



The Basic Economic Security Tables

Methodology and Supplemental Data

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October 2018

INTRODUCTION

The Basic Economic Security Tables: National Methodology and Supplemental Data contains:

1. Detailed explication of the Basic Economic Security Tables™ Index (BEST) methodology
2. Supplementary data and figures for BEST expense and savings components
3. Supplementary BEST values calculated under alternative assumptions
4. A BEST data sources table

Developed by Wider Opportunities for Women and the Center for Social Development at Washington University St. Louis, the Basic Economic Security Table (BEST) Index is maintained by the Institute for Women's Policy Research (IWPR). The BEST measures the incomes a wide variety of working families require to meet daily needs, specific to family type and location, and to save for emergencies and retirement.

The BEST follows a long history of research defining families' spending and income needs, but reflects a modern economy and contemporary understanding of how families achieve financial stability. The national BEST Index provides a broad view of the state of the nation's workers – the expenses they face, their resources, and their prospects for achieving the financial stability so critical to the nation's future. The BEST data increase awareness of the challenges faced by the typical American worker, and suggest leverage points and policies that can help them overcome obstacles to economic security. The BEST Index users include:

Workers and Their Families – The BEST Index shows how much income workers need to cover basic monthly expenses and develop assets for long-term economic security. Because the BEST varies by location, family size, and the age of children, the BEST Index can be used to determine the price of economic

security for a wide variety of families across the country.

Legislators, Administrators, and Advocates – The BEST Index demonstrates the true cost of economic security and helps determine what policies are most effective in helping working families bridge the gap between wages and security. The data can be used to define good jobs, evaluate economic development, and evaluate and design programs and public policies to help families attain long-term economic security.

Workers and Future Workers Planning for the Future – The BEST Index can help young adults and workers understand financial needs, plan education and training, and identify career paths that lead to economic security.

Economic Development and Financial Service Professionals – The BEST Index provides aspirational goals for families and communities and a benchmark for evaluating economic development projects. These tables can serve as part of a blueprint for job creation that provide pathways to economic security wages.

The BEST database allows users to:

- Find an index for a location and family type
- Compare their own families' expenses to the local BEST Index
- Compare indices or single expense across locations and family types
- Download national, state, and county index data¹
- Access additional information on economic security and the work supported by the BEST and Elder Index

The BEST Index presents the specific needs of more than 400 family types – all possible one- or two-adult families with up to six children.² BEST values for adults

are not age-specific, and are applicable to any independent working adult.³ The data for itemized expenses are from federal agencies and other sources that are publicly accessible and are updated regularly. Due to variation in how state agencies measure and define data, whenever available, sources are selected that collect data for all states and counties. Details regarding the data sources and assumptions for each expense are outlined in the corresponding section of this methodology.

To further improve understanding of worker expenses and income needs, the BEST calculates separate

income requirements for workers with and without access to employment-based benefits. Receipt or non-receipt of benefits – employer-sponsored health insurance, employment-based retirement plans, and unemployment insurance coverage – can be critical to short- and long-term economic security. Such benefits can prevent workers from suffering marked declines in stability, or even impoverishment.

To explore the BEST for the United States, a state, or county, visit IWPR's Economic Security Database.

RENT AND UTILITIES

BEST housing expenses are U.S. Department of Housing and Urban Development (HUD) Fair Market Rents. Fair Market Rents (FMRs), which are calculated

distribution. According to HUD, the 40th percentile of rents allows a decent standard of shelter that is accessible to those with limited income, including

Table 1. United States Rent and Utilities Expenses for Selected US Families, 2018

	1 Worker	1 Worker 1 Preschooler 1 Schoolchild	2 Workers 1 Preschooler 1 Schoolchild
Total	\$764	\$956	\$956

Note: National expenses are the average of all county Fair Market Rents (which include rent and utilities), weighted by population. The numbers are for those with employment benefits.

Source: IWPR calculation using 2018 Fair Market Rents from the U.S. Department of Housing and Urban Development, Office of Policy Development and Research 2018.

annually by HUD, comprise rent and utilities. The BEST Index includes data for homes with one to four bedrooms; home size is based on family size. The BEST assumes that an adult has his/her own bedroom, two adults share a bedroom, and no more than two children share a bedroom. FMRs are rents at the 40th or 50th percentiles of each U.S. county's rents

participants in federal rental subsidy programs. The national values presented in Table 1 and Figures 1 and 2 are an average of all county FMRs, weighted by population.

