Can Tax Policy Increase Saving?

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National saving consists of (1) business saving by corporations; (2) personal saving by individuals; (3) saving (or more often dissaving) by the federal government; and (4) saving by state and local governments. Policymakers have been concerned about the declining and low U.S. national saving rate, especially following declines in personal saving during the 1980s and 1990s and increased dissaving by the federal government during full-employment years. Policymakers have also expressed concern about the adequacy of personal saving for retirement, emergencies, and education. At times, economists and legislators have advanced tax policies to address these issues.

At the federal level, increasing taxes to reduce the deficit would likely increase federal government saving (or reduce dissaving), thereby raising the national saving rate. Increasing the personal saving rate through tax policy is more difficult. Economic research using models that assume rational, informed behavior by individuals who are saving for retirement has shown that reducing taxes on capital income is unlikely to increase saving much, if at all.

Further complicating matters, many economists believe models that assume rational, informed behavior do not realistically portray saving behavior by human beings with imperfect information, who may rely on rules of thumb (such as saving a certain percentage of income or saving toward a target amount) that do not respond positively to lower tax rates. Data also show that individuals save for many purposes other than retirement, and that precautionary savings are the more important goal than retirement for most families. Individuals tend to have short planning horizons that are inconsistent with so-called life-cycle saving models, though older and higher-income individuals tend to consider longer planning horizons. Given this context, economists and legislators who aim to encourage saving for retirement, emergencies, and education have proposed policy interventions that are informed by empirical evidence about individuals' observed saving behaviors.

About half of individuals in retirement do not have adequate income from savings as measured by a replacement ratio for their income while working. This partly stems from lower-income individuals who find saving difficult, and from others who are in the financial position to save enough but do not. Research has found a significant percentage of households with inadequate retirement income across all income levels. Policies that increase participation in employer retirement plans, which are already tax favored, might encourage adequate saving for retirement. Evidence suggests individuals are more likely to participate in employer plans with automatic enrollment, such as automatic individual retirement accounts (auto-IRAs) developed in some states, wherein employers reflexively set up savings plans that are managed by third parties and deduct employee contributions to the plans unless employees opt out. Lower-income individuals are less likely to be able to save and may be discouraged from saving by asset tests in transfer programs. In general, but especially for lower-income individuals, Social Security is the main source of retirement income, and some Social Security recipients are below the poverty line. Tax options are unlikely to encourage savings for these individuals, although altering Social Security to increase benefits for low-income households and revising asset tests could help more low-income workers remain out of poverty in retirement.

Surveys indicate that most individuals are unprepared for emergencies. Almost 40% of respondents state that they would be unable to address a $400 emergency with cash, and almost half state that they do not have the recommended amount of total savings to cover three months of living expenses. Lack of resources to meet an emergency occurs across the income spectrum, but is more pronounced at low incomes. Evidence indicates that having a savings account and being financially literate contributes to better preparation. Employer-sponsored savings plans, such as auto-IRAs that are not for retirement, and financial literacy training are options to encourage saving for emergencies.

In the education context, cost is a barrier to enrolling and remaining in college. The tax code provides benefits for college savings accounts by exempting earnings from tax and allowing qualified expenses to be tax free on distribution; these plans account for 9% of college costs and favor high-income individuals. Limited evidence suggests that these tax benefits are not effective. Some states have developed seed and match incentives (providing small amounts of initial contributions to college savings accounts and matching individuals' additional contributions), but these have also had limited effects. Evidence indicates that grants for students are the most effective way to increase enrollment, though not all students who enroll actually graduate college. Federal government resources of this type are limited; Pell grants, the major grant program, account for 5% of college costs. To increase college graduation rates, policymakers may want to consider merit-based aid. Merit-based aid could raise equity and access concerns.

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Introduction

National saving consists of four basic types of saving: business saving by corporations, personal saving by individuals, saving (or more often dissaving) by the federal government, and saving by state and local governments. Policymakers have been concerned about the declining and low U.S. national saving rate, especially following declines in personal saving during the 1980s and 1990s. More recently, the increased dissaving of the federal government during full-employment years has also reduced the national saving rate. Congress has shown interest in tax policies that could address inadequate personal saving, especially for retirement, emergencies, or education.

This report discusses both general and specific issues about saving and how tax policies may affect saving based on evidence from economic research. An important focus of this research is whether reductions in taxes on capital income increase saving. After a general discussion in the next section, subsequent sections will focus specifically on retirement saving, saving for emergencies, and saving for education.

Concerns About the Inadequacy of National Saving

Policymakers have been concerned about the declining and low U.S. national saving rate, especially following declines in personal saving during the 1980s and 1990s and increased dissaving by the federal government during full-employment years.

Background: National Saving

In a closed economy, investment equals saving. Investment in the economy determines the growth in the capital stock and therefore affects overall economic growth. Holding labor constant, growth in the capital stock also increases wages. These effects are generally viewed as desirable. From the standpoint of economic theory, however, increasing growth by increasing saving is a trade-off between present and future consumption. That is, there is a cost to saving, as it reduces current consumption and wellbeing. That trade-off between present and future consumption means increased saving may or may not be optimal.

Some of the concern about saving is because the saving rate has declined over time, which potentially reduces the capital stock and wages. However, investment and the capital stock are also affected by investment from abroad. The United States is a net importer of capital, and thus net investment—which affects the capital stock—is larger than national saving. This flow of capital from abroad can support a higher growth rate and higher wages than would otherwise be the case, but the rights to income from that capital investment accrue to foreigners. Therefore, unlike domestic saving, capital investment from abroad does not reflect a reduction in consumption today in exchange for more consumption in the future. Thus, this higher level of investment does not translate into future consumption for U.S. individuals. National investment has also generally declined over time, but not as much as national saving, particularly since the end of the Great Recession. **Figure 1** shows national investment and national saving since 1960. Initially, saving exceeded investment and the United States was a capital exporter, but around the late 1970s, investment began to exceed saving and the United States became an importer of capital.

Figure 1. Net National Saving Rates

As a Percentage of GDP, 1960-2022
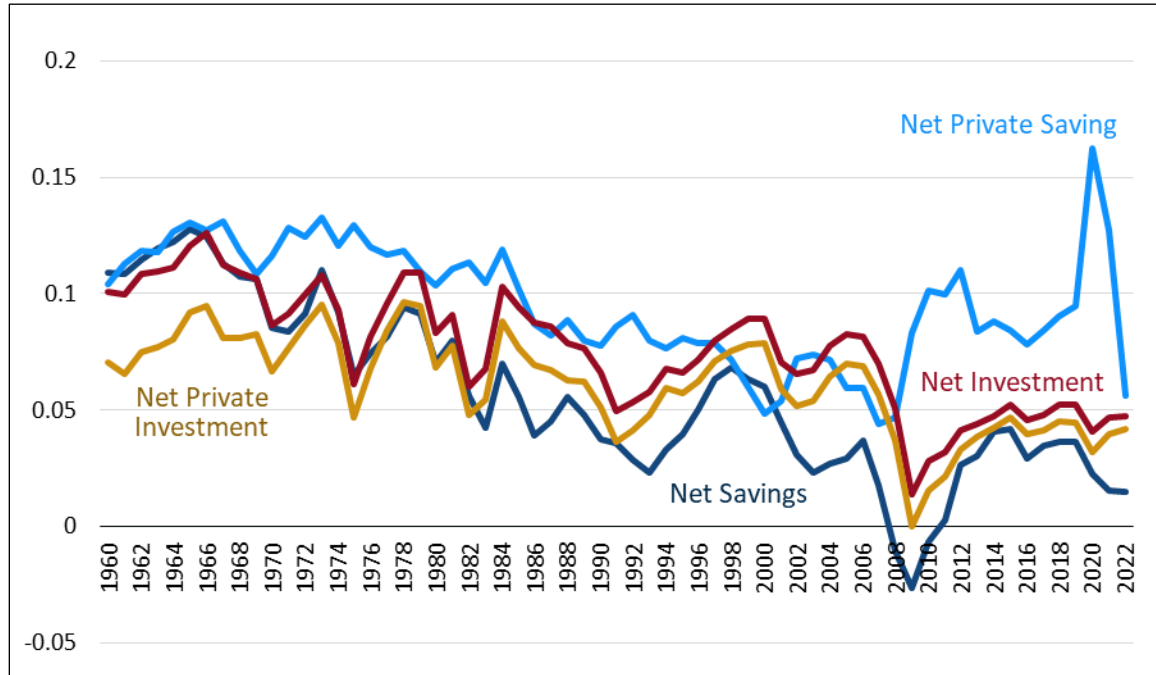
Because of international capital flows, an increase in national saving will not translate dollar for dollar into an increase in national investment. However, **Figure 1** indicates a close relationship, in part because international capital is not perfectly mobile. Moreover, to the extent that increases in saving reduce foreign capital inflows, they also reduce the claim that foreigners hold over future income.

Figure 2 shows recent contributions of each component of national saving—business saving by corporations, personal saving by individuals, saving (or more often dissaving) by the federal government, and saving by state and local governments—as a percentage of GDP.[1] Business saving has been fairly steady over time, generally between 2% and 3% of GDP. Personal saving has varied much more, with saving rates generally falling since the mid-1980s. The personal saving to GDP ratio tends to rise during recessions, most recently in 2008 and after (the Great Recession and prolonged recovery) and in the pandemic years of 2020 and 2021; saving generally increases during recessions while the size of the economy (GDP) shrinks.[2] Saving decreased in 2022, though data for the first two quarters of 2023 indicate a rise in the personal saving rate to around 4%. The federal government has typically dissaved by running deficits, that is, incurring more in increased current spending than in receipts (except for the brief period 1999-2001). The deficit has been larger during recessions and recoveries due to automatic stabilizers and explicit countercyclical policies. State and local saving or dissaving has historically been relatively small.

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[1] Net savings government reflects receipts minus current spending. Thus, dissaving by the federal government does not correspond to the deficit, but the deficit minus net investment.

[2] Liviu Voinea and Prakash Loungani, "Excess Savings Are Recession-Specific and Compensatory: Evidence From the US," *Intereconomics*, vol. 57, no. 4 (2022).

