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BUILDING A MORE SUSTAINABLE HEALTH INSURANCE MARKET UNDER THE AFFORDABLE CARE ACT

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ABSTRACT

The goals of the Affordable Care Act (ACA) are to expand access to health care, improve the quality of care, and lower health care spending growth in the United States. However, there have been several challenges introduced during its implementation that raise concerns over the long-term sustainability of the health insurance market under the new law. A potential improvement that has been debated over the past decade is the establishment of a government-run public option in the health insurance exchanges to compete with private insurers and offer additional health plans in areas where few insurers exist. This paper evaluates the potential impact of establishing a public option in the health insurance exchanges. I conduct a case study on Germany's health care system to assess the advantages and disadvantages of balancing both a public and private sector in the health insurance market. Then, based on the analysis of Germany's health care system, I provide suggestions on how to improve the design of the public option to address the challenges presented by the ACA.

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Chapter 1

Introduction

In 2010, the United States dramatically restructured its national health care system with the passage of the ACA during the Obama administration. From an international perspective, the ACA is very much a national experiment. Although the uninsured rate dropped to its lowest point in the nation's history, several flaws emerged in the newly developed health care system that threaten the sustainability of the health insurance market. Health care spending in the United States, as a share GDP, greatly exceeds that of all other nations; medical outcomes do not compare favorably with other OECD countries; enrollment in the health insurance exchanges has been fairly low and is projected to decrease further; and insurer participation and plan offerings in the marketplace have steadily decreased since the establishment of the exchanges. Instituting a government-run public option in the exchanges was suggested as a potential improvement to the ACA to mitigate some of these challenges, however, little information is currently available on the impact this provision would have on the health insurance market.

This thesis aims to answer the following question: can a public option improve the sustainability of the health insurance system under the Affordable Care Act? The next two chapters of this paper analyze several aspects of the health care system in the United States. Chapter 2 presents a brief description on a few of the provisions established by the ACA. In the conclusion of Chapter 2, insight into the primary strategy of the ACA is offered. Chapter 3 evaluates the performance of the health care system in the United States. The key challenges of the ACA are categorized into four segments: health care spending growth, concerns over quality of care, enrollment in the health insurance exchanges, and insurer participation and plan offerings in the marketplace.

Chapter 4 explains the health care system in Germany. This chapter discusses the structure of the German system, characteristics of both the public and private sectors, benefits covered by health plans in

both sectors, and role of cost-sharing mechanisms. Then, several strengths and challenges of the health care system in Germany are identified. The goal of the analysis of the German model is two-fold: provide insight into the potential impact of balancing a public and private sector in the United States and help improve the design of the public option proposition. Chapter 5 summarizes a few of the advantages of the public option and suggests some modifications to minimize the negative consequences of its implementation. This chapter also discusses the disadvantages, limitations, and other considerations. Lastly, Chapter 6 offers a conclusion on whether a public option would be a good step forward, assuming the ACA does not get repealed and replaced.

Chapter 2

Provisions of the Affordable Care Act

President Obama signed the federal Patient Protection and Affordable Care Act (ACA) into law on March 23, 2010. The law is over nine hundred pages long and introduces several provisions designed to address three general goals: increase access to care for all Americans, improve the quality of care, and slow health care spending growth.[1] Many changes were implemented at various points during the Obama administration, such as the introduction of the health insurance exchanges on January 1, 2014.[2]

Under the ACA, healthcare consumers, providers, employers, and insurance carriers are afforded specific rights and must abide by certain responsibilities. Insurers have an incentive to cherry pick low risk consumers based on certain risk characteristics, such as medical history or current health status. In the past, insurers could offer lower premiums to the low-risk consumers. Insurers devise methods of attracting these low risk customers to increase their profitability and create a competitive advantage in the existing health insurance market.[3] Before the ACA, there were few regulatory barriers that prevented insurers from denying insurance to unhealthy individuals, which helped contribute to an uninsured rate of 18.2% in 2010. According to the Kaiser Family Foundation, other main reasons that individuals lack health coverage is because cost of insurance remains unaffordable, people lost or changed jobs, employers did not offer health insurance, or individuals felt health insurance was not necessary.[4]

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[1] See pg. 1 of [17]

[2] See Ch. 1, pg. 10 of [23]

[3] See "Oyer, Paul. [48]

[4] See [40]

Several provisions were included in the ACA that served to alter insurers' incentives. Insurers are now prohibited from excluding coverage to individuals based on pre-existing conditions, such as diabetes, heart conditions, and the like. In fact, the only determinants that can be used in calculating health insurance premiums are age, geographic location, family status and tobacco use. In addition, insurers cannot impose annual nor lifetime limits on the dollar amount of coverage given to policyholders. Once coverage is active, the insurer cannot cancel a policy, except for in cases where the policyholder knowingly misrepresented a material fact that would have drastically altered the cost of insurance. Policyholders must be allowed to renew their policies in order to encourage policyholders to continue using the coverage provided.[5] Next, the ACA established a medical loss ratio (MLR) requirement to drive down insurance costs and improve the quality of care. This provision required all insurers to spend at least 80% of their premium revenue on medical claims and quality improvement efforts. This share increased to 85% for insurers in large group markets. Prior to the ACA, insurers might spend less than this percentage on medical care and allocate towards administrative expenses, salaries, profits, etc.[6]

In addition, the ACA requires insurers to sell policies that provide the "essential health benefits," which include a comprehensive collection of health insurance benefits defined by the Department of Health and Human Services.[7] Coverage must include benefits for the following ten categories: prevention and wellness, outpatient care, laboratory services, emergency care, hospitalization, maternity and newborn care, pediatric care, mental health and substance use disorder services, prescription medications, and rehabilitation and habilitation.[8] The above provisions, among others, strive to make purchasing insurance more viable and useful to consumers and protect consumers from insurers' desire to avoid large risks, and hence, losses. Due to constraints on what insurers can charge for coverage and the competitive

[5] See Ch. 2, pgs. 21-23 of [17]

[6] See pg. 16 of [5]

[7] See Ch. 2, pg. 22 of [17]

[8] See [47]

nature of the public exchanges, the ACA increases pressure on all insurers to effectively manage the cost of medical care by negotiating with providers and aligning sufficient treatments with a patient's needs.[9]

The goal of establishing the public marketplaces was to provide consumers with a centralized online shopping platform, where individuals and small businesses can educate themselves about different plan options, compare plan costs, and buy insurance.[10] Consumers have choices when it comes to selecting plans through the exchanges. The ACA established four metal tiers (bronze, silver, gold, platinum), which vary depending on the percentage of average costs covered by each plan. Bronze, for instance, is the least expensive among these four levels and covers an individual for 60% of the cost of benefits, which would tend to attract young, healthy, low risk individuals. Platinum coverage, on the other hand, is the most expensive plan. This option pays 90% of the cost of benefits. This tier would appeal more to the elderly or unhealthy population who visit a doctor frequently.[11]

An additional level is the catastrophic plan, which is the cheapest of all plan options discussed. This option is available only to young adults under the age of 30, or individuals over the age of 30 who qualify for a hardship exemption.[12] Twelve states and the District of Columbia, operate their own state marketplaces. The remaining states utilize the federally governed exchanges. Federal premium subsidies are only available to those who purchase insurance through the public exchanges and fall within 400% of the Federal Poverty Level (FPL). About 70% of people who purchase coverage in the exchanges receive these subsidies.[13] Using the public exchanges, consumers can go to a single location and determine the best plan that suits their health care needs at the lowest cost by comparing plans with similar coverage.

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[9] See Ch. 2, pgs. 22-23 of [17]

[10] See pg. 17 of [5]

[11] See [61]

[12] See [27]. Hardship exemptions are given to consumers when they experience circumstances that prevent them from obtaining the minimum insurance coverage (i.e. "essential health benefits"), such as homelessness, bankruptcy, or death of a dependent.

[13] See [51] under "Individual Mandate"

The United States still remains one of the few countries without a government sponsored universal health care system, so the primary mechanism from which to enforce mandatory health insurance coverage is by an individual mandate. Establishing a sufficient mandate is crucial to the success of the ACA for a few reasons. The first is to build a large and balanced risk pool. The ACA prohibits insurers from denying coverage or charging higher premiums to individuals with pre-existing conditions. Therefore, having affordable premiums depends on whether insurers can enroll enough healthy individuals to offset the high-expected claim amounts of more unhealthy individuals.[14] Secondly, Americans with little to no disposable income would be more likely to avoid buying health insurance in order to allocate those savings to more immediate needs, such as food or other living expenses.[15] The individual mandate imposes a financial penalty on Americans who remain uninsured for more than three consecutive months of any year. The penalty is applied as a fixed dollar amount or percentage of income, which gets taken out of that individual's federal income tax refund. From 2016-2018, the penalty was set at $695 per adult per year (plus half of this amount per child) up to a household maximum of $2,085, or 2.5 percent of their annual income. The individual pays whichever is greater.[16] Tax penalties for remaining uninsured began accruing in 2014 and were phased in over a three-year period. Initially, the penalty was set at $95 per adult (plus $47.50 per child) up to a maximum of $285 per family in 2014, and steadily increased through 2016.[17] Since the mandate was phased in, the penalties may not have been enough to incentivize people to enroll in health insurance, which will be discussed further in Chapter 3.

