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Tax Incentive Evaluation: The Economic and Fiscal Effects of Exempting Social Security Benefits from Georgia's Income Tax

David L. Sjoquist

Peter Bluestone

Georgia State University | Andrew Young School
Fiscal Research Center

THE ECONOMIC AND FISCAL EFFECTS OF EXEMPTING SOCIAL SECURITY BENEFITS FROM GEORGIA'S INCOME TAX

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Fiscal Research Center

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Authors:

David L. Sjoquist
Professor of Economics and FRC faculty affiliate; sjoquist@gsu.edu
Peter Bluestone
Associate Director CSLF; pbluestone@gsu.edu

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Fiscal Research Center
Andrew Young School of Policy Studies
Georgia State University
55 Park Place, 7th Floor
Atlanta, Georgia 30303

Executive Summary

The federal government begin taxing a percentage of Social Security benefits in 1984. Initially, up to a maximum of 50 percent of a beneficiary's benefits were taxable, but in 1993 the maximum was increased to 85 percent. The percentage of taxable Social Security benefits is determined by a formula and depends on the sum of federal adjusted gross income, tax-exempt interest, and half of the Social Security benefits. Georgia never chose to tax Social Security benefits, and thus, Social Security benefits are excluded from the Georgia income tax.

The purpose of this report is to evaluate this exclusion in accordance with the provisions of O.C.G.A. § 28-5-41.1 (2021 Senate Bill 6), in terms of its fiscal and economic impacts, as well as its public benefits. This report was prepared under a contract with the Georgia Department of Audits and Accounts (GDAA). Administrative tax data used in the report was obtained from the Georgia Department of Revenue (DOR).

For tax year (TY) 2021, the Social Security benefit exclusion amounted to a loss of $454.9 million in state income tax revenue, arising from the exclusion of approximately $10.4 billion taxable Social Security benefits on approximately 579,245 tax returns filed.

Based on a review of academic literature, we find no support for the exclusion being a factor in inducing in-migration to or out-migration from the state, nor do we find much of an effect on the employment of Social Security beneficiaries. Thus, we model the economic and fiscal effects of taxpayers' increased disposable income from tax savings that result from the exclusion and of the corresponding reduction in state tax revenue. These tax savings are spent by taxpayers on goods and services in the economy, and the retiree spending becomes income to the sellers of those goods and services, who then use it to pay their workers or to make other purchases.

This downstream activity from the initial boost in household spending (and reduction in state government expenditures) is referred to as an induced economic impact and is estimated using the IMPLAN input-output model for Georgia. IMPLAN results suggest that the $454.9 million of reduced tax liabilities in TY 2021 induced economic activity measuring approximately $567.6 million of gross output, $335.0 million of value added or state GDP, and $176.6 million of labor income for the estimated 3,185 jobs created. This added economic activity is estimated to result in approximately $18.6 million

of state and $16.8 million of local tax revenues.

These economic and fiscal benefits, however, come with a cost beyond the tax expenditure, i.e., the opportunity cost or economic and fiscal benefits that would arise from the use of the $454.9 million for some alternate use, which we assume for simplicity to be a like amount of general-fund spending in proportion to recent state-budget spending allocations. This additional state spending is also modelled in IMPLAN to estimate the TY 2021 economic activity and state and local revenue gains arising from this alternative use, which includes approximately $944.5 million of gross output, $620.5 million of value added or state GDP, and $521.3 million of labor income for the estimated 11,623 jobs created. This added economic activity is estimated to result in approximately $26.9 million of state and $12.3 million of local tax revenues. The estimates imply that the alternative use of $454.9 results in larger economic effects than the current use.

Tables ES1 and ES2 below show the projected state and local fiscal effects for FY 2024 – FY 2028.

Table ES1. Social Security Benefits Exclusion State Fiscal Effects

($ *millions*)	Fiscal Year				
	2024	2025	2026	2027	2028
Revenue gains from economic impact	$20.57	$19.14	$19.11	$19.06	$18.99
Less					
Tax expenditure cost	($441.9)	($411.1)	($410.4	($409.5)	($407.8)
Alternative use revenue gains	($29.7)	($27.6)	($27.6)	($27.5)	($27.4)
Net Fiscal Effects	($432.8)	($402.6)	($401.9)	($401.0)	($399.4)

Table ES2. Social Security Benefits Exclusion Local Fiscal Effects

($ *millions*)	Fiscal Year				
	2024	2025	2026	2027	2028
Revenue gains from economic impact	$18.54	$17.24	$17.21	$17.18	$17.11
Less alternative use revenue gains	($13.6)	($12.6)	($12.6)	($12.6)	($12.5)
Net Fiscal Effects	$5.0	$4.6	$4.6	$4.6	$4.6

Table of Contents

1. Introduction

The 1983 Social Security amendments imposed federal taxation of Social Security benefits for the first time. This legislative change was proposed by the National Commission on Social Security Reform, which was appointed in 1981 to study Social Security's short-term financing difficulties.[1] Under the 1983 amendments, up to one-half of the value of the Social Security benefit was made potentially taxable income, effective in tax year (TY) 1984. Further changes to the federal taxation of Social Security benefits were made in 1993. The motivation for this provision was to increase the flow of revenue into the Social Security Trust Fund.

Georgia ties its income tax to the provisions of the federal income tax. Thus, unless Georgia adopts legislation to the contrary, Georgia automatically adopts new federal income tax provisions. In the case of the federal taxation of Social Security benefits, Georgia enacted legislation that excluded Social Security benefits from its income tax. This legislation addressing the 1983 federal change was effective beginning in TY 1984, the same year the federal provision became effective. Thus, Georgia never included Social Security benefits in its income tax. We were unable to find any statement explaining why Georgia chose not to include Social Security payments in Georgia taxable income. However, it is likely that the Georgia General Assembly was motivated by a desire not to raise taxes, which would have happened had Georgia not excluded the provision.

The purpose of this report is to evaluate this exclusion in accordance with the provisions of O.C.G.A. § 28-5-41.1 (2021 Senate Bill 6), in terms of its fiscal and economic impacts, as well as its public benefits. This report was prepared under a contract with the Georgia Department of Audits and Accounts (GDAA). Administrative tax data used in the report was obtained from the Georgia Department of Revenue (DOR). The report begins with background on the federal taxation of Social Security benefits, followed by estimates of the tax expenditure and administrative costs, an analysis of the distribution of tax savings of the exclusion, a discussion of the taxation of Social Security benefits in other states, a discussion

[1] For a history of the taxation of Social Security benefits see *Research Note #12: Taxation of Social Security Benefits*, Research Notes & Special Studies by the Historian's Office. https://www.ssa.gov/history/taxationofbenefits.html, accessed June 23, 2023.

of potential economic effects, and an IMPLAN analysis of economic and fiscal impacts of the exclusion.

2. Federal Taxation of Social Security Benefits

The federal tax rules adopted in 1983 that apply to federal taxation of Social Security are[2]:

> *If the taxpayer's combined income (total of adjusted gross income, interest on tax-exempt bonds, and 50% of Social Security benefits and Tier I Railroad Retirement Benefits) exceeds a threshold amount ($25,000 for an individual, $32,000 for a married couple filing a joint return, and zero for a married person filing separately), the amount of benefits subject to income tax is the lesser of 50% of benefits or 50% of the excess of the taxpayer's combined income over the threshold amount.*

The Social Security federal taxation provision was modified in 1993 as part of the Omnibus Budget Reconciliation Act. A secondary set of thresholds was adopted, and a higher taxable percentage for beneficiaries who exceeded the secondary thresholds was established. Specifically, the 1993 changes did the following:

> *Modified for a taxpayer with combined income exceeding a secondary threshold amount ($34,000 for an individual, $44,000 for a married couple filing a joint return, and zero for a married person filing separately), so that the amount of benefits subject to income tax is increased to the sum of (1) the smaller of (a) $4,500 for an individual, $6,000 for a married couple filing a joint return, or zero for a married person filing separately, or (b) 50% of the benefit, plus (2) 85% of the excess of the taxpayer's combined income over the secondary threshold. However, no more than 85% of the benefit amount is subject to income tax.*

[2] This section is drawn from *Research Note #12: Taxation of Social Security Benefits***,** Research Notes & Special Studies by the Historian's Office. www.ssa.gov/history/taxationofbenefits.html, accessed June 23, 2023.

Social Security benefits subject to federal taxation include monthly retirement, survivor, and disability benefits. However, Supplemental Security Income (SSI) payments are not taxable.

Table 1 summarizes the current federal income tax provisions that determine the amount of Social Security benefits subject to federal income taxation. The actual federal income tax liability depends on modified adjusted gross income (MAGI), which equals 50 percent of Social Security benefits plus federal adjusted gross income (FAGI) plus interest on tax-exempt bonds.

Table 1. Taxable Portion of Social Security Benefits

Modified Adjusted Gross Income (MAGI)	Taxable Portion of Social Security Benefits
Single Individual	
Less than $25,000	None
$25,000–$34,000	Lesser of 50% of benefits or 50% of MAGI over $25,000
More than $34,000	Lesser of 85% of benefits or 85% of MAGI over $34,000 plus the lesser of (a) $4,500 or (b) 50% of benefits
Married Couple Filing Jointly	
Less than $32,000	None
$32,000–$44,000	Lesser of 50% of benefits or 50% of MAGI over $32,000
More than $44,000	Lesser of 85% of benefits or 85% of MAGI over $44,000 plus the lesser of (a) $6,000 or (b) 50% of benefits

As implied by Table 1, the magnitude of one's Social Security benefits that are subject to the federal income tax depends on the magnitude of Social Security benefits and the amount of other income. If the sum of one-half of Social Security benefits plus FAGI plus tax-exempt interest is $32,000 or less for a household filling jointly, none of the Social Security benefits is subject to taxation. If the sum is greater than $32,000, there is a federal income tax liability, but the percentage of Social Security benefits subject to the income tax can never exceed 85 percent.