Figure 2. Components of National Saving

As a Percentage of GDP, 1960-2022
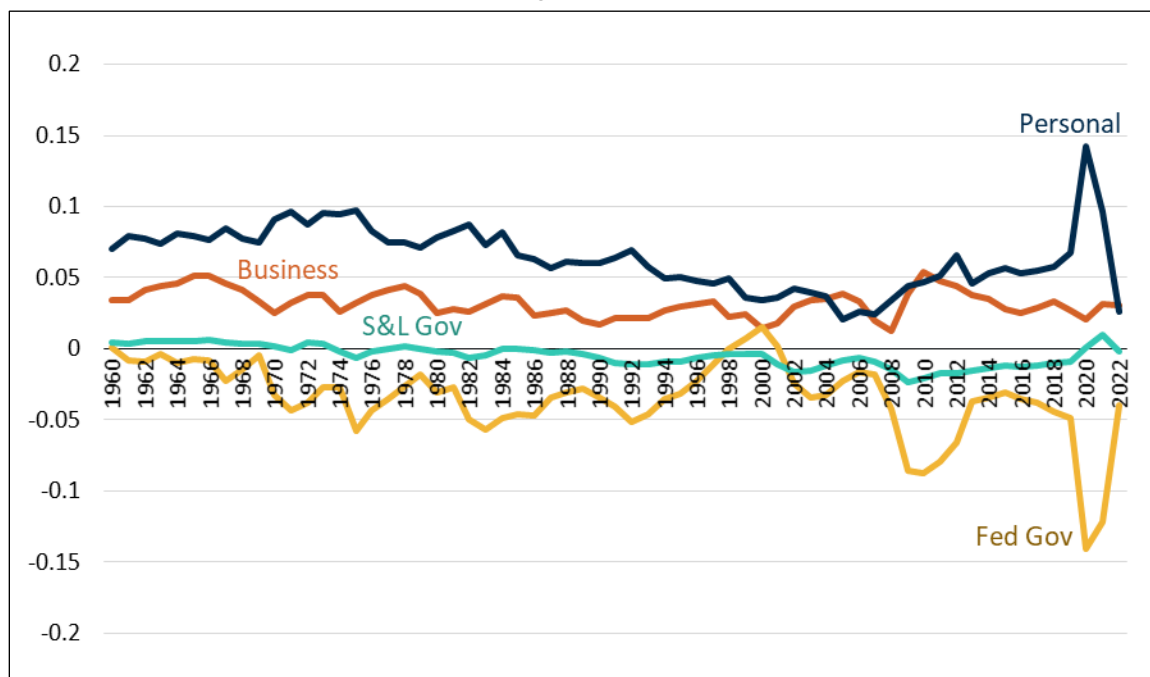
While the business saving rate has remained relatively stable, personal saving as a percentage of GDP began to decline in the 1970s. That overall downward trend continued in subsequent decades, reaching a low of 2.1% in 2005. Although the rate subsequently increased, it never returned to the rates of 8% to 10% seen in the 1960s, with the exception of 2020-2021, when spending was constrained by the pandemic.

Economists have advanced numerous theories for this decline, including the slowing of income growth in the mid-1970s, which occurred on a global basis for developed countries and was accompanied by a global decline in saving.[3] When faster income growth resumed in the United States in the mid-1990s but the saving rate remained low, it is thought that additional income was instead allocated to home purchases and mortgage payments, which increased substantially as home-ownership rates grew. The collapse of housing values in the financial crisis was accompanied by a recovery of personal saving. Another theory is that the shift from defined benefit pensions to defined contribution retirement plans (both of which are included in personal saving), with the latter available for early withdrawal or borrowing, contributed to the decline in personal saving.

Personal saving rates also tend to be lower in the United States than in most other developed countries. One group of researchers has theorized that the regional and racial diversity in the United States may lead to more conspicuous consumption by those in poor states, racial minorities, and rural areas, who are stereotyped as being more likely to be poor. According to this theory, those populations' consumption is used to signal that they are not poor. Another theory

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[3] These theories are summarized in Derek Thompson, "Why Don't Americans Save More Money," *The Atlantic*, April 19, 2016, https://www.theatlantic.com/business/archive/2016/04/why-dont-americans-save-money/478929/.

that has been put forth is that the greater income inequality in the United States, accompanied by greater wealth, has led middle-class Americans to consume more to keep up their relative position.[4]

Another way to consider trends in investment in the United States is to look at trends in investment by businesses, households and institutions, the federal government, and state and local governments. Investment that increases the capital stock is net investment and consists of total spending on investment goods minus depreciation of current assets. These investment goods include structures, equipment, and intellectual property products. Economists and policymakers often think of business saving as the capital stock that affects production. Purchases of owner-occupied housing by individuals are also investments. Federal government investment includes military structures, equipment, and research as well as spending on infrastructure and government research. State and local investments include investments such as school buildings, infrastructure, and recreational facilities. **Figure 3** shows total investment by each sector as a percentage of GDP.

Figure 3. Components of Investment

As a percentage of GDP, 1960-2022
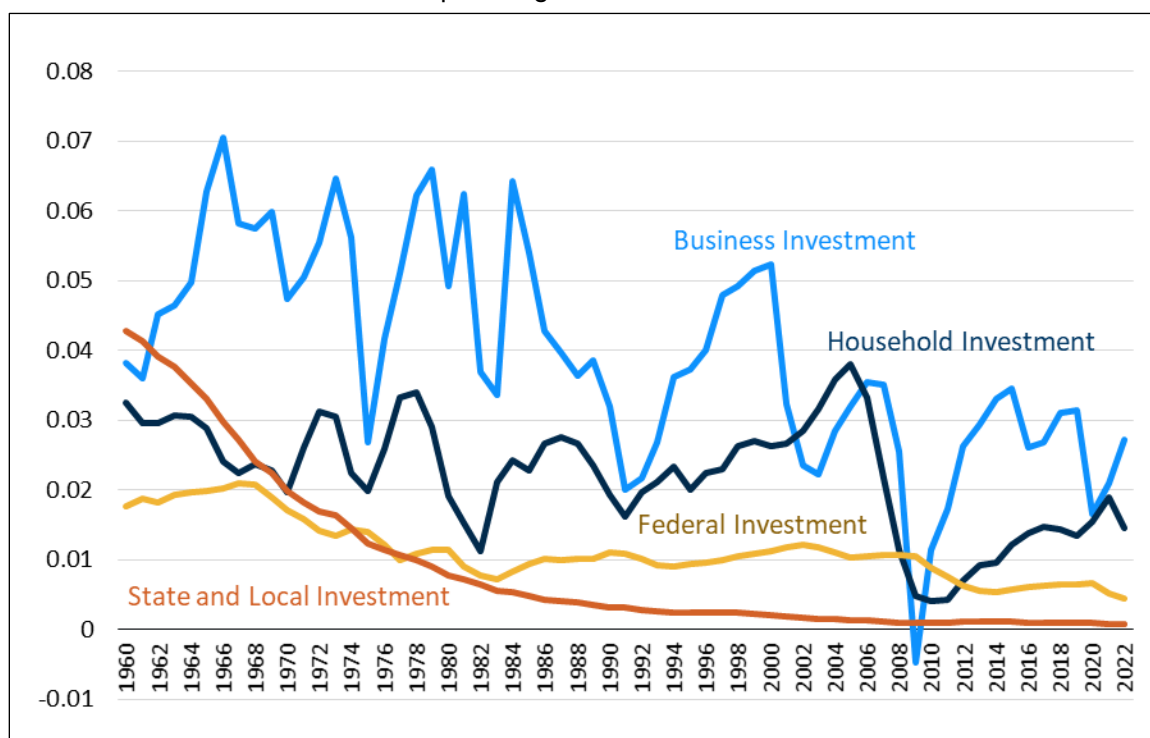
Source: "National Income and Product Accounts, Table 1.1.5 Gross Domestic Product and Table 5.1 Saving and Investment by Sector," BEA, https://www.bea.gov/products/national-income-and-product-accounts.

Policy Option: Increase Taxes to Reduce the Deficit

One tax policy option to increase the national saving rate is to increase tax collections to reduce the federal deficit, thereby increasing federal government saving. This increase would be partially

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[4] For some evidence, see Kerwin Koffee Charles, Erik Hurst, and Nikolai Roussanouf, "Conspicuous Consumption and Race," *The Quarterly Journal of Economics*, vol. 124, iss. 2 (May 2009), pp. 425-467.

offset by a decrease in personal saving because some part of the reduced after-tax personal income would also result in reduced personal saving, with the degree depending on whose income is reduced. Higher-income individuals generally have higher saving rates than lower-income individuals. There is a large and mixed literature estimating the propensity to consume out of additional income, which depends on how consumption is defined and whether the income increase is permanent or transitory. Nevertheless, the aggregate data on saving out of income shows relatively low saving rates persisting over long periods of time as income per capita increased (real GDP per capita has more than tripled since 1960).[5] Thus, the offset from decreased personal saving is likely to be small.

In addition to this option being a direct route to increasing national saving, it also addresses a series of other issues concerning the unsustainability of current debt levels and the pressure a growing debt places on available federal budget resources, especially if interest rates remain higher than they have been in recent years.[6] Given projected revenues and spending, the debt is growing faster than GDP, which is unsustainable in the long run.[7]

Reduce Spending to Reduce the Deficit

Although this report focuses on tax policy, deficits can also be reduced by reducing spending. Similar to tax policy, this would be challenging and require making trade-offs such as (1) limiting the provision of defense and domestic public goods; (2) reducing transfers to persons, including entitlements for the elderly and those with low income; and (3) reducing support for state and local governments. The effect this would have on saving would depend on where the spending reductions occur. A more thorough discussion of these issues can be found in CRS Report R45717, *Addressing the Long-Run Deficit: A Comparison of Approaches*, by Jane G. Gravelle and Donald J. Marples.

Policy Option: Cut Taxes on Corporations

Some proponents of increased national saving advocate for tax cuts on corporations. How effective this policy approach would be depends on a number of considerations.

First, tax cuts to corporations can increase incentives to invest and attract equity capital from abroad, which can increase economic growth and wages, although income for future consumption does not increase because the return from that capital is paid abroad. However, a corporate rate cut can also decrease capital from abroad because it reduces the value of interest deductions. If debt is more mobile than equity, then net foreign inflows can decrease. Incentives that affect investment (regardless of whether the investment is debt or equity financed), such as accelerated depreciation, more clearly encourage investment than do rate cuts.[8]

Second, some economists have argued that investment increases with cash flow. Theory indicates that cash flow alone should not increase investment, except perhaps in the case of liquidity-

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[5] See "FRED Economic Data: Real gross domestic product per capita," Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/A939RX0Q048SBEA.

[6] See CRS Report R47877, *Deficit Spending During Higher Inflation and Interest Rates: Implications for Debt Sustainability*, by Lida R. Weinstock.

[7] See U.S. Government Accountability Office (GAO), *The Nation's Fiscal Health: Action Needed to Address Projected Unsustainable Debt Levels*, GAO-23-106873, June 6, 2023, https://www.gao.gov/products/gao-23-106873#:~:text=GAO's%20long%2Dterm%20projections%20show,to%20the%20long%2Dterm%20outlook.

[8] CRS Report R45186, *Issues in International Corporate Taxation: The 2017 Revision (P.L. 115-97)*, by Jane G. Gravelle and Donald J. Marples, calculates the effective tax rates for corporate investment before and after the 2017 tax revision and finds that including debt finance significantly reduces the effect.

constrained firms that have desirable investments but lack financing. On the whole, most empirical evidence finds small effects.[9]

Third, there is the question of whether a corporation acts independently of its shareholders. If it acts on behalf of shareholders, then a large cash flow that does not change investment incentives or changes them in a limited way would lead to most cash flow being distributed to shareholders to direct to alternative uses.

Fourth, corporate rate cuts largely go to existing capital, compared to investment incentives that affect new investment, so that even a large corporate rate cut can have a limited effect.

Corporate tax cuts were a prominent aspect of the 2017 tax revision (P.L. 115-97). The law cut the corporate tax rate from 35% to 21% and provided full expensing (bonus depreciation) for equipment (although that provision is being phased out).