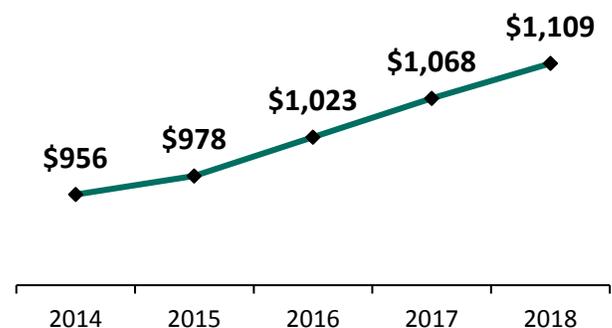
Between 2014 and 2018, FMRs across the country increased by 16.0 percent. FMRs increased just 2.3 percent between 2014 and 2015, and have risen more sharply starting in 2015 (Figure 2).

Figure 1. Monthly Housing Expenses for Selected Home Sizes, United States, 2018



Note: National expenses are the average of all county Fair Market Rents (which include rent and utilities), weighted by population. Source: IWPR calculation using 2018 Fair Market Rents from the U.S. Department of Housing and Urban Development, Office of Policy Development and Research 2018.

Figure 2. Average Monthly Housing Expenses for Two-Bedroom Homes, United States, 2014-2018



Note: National expenses are the average of all county Fair Market Rents (which include rent and utilities), weighted by population.

Source: IWPR calculation using 2014-2018 Fair Market Rents from the U.S. Department of Housing and Urban Development, Office of Policy Development and Research 2018.

FOOD

Table 2. Food Monthly Expenditure for Selected US Families, 2018

	1 Worker	1 Worker 1 Preschooler 1 School child	2 Workers 1 Preschooler 1 Schoolchild
Transportation	\$267	\$581	\$776

Note: Costs for food at home at the low-cost plan level. The cost for one worker is the average cost for males and females aged 19-50. The cost for a preschooler is the average of costs for 2-3 year old children and 4-5 year old children. The cost for a schoolchild is the average of costs for 6-8 year old children and 9-11 year old children. The numbers are for those with employment benefits.
Source: U.S. Department of Agriculture 2018.

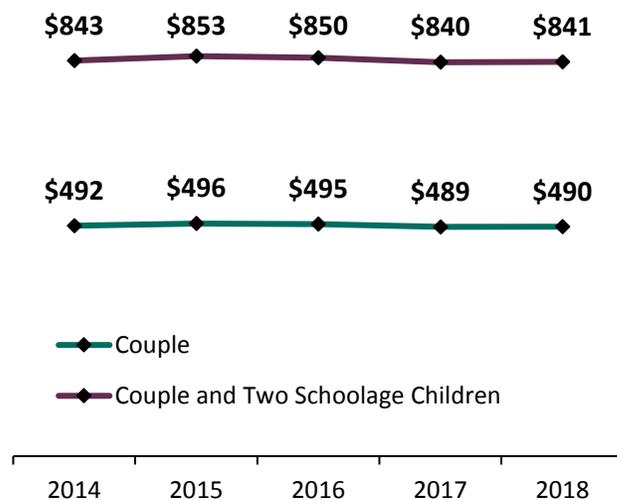
BEST food expenses are U.S. Department of Agriculture Low-Cost Food Plan expenses by family type. The USDA presents expenses by age category and gender; the BEST combines these expenses to create total food cost by family type.

The U.S. Department of Agriculture (USDA) Center for Nutrition Policy and Promotion (CNPP) produces four official Food Plans—Thrifty, Low-Cost, Moderate-Cost, and Liberal—which reflect current dietary recommendations, food consumption patterns, and food prices. Costs included in the Thrifty Food Plan reflect a short-term minimal standard of nutrition and are used by the Supplemental Nutrition Assistance Program (formerly Food Stamps) to calculate assistance levels. The Low-Cost Food Plan is slightly less austere than the Thrifty Food Plan, but still presents a no-frills diet consisting entirely of food prepared and eaten at home.

Between 2014 and 2018, Low-Cost Food Plan expenses for an American family of four (2 workers with 2 schoolchildren) decreased slightly, by 0.3 percent (Figure 3). The largest increase in expenses, 1.1 percent, occurred between 2014 and 2015, and a similar decrease of 1.2 percent

occurred between 2016 and 2017 (U.S. Department of Agriculture 2018).

Figure 3. Monthly Food Expenses by Family Type, United States, 2014-2018



Note: Costs for food at home at the low-cost plan level. The cost for one worker is the average cost for males and females aged 19-50. The cost for a preschooler is the average of costs for 2-3 year old children and 4-5 year old children. The cost for a schoolchild is the average of costs for 6-8 year old children and 9-11 year old children.
Source: U.S. Department of Agriculture 2018.

TRANSPORTATION

Table 3. United States Private Transportation Expense for Selected US Families, 2018

	1 Worker	1 Worker 1 Preschooler 1 School child	2 Workers 1 Preschooler 1 Schoolchild
Transportation	\$526	\$575	\$1,086

BEST monthly private transportation expense includes the fuel, maintenance, license and registration, depreciation, finance charges, and vehicle taxes associated with ownership and operation of a small sedan. Costs do not include a down payment and are average expenses over the first five years of the car’s life.