Another mechanism from which the ACA enforces mandatory health coverage is through an employer mandate. Employer-sponsored health care plans remain the most common method for individuals to receive coverage. In 2016, the distribution of the national insured population is as follows:

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[14] See pg. 5 of [5]

[15] See Ch. 2, pg. 24 of [17]

[16] See [51] under "Individual Mandate"

[17] See [60]

employer-sponsored insurance covered 49% of the total population, followed by Medicaid at 19%, Medicare at 14%, non-group at 7%, other public coverage, such as military, at 2% and an uninsured rate of 9%.[18] Beginning in 2014, the mandate requires employers, who have 50 or more full-time employees and/or full-time equivalents, to offer health insurance that is affordable and provides minimum value to at least 95% of their full-time workforce and their dependents up to age 26. If this condition is not met, then the employer will be charged a financial penalty, which varies depending on a few factors. In 2018, employers who failed to cover at least 95% of their full-time workforce were subject to a fine of $2,320 per full-time employee, excluding the first 30 employees. However, if employers offered coverage to at least 95% of their full-time workforce, but failed to offer affordable insurance that provides minimum value, then those employers were subject to the lesser of the following two charges: either $3,480 per full-time employee, counting only the employees who received a federal subsidy for coverage purchased through the exchanges, or $2,320 per full-time employee, excluding the first 30 employees. Coverage is defined as affordable if an employee's contribution does not exceed a certain percentage of their household income (9.69% in 2017 and 9.56% in 2018). A plan offers minimum value if it "pays for at least 60% of the cost of covered services (considering deductibles, copays, and coinsurance)".[19]

All of the provisions identified thus far create opportunities to obtain health insurance for a large proportion of the national population. Medicare is available to the elderly population above the age of 65. The jointly funded program, Medicaid, and the Children's Health Insurance Program (CHIP) provide health insurance to children of low-income families, disabled persons, pregnant women, and individuals earning a household income under 100% of the FPL.[20] Most non-elderly Americans and their families working for medium to large companies will get coverage through their employer. For those without access to affordable employer-sponsored coverage, Medicare, or Medicaid, states provide the public

[18] See [31]

[19] See [51] under "Employer Mandate"

[20] See [36]

exchanges, where government subsidies are available to most enrollees. However, even with these provisions in place, there is still a segment of the population that is ineligible for Medicare and Medicaid, and cannot afford health insurance under the new law. As a result, the ACA gave states the choice to expand Medicaid to include Americans whose household income is below 138% of the FPL. The ACA ensures that the federal government will pay the full cost of covering those newly eligible for Medicaid.[21]

The central strategy of the ACA is built upon the concept of risk pooling, also known as the law of large numbers. Within the confines of health insurance, this suggests that the greater the cross-section of both low-risk and high-risk individuals that are gathered into a group, or risk pool, the more accurately insurance companies can estimate the average expected losses for each member within the group. In other words, the variation, or risk, surrounding future health care claims is minimized when a large and balanced risk pool is covered under one centralized plan. Theoretically, if the United States experienced full participation in the public exchanges, premiums for all enrollees under this strategy should be at its most affordable level because even the unhealthiest individuals would be cross subsidized by healthy individuals. However, one crucial challenge presented itself when the ACA was put to action: low risk individuals who produce relatively small expected claims need to be incentivized to join a risk pool full of high risk policyholders. These same low risk individuals would be paying a premium for health insurance that exceeds their actuarially fair value in order to cover the increase in the group's expected losses caused by high-risk policyholders. Increasing enrollment by all people is no easy task and as described in the following chapter, the ACA will be evaluated on its ability to meet its goals outlined above and perform using this strategy.

[21] See Ch. 2, pg. 27 of [17]

Chapter 3

Defining the Key ACA Challenges

The ACA proved to be successful in achieving some of its goals through the enactment of provisions outlined in Chapter 2. However, challenges that presented themselves during its implementation continue to threaten the long-term sustainability of this system. These challenges can be summarized within the following sections: health care spending growth, concerns over quality of care, enrollment in the exchanges, and insurer participation and plan offerings. This chapter aims to evaluate the performance of our health care system within these categories and define the key flaws in the ACA.

Health Care Spending Growth

The United States continues to have the most expensive healthcare system in the world. At almost double the OECD average of 9%, health care spending contributes 17.2% of our nation's GDP as of 2016. Health expenditures as a share of GDP have grown by 5% since 2000. The United States spent $9,892.30 per capita in 2016, which exceeded that of the second most expensive healthcare system in Switzerland by more than $2,000 per capita.[22] For a family of four, this average cost adds up to $39,569.20, which is well beyond the financial reach for some families. Figure 1 compares health care expenditures as a share of GDP among the top eight most expensive health care systems in the world, which accentuates the magnitude of American health expenditures compared to other countries. According to the Centers of Medicare & Medicaid Services, growth rates for healthcare spending were approximately 5.8% in 2015, 4.8% in 2016, and 5.4% in 2017. Growth rates are projected to average

[22] See [30]

roughly 5.8% per annum for years 2018 through 2025, indicating that spending growth has slowed in recent years, but is expected to increase in the near future.[23]

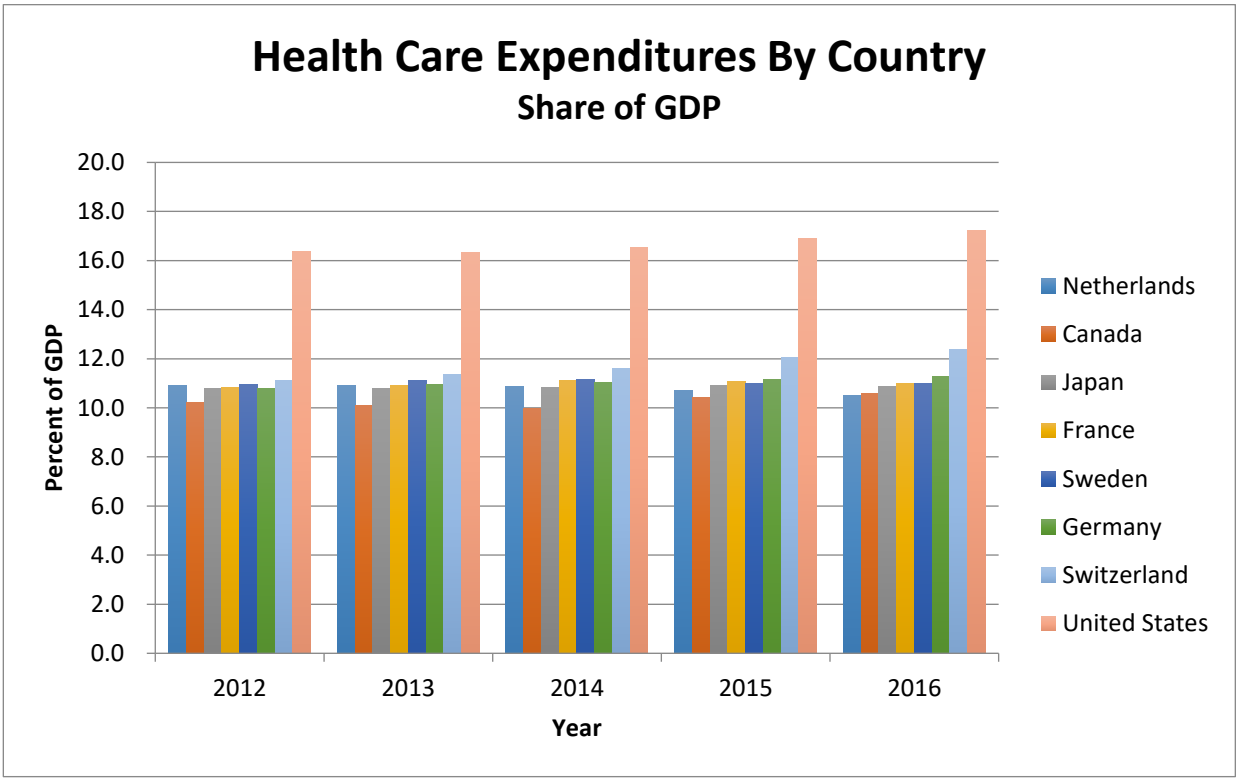

Figure 1. Health Care Expenditures as a Percent of GDP by Country[24]

There are many reasons why health care spending has continued to grow substantially over recent years. Since the introduction of the ACA, the uninsured rate has dropped dramatically from 18.2% (or 49.9 million) in 2010 to roughly 9% (or 28 million) in 2016.[25] As would be expected, the ACA coverage expansion led to an influx of new enrollees and an increase in hospital and doctor visits, which is a key driver to industry spending. A primary contributor to the decrease in the uninsured rate is Medicaid expansion in 32 states (and D.C.).[26] In 2014, individual states were allowed to choose whether to adopt

[23] See [1]

[24] Data was provided by the OECD. See [30]

[25] See [31]

[26] See [59]

the Medicaid expansion provision of the ACA, which broadened eligibility to include people with income levels at or below 138 percent of the FPL. The Medicaid expansion was 100% federally funded from 2014 through 2016, and will decrease to no lower than 90% by 2020 and thereafter.[27] This provides strong economic incentives for states to adopt this provision because the federal government will provide much more funding than 50-83% for traditional Medicaid and CHIP.[28] Due to this substantial compensation by the government, the Congressional Budget Office (CBO) predicts that more states will expand Medicaid eligibility starting in 2020. By 2027, roughly 70% of people who meet the new eligibility requirement will live in states that have expanded Medicaid. Lastly, the CBO projects that the number of individuals insured by Medicaid will increase from 63 million people in 2017 to roughly 70 million people by 2027. By 2027, roughly 24.3% of those insured by Medicaid would be eligible because of the ACA's optional expansion and 75.7% would have been eligible otherwise.[29] This assumes that the Trump administration does not remove the Medicaid expansion provision in the future.

States who expanded Medicaid saw drastic increases in health care access and use from low-income adults previously uninsured. Although this provision helped decrease the uninsured rate, a larger portion of Medicaid beneficiaries translated to higher health care spending. According to a study done in 2013, total health care spending (excluding out-of-pocket spending) was $6,083 higher on average for each Medicaid adult than for the uninsured. In contrast, total out-of-pocket spending was lower for each Medicaid beneficiary than for the uninsured by roughly $750.[30] Additionally, if all states expanded Medicaid, total Medicaid spending is projected increase by roughly $1 trillion from 2013-2022, $952 billion of which would be assumed by the federal government and $76 billion by the states. In

[27] See pg. 15 of [35]

[28] See pgs. 200-201 of [42]

[29] See pgs. 3-5 of [18]

[30] See pg. 141 of [15]

percentages, total Medicaid spending would increase by 16%, federal spending is expected to increase by 26% and state spending would increase by 3% on average across states.[31]

Aside from the Medicaid expansion provision of the ACA, Medicare spending is expected to skyrocket as the baby boomer generation enters retirement age. According to MedPAC, the number of Medicare recipients is projected to grow from 54 million in 2015 to over 80 million by 2030.[32] This will put an unprecedented strain on Medicare as the number of workers per beneficiary decreases, which is shown in Figure 2. In 2015, Medicare spending contributed to 3% of GDP. The growth rate for Medicare spending is projected to grow at 5.9% per year on average through 2030, which would exceed the projected average annual growth rate of GDP by 1.5%.[33] As the number of beneficiaries over the age of 65 increases, the need to slow healthcare spending becomes more crucial.