Simple observation (see **Figure 1**) after the 2017 tax cut did not show an increase in private investment compared to net private saving; both changed little in the following two years, suggesting little evidence of an inflow of capital. Similarly, business saving (retained earnings of corporations) generally remained at its historic levels. The data did show a noticeable increase in stock buybacks, which suggests that the cash flow was primarily used to distribute cash flow to shareholders.[10]

Whether or not a tax cut for corporations can increase investment, any such effect is offset by the increased federal deficit and debt, which reduces funds available for investment, unless increased investment increases income and taxes enough to offset the tax cut. If not, the debt will grow continually. In the long run, a stand-alone corporate tax cut is likely to reduce investment. How quickly this occurs depends on the magnitude of any increased investment.

Policy Option: Reduce the Tax Rate on Capital Income for Individuals

It is sometimes taken for granted by policymakers that reducing taxes on capital income will increase personal saving. Unlike the option of reducing the deficit, however, this approach will not necessarily increase saving, in theory, because of income and substitution effects. This basic theory abstracts from the difference between corporate and personal saving, treating individuals as if they "see through the corporate veil," thereby treating corporate saving as part of personal saving.

How Income and Substitution Effects Theoretically Affect Saving

Economic theory does not provide a definitive answer on how individuals will respond to increased returns to investing. The impact of rising returns to saving results in two opposing

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[9] See Jonathan Lewellen and Katharina Lewellen, "Investment and Cash Flow: New Evidence," *Journal of Financial and Quantitative Analysis*, vol. 51, no. 4 (August 2016), pp. 1135-1164, https://faculty.tuck.dartmouth.edu/images/uploads/faculty/jonathan-lewellen/Investment_and_cashflow.pdf for a review of the literature. Their study found larger effects.

[10] See S&P Dow Jones Indices, "S&P 500 Buybacks Set Quarterly and 12-Month Records—Again," press release, June 16, 2022, https://www.spglobal.com/spdji/en/documents/index-news-and-announcements/20220616-sp-500-buybacks.pdf and Yardeni Research, "Corporate Finance Briefing: S&P 500 Buybacks & Dividends," 2023.

effects on saving behavior. The income effect is expected to result in individuals saving less.[11] In contrast, the substitution effect is expected to result in individuals saving more.[12]

Economists generally use a life-cycle model to estimate how changes in rates of return (i.e., interest rates) affect savings. The model is based on the notion that people save to smooth consumption over their lifetimes and need to accumulate savings at some period in their lives to provide for consumption in retirement. This model is widely used by academics and in some government models, including a version used by the Joint Committee on Taxation for dynamic scoring.[13] It has been subject to criticism by a growing number of behavioral economists who have presented evidence that the life-cycle model is not a realistic depiction of saving behavior.[14]

To explain how these different forces work, consider a simplified example of a two-period choice. An individual has wages of $200 and lives for two periods, working in the first period and retiring in the second period. The after-tax rate of return is 10%. Total consumption in the two periods is larger when more wages are saved, and thus there is an incentive to save more to increase consumption in the second period. The individual wants to have consumption in each period that is not too much different and also values consumption less in the second period because of the time value of money and the possibility that he or she might die before enjoying that consumption. Thus, the individual would like to spread consumption over both periods. Assume in this example that because of these offsetting effects the individual chooses to consume equal amounts: $104.76 in each period. The $95.24 in savings will earn 10%, leaving $104.76 ($95.24 times 1.10) in the second period. That higher return effectively means that foregoing $1 of consumption today will pay for $1.10 of future consumption. The lower price of future consumption creates an incentive to shift more consumption to the second period (in this case, precisely offset by the probability of dying). This incentive effect is the substitution effect.

Now suppose the taxes were reduced so the after-tax return rises to 15%. If the individual continues to consume $104.76, the higher rate of return will allow $109.52 in the second period, an increase of 4.5%, so consumption can increase without any additional saving. In fact, the individual can actually consume more in this period and still consume more in the second period. That is the income effect.

At the same time, the incentive to consume in the future has increased while the probability of dying has not changed. If there is no substitution response and the individual still wishes to consume equal amounts in each period, consumption can rise to $106.98, and savings will decrease from $95.24 to $93.02. For saving to increase, the substitution effect must be large enough to offset the income effect. The change in the incentive to save is determined by the percentage change in price and is referred to as the *intertemporal elasticity* of substitution, that is, the percentage change in the ratio of first-period consumption to second-period consumption

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[11] The income effect is expected to diminish individual savings and investment because as the rate of return to saving increases, individuals have to save and invest less of their income to achieve a given level of income in the future. For example, if an individual has a target savings goal for retirement, an increase in the rate of return to saving allows an individual to save less and still reach that target goal for future consumption during retirement.

[12] In opposition to the income effect, as the return to saving increases, individuals are expected to increase the amount they save. This is referred to as the substitution effect. As the return to saving increases, the price of current consumption increases in relation to future consumption, and individuals substitute current consumption for future consumption.

[13] See CRS Report R43381, *Dynamic Scoring for Tax Legislation: A Review of Models*, by Jane G. Gravelle for a discussion on dynamic scoring models.

[14] See Melissa A.Z. Knoll, "The Role of Behavioral Economics and Behavioral Decision Making in Americans' Retirement Savings Decisions," *Social Security Bulletin*, vol. 70, No. 4 (2010), https://www.ssa.gov/policy/docs/ssb/v70n4/v70n4p1.html

divided by the percentage change in the relative price of second-period consumption (the latter of which is 1/(1+i) where i is the interest rate). If the intertemporal elasticity of substitution is equal to one, saving will not change; if it is lower than one, saving will decrease, and if it is higher than one, saving will increase.

There is a further wrinkle to the income and substitution effects. Suppose the individual only partially retires and earns $100 in the second period. Again, suppose the incentive effect is offset by the probability of dying and consumption is the same in each period. In this case, consumption in the first period is $152.38 and the $47.62 in savings will earn 10% and provide $52.38 in the second period to add to the $100 in wages. Now the income effect on second-period consumption is smaller. If first-period consumption remains the same, the $47.61 in savings will be $54.76, raising the second-period consumption to $154.76, which is a 1% increase.

This means that the substitution effect can be smaller and still increase saving. In this example, the substitution elasticity would have to be higher than 0.36 for saving to increase. This second effect that lowers the required elasticity is called the *human wealth effect*.

A life-cycle model in practice includes individuals with an adult lifetime of about 55 years, all at different ages combined. Individuals generally want to keep consumption relatively smooth while wages are smaller in the beginning of the work period, then increase in middle age and become zero in retirement. Individuals initially dissave when younger, then save as wages rise, then dissave in retirement. Models also generally allow for bequests to be given and received. Given a retirement period, the income effect (which affects the present value of consumption) will be larger than the human wealth effect. The size and direction of the effect on saving depends on these effects and the substitution effect.

In addition, when considering the effects of taxes on the rate of return, models allow for differences in marginal and average changes in taxes on income, which can result from graduated tax rates. If the change in the average tax rate on capital income is smaller than the change in the marginal tax rate, then it is more likely that the substitution effect will dominate and saving will increase.

Empirical Estimates of the Intertemporal Substitution Elasticity

During the 1970s and 1980s, a number of studies estimated the effect of the rate of return on saving by using aggregate time series data for saving rates and rates of return to estimate the savings elasticity. The evidence generally showed small, possibly negative saving responses.[15] In general, the evidence suggests savings are not responsive to rates of return (a zero elasticity).

Partly because of growing interest in intertemporal models, researchers began to study intertemporal substitution elasticities rather than the effect of rates of return on saving rates. Robert Hall conducted the pioneering study of intertemporal substitution elasticities,[16] and found that the elasticity was extremely small, could be zero, was statistically insignificant, and was no more than 0.2. Hall noted that the small elasticities arise from consumption growth being steady relative to interest rates that fluctuate significantly. Early surveys of the value led to the use of

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[15] These studies are reviewed in Jane G. Gravelle, *The Economic Effects of Taxing Capital Income* (Cambridge, MA, MIT Press, 1994), p. 27. The most recent study was Jonathan Skinner and Daniel Feenberg, "The Impact of the 1986 Tax Reform on Personal Saving," in *Do Taxes Matter? The Impact of the Tax Reform Act of 1986*, Ed. Joel Slemrod (Cambridge MA: The MIT Press, 1990).

[16] Robert E. Hall, "Intertemporal Substitution in Consumption*," Journal of Political Economy*, vol. 96, no. 2 (April 1988), pp. 339-357.

elasticities of 0.25 to 0.33.[17] Most subsequent studies produced elasticities below 0.5, although some studies estimated elasticities in excess of one.

Professors at Prague's Charles University prepared a 2013 meta-analysis (i.e., a large analysis that combines data from many studies) of estimates of the intertemporal elasticity of substitution across many countries; they found an overall elasticity of 0.5 for the world on average and 0.6 for the United States.[18] The authors cautioned that the estimates were too large in value because of publication bias.[19] Havraneka, a coauthor of this meta-analysis, subsequently published the basic (worldwide) results after correcting for estimated publication bias.[20] The correction indicates that the elasticity for macro aggregate studies is zero (as Hall originally found). In the basic case (without selecting across studies for other characteristics), the elasticity for micro studies (which were about a quarter of the studies) was 0.2. This study suggests that an elasticity of zero to 0.2 might be in order.

One problem with all of these studies is that the interest rate is not an exogenous variable, and both interest rates and consumption may be influenced by the same variables. Some techniques attempt to address that. However, one recent study addressed this issue directly using a feature of the United Kingdom (UK) mortgage market to estimate the intertemporal substitution elasticity.[21] In the UK, mortgages are short term and homeowners must refinance every few years. Interest rates rise in discrete amounts (notches) depending on the loan-to-value ratio. Thus, they present an exogenous change in interest rates: if individuals give up more in current consumption through less equity extraction, they can get lower interest rates and more consumption in the future. With a substitution elasticity, loan-to-value ratios should bunch precisely at the points where the ratios are just low enough to allow a lower interest rate. The authors found that although there is bunching at the notch points, there is not enough to justify high intertemporal substitution elasticities, and they estimate an elasticity of 0.1.

If the intertemporal elasticity is this small, it is more likely that cuts to the taxes on capital income would have a smaller, or even a negative, effect on saving in these theoretical models. A study

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[17] Auerbach and Kotlikoff report the results of nine different studies that ranged in value from less than 0.1 to more than 1. The median value was around 0.3 and a weighted average of eight of them using the mid-point of each range (and excluding a study by Mankiw, Rotemberg, and Summers in which it is clear the authors were not very satisfied with the model) yielded an estimate of 0.39. See Alan J. Auerbach and Laurence J. Kotlikoff, *Dynamic Fiscal Policy* (Cambridge University Press, New York, 1987). They adopt a value of 0.25. Elmendorf undertakes a survey of the studies most commonly cited and obtains a weighted average of 0.37; he uses 0.33 in his work. See Douglas W. Elmendorf, "The Effect of Interest-Rate Changes on Household Saving and Consumption," Federal Reserve Board, June 1996, https://www.federalreserve.gov/pubs/feds/1996/199627/199627pap.pdf.