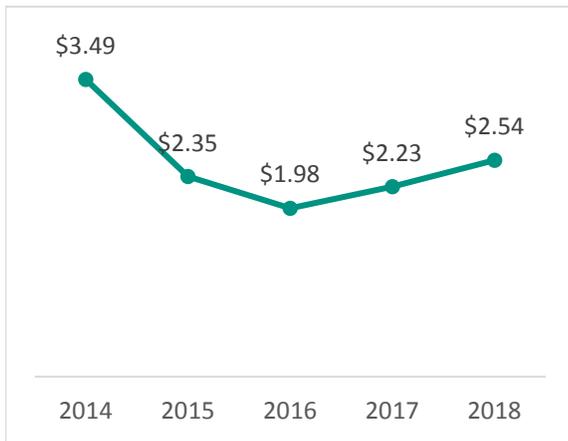
Public transportation systems in the nation’s largest cities provide adequate transportation for millions of workers’ commutes. Once one leaves major cities’ limits, however, public transportation systems that allow working families to forgo car ownership are very rare. Fewer than 5 percent of the nation’s commuters use public transportation to commute to work.

The public transportation systems of many large and mid-size cities, such as Boston, Chicago, and Washington, DC, see more than 25 percent of their populations using public transportation. Other large and mid-size cities, such as Columbus, Phoenix, Birmingham, and San Diego, see less than 7 percent of their populations utilizing public transit to commute to work.⁴ Such systems are not

well suited for shopping or other trips, and do not relieve the need to own a car.

As a result, the BEST transportation expenses are calculated assuming ownership of a small sedan. The BEST further assumes that the majority of couples who are unable to rely completely on mass transit for commuting, shopping, etc. will be unable to share a car to get to work. BEST families with two workign adults therefore bear the cost of owning two cars.

Figure 4. Gasoline Costs, Regular, Per Gallon, United States, March 2014 – March 2018



Source: U.S. Energy Information Administration, Gasoline and Diesel Fuel Update, March 2014-March 2018.

Fuel, maintenance, and depreciation expenses are based on the average number of BEST miles driven by U.S. residents. Miles driven by one- and two-parent families include trips to and from work, transporting children to child care, trips to purchase gasoline, one shopping trip per week, and one medical-related trip per month. Trips to and from school for adult students are included only in calculations of education and training savings requirements found in the BEST.

Automobile insurance costs are the National Association of Insurance Commissioners' national average automobile insurance expenditures per car. National Association of Insurance Commissioners (NAIC) assumes that automobiles carry liability insurance, but not necessarily collision and comprehensive insurance. Per-gallon fuel cost is the national average in March 2018.

CHILD CARE

Table 4. United States Childcare Expense for Selected US Families, 2018

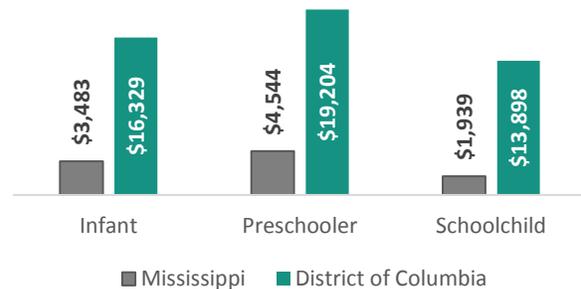
	1 Worker	1 Worker 1 Preschooler 1 School child	2 Workers 1 Infant 1 Preschooler 1 Schoolchild
Child care	\$0	\$1,169	\$1,836

Source: IWPR compilation of data from Child Care Aware of America, *Parents and the High Cost of Child Care*, “Parents and the High Cost of Child Care: 2017 Appendices” and “Parents and the High Cost of Child Care: County-Level Supplement.”

BEST child care expenses are age-specific national weighted averages based on the child care cost data collected by the Child Care Aware of America.⁵ The reports each present separate daily child care center and family child care (care provided in a private home) costs for different age groups. The BEST assumes that children aged 0 – 12 months are “Infants,” children aged 13 months to four years are “Preschoolers,” and children aged between 5 and 12 are “Schoolchildren.” The child care cost for schoolchildren only accounts for the cost of before/after school programs for 9 months, excluding summer. Because the majority of infants in regular full-time care settings are found in family child care settings, the BEST uses a family child care rate for infants. Child care center rates are used for all other age categories. The child care cost data at the county level only exists for the following 7 states – Alaska, Arizona, Delaware, Hawaii, Massachusetts, Minnesota, and New Hampshire. Thus, the statewide average of child care cost is used for those states without the county-level data and the District of Columbia.

Figure 5 shows the lowest and highest child care cost for each children’s age group (infant, preschooler, and schoolchild) – Mississippi as the lowest for all three groups and the District of Columbia as the highest for all three groups.

