# The Future Financial Status of the Social Security Program

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#### Abstract

This thesis will examine the solvency of the Social Security program in the United States and explore the determinants used in estimating the rate that the funds and reserves would decrease at. Using data from both the Social Security Administration and the Federal Reserve Economic Data, I determined trends that aligned with historic data and extrapolated them to estimate patterns in future years. Findings confirm that information was overlooked and therefore the Social Security program may not run out of funds to make scheduled payments in full by 2033 like research has indicated. This paper also examines different solutions in order to address future funding for the program such as defining a new age requirement. In order to understand the financial outlook of the program as well as the solutions proposed, I discuss the importance of government intervention so that the Social Security program can continue to assist those most dependent on the retirement income.

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#### 1. Introduction

The Social Security program is a system that was designed to address the problem of economic security for those who are retired, where it allowed them to contribute towards their own future retirement in the form of regular payments. This program is in addition to other social insurance programs like Medicare, Unemployment Insurance, Workers' Compensation, and Disability Insurance, where the goal is to ensure that the basic needs of the American population are being met.

The largest form of retirement income comes from the Social Security program where many American's heavily rely on this as a primary resource. Following recent events, including the Covid-19 pandemic, the estimates on how long the program will be able to pay scheduled benefits in full have declined. This is due to a variety of causes including, but not limited to, the era of baby boomers retiring, decreasing birth rates, an increasing life expectancy, and many individuals taking early retirement during the pandemic. All these factors have caused the Social Security Administration to move up their prediction to significantly earlier than they had originally approximated, causing concern.

In this thesis, I will analyze data sets collected from the Social Security Administration as well as the Federal Reserve Economic Data and determine the trends that convinced researchers of the impending timeline. I will then cross list these events with historic evidence and determine what information may have been overlooked to extrapolate towards future years. This analysis brings me to conclude that the Social Security Administration did in fact not address one counterpoint, with that being that the rate of retirees will significantly decrease by 2030 as that is the end of the baby boom era and therefore could prolong the funds past the estimation. Although this may be the case, several of the proposed solutions or a hybrid of them needs to be enacted by the government for future success and survival of the Social Security program.

The next section will look into the background of social insurance programs in the United States and give a breakdown of the Social Security Act as well as its evolution over time. This will be followed by the literature review where I will look at what researchers believe to be the future of the program as well as what has already been analyzed so that this thesis can contribute to growing literature and data. Afterwards, will include the data and analysis section succeeded by several approaches to addressing Social Security funding and solvency. Lastly, I will discuss some of the limitations of my analysis and calls for future research where it will then be followed by the conclusion.

# 2. Background

#### 2.1 Social Insurance

In 1934, the Committee of Economic Security (CES) was formed so that they would take on tasks of devising "recommendations concerning proposals which in its judgement will promote greater economic security" with the main intentions defined by President Roosevelt as combatting the "great disturbing factors in life" related to unemployment and old age. 

Impressively, the CES was able to thoroughly develop the first federal social insurance program in the United States history which encompassed most, but not all ideas proposed by the CES.

This program would later be known as the Social Security Act.

#### 2.1.1 Drivers

Originally, the idea of social insurance programs predates the establishment of the CES. The predominant drivers of creating the Social Security Act comes from the rapid industrialization that was seen in Germany. In the 1880s, Germany already had a social insurance program that

<sup>&</sup>lt;sup>1</sup> "Reports and Studies." Social Security History. Accessed May 9, 2022. https://www.ssa.gov/history/reports/ces/cesbasic.html#:~:text=The%20President's%20Committee%20on%20Econ omic,he%20expected%20the%20CES%20to.

was funded from the workers themselves with the intention of providing for the sick, maternity leave, and old-age benefits.<sup>2</sup> They, along with others, believe that this was the cause of the countries rapid industrialization that occurred in the latter half of the century which is one of the major reasons that drove the United States to adopt a similar program.

Additionally, another key influence in acquiring a similar program to that of Germany's was the repercussions of the Great Depression. The nation had already been fairly industrialized by 1929 when the Great Depression first began and therefore many individuals had strayed away from a family-oriented farm economy and became more dependent on wage income meaning that they relied on a steady, taxed wage from a single employer. However, this major economic downturn left many unemployed and there were lots of lost wages due to disability, death, or retirement which peaked interest in creating some form of social insurance.<sup>3</sup>

The most impacted group of individuals were the elderly, so states passed legislation to protect elderly citizens, but these programs were poorly run and severely underfunded.<sup>4</sup> This expediated the government's actions and made the Social Security program possible due to the fear that this depression inflicted. However, this was not implemented freely, and instead there was a competing policy developed by former Californian doctor, Francis E. Townsend, called the Townsend plan. This proposal suggested a monthly pension of \$200 for those who did not work over the age of 60 at the cost that they spend the entire amount every month.<sup>5</sup> This stipend was double the average wages at the time and the conditions that one must follow were in order to

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<sup>&</sup>lt;sup>2</sup> Martin, Patricia P, and David A. Weaver. "Social Security: A Program and Policy History." Social Security Administration Research, Statistics, and Policy Analysis, September 1, 2005.

https://www.ssa.gov/policy/docs/ssb/v66n1/v66n1p1.html.

