State Income Tax Treatment of the Elderly

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The state and local tax treatment of the elderly varies significantly from state to state. In this article, we analyze the differences in effective tax rates for the state personal income tax for elderly versus non-elderly taxpayers. We find that in a majority of states, the average effective tax rate facing the elderly is significantly lower than that of non-elderly taxpayers. The consequences of this tax rate difference may impact long-term state income tax revenues as the elderly population continues to grow.

INTRODUCTION

Tax relief for Americans over age 65 varies widely from state to state, and political pressure from this growing demographic group ensures that federal tax relief will continue to be subject to constant revision, particularly during election cycles. Although federal programs may have a greater impact on the income of the elderly than do state programs, state tax relief for some taxes such as property taxes, sales taxes, and individual income taxes contribute significantly to the overall loss of tax revenue. This research focuses on the individual income tax relief to the elderly as provided by the states and presents estimates of the magnitude of such tax relief.

Much of the current public finance literature focuses on the effects of an aging population on the Social Security system; only a small body of research analyzes the types of tax relief offered to the elderly by states. For example, Penner (2000), documents selected characteristics of state income tax systems and includes the provisions related to the elderly.[1] The report provides estimates of the impact of these preferences on different

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1. Rudolph G. Penner, "Tax Benefits for the Elderly," The Retirement Project, Occasional Paper No. 5 (Washington, DC: The Urban Institute, 2000).

representative couples (over and under the age of 65) and finds a significant amount of relief for the elderly in the tax system. Similarly, Forman finds that federal and/or state income tax laws provide significant benefits to the elderly in terms of increased deductions and exemptions for certain types of income.[2] Wheeler estimated the impact of the tax preferences for the elderly in the state of Georgia and projected that the aging of the population in that state is expected to have a small negative impact on state personal income tax revenues due to the general increase in population in Georgia.[3] Wheeler also assumes that consumption and other patterns of behavior will remain constant over the forecast period. Baer provides detailed information regarding numerous statewide property tax rates, exemptions, and circuit breakers and state personal income tax exemptions by state, and serves as a good reference for determining the differential treatment of various taxpayers by state.[4]

In this article, we analyze the magnitude of state personal income tax preferences for the elderly. Using microlevel data from the IRS Statistics of Income (SOI), we simulate the personal income tax treatment for a sample of tax filers in each state with an income tax. Given the different types of income tax preferences afforded the elderly, we find that effective state personal income tax rates for Americans over 65 relative to the rates for younger taxpayers are significantly lower in most states.[5] Based on these findings, we analyze the long-term revenue implications of these preferences.

The first section of this article summarizes the issue of tax preferences, and the second section summarizes the structure of state individual income taxes in the United States. Data and methodology are discussed in the third section. Section four presents the estimates of tax rates by state for the elderly and non-elderly. Section five addresses the impact of the tax rate differentials on revenue, followed by our conclusions.

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2. Jonathan Barry Forman, "Taxation of the Elderly," *University of Pittsburgh Law Review* 56, no. 3 (1995): 589–626.

3. Laura Wheeler, "The Effect of the Growth in Elderly Population on Georgia Tax Revenue," Fiscal Research Program Report #44 (Atlanta, GA: Andrew Young School of Policy Studies, Georgia State University, 2000).

4. David Baer, *The State, Economic, Demographic and Fiscal Handbook 2000*, Publication No. D17295 (Washington, DC: Public Policy Institute, AARP, 2000).

5. The effective income tax rate is calculated as an average tax rate, measured as the ratio of state income tax liability divided by comprehensive income, for individual observations in the SOI sample. Comprehensive income is calculated as the sum of *AGI*, social security income not included in AGI, tax-exempt interest income, dividends not reported in AGI, pension income not reported in AGI, capital gains not reported in AGI, retirement contributions, and self-employed health insurance deductions. By income group, the effective tax rates are weighted using the SOI-produced decimal weight to represent the population. Tax-exempt interest is often under reported and because many elderly hold tax-exempt bonds, this may reduce their comprehensive income relative to nonbond holders.

DEMOGRAPHIC CHANGES AND LITERATURE

The U.S. population is aging. In 1950, the proportion of the U.S. population over 65 was 8.1 percent and by 2002 it had risen to 12.0 percent.[6] Due to the aging of the baby boom generation and the increase in life expectancy, demographers expect this trend to continue for the next 25 years. As seen in Table 1, a number of western states (Idaho, Utah, Alaska, and Colorado) are expected to see larger gains in their elderly population than other states for the next 25 years. The northeastern states are expected to see the slowest (even negative) growth in the elderly over the next 5 to 25 years. This is in part due to a decline in the general growth of the population in the Northeast compared with faster growth in the West and South and to the migration of the elderly to warmer climates.

As the demographic mix in the states shifts to a greater proportion of elderly individuals, the value of the tax relief granted to the elderly will become more pronounced. It is not clear whether increases in the concentration of elderly significantly impact the expenditure side of the equation as well. Researchers have attempted to quantify the costs and benefits of public finance policies aimed at the elderly by forecasting the costs associated with Social Security and health care. Fuchs, Hurd, Congressional Budget Office (CBO), and Cutler and Sheiner, among others, project from moderate to severe federal budget problems associated with expenditures for Social Security and health care due to increases in this segment of the population and the growth in health care costs.[7] These increased expenditures for health and Social Security should be weighed against any decreases in associated expenditures such as potential decreases in public school expenditures and changes in the mix of other publicly provided goods. Unfortunately, there is scant empirical evidence on these issues, which, some might argue, should be analyzed in a life-cycle context.

In this article, we concentrate on the state income tax treatment of the elderly, a topic we believe to be understudied. We do not attempt to estimate the expenditure issues

6. P. R. Campbell, *Population Projections for States by Age, Sex, Race, and Hispanic Origin: 1995 to 2025* (Washington, DC: U.S. Bureau of the Census, Population Division, 1996); U.S. Department of Labor, Bureau of Labor Statistics, available from: *http://data.bls.gov/cgi-bin/surveymost?lf*, accessed May 2002; and U.S. Department of Commerce, Bureau of the Census, "Projections of Total Population of the States," available from: *http://www.census.gov/population/projections/state/stpjpop.txt*, accessed May 2002.