Figure 5. Annual Child Care Costs, Lowest and Highest, by Child Age and State, 2017



Source: IWPR compilation of data from Child Care Aware of America, “Parents and the High Cost of Child Care 2017 Appendices” and “County-Level Supplement.”

PERSONAL AND HOUSEHOLD ITEMS

Table 5. United States Personal and Household Expenses for Selected US Families, 2018

Personal and Household Items	1 Worker	1 Worker 1 Preschooler 1 Schoolchild	2 Workers 1 Preschooler 1 Schoolchild
		\$262	\$391

Source: IWPR calculations based on data from the 2016 Consumer Expenditure Survey (U.S. Department of Labor, Bureau of Labor Statistics 2018).

BEST personal and household expenses are equal to 39 percent of a family’s housing, utilities, and food expenses less the average sales tax rate, as sales taxes are included in the taxes row. The calculation of personal and household items expenses is based on the U.S. Bureau of Labor Statistics’ Consumer Expenditure Survey, which records American consumers’ annual spending. The BEST uses average expenditures specific to renters, as the BEST assumes all working families rent.

The BEST personal and household items expenses are a conservative measure of necessary spending on personal care and maintaining a household. The

personal and household items category includes only necessities which contribute to basic economic security—goods or service required for health, safety, employment, or basic economic participation (e.g., bank fees). Personal and household items include clothing, housekeeping supplies, life insurance, miscellaneous fees and expenses, personal care products, and laundry and cleaning supplies. The category does not include items such as furniture, appliances, cable television, or computers.

HEALTH CARE

Table 6. Monthly United States Health Care Expenses for Selected US Families, by Insurance Type, 2018

	1 Worker	1 Worker 1 Preschooler 1 Schoolchild	2 Workers 1 Preschooler 1 Schoolchild
ESI	\$	\$	\$
NESI	\$367	\$726	\$1,098

Note: ESI stands for employer-sponsored health insurance and NESI stands for non-employer-sponsored health insurance.

Source:

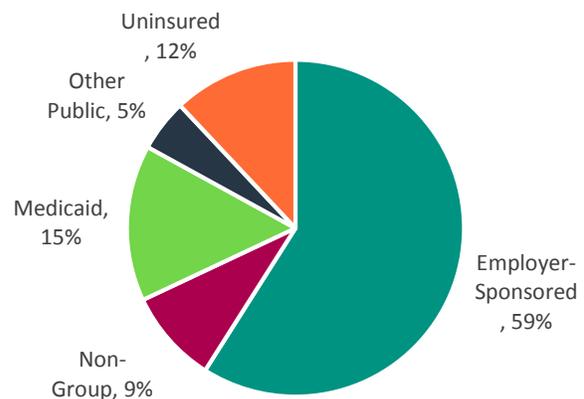
The BEST health care expense consists of insurance premium and out-of-pocket costs for U.S. residents with either employer-sponsored insurance (ESI) or non-employer-sponsored insurance (NESI) purchased on the individual market. National premium data are adjusted by BEST age category and family size. BEST NESI premium costs are the weighted average of the second lowest silver-rated private insurance premiums found on the state exchanges. Out-of-pocket expenses are average expenses by age group. Health care costs therefore reflect ages of household members and family size.

Employer-Sponsored Health Insurance (ESI)

In 2016, 91.4 percent of the United States population was covered by health insurance (Institute for Women’s Policy Research 2018). Nearly 89 percent of full-time private sector employees in the United States worked at firms that offered health insurance, and 75 percent of eligible full-time employees participated in the insurance plants their employers offered (U.S. Department of Health & Human Services, Agency for Healthcare Research and Quality, 2018).⁶ Figure 6 shows that among non-elderly adults between the ages of 19 and 64, 59 percent were covered by employer-sponsored health insurance, 15 percent were covered by Medicaid or another public insurance program, 9 percent were covered by non-employer-sponsored health insurance purchased independently on the individual market,

and 12 percent were uninsured (Kaiser Family Foundation 2017).

Figure 6. Type of Insurance Among Non-Elderly in the U.S, 2017



Note: Non-group includes individuals and families who purchased or are covered as a dependent by non-group insurance. Other public includes those covered under the military or veterans administration as well as non-elderly Medicare enrollees.

Source: Kaiser Family Foundation estimates based on the Census Bureau’s March Current Population Survey (CPS: Annual Social and Economic Supplements), 2014-2017.

Nationwide, employers paid on average 79 percent of total insurance premiums for single employees and 73 percent of total insurance premiums for families (U.S. Department of Health and Human Services 2013).