Table 2 provides some examples of what the percentage of Social Security benefits subject to federal income tax would be for different values of Social Security benefits and

other taxable income, assuming a joint filer. (For simplicity, we assume that interest on tax-exempt bonds is zero.) The first four columns assume that the Social Security benefits are $10,000. The columns show how the increase in MAGI increases the amount and percentage of Social Security benefits subject to federal income tax. At a FAGI of $45,000 or more, 85 percent of the benefits would be taxed.

For column 5, FAGI is the same in column 1, but the Social Security benefits are double those in column 1, and thus MAGI income in column 5 is $35,000. Benefits subject to taxation in column 5 are $6,850 compared to $1,500 for column 1, while the percentage of benefits subject to the income tax is 34.25 percent for column 5 and 15 percent for column 1. The amounts in column 6 represent a doubling of the benefits, FAGI, and MAGI in column 2. This results in an increase in the benefits subject to tax by a factor of 4.25 ($4,000 to $17,000).

Table 2. Examples of Federal Tax on Social Security

	[1]	[2]	[3]	[4]	[5]	[6]
Social Security Benefits	$10,000	$10,000	$10,000	$10,000	$20,000	$20,000
Adjusted Gross Income	$25,000	$30,000	$35,000	$40,000	$25,000	$60,000
Modified Adjusted Gross Income	$30,000	$35,000	$40,000	$45,000	$35,000	$70,000
Benefits Subject to Tax	$1,500	$4,000	$5,850	$8,500	$6,850	$17,000
Percent of Benefits Subject to tax	15%	40%	58.5%	85%	34.25%	85%

In 1984, only about 10 percent of Social Security beneficiaries had some income tax liability on their Social Security benefits. However, because the thresholds were not indexed for inflation, the percentage of Social Security beneficiaries with some tax liability increased, so that by 1993 about 18 percent had an income tax liability. According to AARP, the Social Security Administration estimates that about 56 percent of Social Security beneficiaries currently owe income taxes on their benefits.[3] We calculate that about 77 percent of Social Security beneficiaries in Georgia have taxable benefits and that about 52 percent of benefits are taxable.

[3] www.aarp.org/retirement/social-security/questions-answers/how-is-ss-taxed.html

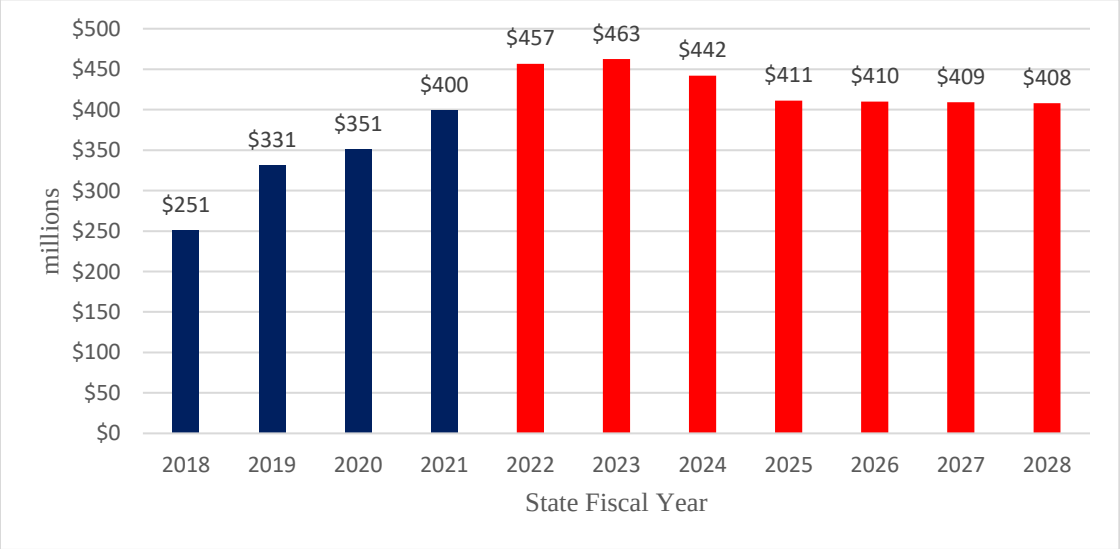
3. Tax Expenditure Estimates and Administrative Costs

The tax expenditure cost of not taxing Social Security Benefits (SSB) was estimated using administrative income tax data from Georgia DOR in a microsimulation model to estimate the impact on individual income tax liabilities of Georgia taxpayers. In the microsimulation model, tax liabilities are recalculated assuming no exclusion of SSB and that taxable SSB are based on federal provisions (see Table 1).

Figure 1 presents the estimated cost in foregone income tax collections for state fiscal years (FY) 2018–21 based on tax returns filed for TY 2017–21, and projects the cost through FY 2028, which take into account the changes in state tax laws effective January 1, 2024, as specified in HB 1437.[4] The primary drivers of the tax expenditure cost are increases in the number of Social Security recipients offset by the decline in tax liability due to the new tax laws.[5] For FY 2024–28, the tax expenditure cost is estimated to decrease at an average annual rate of about 2.5 percent.

The Georgia Department of Revenue reports that there are no administrative costs associated with not taxing SSB.

Figure 1. Estimated State Tax Revenue from Taxing Social Security Benefits



[4] HB 1437 and its companion, SB 56, take effect January 1, 2024. The legislation flattens the income tax rate to 5.49 percent. This rate will slowly decline if certain conditions are met for state revenue collections. In addition, the standard deductions are increased to$ 24,000 for married filing jointly and $12,000 for single, head of household, or married filing separately. The legislation eliminates several previous deductions for the old and the blind and increases the retirement exclusion. Changes to rules for itemized deductions are also made.

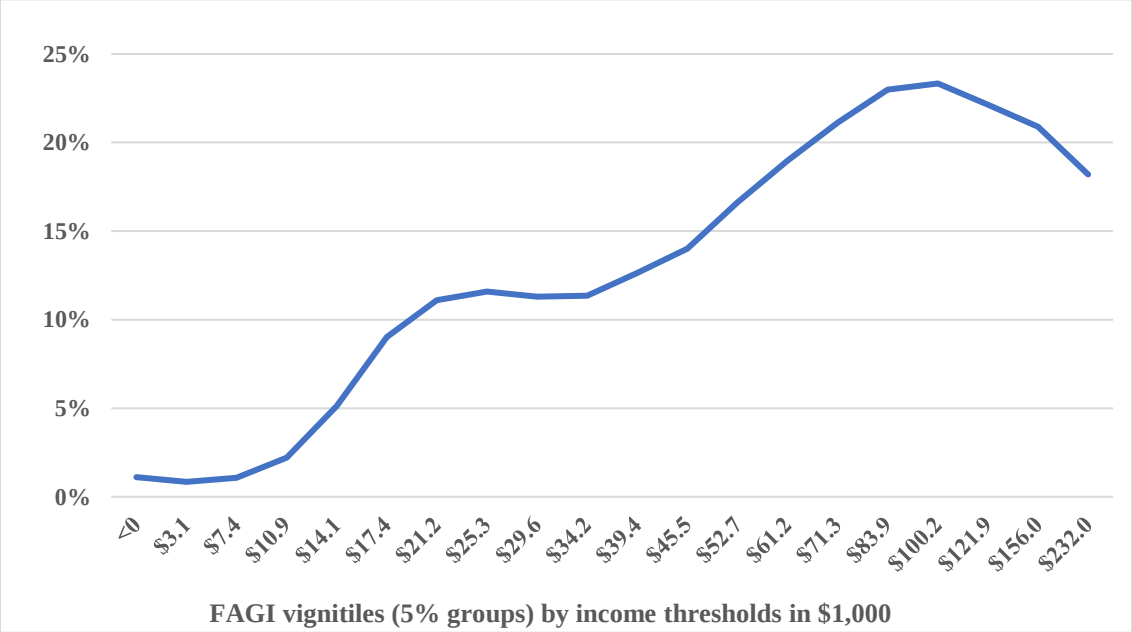
[5] Projected tax expenditures are in real terms.

4. Distribution of Benefits to Consumer Households

We next explore the distribution of the taxpayer benefit of not taxing SSB. It is assumed that taxable SSB are determined the same way the federal government does. There are approximately 579,245 returns that report Social Security benefits, however, in considering the distribution of these returns we exclude roughly 50 returns with Social Security benefits of more than $100,000 because they likely reflect extraordinary benefit beyond regular benefits. For TY 2021, 12.8 percent of full-year resident tax returns report federally taxable SSB.[6]

Figure 2 shows the percentage of all returns that report taxable SSB for each of 20 vigintiles (i.e., 5-percent groupings of all full-year Georgia taxpayers, not just Social Security recipients), ranked by federal adjusted gross income (FAGI). The share of total returns with SSB increases with FAGI through the 17th vigintile (FAGI = $100,200), where it reaches a peak of 23.0 percent.