7. Victor R. Fuchs, "Health Care for the Elderly: How Much? Who Will Pay for It?" NBER Working Paper No. 6755 (Cambridge, MA: National Bureau of Economic Research, 1998); Michael D. Hurd, "The Effects of Demographic Trends on Consumption, Saving and Government Expenditures in the U.S.," NBER Working Paper No. W4601 (Cambridge, MA: National Bureau of Economic Research, 1993); Congressional Budget Office, *Long-Term Budgetary Pressures and Policy Options* (Washington, DC: 1998); Congressional Budget Office, *The Future Growth of Social Security: It's Not Just Society's Aging* (Washington, DC: 2003); and David M. Cutler and Louise Sheiner, "Demographics and Medical Care Spending: Standard and Non-Standard Effects," NBER Working Paper No. W6866 (Cambridge, MA: National Bureau of Economic Research, 1998).

TABLE 1
Average Annual Growth by State Population over Age 65

	2000–2005	2005–2015		2000–2005	2005–2015
Alabama	1.07	2.81	Montana	2.34	3.85
Alaska	4.21	4.57	Nebraska	0.75	2.22
Arizona	2.27	3.68	Nevada	3.47	3.62
Arkansas	1.33	3.26	New Hampshire	0.85	3.11
California	0.40	2.93	New Jersey	0.06	1.70
Colorado	3.14	4.24	New Mexico	2.14	3.60
Connecticut	− 0.22	1.54	New York	− 0.31	1.32
Delaware	− 0.82	2.28	North Carolina	1.82	3.37
DC	− 1.16	0.92	North Dakota	0.81	2.23
Florida	1.13	3.14	Ohio	0.38	1.63
Georgia	1.87	3.79	Oklahoma	1.36	2.98
Hawaii	0.89	2.87	Oregon	2.17	4.20
Idaho	3.18	4.34	Pennsylvania	− 0.34	1.21
Illinois	0.13	1.61	Rhode Island	− 0.68	1.33
Indiana	0.81	2.13	South Carolina	1.63	3.46
Iowa	0.45	1.79	South Dakota	0.73	2.02
Kansas	0.39	2.21	Tennessee	1.50	3.08
Kentucky	1.14	2.75	Texas	1.87	3.45
Louisiana	1.22	2.70	Utah	3.17	4.44
Maine	0.12	2.66	Vermont	1.10	3.12
Maryland	0.75	2.49	Virginia	1.45	3.12
Massachusetts	− 0.38	1.67	Washington	2.10	4.28
Michigan	0.23	1.73	West Virginia	0.63	2.16
Minnesota	1.04	2.66	Wisconsin	0.71	2.23
Mississippi	1.10	2.56	Wyoming	2.90	4.23
Missouri	0.50	2.17	All	0.84	2.60

Source: U.S. Department of Commerce, Bureau of the Census, *Projections of Total Population of the States*; available from: *http://www.census.gov/population/projections/state/stpjage.txt*; accessed August 2000.

associated with the growth in the number of elderly, nor do we use a life-cycle approach to estimate the taxes paid and public goods consumed by the elderly over their entire life.

STATE INDIVIDUAL INCOME TAXES IN THE UNITED STATES: OVERVIEW

Forty-three states and the District of Columbia each impose widely varying versions of an individual income tax on their citizenry. The state individual income tax is a major revenue producer throughout the United States, providing 35 percent of state tax

revenues in fiscal year 2001.[8] Forty-one of those states impose a broad-based individual income tax, while Tennessee and New Hampshire tax only capital income, thus reducing the individual income tax to a relatively minor component of the states' tax structure.

All 43 states that levy an individual income tax offer special tax relief to the elderly by excluding some amount of retirement or other income, or by providing additional deductions or credits for their older taxpayers. Some states means test some or all of their relief. Thirty-nine states exempt some or all Social Security income from taxation, while exemption of pension income from taxation varies widely across the states. Thirty-six states offer additional exemptions or credits for the elderly. Table 2 presents a state-by-state summary of income tax relief targeted to the elderly and indicates whether the relief is means tested. We now turn to an analysis of the effects of these tax preferences for the elderly.

DATA SOURCE AND METHODOLOGY

We use the 1995 Public Use File from the IRS Statistics of Income to estimate the effects of the differences in tax treatment between the elderly and the non-elderly.[9] This file contains 50,396 detailed records for taxpayers in the tax-levying states who have federal adjusted gross income (FAGI) of $200,000 or less for tax returns filed during calendar year 1995. Although the file is designed to make national-level estimates, the records also provide a good basis on which to estimate the different average effective state income tax rates of the elderly and the non-elderly. Because most states use federal income tax information as a starting point for calculating state individual income taxes, this file is superior to other data sources for state income tax incidence studies. The file lacks only a small amount of detail needed for accurate estimation of average effective tax rates for state individual income taxes. To preserve the confidentiality of the individuals' records, certain data elements, such as alimony paid and received, home mortgage interest paid to financial institutions, etc., are "blurred" by reporting those amounts as averages of a few records rather than as the exact or rounded amounts reported by the taxpayers.

The IRS file does not contain state identifiers or age indicators on the records for "high-income taxpayers" (those with FAGI > $200,000), but does include 42,519 nonstate-identified high-income records. The lack of age identifiers precludes the use of these records in the detailed state-by-state effective tax calculations. However, data on high-income individuals are not needed to conclude that the taxation of the non-elderly differs significantly from that of the elderly for the *majority* of the population because the FAGI of most tax filers, regardless of their age, is less than $200,000.

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8. Tax Foundation, 2003; available from: *http://www.taxfoundation.org/collectionsbytypeoftax.html*; accessed May 2002.

9. The 1995 file is used because it was readily available for purposes of this research, but a similar analysis could be carried out with any SOI Public Use File. The Public Use Files are available from the IRS, SOI for a fee, and with a two- to three-year lag.

