The Impact of Immigration Reform on Medicare's Fiscal Solvency

(Working Draft)

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Executive Summary

In this study, we simulate the fiscal impact of a legal pathway to Medicare contributions and Medicare benefits for the undocumented immigrants in the United States. We model the revenue and expenditures for Medicare both under the current policy scenario (the "status quo" scenario: no direct legal access to Medicare contributions and Medicare benefits) and under a hypothetical reform scenario in which undocumented immigrants start to contribute to the Medicare Part A and Part B and D Trust Funds starting in 2018 and then start to claim benefits once they become eligible.

Our results show that the immigration reform scenario will prolong the fiscal solvency of Medicare Hospital Trust Fund by two years; the Fund will see a negative balance in 2026 without the immigration reform, whereas the negative balance will appear under the immigration reform scenario in 2028. Moreover, the magnitude of negative balance under immigration reform will be much smaller than the magnitude seen under the "status quo" scenario by 2042. However, when we forecast the 75-year actuarial deficit using current assumptions made by the Centers for Medicare and Medicaid Services Trustees Report, our model shows that the deficit will be larger by 2092: 0.98% as compared with the current projected figure of 0.87%. This 75-year actuarial deficit will be 0.99% if we assume that the percent of undocumented immigrants who would qualify for Medicare through disability is 7.34% as indicated by their current health status.

The fiscal impact of this hypothetical immigration reform on Medicare Part B and D will be mediated through the new federal individual income tax revenue from these legalized residents as well as other additional federal tax revenue associated with a gain in Gross Domestic Product. Similar to the simulation results for Medicare Part A, by 2027 and then by 2042, the additional federal tax revenue associated with the immigration reform scenario will be more than sufficient to cover the new expenses the legalized immigrants will incur. As we forecast the longer-term expenditures and revenue using the current 2018 CMS Trustees' Report's assumptions, however, the cumulative additional revenue is unlikely to cover these legalized immigrants' Medicare Part B and Part D expenses.

While our prediction of short-term implications of immigration reform confirms projections from previous studies, the fact that the longer-term pattern differs from the short-term comparison is worth attention for policymakers. The actuarial deficit's sensitivity to the rate of disability among undocumented immigrants also bears policy relevance for public health stakeholders. We conclude by discussing the limits of our methodology, especially the deep uncertainty associated with longer-term forecasting results.

Background

Immigration reform and Medicare fiscal insolvency are both salient policy issues for policymakers and stakeholders in the United States.[1-3] Not surprisingly, the topic of immigration's impact on the pension and healthcare financing system has received academic attention.[4,5] So far, the analyses of immigrant health expenditures suggest that both legal immigrants and undocumented aliens contribute more to the Medicare Hospital Insurance Trust Fund than they cost, thereby enhancing and prolonging the fiscal solvency of Medicare.[6,7] However, few analyses have considered the long-term fiscal impact of a specific immigration reform on the fiscal solvency of Medicare. As a result, there is a lack of actionable information about what will happen to Medicare's revenue and expenditures if a legalization process enables undocumented immigrants to contribute to and claim benefits from different parts of Medicare.

In this study, we simulate the impact of a legal pathway for the unauthorized immigrants on the revenues and expenditures of the Medicare Part A and Part B and D Trust Funds. Specifically, we examine the long-term fiscal impact of one such immigration policy change and consequently inform the immigration reform debate in the U.S.

Method

The 2018 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, produced by the Centers for Medicare and Medicaid Services (CMS), provides projections of year-by-year revenue and expenditures under Medicare.[I] We use this report's projected revenue, expenditures, and deficit figures as the "status quo" scenario to be compared with the figures from our "immigration reform" scenario. Therefore, unless otherwise stated, all

[I] *2018 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds* [Internet]. Baltimore (MD): Centers for Medicare and Medicaid Services; 2018.

the demographic and economic parameter inputs we use in our simulation are the same as those used in the 2018 Medicare Trustees' Report, to ensure comparability between these two scenarios. Our model is programmed in Excel to maximize transparency and facilitate dissemination.