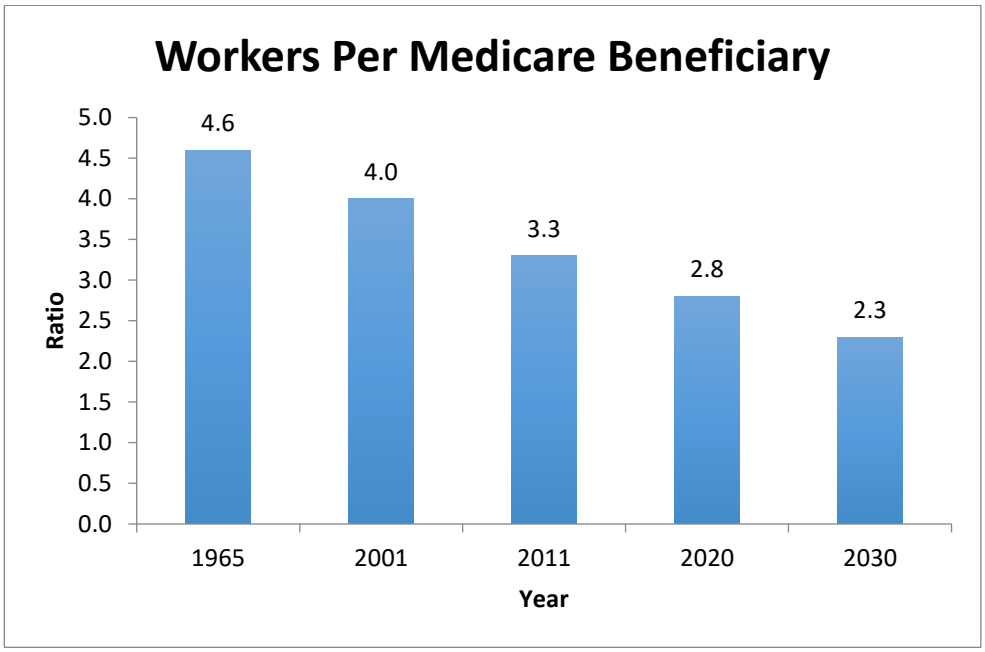

Figure 2. Workers Per Medicare Beneficiary[34]

[31] See pg. 3 of [35]

[32] See Ch. 2, pg. 35 of [52]

[33] See Ch.2, pg. 54 of [52]

[34] Data was provided by MedPAC. See Ch. 2, pgs. 36-37 of [52]

Concerns Over Quality of Care

Even with all of these investments into our healthcare, our health outcomes do not compare favorably with other countries. In a survey conducted in 2011, approximately 22% of patients experienced medical, medication, or lab errors/delays, which exceeds the OECD average by 6%. In other words, the United States experiences the highest rate of deaths amendable to health care compared to all other OECD nations. Additionally, about 13% of emergency room visits in the United States in 2014 were due to conditions that could have been prevented by regular doctor visits, coming in second to Canada.[35] With the exception of cancer, mortality rates in the United States exceeds the OECD average for most other major causes of death, including diseases of the circulatory, respiratory, and nervous systems, mental and behavioral disorders, and metabolic diseases.[36] According to the American Academy of Actuaries, medical errors have become the third leading cause of death in the United States.[37] Although the care that people receive differ dramatically across geographic regions in the United States, health outcomes at an aggregate level indicate imperfections in the delivery and spending of health care.

Enrollment in the Health Insurance Exchanges

The number of individuals who selected or automatically re-enrolled in a marketplace plan during the open enrollment period (OEP) increased from 8 million in 2014 to 11.7 million in 2015, and to 12.7 million in 2016, but decreased to 12.2 million in 2017. Nationally, 83%, or 10.1 million enrollees, who purchased a plan on the exchanges received advance payments of the premium tax credit (APTC) in 2017 to ease the financial burden of health insurance.[38] Although enrollment in the public marketplaces has

[35] See [55]

[36] See [54]

[37] See pg. 19 of [5]

[38] See [33]

increased substantially since its introduction in 2014, it still remains fairly low compared to the uninsured population. The Kaiser Family Foundation estimated that the number of potential marketplace enrollees was 27,438,000 in 2015. This calculation included all individuals who were eligible for tax credits, uninsured, covered under a non-group policy, ineligible for Medicaid and CHIP, or who did not have employer-sponsored coverage.[39] However, only 11.7 million individuals purchased coverage through the exchanges in 2015, which is roughly 42% of all potential enrollees.

There are many factors that contribute to low participation in the exchanges. One reason is because affordability still remains a challenge. In 2016, 45% of uninsured adults cited that the cost of coverage was too expensive.[40] Another reason was that the individual mandate might have been too weak to incentivize people to enroll in the exchanges. As noted in Chapter 2, the tax penalty was either 2.5% of household income or $695 per adult up to a maximum of $2,085 per household. The individual would pay the higher amount. The method of enforcing the penalty was through an individual's tax refund. However, if you consider a 45-year-old uninsured man who makes $70,000 a year, the annual penalty would be, at most, $1,750 for that individual. The CBO estimated that the average annual benchmark premium for a man of this age in the marketplace would be about $4,800 in 2017, which is almost three times more than the penalty.[41] Ultimately, this gives relatively little incentive for healthier individuals to enroll in the marketplaces. Another reason may have been that outreach efforts were insufficient at raising awareness of premium assistance or eligibility of Medicaid within states.[42]

Figure 3 shows the demographic characteristics of consumers in the 2017 OEP plan selections. The distribution given in Figure 3 shows that roughly 71% of marketplace enrollees fall within 100%-250% of the FPL. Therefore, the marketplaces are capturing less than half of all potential enrollees, and

[39] See [41]

[40] See [40]

[41] See pg. 2 of [18]. A benchmark plan is defined by the CBO as the "second-lowest-cost silver plan" within a geographic region.

[42] See pg. 8 of [5]

the segment that is covered consists mostly of individuals who are slightly above the income threshold determined for national Medicaid eligibility. Low participation suggests that the risk pool in the exchanges may not be very balanced. Previously uninsured individuals with greater health care needs would be more likely to enroll in the exchanges because the ACA prevents insurers from denying coverage based on pre-existing conditions.[43] On the other hand, young and healthy individuals with very low expected health costs would likely pay the individual mandate instead of paying a premium that exceeds their actuarially fair value. Even with federal subsidies, premiums may still be unaffordable for many Americans because the marketplaces are only insuring the most costly individuals amongst all potential enrollees. Premiums can decrease to a more affordable level in the exchanges if participation by all potential enrollees is maximized.

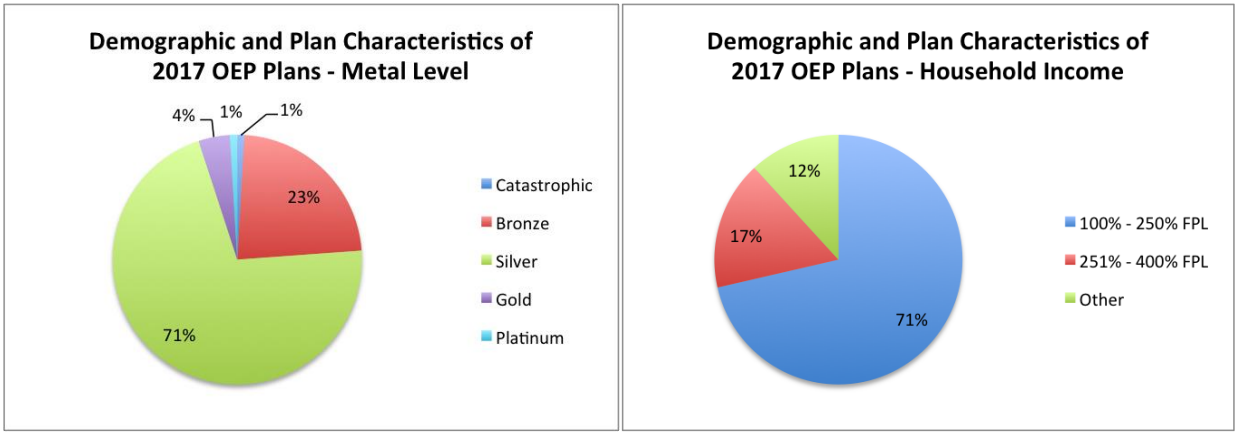

Figure 3. Demographic and Plan Characteristics of 2017 OEP Plans[44]

Many factors play a role in the projection of future enrollment in the health insurance exchanges. In an annual report published in September 2017, the CBO estimated that enrollment in the exchanges was expected to increase slightly every year through 2027 with as many as 10 million receiving government subsidies by 2027. The projected increase was due to a number of reasons. As premiums continue to increase both on and off the marketplace, more people who already qualify for subsidies, but

[43] See pgs. 20-21 of [5]

[44] Data was provided by the Centers for Medicare & Medicaid Services. See [33]

seek coverage off marketplace, will eventually shift to subsidized coverage through the exchanges instead. Additionally, non-compliant ACA policies will no longer be available beginning in 2018, so individuals who used to get coverage through these policies would be expected to enroll in the marketplace.[45] However, in December 2017, the Trump administration passed the GOP's new tax bill, which will eliminate the individual mandate imposed by the ACA beginning in 2019. Although this legislative change will most likely not affect individuals who receive coverage through Medicare, Medicaid, CHIP, or their employer, repealing the individual mandate will decrease the number of individuals who seek coverage through the exchanges. Without the mandate, young, healthy, and wealthy Americans would lose the incentive to buy insurance through the exchanges, which will further weaken the risk pool. The CBO estimates that the removal of the mandate could cause as many as 13 million Americans to lose health insurance coverage by 2027.[46] Not to mention, as more states begin adopting the Medicaid expansion provision of the ACA, fewer individuals, who become newly eligible for Medicaid, would be purchasing coverage through the exchanges.[47] Although little data is available at this time to accurately project the impact of all of these factors on enrollment in the marketplace, we can expect the removal of the individual mandate to lower consumer participation in the future.