TABLE 2
State Income Tax Relief for the Elderly, by State, Tax Year 1999

| State | Retirement Income Exemptions | | Other | |
	Social Security	Pensions[d]	Exemption	Credit
Alabama	Full	Full for government pensions	No	No
Arizona	Full	$2,500 for government pensions	Yes	No
Arkansas	Full	$6,000 for all pensions	No	Yes
California	Full	No exemption	No	Yes
Colorado	Full	$20,000 (includes Social Security)	Yes	Yes
Connecticut	Yes[a]	No exemption	No	No
Delaware	Full	$5,000 for all pensions	Yes	Yes
Georgia	Full	$13,000 for all pensions	Yes	Yes[a]
Hawaii	Full	Full for all pensions	Yes	No
Idaho	Full	$16,788 for government pensions (includes Social Security)	Yes	Yes
Illinois	Full	Full for all pensions	Yes	No
Indiana	Full	$2,000 for *fed.* government pensions (includes Social Security)	Yes[b]	Yes[a]
Iowa	Partial	$5,000 for all pensions	No	Yes
Kansas	Partial	Full for government pensions	Yes	No
Kentucky	Full	$35,700 for all pensions	No	Yes
Louisiana	Full	Full for government pensions; $6,000 for private pensions	Yes	No
Maine	Full	Same as federal treatment	Yes	Yes
Maryland	Full	$16,100 (includes Social Security)	Yes[a]	No
Massachusetts	Full	Full for government pensions	Yes	No
Michigan	Full	Full for government pensions; $34,170 for private pensions	Yes[c]	No
Minnesota	Full[a]	$9,600[a] for all income	Yes[a]	No
Mississippi	Full	Full	Yes	No
Missouri	Full	$3,000 for private pensions[a]; $6,000 for government pensions[a] (maximum for all)	No	Yes[a]
Montana	Full[a]	$3,600 for all pensions[a]	Yes[a]	No
Nebraska	No	No exemption	Yes	Yes
New Hampshire	Full	Full	NA	NA
New Jersey	Full	$7,500 for all pensions	Yes	No
New Mexico	Full	$8,000 (includes Social Security)	Yes[a]	No
New York	Full	$20,000 for all pensions	No	No
North Carolina	Full	$2,000 for private pensions; $4,000 for government pensions (maximum for all)	Yes[a]	No

TABLE 2 *Continued*

State	Social Security	Pensions[d]	Exemption	Credit
		Retirement Income Exemptions		**Other**

State	Social Security	Pensions[d]	Exemption	Credit
North Dakota	Full[a]	$5,000 for government pensions (includes Social Security)	No	No
Ohio	Full	Limited tax credits	Yes[a]	Yes
Oklahoma	Full	$3,300 for private pensions[a]; $5,500 for government pensions (maximum for all)	Yes	No
Oregon	Full	Full/partial for *fed.* government pensions	Yes[a]	Yes
Pennsylvania	Full	Full	No	No
Rhode Island	Federal rules	Federal rules	Yes	Yes
South Carolina	Full	$15,000 for all income	Yes	No
Tennessee	Full	Full	Yes[a]	NA
Utah	Full	$7,500 for all pensions	Yes[a]	No
Vermont	Federal rules	Federal rules	Yes	Yes
Virginia	Full	$12,000 for all income	Yes	No
West Virginia	Federal rules	$2,000 from government pensions	Yes	No
Wisconsin	Yes[a]	Full for some government pensions; others fully taxable	Yes[a]	Yes[a]

Sources: State Income Tax Regulations, State Income Tax Forms and Instructions, Tax Year 1999.
Notes: Amounts are for individuals who file single returns.
Alaska, Florida, Nevada, South Dakota, Texas, Washington, and Wyoming do not levy individual income taxes.
[a]Means tested.
[b]Indiana provides two special deductions for individuals over 65 years of age—one is means tested.
[c]Michigan also allows a deduction for interest, dividends, and capital gains included in AGI if the individual is over age 65.
[d]No age limits exist for pension deductions for Alabama, Arizona, Arkansas, Hawaii, Illinois, Kansas, Kentucky, Massachusetts, Mississippi, Missouri, Montana, New Hampshire, North Carolina, Ohio (except lump sum distributions), Oregon, Tennessee, West Virginia, and Wisconsin. South Carolina and Utah provide lower deduction limits for taxpayers younger than age 65; Delaware provides lower deduction limits for taxpayers younger than age 60. Age limit for pension deductibility in Michigan depends on the source of pension income. The following states allow pension deductions for individuals with the age as indicated: Colorado, 55; Georgia, 62; Idaho, 65; Indiana, 62; Iowa, 55; Louisiana, 65; Maryland, 65; Minnesota, 65; New Jersey, 62; New Mexico, 65; New York, 59 1/2; North Dakota, 50; Oklahoma, 65; Pennsylvania, 59 1/2.

To estimate average effective tax rates for individual taxpayers, we use a microsimulation model that incorporates the 1999 tax code for those 43 states that impose an individual income tax. This simulation model contains the unique characteristics of the different state income tax codes for which data are available in

the IRS file, ranging from tax rates to exemptions and credits offered by the different states, and allows us to calculate the tax liability for all observations in our SOI sample. For each observation in the sample, the calculated tax liability is divided by comprehensive income. To produce summary tables of the average effective tax rates, the observations are weighted by the SOI decimal weight, so that the results are representative of the population.

There are, admittedly, some problems with applying the 1999 tax law to 1995 data due to potential changes in the income distribution between the years.[10] The Taxpayer Relief Act (TRA) of 1997 established the child tax credit and two higher education credits (HOPE and the lifetime learning credit), reduced the tax rate on capital gains income, increased the exemption of gains from the sale of a primary residence, expanded eligibility for deductible investment retirement accounts (IRAs), and created tax-free withdrawal rules for IRAs. TRA97 also created the Roth IRA, which allows nondeductible contributions to the IRA and tax-free accumulation of interest income (if used as retirement income or for a first-home purchase).

These changes in tax law may have had an impact on the distribution of certain types of income. For example, the increased tax advantage of the Roth IRA may have reduced some forms of interest income, which could be sheltered via the Roth IRA. This could decrease taxable capital income and alter the distribution we worked with in our simulations. The tax treatment of sales of primary housing could have increased capital income between 1995 and 1999 due to the relatively generous gains exclusions for those selling their homes after TRA97. The distribution of income itself did change between 1995 and 1999, largely due to the growth in capital income. Even with these shortcomings, we believe that our results are representative of the differences in average effective tax rates in 1999.