The simulated immigrant reform

We simulate a hypothetical scenario in which working undocumented immigrants who have not been paying Medicare payroll tax yet start contributing to the Medicare Hospital Insurance Trust Fund (HITF) and then start to claim benefits beyond Age 65. This "immigration reform" scenario assumes that those previously undocumented immigrants become legally employed at the same rate as those citizens and legal immigrants with similar educational attainment, a process that starts in 2018. This means that the Medicare HITF starts to receive payroll tax revenue from previously undocumented immigrants starting 2018. We also assume that these newly documented immigrants' access to Medicare benefits starts only in 2028, an assumption based upon the Medicare rule that one should have worked legally and paid into the system for at least 40 quarters to be eligible. While return migration of immigrants is a salient phenomenon among immigrants from countries such as Mexico,[8,9] our model does not simulate the mechanism of return migration or future influx of undocumented immigrants, based upon the documented evidence that net migration from Mexico has fallen to zero[10]. In other words, we make the simplifying assumption that net migration rate of unauthorized immigration will be zero in the United States for our simulated years, which means that we simulate neither future return migration nor future influx of unauthorized immigration. While Mexico is only one of the source countries of unauthorized immigrants, the reasons for the declining unauthorized immigration from Mexico are not unique to Mexico: demographic shifts and relative income growth are also occurring in other source countries.[11-13] Coupled with the declining return migration noted in recent years,[8] the declining unauthorized immigration hints that it is reasonable to assume the future net migration rate of unauthorized to be zero as we have observed in the past decade between the United States and Mexico.[10]

Input parameters: the number of those who will become Medicare-eligible after legalization

One can become eligible for Medicare by age, disability status, or end-stage renal disease diagnosis. We predict the annual number of Medicare-eligible individuals who will obtain legal status after immigration reform from 2018 to 2092 and then become eligible at age 65, using data input from a Department of Homeland Security report about the age distribution of undocumented immigrants in 2014 and the Social Security program's death rate table. We assume that undocumented immigrants will have the same death rate in any given year and age as the average figure among U.S. citizens and legal immigrants.

To project the number of legalized immigrants who will become Medicare-eligible via disability status, we use data from a published analysis of the National Health Interview Survey.[14] That study estimated that 1.32% were disabled among working-age undocumented immigrants, but as many as 7.34% will be considered as having disability once they become legal immigrants or citizens, given their self-reported health conditions recorded in NHIS.[14] Meanwhile, there are about 6,500 undocumented immigrants with end-stage renal disease (ESRD).[15] Given the age breakdown of ESRD as provided by a Kaiser Family Foundation report,[II] we estimated that there were 3,172 ESRD patients among undocumented immigrants younger than 65, which gave us an ESRD prevalence rate of 0.02% for this population. We assume that this prevalence rate will stay the same after 2018.

Input parameters: the number of those who will contribute to federal payroll tax and federal income tax

The labor force participation rate and the unemployment rate among the undocumented immigrant population have been estimated by previous literature,[16] and the impact of legalization on employment rate has also been estimated by recent research.[17] We made no assumption about any impact on wage level from immigration reform, based upon evidence that no significant wage differential exists between

[II] https://www.kff.org/medicare/state-indicator/enrollees-with-esrd/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D

legal and illegal workers after controlling for personal and job characteristics.[18] We use these estimates as our input parameters for the number of people who will contribute to Medicare Part A via their federal payroll tax contributions. The total federal income tax revenue from undocumented immigrants has also been estimated by recent research, as well as the percent of undocumented immigrants who filed federal income tax to Internal Revenue Service (50%). We assume that the per capita federal income tax contribution will stay the same after the legalization for those who are currently filing federal income tax, while the other 50% will start to file federal income tax. This assumption means that the federal income tax base will be doubled among undocumented immigrants. The annual growth rate of this new federal income tax revenue will be equal to the GDP growth rate projected by the CMS Trustees' Report. We make the simplifying assumption that none of these legalized immigrants will continue to pay payroll taxes beyond age 65, an assumption that could lead to an underestimation of their future contribution to Medicare Part A revenue, since about a quarter of baby boomers work beyond age 65 and continue to pay Medicare payroll taxes.

Modeling Part A revenue and expenditures after an immigration reform

Once we simulate the number of legalized undocumented immigrants who will be paying Medicare payroll taxes, we attach the projected national wage level to this population and derive the associated annual Part A revenue gain accordingly. The per-beneficiary Part A expenditure is projected using the principle stated in the 2018 Trustees' Report, i.e., beyond the initial 25 years, we assume that per-beneficiary HI expenditures will increase at a rate equal to the GDP per capita growth rate until 2042, and that the expenditure growth rate will then decline to 0.3 percentage points slower than the GDP growth rate until 2092.