[18] Tomas Havraneka, et al., "Cross-Country Heterogeneity in Intertemporal Substitution," University of Michigan, William Davidson Institute, Working Paper no. 1056, August 2013, https://deepblue.lib.umich.edu/bitstream/handle/2027.42/133075/wp1056.pdf. A meta-analysis does not simply average results of studies but weights them according to the number of observations and sometimes by confidence intervals.

[19] Publication bias is a problem widely recognized in many fields. Basically, if theory indicates an elasticity should be positive, and the estimate is negative, peer reviewers are less likely to recommend publication, editors are less likely to publish, and researchers, expecting the unlikelihood of publishing, tend not to submit their articles (which often involve a fee) or even prepare a working paper. Yet, when a large number of estimates have been made, because of the fundamental theory of statistical estimation, some would be negative (particularly if the true value is low). Publication bias also suggests that estimates of the elasticities are probably too large in absolute value.

[20] Tomas Havranek, "Intertemporal Substitution: The Importance of Method Choices and Selective Reporting," *Journal of the European Economic Association*, vol. 13, no. 6 (2015), pp. 1180-1204.

[21] Michael Carlos Best et al., "Estimating the Elasticity of Intertemporal Substitution Using Mortgage Notches," *Review of Economic Studies*, Oxford University Press, vol. 87, no. 2 (2020).

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that examined the effects of the income, wealth, and substitution effects in a life-cycle model using a 0.33 substitution elasticity generally found that the savings elasticity is negative.[22]

How Realistic is the Life-Cycle Model?

The life-cycle model developed as a way to be consistent with economic theory about optimal choices for consumption in the present and future. The model reflects choices to save by rational individuals who have perfect information about the future (including how income and interest rates change in response to a policy change). Critics in the growing field of behavioral economics have argued that this model is unrealistic, as human beings do not have the information and cognitive skills to make these choices.[23] Moreover, these failures to optimize are not random, as individuals are more likely to use rules of thumb, such as saving a fixed share of income or saving toward a target amount. Human beings are also characterized by procrastination and lack of self-control. Individuals may have "mental accounts" and save differently within these accounts (e.g., checking accounts, savings accounts, retirement accounts). A further information constraint occurs when determining the effect of taxes, since individuals do not generally know their marginal tax rates.[24]

The life-cycle model is also inconsistent with observation. A life-cycle model would show that while income is low in the early years, higher in the middle years, and lower at retirement, consumption should be relatively smooth. Data indicate, however, that consumption closely tracks income and both income and consumption are hump shaped.[25] Researchers have considered a number of modifications to improve the fit of these models, including liquidity constraints and precautionary saving, which both reduce the response of saving to the interest rate. Data from the Survey of Consumer Finances (SCF) indicate that precautionary saving (in case of a negative life event such as job loss or poor health) as well as saving for specific targets (education, a down payment on a house, a durable purchase) are important motives, as shown in **Table 1**.[26] These types of targets suggest an increase in the interest rate would reduce saving.

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[22] Douglas Elmendorf, *The Effect of Interest Rate Changes on Household Saving and Consumption*, Federal Reserve Board, June 1996, https://www.federalreserve.gov/pubs/feds/1996/199627/199627pap.pdf. Elmendorf also included the change in the value of existing assets, which tend to increase saving, but that would not be relevant for a tax change.

[23] See, for example, Richard H. Thaler, "Psychology and Savings Behavior," *American Economic Review*, vol 82, no. 2 (May 1994), pp. 186-192, and Melissa A. Z. Knoll, "The Role of Behavioral Economics and Behavioral Decision Making in Americans' Retirement Savings Decisions," *Social Security Bulletin* vol. 70, no. 4 (2010), https://www.ssa.gov/policy/docs/ssb/v70n4/v70n4p1.html.

[24] This literature is reviewed in Jane G. Gravelle and Sean Lowry, "The Affordable Care Act, Labor Supply, and Social Welfare," National Tax Journal, vol. 69 no. 4 (December 2016), pp. 863-882.

[25] Orazio P. Attanasio and Guglielmo Weber, "Consumption and Saving: Models of Intertemporal Allocation and Their Implications for Public Policy," *Journal of Economic Literature*, vol. 48, no. 3 (September 2010), pp. 693-751, and Richard H. Thaler, "Anomalies: Saving, Fungibility, and Mental Accounts," *Journal of Economic Perspectives* vol. 4, no. 1 (Winter 1990), pp. 193-205.

[26] The Federal Reserve Board's Survey of Consumer Finances (SCF) is a triennial survey that contains information on families' balance sheets, the attitudes of U.S. households toward financial risks, and (among other things) their most important saving and planning horizons.

Table 1. Stated Reasons for Saving (%)

By Age and Income Group

	Age 25-39		Age 40-49		Age 50-59	
	Bottom Half	Top Half	Bottom Half	Top Half	Bottom Half	Top Half
Retirement	10.8	26.2	14.5	32.6	26.5	50.4
Precautionary	44.2	47.5	41.9	44.1	39.2	36.0
Housing	14.2	8.5	10.4	2.3	5.0	0.6
Purchases	10.6	5.5	11.6	8.3	15.3	4.8
Education	3.6	2.9	8.4	6.4	3.1	2.9
Other	14.2	9.4	10.6	6.2	6.4	4.7
Cannot Save	2.3	0.1	2.7	0.2	4.5	0.6

Source: CRS tabulations of the 2022 Survey of Consumer Finances.

Notes: Columns may not sum to 100% due to rounding.

Table 1 emphasizes three findings. First, the data show that precautionary saving is the most significant motivation for most age and income groups. Precautionary saving has also grown relative to other types of saving since the 2019 SCF, perhaps indicating that the COVID-19 pandemic may have affected saving decisions. Next, retirement is the second-most important reason for saving for the majority of age and income groups. The retirement motive is stronger for older age groups and higher-income groups. Finally, in each age grouping the households in the lower half of the income distribution are more likely than those in the upper half to cite saving for concrete and nearer-term objectives as a primary motivation.

Behavioral Economics and Rules of Thumb for Saving

Lessons drawn from behavioral economics suggest potential alternative approaches to saving based on rules of thumb. One approach is to save a certain percentage of income. In this scenario, a fraction of any gains from increased interest rates will be saved and a fraction, generally much larger, will be consumed depending on income levels (since higher-income individuals tend to save larger fractions of their income). Another approach involves saving aimed at achieving a specific target amount for retirement. In this strategy, the dollar amount of income saved will decline when the interest rate rises and increase when it falls. Another rule of thumb, often advised by financial planners, aims to replace a certain fraction of consumption in retirement. Financial planners also often advise an emergency fund equal to three months of income.

Evidence also indicates a status quo bias in making decisions.[27] When given the opportunity to do something or do nothing, individuals are more likely to do nothing. To some extent, therefore, tax policy can be used to create a status quo, with the most obvious example being the requirement for automatic enrollment in tax-favored retirement plans, as discussed subsequently.

## What Do Individuals Say About Their Saving Behavior?

Numerous surveys document that individuals are concerned about their personal finances. One recent survey found that 40% of respondents thought they were in good or great shape financially

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[27] William Samuelson and Richard Zeckhauser, "Status Quo Bias in Decision Making," *Journal of Risk and Uncertainty*, vol. 1 (March 1988), pp. 7-59.

and roughly one-third said they are spending more than they can afford on a monthly basis.[28] Other surveys found that 45% of workers think it is unlikely they will save enough for retirement[29] and less than half of individuals could pay for an unexpected expense of $1,000 from savings.[30]

Other surveys use indirect approaches to tease out more easily generalizable information on how individuals think about their saving decisions and how different situations affect their thinking. This approach assumes that a positive relationship exists between planning horizons and saving— with short planning horizons associated with a lower taste for saving. The most recent SCF, conducted in 2022, found that most households had planning horizons between 1 and 10 years, as shown in **Figure 4**.

Figure 4. Distribution of Household Planning Horizons
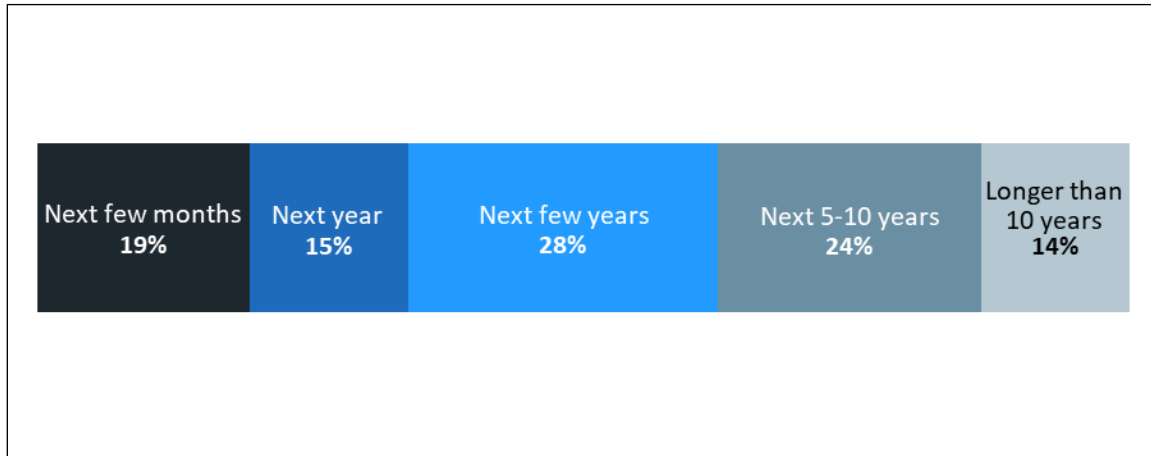
Source: CRS calculations using the 2022 SCF.

The SCF also found that average planning horizons are broadly longer for older individuals than younger individuals and for higher-income individuals than lower-income individuals, as shown in **Table 2**.

Table 2. Average Household Planning Horizons in Years: by Age and Income Groups

Age Group	25-39	40-49	50-59	
Average Horizon	3.4	4.1	5.0	
Income Group	**Bottom Quartile**	**2nd Quartile**	**3rd Quartile**	**Top Quartile**
Average Horizon	2.8	3.7	4.4	5.7

Source: CRS calculations using the 2022 SCF.

Planning horizons may differ based on individuals' financial situations and anticipated expenses. **Figure 5** presents planning horizons based on progress toward saving for an anticipated expense in the next 10 years. It shows that individuals who have already saved for an anticipated expense

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[28] Mary Ellen Cagnassola, "Is It a Good Time to Save Money? 91% of Americans Think So," *Money*, February 29, 2024.

[29] Lane Gillespie, "Survey: 56% of Americans Feel Behind on Saving For Retirement," *Bankrate*, September 23, 2023.

[30] Lane Gillespie, "Bankrate's 2024 Annual Emergency Savings Report," *Bankrate*, February 22, 2024.

have longer planning horizons than those who are still saving toward the anticipated expense or are not saving toward an expense.