STATE PERSONAL INCOME TAXES: EFFECTIVE RATES FOR ELDERLY AND NON-ELDERLY

The results for the different states obtained by the microsimulation model show that, in most states, taxpayers over 65 have lower average effective tax rates than those of the non-elderly. Generally, states that closely follow the federal rules regarding Social Security and other pension exemptions and do not allow other credits or deductions show smaller differences between the average effective tax rates between the two

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10. The 1995 data and 1999 law choice is somewhat arbitrary. We were constrained by the IRS SOI data we had in-house and wanted to choose a tax law year that was recent but not too far removed from the year of the data. The U.S. Treasury uses a similar span between the data year and tax law year, but they explicitly age the data to account for changes in income distribution, composition, and demographic changes.

TABLE 3
Average Effective Tax Rates—Taxpayers with Incomes Less than $200,000—All States

State	Average Effective Tax Rates				
	Elderly	Non-Elderly	Overall	Difference (Elderly−Non-Elderly)	% Difference (Elderly−Non-Elderly)
Alabama	2.04*	2.25*	2.22	− 0.21	− 9.3
Arizona	0.95*	1.47*	1.38	− 0.52	− 35.4
Arkansas	1.27*	2.36*	2.21	− 1.09	− 46.2
California	1.50	1.54	1.53	0.04	− 2.3
Colorado	1.46*	2.24*	2.13	− 0.78	− 34.8
Connecticut	0.95*	2.03*	1.94	− 1.08	− 53.2
Delaware	1.97*	2.67*	2.54	− 0.70	− 26.2
Georgia	0.99*	2.56*	2.36	− 1.57	− 61.3
Hawaii	2.35*	3.66*	3.40	− 1.31	− 35.8
Idaho	1.01*	2.20*	2.03	− 1.19	− 54.1
Illinois	1.27*	2.32*	2.13	− 1.05	− 45.3
Indiana	1.44*	2.66*	2.48	− 1.22	− 45.9
Iowa	1.92*	2.43**	2.33	− 0.51	− 20.9
Kansas	2.01*	2.22*	2.19	− 0.21	− 9.5
Kentucky	1.29*	2.93*	2.67	− 1.64	− 55.9
Louisiana	0.76*	1.23*	1.17	− 0.47	− 38.2
Maine	2.13	2.06	2.08	0.07	3.4
Maryland	1.81*	2.42*	2.33	− 0.61	− 25.2
Massachusetts	3.72*	4.56*	4.42	− 0.84	− 18.4
Michigan	0.74*	2.91*	2.55	− 2.17	− 74.6
Minnesota	1.80*	2.25*	2.18	− 0.45	− 20.0
Mississippi	0.56*	1.18*	1.10	− 0.62	− 52.5
Missouri	1.30*	1.60*	1.55	− 0.30	− 18.7
Montana	1.44*	2.15*	2.00	− 0.71	− 33.0
Nebraska	1.75	1.66	1.67	0.09	5.4
New Hampshire	1.15*	− 0.06*	1.01	1.21	>100
New Jersey	0.94*	1.58*	1.49	− 0.64	− 40.5
New Mexico	1.12	1.98	1.85	− 0.86	− 43.4
New York	1.76*	2.30*	2.21	− 0.54	− 23.5
North Carolina	2.24*	1.93*	1.97	0.31	16.1
North Dakota	1.12	1.09	1.09	0.03	2.7
Ohio	1.23	2.04	1.92	− 0.81	− 39.7
Oklahoma	0.89*	1.13*	1.10	− 0.24	− 21.2
Oregon	2.68*	3.84*	3.63	− 1.16	− 30.3
Pennsylvania	1.51*	2.55*	2.37	− 1.04	− 40.8
Rhode Island	1.84*	2.59*	2.47	− 0.75	− 28.9
South Carolina	0.36*	1.81*	1.60	− 1.45	− 80.1
Tennessee	0.31*	0.11*	0.14	− 0.20	>100

TABLE 3 *Continued*

| | **Average Effective Tax Rates** | | | | |
| | | | | **Difference** | **% Difference** |
State	**Elderly**	**Non-Elderly**	**Overall**	**(Elderly–Non-Elderly)**	**(Elderly–Non-Elderly)**
Utah	1.16*	1.73*	1.66	− 0.57	− 49.1
Vermont	1.12*	1.88*	1.78	− 0.57	− 30.3
Virginia	1.29*	2.99*	2.74	− 1.70	− 56.9
West Virginia	2.34	2.54	2.51	− 0.20	− 7.8
Wisconsin	2.03*	3.13*	2.96	− 1.10	− 35.1

Notes: Significance levels are based on comparisons of the effective tax rates of the elderly and the non-elderly using t-tests.

*Significantly different from the other group (elderly vs. non-elderly) at the 1 = percent level.

**Significantly different from the other group (elderly vs. non-elderly) at the 5 = percent level.

***Significantly different from the other group (elderly vs. non-elderly) at the 10 = percent level.

groups.[11] Tables 3–5 show average effective tax rates for both age groups in all states that impose an income tax, based on taxpayers with FAGI of less than $200,000. The tables also contain the average effective tax rate for all taxpayers, and present the difference between the elderly and non-elderly effective rate in absolute levels and as a percent difference. States that exempt either all or a large portion of pension or Social Security income and those that provide either generous credits or exemptions to the elderly relative to the tax relief offered to the non-elderly show the largest differences in average effective tax rates.

Table 3 shows that, for all taxpayers with FAGI of less than $200,000, 33 of the 43 states that levy income taxes have statistically significantly lower average effective tax rates for the elderly compared with those of the non-elderly. In this income range, the largest percentage differential between average effective tax rates for the two groups occurs in states that provide generous exemptions of income to the elderly. For 21 of the 33 states, the average effective tax rates for the under-65 group are at least one and one-half times higher than comparable rates for the elderly and the difference in the average tax rate in 13 of these states is at least one percentage point. In two of these states, the exemption for Social Security income is means tested; for the remaining 11 states, Social Security income is fully exempt from taxation. Most of these 21 states also offer generous pension income exclusions. Michigan has the largest percentage difference between the two rates, due largely to generous exemptions offered to the elderly by the state—full exemption of Social Security income and a $34,170 exemption for pension income, regardless of the source.[12]

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11. Given the relatively generous state treatment of the elderly for income tax purposes (relative to the federal tax treatment), the federal exemptions are like a floor or minimum allowed exemptions, with states adding additional exemptions, deductions, and credits.

12. Government pensions are fully exempt, although this exemption is limited to $34,170 in the microsimulation model due to lack of detail on the sources of pension income.