Insurer Participation and Plan Offerings

Decisions to offer or purchase health insurance depend on the stability of health insurance premiums and the proportion of insurers to consumers. Although there is no conclusive minimum number of health insurers needed to promote a competitive marketplace, it would be hard to sustain a competitive environment with less than three insurers within a geographic region, even if consumers can

[45] See pgs. 5-6 of [18]

[46] See [45]

[47] See pg. 6 of [18]

easily compare plan offerings under the ACA. Having at least three insurers gives consumers multiple plan and insurer offerings and prevents premiums from increasing at an unsustainable rate. On the other hand, in the marketplaces, where premiums cannot vary based on the health status of a consumer, insurers must also be allowed to increase rates to a sufficient level so that insurers can cover their administrative expenses and make a decent profit when consumers with high-expected losses seeks coverage.[48] Figure 4 gives a map of the projected insurer participation in the health insurance marketplace for 2018, which is provided by the Centers of Medicare & Medicaid Services. At this time, there are no counties in the United States that have zero health insurers on the marketplace, however, almost 50% of counties have only one carrier. We can also see that a strong majority of the United States has fewer than three insurers. These counties tend to concentrate around the mid-west and southeast regions.

The number of participating insurers across the country has substantially decreased each year since 2015 with the exit of larger insurers, including United Health, Blue Cross Blue Shield, Humana, Aetna, and Anthem.[49] It was expected that insurer exits and entries would occur during the first few years after the ACA was implemented, but a continued decrease in insurer participation over consecutive years raises concerns that the exchanges are not viable for sustainable business. Spokesmen from these insurers cited several reasons as to why they left the exchanges. First and foremost, many insurers experienced significant losses on policies sold through the exchanges. Aetna, for instance, reported a loss of $450 million in 2016 on nearly 1 million of its customers both on and off marketplace. In 2017, Aetna lost an additional $200 million on its remaining 255,000 ACA compliant policies.[50]

[48] See pg. 14-16 of [5]

[49] See [58]

[50] See [24]

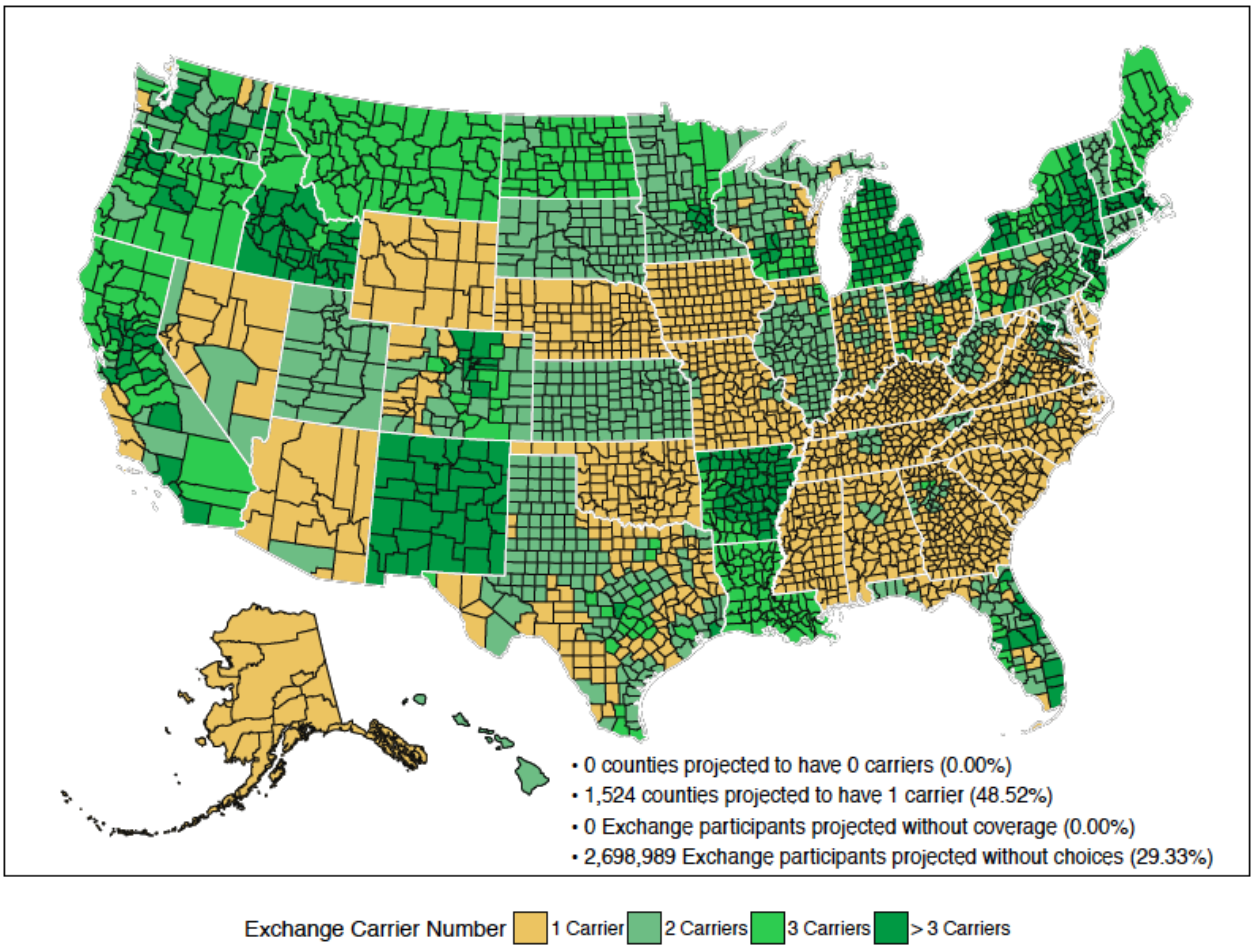

Figure 4. 2018 Projected Insurer Participation By County[51]

Another reason is uncertainty surrounding the future of the exchanges under the Trump administration. Since the introduction of the exchanges in 2014 and then the 2016 election, there have been "continual changes in federal operations, rules, and guidance".[52] The CBO identifies low enrollment, the withdrawal of the individual mandate, and uncertainty about the federal government's future payments for cost-sharing reductions (CSRs) as additional rationale for the exit of insurers.[53] With

[51] Graph available from and created by the Centers of Medicare & Medicaid Services. See [2]

[52] See [58]

[53] See pg. 6 of [18]

little to no competition, insurers lack the incentives to manage costs, aggressively negotiate prices with healthcare providers and pass the savings on to consumers.

If a county has no exchange insurer, consumers would no longer be able to purchase marketplace plans with advanced premium tax credits or other cost-sharing reductions, which would cause enrollment in the exchanges to decrease and marketplace premiums to rise over time. According to the Kaiser Family Foundation, in 2017, roughly 83% of marketplace enrollees received tax credits to help decrease their monthly premium and roughly 57% of marketplace enrollees received CSRs to reduce their out-of-pocket costs. Without a participating insurer in their area, consumers would be forced to purchase individual or family plans through the private insurance market. Individuals who rely on these subsidies may be unable to afford insurance off-exchange, and ultimately join the uninsured population.[54]

[54] See [16]

Chapter 4

Evaluation of the German Health Care System

A large component of the health care reform debate in the United States focuses on the establishment of a public option, which is a nonprofit insurance program managed by the federal government that would compete with private, for-profit insurance plans in the health insurance exchanges. The public option would not be financially sustained by a federal income tax; but rather, this program would charge premiums to enrollees in a similar manner as private insurers. The original proposal suggested the public option to be established nationally, however, more recent versions suggest a statewide opt-in or opt-out provision.[55] This provision will be discussed in more detail in Chapter 5. The inclusion of a public option was introduced as part of the Democratic Party's campaign and has been debated rigorously in every presidential election since the beginning of the Obama administration.

The goals of the public option align with those of the ACA; that is, to lower premiums for all plans due to increased competition, improve quality of care, and decrease the uninsured rate. The proposition further states that the Department of Health and Human Services would manage public option and meet the same benefit requirements as private plans under the ACA. Participation in the public option would be voluntary and premiums would vary according to geographic regions, similar to the exchanges. By providing another choice in the market, both private and public plans would have an incentive to control their administrative costs and lower premiums because consumers could leave one for the other during enrollment periods. For instance, if the public option offered too narrow of a provider network, consumers would not enroll. Likewise, if private plans restricted access to care in any way, consumers may opt for the public option instead.[56]

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[55] See pg. 6 of [9]

[56] See [4]

Hardly any evidence exists on whether a public option would improve the health insurance market in the United States, so it is important to capture the debate from both sides. Advocates of the provision claim that a government-managed public option would have greater negotiating power over reimbursement rates and generate lower administrative costs compared to private insurers.[57] As a result, this option could lower the cost of health insurance for the general public, especially the unhealthiest and poorest segment of the population. This option could also discipline private insurers to manage costs more efficiently and charge lower premiums in order to compete.[58] On the other hand, opponents of this proposition argue that strong government involvement would serve as an unfair competitor and take over the health insurance market, eliminating private insurers entirely and leading to a single payer system. In doing so, health care spending could skyrocket and be absorbed by American taxpayers in the long run.[59] The controversy ultimately boils down to the extent of the government's role in our health care system.[60]

Whether or not the goals of the public option would be realized in practice is difficult to prove without actually implementing the provision. However, we can evaluate the advantages and disadvantages of an existing international health care system that utilizes both private and public insurance plans and see if a similar system can be incorporated in the United States. The rest of this chapter describes the health care system in Germany, identifies the role of public and private insurance in their system, and outlines the challenges and benefits of their existing structure.