Figure 2. Percentage of Returns Reporting Social Security Benefits,* TY 2021

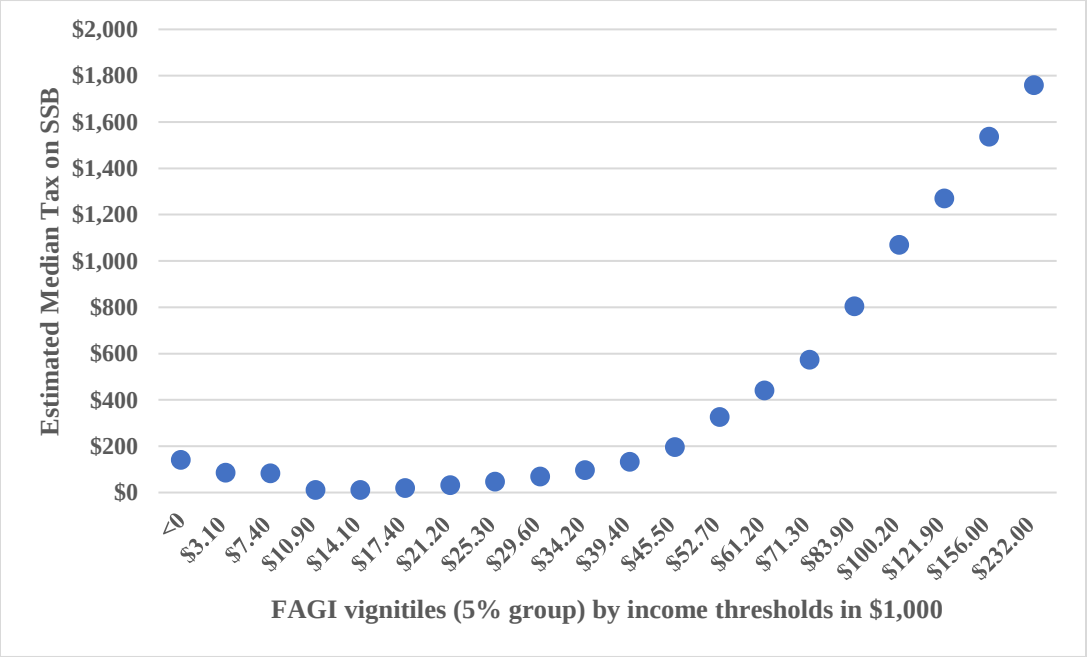


*Full-year residents only
Source: DOR tax return administrative data

[6] Taxpayers include taxable Social Security on their federal tax return; they have to deduct the benefits in filing their Georgia tax return.

Figure 3 shows the median tax savings from the exemption of SSB for filers for the 20 income groups. Note that the median tax saving is small and relatively constant through the first nine vigintiles but then increases as income increases.

Figure 3. Estimated Median Tax on Social Security Benefits by Income*, TY 2021



*Full-year residents only

Table 3 shows by FAGI vigintiles the current per-return income tax liability and estimated increase in per-return income tax liability if Georgia taxed SSB. We include only taxpayers with taxable SSB. The estimated tax on SSB initially decreases as FAGI increases, but then increases beginning from the 6th vigintile ($17,400). Because tax liabilities are small for the first five vigintiles, taxing SSB would result in a very large percentage increase in tax liability. The increase in tax liability is less than the current tax liability for vigintiles 7–10 and 17–20.

Table 3. Tax on Social Security Benefits,* 2021

Vigintiles	FAGI Vigintiles (income threshold in $1,000)	Tax per return: Current Income Tax	Tax per return: Additional Tax from Including Social Security	Percentage Increase
1	<0	$50	$152	312.2%
2	$3.1	$3	$116	4,754.8%
3	$7.4	$2	$94	5,915.1%
4	$10.9	$6	$53	1,047.6%
5	$14.1	$10	$28	378.2%
6	$17.4	$29	$32	135.9%
7	$21.2	$55	$50	105.8%
8	$25.3	$88	$77	100.0%
9	$29.6	$127	$115	101.2%
10	$34.2	$176	$172	106.6%
11	$39.4	$226	$236	113.0%
12	$45.5	$280	$323	122.8%
13	$52.7	$362	$431	125.2%
14	$61.2	$477	$539	117.9%
15	$71.3	$642	$656	105.7%
16	$83.9	$835	$842	104.0%
17	$100.2	$1,184	$1,078	93.6%
18	$121.9	$1,909	$1,300	69.6%
19	$156.0	$3,665	$1,560	43.2%
20	$232.0	$26,220	$1,802	8.3%

*Full-year residents only
Source: DOR tax return administrative data and author's calculations

Table 4 shows the distribution by SSB of the mean estimated tax liability of taxing SSB.

Table 4. Distribution of Georgia Taxable Social Security Benefits*, 2021

Taxable SSB	Number of Returns	Percent of Total	Mean Tax on SSB
$0 < to $5,000	115,602	20.0%	$59
$5,000 < to $10,000	79,743	13.8%	$228

$10,000 < to $15,000	81,421	14.1%	$429
$15,000 < to $20,000	87,083	15.0%	$647
$20,000 < to $25,000	66,715	11.5%	$895
$25,000 < to $30,000	49,575	8.6%	$1,148
$30,000 < to $35,000	34,516	6.0%	$1,378
$35,000 < to $40,000	26,948	4.7%	$1,696
$40,000 < to $45,000	18,977	3.3%	$2,054
> $45,000	18,665	3.2%	$2,662
Total	**579,245**	**100.0%**	**$716**

Source: DOR tax return administrative data and author's calculations
*Full-year residents only

The total estimated tax revenue if Georgia taxed SSB for TY 2021 is $454.9 million. Social Security benefits for each Georgia county is presented in Appendix A.

5. Social Security Benefits by State

The magnitude of the SSB subject to federal taxation and the number of federal returns reporting taxable benefits for each state are shown in Table 5. Taxable benefits per return varies across states from $13,777 to $18,888. The IRS reports that there were 607,000 federal tax returns that reported total taxable SSB of $9.742 billion for Georgia in 2020.

Table 5. Number of Federal Filers and Taxable SSB Reported, 2020

State	No. of Returns	Taxable SSB (in 1,000s)	Benefits per Return	State	No. of Returns	Taxable SSB (in 1,000s)	Benefits per Return
AL	335,870	$5,161,122	$15,366	MT	93,320	$1,427,062	$15,292
AK[a]	43,140	$700,565	$16,239	NE[b]	141,020	$2,289,713	$16,237
AZ	521,610	$8,657,336	$16,597	NV[a]	209,560	$3,193,520	$15,239
AR	199,200	$2,950,145	$14,810	NH[a]	128,360	$2,200,790	$17,145
CA	2,257,900	$38,235,339	$16,934	NJ	680,870	$12,860,366	$18,888
CO	371,120	$6,043,089	$16,283	NM[b]	148,120	$2,308,330	$15,584
CT[b]	288,940	$5,263,569	$18,217	NY	1,369,280	$24,520,797	$17,908
DE	95,130	$1,710,016	$17,976	NC	725,590	$11,742,481	$16,183
DC	27,780	$511,360	$18,407	ND	57,940	$932,195	$16,089
FL[a]	1,717,010	$29,216,214	$17,016	OH	871,310	$12,003,651	$13,777
GA	607,000	$9,746,227	$16,056	OK	250,840	$3,804,542	$15,167
HI	115,200	$2,000,941	$17,369	OR	334,970	$5,516,813	$16,470
ID	134,660	$2,085,386	$15,486	PA	1,081,500	$17,658,073	$16,327
IL	878,010	$13,850,350	$15,775	RI[b]	85,760	$1,433,159	$16,711

IN	492,220	$7,430,534	$15,096	SC	402,370	$6,680,340	$16,602
IA	263,290	$4,166,571	$15,825	SD	75,410	$1,194,003	$15,833
KS[b]	221,620	$3,576,002	$16,136	TN[a]	471,700	$7,359,091	$15,601
KY	299,870	$4,208,595	$14,035	TX[a]	1,426,200	$23,031,812	$16,149
LA	254,410	$3,604,422	$14,168	UT[b]	169,590	$2,832,254	$16,701
ME	122,280	$1,756,708	$14,366	VT[b]	59,720	$962,486	$16,117
MD	428,800	$7,648,350	$17,837	VA	610,030	$10,661,858	$17,478
MA	518,500	$8,807,548	$16,987	Waa	569,660	$10,001,703	$17,557
MI	854,220	$13,335,801	$15,612	WV	141,340	$1,971,834	$13,951
MN[b]	452,300	$7,518,393	$16,623	WI	502,870	$7,942,230	$15,794
MS	178,960	$2,673,072	$14,937	WY[a]	47,960	$788,049	$16,431
MO[b]	462,180	$6,785,179	$14,681	**US**	**22,796,510**	**$372,959,986**	**$16,360**

Source: Internal Revenue Service, *Statistics of Income*, www.irs.gov/statistics/soi-tax-stats-individual-income-tax-state-data

Notes: a) State does not have an income tax; b) State taxes SSB.

6. State Taxation of Social Security Benefits

In this section we discuss how SSB are taxed by states.[7] There are eight states—Alaska, Florida, Nevada, New Hampshire, Tennessee, Texas, Washington, and Wyoming—that do not have a personal income tax and thus do not tax SSB. An additional 32 states and the District of Columbia fully exempt SSB. The list includes Colorado and West Virginia, which recently eliminated their tax on SSB. There are 10 states that currently include SSB in their income tax base. Note that Nebraska has been phasing out its tax on SSB, and New Mexico is eliminating the taxation of benefits for most older residents. The following summarizes the tax treatment of SSB for each of these ten states.

- **Connecticut**: SSB are not taxed if AGI is less than $75,000 (single filer) or $100,000 (married filing jointly). Above these thresholds, 75 percent of SSB are still tax exempt.
- **Kansas**: SSB are not taxed if AGI is $75,000 or less, regardless of filing status.
- **Minnesota**: Minnesota uses the same thresholds as the federal government for determining how much of a retiree's SSB should be taxed. Additionally, those who do owe taxes on their benefits can take advantage of Minnesota's Social Security Subtraction to secure a partial deduction. In 2021, single filers and couples filing

[7] The information in this section is drawn from various sources, including: www.thebalancemoney.com/states-that-exempt-social-security-3193304; www.investopedia.com/which-states-don-t-tax-social-security-5211649; and www.aarp.org/retirement/social-security/questions-answers/how-is-ss-taxed/

jointly could exempt up to $4,130 and $5,290, respectively, of their federally taxable benefits from their Minnesota income. The subtraction is less for larger incomes and eventually phases out entirely. Single filers and couples filing jointly with AGIs of at least $62,710 and $80,270, respectively, only qualify for partial exemption, while those with incomes above $83,360 and $106,720, respectively, are not eligible for an exemption.