TABLE 4
Average Effective Tax Rates—Taxpayers with Incomes Less than $40,000

State	Average Effective Tax Rates				
	Elderly	Non-Elderly	Overall	Difference (Elderly−Non-Elderly)	% Difference (Elderly−Non-Elderly)
Alabama	1.61	1.80*	1.77	− 0.19	− 10.6
Arizona	0.47*	1.03*	0.94	− 0.56	− 54.4
Arkansas	0.67*	1.41*	1.30	− 0.74	− 52.4
California	0.23*	0.50*	0.47	− 0.27	− 54.0
Colorado	0.43*	1.49*	1.36	− 1.06	− 71.1
Connecticut	0.56*	0.77*	0.74	− 0.21	− 27.3
Delaware	0.15*	1.65*	1.43	− 1.50	− 90.9
Georgia	0.12*	1.77*	1.58	− 1.65	− 93.2
Hawaii	1.22*	3.14*	2.76	− 1.92	− 61.1
Idaho	0.30*	1.10*	0.98	− 0.80	− 72.7
Illinois	1.02*	3.97*	3.44	− 2.95	− 74.3
Indiana	1.42*	2.66*	2.46	− 1.24	− 46.6
Iowa	0.80*	1.40*	1.29	− 0.61	− 43.6
Kansas	1.03*	1.41*	1.35	− 0.36	− 27.0
Kentucky	0.77*	2.17*	1.93	− 1.40	− 64.5
Louisiana	0.25*	0.76*	0.70	− 0.51	− 67.1
Maine	0.61*	1.21*	1.14	− 0.60	− 49.6
Maryland	0.68*	1.58*	1.46	− 0.90	− 57.0
Massachusetts	3.03*	3.57*	3.48	− 0.54	− 15.1
Michigan	0.24*	2.48*	2.05	− 2.24	− 90.3
Minnesota	0.82**	1.18**	1.12	− 0.36	− 30.5
Mississippi	0.21*	0.64*	0.59	− 0.43	− 67.2
Missouri	0.39*	0.66*	0.61	− 0.27	− 40.9
Montana	0.21*	1.23*	1.04	− 1.02	− 82.9
Nebraska	0.68*	0.86*	0.83	− 0.18	− 20.9
New Hampshire	1.25*	0.07*	0.25	1.18	>100
New Jersey	0.17*	0.88*	0.76	− 0.71	− 80.7
New Mexico	0.30	1.23	1.09	− 0.93	− 75.6
New York	0.55*	0.86*	0.81	− 0.31	− 36.0
North Carolina	1.14*	1.59*	1.54	− 0.45	− 28.3
North Dakota	0.56*	0.72*	0.69	− 0.16	− 22.2
Ohio	0.47*	1.24*	1.12	− 0.77	− 62.1
Oklahoma	0.70*	1.08*	1.03	− 0.38	− 35.2
Oregon	1.49*	2.93*	2.67	− 1.44	− 49.1
Pennsylvania	1.42*	2.62*	2.40	− 1.20	− 45.8
Rhode Island	0.54*	1.94*	1.71	− 1.40	− 72.2
South Carolina	0.01*	0.67*	0.59	− 0.66	− 98.5
Tennessee	0.06*	0.10*	0.09	− 0.04	− 40.0

TABLE 4 *Continued*

	Average Effective Tax Rates				
State	**Elderly**	**Non-Elderly**	**Overall**	**Difference (Elderly–Non-Elderly)**	**% Difference (Elderly–Non-Elderly)**
Utah	0.57*	1.14*	1.06	− 0.57	− 50.0
Vermont	0.43*	1.26*	1.13	− 0.83	− 65.8
Virginia	0.16*	2.05*	1.81	− 1.89	− 92.2
West Virginia	1.63	1.81	1.79	− 0.18	− 9.9
Wisconsin	0.95*	2.25*	2.06	− 1.30	− 57.8

Notes: Significance levels are based on comparisons of the effective tax rates of the elderly and the non-elderly using t-tests.
*Significantly different from the other group (elderly vs. non-elderly) at the 1 = percent level.
**Significantly different from the other group (elderly vs. non-elderly) at the 5 = percent level.
***Significantly different from the other group (elderly vs. non-elderly) at the 10 = percent level.

Kentucky has a high percentage difference in the two rates, which can be attributed to the full exemption of Social Security income, $35,700 exemption for all pension income, and a tax credit for the elderly. This pattern is common among the states that exhibit large differences in average effective tax rates for the elderly and the non-elderly. In Virginia, individuals who are 65 or older are allowed an extra exemption of $800, the same amount provided for children. However, a more significant effect on the differences between the average effective tax rates for the two age groups is the subtraction from federal adjusted gross income of $12,000 of any type of income for all taxpayers age 65 or older; the under-65 group receives no comparable deduction.[13] The special exemption of income is not means tested, so all elderly taxpayers benefit from this tax relief. Four other states have lower effective tax rates for the elderly, but in this income range the difference between the rates is not statistically significant.

Table 3 shows that six states have higher effective tax rates for the elderly in comparison with the non-elderly. Only three of these states show statistically significant effective tax rate differences between the two age groups, and two of those states, New Hampshire and Tennessee, tax only interest and dividend income. As the elderly tend to derive a significant portion of their income from capital, the higher average effective tax rates for the elderly are not surprising in these two states.

The other state that shows a statistically significantly lower average effective tax rate for the under-65 group is North Carolina. This anomaly results from both the

13. The state allows annual exemptions from taxation of $6,000 for taxpayers who were age 62, 63, or 64 on January 1, 2000. As ages of taxpayers are not disclosed in the IRS file, the exemption for these people is not considered in the microsimulation model. Although child and dependent care expenses are allowed up to $2,400 per dependent, to a maximum of $4,800, not all non-elderly taxpayers incur qualifying expenditures.