Non-Employer-Sponsored Health Insurance (NESI)

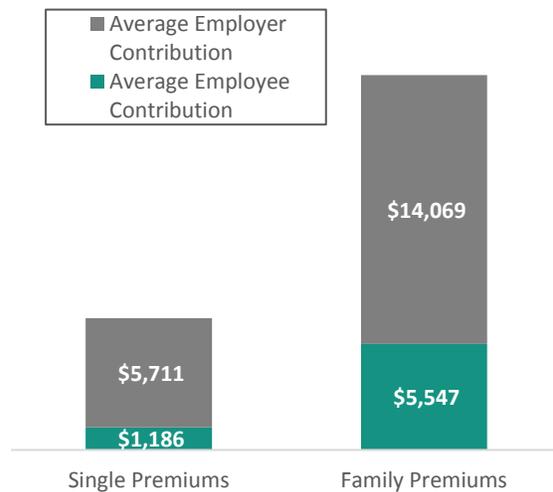
Because 34 percent of U.S. private-sector workers (including part-time employees) lack access to employer-sponsored insurance, the BEST also presents the health care expenses faced by workers and families who lack employer-sponsored health insurance.

Underinsurance can be as great a threat to economic security as a lack of insurance. Research suggests that “catastrophic” health insurance—less expensive plans defined by high deductibles, higher out-of-pocket expenses (OOP) and, often, accompanying Health Savings Accounts (HSA)—can shift costs from premiums to out-of-pocket expenses, contribute to medical debt, reduce access to care and prevent some from seeking care. As a result, BEST NESI premiums are those for inexpensive, silver-level plans purchased on the state exchanges.

United States BEST NESI premium costs are national weighted averages for the second least-expensive silver level plan available in each county in 2017.⁷ Most of the smaller BEST families are eligible for the premium tax credits that lower the premium amount paid. Since that tax credit is experienced by Americans as part of their healthcare expense, it is included in this line rather than with the tax credits.

No BEST calculation includes the direct effects of public subsidies. As a result, BEST calculations do not include the expenses of Medicare participants or the 16.6 percent of non-elderly U.S. adults enrolled in Medicaid or other public health insurance.

Figure 7. Average Health Insurance Premium Costs per Employee with Benefits, Employer and Employee Contributions, 2018



Source: Kaiser Family Foundation 2018, Employer Health Benefits Survey.

TAXES AND TAX CREDITS

Table 7. US Tax Expense and Tax Credits for Selected US Families, 2018

	1 Worker	1 Worker 1 Preschooler 1 Schoolchild	2 Workers 1 Preschooler 1 Schoolchild
Taxes	\$480	\$1,115	\$1,168
EITC	\$0	\$0	\$0
CTC	\$0	-\$167	-\$167
CDCC	\$0	-\$10	-\$11
Net Tax	\$480	\$938	\$990

Note: EITC is the Earned Income Tax Credit, CDCC is the Child and Dependent Care Expenses Credit, and CTC is the Child Tax Credit. Source:

All BEST families earn income and pay taxes. BEST families pay federal payroll and income taxes, state and local income taxes, and state sales tax. Tax filers do not itemize deductions and all family income is assumed to be earned income.

Federal payroll taxes and federal income taxes are calculated using federal personal income tax forms for each BEST family type. State and local income taxes and tax credits are weighted averages of the taxes the national BEST family would face in each state, found using each state’s personal income tax form. State sales tax is calculated on goods purchased by BEST families, based on nationwide average state sales tax rates weighted by state population.⁸ BEST taxes are gross, pre-credit taxes.

While many BEST families earn incomes subject to the 25 percent federal tax bracket, deductions and credits greatly reduce effective tax rates. Tax credits, refundable and non-refundable, are presented separately, and include the federal earned income tax credit (EITC), federal child tax credit (CTC) and additional child tax credit (ACTC), federal child and dependent care credit (CDCC), and average state tax credits. While refundable credits—those such as the EITC which are paid to filers whose credits exceed their owed taxes—are

normally received as lump sums in the spring, the BEST expresses credits as monthly amounts.

Families who cannot participate in employment-based retirement plans (e.g., pensions or 401(k) plans) save through traditional Individual Retirement Accounts (IRAs), and contributions are tax-deductible.⁹

BEST Tax Credits

- The **Earned Income Tax Credit (EITC)** is a refundable federal income tax credit for low- and moderate-income working individuals and families. Because the tax is refundable, tax filers needn’t owe taxes to receive the EITC. The maximum credit for 2017 is \$6,318. The amount of the EITC refund is based on family size, filing status, and household income. To receive the EITC, taxpayers must have earned income and must file a federal tax return.
- The **Child and Dependent Care Expenses Credit (CDCC)** is a non-refundable federal income tax credit that allows families to deduct a percentage of child or dependent care

costs from the federal income taxes they would otherwise have to pay. The credit can equal as much as 35 percent of care expenses, depending on household income. For the 2017 tax year, the maximum claimable expenses are \$3,000 for one child and \$6,000 for two or more children.