- **Missouri**: SSB are fully deductible for those age 62 and older and with AGI of less than $85,000 (single filer) or $100,000 (married filing jointly). Those in higher income brackets may still qualify for a partial deduction.
- **Montana**: SSB are fully deductible for those with an AGI of less than $25,000 (single filer) or $32,000 (married filing jointly). Montana uses a different method than the federal government to calculate the tax liability for those with higher incomes.
- **Nebraska**: SSB are fully deductible for those with an AGI of less than $44,460 (single filer) or $59,960 (married filing jointly). Additionally, in 2021, Nebraska began phasing out taxation of benefits, with the reduction growing in steps to 50 percent by 2025.
- **New Mexico**: In 2022, New Mexico significantly increased the exemption level for SSB. The exemptions levels are $100,000 (single taxpayers), $150,000 (married couples filing jointly, surviving spouses, and heads of household), and $75,000 (married couples filing separately).
- **Rhode Island**: Benefits are exempt for retirees who are of full retirement age and earn an AGI of less than $86,350 (single filer) or $107,950 (married filing jointly).
- **Utah**: The federal government formula is used to determine the amount of SSB that are taxed. In addition, filers with AGIs of less than $30,000 (single filers) or $50,000 (couples filing jointly) are eligible for a full tax credit on their Social Security benefit income. The credit for those with higher income decreases by 2.5 cents for each dollar above the aforementioned income limits.
- **Vermont**: SSB are fully exempted for those with an AGI of up to $45,000 (single filers) or $60,000 (couples filing jointly). A partial exemption is provided for those with AGI between $45,001 to $54,999 (single filers) or $60,001 to $69,999 (couples

filing jointly). For single filers and couples filing jointly earning at least $55,000 and $70,000, respectively, benefits are fully taxed.

7. Economic Effects of Georgia's Social Security Benefit Exemption

Economic theory suggests that there are several potential economic effects we might expect if Georgia were to eliminate the state income tax exemption for SSB. First, we might expect a decrease in in-migration and an increase in out-migration of Social Security recipients. Second, given how taxable SSB are calculated, removing the SSB exemption results in a reduction in the marginal net-of-tax wage rate for some workers.[8] This would be expected to reduce the hours worked by Social Security beneficiaries. Third, for some Social Security beneficiaries, eliminating the exemption would only result in a reduction in net income. This is expected to result in an increase in hours worked. These effects are discussed below.

A tax on SSB would reduce the disposable income of Social Security beneficiaries who are subject to the tax, resulting in reduced economic activity in Georgia. We discuss this effect in Section 8.

7.1. Effect on Migration

Taxing SSB could reduce the in-migration and increase out-migration of Social Security recipients. However, we assume that taxing SSB would have no measurable effect on in- and out-migration. The likelihood that a Social Security recipient would move out of Georgia if it were to tax SSB would depend on the magnitude of the increase in tax liability. We suspect that it is unlikely that many households would move out of the state if their Georgia income tax liability increased by less than $1,000. As Table 4 shows, there are not many tax returns that exceed that amount. Between 2015 and 2019, an average of 2,030 individuals aged 65 and over left Georgia each year (Mateyka and Wan, 2022). Thus, even a large increase in out migration would not be many individuals. And, as we note in the literature review in Appendix B, Conway and Rork (2012) find no effect of the Social Security income tax exemption on migration.

[8] Net-of-tax wage rate is the wage rate less the income taxes imposed on earnings.

7.2. Effect on Employment

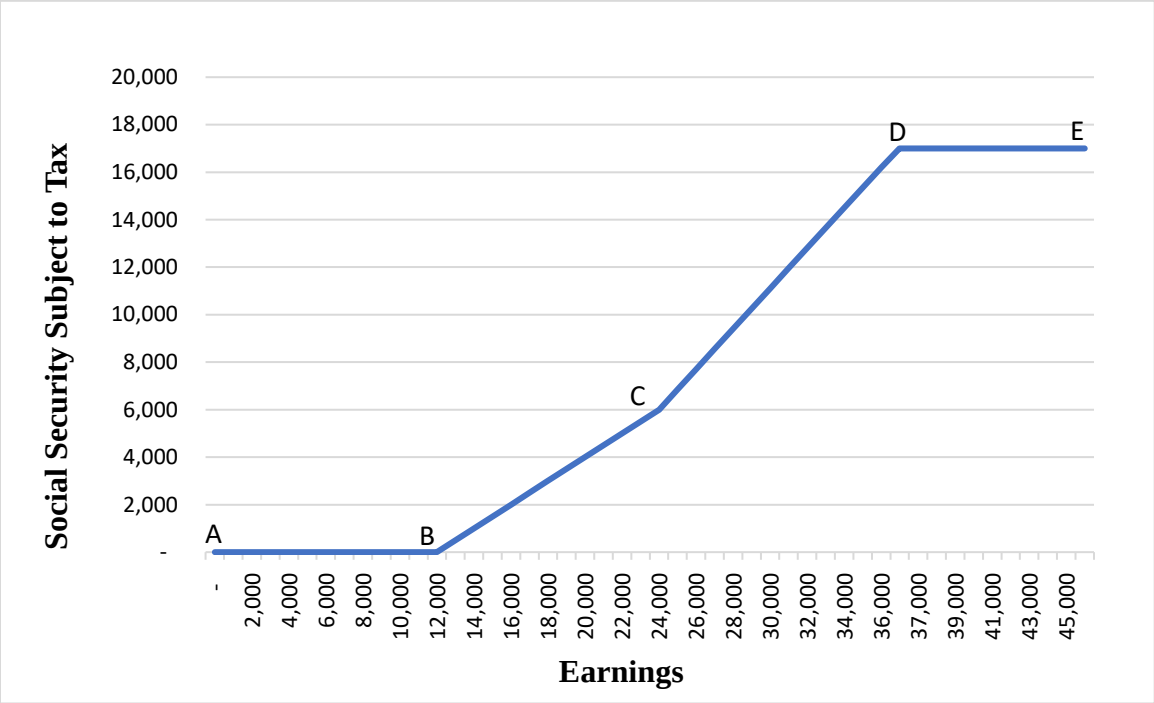
We estimate that taxing SSB would result in a small decrease in earnings for Social Security beneficiaries. To explain why, consider the following. Based on Table 1, which explains how taxable Social Security is determined, we constructed Figure 4 for a taxpayer with SSB of $20,000 and nonlabor income of $10,000. (If SSB or non-labor income were different, the shape of the line would be similar.) Figure 4 shows how SSB subject to federal income tax varies with earnings. If earnings are less than $12,000 (line segment AB), none of the benefits would be subject to taxation because along AB the modified adjusted gross income is less than $32,000. Thus, an increase in earnings in that range has no effect on tax liability.

Between points B and C, SSB subject to federal tax would be 50 percent of earnings in excess of $12,000. Thus, if earnings increase by $100, taxable SSB increases by $50. Thus, the total tax on the $100 in earnings is 1.50 times the tax rate. In other words, the marginal tax rate increases by 50 percent if SSB are taxed. Along line segment CD, the amount of SSB subject to federal tax would be 85 percent of earnings in excess of $24,000.[9] Thus, the marginal tax rate increases by 85 percent. Based on economic theory, we expect that this increase in the marginal tax rate would reduce hours worked.

If earnings were between points D and E, the individual would pay taxes on $17,000, which is 85 percent of the $17,000 in SSB. As earnings increase beyond point D, there is no change in taxable SSB and thus no additional income taxes. The taxpayer will experience a decrease in income equal to the taxes on $17,000, but no change to the marginal tax rate. Based on economic theory, we expect that this decrease in net-of-tax income will increase hours worked.

[9] Earnings at point D are $36,941.18.

Figure 4. Taxable Social Security Benefits



Note: The line is based on SSB of $20,000, non-labor income of $10,000, and a joint filer.

Using income tax return data, we estimate the effect on the marginal tax rate for taxpayers on the BC and CD line segments. Based on a review of published estimates of employment elasticities conducted by McClelland and Mok (2012), we assume a net-of-tax wage elasticity of hours worked of 0.2, which is the mid-point of the range they report. We estimate that if SSB are taxed, earnings would decrease by $56.3 million. We also estimate the total tax liability on SSB for those online segment DE. Based on McClelland and Mok's (2012) review, we assume an income elasticity of hours worked of -0.15, which is the mid-point of the range they report. We estimate that the increase in earnings for these tax filers would be $11.1 million. Thus, the estimated net effect on earnings is -$46.2 million. Given the assumptions required to generate these estimates, they should be considered very imprecise. The estimates are also rather small.

8. IMPLAN Economic and Fiscal Impact Analysis

In this section, we model the economic and fiscal effects of the adoption of a Social Security benefit exemption policy by Georgia, and estimate the direct, indirect, and induced economic impacts of such a tax program. In particular, we assume that Georgia removes its income tax exemption of SSB and adopts a SSB taxation program equivalent to the federal

program. Results reported here include estimates of employment, wages, value added, and total output associated with the three levels of economic impact. In addition, as explained further below, we use these economic impact estimates to produce estimates of tax revenue impacts at the state and local levels.

As discussed in Section 7, imposing a tax on SSB has several economic effects. However, because our estimates of the change in earnings are small and imprecise, we do not include those estimates in this analysis. We only consider the increase in taxes of $454.9 million. This increase in taxes reduces after-tax income, which results in a reduction in consumption, but the tax revenues represent an increase in state tax revenue and therefore in government spending. We estimate the effect of these changes on the Georgia economy and on the state's fiscal condition.