TABLE 5
Average Effective Tax Rates—Taxpayers with Incomes between $40,000 and $200,000

State	Average Effective Tax Rates				
	Elderly	Non-Elderly	Overall	Difference (Elderly–Non-Elderly)	% Difference (Elderly–Non-Elderly)
Alabama	2.89*	3.16*	3.12	− 0.27	− 8.5
Arizona	1.70*	2.22*	2.13	− 0.52	− 23.4
Arkansas	2.55*	4.19*	3.97	− 1.64	− 39.1
California	2.64*	2.94*	2.88	− 0.30	− 10.2
Colorado	2.36*	3.11*	2.98	− 0.75	− 24.4
Connecticut	2.56*	3.31*	3.19	− 0.75	− 122.7
Delaware	2.90*	3.79*	3.59	− 0.89	− 23.5
Georgia	1.93*	3.75*	3.48	− 1.82	− 148.5
Hawaii	3.65*	4.60*	4.40	− 0.95	− 120.7
Idaho	3.65*	4.32*	4.26	− 0.67	− 15.5
Illinois	1.74*	2.53*	2.39	− 0.79	− 31.2
Indiana	2.15*	3.04*	2.94	− 0.89	− 29.3
Iowa	3.61*	4.22*	4.09	− 0.61	− 14.5
Kansas	3.15*	3.41*	3.37	− 0.26	− 7.6
Kentucky	2.50*	4.24*	4.01	− 1.74	− 41.0
Louisiana	1.56*	2.06*	1.99	− 0.50	− 24.3
Maine	3.22**	4.05**	3.82	− 0.83	− 20.5
Maryland	2.73*	3.39*	3.28	− 0.66	− 19.5
Massachusetts	4.54*	5.74*	5.55	− 1.20	− 20.9
Michigan	1.67*	3.41*	3.18	− 1.74	− 51.0
Minnesota	3.82*	4.46*	4.37	− 0.64	− 14.3
Mississippi	1.24*	2.49*	2.29	− 1.25	− 50.2
Missouri	2.44*	3.24*	3.08	− 0.80	− 24.7
Montana	3.69*	4.42*	4.24	− 0.52	− 11.8
Nebraska	3.93*	3.25*	3.37	− 0.68	− 20.9
New Hampshire	1.19*	0.21*	0.37	0.98	>100
New Jersey	1.60*	2.24*	2.13	− 0.64	− 28.6
New Mexico	2.97*	3.58*	3.49	− 0.61	− 17.0
New York	2.97*	4.11*	3.90	− 1.14	− 27.7
North Carolina	3.63*	2.54*	2.72	0.82	32.2
North Dakota	1.80	1.70	1.72	0.10	5.9
Ohio	2.57*	3.45*	3.31	− 0.88	− 25.5
Oklahoma	1.21	1.23	1.23	0.02	1.6
Oregon	4.14*	4.95*	4.81	− 0.81	− 16.4
Pennsylvania	1.78*	2.61*	2.48	− 0.83	− 31.8
Rhode Island	3.60	3.82	3.79	− 0.22	− 5.7
South Carolina	0.84*	3.80*	3.31	− 2.96	− 77.9
Tennessee	0.64*	0.15*	0.21	0.49	>100

TABLE 5 *Continued*

	Average Effective Tax Rates				
State	**Elderly**	**Non-Elderly**	**Overall**	**Difference (Elderly–Non-Elderly)**	**% Difference (Elderly–Non-Elderly)**
Utah	2.30	2.46	2.44	− 0.16	− 6.5
Vermont	3.11	2.95	2.96	0.16	5.4
Virginia	2.17*	4.03*	3.71	− 1.86	− 46.2
West Virginia	4.03	4.07	4.07	0.04	1.0
Wisconsin	3.75*	4.52*	4.41	− 0.77	− 17.0

Notes: Significance levels are based on comparisons of the effective tax rates of the elderly and the non-elderly using t-tests.

*Significantly different from the other group (elderly vs. non-elderly) at the 1=percent level.

**Significantly different from the other group (elderly vs. non-elderly) at the 5=percent level.

***Significantly different from the other group (elderly vs. non-elderly) at the 10=percent level.

composition of the sample for the state (the sample contains a high proportion of records for elderly individuals who have significantly higher incomes than the non-elderly), and the generous exemptions that the state offers taxpayers with children compared with exemptions provided to the elderly. For taxpayers with incomes of less than $40,000, North Carolina's results are similar to those of other states, with significantly lower average effective tax rates for the elderly (Table 4). The other three states with higher effective tax rates for the elderly offer generous exemptions to families, in comparison with exemptions offered to the non-elderly, but the differences in the average rates for the two groups are not statistically significant.

Table 4 presents the average effective tax rates for taxpayers with incomes of less than $40,000 and reveals more about the effects of the preferential treatment afforded to the elderly. For this income range, 38 states have statistically significantly lower average effective tax rates for the elderly. Only New Hampshire imposes a larger rate for the over-65 group. Thirty-two states have average effective tax rates that are at least 50 percent lower for the elderly; 14 of these states have differences of at least one percentage point between the rates for the elderly versus the non-elderly. The percentage differences in average effective tax rates between the elderly and the non-elderly are generally wider for lower-income taxpayers. Part of the reason for this difference is that 15 states means test some of their tax relief provided to the elderly, allowing a larger percentage of income of the lower-income elderly to escape state income taxation, but restricting tax relief for the elderly with higher incomes.

Tennessee provides an excellent example of how means testing exemptions can cause the elderly with lower incomes to have lower effective tax rates than the non-elderly, but not for taxpayers with higher incomes. The state taxes only dividends and interest but totally exempts such income from taxation for the elderly who have total income less

than \$14,000 (\$23,000 for joint filers). When taxpayers exceed that threshold, they only receive an exemption of \$1,250 for each taxpayer. This structure results in a large jump in the tax burden for the elderly who have taxable income above the exemption limit. Joint filers who have income of \$22,999 owe no tax, while those with income of \$23,000 will owe tax on \$20,500 (assuming only two exemptions) at the 6-percent rate or \$1,830.

Illinois, with an average effective tax rate for the elderly almost three percentage points below that of the non-elderly, has the largest difference in average effective tax rates for taxpayers with AGI less than \$40,000, primarily due to the full exemption of pension and Social Security income from taxation, coupled with an additional exemption of \$1,000 for each elderly taxpayer. Michigan and Virginia also show large differences in the average effective tax rates between the elderly and the non-elderly for this income range, for the reasons previously noted.