[57] See pg. 4 of [39]

[58] See pg. 508 of [6]

[59] See pgs. 155-156 of [43]

[60] See pg. 1 of [9]

The Health Care System in Germany: The Bismarck Model

Similar to many other countries, all German citizens are required by law to purchase health insurance. Health coverage is primarily delivered by two parallel systems: competing, non-profit, self-governing health insurance funds (also referred to as "sickness funds") in the statutory health insurance system (SHI) and alternative private health insurance (PHI). While German residents are obligated to purchase health insurance, a large portion of the population is allowed to opt out of the public sector and into a private plan. The German government delegates regulation to the autonomous organizations within the sickness funds and medical providers.[61] The most prominent decision-making body of the statutory health insurance system is the Federal Joint Committee, which dictates what medical services will be insured by the public sector and sets quality controls. The Federal Joint Committee consists of members that represent physicians, dentists, psychotherapists, hospitals, sickness funds, and insured individuals. Additionally, the Federal Ministry of Health is the legal framework responsible for policy-making for the self-governing associations at the federal level.[62] Overall, the federal government in Germany oversees efficiency and compliance in the health care system, but has a very small role in the regulation, delivery, and direct financing of their system. Figure 5 shows a basic flow chart of the structure of the German statutory health insurance system.

Health care coverage is easily accessible for all citizens of Germany. There are currently about 118 non-profit SHI insurers and 42 alternative private health insurers (of which 24 are for-profit). In 2016, roughly 86% of the population received primary coverage through the sickness funds and 11% through private health plans.[63] Less than 3% of the population, consisting of military personnel, policemen, and other public employees, were covered under special programs and less than 1% of the

[61] See [10]

[62] See [28]

[63] See [10]

population had no insurance coverage.[64] Coverage for undocumented immigrants, refugees, and visitors is not insured by the sickness funds, but by the national social security contributions fund in case health care needs arise.[65]

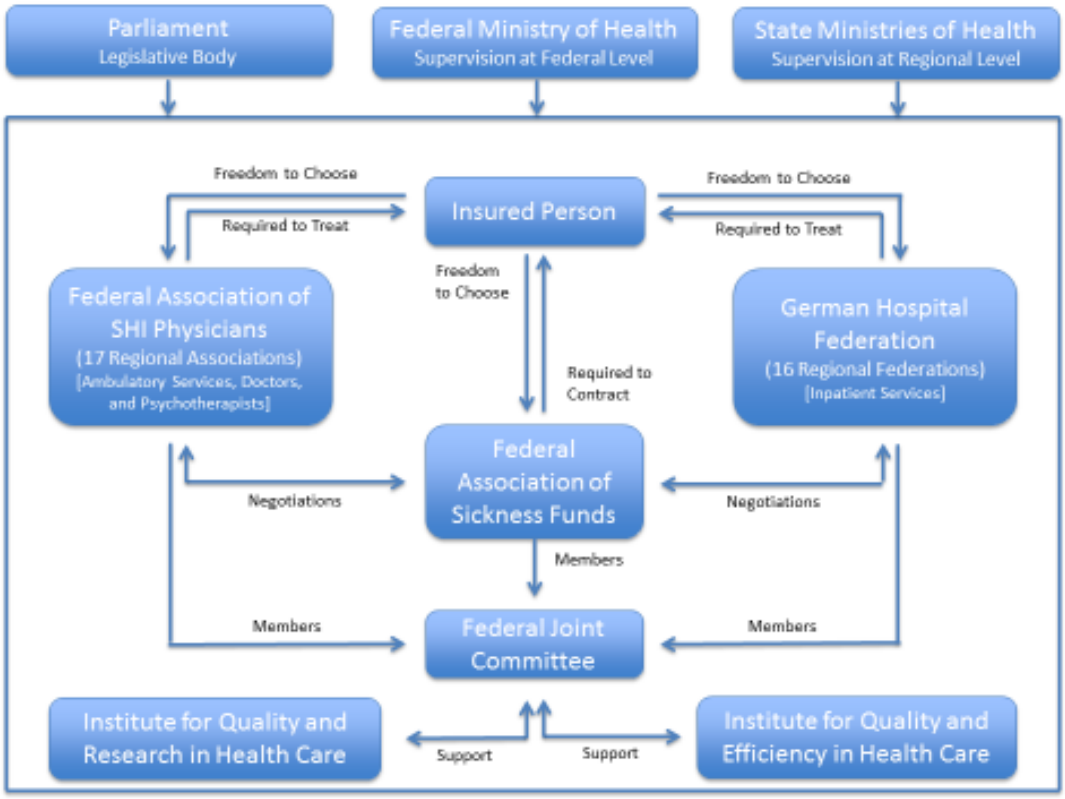

Figure 5. Basic Structure of the German Statutory Health Care System[66]

Unlike many other countries with universal health care systems, the German health care system is not financed by a tax. A tax would imply that the federal, state, or local government sponsors and provides health insurance to its citizens based on its tax revenue. Rather, the German system is financed by a mandatory contribution that is paid to the self-governing bodies within the SHI or PHI systems. For both the public and private sectors, this contribution gets taken directly out of employees' paychecks. In

[64] See [14]

[65] See [29]

[66] Information provided by pg. 884 of [13] and pg. 331 of [46]

2016, the uniform contribution rate for the SHI system was set at 14.6% of gross wages, which was split equally between the employer and employee.[67] Premiums in the private sector are also shared equally between the employee and their employer, however, premiums are calculated based on risk characteristics of the consumer, including age, gender, medical history, date of entry into a private plan, coverage benefits, and level of copayment, instead of percentages of income.[68] Dependents of employed citizens in the statutory system, such as children or non-working spouses, are covered by the sickness funds at no additional charge.[69] Unemployed citizens contribute to the statutory system based on a percentage of their unemployment benefits provided by the government. For long-term unemployed citizens, the government employment agency contributes a fixed per capita premium on behalf of the unemployed individual.[70] For immigrants, the federal government will not issue a visa without proof of health insurance.[71] Table 1 summarizes the contribution rates required by German residents in 2017 for health and long-term care insurance. Because contributions are calculated as a percent of income, wealthier individuals insured by the public sector cross-subsidize low income individuals, which is roughly similar to how Social Security and Medicare in the United States are funded today.

In Germany, competition amongst the public and private sectors exists in two distinct ways. Firstly, consumers are allowed to select the sickness fund they receive insurance from. On top of the 7.3% mandatory uniform contribution rate, employees must also pay an additional contribution to the SHI insurer, which varies depending on which sickness fund the employee selects. Most additional

[67] See [10]

[68] See pg 89 of [49]

[69] See [10]

[70] See [14]

[71] See [32]

contribution rates varied between 0% and 1.3%, with a national average of approximately 1.1% in 2016. Having different additional contribution rates encourages competition between sickness funds.[72]

Program	Contribution Limit		Employer Portion Per Month		Employee Portion Per Month	
	Per Year	Per Month	Percentage	In Euros	Percentage	In Euros
Health Insurance: 14.6% shared equally + additional contribution from employee (varies by SHI insurer)	€ 52,200	€ 4,350	7.3%	Up to € 317.55	7.3% + additional contribution (1.1% on average)	Up to € 317.55 + additional contribution
Long-Term Care Insurance (LTCI): 2.55% shared equally (except for Saxony)	€ 52,200	€ 4,350	1.275%	Up to € 55.46	1.275% + 0.25% if employee is older than 23 and has no children	Up to € 55.46 + 0.25% if employee is older than 23 and has no children

Table 1. 2017 German Health and Long-Term Care Insurance Contribution Rates[73]

Secondly, in some cases, consumers may choose to opt out of the public sector in favor of private plans. In 2017, all employed citizens earning less than 52,200 euros per year (or roughly 64,450 in U.S. dollars) are required to contribute to the sickness funds in the statutory system.[74] This threshold varies slightly from year to year. Salaries in excess of this income ceiling are not subject to social security contributions.[75] In other words, for individuals with incomes higher than this ceiling, their monthly health insurance premium remains flat at a price of (the contribution rate * income ceiling) or (7.3% * 4,350 euros = 317.55 euros/month) in 2017. If consumers earn a salary that exceeds this income ceiling, then they are given the option to leave the statutory system and enroll in a private health plan. The option to leave the sickness funds and enroll in the private sector is voluntary and according to the Commonwealth Fund, about 75% of employed consumers who earn above this threshold choose to remain in the public sector.[76]

[72] See [10]

[73] See [56] and [57]

[74] See [10]

[75] See [56]

[76] See [10]

High-income citizens may voluntarily remain in the public sector for a few reasons. Firstly, to keep premiums constant over the life of the insured, private insurers are required by law to accumulate old age provisions while the insured is young and relatively healthy in order to subsidize premiums as the insured ages and becomes less healthy. Often times, old age provisions are insufficient and cause premiums to increase over time due to the rising cost of health care and inadequate cost-containment measures in the private sector. Additionally, prior to 2009, old age provisions could not be transferred to other private insurers if the insured chose to switch. If an individual left one private insurer for another, the insured will be subject to new underwriting and ultimately, higher premiums. [77] Since 2009, privately insured consumers were allowed to transfer capital stock from one insurer to the next, however, it was limited to a ceiling defined by the most basic plan. Thus, transferring between private insurers remained difficult to afford, especially for high-risk individuals. Secondly, consumers over the age of 55 were not allowed to switch back into the statutory system under any circumstances. Policymakers required this by law to prevent young individuals from enjoying the relatively low premiums in the private sector and then switching over the public sector once their premiums began increasing over time.[78] Thirdly, healthy consumers in the private sector may pay a lower premium than if they stayed in the SHI system, however, separate premiums must be paid for dependents, which is a disadvantage for large families.[79] The option to switch from the public sector to a private plan is most advantageous to the younger population with very high income, as private plans tend to offer a more flexible array of benefits and lower premiums for this segment compared to the public sector.[80]