8.1. IMPLAN Model Overview

To estimate the economic impact of the SSB exemption, we use IMPLAN, a regional input-output model widely used for economic impact analysis. IMPLAN estimates how an initial change in employment or income works its way through a regional economy. IMPLAN uses data on the input-output relationships between any industry and its suppliers and customers within or outside the given region, in this case the state of Georgia. It also has data on the size of each industry in the economy in terms of revenue and employment. The model uses sector multipliers to estimate the impact of the initial spending by taxpayers. This analysis uses IMPLAN model data for the year 2021, adjusted forward to represent average annual revenues and wages in 2022 dollars. Below is a discussion of the relevant IMPLAN terms used in the report.

- *Direct effects* are the changes that initiate ripple effects through the economy. For the purposes of this analysis, direct effects are increased firm output (revenue) directly attributable to increased consumer spending and employment.
- *Indirect effects* are the economic activity supported by business-to-business purchases in the supply chain for firms. For example, a firm purchases raw materials and equipment needed. Each of the supplying businesses subsequently spends a portion of the money they receive on their own production inputs, which in turn prompts spending by the suppliers of these inputs. This spending continues but progressively

diminishes in its in-state impacts due to "leakages," which occur when firms spend money on imports (including imports from other states), taxes, and profits.

- *Induced effects* are economic activity that occurs from households spending labor income earned from the direct and indirect activities. This activity results from household purchases on consumption items such as food, housing, healthcare, and entertainment. The labor income spent to generate these effects does not include taxes, savings, or compensation of nonresidents (commuters) as these leave the local economy (leakage).
- *Output* is the value of production. This includes the value of all final goods and services, as well as all intermediate goods and services used to produce them. IMPLAN measures output as annual firm-level revenues or sales, assuming firms hold no inventory.
- We also report *value added*, which measures the contribution to state gross domestic product (GDP).
- Estimates of output changes resulting from construction activity or operations are then used to estimate state and local sales tax revenue.
- *Labor income* includes total compensation—wages, benefits, and payroll taxes—for both employees and self-employed individuals.
- *Employment* includes full-time, part-time, and temporary jobs, including the self-employed. Job numbers do not represent full-time equivalents, so one individual may hold multiple jobs.

8.2. Economic Impact Induced Effects

Table 6 reports the IMPLAN estimates of direct, indirect, and induced impacts for the additional household income provided by SSB exclusion of $454.9 million, as estimated for TY 2021. Note that the direct and indirect impacts are zero, as the additional funds initially flow from household spending. Thus, for TY 2021 the exclusion is estimated to result in about $567.6 million of additional gross output in the economy and $335.0 million in added state GDP.

Table 6. Tax Exemption Economic Impact IMPLAN Results

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	0	0	0	0
Indirect Effect	0	0	0	0
Induced Effect	3,185	$176,608,426	$335,004,015	$567,563,307
Total Effect		**$176,608,426**	**$335,004,015**	**$567,563,307**

Source: IMPLAN and authors' calculations

8.3. Alternative-use Economic Impacts

The induced economic impacts estimated above do not account for the opportunity costs of the forgone state revenues, i.e., the economic impacts of alternative uses of the funds currently expended through the tax exemption. SB 6 requires evaluations of tax incentives to include estimates of *net* economic and fiscal impacts, thus requiring consideration of the economic and revenue effects of alternative uses of the revenues that would be available for other purposes in the absence of the exemption.

Alternatives could include spending on programs across state government or a reduction in taxes. These activities could also result in direct, indirect, and induced economic effects. Absent information as to how the General Assembly would otherwise choose to spend foregone revenue if not on the SSB exemption, we estimate the impact of using the revenue to fund an equivalent increase in state government spending in proportion to existing expenditures. That is, we allocated the foregone revenue to industry sectors as direct effects based on the sector shares of spending in the state budget.

As shown in Table 7, if the state received the forgone revenue associated with the excluded retirement income and spent the money, it could be expected to generate approximately $867.0 million in gross output. This estimate includes $454.9 million in annual direct government outlays, which is the TY 2021 estimated tax expenditure for the exemption, plus the amounts shown for indirect and induced effects resulting from the initial, direct outlays.

Table 7. Alternative-use Economic Activity

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	8,899	$366,462,289	$341,428,336	$454,900,000
Indirect Effect	694	$41,205,876	$67,897,331	$130,132,353
Induced Effect	2,030	$113,667,380	$211,129,941	$359,490,061
Total Effect	**11,623**	**$521,335,546**	**$620,455,608**	**$944,522,414**

Source: IMPLAN and authors' calculations

Comparisons between SSB exemption and alternative use economic impacts should be made cautiously as the SSB exemption may offer other public benefits, including tax relief to lower-income retiree households and a reduction of the tax burden on residents who do not directly benefit from certain public services like education that account for a large portion of the state budget.

8.4. *Fiscal Impacts*

8.4.1. Summary of Fiscal Impacts

A summary of the fiscal impacts of the SSB for FY 2024 – FY 2028 is presented in Table 8 below. Following Table 8, we detail the estimates of the positive revenue effects arising from the induced economic impacts and of the opportunity cost of the tax expenditure, the revenues that could be expected from the alternate use of funds. The conclusion drawn from Table 8 is that the tax exemption of SSB results in reduction in total net fiscal effects. The detailed estimates are projected forward to obtain the amounts shown in Table 8.

Table 8. Social Security Benefits Exclusion State and Local Fiscal Effects

($ millions)	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**FY 2028**
Tax expenditure cost					
State	($441.9)	($411.1)	($410.4)	($409.5)	($407.8)
Revenue gains from economic impact					
State	$20.57	$19.14	$19.11	$19.06	$18.99
Local	$18.54	$17.24	$17.21	$17.18	$17.11
Alternative use reduction					
State	($29.7)	($27.6)	($27.6)	($27.5)	($27.4)
Local	($13.6)	($12.6)	($12.6)	($12.6)	($12.5)
Net fiscal effects					
State	(432.8)	($402.6)	($401.9)	($401.0)	($399.4)
Local	$5.0	$4.6	$4.6	$4.6	$4.6
Total net fiscal effects	**($427.8)**	**($398.0)**	**($397.3)**	**($396.4)**	**($394.8)**

8.4.2. Fiscal Effects of Induced Economic Impact

Table 9 shows estimates of state and local tax revenues for TY 2021 attributable to economic activity associated with the SSB exclusion. State income tax is estimated using

employee compensation generated by IMPLAN. The labor income estimated in the broader consumer-facing economy is comprised mostly of service workers, where the average labor income is approximately $55,000 per job. Based on Georgia DOR tax data, specifically net tax liability relative to adjusted gross income (AGI) for taxpayers with AGI of $48,000–$85,000 in TY 2021, we assume an average effective tax rate (AETR) under current law of 3.84 percent on labor income estimated above. Resulting income tax revenues are estimated at about $6.35 million for TY 2021.

IMPLAN reports estimates of sales tax and property tax. However, the model relies on levels of economic activity rather than sales or property tax rates and tax bases. Thus, they are not our preferred estimates. To estimate sales tax revenues, we use the model's estimated incremental output for the various retail sectors and adjust for the taxable portion of sector sales to arrive at estimates of taxable sales. For retail sectors, IMPLAN reports as output only the retail gross margin, not the total sales at retail, so these estimates are grossed up using average gross margin rates from IMPLAN for each retail sector to arrive at estimated sales to which the tax would be applied. The state sales tax is calculated using the state sales tax rate of 4 percent, and the local sales tax is calculated using an average local sales tax rate of 3.39 percent, the population-weighted average as of July 2023, according to the Tax Foundation. The state and local sales tax estimates for the base year are shown in Table 9.

To estimate the additional property tax due to the economic activity associated with the tax exemption, we calculate the ratio of IMPLAN's estimate of sales tax to our preferred estimate of sales tax above and apply this to IMPLAN's estimate of property tax revenue. This estimate assumes that economic activity that generates IMPLAN's sales tax estimates is like that which generates the property tax—thus this estimate should be treated cautiously.

Finally, about 81 percent of Georgia state tax collections are from personal income and state sales taxes. Georgia collects a host of other taxes that make up the remaining 19 percent, on average. Two taxes make up about half of the 19 percent: corporate income tax and title ad valorem tax (TAVT) on motor vehicles. Table 9 shows the base-year estimated revenue from these other taxes, assuming a proportional effect such that the 20 percent of total tax revenues hold for the economic activity resulting from the SSB exclusion.

Table 9. State and Local Tax Revenues from Induced Effects, TY 2021

($ in Millions)	**State tax**	**Local Tax**
Income tax estimate	$6.35	$0.00
Sales tax estimates	$7.05	$6.79
Property tax estimates	$0.00	$9.98
All other taxes	$5.22	$0.00
Total state and local tax estimates	**$18.62**	**$16.78**

8.4.3. Alternative-use Annual State and Local Tax Revenue

New tax revenues resulting from the alternate use case are estimated in an equivalent manner as the SSB exemption in the previous section and are shown in Table 10.

Table 10. Alternative-use State and Local Tax Revenue, TY 2021

($ in millions)	**State Tax**	**Local Tax**
Income tax estimate	$17.20	$0.00
Sales tax estimates	$4.43	$4.26
Property tax estimates	$0.00	$8.01
All other taxes	$5.23	$0.00
Total state and local tax estimates	**$26.87**	**$12.27**

8.5. *Summary of Economic and Fiscal Effects*

Currently the SSB tax exemption reduces Social Security recipient taxes by $454.9 million, and thus increases net-of-tax income by that amount and reduces state tax revenue by $454.9 million. As shown above, if the exemption were repealed, the increase in jobs, output, and taxes from increased government spending would be larger than the decrease in jobs, output, and taxes if Social Security recipient taxes were increased by $454.9 million. Thus, if the tax exemption was repealed, economic activity would increase, and in particular:

- Employment would increase by an estimated 8,438 (= 11,623 – 3,185)
- Output would increase by an estimated $376.9 million (= $944.5 million – $567.6 million)
- State tax revenue would increase by an estimated $8.25 million (26.87 – 18.62)

8.6. Administrative Costs

The Georgia DOR is responsible for administering the exemption of SSB on

personal income tax returns and reported negligible administrative costs to administer this exclusion. Taxpayers report the taxable SSB amounts found on their federal tax return on Schedule 1 of their Georgia tax return. This is the same form used for a variety of gross income additions and subtractions, so there is no additional administrative or processing cost associated with any specific adjustment reported. Georgia can rely on the federal government to audit reported taxable SSB, thus very small costs would be associated with auditing this specific exclusion.