<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> History.com Editors. "Social Security Act." History.com. A&E Television Networks, January 26, 2018. https://www.history.com/topics/great-depression/social-security-act.

<sup>&</sup>lt;sup>5</sup> Martin, Patricia P, and David A. Weaver. "Social Security: A Program and Policy History." Social Security Administration Research, Statistics, and Policy Analysis, September 1, 2005. https://www.ssa.gov/policy/docs/ssb/v66n1/v66n1p1.html.

help stimulate the economy as well as end poverty. Yet, this system only addressed the problems of that day and in the end was rejected and led to the creation of the Social Security Act which was shaped by focusing on the issues of economic security throughout an individual's life.

### 2.2 Evolution of the Social Security Act

#### 2.2.1 Social Security Act of 1935

In 1935, the idea and hope of the Social Security program was there, but the appointed Social Security Board had yet to establish the rules and guidelines. Instead, they were given directions to create a program that addressed 3 major concerns – public assistance, unemployment compensation, and old-age insurance.<sup>6</sup> Public assistance referred to providing assistance "on the basis of need for persons over 65 years of age, dependent children and the needy blind."

Unemployment compensation was tied to a tax on employers instead of being paid out of general revenue like public assistance would be, yet both were dependent on a "typical federal-state cooperative pattern." Lastly, old-age insurance was strictly established as a federal insurance program that would be "financed entirely by tax on employers and employees."

These three criteria had a significant impact on the Social Security Act of 1935 and the preliminary benefits that were included. The original Act stated the benefits were for individuals age 65 and older who were no longer working. The benefits that an individual was to receive was computed based off their cumulative wages in covered employment which strictly included jobs in commerce or industry. Monthly benefits would begin with obtaining "½ of 1 percent of the first \$3,000 of cumulative wages, plus ½ of 1 percent of the next \$42,000, plus ½ of 1

<sup>&</sup>lt;sup>6</sup> Social Security History. Accessed May 9, 2022. https://www.ssa.gov/history/bane2.html.

<sup>&</sup>lt;sup>7</sup> Ibid.

<sup>&</sup>lt;sup>8</sup> Ibid.

<sup>&</sup>lt;sup>9</sup> Ibid.

Martin, Patricia P, and David A. Weaver. "Social Security: A Program and Policy History." Social Security Administration Research, Statistics, and Policy Analysis, September 1, 2005.
 https://www.ssa.gov/policy/docs/ssb/v66n1/v66n1p1.html.
 Ibid.

percent of the next \$84,000" which would total about \$17.50 a month for the average individual. Although this was enacted during the Great Depression, the original intention of the Social Security Act was for small benefits that would not be payable till 1942 which would in turn simultaneously allow them to build up their reserves. However, this never became a reality due to the scheduled delay in benefits and the concurrent amendments made in 1939 that embodied two ideas that were prominent in the original act and still true today: benefits will depend on work in covered employment and that the benefits will replace a higher proportion of earnings for low earners.

#### 2.2.2 Social Security Act of 1939

The 1939 amendments were some of the most significant changes to the Social Security Act where there is a clear shift from protection of the individual worker to protection of the family where the benefits now include the worker's dependents as well as their survivors. It now allowed the wife of a retired worker to be eligible for 50 percent benefits given that they themselves were at least 65 years of age. Additionally, aged widows and those caring for dependents were eligible for benefits at a rate of 75 percent while dependent children of those retired or deceased were given 50 percent benefits. All spouse and survivor benefits were only for females in the 1939 Act, but later became available to men.

In addition to this, the retirement benefits were shifting from being based on cumulative wages to average wages. The new calculations for benefits was as follows: "40 percent of the first \$50 of average monthly wages (AMW) in covered employment, plus 10 percent of the next \$200 of AMW" of which the benefit would increase by 1 percent annually if the worker earned at least

<sup>&</sup>lt;sup>12</sup> Martin, Patricia P, and David A. Weaver. "Social Security: A Program and Policy History." Social Security Administration Research, Statistics, and Policy Analysis, September 1, 2005. https://www.ssa.gov/policy/docs/ssb/v66n1/v66n1p1.html.