The services covered under statutory system in Germany are similar, but slightly more comprehensive than the essential health benefits required by ACA in the United States. According to the

[77] See pg. 673 of [25]

[78] See pgs. 5-6 of [26]

[79] See [14]

[80] See pgs. 91-92 of [49]

Commonwealth Fund, the public sector covers the following benefits: preventative services, inpatient and outpatient hospital care, physician services, mental health care, dental care, optometry, physical therapy, prescription drugs, medical aids, rehabilitation, hospice and palliative care, and sick leave compensation. Different types of insured preventative care include regular doctor and dental visits for adults and children, vaccinations, examinations for chronic diseases, and cancer screenings at particular ages specified by the Federal Joint Committee. Virtually all prescription drugs are covered, except for those considered to be lifestyle drugs, or drugs used to treat mild or harmless conditions, such as baldness or acne. Long-term care insurance is also mandatory for the whole population and covered by the same insurer as health insurance; however, a separate contribution rate is applied, which is shown in Table 1.[81]

Compared to the United States, the German SHI system imposes few cost sharing provisions. These copayments are fairly inexpensive and primarily applied to pharmaceuticals, medical aids, and dental care. Also, they are mostly imposed as fixed amounts (as opposed to coinsurance) only to adults aged 18 years and older. Copayments include 5 to 10 euros on average for outpatient prescription medication (roughly 6.17 to 12.35 in US dollars), 10 euros per day for inpatient care in a hospital or rehabilitation center (a higher rate is charged after the first 28 days), and 5 to 10 euros for prescribed medical aids.[82] The more expensive out-of-pocket expenditures include dental prostheses, where the insured is given a lump sum that covers 50% of the cost of service on average.[83] Physicians covered by the statutory system are restricted from charging rates that exceed those negotiated with the sickness funds for services included in the benefit catalogue. However, any service excluded from the extensive set of statutory benefits may be subject to out-of-pocket fees.[84] Cost sharing is subject to an annual cap of 2% of household income. In other words, any adult insured under the statutory system that pays 2% of

[81] See [10]

[82] See [10]

[83] See [14]

[84] See [10]

their household income in out-of-pocket costs per year is exempt from further copayments. This annual cap is reduced to 1% for the chronically ill.[85] Cost sharing is miniscule compared to the United States.

The multi-payer, universal health care system in Germany has many similarities with that of the system in the United States under the ACA and exhibits several advantages that we could learn from and potentially apply if a public option was established in the health insurance exchanges. However, the German system is not without weaknesses. The following sections outline some of the strengths and challenges present in the German health care system.

Strengths of the Bismarck Model

The German SHI system embodies several strengths that can serve as foundations for the public option proposition in the United States. Health insurance is easily accessible and federally mandated for all German citizens, which has led to an uninsured rate of approximately 0.2% of the population, consisting primarily of the self-employed residents of Germany.[86] Since 1996, German citizens have had the freedom to choose any sickness fund, which has promoted competition between insurers in the public sector. Choice of public health plans are not restricted by income, type of employment, or pre-existing health status of the individual. Having statutory premiums that are subject to a community rating based on percentages of income and independent of risk characteristics allows for all residents to gain access to equivalent care and communally share the cost of health insurance. Since specific employers, or even employment status, do not restrict access to public health plans, citizens are continually insured regardless of changes in jobs or periods of unemployment.[87]

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[85] See [14]

[86] See pg. 2 of [21]

[87] See pg. 93 of [49]

Next, public insurers have fewer incentives to cherry pick low-risk consumers because of several measures imposed by law. The Federal Joint Committee sets uniform benefit packages and contribution rates for all public insurers so they cannot design their plans in a way that attracts low-risk individuals or charge premiums that vary by risk characteristics.[88] Unlike the narrow provider networks that are growing more popular in the United States, German citizens have unrestricted access to almost any medical provider, which promotes competition amongst physicians and freedom of choice for consumers. Copayments are also fairly low, which makes using health insurance more viable for consumers.[89]

Another strength of Germany's system is its elaborate risk adjustment program amongst sickness funds. Germany's central risk sharing program, called the RSA, was first implemented in 1994 to limit the selection bias of sickness funds to restrict access to care for high cost subscribers and only enroll the healthiest and wealthiest consumers in the population. By transferring premium revenue amongst the sickness funds in proportion to the risk profile of their consumer base, the RSA could mitigate this issue. The evolution of the risk adjustment program can be defined by three distinct stages, with each stage increasing in differentiation of risk classes, shown by Figure 6.

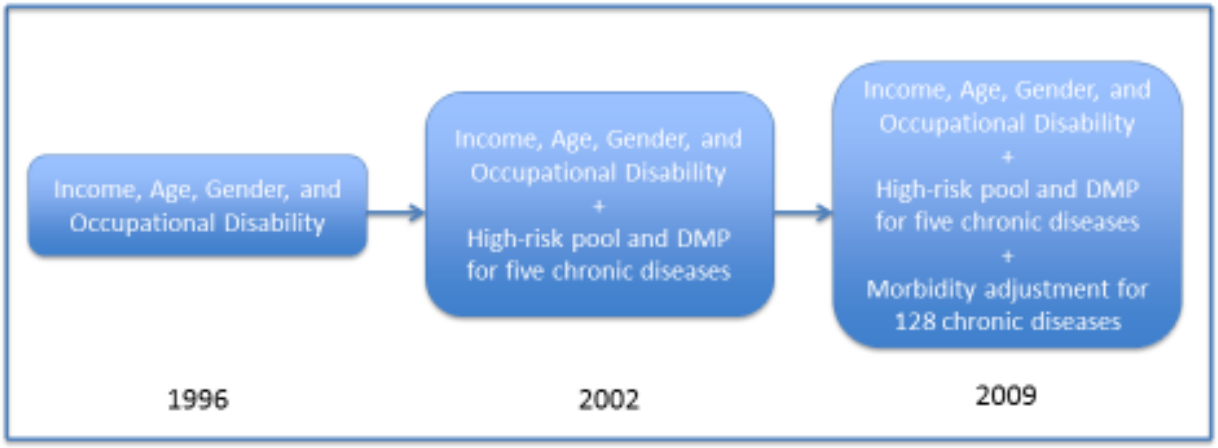

Figure 6. Evolution of the German Risk Adjustment Program[90]

[88] See pg. 672 of [25]

[89] See pgs. 94 of [49]

[90] See pg. 83 of [49]

The initial 1994 establishment of the RSA only accounted for differences in income, age, gender, and occupational disability. However, under this arrangement, selection bias still existed to a large extent because the program did not account for medical risk. For example, sickness funds received the same proportion of revenue for a 45-year-old male with or without cardiovascular disease. Therefore, the RSA reform in 2002 established Disease Management Programs (DMP) and a high-risk pool to allow for greater premium redistribution due to five chronic diseases, including diabetes, obstructive airway disease, coronary care, asthma, and breast cancer. This was taken one step further in 2009 to include morbidity risk for over 128 chronic diseases. By having a higher degree of risk diversification within the RSA, risk profiles amongst sickness funds could be more clearly defined and premium revenue could be better redistributed to sickness funds with relatively unhealthy consumer bases. [91]

Challenges of the Bismarck Model

One of the clear challenges of the Bismarck model is its ability to contain health care expenditures. According to the OECD, Germany's health care spending consisted of 11.3% of GDP in 2016, which exceeds the OECD average by more than 2%. This makes Germany's health care system the third most expensive in the world.[92] The system's cost explosion can be attributed to its inpatient and outpatient care, which has accounted for over 50% of its health care expenditures since 2003. [93] This suggests that health care delivery is comparatively inefficient. As a means to control health care expenditures, there has been a growing towards maximizing value and quality of care for consumers in the long run.[94] An example of this priority is the introduction of the Hospital Care Structure Reform Act

[91] See pg. 94 of [49]

[92] See [30]

[93] See pgs. 104-105 [19]

[94] See pgs. 95-97 of [49]

in January 2016. The legislation aimed to expand high-quality hospital and patient care through a number of structural reforms. One component of this reform included the establishment and gradual expansion of a subsidy program for new nursing jobs to strengthen bedside care for patients.[95] In this program, the federal government will provide up to 660 million euros over 2016-2018, and 330 million euros each subsequent year starting in 2019.[96] Another component of this reform is the introduction of a bonus-malus system, which links hospital payments to quality criteria by either rewarding bonuses for good service quality or reducing payments for low value.[97] The theory of similar reforms is that by creating more value and better quality of care for patients, growth rates for health expenditures can be reduced slowly over time.

A second disadvantage is the heterogeneity in reimbursement rates paid to medical providers for identical services between the public and private sectors. Similar to the statutory system, the private sector offers broad and unrestricted access to virtually any medical provider. However, average reimbursement rates in the public sector tend to be much lower than those of the private sector for both inpatient and outpatient care. The statutory system covers a strong majority of the German population so the public sector has much greater negotiating power over setting low provider rates. Additionally, private insurers are not subject to the same budget regulations as the sickness funds because premiums in the private sector are calculated based on each individual's risk characteristics.[98] While private patients only account for roughly 10-20% of all hospital patients, they contribute over 50% of physicians' total compensation.[99] Having a large difference in reimbursement rates between the public and private sector leads to an increased probability for selection bias from provider organizations to seek out private

[95] See [50]

[96] See pg. 76 of [44]

[97] See [50]

[98] See pg. 92 of [49]

[99] See pg. 123 of [49]

patients. Private patients tend to receive preferential treatment, such as faster access to care, quicker access to innovative prescription drugs, etc.[100]

Thirdly, while there is significant competition in the statutory health insurance market, there is growing concern that public health plans compete solely on price instead of innovative plan types or services. Across all sickness funds, consumers are offered nearly identical services with the same access to medical providers and similar additional benefits. All public health plans are bound by the same coverage benefits decided by the Federal Joint Committee, resulting in a roughly 95% overlap in covered services.[101] The primary difference between public health plans is the additional contribution rates, so consumers are more likely to decide on a health plan based on price since most other factors are held equal. German policymakers have identified several sources for differentiation, such as developing disease-specific health plan options accompanied by selective contracting with providers and pharmaceutical companies, measuring outcomes of service by providers based on quality metrics, and increasing transparency between services offered and outcomes.[102] Private insurers by comparison can offer much more customizable packages in addition to their basic plans.