8.7. Public Benefits

Beyond the economic effects discussed above, the only other benefit from exempting SSB from the state income tax is that it increases the after-tax income of around 579,245 Social Security recipients who are full-time Georgia residents. The estimated average tax saving is $721, and the estimated median tax saving is $465. Social Security beneficiaries who would be liable for income tax on SSB are not generally low-income. The median FAGI for all Georgia taxpayers is $39,398, while the median FAGI for those taxpayers who would be liable for the tax on SSB is $71,802.

Appendix A. Social Security Income by Georgia County

Table A1. Social Security Income by County, 2020				
County	**Social Security Income**	**Households with Social Security income**	**Social Security Income per Household**	**Percent of Households with Social Security Income**
Appling	$43,398,100	2,352	$18,452	35.4%
Atkinson	$14,282,400	895	$15,958	30.3%
Bacon	$24,015,100	1,362	$17,632	36.4%
Baker	$13,323,700	681	$19,565	47.0%
Baldwin	$121,604,000	6,011	$20,230	36.0%
Banks	$49,648,900	2,670	$18,595	38.5%
Barrow	$173,081,500	8,541	$20,265	31.3%
Bartow	$212,308,700	10,872	$19,528	28.7%
Ben Hill	$44,583,500	2,406	$18,530	36.4%
Berrien	$47,481,800	2,843	$16,701	38.5%
Bibb	$346,620,500	19,989	$17,341	34.4%
Bleckley	$30,971,600	1,662	$18,635	39.1%
Brantley	$50,433,000	3,034	$16,623	44.9%
Brooks	$40,856,900	2,402	$17,010	37.6%
Bryan	$60,527,900	3,129	$19,344	23.2%
Bulloch	$136,524,700	7,594	$17,978	27.2%
Burke	$54,660,300	2,921	$18,713	36.7%
Butts	$55,058,800	3,079	$17,882	36.9%
Calhoun	$11,886,000	763	$15,578	44.2%
Camden	$129,009,800	5,717	$22,566	29.0%
Candler	$25,194,000	1,391	$18,112	34.4%
Carroll	$264,428,400	14,008	$18,877	33.2%
Catoosa	$197,789,000	9,109	$21,714	36.2%
Charlton	$33,155,800	1,645	$20,156	43.0%
Chatham	$717,878,200	35,153	$20,422	32.0%

Chattahoochee	$6,864,400	517	$13,277	20.3%
Chattooga	$68,357,300	3,989	$17,136	43.8%
Cherokee	$576,326,800	25,680	$22,443	28.4%
Clarke	$226,182,100	11,910	$18,991	23.7%
Clay	$12,979,000	669	$19,401	51.0%
Clayton	$411,486,600	23,193	$17,742	24.0%
Clinch	$13,471,200	727	$18,530	30.5%
Cobb	$1,464,852,700	65,787	$22,267	23.2%
Coffee	$86,783,000	5,188	$16,728	35.0%
Colquitt	$92,698,400	5,443	$17,031	34.3%
Columbia	$311,465,500	13,920	$22,375	28.9%
Cook	$38,347,500	2,329	$16,465	37.6%
Coweta	$311,533,600	14,827	$21,011	27.9%
Crawford	$41,106,200	2,143	$19,182	46.9%
Crisp	$66,958,500	3,557	$18,824	42.0%
Dade	$49,368,400	2,597	$19,010	42.2%
Dawson	$80,694,400	3,559	$22,673	37.4%
Decatur	$63,460,500	3,538	$17,937	36.5%
DeKalb	$1,323,359,000	68,083	$19,437	24.0%
Dodge	$46,313,900	2,820	$16,423	37.5%
Dooly	$39,153,200	2,247	$17,425	45.1%
Dougherty	$206,419,200	11,979	$17,232	35.0%
Douglas	$262,886,700	13,008	$20,210	26.1%
Early	$32,951,800	1,898	$17,361	45.2%
Echols	$7,109,300	495	$14,362	33.1%
Effingham	$114,254,400	5,678	$20,122	26.0%
Elbert	$57,067,800	3,334	$17,117	43.3%
Emanuel	$50,444,100	3,121	$16,163	37.7%
Evans	$25,346,800	1,444	$17,553	36.0%

Fannin	$122,006,100	5,909	$20,648	52.9%
Fayette	$328,153,100	13,746	$23,873	33.7%
Floyd	$259,898,900	13,192	$19,701	36.5%
Forsyth	$449,084,100	18,849	$23,825	23.5%
Franklin	$65,394,400	3,451	$18,949	41.0%
Fulton	$1,730,617,800	92,648	$18,679	21.7%
Gilmer	$129,543,800	6,136	$21,112	49.4%
Glascock	$7,452,200	390	$19,108	34.9%
Glynn	$280,843,100	13,302	$21,113	38.9%
Gordon	$139,920,600	7,268	$19,252	35.5%
Grady	$65,635,200	3,565	$18,411	39.1%
Greene	$83,696,500	3,631	$23,051	49.3%
Gwinnett	$1,274,696,200	63,841	$19,967	21.3%
Habersham	$121,431,200	6,316	$19,226	41.4%
Hall	$448,561,800	20,563	$21,814	31.4%
Hancock	$27,821,500	1,307	$21,287	42.5%
Haralson	$83,173,000	4,308	$19,307	37.6%
Harris	$96,390,000	4,406	$21,877	35.4%
Hart	$91,639,100	4,747	$19,305	46.2%
Heard	$32,357,100	1,736	$18,639	37.3%
Henry	$444,908,500	22,236	$20,008	28.4%
Houston	$273,214,100	15,332	$17,820	26.4%
Irwin	$22,701,400	1,280	$17,735	36.8%
Jackson	$166,188,000	8,055	$20,632	33.2%
Jasper	$42,123,200	2,081	$20,242	39.1%
Jeff Davis	$35,764,200	1,960	$18,247	38.1%
Jefferson	$45,836,700	2,496	$18,364	44.7%
Jenkins	$19,188,400	1,291	$14,863	38.1%
Johnson	$26,492,800	1,513	$17,510	43.4%

Jones	$82,160,600	4,219	$19,474	38.7%
Lamar	$50,247,500	2,645	$18,997	39.7%
Lanier	$18,240,900	1,262	$14,454	33.0%
Laurens	$115,936,000	6,729	$17,229	39.2%
Lee	$54,745,800	3,056	$17,914	29.0%
Liberty	$95,858,800	5,480	$17,492	22.8%
Lincoln	$29,987,900	1,599	$18,754	48.8%
Long	$25,187,900	1,453	$17,335	24.2%
Lowndes	$204,879,300	11,599	$17,664	27.1%
Lumpkin	$95,131,800	4,436	$21,445	37.4%
Macon	$30,492,400	1,683	$18,118	36.2%
Madison	$73,902,600	3,817	$19,361	35.9%
Marion	$23,931,400	1,291	$18,537	37.7%
McDuffie	$56,380,100	3,046	$18,510	37.0%
McIntosh	$58,265,000	3,244	$17,961	51.1%
Meriwether	$62,260,600	3,344	$18,619	40.5%
Miller	$16,831,500	1,021	$16,485	43.7%
Mitchell	$52,599,400	3,229	$16,290	40.3%
Monroe	$82,984,900	4,168	$19,910	41.0%
Montgomery	$20,164,400	1,126	$17,908	36.8%
Morgan	$60,010,300	2,818	$21,295	40.0%
Murray	$83,824,900	4,647	$18,038	32.0%
Muscogee	$372,065,000	21,900	$16,989	29.7%
Newton	$230,351,100	11,827	$19,477	31.5%
Oconee	$92,313,600	4,294	$21,498	31.2%
Oglethorpe	$40,393,200	2,123	$19,026	38.8%
Paulding	$281,696,300	13,819	$20,385	25.1%
Peach	$58,056,000	3,596	$16,145	35.2%
Pickens	$127,661,700	5,210	$24,503	43.0%

Pierce	$51,334,300	2,722	$18,859	37.9%
Pike	$45,482,800	2,107	$21,587	34.2%
Polk	$98,780,500	5,347	$18,474	34.7%
Pulaski	$34,670,800	1,928	$17,983	50.7%
Putnam	$93,467,500	4,111	$22,736	43.5%
Quitman	$9,887,300	560	$17,656	58.5%
Rabun	$74,604,300	3,300	$22,607	47.0%
Randolph	$18,928,900	1,106	$17,115	40.9%
Richmond	$417,197,100	23,767	$17,554	32.8%
Rockdale	$202,412,600	9,751	$20,758	31.0%
Schley	$11,767,800	638	$18,445	34.3%
Screven	$36,307,600	2,039	$17,807	41.3%
Seminole	$26,946,100	1,486	$18,133	44.2%
Spalding	$200,436,400	10,131	$19,784	39.4%
Stephens	$86,974,700	4,614	$18,850	46.2%
Stewart	$14,212,800	790	$17,991	42.8%
Sumter	$71,967,200	3,829	$18,795	33.5%
Talbot	$24,569,800	1,302	$18,871	45.0%
Taliaferro	$6,288,500	338	$18,605	51.1%
Tattnall	$46,308,700	2,796	$16,562	33.5%
Taylor	$20,854,300	1,213	$17,192	33.5%
Telfair	$34,700,700	2,066	$16,796	46.1%
Terrell	$22,900,800	1,303	$17,575	38.8%
Thomas	$114,816,500	6,205	$18,504	35.0%
Tift	$87,881,000	5,047	$17,413	33.9%
Toombs	$71,253,600	3,727	$19,118	38.1%
Towns	$66,391,600	2,862	$23,198	57.2%
Treutlen	$14,910,500	815	$18,295	34.0%
Troup	$154,028,400	8,409	$18,317	33.7%