Figure 5. Household Planning Horizons: by Progress Toward Savings Goal
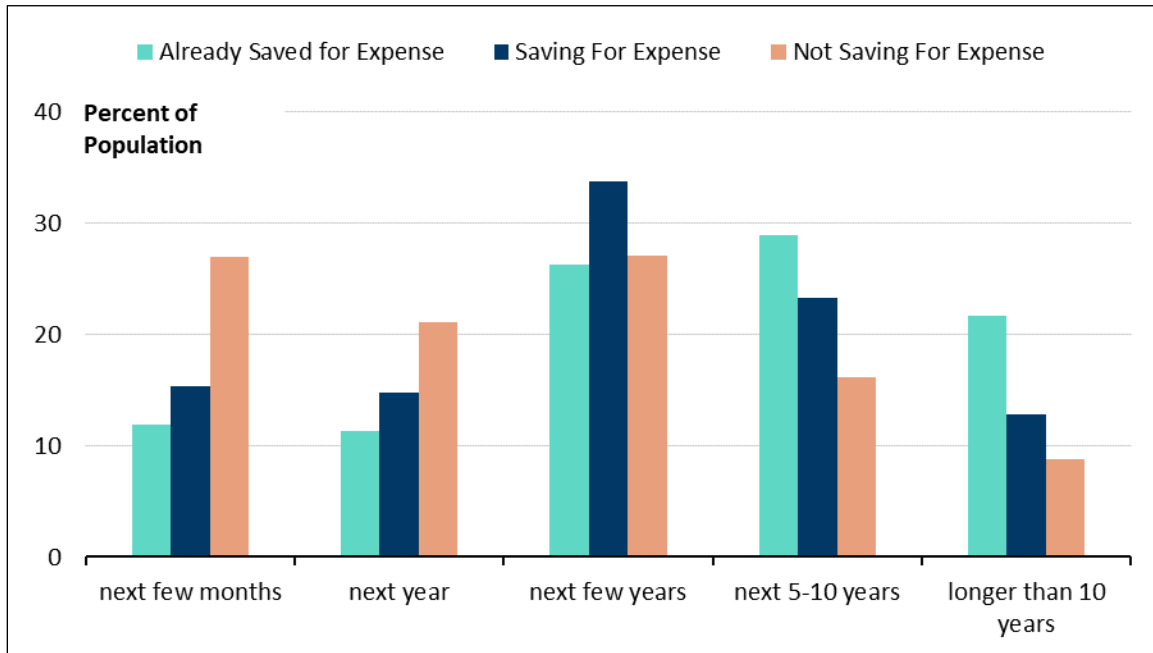
Progress toward less-defined goals also affects planning horizons. **Figure 6** presents planning horizons based on individuals' expectations of retirement income adequacy. It shows that individuals who expect they will be either satisfied or very satisfied with their retirement income have longer planning horizons than individuals who expect to be less satisfied with their retirement income.

Figure 6. Household Planning Horizons: by Retirement Income Adequacy
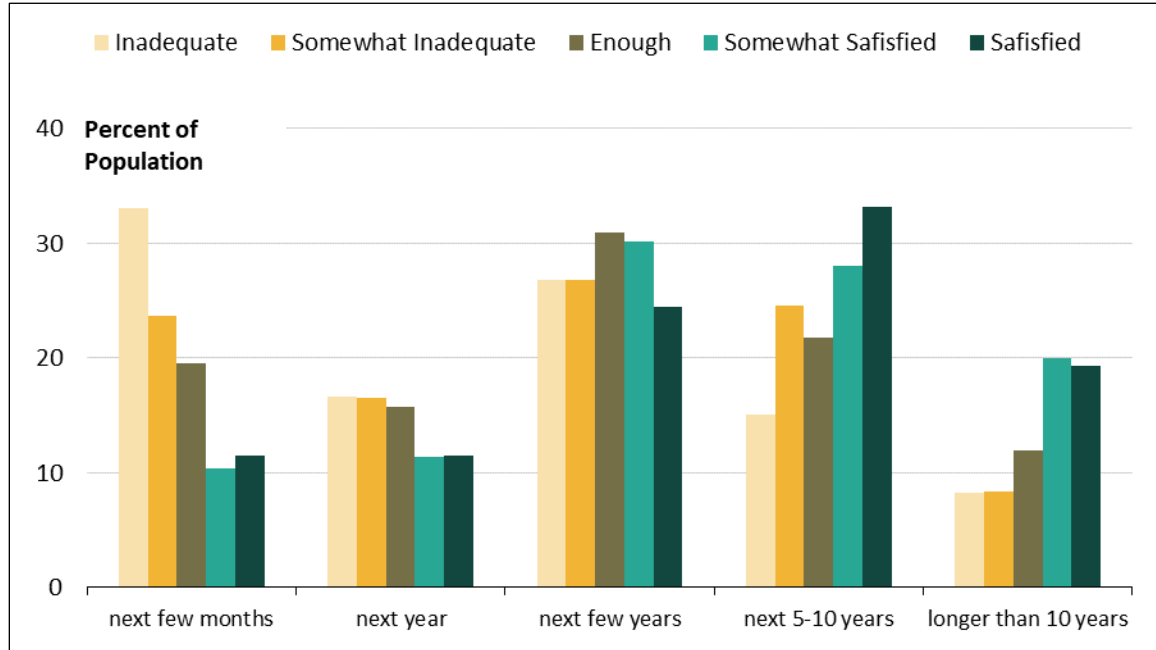
Source: CRS calculations using 2022 SCF.

The Adequacy of Retirement Saving

Are Individuals Currently Saving Enough for Retirement?

Concern about saving sometimes focuses on whether individuals are saving enough for retirement. From an economic standpoint, the best way to answer this question is to examine replacement ratios—that is, how much income is available in retirement compared to the working years. In general, that ratio can be lower than 100% because individuals in retirement are subject to lower taxes, no longer have to save for retirement or children's education, and do not have work expenses. For middle-class individuals, the optimal ratio is typically estimated at between 65% and 75%.[31]

Many complexities arise in measuring replacement rates, both in the denominator (e.g., lifetime earnings or recent earnings) and in the numerator. In the numerator, for example, earnings would include wages, Social Security benefits, defined benefit pensions, cash transfers, and perhaps distributions from retirement accounts. Theoretically, earnings should include in-kind benefits such as Medicare, but this measure is difficult and the denominator should also include in-kind benefits. Some might argue that earnings should include potential earnings from assets that are not in the flow of income (such as capital gains) and can be spent down.

Concern about the adequacy of retirement savings for lower-income workers centers on Social Security replacement rates, as Social Security payments may be the major source of income for such retirees. The Congressional Budget Office (CBO) estimates that, on average, Social Security replaces 39% of the last five years of substantial earnings and 55% of lifetime earnings for the

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[31] Patrick J. Purcell, "Income Replacement Ratios in the Health and Retirement Study," *Social Security Bulletin*, vol. 72, no. 3 (2012), https://www.ssa.gov/policy/docs/ssb/v72n3/v72n3p37.html.

median-income worker.[32] The adequacy of Social Security benefits depends, in turn, on the cohort of the beneficiary and his or her income when working. About 15% of long-career workers (workers with at least 20 years of significant earnings) born in the 1940s receive scheduled Social Security benefits that are below the poverty level. In comparison, CBO projects that about 13% of those born in the 1960s will receive benefits that are below the poverty level, and 6% of those born in the 1980s will do so. (These calculations assume Social Security benefits will not be changed in the future.) This share is projected to fall because the poverty level is indexed by inflation while initial Social Security benefits rise with wage growth.

Social Security is the single most important source of retirement income.[33] In 2005, for those ages 64 to 65, it accounted for 39% of income. Excluding wages—which accounted for 20% and were not likely to continue into future years—Social Security accounted for 49% of income. This share fell with income: Social Security was 55% of nonwage income for the lowest quintile, while it was 51% in the middle quintile and 37% in the highest quintile. The next-largest source was assets, including retirement accounts, which provided 32% of nonwage income. Thus, individual savings were an important part of nonwage income. Defined benefit pensions accounted for 13% in the lowest quintile, rising to 16% in the highest. Given the importance of asset income, it remains of concern to policymakers that enough saving occurs both inside and outside of retirement plans.

Data from a 2017 survey for individuals aged over 65 confirmed the importance of Social Security benefits for most incomes, although the survey population included people who had not retired and partial retirees. The median income share from Social Security for the lowest quintile was 83%, although that group also had the lowest share of earnings and may have reflected a group with more retirees.[34] These data also separated retirement income (in both defined benefit and defined contribution plans) from other-asset income.

A 2012 study indicated that median replacement ratios were relatively high at 71% in the first year of retirement considering only income flows, but fell to 58% by the 10th year.[35] These amounts were higher if the value of assets was taken into account. If income was measured by converting nonhousing wealth into an annuity, the replacement rate was 90% in the first year and 74% in the 10th year. If housing wealth was also annuitized, the median was 100% in the first year and 83% in the 10th year.

These rates were subject to wide dispersion. While more than half the population appeared to have adequate retirement savings, the data indicated that 25% of the population had replacement rates of less than 49%, declining to 41% by the 10th year when income flows were considered. Over the same time frame, these rates declined from 61% to 55% when annuitized nonhousing wealth was included, and from 68% to 61% when all annuitized wealth was included. The data also indicated that significant fractions of the population experienced low replacement rates throughout the income distribution: in each quartile of preretirement income, those with replacement rates at the 25th percentile replaced about half of their income.

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[32] U.S. Congressional Budget Office (CBO), *Social Security Replacement Rates and Other Benefit Measures: An In-Depth Analysis*, April 2019, https://www.cbo.gov/system/files/2019-04/55038-SSReplacementRates.pdf.

[33] Andrew G. Biggs and Glenn R. Springstead, "Alternate Measures of Replacement Rates for Social Security Benefits and Retirement Income," *Social Security Bulletin*, vol. 68, no. 2 (2008), https://www.ssa.gov/policy/docs/ssb/v68n2/v68n2p1.html.

[34] CRS In Focus IF12330, *Retirement Income Security: Issues and Policies*, by Zhe Li, Paul S. Davies, and Elizabeth A. Myers.

[35] Patrick J. Purcell, "Income Replacement Ratios in the Health and Retirement Study," *Social Security Bulletin*, vol. 72, no. 3 (2012), https://www.ssa.gov/policy/docs/ssb/v72n3/v72n3p37.html.

Among retirees without labor income, a significant share of those who rely on Social Security and have no other savings have reported that they are struggling financially. According to a Federal Reserve survey, 47% of retired individuals without private income (relying on Social Security and other cash transfers) indicated that they were not doing okay financially, whereas 22% of those with a pension made that indication.[36] (These numbers may also correlate with income.)

