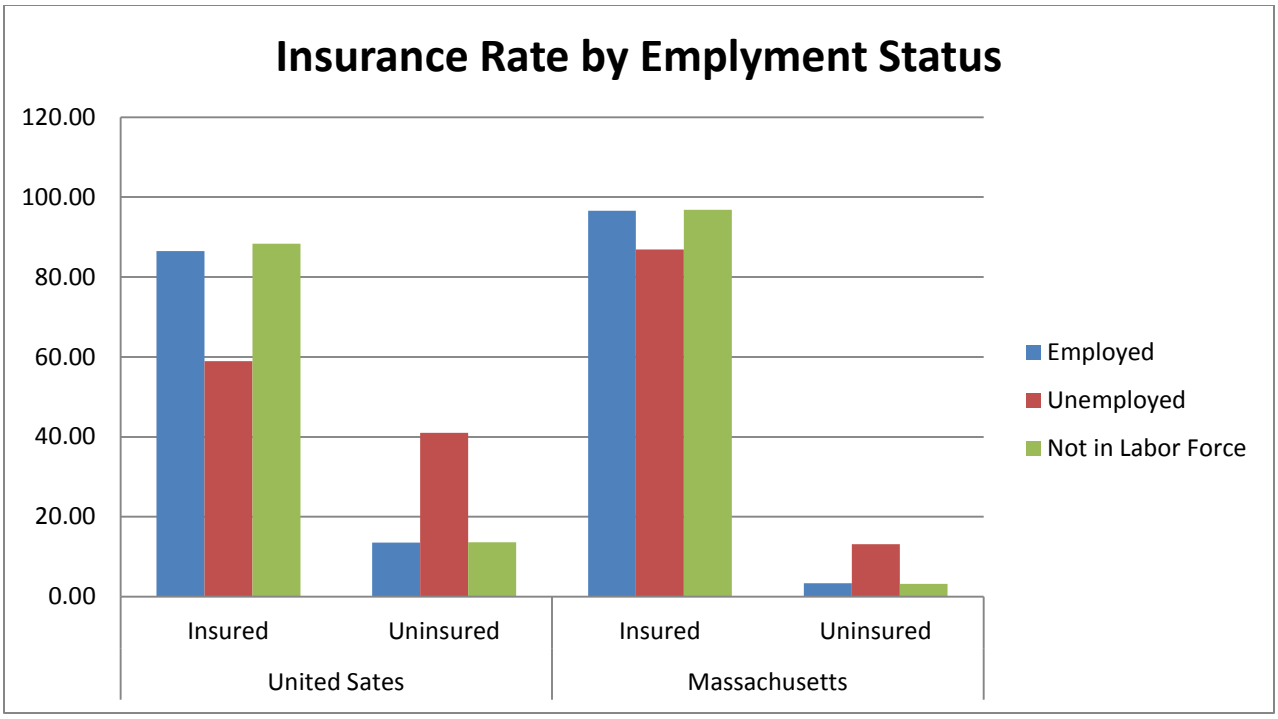
North East	**Mid-West**	**South**	**West**
New England Mid-Atlantic	East North Central West North Central	South Atlantic East South Central West South Central	Mountain Pacific