Modeling Part B and D revenue and expenditures

For Part B and Part D revenue projections, we assume that the general federal tax revenue will be affected by immigration reform in two ways: first, the 50% of working undocumented immigrants who have not filed income tax start to pay income tax (in addition to their contribution to Medicare Part A via payroll tax); second, legalizing undocumented immigrants brings in a GDP gain for the national economy, which will be associated with subsequent gains in federal tax revenue. The first mechanism is simulated by assigning the legalized immigrants who are not filing federal income tax currently a federal income tax contribution equal to the current per capita federal income tax contribution made by the 50% of undocumented immigrants who do file federal income tax.

As it is hard to predict wage and salary distributions, household structure, and federal tax deduction details of legalized workers, a more parsimonious approach would be to forecast the GDP gain associated with legalizing undocumented immigrants and its fiscal implication to Medicare Part B and D SMI. We assume a portion of the newly gained GDP (similar to the observed and projected Part B and D SMI fund to GDP ratio) will be contributed to the future SMI. An estimation of the economic impact of the Development, Relief, and Education for Alien Minors Act (DREAM Act) concluded that the per capita GDP gain is $15,371 per legalized worker,[17] a parameter we attach to every legalized working individual in our model.[III]

Part B and D per beneficiary expenditure of these legalized immigrants is assumed to be the same as the level as projected by the 2018 CMS Trustees' Report.

Results

[III] While the DREAM ACT beneficiaries are on average younger than other unauthorized immigrants and thus could have shorter work experiences, they receive more education than the average unauthorized immigrant. Thus we assume the macroeconomic impact of legalizing a DREAM ACT recipient would be similar to other unauthorized working individual, and we validate the aggregate GDP gain we project based upon this assumption with results from an earlier finding published in the Cato Journal (**19. Hinojosa-Ojeda R. The economic benefits of comprehensive immigration reform. *Cato J.* 2012;32:175.** We discuss this validation further in the Results section.

Validation

Our projection is that legalizing undocumented immigrants in the United States in 2018 will bring a GDP gain of $1,528.7 billion to the national economy within the first ten years of legalization. This is consistent with an earlier finding published in the Cato Journal[19] that a comprehensive immigration reform (whereby currently authorized immigrants are legalized[IV]) would add a GDP increase of $1.5 trillion dollars over the first 10 years of its implementation via increases in consumption and educational, home, and small business investments ($1.2 trillion consumption and $256 billion in investment).[19]

Medicare Part A revenue and expenditures

Our results show that our immigration reform scenario will prolong the fiscal solvency of Medicare Hospital Insurance Trust Fund by two years: the fund will see a negative balance in 2026 without the immigration reform whereas the negative balance will appear under the immigration reform scenario in 2028 (Table 1). Moreover, the magnitude of negative balance under the immigration reform will be much smaller than the magnitude seen under the "status quo" scenario by 2042: the cumulative deficit since 2018 will be 2,821.4 billion dollars with the hypothetical 2018 immigration reform as compared with 3,005.9 billion dollars without the immigration reform. In other words, an immigration reform legalizing undocumented immigrants in 2018 will reduce the 2018-2042 cumulative deficit by 6.14% (a total of $184.5 billion).

However, when we forecast the 75-year actuarial deficit using current assumptions made in the CMS Trustees' Report, our model shows that the deficit will be larger by 2092 -- 0.98% of cumulative taxable payroll in the U.S. as compared with the current projected figure of 0.87%. This 75-year actuarial deficit

[IV] The Hinojosa-Ojeda (2012) study assumes a comprehensive immigration reform whereby flexible future legal immigration limits will reflect the labor demand of the future United States labor market, whereas our study assumes a future net migration rate of zero for future unauthorized immigration. While it is difficult to compare how this difference in assumptions could lead to differences in projected future GDP gain, conceptually the comprehensive immigration reform scenario in Hinojosa-Ojeda and the immigration reform in our study assume no substantial future inflow of unauthorized immigrants.

will be 0.99% if we assume that the percent of undocumented immigrants who would qualify for Medicare through disability is 7.34% as indicated by their current health status. Table 2 reveals the pattern of increasing expenditure over time as the legalized immigrants reach retirement age.

Medicare Part B and D revenue and expenditures

Similar to the simulation results for Medicare Part A, by 2027 and then by 2042 the additional federal tax revenue associated with the immigration reform will be more than sufficient to cover the new expenses the legalized immigrants will incur. By 2027 there will be a cumulative "surplus" of $555.6 billion available for the Supplemental Medical Insurance fund (the sum of new federal income tax among those who are already working without the immigration reform and the new general federal tax revenue as a proportion of the GDP gain from the immigration reform, minus the expenditure from Part B and D spent on those legalized immigrants who become eligible for Medicare). By 2042, this "surplus" will increase to $1,371.7 billion on a cumulative basis.