<sup>13</sup> Ibid.

<sup>&</sup>lt;sup>14</sup> Ibid.

<sup>15</sup> Ibid.

\$200 which gives a return that is 50 percent greater than the benefits under the original act. <sup>16</sup> This new method of computing benefits "shifted benefits towards early participants and away from later participants in the Social Security program," from individuals to families, from focusing on insurance and not savings, and additional payroll taxes in the future. <sup>17</sup>

#### 2.2.3 Social Security Act of Today

The Social Security Act seen and used today embodies many characteristics of the Act of 1939, with changes being made mainly focusing on the expansion of the program to cover more individuals. This includes the coverage of workers becoming, in essence, "universal," with only some employees in state or local governments choosing not to join, as well as "federal workers hired before 1984." The Social Security program also began providing Old-Age and Survivors Insurance (OASI) as well as Disability Insurance (DI) for aged and disabled Social Security recipients where benefits would rise "by the same percentage as the cost-of-living." These major provisions have not only brought greater benefits in the interest of a larger pool of individuals, but it has also disclosed and made more apparent the persistent financial problems and shortfalls that the program has been experiencing. 20

#### 3. Literature Review

Research on the financial future of the Social Security program have displayed that there is an overall consensus that the program is in danger of being unable to finance what it has promised

<sup>&</sup>lt;sup>16</sup> Martin, Patricia P, and David A. Weaver. "Social Security: A Program and Policy History." Social Security Administration Research, Statistics, and Policy Analysis, September 1, 2005.

https://www.ssa.gov/policy/docs/ssb/v66n1/v66n1p1.html.

<sup>17</sup> Ibid.

<sup>&</sup>lt;sup>18</sup> "Social Security: Summary of Major Changes in the Cash Benefits Program." Social Security Legislative History. Accessed May 9, 2022. https://www.ssa.gov/history/reports/crsleghist2.html.

<sup>&</sup>lt;sup>19</sup> Ibid. <sup>20</sup> Ibid.

Americans. Back in 2010, the Social Security Administration indicated that benefits would be expected to be payable in full and on a timely basis up until the year 2037, which is when all trust fund reserves would become exhausted.<sup>21</sup> This would then result in continuing taxes to only be able to fund about 76% of scheduled benefits.<sup>22</sup> The solutions that aroused from these findings indicate immediate changes within the Social Security benefits that would solve the current financial limitations, but throw a curveball to the majority of the American population. The Social Security Board of Trustees had projected in 2010 that "an immediate reduction of benefits of about 13 percent, or an immediate increase in the combined payroll tax rate from 12.4 percent to 14.4 percent, or some combination of these changes, would be sufficient to allow full payment of the scheduled benefits for the next 75 years.<sup>23</sup>

The Security Board of Trustees presented an annual report in 1983 that projected the balance over a 75-year period as it had done every year. The assumptions made presumed that the program had sufficient financing to be able to pay scheduled benefits in full till 2057.<sup>24</sup> However, it was in this same report, that the Board also found that "program cost would rise above annual tax income in the program" forcing the program to take from its trust fund reserves.<sup>25</sup> This realization allowed the board to recognize that additional change would need to be made to the 1983 Amendments of the Social Security Act.

The most prominent realization as to whether the Social Security program will be able to pay benefits in full is by looking at the solvency of the Social Security trust fund meaning "the ability of the trust funds at any point in time to pay the full scheduled benefits in the law on a timely

<sup>&</sup>lt;sup>21</sup> Goss, Stephen C. "The Future Financial Status of the Social Security Program." Social Security: Office of Retirement and Disability Policy, August 1, 2010. https://www.ssa.gov/policy/docs/ssb/v70n3/v70n3p111.html.

<sup>&</sup>lt;sup>22</sup> Ibid. <sup>23</sup> Ibid.

<sup>&</sup>lt;sup>24</sup> Ibid.

<sup>25 .. . .</sup> 

<sup>&</sup>lt;sup>25</sup> Ibid.

basis."<sup>26</sup> The presence of a negative cash flow occurs when interest rate on the trust funds assets becomes greater that the rate of growth in the program cost which consequently does not mean that trust funds are moving towards exhaustion.<sup>27</sup> In this case, interest on the assets would boost current tax income also allowing the scheduled payment of benefits. However, a cash shortfall will be a large enough reason to persist the trust funds towards exhaustion which contrasts a similar position that took place in 1983, where the OASI trust fund could not meet the full benefits and were provided special privileges by temporarily borrowing from the Disability Insurance and Hospital Insurance trust funds.<sup>28</sup> This introduces the concept of sustainability for the Social Security program and whether currently scheduled dedicated tax revenue will be sufficient in financing scheduled benefits without modification to the law, or if the current structure of the program is viable for the future.<sup>29</sup>