Higher-income individuals aged over 65 have substantial shares of income from assets outside of pensions, according to Census data.[37] These data may understate the importance of income from assets, especially for those with the highest measured incomes, as these households probably still work. The highest decile probably includes more households that have not retired and thus may have lower shares of income from pension assets (39% from wages, 23% from pensions, and 13% from other-assets income). In the second-highest decile, wages fall to 15% of income, reflecting a group largely retired, with 35% from pensions and 15% from asset income. Thus, while pensions are a larger source of income on average, there are significant contributions from other-asset income. Moreover, this asset income may understate the potential for nonretirement assets to contribute to income because of unrealized capital gains. These higher-income individuals also tend to own homes, and thus benefit from not paying rent and the possibility of selling or borrowing against the home to provide income. An earlier study indicated that, at the 90th percentile of wealth among those aged 65 to 69, housing wealth was 1.6 times (or 60% larger than) financial wealth.[38]

These data suggest that retirees can be divided into three types:

- those who appear to be adequately funded in retirement and have significant sources of other wealth that enable them to not depend only on Social Security and pension income;
- those who have adequate replacement income but could have saved more, as indicated by the significant portions of individuals across all income quartiles who have replacement rates below 50%; and
- those whose incomes are so low they cannot afford to save, and generally must rely on Social Security and other public transfers. This group also experiences a cost to saving due to asset tests.

Why Do Individuals Who Could Save for Retirement Fail To Do So?

Turning to the second group, those with the potential to save for retirement but who choose not to do so, much of the attempt to understand and consider remedies is drawn from the psychological and behavioral economics literature addressed above.[39] That literature focuses on issues such as procrastination, inertia, complexities in making decisions, lack of self-control, and lack of

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[36] Board of Governors of the Federal Reserve System, *Economic Well-Being of U.S. Households in 2022*, May 2023, https://www.federalreserve.gov/publications/files/2022-report-economic-well-being-us-households-202305.pdf.

[37] Daniel Thompson and Michael D. King, "Income Sources of Older Households: 2017," U.S. Census Bureau, Current Population Reports, February 2022, https://www.census.gov/content/dam/Census/library/publications/2022/demo/p70br-177.pdf.

[38] James Poterba, Steven Venti, and David Wise, "The Composition and Drawdown of Wealth in Retirement," *Journal of Economic Perspectives*, vol. 25, no. 4 (2011), pp. 95-18, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3937807/#:~:text=For%2058%20percent%20of%20households,levels%20of%20total%20net%20worth.

[39] This evidence, along with some of the remedies proposed subsequently, are also addressed in CRS Report R46441, *Saving for Retirement: Household Decisionmaking and Policy Options*, by Cheryl R. Cooper and Zhe Li.

financial literacy. A more fundamental reason that these individuals might not save enough is the lack of access to employer plans.

A significant share of individuals do not have access to employer-sponsored retirement plans, especially among low-wage workers.[40] According to March 2023 Bureau of Labor Statistics data, 73% of all workers had access to pension benefits, but 49% of workers in the lowest wage quartile had such access, compared to 92% in the highest quartile. Since participation is voluntary in some cases, the discrepancy in coverage take-up is greater: 56% of all workers participate in pension plans, but that share is 28% for the lowest quartile and 94% for the highest quartile. In the middle-income quartiles, both access and participation are incomplete. In the second-highest quartile, 73% of workers have access and 53% participate; in the third-highest quartile, 83% have access and 70% benefit.

Participation in individual retirement outside of employers is lower. About 23% of households have individual retirement accounts (IRAs); 6.7% of households with incomes under $30,000 have an IRA, compared to 54% of those with incomes over $125,000.[41] IRAs tend to be less attractive than employer plans because most of the latter—about 70% according to one study[42]—have an employer match, so that failing to participate at some minimal level leaves money on the table, which is not the case for IRAs. An IRA outside the employer also requires an active decision to set up and contribute, which the literature suggests may reduce take-up rates.

Policy Options to Increase Saving for Retirement for Those Able to Save

In general, reducing tax rates on capital income is not likely to increase saving for the reasons discussed earlier. In addition, most individuals already have access to tax-favored retirement accounts that effectively exempt the income saved from tax.[43] However, evidence does not clearly indicate that these retirement plans increase overall saving.[44] Such plans are disproportionally concentrated in higher incomes, and these individuals may reduce ordinary saving to invest in tax-favored saving vehicles.

Since these tax benefits already exist, proposals to encourage saving for retirement have focused on increasing access to and participation in employer plans. Policy proposals toward those ends have included mandatory employer-sponsored IRAs, automatic enrollment in these accounts, and automatic escalation of contributions, as discussed in a recent CRS report.[45] These policy options are based on evidence that participation in employer plans increases if employees have to opt out rather than opt in. The CRS report cited above discusses a wide range of other options, including

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[40] "Table 1. Retirement Benefits: Access, Participation, and Take-Up Rates," U.S. Bureau of Labor Statistics, https://www.bls.gov/news.release/ebs2.t01.htm.

[41] See CRS Report R46635, *Individual Retirement Account (IRA) Ownership: Data and Policy Issues*, by Elizabeth A. Myers.

[42] Human Interest, "401(k) employer match rules: 10 things for employers to know 2023," January 12, 2024, https://humaninterest.com/learn/articles/10-things-employers-need-to-know-about-401k-employer-match/.

[43] Traditional 401(k)s and IRAs allow an up-front tax deduction and exemption of earnings with taxation of withdrawals, which is the equivalent of exempting the returns from saving because the upfront deduction—given constant tax rates—offsets the present value of the tax on withdrawals. Roth style 401(k)s and IRAs exempt earnings from tax.

[44] See CRS Report R47492, *Tax-Advantaged Savings Accounts: Overview and Policy Considerations*, by Brendan McDermott.

[45] CRS Report R46441, *Saving for Retirement: Household Decisionmaking and Policy Options*, by Cheryl R. Cooper and Zhe Li.

information reporting, increasing the age of required mandatory distributions, and other measures. The recent Secure 2.0 Act of 2022 (P.L. 117-328) included a provision for automatic enrollment, but it is limited to new retirement plans and exempts new and small firms. There is also a credit for small businesses that set up auto-enrollment.

Some businesses do not want to operate plans because of regulatory complications. One option is the "auto-IRA," which has been adopted by a number of states.[46] In these plans, firms deposit payroll deductions into individual employees' accounts unless the employees opt out. The deductions are deposited into large central funds with professional management, freeing employers from oversight duties. Mandating this approach at a federal level could be an option.[47] The federal tax credit currently available to small firms that set up regulated plans could be extended to firms that set up auto-IRAs to offset the plans' administrative costs.

Policy Options for Low-Income Individuals

Lower-income individuals have a number of reasons for not saving, including saving in retirement accounts. Many find saving difficult because they need their income for basic necessities. According to the 2022 SCF, 13% of the lowest quintile had a retirement account with a median balance of $17,500. Almost all had a transaction bank account (96%) with a median balance of $900. About the same share had any form of financial assets, with a median balance of $1,400. (They were more likely to have equity in a home, with 42% owning their home with a median value of $145,000, and 12% having home-secured debt with a median value of $65,000.)[48]

Lower tax rates are not likely to affect the saving choices of low-income individuals, since many pay nothing or little in income taxes. Current law has a retirement savers tax credit that is limited to low-income individuals, but it is not refundable and has been little used.[49] The Secure 2.0 Act of 2022 converts this credit to a savers match. The match—which is scheduled to take effect in 2027 and will be deposited directly into individuals' retirement savings accounts—could increase take-up compared to the credit.

Lower-income individuals also may not need to save for retirement because Social Security offers a relatively high replacement rate for them. The benefit formula for Social Security includes 90% of the first tier of average wage-indexed earnings (the first $14,088 in 2024), then a rate of 32% on amounts up to $84,936.[50] Social Security also provides a special minimum benefit for long-term workers that depends only on years and is approximately the size of the first-tier benefit for workers with 30 years of covered employment.[51]

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[46] Andy Markowitz and Jacqueline Salmon, "How Auto IRAs Are Helping More Workers Save for Retirement," AARP, updated April 15, 2024, https://www.aarp.org/retirement/planning-for-retirement/info-2023/states-with-automatic-ira-savings-programs.html.

[47] While auto-enrolment may increase saving, there are ethical concerns about where these types of "nudges" become manipulation or undermine autonomy or dignity. See Cass R. Sunstein, "The Ethics of Nudging," *Yale Journal of Regulations*, vol. 32 (2015).

[48] "Survey of Consumer Finances," Board of Governors of the Federal Reserve System, https://www.federalreserve.gov/econres/scfindex.htm.

[49] See CRS In Focus IF11159, *The Retirement Savings Contribution Credit and the Saver's Match*, by Brendan McDermott and CRS Report R47492, *Tax-Advantaged Savings Accounts: Overview and Policy Considerations*, by Brendan McDermott.

[50] See "Primary Insurance Amount," U.S. Social Security Administration (SSA), https://www.ssa.gov/oact/cola/piaformula.html.

[51] "Special Minimum Benefit," SSA, https://www.ssa.gov/policy/docs/program-explainers/special-minimum.html.

CBO analysis indicates that Social Security replaces over 70% of wages at normal retirement age (based on the past 20 years of earnings) for the lowest quintile.[52] The National Academy of Social Insurance has proposed policies to ensure that long-term, low-income workers remain out of poverty in retirement, including increasing the minimum benefit for such workers and increasing benefits for widowed spouses in low-income couples.[53] Proponents have suggested a number of ways that these benefits might be paid for, including lifting the cap on earnings subject to payroll taxes.

Lower-income individuals may not benefit from saving. Even small accumulations of assets can disqualify individuals from various types of public assistance. There is an extensive literature on asset tests and their effect on savings.[54] Asset tests have relatively low limits in some cases. For example, the Supplemental Nutrition Assistance Program (SNAP) has a $2,750 asset limit for recipients ($4,250 for households with an elderly or disabled member),[55] and Supplemental Security Income (SSI) has limits of $3,000 per couple or $2,000 for an individual.[56] The asset test for SSI has not been indexed for inflation since 1980. SNAP and SSI are fully funded by the federal government, but SNAP is administered by the states and there are a number of options and waivers. Some states have supplements to SSI. States administer Temporary Assistance for Needy Families (TANF) and Medicaid; benefit availability and size in these programs varies across states but can be quite low. More than half the states have TANF asset limits between $1,000 and $2,500.[57] Asset tests for Medicaid are also low in many states.[58] SNAP does not count retirement accounts, and Medicaid and SSI do not count retirement accounts that are in payout status. Asset tests usually exclude items like homes, personal property, and in some cases vehicles.[59] The Low

[52] CBO, *Social Security Replacement Rates and Other Benefit Measures: An In-Depth Analysis*, April 2019, https://www.cbo.gov/system/files/2019-04/55038-SSReplacementRates.pdf.

[53] National Academy of Social Insurance, *Social Security Benefits, Finances, and Policy Options: A Primer*, August 2020, https://www.nasi.org/sites/default/files/research/2020%20Social%20Security%20Primer%20Final.pdf.