Turner	$21,893,500	1,291	$16,959	40.2%
Twiggs	$28,500,200	1,605	$17,757	52.1%
Union	$123,527,300	5,626	$21,957	55.0%
Upson	$66,515,000	3,852	$17,268	37.0%
Walker	$203,914,100	10,381	$19,643	39.5%
Walton	$224,528,900	10,873	$20,650	33.9%
Ware	$94,717,200	5,136	$18,442	37.6%
Warren	$16,692,300	956	$17,461	42.3%
Washington	$58,472,400	3,332	$17,549	43.2%
Wayne	$75,215,600	3,884	$19,365	37.1%
Webster	$8,923,500	491	$18,174	44.0%
Wheeler	$14,890,700	980	$15,195	55.2%
White	$109,966,600	4,903	$22,428	41.8%
Whitfield	$216,757,700	10,891	$19,902	29.9%
Wilcox	$17,897,800	1,027	$17,427	40.4%
Wilkes	$33,290,400	1,918	$17,357	46.6%
Wilkinson	$25,190,000	1,574	$16,004	47.7%
Worth	$58,397,100	2,848	$20,505	35.7%
Source: U.S. Census Bureau, 2016–20 American Community Survey 5-Year Estimates				

Appendix B. Literature Review: The Effects of Taxing Social Security Benefits

There are several potential economic effects if Georgia were to eliminate the state income tax exemption for SSB. First, we might expect that some Georgia Social Security recipients would move to a state that does not tax SSB. Second, taxing SSB might cause a change in hours worked by Social Security beneficiaries. Third, taxing SSB would reduce the disposable income of some Social Security beneficiaries. We consider the literature that address the following three economic effects:

- Interstate migration of the elderly
- Labor force participation and hours worked of the elderly
- Effects on the state economy from the migration of the elderly

We consider each of these in turn.

B.1. Effect of Taxing Social Security Benefits on Elderly Migration

There is a vast literature exploring the many factors that are believed to be associated with intrastate migration. Walters (2002) provides a review of the literature on elderly migration, but while written 21 years ago, there has been little published since 2002. We are aware of only one study that attempts to estimate the effect on interstate migration of the exemption of SSB from state income taxes (Conway and Rork, 2012). Studies that explore the effect on elderly migration of taxation more generally are discussed in *B.2*.

The empirical approach used by Conway and Rork (2012) closely follows Conway and Rork (2006). Conway and Rork (2006) focus on the effects of estate, inheritance, and gift (EIG) taxes, while Conway and Rork (2012) also consider state income tax exemptions of SSB. Conway and Rork (2006) also study the possibility that elderly migration is the cause of decreases in EIG taxes rather than the reverse. We first discuss the common empirical approach and then discuss the empirical findings of the two papers.

Most research on the effect of state fiscal policy on elderly migration is based on simple cross sections of states using one year of data (see Appendix B). This approach has many drawbacks. Conway and Rork (2012) use panel (states by years) data techniques and employ data from four different decennial censuses (1970, 1980, 1990, and 2000) combined with information about changes in state policy and characteristics in order to track how changes in elderly movements are related to policy changes. This allows for

consideration of changes over time in state policies and controls for state-specific characteristics, such as cultural and natural amenities, that may lead to considerable persistence in migration patterns. There has been a great deal of change to state tax policy during this time period, providing ample opportunity to see whether the elderly have responded.

Conway and Rork consider three alternative measures of their dependent variable, in-migration rates, out-migration rates, and net migration rates, where rates are calculated as the number of movers divided by state population in the prior year. In addition to the fiscal policies that are the focus of the empirical analysis, they include several explanatory variables, including elderly income tax breaks, and controls for the cost of living, state amenities, state and local government expenditures, and other state and local taxes. The latter include the average income tax rate, property tax share, sales tax share, and other tax share, where share is measured as the revenue from the tax as a percentage of total tax revenue. They also include state and time fixed effects to capture underlying factors associated with the desirability of the state and overall time trends.

As noted above, Conway and Rork (2012) is the only paper that estimates the effect of the state income tax exemption of SSB on interstate migration. In addition to the Social Security exemption, Conway and Rork explore the effects of two other categories of income tax breaks that benefit elderly taxpayers: extra income tax deductions, exemptions, and tax credits for the elderly (which we refer to as deductions); and exemptions of pension income. These income tax provisions should unambiguously benefit the elderly.

Conway and Rork measure these tax provisions in four alternative ways:

- Three dummy variables to measure whether the state had each type of tax preference
- The maximum tax benefit associated with each provision, calculated by multiplying the amount of the deduction or exemption by the maximum marginal income tax rate in the state
- The simple sum of the three provisions used in the maximum tax benefit approach
- The estimated tax benefit for a representative high-income elderly household, measured as the difference between the estimated state tax liability of a non-

elderly household relative to that for an elderly household

Conway and Rork (2012) also consider EIG taxes, which disproportionately affects the elderly. They measure EIG two different ways: (1) a dichotomous dummy variable for whether the state has an incremental EIG tax or not, and (2) the effective average state EIG tax rate on a $1 million (in constant 1996 dollars) bequest divided equally between two adults and a child.

As for the dependent variable, Conway and Rork first use the number of elderly moving between each pair of states in each census year. Second, they use individual observations from the census-based Integrated Public Series (IPUMS), which allows them to create migration measures for different socioeconomic groups of elderly. They estimate a large number of regression models using the alternative data sets and subject their econometric results to a wide range of robustness checks.

They report that the results from all analyses overwhelmingly find no credible empirical evidence that state income tax breaks for the elderly, including the exemption of SSB, or EIG taxes have an effect on elderly interstate migration. In fact, they find that Social Security and private pension exemptions drive away elderly residents and may repel new migrants. The deduction appears to have no statistically significant effect once fixed effects are included.[10]

Their conclusion is consistent with historical trends in elderly migration and tax policy, i.e., elderly state income tax breaks and EIG taxes have both varied a great deal across states and over time, while elderly migration patterns have remained largely the same.

Conway and Rork (2006) use a similar data set and empirical models as Conway and Rork (2012) to explore the effect of EIG taxes on elderly migration. They use four alternative specifications of EIG taxes, including a dummy variable for whether the state has an incremental EIG tax or not; EIG tax revenue divided by total state tax revenue; the aggregate average EIG tax rate; and the average state EIG tax rate on a $1 million bequest. They estimate five regression specifications for each of the four EIG measures.

[10] Many of the studies discussed in Appendix B find that taxes reduce in-migration and also out-migration, which is contrary to expectations, a result that is referred to as the “same sign” problem. Conway and Rork’s panel methods removes the persistent "same sign" problem.

Compared to the results using a cross section model, the vast majority of coefficients on EIG are not close to being statistically significant for the panel model, and the few that tend to be of the wrong sign (e.g., a high EIG tax share appears to discourage out-migration.)

Conway and Rork (2006) note that states that have experienced in-migration of elderly are among the first states to reduce or eliminate their EIG taxes, suggesting that elderly migration is the cause of EIG tax cuts and not the result of such tax cuts. They thus address this question of causality, i.e., do lower EIG taxes result in more in-migration or are lower EIG taxes the result of the political influence of in-migrants? They use two different empirical approaches and conclude that the approaches provide "modest evidence that the causality may indeed go the other way – that elderly migration influences EIG policy" (p. 122).

In the remainder of this appendix section, we review published papers that estimate the effect of state and local fiscal policy, other than taxation of Social Security benefits, on interstate migration of the elderly. Some of this review is drawn from Buschman (2023). These papers differ in terms of the data used, the models estimated, and how taxes are measured. Most of the papers rely on the question in the decennial census that asks where the individual lived five years earlier, focusing on those whose move was interstate. Some of the studies use the number of individuals who moved, while others use the rate of migration, and a few of the studies consider a set of specific individuals who moved. Studies estimate the effect on moves out of a state (referred to as a push model), moved into the state (referred to as a pull model), and the difference between in-migration and out-migration (referred to as the difference model). Studies also differ in what taxes are included and how taxes are measured—for example, tax rates, taxes per dollar of state income, and the tax's revenue as a share of total tax revenue. The studies generally do not modify the tax variable to account for special tax treatment of the elderly. All of the studies include a large set of personal, demographic, and state amenities variables that are thought to affect interstate migration.

While these studies measure migration for a multiyear period, the studies estimate essentially one-period models. This limitation raises concerns about the results of the estimated regressions. The research by Conway and Rork (2012) reviewed in the text discusses some of these issues.

A widely found result in studies that consider gross migration flows is that the destination and origin coefficients tend to have the same rather than opposite signs, a finding referred to that the "same sign" problem. This problem is technically associated with the high correlation between in-migration and out-migration, an issue that cannot be addressed with single-period models. Until Conway and Rork (2012), authors did not attempt to explain the cause of the same sign issue.

B.2. *Effects of State and Local Fiscal Policy on Elderly Migration*

Among the earlier literature on the subject, Clark and Hunter (1992) used age-specific net-migration data at the county level over the period 1970–80, compiled from Census data, to study the factors that influence migration of white males at different points in their respective lifecycles. Controlling for a number of local economic and amenity variables, they estimated the effects of property, income, estate or inheritance, and other tax rates on net in-migration for each five-year age cohort from 20–24 years to 70–74 and 75-plus years. They found that property-tax rates were a consistently negative and significant factor for all cohorts aged 55 or older, while estate- or inheritance-tax rates were a negative factor for those aged 50–69. The other-tax category, which included sales and excise taxes, was a negative factor only for the cohorts aged 70 and above. Most relevant to this report when controlling for these taxes and a host of other factors, income tax rates did not reduce migration of the elderly.