These predictions and results are contrasted with the Social Security Administration's summary of the 2021 reports once more information and trends were discovered. In the report, the Trustees address the impacts of the pandemic as well as the recession of 2020. "Employment, earnings, interest rates, and GDP dropped substantially in the second calendar quarter of 2020... the level of worker productivity and thus GDP assumed to be permanently lowered by 1 percent... elevated mortality rates... as well as reductions in immigration and childbearing" all impact the outlook of the Social Security program. Based on these findings, the 2021 report by the Social Security Administration estimates that the OASI Trust Fund will be able to pay scheduled benefits up until 2033 which is 4 years sooner than predicted in 2010. Additionally, once

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<sup>&</sup>lt;sup>26</sup> Goss, Stephen C. "The Future Financial Status of the Social Security Program." Social Security: Office of Retirement and Disability Policy, August 1, 2010. https://www.ssa.gov/policy/docs/ssb/v70n3/v70n3p111.html. <sup>27</sup> Ibid.

<sup>&</sup>lt;sup>28</sup> Ibid.

<sup>&</sup>lt;sup>29</sup> Ibid.

<sup>&</sup>lt;sup>30</sup> "A SUMMARY OF THE 2021 ANNUAL REPORTS." Social Security: Status of the Social Security and Medicare Programs. Accessed May 9, 2022. https://www.ssa.gov/oact/TRSUM/index.html.

<sup>31</sup> Ibid.

depleted, incoming tax revenue is expected to be sufficient enough to pay 76 percent of scheduled benefits.<sup>32</sup> With this being said, it is clear that the Social Security Administration believes that intervention by Congress is necessary or amendments need to be added to the current Social Security Act to plan for the future depletion of finances that is inevitably going to occur.

These predictions are supported by CNBC article titled, "Will Social Security run out of money? Here's what could happen to your benefits if Congress doesn't act," where in addition to similar predictions of when the Social Security funds will be depleted, the article describes another cause of these trends to be that people are having fewer children which translates to a declining birth rate.<sup>33</sup> Also, the author states that over the next ten plus years, we will see a decline in reserves as the administration will have to draw on them due to the decreasing number of workers paying for an increasing number of beneficiaries.<sup>34</sup> This is a direct cause of the decline in birth rates after the baby boom period that took place right after World War II. With this being said, the consequence could be that retirees "receive reduced monthly benefits or fewer checks each year" unless there were to be a policy change enacted by the U.S. government.<sup>35</sup> The article then references the National Institute on Retirement Security (NIRS) which is designed to inform policymaking with a deep understanding of value of retirement security to employees, employers, as well as the economy as a whole. The NIRS describes retirement income as a 'three-legged stool' which consists of Social Security, saving accounts like a 401K, and individual retirement accounts (IRA).<sup>36</sup> Social Security is the most important in this three-legged

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<sup>&</sup>lt;sup>32</sup> "A SUMMARY OF THE 2021 ANNUAL REPORTS." Social Security: Status of the Social Security and Medicare Programs. Accessed May 9, 2022. https://www.ssa.gov/oact/TRSUM/index.html.

<sup>&</sup>lt;sup>33</sup> Paul, Trina. "Will Social Security Run out of Money? Here's What Could Happen to Your Benefits If Congress Doesn't Act." CNBC. CNBC, February 10, 2022. https://www.cnbc.com/select/will-social-security-run-out-heres-what-you-need-to-know/#:~:text=Bottom%20line,full%20benefits%20unless%20Congress%20acts.

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.

stool which raises concerns as Americans do not want to have the benefit level decreased. Alicia Munnell, the director of Retirement Research at Boston College, notes that there are two ways in which Congress can solve this long-term funding issue; "The Social Security Administration can either cut benefits for people or increase tax revenue."37 The first solution, cutting benefits, could lead to either reducing benefits for all or increasing the retirement age which was enacted in 1983 to solve the solvency issue.<sup>38</sup> The alternative solution of increasing tax revenue could also be passed by either stating an increase in the payroll tax rate, or an increase in the Social Security payroll tax income from \$147,000 to reapplying the tax rate to individuals making more than \$400,000 as well as increasing benefits for low-income individuals.<sup>39</sup> Overall, it is clear that there is no discrepancy in whether the Social Security benefits after trust funds will be depleted, but as to what actions Congress needs to take in order to attend to long-term funding. This research is expanded on by author Michelle Singletary of the Washington Post where she proposes a similar solution of getting rid of the income threshold for the Social Security Payroll Tax. This solution is brought up due to the impacts of the pandemic and recessions as addressed by the Trustees in the 2021 reports where millions of workers lost their jobs which consequently led to a significant drop in payroll taxes.<sup>40</sup> With this impact resulting in only 76 percent of scheduled payments being funded, we'll see monthly payments go from about \$1,556.72 down to \$1,183.11 which is a significant amount of monthly income in which 57 percent of retirees

https://www.washingtonpost.com/business/2021/09/03/social-security-insolvency/.