As we forecast the longer-term expenditures and revenue using the current 2018 CMS Trustees' Report's assumptions, however, the cumulative additional revenue as gained from the simulated immigration reform is unlikely to cover the legalized immigrants' Medicare Part B and Part D expenses, partly because the reform scenario does not assume any future tax increase to cover the rising Medicare expenditures. In 2061, this surplus figure will turn into a negative value, meaning that 43 years after the immigration reform it will have a cumulative deficit increasing impact on Medicare Part B and D. By 2092, this cumulative deficit figure become $7,058.1 billion. It is worth noting, though, that this 2092 figure is based upon the Trustees' report's assumption that the per-beneficiary annual cost of Medicare Part B and D will be $204,608 by 2092, a scenario that might be less likely to happen now that that Medicare spending growth was observed to have significantly slowed down in recent years[20]. Thus the

additional Medicare expenditure incurred by the newly legalized immigrants under the immigration reform scenario might not be as large as our simulation projects.

Discussion

Immigration influences the receiving country in many different ways beyond increasing racial-ethnic diversity. Many studies have been done to discuss the interaction between aging and immigration,[21,22] as well as the broader economic implications of immigration for the host society.[23-25] While many recognize the benefit of immigration on host societies,[26] there remains the argument that economic and social disruptions associated with aging can only be partially offset by immigration.[22] Our simulation results confirm previous findings that legalizing unauthorized immigrants' status in the U.S. will defer the depletion of Medicare Trust fund,[7] though only by two years. Our study contributes to the literature about immigration and public finance in that our model predicts long-term results beyond "the date of Medicare insolvency" and reveals the possibility of a higher 75-year actuarial deficit associated with legalizing undocumented immigrants. One natural extension of our study will be to simulate the impact of immigration reform on the fiscal solvency of the Social Security program in the U.S.

It has been noted in the past that the long-term actuarial projections of Medicare fiscal solvency have been very volatile and could vary significantly from year to year with no relevant legislative changes between those very different projections.[27] In 1995, actuaries predicted in their report that without very substantial cuts and very dramatic revenue gains the Medicare Hospital Insurance Trust Fund would be depleted by 2002,[27] a scenario that has not materialized 16 years after the predicted year of depletion. If a prediction within a seven-year time horizon could turn out to be overly pessimistic, then the 75-year actuarial deficit the current CMS Trustees' report projects are likely to more speculative than scientifically accurate. If the cost growth rates assumed in the 2018 Trustees' Report are indeed greater than actual growth rates in future, then our predicted changes in the 75-year actuarial deficit could also

have exaggerated the impact of having legalized immigrants claim benefits from Medicare programs. It has been observed since 2008 that Medicare cost increases have slowed.[20] Since 2008, with millions more working-age individuals (including the United States citizens and legal immigrants with permanent residency) getting health insurance under the Affordable Care Act,[28] there is reason to expect that future Medicare expenditures could be lower because of health improvements prior to age 65 among the previously uninsured . Nevertheless, our simulation of the long-term actuarial balance over the life course of most current undocumented immigrants serves as a reminder of potentially higher long-term expenditure increases related to legalization of the undocumented population.

Our study reveals that a legal pathway for undocumented immigrants will only moderately alleviate Medicare's funding shortage in the short term, and might increase Medicare Part A's actuarial deficit using the Medicare Trustees standard 75-year time horizon. The underlying causes for Medicare fiscal insolvency could include low total fertility rates,[29] less-than-ideal macroeconomic growth rates, less-than-ideal productivity growth rates, unhealthy lifestyles,[30,31] etc. Consequently, in addition to commonly discussed solutions such as health savings accounts[32] and payroll tax rate adjustments,[33] a comprehensive package of solutions to the funding shortage of Medicare could include providing maternity leave extension to boost total fertility rates,[34] reducing infant mortality,[35] investing in education to improve earnings,[36] promoting cost-saving interventions,[37,38] etc. Yet almost all of these strategic initiatives will take a long time to have measurable effects on Medicare fiscal solvency, while a legal pathway for undocumented immigrants to contribute to Medicare revenue might instantly boost revenue for Medicare as well as for Social Security in time to delay and alleviate the crisis of funding shortage.