Clark, Knapp, and White (1996) use the Public Use Micro Sample of the 1990 Census and consider three age groups, those 55 to 64, 65-74, and 75 and above. Their dependent variable is the probability an individual makes an interstate move rather than an in-state move. They estimate a push model, a pull model, and a difference model. They use four taxes—property tax, income tax, sales tax, and the sum of inheritance and estate taxes—each divided by state personal income. In the push model, only the coefficient on income tax for the 75 plus group is statistically significant, and it has an unexpected negative sign. None of the coefficients are statistically significant in the pull model. For the difference model, the coefficients on the property tax and sales tax are negative and statistically significant for the 65–74 age group, while for the 75 and over age group the coefficients are all statistically significant but the coefficients on income tax and sales tax have unexpected positive signs.

Conway and Houtenville (1998) consider two dependent variables, the number of retired individuals aged 65 and over who moved into the state and the number who moved out, each divided by total state population, measured using the 1990 Census. For taxes they use property, sales, income, and all other taxes and fees, each measured as a share of total state and local spending. They include measures of government services and a set of control variables. The coefficients on all variables are positive for both the out-migration and in-migration models. Negative coefficients are expected for the in-migration models. Most of the tax coefficients are statistically significant. They also include a variable that interacts the income tax variable with a measure of the exemption of pension income and find it has no statistically significant effect.

Gale and Heath (2000) extend Conway and Houtenville (1998) analysis. They argue that existing studies are deficient because they do not consider the effect of changes during the migration period and that fiscal variables can be affected by support and opposition of the elderly. They measure 1985 to 1990 migration as the net in-migration rate of those 60 years of age and over as a percentage of state's total population. They include three tax rates—property tax, sales tax, and income tax—all measured in per capita terms, along with the real growth rates of each. Their tax variables do not account for the differential tax treatment of the elderly. They find that the property tax has a negative and significant effect, while the income tax has a positive and significant effect. The coefficient on the sales tax was insignificant. They suggest that the results support the hypothesis that the elderly are attracted to states where the burden for publicly provided goods is more than proportionately borne by wage earners.

Conway and Houtenville (2001) estimate migration models using data from the 1990 Census. They consider migration of individuals aged 65 and older and use two measures of migration: gross flows and net flows. Gross flow is measured as the number of elderly who migrate from state *i* to state *j* within the 48 continental states; thus, they have 48 x 47 observations. Net flow is the difference between the number of elderly who migrate from state *i* to state *j* less the number who migrate from state *j* to state *i*; because they use the log of the flow, they delete observations with negative flows. They strive for a full representation of the state and local public sector and thus include a full range of expenditures and taxes. They use three alternative sets of tax measures, drawn from three previously published

papers. The taxes they use include estate and gift taxes, income taxes, property taxes, sales taxes, all other taxes, and indicators of pension income exemption and the food exemption from the sales tax. The tax variables are alternatively measured as tax rates, taxes per capita, and tax effort. They report the existence of the "same sign" issue and suggest that it is due to the high correlation between in-migration and out-migration flows. They find substantial variation in terms of sign and statistical significance in the coefficients on tax variables across the models and alternative measures of taxes. They report that the elderly are attracted to states with sales tax exemptions for food. They find some support for the hypotheses that a more desirable destination is one with low death taxes, low personal income taxes, and an exemption for pension income. However, the results for the specific taxes are sensitive to how they are measured.

More recently, Conway and Houtenville (2003) used state-to-state migration flows, i.e., between paired origin and destination states, from the 1990 U.S. Census to estimate the effects of the level and marginal rate of income tax for the median-income elderly households along with interactions of these variables with the amount of pension income exempted. Other tax measures included the proportions of state and local expenditures funded with "death taxes" (i.e., estate, gift, or inheritance), property taxes, sales taxes, and all other taxes; they also interacted the sales-tax variable with a dummy variable indicating the exemption of groceries from the sales tax. For each paired origin- and destination-state observation, both states' measures of these and other variables were included in the regressions. They also ran regressions for subgroups—aged 65–74, 75–84, and 85-plus—in addition to all 65-plus migration. The authors found that origin-state tax parameters were generally not statistically significant, thus not influencing migration decisions. From the results for the destination-state tax parameters, however, they concluded that elderly households "avoid moving to states with high [death] taxes" and that "exempting food from sales taxes makes a state a more desirable destination." Results for the income tax variables and their interactions with the exemption of pension income were less clear, but they argued the results suggest that "a high [pension] exemption is more likely to discourage out-migration and encourage in-migration the less progressive the state tax code."

Finally, Önder and Schlunk (2015) use an approach similar to that of Conway and Houtenville (2003) but applied to 1995–2000 state-to-state migration. For personal income

taxes, as in most of the literature, they divide total state (and local, if applicable) income tax revenue by aggregate personal income to get an overall average tax rate or average eight income tax burdens as a percentage of personal income. The average burdens of property and sales taxes are measured the same way. Finally, they include dummy variables to indicate exemptions from sales taxes for prescription drugs, income taxes for federally taxable Social Security and for pensions, and inheritance tax. The pension-exemption dummy variable, which is also interacted with the income tax rate variable, is equal to one if the state exempts at least $6,000 of otherwise-taxable pension income.

Önder and Schlunk (2015) found that the lack of an incremental inheritance tax and the presence of a prescription drug exemption from sales taxes were both significant positive factors for in-migration of seniors across all age groups. They also found, like some earlier literature (Conway and Houtenville, 1998 and 2003), that higher effective property tax rates in the destination state were associated with higher in-migration while, simultaneously, higher rates in the origin state were associated with greater out-migration. They explain this apparent paradox, being both a push and a pull factor, as likely being a result of the tendency for seniors to downsize their homes when they migrate so that, in the destination state, they are paying less in property taxes than the overall average burden suggests but are getting—and are arguably attracted by—the higher level of public services funded by the overall higher property tax.

As for income taxes, Önder and Schlunk (2015), taking into account the combined effects of the income tax rate and the pension exemption, conclude that "as income taxes increase in an origin state, the elderly out-migrate significantly less, provided such state offers a meaningful pension exemption." That is, seniors appear to prefer states with higher overall income tax burdens, provided they are getting material relief from that burden in the form of a pension exemption. Like their finding with regard to property taxes, this is consistent with the notion that seniors prefer the higher level of public services funded by higher taxes, provided they bear less of the tax burden themselves. However, the authors find that overall, the results for income tax rates, pension exemptions, and the interaction between the two in the destination state are "mostly inconclusive."

B.3. Effect of Taxing Social Security Benefits on Labor Force Participation and Hours Worked

There is a vast literature exploring the effect of taxes on labor force participation, hours worked, and retirement. However, we found only two papers that explore the effect of the taxation of SSB on labor market activities of the elderly.

Page and Conway (2015) estimate the effect of taxing SSB on labor force participation. They use data from the March supplements to the Current Population Survey (CPS) for 1981 to 1986 for individuals aged 65 through 69. The period includes two years of observations prior to the adoption of the tax on SSB.

Page and Conway identify four groups of retirees that are affected in different ways by the 1983 policy (see Section 2). There are Social Security beneficiaries who cannot be affected by the tax on benefits because the level of their SSB and income are such that the federal earnings test imposed at that time eliminates all their Social Security before the taxation of SSB is effective. They use this group as the control group. The rest of the sample is divided into three subgroups, the first subgroup consists of those for whom taxable Social Security does not increase with further increases in income.

To estimate the effect on labor force participation, they make use of the difference in participation between the control group and the other three groups before and after the federal government began to tax SSB. The change in the difference is a measure of the effect of the tax policy. As is expected, they find that taxing SSB increased labor force participation of the first treated group and does so by an estimated 2 to 5 percentage points for the treated group. While the theoretical framework implies that the tax policy should have reduced hours worked, their data are not rich enough to identify a wage effect. Their results hold up to numerous alternative modeling, including using alternative control variables and empirical techniques.

The rate structure of the taxation of SSB is complicated with several changes (or kinks) in the tax rates (see Section 2). Burman et al. (2014) make use of these kinks to investigate the effect of the tax on earnings. If Social Security recipients understand the tax rate structure, economic theory implies that we should observe bunching of taxpayers at the kinks, which would imply that taxpayers are reacting to the tax rate changes at the kinks. The

explanation for why we should expect to observe bunching at the kinks is based on economic theory and is complicated. Thus, we do not try to explain it.

Burman et al. use IRS administrative data consisting of a panel of individual taxpayers for TY 1999 to 2010. They find little evidence of a response. Only single, self-employed individuals show any evidence of avoiding the tax on SSB by reducing income, for example by working fewer hours. They only consider the federal tax and ignore any state income taxes imposed on SSB. Their results suggest that a state tax on SSB should have little to no effect on labor income.

B.4. Effects of Elderly Migration on the State Economy

The study by Conway and Rork (2012) discussed in Section 7.1 concludes that exempting SSB has no effect on the migration of Social Security recipients. Thus, we provide only a brief review of the literature on the economic effects of elderly migration.

There are essentially two themes in that literature. First, there is a large literature that attempts to estimate the economic growth effects arising from consumption spending by new retiree residents, using a variety of methods and data but arriving at similar results. Serow (2003) provides a fairly comprehensive review of North American studies and finds that estimates of job creation consistently around one-half job per in-migrant.

The second theme explores in more detail the nature of the effects on the state or local economy. While the in-migration of retirees expands the economic base and has a stabilizing effect due to the steady income stream of retirees, it is also argued that such migration has only limited benefits as it increases local expenditures on public services above tax gains and creates jobs primarily in low-wage service sectors (Liu, 2020). Walters (2002) summarizes the core arguments for and against retirement migration as a community development strategy.

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