Georgia's average effective tax rates for both the elderly and the non-elderly are low, with the over-65 rate being significantly below that of the non-elderly. Both elderly and non-elderly Georgia taxpayers with incomes less than \$40,000 benefit from a means tested tax credit allowed by the state, based on the number of exemptions claimed, with an extra exemption of \$1,300 provided for individuals who are age 65 or over. Additionally, the state allows full exemption of Social Security income from taxation and the exemption of a maximum of \$13,000 for pension income for the elderly. Older taxpayers can exempt up to \$4,000 of wages per taxpayer, provided the total exemption for wages plus pension income does not exceed \$13,000.

Table 5 shows that the elderly with incomes between \$40,000 and \$200,000 have significantly lower average effective tax rates in 30 states. The difference between the elderly and the non-elderly in the average effective tax rates for this income range is less likely to be as large as those for taxpayers with AGI of less than \$40,000. Only nine states have a difference in rates of at least one percentage point for the upper-income range, compared with 14 states for taxpayers with AGI less than \$40,000; only seven of the nine states have more than a 50 percent difference between the rates of the elderly and the non-elderly.

Table 5 shows that South Carolina has the widest difference between average effective tax rates for the elderly and the non-elderly for those with incomes between \$40,000 and \$200,000 due to generous exemptions for the elderly. The actual tax rate for the elderly in South Carolina may be slightly lower because the rate obtained by the microsimulation model ignores any additional income exemptions for two-income households. However, South Carolina's average effective tax rate for the non-elderly is overstated to some extent because the state laws permit a special exemption of \$2,750 for dependents under the age of six. As the IRS file does not contain age indicators for dependents, all dependents are assumed to fall outside this narrow range of ages. In 2000, 6.6 percent of South Carolina's population was expected to be zero to four years of age; if that amount is extrapolated to include individuals who are five years old, 8.3 percent of the population were eligible for this additional tax deduction. However, this omission is not

expected to significantly alter the results because the exemption is a relatively low amount compared to the exemption afforded to the elderly.

Other states that show the most marked differences between the average effective tax rates of the elderly and the non-elderly are Virginia, Kentucky, Georgia, and Michigan. As previously discussed, the factors causing these wide differences in average effective tax rates center primarily around the total exemption of Social Security earnings and the generous exemptions afforded to the elderly for pension income or income in general.

There are many other ways to analyze the differences in tax rates, but we believe that these tables demonstrate that there are significant differences between the effective tax rate of the elderly and non-elderly, and that there are important variations among the states. To determine the relative importance of the types of state income tax policies used, we estimate the following equation:

$$D_i = \alpha_0 + \alpha_1 * SSXMPT + \alpha_2 * PENS + \alpha_3 * OTHXMPT + \alpha_4 * OTHCRED, \quad [1]$$

where D_i the difference between the elderly and non-elderly rate, for elderly group i (= 1 for those with less than \$ 40,000 in income = 2 for those with \$ 40,000–\$ 200,000)
SSXMPT = a dummy variable for exemption of Social Security income (= 1 for full exemption = 0 for partial to zero exemption)
PENS = a dummy variable for exemption of pension income (= 1 for any exemption greater than 0 = 0 for no exemption)
OTHXMPT = a dummy variable for other income exemptions (= 1 for any exemption = 0 for no other exemptions)
OTHCRED = a dummy variable for elderly credits (= 1 for any credit = 0 for no credits)

The results demonstrate that certain components of the state income tax codes are more significant determinants of the income tax differentials than other components. The results displayed in Table 6 demonstrate that those policy instruments that significantly affect the tax differential are the exemptions for pension and other income (non-Social Security exemptions) and other credits afforded the elderly. Among these instruments, the pension exemption explains slightly more of the differential than other exemptions and credits, which produce similar impacts. Once the elderly reach higher income levels (group 2), we notice that the policy instruments are not such strong determinants of the tax differentials. No other policy instrument is as significant as the Social Security exemption. It is not surprising that at higher income levels the impact of the preferential treatment of the elderly is reduced, as the marginal benefit from exemptions becomes much smaller. Generally, states that exempt some Social Security benefits from taxation allow complete exemption of these benefits, with no upper limit, as is common with pension exemptions.

The results of our estimation of Equation 1 suggest that the policy instruments used by states do work to significantly reduce the tax rate of the elderly vis-à-vis the non-elderly. Across income groups, however, the impact of these policies is reduced, which

TABLE 6
Regression Results: Dependent Variable Elderly-Non-Elderly Effective State Personal Income Tax Rate (t-Statistic)

Independent Variable	Group 1	Group 2
Constant	0.354	− 0.119
	− (1.09)	(0.307)
SSXMPT	0.278	− 0.501[**]
	(1.24)	(1.89)
PENS	− 0.493[**]	− 0.159
	(2.91)	(0.79)
OTHXMPT	− 0.369[*]	0.504
	(1.81)	(0.224)
OTHCRED	− 0.349[**]	− 0.239
	(1.90)	(1.08)
R-sq	.32	0.12

[*]Significant at the 0.1 = percent level.
[**]Significant at the 0.05 = percent level.

makes the regression coefficients less useful for determining, across the population, the revenue impact of these policies. To analyze the revenue impact, we turn to one last exercise.

THE IMPACT OF TAX DIFFERENTIALS

The differences in effective tax rates may have an impact on state income tax revenue. We take a very simple approach to forecasting the effect of the tax differential on state personal income tax revenues. Tax revenues can be expressed as:

$$Income\ tax\ revenues = Average\ tax\ rate \times average\ taxable\ income \times population \quad [2]$$

Over time, growth in tax revenues comes from tax rate increases, or increases in the taxpaying population, or increases in income. We consider separate tax revenue expressions for the elderly and for the non-elderly. For simplicity, we assume that population is the only variable that changes over the forecast period, that is, we assume that average tax rates and the distribution of average taxable income for the elderly and non-elderly remain the same over the forecast period. This helps us to retain our focus on the impacts of the change in the elderly population on state income tax revenues, holding other factors constant.[14]

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14. The distribution of income of the elderly has changed significantly over time and the future projections are for more changes in this distribution. From 1967 to 1987, the median income of preretirement and retirement-aged households increased by between 7 (for those with heads 45–64 from

We assume that the growth in the population aged 25–64 represents the growth in the non-elderly taxpaying population, and the growth in the population over age 64 represents the growth in the elderly taxpaying population. We calculate the change in tax revenue as:

Change in revenue =
Growth in tax revenue from the elderly + growth in tax revenue from the non-elderly

where:
Growth in tax revenue from the elderly = average tax rate for the elderly * growth in the elderly population
Growth in tax revenue from the non-elderly = average tax rate for the non-elderly * growth in the non-elderly population

This gives us a simple forecast of the average annual growth in state personal income tax revenue attributed to the growth in the relative populations. These figures are found in columns 1 and 2 (case 1) of Table 7 for the ten largest states. We then calculate a hypothetical growth in state income tax revenues. In the second case, we assume that there are no state income tax preferences for the elderly and we simulate the new effective tax rates for the elderly in the absence of the preferences, and calculate the average annual growth in state income tax revenues under the "no preference" scenario for the elderly. These figures are found in column 3 in Table 7 (case 2). The difference between the growth in case 1 and case 2 gives us a straightforward measure of the difference in average annual growth of state income tax revenues due to the preferential tax treatment of the elderly. This is found in the last column of Table 7.