In the German health care system, premiums in the public sector are based on a community rating and financed by a percentage of the consumer's income up to a threshold, whereas premiums in the private sector are unrelated to income and calculated based on individual risk characteristics. Due to the differences in premium calculation between these parallel systems, risk selection is very likely to occur in favor of the private sector.[103] Sickness funds are obligated to accept any applicant regardless of income or pre-existing condition, whereas private insurers have the liberty to reject applicants and charge risk-adjusted prices. Additionally, private insurance is available only to those whose income exceeds the

[100] See pg. 92 of [49]

[101] See pg. 76 and 97 of [49]

[102] See pg. 98 and 229 of [49]

[103] See pgs. 2-3 of [26]

defined threshold. Therefore, the risk pool of applicants is more favorable for private insurers. Healthy, high-income consumers have more incentive to enroll in private plans because their proportional premiums in the public system are likely to exceed their actuarially fair premiums in the private sector. This undermines fair competition and gives private insurers an advantage over the public sector because private insurers can include more comprehensive services in their plans and often pay higher reimbursement rates to medical providers. Having unfair competition can weaken the incentive of the private insurer to improve efficiency. While regulatory measures, such as open enrollment and required minimum benefit packages, attempt to mitigate this issue, the private sector is currently omitted from the risk adjustment program. By requiring both public and private insurers to pay into the centralized risk fund, risk selection may be reduced.[104]

Another inherent challenge in the statutory health insurance system is its dependence on labor-based financing. This form of funding is susceptible to economic downturn, such as periods of high unemployment, and demographic trends, such as an increase in the retired population. Under this model, if the working population does not increase in the same proportion as both the unemployed and retired population, then health benefits can only be sustained by increases in the contribution rate or government financing over time.[105] In addition, a cap has been placed on employer contributions at 7.3% so an increase in the contribution rate would be fully absorbed by the working class.[106] The financial viability of the public system ultimately relies on the number of employees and average wages in Germany.

[104] See pg. 15 of [26]

[105] See pg. 46 of [20]

[106] See [11]

Chapter 5

Establishment of a Public Option

The ACA was implemented with three primary goals in mind: to increase access to care, improve the quality of care, and slow health care spending growth. However, when trying to achieve these goals, many challenges presented themselves that threaten the sustainability of the health care system in the United States. As noted in Chapter 3, health care spending, as a share of GDP, greatly exceeds that of any other nation; overall health care outcomes do not compare favorably with other countries; enrollment in the exchanges is low and projected to decrease even further; and approximately 50% of counties have only one available insurer with insurer participation decreasing each year. To address these concerns, one of the leading health care debates is the implementation of a public option in the exchanges. To contribute to this debate, a case study on Germany's health care system highlights several advantages and disadvantages between balancing both a public and private sector that can be leveraged when designing the public option proposition. While a public option in any form is not without drawbacks, the implementation of this provision could help mitigate the specific challenges presented by the ACA. The following chapter identifies the advantages of a public option, suggests how the design could be improved, and lists some disadvantages and limitations in its implementation.

Components of the public option proposition have varied since the enactment of the ACA, but overall, the proposal takes on the following basic framework. The public option would be a government-run program, similar to Medicare, which would be offered as one of several plans on the health insurance exchanges.[107] The national plan would be offered alongside private health plans as a marketplace

[107] See pgs. 3-4 of [9]

competitor and fill in the regional gaps where there is very few available insurers.[108] Participation in the public option would be voluntary and the payment system for inpatient and outpatient care, nursing facilities and physician's fee schedule would likely resemble that of Medicare. Current drafts of the proposal limit access only to those who could purchase coverage through the exchanges, which would consist of individuals without employer-sponsored insurance, working in small firms (less than 50 full-time workers), or not covered by Medicare or Medicaid.[109]

One of the advantages to consumers for implementing a public option is the government's ability to charge lower premiums for similar benefit packages and limit health care spending compared to private insurers. This competitive advantage is due to a few factors. The first is the government's comparatively low administrative costs if it were to be established nationally. We know this holds true in Germany for the most part. Health administration and health insurance expenses in the public sector consisted of 4.6% of the Germany's public health expenditures, which has decreased steadily from 5.3% in 2003.[110] Part of the reason is due to the consolidation of sickness funds. During that same timeframe, the total number of sickness funds decreased from 324 in 2003 to 134 in 2013, with even fewer existing today.[111] While this isn't exactly an apple-to-apple's comparison, further consolidation of health plans to a single governmental payer would likely lead to lower administrative costs because of economies of scale. The Berkeley Center on Health, Economic, and Family Security estimated a reduction in administrative costs by 5% from establishing a national public option.[112]

Another factor can be attributed to the government's negotiating power over medical provider reimbursement rates. Reimbursement rates that private insurers are able to settle tend to be about 30%

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[108] See pgs. 34-35 of [5]

[109] See pg. 5 of [9]

[110] See pgs. 104-105 of [19]

[111] See pg. 46 of [12]

[112] See pg. 6 of [39]

higher for hospitals and 25% higher for physicians on average compared to those negotiated under Medicare.[113] This trend is also consistent in Germany. For both inpatient and outpatient care, reimbursements from private patients are significantly higher than those in the statutory health insurance system for identical services.[114] Introducing a public option could apply more pressure on local hospitals that have monopolistic power over charging high rates.[115] Considering these and other factors into account, the CBO estimated that premiums for the public option would be roughly 7-8% lower on average during years 2016-2023 than those charged by private plans on the exchanges.[116]

For perfect competition to exist between the public and private sector, several mechanisms should be set to create a level regulatory playing field and prevent an unfair competitive advantage in favor of one option. First, the public option would have to follow the same insurance regulations established for all ACA-compliant plans. Then, homogeneous insurance products should be offered by the public and private options in the exchanges. These would be organized within the metal tier structure and include the essential health benefits. The public option would need to be self-sustained by premiums paid by enrolling consumers instead of direct financing by federal tax dollars.[117] Premiums in the public option would be restricted within the community rating system established by the ACA. For example, the public option would need to abide by the 3:1 ratio for age-related premiums and be restricted from denying coverage based on pre-existing conditions.[118] A method to ensure the solvency of the public option would be creating a national reserve similar in design to surpluses set aside by private insurers in case claim costs exceed annual premium revenue.

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[113] See pg. 4 of [9]

[114] See pg. 92 of [49]

[115] See pgs. 6 and 9 of [39]

[116] See [3]

[117] See pg. 4 of [9]

[118] See [22]

Next, the difference in reimbursement rates for identical services provided by physicians between the public and private sectors should be minimized. Doing so would prevent an unfair competitive advantage in favor of the public option. One method that could be used to achieve this is setting a cap that varies by geographic region on the maximum amount a provider can charge any insurer for a service covered by a health plan on the exchanges. The precedent for this idea is Medicare Advantage, which has helped private insurers compete with the government. In this program, private insurers' premiums were determined in relation to the average costs of a regional Medicare plan. Out-of-network providers were restricted from charging recipients above Medicare rates, which helped lower the cost of care for seniors and in-network provider rates. If a similar program were created in compliance with the ACA, medical providers would be unable to charge insurers above a certain threshold (possibly Medicare rates plus a certain percentage), making it easier for private insurers to compete in this industry.[119] Private insurers that could negotiate lower reimbursement rates would be free to do so. Additionally, this would help limit potential selection bias amongst providers in choosing to treat privately insured patients over publicly insured patients, like we see in Germany. One disadvantage of this suggestion is patient choice over providers could be limited if particular doctors refused to submit to the cap.

A potential issue with balancing the public and private sectors is risk selection. A tendency that is observed in Germany is that the unhealthiest and poorest consumers remain in the public sector, while the healthiest and wealthiest consumers switch over to the private sector. There were more incentives for desirable consumers to opt out of the public sector because they were paying a premium in the statutory system that exceeded their actuarially fair value to subsidize the unhealthiest segment of the population. A similar risk selection problem in the United States may occur because consumers would have the choice to switch between options during enrollment periods. However, since neither the public option nor private insurers can deny coverage or vary premiums because of pre-existing health conditions, the risk selection problem may not be as severe as what we observe in Germany. Nevertheless, multiple

[119] See [34]

mechanisms can be established to lower the impact from risk selection. The first is requiring all ACA-compliant plans from both the public and private sectors to contribute premium revenue to the risk adjustment program established by the ACA. Including both in the risk adjustment program can mitigate this issue by redistributing premium revenue across insurers according to their risk profile. The government could also require all insurers on the exchanges to participate in a permanent national reinsurance program to hedge against severe claim costs. A temporary reinsurance program was established from 2014 to 2016 to help stabilize premiums in the early years of the ACA. During the program's first year, the $10 billion fund reduced premium costs by roughly 10-14% across the United States.[120] A permanent federal reinsurance program could be established as an additional risk-sharing mechanism to deter either sector from seeking out only healthy consumers.

If a public option were established in the exchanges, then other suggestions to increase the effectiveness of the public option include the reinstatement of a stricter individual mandate, the reintroduction of cost-sharing reductions (CSR's), the continuation of the employer mandate, and increased federal funding for outreach efforts. All of these suggestions aim to increase enrollment in the exchanges and create a more balanced risk pool for both the private and public sectors. A challenge noted in Chapter 3 was that the individual mandate was arguably weak and ineffective because the penalty was approximately one-third to one-half of the cost of an average benchmark plan in 2017. Increasing the individual mandate to the cost of an average bronze plan would further incentivize the younger and healthier segment of the population to purchase health insurance through the exchanges instead of absorbing the penalty.[121] Increasing overall enrollment and balancing the risk pool in combination with the public option would further drive down the cost for health insurance and reduce the uninsured rate.