- The **Child Tax Credit (CTC)** is a non-refundable federal tax reduction for those with dependent children. In 2017, the credit was equal to \$1,000 per child. If the amount of the Child Tax Credit was greater than the amount of income tax owed, families could be able to claim the refundable Additional Child Tax Credit.
- **Additional Child Tax Credit** is a refundable federal tax credit for those with dependent children whose incomes do not allow them to take full advantage of the nonrefundable CTC. Under the American Recovery and Reinvestment Act (ARRA) and then the American Taxpayer Relief Act, the minimum earned income amount used to calculate the additional child tax credit is set to \$3,000. Before ARRA, the minimum earned income amount was set to rise to \$12,550. Reducing the amount to \$3,000 increases the number of families receiving refundable tax credits and the amounts of credits.

EMERGENCY SAVINGS

Table 8. National Monthly Emergency Savings for Selected US Families, 2018

	1 Worker	1 Worker 1 Preschooler 1 Schoolchild	2 Workers 1 Preschooler 1 Schoolchild
With UI	\$102	\$264	\$237
Without UI	\$111	\$278	\$248

BEST emergency savings are defined as the amount of savings needed for a family to meet basic needs during a time of job loss.¹⁰ Monthly emergency savings are calculated separately for workers with and without Unemployment Insurance (UI).

Unemployment can be a considerable threat to economic security. This is especially true for low-income families, as UI covers only a portion of monthly wages, and a substantial proportion of low-wage and part-time workers are not eligible for UI (West et al. 2016). Those who are independent contractors, freelancers, or part of the “gig economy” are not eligible for unemployment insurance, yet the numbers of these “alternative workers” grew by 66 percent between 2005 and 2015 (Katz and Krueger 2016).

Furthermore, low-income workers usually have limited access to the credit market to finance their spending during unemployment (Board of Governors of the Federal Reserve System 2016). Nearly four in ten (37 percent) U.S. households did not have enough liquid assets to weather three months at a poverty-level income in the case of a financial emergency in 2017, and 44 percent of households had not saved any money at all in the last year for an emergency (Wiedrich et al. 2017). Therefore, savings for unemployment are crucial for all workers to maintain financial stability.

Emergency Saving Goal

BEST’s emergency savings goal is the amount sufficient to support a family’s basic needs during unemployment. Between 2007 and 2017, the median unemployment spell for those aged 16 and older was, on average, 14.4 weeks, and ranged from a low of 8.5 weeks to a high of 21.2 weeks in 2010 and 2011 (U.S. Bureau of Labor Statistics 2018). During that same period, median employee tenure was, on average, 4.4 years (U.S. Bureau of Labor Statistics 2016).¹¹ Accordingly, the BEST Index assumes that workers save in interest-earning accounts or short-term investments while employed to prepare for 14.4 weeks of unemployment.

The amount of monthly consumption/expenses is drawn from the BEST Index. While families often conserve resources during the periods of unemployment, because the costs within the BEST are essential to economic security, and because most of the BEST expenses are not easily changed in response to limited periods of unemployment, the BEST assumes that a family does not significantly reduce spending during the unemployment period. Since the BEST assumes that families save to meet future expenses, the future expenses are calculated by applying a 3 percent inflation rate to the current expenses.

Emergency savings are assumed to be accumulated in conservative, liquid investments, and the annual rate of return to saving is assumed to be 1.5

percent based on the return to shortest term (4-week) Treasury bills.¹²

Monthly Emergency Savings with and without UI

Unemployment Insurance (UI) benefits play a significant role in supporting basic needs during unemployment. In 2016, however, only 27 percent of unemployed workers received UI compared to 36 percent in 2007 (Wentworth 2017).

Monthly emergency savings amounts for those with UI are calculated in the same manner as amounts for those without UI, with the additional assumption that 34 percent of needs during unemployment are financed by UI benefits (up to the national weighted average maximum benefit of \$1,796 per month), and that a worker saves for the remaining BEST expenses.¹³

RETIREMENT SAVINGS

Table 9. National Monthly Retirement Savings for Selected US Families, 2017

	1 Worker	1 Worker 1 Preschooler 1 Schoolchild	2 Workers 1 Preschooler 1 Schoolchild
With Retirement Benefits	\$72	\$72	\$70

The BEST retirement savings are the amount of monthly savings sufficient to support retired elders' basic economic security needs, as defined by the Elder Economic Security Standard™ Index (Elder Index).

The BEST retirement savings amount is estimated with three components: (1) income needs of elders based on the Elder Index; (2) available retirement income; and (3) life expectancy. Based on these three components, the BEST estimates the total amount of savings needed at the time of retirement to maintain economically secure lives, and then calculates the monthly savings amount needed to achieve this savings goal.

Retirement Saving Goal

The BEST's retirement savings goal is the amount of savings (wealth) sufficient to support economic security needs throughout an elder's retirement. The BEST assumes that a worker saves the same amount of money each year for 40 years, which allows the worker to reach the retirement savings goal at the age of retirement (age 65).