[54] See, for example, André Victor D. Luduvice and Cornelius Johnson, "Means-Tested Transfers, Asset Limits, and Universal Basic Income," Federal Reserve Bank of Cleveland, 2022, https://www.clevelandfed.org/publications/economic-commentary/2022/ec-202210-means-tested-transfers-asset-limits-universal-basic-income#cf-fn-3; Henry Chen and Robert I. Lerman, *Do Asset Limits in Social Programs Affect the Accumulation of Wealth?*, The Urban Institute, Opportunity and Ownership Project, no. 5, August 2005, https://www.urban.org/sites/default/files/publication/51686/311223-Do-Asset-Limits-in-Social-Programs-Affect-the-Accumulation-of-Wealth-.PDF; and Maureen Pirog and Edwin Gerrish, *TANF and SNAP Asset Limits and the Financial Behavior of Low-Income Households*, The Pew Charitable Trusts, 2017, https://www.pewtrusts.org/-/media/assets/2017/09/tanf_and_snap_asset_limits_and_the_financial_behavior_of_low_income_households.pdf.

[55] CRS Report R42505, *Supplemental Nutrition Assistance Program (SNAP): A Primer on Eligibility and Benefits*, by Randy Alison Aussenberg and Gene Falk. ABLE accounts effectively create a SSI-resource exclusion that permits qualified individuals to hold more cash assets than they otherwise could without having to spend down their resources to meet the program's statutory limits. See CRS In Focus IF10363, *Achieving a Better Life Experience (ABLE) Programs*, by William R. Morton and Kirsten J. Colello.

[56] CRS In Focus IF10482, *Supplemental Security Income (SSI)*, by Emma K. Tatem and William R. Morton.

[57] The Pew Charitable Trusts, *Do Limits on Family Assets Affect Participation in, Costs of TANF?*, Issue Brief, July 17, 2016, https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2016/07/do-limits-on-family-assets-affect-participation-in-costs-of-tanf.

[58] MaryBeth Musumeci, Priya Chidambaram, and Molly O'Malley Watts, *Medicaid Financial Eligibility for Seniors and People with Disabilities: Findings from a 50-State Survey*, KFF, https://www.kff.org/report-section/medicaid-financial-eligibility-for-seniors-and-people-with-disabilities-findings-from-a-50-state-survey-issue-brief/.

[59] For state-by-state rules for SNAP and TANF, see Jessica Gehr, *Eliminating Asset Limits: Creating Savings for Families and State Governments*, Center for Law and Social Policy, April 2018, https://www.clasp.org/sites/default/files/publications/2018/04/2018_eliminatingassetlimits.pdf.

Income Home Energy Assistance Program (LIHEAP) does not have an asset test, although states may impose such tests.[60]

Saving in retirement accounts does not affect SNAP, but saving for retirement outside of retirement plans does. In some states, retirement accounts affect TANF and Medicaid qualification when withdrawals are not occurring. Asset tests may disincentivize saving by denying individuals benefits or causing them to lose benefits until their savings reach very low levels.

Several proposed options could enable public assistance programs to identify the needy without disincentivizing saving. For example, asset tests could exclude all savings in retirement accounts, or programs that use asset tests could raise their limits. Alternatively, asset tests could be completely eliminated and income from otherwise includable assets could be imputed to income (net of actual interest and other income received from assets) to reflect a contribution over time. This approach is used for federal housing programs that do not have an asset test.[61]

Aside from addressing asset tests, Congress might consider expanding SSI. The Center on Budget and Policy Priorities reported that 4 out of 10 SSI recipients are below the poverty level and suggested updating asset and income limits, indexing them for inflation going forward, and raising the basic benefit.[62] The center also suggested simplifying or eliminating the in-kind support and maintenance rules, as well as expanding the program to once again cover lawful permanent residents who are not citizens (who were covered before 1996) and residents of territories.

Inadequacy of Saving for Short-Term Emergencies

The car or the furnace breaks down. A temporary illness prevents the family earner from working and causes medical copayments to increase. The main wage earner loses his or her job. These are all common examples of *occasional expenses* that indicate a need for some type of precautionary saving.[63]

Data from a 2022 Federal Reserve survey indicated that 63% of respondents could pay for a $400 emergency cost with cash or cash equivalent (a credit card that is paid off at the next cycle).[64]

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[60] CRS Report RL31865, *LIHEAP: Program and Funding*, by Libby Perl. Few states impose asset limits, see "LIHEAP Heating Eligibility Assistance: Assets Test," LIHEAP Clearing House, https://liheapch.acf.hhs.gov/tables/assets.htm#:~:text=For%20more%20information%20on%20variations,tests%2C%20contact%20the%20LIHEAP%20Clearinghouse.&text=Each%20household's%20resources%20may%20not%20exceed%20%243%2C000.&text=%2410%2C931%20for%20a%20single%20person,to%20%2421%2C870%20maximum%20per%20household.

[61] See CRS Report R42734, *Income Eligibility and Rent in HUD Rental Assistance Programs: Frequently Asked Questions*, by Libby Perl and Maggie McCarty.

[62] Kathleen Romig and Sam Washington, *Policymakers Should Expand and Simplify Supplemental Security Income*, Center on Budget and Policy Priorities, May 4, 2022, https://www.cbpp.org/research/social-security/policymakers-should-expand-and-simplify-supplemental-security-income.

[63] The discussion here deals with saving for transitory events and not for permanent events such as a disability that requires early retirement or limits work options, death of the breadwinner, or medical costs due to a permanent condition. These are events that are more appropriately dealt with by insurance, Social Security benefits for disability and for survivors, and public safety-net programs. Transitory events would include waiting periods to secure these benefits. The lack of insurance of some of these events is an important issue not addressed in this report. In particular, a small and declining share of workers have disability insurance. See Life Insurance Marketing and Research Association (LIMRA), *2021 Fact Sheet: Disability Insurance Awareness Month*, https://www.limra.com/siteassets/newsroom/fact-tank/fact-sheets/diam-2021-final.pdf.

[64] Board of Governors of the Federal Reserve System, *Economic Well-Being of U.S. Households in 2022*, May 2023, https://www.federalreserve.gov/publications/files/2022-report-economic-well-being-us-households-202305.pdf.

Most of the remainder would borrow (credit card, bank loan, or loan from a friend or family member) or sell assets, and 13% could not pay for it in any way. For more extensive costs, such as a job loss, 54% of families had enough money saved to cover the recommended three months of expenses. Others would borrow or sell assets, but 30% indicated they could not pay this amount in any way. The survey also reported that 28% of families went without some form of health care because they could not afford it, including 38% of families with income below $25,000.

Although financial shocks are more pronounced at lower income levels, they are difficult to address across most of the income spectrum.[65] Of households earning above $85,000, 10% indicated they would have difficulty meeting financial obligations without a shock, but 29% reported difficulties after a shock. Of those with incomes below $25,000, 30% reported generally having difficulty meeting financial obligations, but that rose to 68% after a shock.

Although saving for emergencies has received less attention than saving for retirement, there are some indications that the combination of having a savings account and financial literacy increases the likelihood of having emergency funds.[66] Data indicate that 54% of households have a savings account and 58% have a money market or savings account. This share varies more by income (39 percentage points) than by age (6.1 percentage points). In the lowest quintile, 30% have a savings account and 34% have a money market or savings account, rising to 60% and 68% in the top quintile.[67] Compared to a checking account, a savings account might be viewed as more off limits for day-to-day spending, consistent with the idea of "mental accounts" in the behavioral economics literature.

Legislation enacted at the end of 2022 (P.L. 117-328, Secure 2.0 Act) contains provisions that could help address the inadequacy of emergency saving. One of the provisions waives an early distribution penalty on up to $1,000 withdrawn from certain retirement plans for emergency uses if repaid within three years. A second provision creates employer-linked emergency savings accounts up to a limit of $2,500. Both provisions assist only individuals who have the current capacity to save.

Policy Options

The workplace might be a venue for financial education or forms of auto-savings accounts outside of retirement accounts. Employers or governments could offer savings matches for nonretirement savings accounts: for example, New York City pioneered a match for tax refunds if the refunds are deposited and maintained in a savings account for a year. The match is directed at low- and moderate-income individuals; it is now used in several cities and has increased saving.[68]

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[65] The Pew Charitable Trusts, *How Do Families Cope With Financial Shocks?*, October 2015, https://www.pewtrusts.org/~/media/assets/2015/10/emergency-savings-report-1_artfinal.pdf.

[66] Mathieu R. Despard, Terri Friedline, and Stacia Martin-West, "Why Do Households Lack Emergency Savings? The Role of Financial Capability," *Journal of Family Economic Issues*, vol. 4, No. 3 (2020), pp. 542-557, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7236434/.

[67] Steven Brobeck, *Traditional Savings Accounts: Are They Still Popular?*, Consumer Federation of America, August 2021, https://consumerfed.org/wp-content/uploads/2021/08/Traditional-Savings-Accounts-Are-They-Still-Popular-Report.pdf.

[68] For evidence on the effectiveness of savings matches, see NYC Center for Economic Opportunity, *SaveUSA: A Summary of Findings from MDRC's SaveUSA Final Impact Report*, January 2016, https://www.nyc.gov/assets/opportunity/pdf/saveusa_findings_at_a_glance_final.pdf. Other pilot matched savings programs appear successful; see Neighborworks America, *Lessons Learned from Matched Savings Programs*, https://www.neighborworks.org/Documents/HomeandFinance_Docs/FinancialSecurity_Docs/ProjectBrief_LessonsLearned-MatchedSavingsPrograms.aspx.

The social safety net offers some assistance for job loss through the unemployment compensation program provided by the federal and state governments, offsetting some need for personal saving, but these payments cover about 40% of earnings on average.[69] The time period and amount of such benefits varies among states, with the most common period being 26 weeks. A few states offer temporary disability unemployment benefits.[70] Other public transfers may assist in addressing prolonged but temporary emergencies. However, public transfer programs' asset tests may discourage saving for emergencies, as previously discussed in the context of retirement savings.

Saving for Education

College saving needs are more difficult to measure than retirement and emergency saving needs. A 2022 survey of parents indicated that most planned to cover an average of 69% of anticipated college expenses, but respondents were on track to cover 27% of those expenses on average.[71]

Surveys indicate that cost is the number one barrier to attending and remaining in college. In a 2023 survey, 55% of unenrolled adults reported cost as a very important reason for not attending college. Of those enrolled, 41% had considered dropping out; 29% said cost was a very important reason. Of those enrolled, 58% reported that financial aid (loans, scholarships, and grants) was very important for remaining in college.[72]

Sources of College Funding

Data on college financing indicate that parent savings fund 18% of undergraduate college expenses, with 9% from college savings plans, 7% from other savings, and 2% from withdrawals from retirement accounts. These shares change over the income classes. For families with less than $50,000 of income, savings cover 15% of costs (5% from college savings plans, 7% from other savings, and 3% from withdrawals from retirement plans). For families with over $150,00 in income, savings cover 27% of costs (17% from college savings plans, 9% from other savings, and 1% from withdrawals from retirement plans).[73] Overall, student loans account for 11%, with 6% from federal student loans.[74] Parent borrowing accounts for 9%; loans from retirement accounts are 1%. The average cost of college was significantly larger for the highest income classes than for the lowest: $32,497 for families with incomes over $150,000, and $22,724 for families with incomes under $50,000.