<sup>&</sup>lt;sup>37</sup> Paul, Trina. "Will Social Security Run out of Money? Here's What Could Happen to Your Benefits If Congress Doesn't Act." CNBC. CNBC, February 10, 2022. https://www.cnbc.com/select/will-social-security-run-out-heres-what-you-need-to-know/#:~:text=Bottom%20line,full%20benefits%20unless%20Congress%20acts.

<sup>38</sup> Ibid.

<sup>&</sup>lt;sup>39</sup> Ibid.

<sup>&</sup>lt;sup>40</sup> Singletary, Michelle. "Covid Took One Year off the Financial Life of the Social Security Retirement Fund." The Washington Post. WP Company, September 4, 2021.

depend on.<sup>41</sup> The pandemic causes concerns on top of the initial worriment with retirement of the baby-boom generation expanding the number of beneficiaries much faster than the increase in the number of workers paying into the system where we saw "an average of 65 million Americans" receive Social Security benefits every month in 2021.<sup>42</sup> It is evident that Congress can no longer delay taking action as it is "irresponsible and unfair to the millions of American's who rely on them, especially those counting on these programs in the future."<sup>43</sup> My research will build on these concerns as well as patterns that have been seen in order to better understand when and if Social Security is on track to deplete earlier than anticipated. I will also see which solutions would be most beneficial and feasible given the limitations of the program to better deepen our understanding of the solvency of the Social Security program.

## 4. Data and Analysis

The data collected comprises of numerous data sets from the Social Security Administration whom obtains statistics from open government data assets and datasets. Additionally, information from the Federal Reserve Economic Data agency was also used in this analysis using macroeconomic data aggregated from a variety of economic sources, predominantly through United States government agencies.

When looking at the literature and their determinants as for why the Social Security program will be unable to pay schedule benefits in full past 2033, there is one key assumption being made where the counterpoint has not yet been explored. The Social Security Administration calculated these estimates based on their intermediate assumptions meaning it is the neutral standpoint

<sup>&</sup>lt;sup>41</sup> Singletary, Michelle. "Covid Took One Year off the Financial Life of the Social Security Retirement Fund." The Washington Post. WP Company, September 4, 2021.

https://www.washingtonpost.com/business/2021/09/03/social-security-insolvency/.

<sup>&</sup>lt;sup>42</sup> Ibid.

<sup>&</sup>lt;sup>43</sup> Ibid.

between high-cost and low-cost alternatives which is supposed to resemble the most realistic and likely option. 44 However, this perspective assumes that the number of individuals retiring will continue to grow exponentially and outgrow the number of individuals entering the workforce for an undetermined amount of time. This, nonetheless does not seem to be true. Looking at Figure 1 below, I used several data sets from the Federal Reserve Economic Data to determine how many individuals turn 65 each day over time. This was done by starting with the population of workers in the age range of 40 to 65 in the year 2018, and then using mortality rates differentiated between men and women from the Human Mortality Database to compute how many people are expected to be alive in the next year. This method was then extrapolated to estimate for future years.

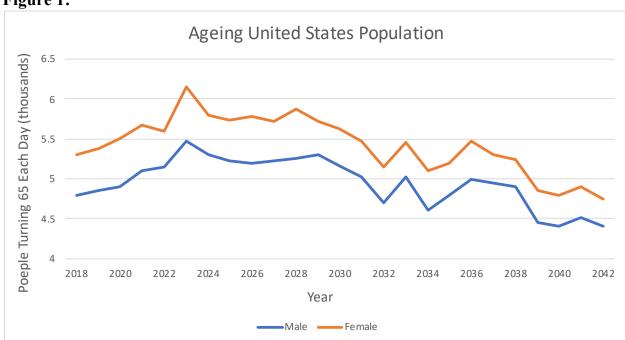


Figure 1:

Source: Federal Reserve Economic Data<sup>45</sup>

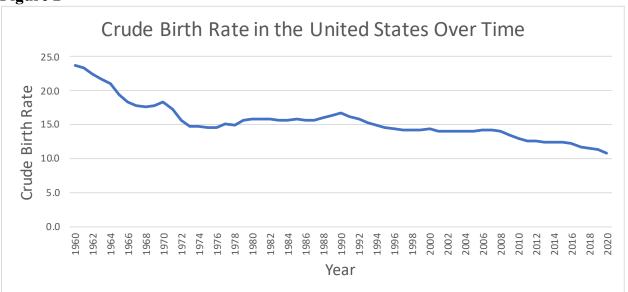
<sup>&</sup>lt;sup>44</sup> "V. Assumptions and Methods Underlying Actuarial Estimates." Social Security Administration: 2021 OASDI Trustees Report. Accessed May 9, 2022.

https://www.ssa.gov/oact/TR/2021/V\_A\_demo.html#:~:text=Under%20the%20intermediate%20assumptions%2C %20the,the%20absence%20of%20the%20pandemic.

<sup>&</sup>lt;sup>45</sup> Vandenbroucke, Guillaume. "How Many People Will Be Retiring in the Years to Come?" Saint Louis Fed Eagle. Federal Reserve Bank of St. Louis, December 9, 2021. https://www.stlouisfed.org/on-theeconomy/2019/may/how-many-people-will-be-retiring-in-the-years-to-come.

When looking at the regression, we can see that the number of individuals turning 65 each day peaks in the year 2023 for both males and females which aligns with the literature as that is when the majority of baby boomers will be retiring. Despite that, we see an immediate drop the following year and a trend that continues to overall fall in a downward trajectory. This is due to the fact that was overlooked; that the trailing end of baby boomers will be retired by the year 2030. This would mean that those leaving the workforce will not be growing exponentially for an undetermined period of time as the Social Security Administration suggests, but instead will quickly remain quite stagnant and even decrease compared to earlier years which can be supported by what we see in Figure 2.

Figure 2



Source: Federal Reserve Economic Data<sup>46</sup>

We can see that throughout United States history for the past 60 years, crude birth rates, also known as birth rates per 1,000 people, have been decreasing. Interestingly, we see a rather drastic drop in birth rates at about 1970, just after World War II, which aligns with history,

<sup>&</sup>lt;sup>46</sup> "Crude Birth Rate for the United States." FRED. FRED, May 3, 2022. https://fred.stlouisfed.org/series/SPDYNCBRTINUSA.

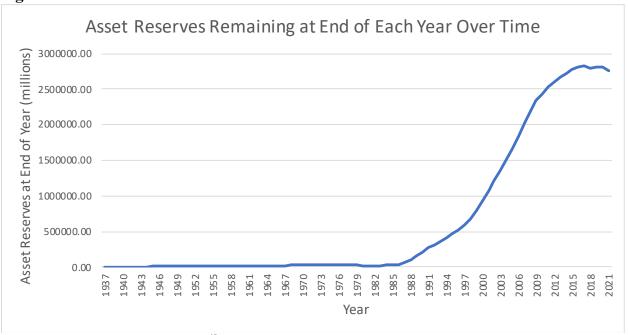
followed by birth rates that remain rather stagnant with only a slight decrease over time. This indicates that in addition to less individuals retiring after 2030, we will actually have even less individuals than average retiring thereafter. This allows us to consider that the Social Security program may not run out of funds to pay in full by 2033 since we can see that statistically, the number of those retiring will significantly decrease after 2030. In addition to this, birth rates are decreasing at a rather slow rate, indicating that the number of workers entering the work force will not change considerably. Given this, the rate at which workers enter and remain in the workforce will be higher than the rate at which individuals are retiring. Therefore, these insights indicate that the individuals employed will be able to inject funds into the Social Security program to pay off beneficiaries and allow the program to pay scheduled benefits in full for longer than projected. Although, the average life expectancy in the United States has been increasing, the growth is not substantial enough to impact this theory as life expectancy projections have stagnated and decreased due to health problems driving higher death rates, gender as well as racial and ethnic disparities, and territorial location.<sup>47</sup> This is in addition to the estimates taking into consideration the effects of the Covid-19 pandemic and the number of individuals that retired in that period.

Furthermore, we will now take a look at the accumulation of asset reserves within the trust funds for Old-Age and Survivors Insurance. Based on what was found previously, I believe that the reserves set in place to help with additional funding for the Social Security program will not deteriorate at the pace mentioned in the literature. Looking at Figure 3 below, we can see the amount of asset reserves remaining at the end of each fiscal year.

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<sup>&</sup>lt;sup>47</sup> Weiner, Scott. "What's in a Number? Looking at Life Expectancy in the US." Harvard Health, February 7, 2020. https://www.health.harvard.edu/blog/whats-in-a-number-looking-at-life-expectancy-in-the-us-2020020718871.