In calculating post-retirement income needs, the BEST draws upon the Elder Economic Security Standard Index, a geographically-based measure of the income older retired adults (65 and older) need to make ends meet in their communities. The Elder Index is calculated at the state and county levels, and income needs vary according to housing and health status.

The BEST assumes that elders stay in their communities as renters, and do not receive care in an institutional setting (e.g., nursing homes or assisted living facilities) throughout their retirement years. The number of years lived after retirement is drawn from the life expectancy at age 65 as projected by the Social Security Administration.¹⁴

In assessing economic resources among retirees, the BEST assumes that elder households have income from Social Security but not from an additional pension plan. In 2017, only 18 percent of private industry workers had access to employment-based pension plans.¹⁵ In contrast, Social Security income is received by nine out of ten elders and is a critical income source among elder households (Social Security Administration, 2017).¹⁶ The U.S. annual Elder Index for renters is estimated at \$24,144 for a single elder and \$35,016 for elder couples.

Monthly Saving Amount without Employment-Based Retirement Benefits

The BEST estimates a monthly savings amount that enables a worker to reach the retirement goal at age 65 using the following assumptions: (1) a worker will save for 40 years (from age 25 to 64); (2) a real interest rate of 3 percent per year¹⁷; (3) a worker's family saves into an Individual Retirement Account (IRA) and receives income tax benefits for their retirement savings.

Monthly Savings Amount with Employment-Based Retirement Benefit

BEST assumes that the employment-based retirement benefit is a defined-contribution plan (e.g., 401(k) plan), not a defined-benefit plan (e.g., pension). Defined contribution plans are the dominant form of retirement benefit for private industry workers, with 60 percent of private industry workers having access to an employment-based defined contribution plan while only 19 percent have access to a defined-benefit plan.

On average, employers match 66.06 cents to every dollar contributed by an employee into a 401(k) plan (Dworak-Fisher 2007). Therefore, a typical single worker in the U.S. needs to save \$72 a month to meet the retirement savings goal with

matches from employment-based benefits in order to achieve basic economic security.

The Impact of the Age of the Worker on Retirement Savings

Savers who begin to accumulate retirement savings when older face much larger savings requirements. As Table 10 demonstrates, relaxing the BEST saving period assumption yields widely ranging monthly savings requirements for an elder who wishes to attain economic security in his or her retirement years.

Table 10. National BEST Monthly Retirement Savings Requirements for a Single Adult with Employment-Based Benefits, Under Varied Savings Period Assumptions, 2018

40 Years	30 Years	20 Years	10 Years
\$72	\$116	\$206	\$483

EDUCATION SAVINGS

Table 11. United States BEST College Costs 2017

Total Net Community College Costs (2 Years)	Total Net Public University Costs (2 Years)	Total Net 4-Year College Costs less Student Earnings
\$13,712	\$36,322	\$18,616

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), 2017.

BEST education savings are the monthly savings amount needed to finance a child’s postsecondary education without incurring debt. The BEST assumes that the child attains his or her postsecondary education degree in the most economical way: the child lives at home and attends community college for the first two years¹⁸, and then transfers to a public (state or state-subsidized) university for a bachelor’s degree. The student attends community college in the city or county of their residence or the nearest county when there is no community college in their county of residence; and the child attends the in-state public university of their choice without geographic restrictions. In addition, the child attends educational institutions as a full-time student and finishes college with a bachelor’s degree in four years. Full-time enrollment is assumed since part-time attendance is a risk factor for dropping out of college (Kazis 2002; Wei and Horn 2002).

College costs consist of: (1) tuition and required fees; (2) books and supplies; (3) transportation; and (4) room and board while attending a public university. Accordingly, college cost is calculated by summing these four items for four years of education.¹⁹ BEST uses national average college cost for public 4-year universities and 2 year colleges.

In addition to parents’ savings, financial aid and student earnings are important economic resources for financing college education (Choy and Berker 2003). The BEST takes grants into account but does not include educational loans because young college graduates without educational loans would be in a better position to pursue their careers and other long-term goals, including savings essential to economic security (Nam, Huang, and Sherraden 2008; Shapiro 2004).

While no other BEST expense or savings value includes direct supports or subsidies, an exception has been made due to the extent and effect of grants on the typical student’s education and finance options. About one-quarter of college costs are financed with grants (financial aid). College students’ earnings are also substantial, as many of them work long hours even during the school year: Full-time college students work an average of more than 20 hours per week while enrolled and almost 40 hours per week during the summer (Choy and Berker 2003).

The savings goal—defined as the amount of savings to finance a child’s college education without incurring debt—is calculated by subtracting total economic resources from total college costs. The BEST assumes that parents save into College Saving Plan (529 Plan) accounts because earnings in these accounts are tax-free (Clancy, Cramer, and Parrish 2005).