As briefly mentioned in Chapter 3, the Trump administration eliminated CSR's and repealed the individual mandate, which will take effect in 2019. Removing these two components was originally

[120] See pg. 24 of [5]

[121] See pg. 21 of [5]

introduced as part of the Restoring Americans' Healthcare Freedom Reconciliation Act of 2015, which was vetoed by former president Obama. Although this bill has not been enacted into law yet, there are many provisions that would partially repeal the ACA, including the removal of the individual and employer mandate, elimination of the statewide Medicaid expansion provision, and removal of subsidies given to people who purchase health insurance through the exchanges.[122] If the ACA is not fully repealed and replaced, then the removal of the individual mandate and CSR's can have dangerous implications over the long-term sustainability of the individual health insurance market.[123] According to the CBO and JCT, about 18 million people will become uninsured in the first full plan year following the abolishment of the individual and employer mandates. Of these 18 million newly uninsured individuals, 55.5% would lose coverage in the nongroup market, 27.8% would lose coverage under Medicaid, and 16.7% would lose employment-based coverage. The CBO and JCT also project that premiums in the nongroup market would skyrocket by roughly 20-25% compared to estimations made under current law, which would be primarily due to a weakened risk pool and lower enrollment. Lastly, the CBO and JCT project that about 50% of the nation's population would live in areas with no insurer participating on the exchanges within the first full plan year after the elimination of the government subsidies for marketplace coverage and individual mandate. If more provisions of the Restoring Americans' Healthcare Freedom Reconciliation Act of 2015 were enacted, these figures would escalate.[124]

[122] See [37]

[123] See [8]

[124] See [37]. The CBO defines the nongroup market as "individual policies purchased through the marketplaces or directly from insurers."

Disadvantages of a Public Option

Instituting a public option with the above suggestions is not a perfect solution. Several disadvantages are likely to occur with its implementation, some of which can be seen by the health care system in Germany. The first tradeoff would be the decrease in market share of existing private health insurers, who covered roughly 67.2% of the insured population in 2015.[125] This tradeoff holds true in Germany because private insurers cover only about 11% of the population. The number of consumers that would enroll in the public option is largely unknown because several factors contribute to an individual's decision to purchase health insurance, such as the plan's premium relative to private insurers, the network of providers that would choose to participate in the public plan, etc. However, taking many factors into account, the CBO projects that about 35% of the people who would get insurance through the exchanges would instead enroll in a public option.[126] Although the public option would place considerable pressure on private insurers, it is unlikely that the private sector would be eliminated completely. In Germany, we observe that both the private and public sector continue to coexist and capture different segments of the population, which would likely occur in the United States as well. Well-managed private plans can take advantage of managed care tools that are less common in public plans, like Medicare or Medicaid. Private insurers can selectively contract with medical providers and direct patients to those who demonstrate better quality outcomes for certain conditions and effective cost-management; they can utilize disease management strategies to impact provider and patient behavior; and they can offer customizable coverage that complements plans sold by the public option, much like we see in Germany.[127] Nevertheless, the size of the private sector is expected to decrease significantly with the introduction of a public option.

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[125] See pg. 1 of [7]

[126] See [3]

[127] See pg. 2 of [9]

Another drawback of establishing a public option is the increased probability that the quality of care publicly insured individuals receive may deteriorate due to insufficient payments to medical providers. This challenge was identified in Germany's health care system in Chapter 4 and could occur in the United States as well. While provider participation in the public plan would be voluntary, enrollment in the public option may be so substantial that providers would face tremendous pressure to participate at the rates specified by the government.[128] One of the advantages of a public option is the ability of the government to manage health care spending because of its strong negotiating power over provider rates. However, if fair negotiations do not take place and medical providers do not make a sufficient enough profit from publicly insured individuals, then privately insured individuals may begin receiving preferential treatment. This may include shorter wait times for medical services, broader access to medical providers, or quicker access to innovative prescription drugs. The most optimistic scenario with instituting a public option is that hospitals would adapt to financial constraints by becoming more efficient, decreasing medical error, and lowering costs instead of cost shifting.[129]

There are also growing concerns that the public option may not be financially self-sustaining in practice. As mentioned in Chapter 3, since the introduction of the exchanges, many of the largest private health insurers have left the marketplace because their products on the exchanges have generated huge financial losses. Additionally, 16 of the original 23 insurance co-ops shut down by 2016 because they couldn't afford to continue operation.[130] With more private insurers leaving the marketplace and co-ops going bankrupt, the public option will likely attract more high-cost enrollees, who would have otherwise received coverage from the private sector, and possibly run into solvency issues.[131]

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[128] See [3]

[129] See pg. 4 of [9]

[130] See [53]

[131] See [3]

Limitations and Further Considerations

A key limitation with the suggestions made earlier in this chapter is the immense political discourse in the United States. Enacting legislation is very difficult and takes considerable amounts of time when opposing political parties have entirely different perspectives on how to reform the American health care system. There are a few additional modifications that could be made to the public option proposition to reduce political opposition. For example, a modification could be added to allow states the option to opt-in or opt-out, similar to the statewide Medicaid expansion provision of the ACA. If an opt-out provision was used, then a national public option could be established in all states and those that strongly oppose the proposition can choose to opt-out. Similarly, if an opt-in provision was used, then states that strongly support the provision could choose to establish a public option in their state alone. The only difference between these two approaches would be the legislative action required. The latter would likely result in fewer states participating because participation in the public plan would not be the default choice; rather, legislative action would be required to allow the public option to be available to consumers in a state.[132]

A consideration for further research could be the possibility of a Medicare buy-in for individuals aged 50 or 55 and older. In 2016, roughly 26% of enrollees in the exchanges were age 55-64. If this option were implemented, many high-cost enrollees would transfer out of the individual market risk pools and into Medicare, potentially lowering average premiums on the insurance exchanges.[133] Similar to many options discussed in this paper, a Medicare buy-in would have its own implications that could adversely affect the performance of the exchanges, however, this is an additional opportunity to explore if a public option is not fully realized.

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[132] See pg. 6 of [9]

[133] See pg. 35 of [5]

Chapter 6

Conclusion

Although the ACA was able to drastically reduce the uninsured rate in the United States and expand access to care for many segments of the population, health care spending growth, quality of care outcomes, and consumer and insurer participation in the exchanges still remain significant challenges. I derive several conclusions from the case study on Germany's health care system and other bipartisan resources. Implementing a public option will lead to a significant decrease in the market share of existing private insurers, but will most likely not lead to the elimination of the private sector. Leveraging the government's relatively low administrative costs and high negotiating power over provider rates can help control health care spending growth and lower average premium costs for plans on the exchanges. Instituting a public option along with the reinstatement of the individual mandate will likely lead to higher enrollment and more balanced risk pools in the exchanges, which would improve its overall performance. Given the key challenges of the ACA and advantages of balancing a public and private sector, a public option can lead to a more sustainable health insurance system under the ACA. The public option is not without its disadvantages, but if the ACA does not get repealed and replaced, then it is a viable option for continued improvement of the American health care system.

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Education

The Pennsylvania State University, Schreyer Honors College Class of May 2018
Smeal College of Business University Park, PA
Major: Risk Management, Actuarial Science Option Minor: Statistics

Actuarial Exams

Passed Exams P, FM, MLC
VEEs: Met the requirements for Economics, Applied Statistical Methods, and Corporate Finance

Co-Ops/Internships/Externships

Genworth Financial, Actuarial Development Program November 2017 – May 2018
Universal Life Modeling Actuarial Assistant State College, PA

- Designed an automated cash flow summary workbook to retrieve and graph data from SQL Server
- Developed automated workbooks to retrieve and categorize cash flows for Chinese GAAP validation
- Utilized macros, SQL and Excel queries, pivot tables, and graphs to update data instantaneously
- Led conference calls with executive leaders and discussed results, challenges, and future applications of current projects

Genworth Financial, Actuarial Development Program May 2017 – August 2017
Universal Life Modeling Intern Richmond, VA

- Developed automated spreadsheets to calculate UL reserves according to Chinese GAAP
- Compared BEL calculations across UL businesses to a reserve tool built by a consulting firm and resolved discrepancies
- Designed an automated workbook to compare hundreds of Guaranteed and Current COI tables and calculate the maximum percent increase that can be applied to COI rates for different plans
- Applied a percent adjustment PAD to mortality tables in Poly Systems, ran the model, generated impacts

KPMG Discover Summer Leadership Program May 2016
Participant Philadelphia, PA

- Shadowed three P&C actuaries, learned about loss triangles and their application to calculating reserves
- Explored career development opportunities in actuarial consulting and networked with senior leaders
- Participated in active listening exercises and discussed the importance of ethics in the workplace

Academic Awards

Penn State Schreyer Honors College Academic Excellence Scholarship
Dean's List: Fall 2014, Spring 2015, Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2017
Academic Distinction: Magna Cum Laude

Student Activities

The Bryce Jordan Center March 2015 – October 2017
Stagehand State College, PA

- Cooperated on small functional teams up to 20 hours/week to setup, support, and breakdown events
- Assembled lights and stages, ran cables, transported musical/stage equipment, operated spotlights

The Penn State Ice Cream Truck January 2016 – May 2016
Project Developer State College, PA

- Developed a strategic business plan with a team of four students for a startup ice cream truck on campus
- Consulted with several Penn State department representatives and truck manufacturers, addressed the operations portion of the plan and produced 5-year financial projections along with assumptions

The Penn State Marching Blue Band August 2014 - May 2015
Drumline Member State College, PA

- Performed cymbals for over 30 events, travelled with the Blue Band, collaborated in a section of 35 drumline members, and dedicated 20 hours/week, plus an additional 10 hours/week on game days