Figure 3



Source: Social Security Administration<sup>48</sup>

We can see by looking at the figure that reserves remained relatively small until 1985 when the 1985 Amendments insured that the program would build up a large reserve. We can then see exponential growth till roughly 2020 where we now see the curve take a slight turn. This minor downfall could be due to several causes that are quite unknown and should not allow for assumptions to be made for when reserve funding will run out. Based on crucial economic events in 2020, specifically the pandemic, many individuals lost their jobs and decided to retire early, resulting in them diving into their Social Security benefits early. With the system not designed to handle such drastic events, there is good reason to believe that in that moment the Social Security Administration needed to take from their reserves in order to supply for the drastic number of individuals leaving the workforce. However, this is only temporary and from my analysis, I suspect that reserves will deplete for the next 5-10 years while still remaining net positive and then stagnate and even increase once all baby boomers have retired in 2030.

<sup>&</sup>lt;sup>48</sup> "OASI Trust Fund, A Social Security Fund." Social Security Administration. Accessed May 9, 2022. https://www.ssa.gov/oact/STATS/table4a1.html.

# 5. Approaches to Addressing Social Security Funding and Solvency

Having discovered that there may be reason to believe that the Social Security program will not run out of funds to pay all scheduled benefits in full by 2033, there are also several solutions that can be put into place that can prolong the money as well as reserves so that drastic changes will not have to be made. Adjustments to the maximum taxable earnings over time and amendments to the current Social Security Act age requirement are approaches that could increase the longevity of the program.

When looking at Figure 4 below, we can see the maximum taxable earnings over time and how it has been increasing at a steady rate since 1978.

Old-Age, Survivors, and Disability Insurance Maximum

Taxable Earnings Over Time

Taxable Earnings Over Time

Taxable Earnings Over Time

160,000
140,000
100,000
100,000
100,000
100,000
100,000
100,000
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Figure 4

Source: Social Security Administration<sup>49</sup>

<sup>&</sup>lt;sup>49</sup> "Contribution and Benefit Base." Social Security Administration. Accessed May 9, 2022. https://www.ssa.gov/OACT/COLA/cbb.html.

The maximum taxable earnings are referred to as the 'tax cap' which is calculated each year based on changes in the national average wage index.<sup>50</sup> The tax cap is put in place to "prevent workers from paying more in taxes than they can later receive in benefits," however, it wrongfully places it as a regressive tax meaning that it is applied uniformly regardless of income so that if a person makes less money, a higher percentage of their income goes to this tax then someone making greater than the tax cap.<sup>51</sup> This is one regulation that could be altered in order to create a more equal platform amongst different income classes. One proposal is reapplying the tax rate to those making more than \$400,000 annually which has been proposed by several researchers. This would also make it similar to the Medicare program which sets no limit on the amount of earnings subject to tax. Additionally, this adjustment would allow a tax break to those after the maximum taxable earnings currently set at \$147,000 and before the proposed \$400,000. This solution would allow for additional earnings to flow into the Social Security program from those of greater wealth and contribute towards benefits to those whom are retired, therefore reducing the amount of reserves depleting. Therefore, the program will be able to build up and counteract the decreasing reserves from the baby boomers retiring and hold off till 2030, where thereafter Social Security income would be able to increase and pay scheduled benefits in full for a significantly longer, undetermined amount of time.

Following the reapplication of a tax rate to those earning greater than \$400,000 a year, another solution to increasing the longevity of funds in the Social Security program is increasing the age requirement. The Social Security program was designed based on the average life expectancy being about 69 years old resulting in the Social Security Administration believing that benefits

<sup>&</sup>lt;sup>50</sup> "Contribution and Benefit Base." Social Security Administration. Accessed May 9, 2022. https://www.ssa.gov/OACT/COLA/cbb.html.

<sup>&</sup>lt;sup>51</sup> Boyte-White, Claire. "How Is Social Security Tax Calculated?" Investopedia. Investopedia, February 8, 2022. https://www.investopedia.com/ask/answers/081915/how-social-security-tax-calculated.asp.

would only have to be paid to individuals for a relatively short amount of time post-retirement. However, now with the average life expectancy having increased by over 10 years, the system can no longer sustain paying off that many people for a much longer duration. Therefore, in order to follow the original premise of the Social Security program, the benefits should be adjusted to today's life span, making the retirement age 70, or else we are giving greater benefits than what was intended.<sup>52</sup> With this change, significantly less money would be leaving the program because there would be less beneficiaries over the age of 70 resulting in a slower decrease in reserves or an even greater amount of money going in then out, therefore allowing the Social Security program to grow its funds and reserves.