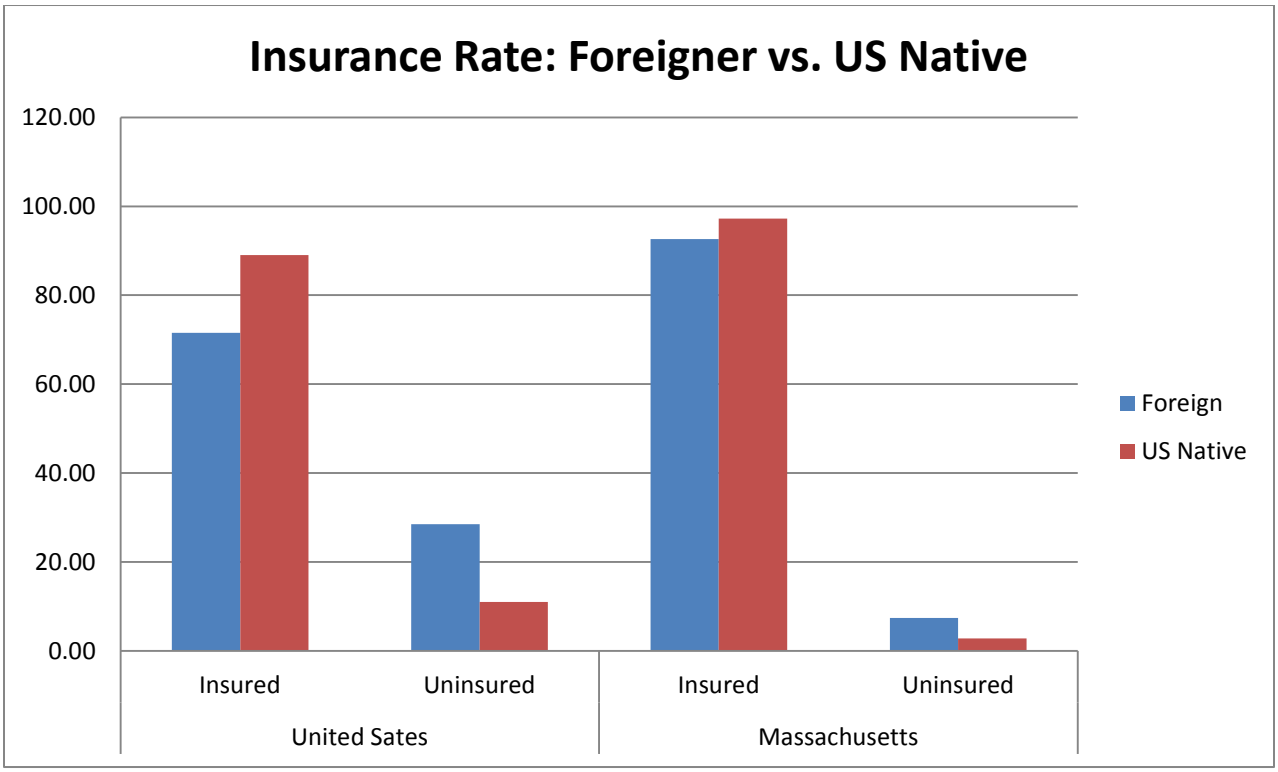
Appendix B: Data Graphs

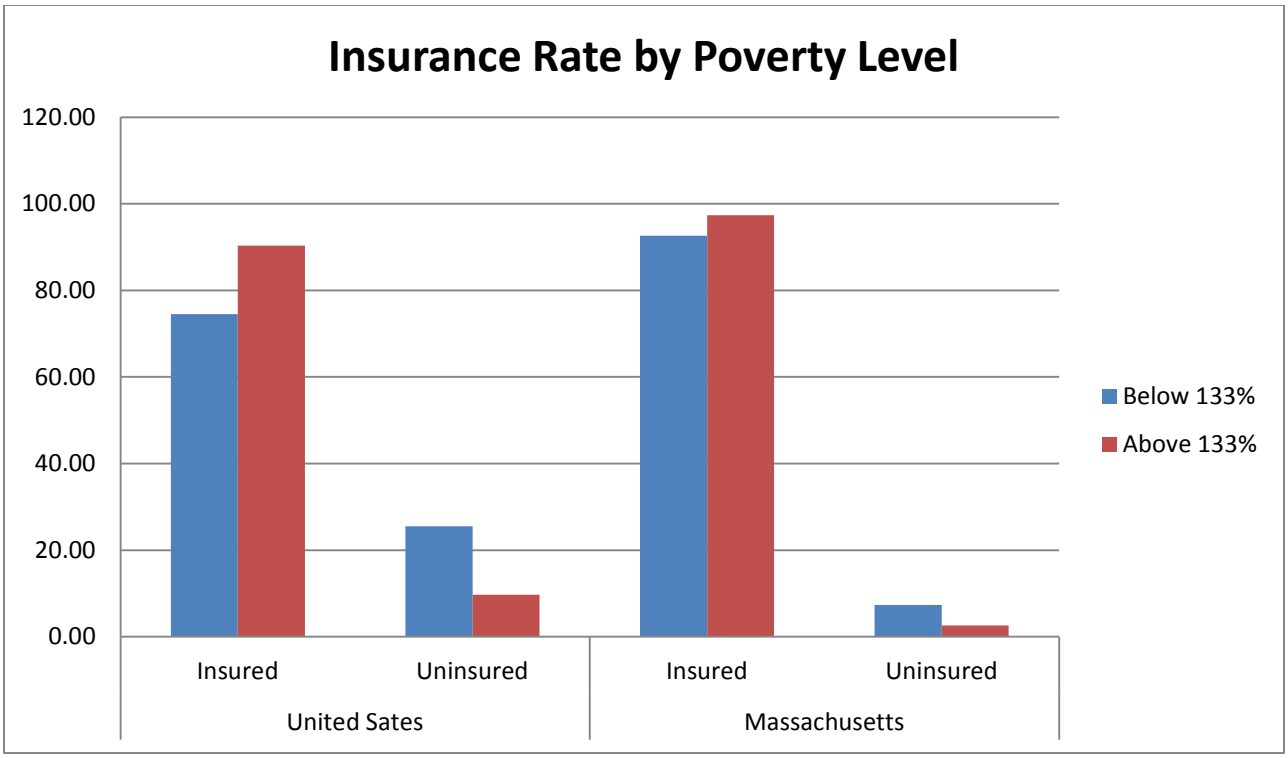
The following graphs show the uninsurance rate for the different groups analyzed in section III. The numbers on the graphs are based on the data from the tables in section III.