As seen there, the average annual growth in states' elderly populations and the differences in elderly and non-elderly tax rates vary significantly within our sample of ten states. The age category differences in state personal income tax rates will exacerbate the fiscal effect of the population trend in those states in which the tax differentials are relatively large and the growth in the share of the elderly in the population is more pronounced. The last column of Table 7 shows the difference in the growth rate of state personal income taxes under the tax scenarios. The states facing the biggest slowdown in

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(footnote continued)
1977 to 1987) and 27 percent (for those with heads 65 and older from 1967 to 1977; Rose M. Rubin, Shelley I. White-Means, and Luojia Mao Daniel, "Income Distribution of Older Americans," *Monthly Labor Review* 123, no. 11 (November 2000): 19–30). From 1987 to 1997, the growth rates declined significantly. Projected income and poverty rates for the elderly suggest a pattern of increased wage-adjusted poverty for the elderly (62–89 years of age). Barbara Butrica, Karen Smith, and Eric Toder (*Projecting Poverty Rates in 2020 for the 62 and Older Population: What Changes Can We Expect and Why?* [Washington, DC: The Urban Institute, 2002]) find that this increase in poverty is due in large part to projected changes in marriage patterns and in the normal retirement age. These projected changes in income distribution would most certainly impact the average effective tax rate differential, but we do not incorporate those changes in this exercise.

TABLE 7
Simulated State Personal Income Tax Revenue Growth: Ten Largest States
(Average Annual Growth in %, 2005–2015)

	Case 1			Case 2	
State	Growth in Revenue Associated with Growth in Elderly Population (1)	Growth in Revenue Associated with Growth in Non-Elderly Population (2)	Growth in Revenue Associated with Growth in Elderly Population, No Preferences (3)	Growth in Revenue Associated with Growth in Non-Elderly Population (4)	Difference in Revenue Growth Due to State Income Tax Preferences for the Elderly (1+2) − (3+4)
California	4.40	4.54	4.74	4.54	− 0.34
Georgia	3.75	5.91	8.56	5.91	− 4.81
Illinois	2.04	2.69	2.24	2.69	− 0.20
Michigan	1.28	2.77	3.47	2.77	− 2.19
New Jersey	1.58	2.37	2.28	2.37	− 0.70
New York	2.32	2.87	2.43	2.87	− 0.11
North Carolina	7.55	4.18	8.90	4.18	− 1.36
Ohio	2.00	1.80	2.69	1.80	− 0.69
Pennsylvania	1.83	1.92	2.07	1.92	− 0.25
Virginia	4.02	6.32	7.53	6.32	− 3.50

their personal income tax revenues are those with large effective tax differentials and large annual increases in the elderly relative to the non-elderly. Michigan, Georgia, and Virginia are expected to see the most pronounced decrease in the growth of their personal income tax revenue due to the relatively large tax differentials as well as the large increases in the elderly population.

This exercise helps to put a value to the cost of differential state income tax treatment of the elderly relative to the non-elderly. In some states, the effects are economically significant. For example, in Georgia, the annual cost of these preferences amounts to about 60 percent of the revenue taken from the state corporate income tax. In other states, the effect is much smaller. As this exercise was done for only the state personal income tax, the total cost of the preferential tax treatment of the elderly at the state and local levels is obviously higher.

CONCLUSIONS

Many states provide income tax breaks for various groups in their populations. The number of states with special income exemptions and credits for the elderly has been on the rise for a number of years, so that in most states, there is some type of specialized income

tax treatment for the elderly. We find that the differences in effective income tax rates for the elderly and non-elderly are significant in over 70 percent of the states that levy income taxes. This is a function of both tax law and income composition of both groups. Also, for the tax-filing population with income of less than $40,000, state pension and general exemptions and credits for the elderly contribute significantly to explaining the differences in the tax rates of the elderly versus non-elderly. As income increases, state tax policy toward the elderly plays less of a role in explaining the tax rate differentials.

What does the preferential state income tax treatment for the elderly mean over the long term? As the population ages, the value of things such as tax exemptions for the elderly will grow. All else equal, states that grow older, faster will witness less growth in revenue sources that allow tax preferences for the growing elderly population than if those preferences did not exist. We simulated the impact of the state income tax treatment of the elderly on state income tax revenue growth. We conclude that in the ten states we examined (Georgia, California, Illinois, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, and Virginia), state income tax revenues would have been higher in all states if the elderly were not allowed the tax preferences that were law in 1999. Some of the differences are small. For example, in California, the difference is less than 0.13 percent over ten years. However, in Georgia, the difference is significant, although still relatively small. We find that for the period 2000–2005, Georgia's state income taxes will be about 3 percent lower per year than they would be if the elderly faced the same, higher, effective tax rate as the non-elderly. From 2005 to 2015, the difference would be about 5 percent per year. This is assuming similar growth in income of the elderly and non-elderly so that the difference in income tax revenue is due only to the difference in the growth of the elderly population versus the non-elderly and the difference in tax rates. For the last two decades, the growth in the income of the elderly has been at least as high as the overall population, and in many years, higher than that of the average population. If this trend continues, then the special state income tax treatment of the elderly would be even more costly than this analysis suggests.

Future research should look at the expenditure side of the story as well as the cost of other tax preferences for the elderly, at both the state and local levels. A full analysis of the differential fiscal treatment of the elderly and non-elderly will require a thorough assessment of both the revenue and expenditure sides of the issue.

NOTES

The views expressed in this article are those of the authors and should not be interpreted as those of the Congressional Budget Office.