One might question the policy relevance of our simulation, given that immigration reform is not currently on the national agenda. Nevertheless, the sensitivity of the actuarial balance to the real disability rate of the undocumented population serves as a reminder for Medicare stakeholders: improving the health status and reducing the disability risk for the undocumented population could help lower future Medicare expenditures. As many as 7.34% of undocumented immigrants[14] could become eligible for Medicare

before 65 after legalization, a figure that will only be higher if we add in those ESRD cases among the undocumented population.[39] This would be a potential fiscal shock associated with the immigration reform, reducing the net fiscal benefits of immediate revenue gains from legalized immigrants' payroll tax and income tax. Therefore, aside from the ethical obligation to improve the health conditions of people residing in the United States, there is also an efficiency argument for health promotion and charitable insurance plans among the current population of undocumented immigrants[40] before immigration reform could occur. Preventing, treating, and managing chronic diseases such as metabolic syndrome and diabetes among the undocumented population, for instance, could reduce the number of ESRD cases[39,41] improving both the fiscal solvency of Medicare and the wellbeing of the immigrant communities.

As it is hard to predict the age distribution of legalized undocumented immigrants who will work beyond age 65, we have made the simplifying assumption that they will all stop working at age 65. This is likely to lead to an underestimation of their contribution to the Medicare Part A, a weakness that we expect to improve in future modeling once more detailed information becomes available for this population. Once again, the labor force participation of immigrants at retirement age will be positively affected by health promotion among the immigrant population.

Our paper is also limited in that we assume no change to legal immigration in our hypothetical immigration reform, which is an unlikely scenario because an immigration reform typically has implications for legal immigration. The reason why we leave that out is that legal immigrants pay taxes and claim Medicare benefits in a way more similar to U.S.-born citizens than to undocumented immigrants. Therefore, legal immigrants' contribution to Medicare and their Medicare expenditures are unlikely to change much after immigration reform, unless the reform substantially changes the number of legal immigrants.

Finally, we do not model immigration reform's impact on state and local net fiscal revenue and expenditures. Legalizing unauthorized immigrants could substantially increase state fiscal revenue via

sales taxes, property taxes, and state income taxes.[42] On the other hand, we do not model the additional costs to the federal government such as the earned income tax credit (EITC), Medicaid, and Supplement to Nutritional Assistance Program. The net effect of these other pathways might not be zero, and therefore we expect to model these mechanisms in our follow-up studies on this topic.

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Table 1:
Medicare Part A Revenue, Expenditure, and Deficit After the Immigration Reform (2018-2042)

	Newly added taxable payroll (in millions)	Newly eligible in millions	new expenditure from the legalization (in $million)	New cumulative deficit(in $million)	"Status Quo" Cumulative deficit (in $million)
2018	306,575.1	0.0	0.00		
2019	322,444.1	0.00	0.00	5,197.5	-15,876.3
2020	336,936.2	0.00	0.00	6,528.3	-25,933.9
2021	352,155.5	0.00	0.00	3,685.4	-40,750.1
2022	368,016.6	0.00	0.00	-7,114.6	-64,099.4
2023	384,537.7	0.00	0.00	-25,435.9	-95,610.4
2024	401,737.1	0.00	0.00	-50,756.8	-134,791.2
2025	418,591.8	0.00	0.00	-83,706.2	-182,265.7
2026	436,107.3	0.00	0.00	-116,579.8	-229,277.9[2]
2027	454,297.8	0.00	0.00	-156,428.2	-285,390.2
2028	473,176.3	0.72	5738.71	-227,015.5[1]	-367,320.4
2029	492,754.5	0.77	6397.45	-310,064.0	-461,858.5
2030	507,963.4	0.89	7739.43	-405,731.3	-569,916.1
2031	523,826.7	1.02	9212.37	-516,597.7	-690,794.6
2032	540,139.1	1.14	10768.86	-642,029.2	-825,388.4
2033	556,902.1	1.25	12422.71	-783,011.3	-974,608.8
2034	574,095.0	1.36	14137.06	-940,595.2	-1,139,412.0
2035	587,190.6	1.47	15934.93	-1,114,067.7	-1,318,910.4
2036	600,393.3	1.58	17831.18	-1,304,448.8	-1,514,035.2
2037	613,679.6	1.68	19820.72	-1,512,902.4	-1,725,803.7
2038	627,021.0	1.77	21912.98	-1,738,421.4	-1,950,904.3
2039	640,383.4	1.86	24134.19	-1,979,769.3	-2,192,452.6
2040	637,158.2	2.12	28682.93	-2,240,757.1	-2,449,033.2
2041	633,231.0	2.37	33576.76	-2,522,650.0	-2,719,038.7
2042	628,185.0	2.62	38684.32	-2,821,456.8	-3,005,891.3

Notes:

1. This is where the cumulative deficit since 2018 will exceed the $198 billion balance at the end of 2017 with a 2018 immigration reform legalizing undocumented immigrants.