These two approaches are possible solutions to addressing the Social Security program's funding and solvency issue. There is no doubt that the program is in trouble and will eventually run out of money so the question resides in what actions will be taken to avoid the dismantling of the Social Security program. The approach taken and the solutions implemented will be determined by a function of political will. Authorizing any of these possible answers or even a hybrid option that takes characteristics from both approaches will be initially painful in one way or another and will require great determination on the governments end. This will also demand the general understanding of Americans and that this a problem that needs to be fixed for future individuals as well as the country's future growth and development.

These solutions will greatly impact the overall health of the country and economy as stimulation is required for growth. There is no other social safety net that compares to the Social Security program and Americans need to realize and take advantage of it. We need to understand that in order for the program to stick around and be able to benefit future generations, there are changes

<sup>&</sup>lt;sup>52</sup> Konish, Lorie. "The Social Security Retirement Age Could Change. What That Could Mean for Benefits." CNBC. CNBC, January 14, 2021. https://www.cnbc.com/2021/01/14/how-raising-the-social-security-retirement-age-could-affect-benefits.html.

and sacrifices that need to be made in order to transition to a program that accommodates the needs of today and those forthcoming. By retaining the Social Security program that took so long to adjust to meet the needs of so many individuals, it would provide a secure source of continuing income to people who have lost their income due to retirement and consequently contribute to economic growth. Without these individuals having some sort of disposable income post-retirement, there would be less money contributed to spending. Consumer spending is one of the largest determinants of demand which keeps companies profitable and able to hire new workers so without retirees spending money, the economy could crash causing catastrophic consequences and have the United States trending backward after all that has been done to grow it. Due to the possible consequences if actions weren't taken, I highly suggest that one of these approaches or a hybrid of several solutions be implemented so that the Social Security program's financial future and solvency is better understood and maintained for many more years to come.

#### 6. Limitations and Calls for Future Research

There are many statistical and political limitations in this study that must be taken into consideration. The data sets used in the analysis consisted of public data sets that were available and used to extrapolate findings towards future years. However, several assumptions had to be made, including all estimates being made using intermediate assumptions. This only allows us to look at one out of three possible hypotheses, leaving out possible alternatives and projections that could alter our findings.

Furthermore, there are many political boundaries that prevent and hinder quick progression and solutions towards the Social Security program. It is evident that Congress will have to step in regardless of if funds will stop being able to make full payments by 2033 or if it in fact will be at a later date. The Covid-19 pandemic taught the government that it best be prepared sooner rather

than later, as unexpected circumstances can arise, yet Congress has still failed to act although knowing the consequences. All solutions proposed in this paper as well as those addressed by others are all feasible ideas to implement, yet nothing can happen until Congress acts which poses a political boundary that is prohibiting advancement. Lawmakers are required to put Americans on a more sustainable path given the information they have as it would be unfair to the millions of individuals relying on the Social Security program as it is a fact that there will eventually be a shortfall of income to cover promised payments.<sup>53</sup>

Moreover, there is also the probable political fallout that could very likely occur when individuals are told that although they paid fully into the Social Security Program when employed, they may now only receive 76% of what they were promised unless immediate action is taken. This has not been addressed in any of the literature reviewed which raises concern as I suspect given current trends, the majority of the United States population will be shocked and outraged by this possibility. Congress needs to act quickly to ensure that the program is altered based on the solutions proposed so that they can avoid all money funds and reserves being exhausted. If this were to happen, there would be severe repercussions that may be difficult or impossible to recover from.

#### 7. Conclusion

Following the recent concerns regarding the financial future of the Social Security program, this thesis looks to better understand the assumptions being made in the estimations. Based on the assumptions presented in the Social Security Administration's Trustee Summary Report it is clear that they anticipate the program will be unable to sustain paying scheduled benefits in full

<sup>&</sup>lt;sup>53</sup> Singletary, Michelle. "Covid Took One Year off the Financial Life of the Social Security Retirement Fund." The Washington Post. WP Company, September 4, 2021. https://www.washingtonpost.com/business/2021/09/03/social-security-insolvency/.

after the year 2033. However, based on several statistics and analyses, I suspect that there were several assumptions made without the counterpoint being addressed. This includes the fact that the end of the baby boomer era will be retired by the 2030 indicating that we should not theorize constant exponential growth in the number of beneficiaries when estimating when Social Security cost will surpass Social Security income.

Additionally, this thesis calls for research to further explore the possible solutions presented promptly as well consider the limitations that come with only using public data for the analyses. This research will allow Congress to quickly decide which solution would not only increase the Social Security income and prevent the trust funds depletion, but also determine what would cause the least political backlash from the United States population. These actions are necessary for determining the financial future of the Social Security program where, if we act fast, can remain intact and support those who most rely on it in their retirement.

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