The largest source of funding is scholarships and grants, which amount to 29% for families overall—34% for those with less than $50,000 of income, and 19% for those with more than $150,000. Federal grants account for a small share of expenses. Grants from governments and

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[69] Economic Policy Institute, *Reforming Unemployment Insurance*, June 2021, https://www.epi.org/publication/section-5-benefit-levels-increase-ui-benefits-to-levels-working-families-can-survive-on/.

[70] "Comparison of State Unemployment Laws 2022," U.S. Department of Labor, https://oui.doleta.gov/unemploy/comparison/2020-2029/comparison2022.asp.

[71] Fidelity Investments, *2022 College Savings Indicator*, https://www.fidelity.com/bin-public/060_www_fidelity_com/documents/about-fidelity/FidelityInvestments2022CollegeSavingsIndicator.pdf. Of the 39% of families with 529 tax favored savings plan, 37% report being on target, while of families without 22% report being on target.

[72] Lumina Foundation, *The State of Higher Education, 2023*, https://www.gallup.com/file/analytics/505157/state-higher-education-2023.pdf.

[73] Sallie Mae, *How America Pays for College 2023*, https://www.salliemae.com/content/dam/slm/writtencontent/Research/HowAmericaPaysforCollege2023.pdf.

[74] CRS In Focus IF12267, *Direct Loan Program Student Loans: Terms and Conditions*, by Alexandra Hegji.

schools account for 12%. Data on Pell Grants, which are the major federal grant program,[75] suggest they account for about 5% of college costs.[76] These grants are based on financial need.

The next-largest source is payments out of parents' current income, which accounted for 22%—14% for families with less than $50,000 of income and 24% for families with more than $150,000. Students contribute 9%: 4% from current income, 1% from work/study programs, and 4% from savings.

Federal government direct support for college costs for students is relatively small: grants account for around 5% and subsidized student loans for 6%.

Student loan repayment often makes it difficult for individuals to save for retirement. For example, workers who forego employer-sponsored retirement plans in favor of paying off student loans might miss out on matching employer contributions. The Secure 2.0 Act added a provision to allow employers that match contributions to tax-favored retirement accounts to treat student loan repayments as though they were saving in those accounts for the purposes of such matches.

Tax Benefits

The federal government also supports those paying college costs through tax benefits.[77] The most significant benefit is the American Opportunity tax credit, which is worth 100% of the first $2,000 of qualifying expenses and 25% of the next $2,000, for a total maximum of $2,500.[78] If this amount were claimed in full, it would cover about 9% of costs on average. The credit phases out for those with moderately high to high income. It is also less likely to benefit low-income families that tend to have little or no income tax liabilities, although 40% of the credit is refundable.

Some tax benefits also cover college savings.[79] There are two types of tax-advantaged college savings plans: qualified tuition programs (better known as 529 plans) and Coverdell plans. Both involve no tax on earnings and no tax on distributions when used for qualified educational expenses. Both are subject to a 10% penalty on investment returns if used for other purposes. States sponsor and manage 529 plans, and there are no federal limits or contribution limits; limits on contributions and amounts in the fund vary by state.[80] A few states also offer 529 prepaid tuition plans, which lock in tuition at current levels. Some states also allow state income tax deductions for contributions. Coverdell plans are generally self-directed, and annual contributions are limited to $2,000; benefits are phased out for high incomes.

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[75] CRS Report R45418, *Federal Pell Grant Program of the Higher Education Act: Primer*, by Cassandria Dortch.

[76] "Trend Generator," National Center for Education Statistics, https://nces.ed.gov/ipeds/trendgenerator/app/answer/8/35. The data indicated that 32% of students received Pell Grants which averaged $4,597 in 2021. Based on the Sallie Mae data, the average cost of college was $28, 026, which suggests these grants accounted for about 5% of costs.

[77] See CRS Report R41967, *Higher Education Tax Benefits: Brief Overview and Budgetary Effects*, by Margot L. Crandall-Hollick and Brendan McDermott.

[78] CRS Report R42561, *The American Opportunity Tax Credit: Overview, Analysis, and Policy Options*. For further information, congressional offices may contact Brendan McDermott.

[79] See CRS In Focus IF11254, *Major Features of 529 Plans and Coverdells*, by Joseph S. Hughes, Molly F. Sherlock, and Margot L. Crandall-Hollick; CRS Report R42807, *Tax-Preferred College Savings Plans: An Introduction to 529 Plans*, by Brendan McDermott; and CRS Report R42809, *Tax-Preferred College Savings Plans: An Introduction to Coverdells*, by Margot L. Crandall-Hollick and Brendan McDermott.

[80] "Compare 529 Plans by Features," Saving for College, https://www.savingforcollege.com/compare-529-plans/results?plan_question_id=308&plan_question_id=387&mode=Compare&plan_type_id=&page=compare_plan_questions.

An alternative to education-specific savings plans is to invest in an IRA, since withdrawals for educational purposes are exempt from the typical 10% penalty for early IRA withdrawals. IRAs have annual contribution limits (in 2024, $7,000 plus $1,000 for those aged over 50) and income phaseouts, so this approach may not be available to all taxpayers (or taxpayers may need the contributions for their retirement).

College savings accounts may be less appealing than IRAs for some, because the 10% penalty on investment returns used for noneducational purposes can impose additional costs if children decide not to go to college or go to a college that is less expensive than anticipated. If those savings were in an IRA, the parent could maintain the funds for retirement. Recent legislation has also addressed this issue by allowing 529 accounts to be converted to beneficiary-owned Roth IRAs, subject to the annual contribution limitation and a total maximum of $35,000.[81]

College savings accounts and Roth IRAs are treated differently in determining eligibility for student financial aid. College savings accounts can be included in parental assets (rather than student assets), which leads to a smaller contribution requirement than would otherwise be the case. Distributions from college savings accounts are not included in income. Retirement accounts are excluded assets for determining eligibility, but distributions are included in income.[82]

Evidence on Effectiveness of Tax Incentives for College Saving

There is little evidence of tax-favored college savings accounts' effects on college graduation, attendance, or saving. An extensive review of the evidence on financial aid indicated that aid programs increase college attendance, but found no evidence that tax-favored education accounts increase saving or enrollment.[83] The review generally found limited effects from seed and/or match programs at the state level (where the state provides some initial funds on opening a 529 plan), although one study found an increase in participation and automatic contribution take-up when states provided help in setting up accounts and contributed initial amounts. The review's authors concluded, however, that any effects on savings from these plans would do very little to affect college affordability. These provisions also tend to benefit higher-income families, not only because such families make greater use of them (they funded an average of $5,669 in college costs for those with over $150,000 of income and $1,129 for those with less than $50,000) but also because those families have higher marginal tax rates.

The extensive review found evidence that direct spending has an effect on enrollment but did not find the same for tuition tax credits, although the reviewed studies were undertaken before the credit was made partially refundable. Thus, the credits most likely benefited upper middle- and higher-income families, who were likely to enroll their children in college in any case. The researchers suggested that complexities in understanding and applying for aid, as well as interactions among aid sources that caused benefits from one source to be offset by reduced benefits from another, made these programs less effective.

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[81] Lawrence Pon, "The New 529 Rollover to Roth IRA," *Journal of Accountancy*, July 26, 2023, https://www.journalofaccountancy.com/news/2023/jul/the-new-529-rollover-roth-ira.html.

[82] CRS Report R44503, *Federal Student Aid: Need Analysis Formulas and Expected Family Contribution*, by Benjamin Collins.

[83] Susan Dynarski, Lindsay C. Page, and Judith Scott-Clayton, "College Costs, Financial Aid, and Students Decisions," *Handbook of the Economics of Education*, Eds. Stephen J. Machin, Ludger Woessmann, and Eric A. Hanushek, vol. 7 (2023), pp. 227-285. Also available as National Bureau of Economic Research Working Paper no. 30275, July 2022, https://www.nber.org/system/files/working_papers/w30275/w30275.pdf.

Policy Options

The evidence from state-level seeded and matched savings programs found that these types of matches seemed to encourage more saving in 529 accounts, suggesting that plans with a matched savings program and seed money might be more effective than traditional 529 plans in helping lower- and middle-class families save for college—though some of this effect is saving shifted from other types of saving. Outreach would likely also help raise awareness of these options. Matched savings allow tax benefits to be directed to those without tax liability.

More effective policies might assist with college costs in other ways, such as allowing full refundability of tuition tax credits or the ability to utilize savings intended for college for other purposes in certain situations. The latter idea could provide better incentives to save for those uncertain about college attendance, but would need guardrails to limit use of the accounts as a mechanism to transfer wealth. Outside of taxes, direct increases in financial aid might be more effective. The National Academy of Social Insurance has also discussed reinstating student Social Security benefits for survivors of disabled or deceased parents to children up to age 22.[84]

Another set of proposals responds to the rapid growth in student loans in recent years. The Aspen Institute has proposed a variety of public and private policy options.[85] Proposals that involve the federal government include dramatically increasing grants to lower-income students (which have not kept up with rising college costs), restricting loans for colleges and universities with demonstrated records of poor outcomes for students, expanding and simplifying income-based repayment plans and loan forgiveness, and making student debt dischargeable in bankruptcy. Other proposals include forgiving a certain amount of student debt, setting higher limits for recipients of Pell Grants, forgiving debt for borrowers below certain income levels, allowing income-driven repayments, expanding funding to make public colleges and universities tuition free, broader use of human capital contracts or income share agreements, and expanding access to career and technical (vocational) education.[86]

Some research has suggested policies be designed to focus on graduation rather than enrollment, as college dropouts earn small wage premiums relative to high school graduates. As noted above, proposals to restrict loans for institutions with poor outcomes are one option. Another is to consider the likelihood that the student will succeed—that is make loans and grants merit-based—although merit-based aid raises some concerns about access and equity.[87]

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[84] National Academy of Social Insurance, *Social Security Benefits, Finances, and Policy Options*, August 2020, https://www.nasi.org/sites/default/files/research/2020%20Social%20Security%20Primer%20Final.pdf. The withdrawal of these benefits was estimated to reduce college attendance by one-third among children with a deceased parent. See Susan Dynarski, "The Behavioral and Distributional Implications of Aid for College," *American Economic Review*, vol. 92, No. 2 (May 2002), pp. 279-285.

[85] Tim Shaw and Kriese Hansen, *Making the Case: Solving the Student Debt Crisis*, Aspen Institute, March 23, 2020, https://www.aspeninstitute.org/publications/solving-the-student-debt-crisis/.

[86] Council on Foreign Relations, *Is Rising Student Debt Harming the U.S. Economy?*, updated April 16, 2024, https://www.cfr.org/backgrounder/us-student-loan-debt-trends-economic-impact#:~:text= Many%20experts%20and%20policymakers%20agree,goals%20while%20exacerbating%20racial%20inequality. See CRS In Focus IF11269, *An Economic Perspective of Income Share Agreements*, by Mark P. Keightley for more information on income share agreements.

[87] See Carlos Garriga and Mark P. Keightley, *A General Equilibrium Theory of College with Education Subsidies, In-School Labor Supply, and Borrowing Constraints*, Federal Reserve Bank of St. Louis, Working Paper no. 2007-151A, October 2007, https://s3.amazonaws.com/real.stlouisfed.org/wp/2007/2007-051.pdf

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