2. This is where the cumulative deficit since 2018 will exceed the $198 billion balance at the end of 2017 without a 2018 immigration reform legalizing undocumented immigrants.

Table 2:
Medicare Part A Revenue, Expenditure, and Deficit After the Immigration Reform (2043-2092)

	Newly added taxable payroll (in millions)	Newly eligible in millions	new expenditure from the legalization (in $million)	New cumulative deficit(in $million)	"Status Quo" Cumulative deficit (in $million)
2043	621,946.6	2.85	44039.76	-3,140,800.8	-3,307,860.8
2044	614,437.9	3.08	49658.54	-3,481,806.5	-3,622,925.3
2045	605,577.3	3.30	55382.41	-3,842,483.0	-3,954,616.8
2046	595,280.7	3.52	61438.61	-4,226,888.8	-4,300,680.9
2047	583,461.1	3.72	67510.15	-4,629,571.5	-4,658,550.1
2048	570,028.5	3.91	73801.38	-5,051,266.2	-5,028,674.4
2049	554,890.7	4.10	80317.94	-5,489,037.9	-5,407,880.0
2050	537,071.5	4.28	87044.72	-5,946,971.5	-5,799,875.7
2051	517,624.3	4.46	94153.00	-6,425,949.4	-6,205,095.1
2052	496,094.9	4.63	101250.05	-6,922,445.2	-6,619,936.6
2053	472,378.9	4.79	108445.29	-7,432,465.3	-7,040,264.8
2054	446,370.2	4.94	115674.81	-7,960,142.8	-7,474,374.1
2055	417,963.2	5.08	123156.94	-8,510,310.0	-7,918,061.1
2056	387,051.8	5.21	130983.77	-9,083,764.5	-8,376,052.6
2057	353,534.1	5.34	138438.97	-9,675,708.8	-8,843,770.1
2058	317,312.6	5.45	146302.01	-10,286,557.8	-9,326,269.4
2059	278,294.2	5.55	154329.19	-10,921,935.0	-9,818,588.3
2060	270,481.1	5.48	157598.06	-11,570,576.4	-10,326,218.6
2061	262,003.0	5.41	161428.51	-12,244,591.8	-10,849,495.2
2062	252,645.5	5.33	164744.19	-12,932,217.0	-11,388,794.2
2063	242,378.2	5.25	168154.55	-13,646,087.6	-11,944,472.0
2064	231,173.2	5.16	171298.08	-14,386,883.9	-12,523,494.6
2065	219,007.0	5.06	174523.98	-15,155,656.7	-13,126,810.3
2066	205,861.3	4.96	177510.50	-15,960,380.5	-13,762,566.8
2067	219,419.7	4.75	176267.09	-16,782,456.7	-14,424,968.4
2068	233,741.5	4.53	174904.23	-17,637,774.7	-15,115,152.6
2069	227,041.1	4.33	173542.98	-18,529,035.1	-15,834,302.7
2070	219,528.4	4.13	171403.49	-19,440,590.7	-16,592,117.2
2071	211,237.0	3.94	169852.34	-20,391,290.3	-17,381,878.6
2072	202,026.5	3.75	167890.76	-21,382,931.6	-18,205,028.7
2073	191,844.4	3.57	165263.50	-22,407,623.6	-19,072,591.5
2074	180,639.1	3.38	162773.47	-23,467,064.6	-19,976,954.2
2075	168,356.7	3.20	159829.80	-24,562,426.0	-20,919,674.7
2076	154,942.1	3.02	156747.17	-25,695,251.6	-21,902,384.6
2077	140,339.0	2.84	153519.34	-26,867,151.5	-22,926,785.7
2078	124,489.2	2.68	150154.60	-28,079,880.1	-23,994,712.7
2079	107,332.7	2.51	146411.92	-29,322,789.7	-25,095,836.4
2080	88,808.6	2.36	142611.84	-30,596,833.4	-26,243,860.7
2081	68,894.3	2.22	139602.65	-31,917,130.2	-27,427,531.0
2082	47,471.4	2.09	136658.85	-33,272,001.1	-28,647,798.6
2083	24,482.9	1.97	133804.25	-34,662,562.6	-29,905,618.4
2084	0.0	1.86	130795.94	-36,074,613.2	-31,201,946.6
2085	0.0	1.71	124222.66	-37,518,908.6	-32,522,019.4
2086	0.0	1.56	117886.20	-38,996,606.6	-33,881,831.2
2087	0.0	1.42	111377.25	-40,491,440.6	-35,265,288.0
2088	0.0	1.30	105189.89	-42,021,008.9	-36,689,666.4
2089	0.0	1.18	98958.06	-43,586,152.0	-38,155,851.4
2090	0.0	1.07	93103.13	-45,188,124.4	-39,645,376.2
2091	0.0	0.98	87789.21	-46,808,147.6	-41,177,610.2
2092	0.0	0.89	82826.45	-48,466,743.5	-42,753,379.6