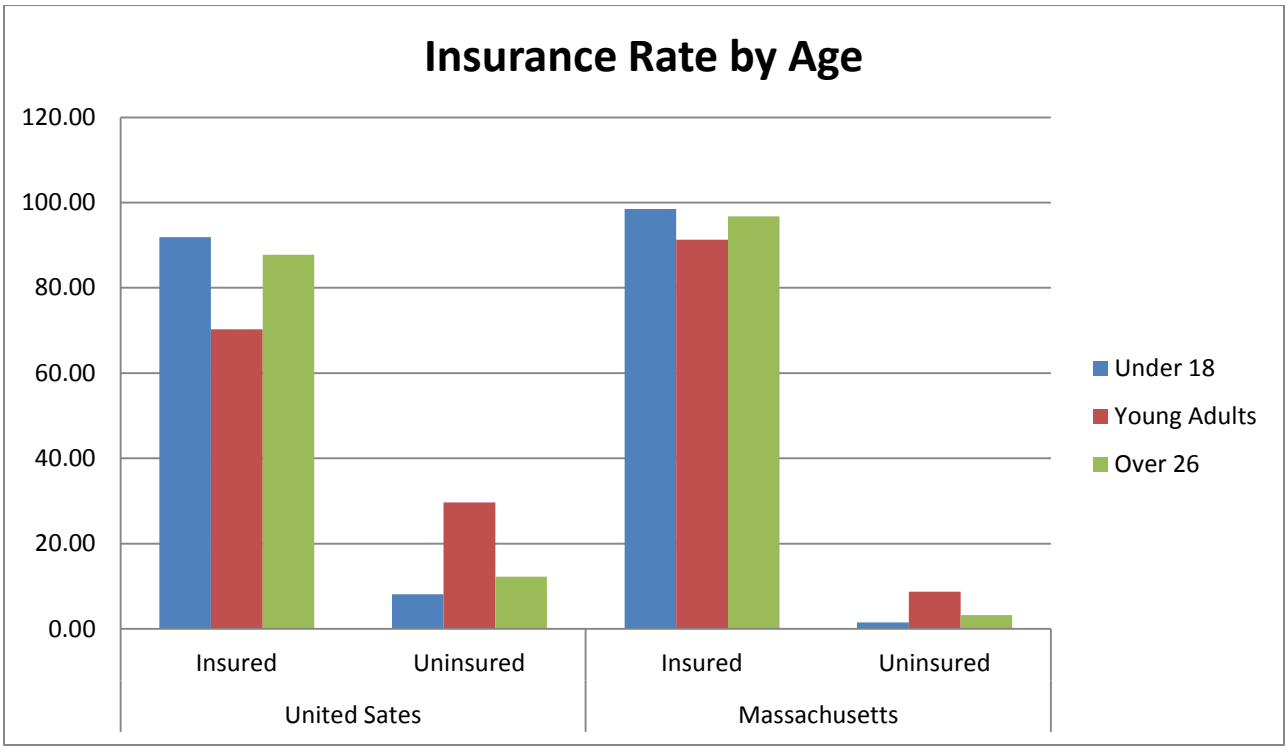


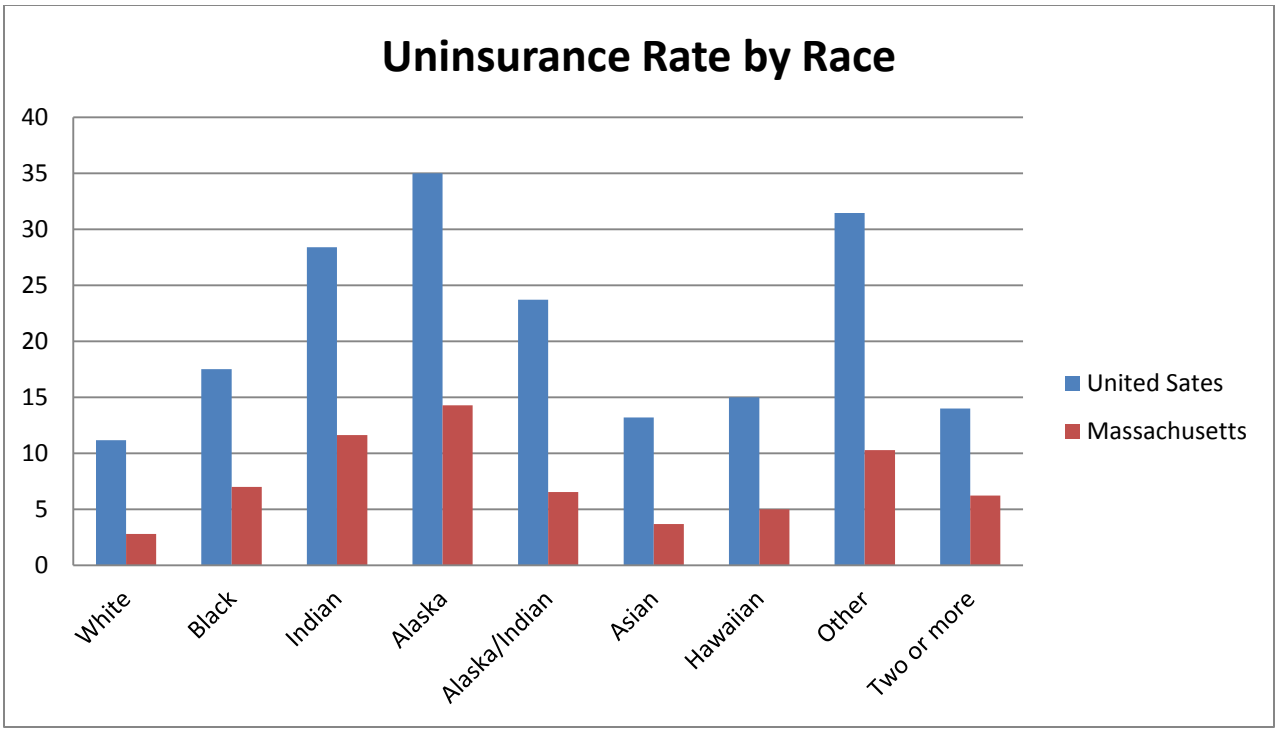


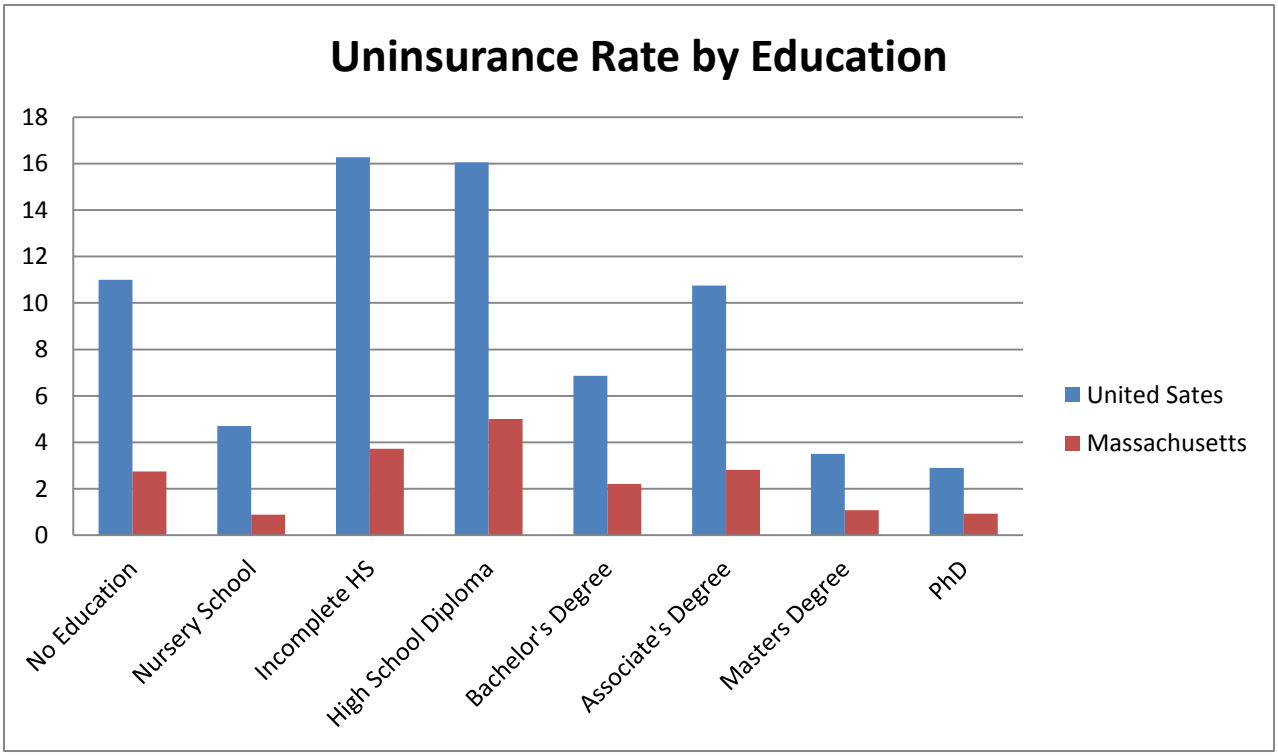

Insurance Rate by Emplyment Status
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Insured
Uninsured
Insured
Uninsured
United Sates
Massachusetts
Employed
Unemployed
Not in Labor Force


Insurance Rate: Foreigner vs. US Native
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Insured
Uninsured
Insured
Uninsured
United Sates
Massachusetts
Foreign
US Native


Insurance Rate by Poverty Level
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Insured
Uninsured
Insured
Uninsured
United Sates
Massachusetts
Below 133%
Above 133%


Insurance Rate by Age
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Insured
Uninsured
Insured
Uninsured
United Sates
Massachusetts
Under 18
Young Adults
Over 26


Uninsurance Rate by Race
40
35
30
25
20
15
10
5
0
White
Black
Indian
Alaska
Alaska/Indian
Asian
Hawaiian
Other
Two or more
United Sates
Massachusetts


Uninsurance Rate by Education
18
16
14
12
10
8
6
4
2
0
No Education
Nursery School
Incomplete HS
High School Diploma
Bachelor's Degree
Associate's Degree
Masters Degree
PhD
United Sates
Massachusetts