Table 3:
Medicare Part B&D Revenue, Expenditure, and Deficit After the Immigration Reform (2018-2042, in $ million)

	Additional federal income tax revenue	GDP gained	GDP gained times of "status quo" GDP-to-SMI ratio	Newly eligible Medicare beneficiaries	newly added B and D expenditure	Cumulative surplus from immigration reform
2018	$44,149.29	140219.1	$3,014.71	0	$0.00	$47,164.00
2019	$45,868.38	143409.8	$3,183.70	0	$0.00	$96,216.08
2020	$47,425.78	146054.1	$3,344.64	0	$0.00	$146,986.49
2021	$49,044.14	148772.3	$3,540.78	0	$0.00	$199,571.41
2022	$50,713.43	151532.3	$3,727.70	0	$0.00	$254,012.54
2023	$52,434.44	154332.5	$3,935.48	0	$0.00	$310,382.46
2024	$54,207.92	157171.1	$4,165.03	0	$0.00	$368,755.41
2025	$55,927.60	159769	$4,393.65	0	$0.00	$429,076.66
2026	$57,696.36	162396.2	$4,595.81	0	$0.00	$491,368.83
2027	$59,514.47	165050	$4,802.96	0	$0.00	$555,686.25
2028	$61,381.97	167727.3	$5,149.23	719,808	$6,820.65	$615,396.80
2029	$63,298.76	170424.5	$5,385.42	769,889	$7,692.18	$676,388.80
2030	$64,750.86	171893.5	$5,569.35	893,962	$9,418.74	$737,290.26
2031	$66,248.96	173399.6	$5,756.87	1,016,531	$11,288.56	$798,007.53
2032	$67,771.15	174887.8	$5,928.70	1,135,848	$13,287.88	$858,419.49
2033	$69,316.41	176354.3	$6,101.86	1,251,774	$15,413.32	$918,424.44
2034	$70,881.42	177790.6	$6,276.01	1,364,153	$17,658.86	$977,923.01
2035	$72,017.44	178171.8	$6,396.37	1,472,808	$20,031.36	$1,036,305.45
2036	$73,142.32	178477.5	$6,514.43	1,577,536	$22,530.40	$1,093,431.80
2037	$74,252.75	178701.8	$6,611.97	1,677,356	$25,145.98	$1,149,150.53
2038	$75,344.90	178838	$6,688.54	1,772,867	$27,892.61	$1,203,291.36
2039	$76,414.43	178878.6	$6,743.72	1,863,889	$30,762.43	$1,255,687.08
2040	$75,847.90	175373.9	$6,664.21	2,118,572	$36,659.05	$1,301,540.13
2041	$75,199.21	171738.6	$6,577.59	2,370,801	$42,976.81	$1,340,340.12
2042	$74,427.81	170853.4	$6,577.85	2,615,730	$49,634.36	$1,371,711.43

Table 4:
Medicare Part B&D Revenue, Expenditure, and Deficit After the Immigration Reform (2043-2092)

	Additional federal income tax revenue	GDP gained	GDP gained times of "status quo" GDP-to-SMI ratio	Newly eligible Medicare beneficiaries	newly added B and D expenditure	Surplus from immigration reform
2043	$73,526.61	169659.4	$6,565.82	2,853,023	$56,663.55	$1,395,140.31
2044	$72,488.09	168135.2	$6,557.27	3,082,375	$64,064.95	$1,410,120.72
2045	$71,304.47	166258	$6,517.31	3,303,495	$71,841.46	$1,416,101.04
2046	$69,967.72	164004.3	$6,478.17	3,516,098	$79,995.72	$1,412,551.22
2047	$68,469.60	161349.3	$6,421.70	3,719,927	$88,532.42	$1,398,910.11
2048	$66,801.62	158267.7	$6,346.54	3,914,756	$97,469.10	$1,374,589.16
2049	$64,955.09	154732.9	$6,235.74	4,100,398	$106,773.85	$1,339,006.14
2050	$62,836.75	150535.7	$6,111.75	4,278,969	$116,532.96	$1,291,421.68
2051	$60,547.68	145884.7	$5,952.09	4,458,318	$126,999.53	$1,230,921.93
2052	$58,045.50	140677.2	$5,781.83	4,628,329	$137,859.30	$1,156,889.96
2053	$55,320.60	134882.5	$5,584.13	4,788,929	$149,091.89	$1,068,702.80
2054	$52,363.23	128468.5	$5,369.98	4,940,088	$160,679.37	$965,756.64
2055	$49,163.70	121403	$5,111.07	5,081,804	$172,644.78	$847,386.63
2056	$45,712.28	113653	$4,830.25	5,214,062	$185,036.01	$712,893.16
2057	$41,999.56	105185.8	$4,512.47	5,336,793	$197,815.28	$561,589.91
2058	$38,016.55	95968.78	$4,155.45	5,449,890	$210,984.49	$392,777.41
2059	$33,754.52	85969.82	$3,748.28	5,553,244	$224,539.44	$205,740.78
2060	$32,263.14	82250.18	$3,619.01	5,477,043	$231,313.10	$10,309.82
2061	$30,659.16	78178.5	$3,471.13	5,408,093	$238,550.68	-$194,110.57
2062	$28,920.70	73696.56	$3,294.24	5,331,291	$245,585.74	-$407,481.37
2063	$27,042.25	68783.63	$3,102.14	5,247,048	$252,380.16	-$629,717.15
2064	$25,018.36	63418.71	$2,885.55	5,155,873	$258,918.90	-$860,732.14
2065	$22,843.77	57580.96	$2,637.21	5,058,383	$265,187.78	-$1,100,438.94
2066	$20,513.44	51249.78	$2,367.74	4,955,275	$271,206.17	-$1,348,763.93
2067	$20,441.98	50206.58	$2,339.63	4,746,532	$271,182.58	-$1,597,164.91
2068	$20,340.08	49010.42	$2,303.49	4,534,885	$270,433.65	-$1,844,954.99
2069	$19,680.87	47651.34	$2,258.67	4,333,246	$269,710.05	-$2,092,725.50
2070	$18,956.31	46118.97	$2,204.49	4,129,938	$268,284.58	-$2,339,849.29
2071	$18,170.05	44419.85	$2,141.04	3,942,144	$267,247.89	-$2,586,786.09
2072	$17,310.83	42523.96	$2,066.66	3,754,015	$265,592.34	-$2,833,000.94
2073	$16,375.02	40419.66	$1,980.56	3,566,615	$263,378.04	-$3,078,023.40
2074	$15,359.17	38095.49	$1,881.92	3,380,973	$260,695.25	-$3,321,477.57
2075	$14,259.67	35539.42	$1,766.31	3,198,052	$257,522.19	-$3,562,973.79
2076	$13,072.89	32739.17	$1,636.96	3,018,803	$253,928.58	-$3,802,192.52
2077	$11,795.16	29682.11	$1,493.01	2,844,230	$249,943.38	-$4,038,847.72
2078	$10,422.70	26355.2	$1,333.57	2,675,371	$245,638.69	-$4,272,730.14
2079	$8,951.66	22744.93	$1,157.72	2,513,240	$241,055.24	-$4,503,676.00
2080	$7,378.19	18837.61	$964.49	2,358,214	$236,254.37	-$4,731,587.69
2081	$5,701.66	14627.58	$751.86	2,222,621	$232,571.29	-$4,957,705.45
2082	$3,913.57	10088.79	$520.58	2,094,144	$228,850.54	-$5,182,121.84
2083	$2,010.60	5208.198	$269.78	1,973,403	$225,186.90	-$5,405,028.35
2084	$0.00	0	$0.00	1,860,667	$221,651.74	-$5,626,680.09
2085	$0.00	0	$0.00	1,705,057	$211,973.51	-$5,838,653.60
2086	$0.00	0	$0.00	1,558,974	$202,187.22	-$6,040,840.81
2087	$0.00	0	$0.00	1,422,654	$192,420.62	-$6,233,261.43
2088	$0.00	0	$0.00	1,296,162	$182,781.63	-$6,416,043.07
2089	$0.00	0	$0.00	1,179,391	$173,359.72	-$6,589,402.79
2090	$0.00	0	$0.00	1,071,742	$164,178.85	-$6,753,581.64
2091	$0.00	0	$0.00	978,325	$156,166.28	-$6,909,747.91
2092	$0.00	0	$0.00	892,096	$148,374.79	-$7,058,122.71
	$2,973,952.88	7546681	$276,374.17	N/A	$10,308,449.75	N/A