The BEST assumes that parents save for 17 years prior to their children's beginning post-secondary education. Since the BEST assumes that college costs increase at the same rate as return on

investment, the monthly education savings amount is estimated by dividing the savings goal by 204 months (12 months per year for 17 years). The national average monthly savings amount for one child is \$101.

HOMEOWNERSHIP SAVINGS

Table 12. BEST Monthly Homeownership Savings for Selected Home Sizes, with 20% Down Payment, 2018

1 BDR	2-BDR	3-BDR
\$123	\$144	\$216

Homeownership savings in the BEST is defined as the amount of savings needed for a family to buy a home. The BEST assumes that a worker saves 20 percent of the home price for down payment and 1.9 percent of the home price for closing costs over a 10-year period. The annual rate of return on saving is 5.4 percent based on the annual rate of return on 10-year treasury bonds.

An adult saves for homeownership for 10 years (e.g., from age 26 to 35). The worker’s age at the time of a home purchase is not directly relevant to the calculation of homeownership savings. However, the assumption that a house is purchased after 10 years is based on the Census Bureau’s 2008 Housing Vacancy Survey, which finds that the national homeownership rate among 34 year-olds is 54 percent. Additionally, approximately two-thirds of first-time home buyers

are under age 35, with an average age of 33 (Eisenburg 2008).

Homeownership Savings Goal

The home prices that are the homeownership savings goals are lower quartile values by number of bedrooms. A lower quartile home price is consistent with the asset-building literature, which suggests a lower quartile home price as a “starter” home (Nam, Huang, and Sherraden 2008). A home at the lower quartile is reasonably priced but more likely to retain its value or appreciate than least expensive homes in the same area.

The Census Bureau provides lower quartile home prices for all homes in the U.S. in American Community Survey summary data. Home prices are adjusted by family size under the assumption that one or two adults need a one-bedroom house, adults do not share bedrooms with children, and one additional bedroom is needed for every two children in the family. Home prices are assumed to increase by 5.4 percent, which is consistent with trends tracked by the National Housing Price Index.

Figure 8. National Lower Quartile (25th Percentile) Home Price by Number of Bedrooms, 2018



Source: 2012-2017 American Community Survey (ACS) summary data; adjusted for bedroom size. Prices are adjusted to 2018 values using 2018 National Housing Price Index (HPI).

The Impact of a Smaller Down Payment on Homeownership Savings

The BEST calculate monthly homeownership savings amounts for a 20 percent down payment and closing costs since the financial benefits of homeownership are substantially higher for those who make a higher down payment (Bostic and Lee 2009). Larger down payments also allow owners to make smaller monthly mortgage payments than those who make smaller down payments. However, saving up to 20 percent of

a home price for a down, especially in areas with high home prices, is beyond the means of many low- and moderate-income workers. If individuals make down payments of less than 20 percent, home equity is slow

to accrue, and the financial benefits of homeownership, particularly in the short and intermediate term, are smaller.

SOURCE TABLE

US BEST Data Sources

BEST Component	Expense/Savings Component	Data Date	Source
Housing & Utilities	Market Rent	2018	US Department of Housing and Urban Development. 2018 Fair Market Rent Documentation System data .
Food	Low-Cost Food Plan	2018	US Department of Agriculture. <i>Official USDA Food Plans: Cost of Food at Home at Four Levels, US Average, 2018</i> . Washington, DC: US Department of Agriculture, 2018.
Transportation	Driving Costs	2017	American Automobile Association. " Your Driving Costs: 2017 Edition ." 2017.
	Gasoline Prices	2018	US Department of Energy. " US Retail Historical Gasoline Prices ." <i>US Retail Historical Gasoline Prices</i> . 2018.
	Auto Insurance Costs	2015	National Association of Insurance Commissioners. " Auto Insurance: Average Expenditures for Auto Insurance by State 2007-2011 ." <i>Insurance Information Institute</i> . 2015.
	Miles Driven	2017	US Department of Transportation, Federal Highway Association. The National Housing Travel Survey (NHTS). 2017 .
Child Care	Child Care	2017	Child Care Aware of America. " Parents and High Cost of Child Care, 2017 Appendices " and " Parents and High Cost of Child Care: County-Level Supplement 2017 ."
Personal and Household Items	Personal and Household Items	2017	Bureau of Labor Statistics. Consumer Expenditure Survey . 2017.
Healthcare	ESI Costs	2017	US Department of Health and Human Services. Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey . 2017.
	NESI Costs	2017 2018	State exchanges
	Out-of-Pocket Expenses	2014	US Department of Health and Human Services. " Table 1: Total Health Services- Median and Mean Expenses Per Person with Expense and Distribution of Expenses by Source of Payment: United States, 2014 ." <i>Center for Financing, Access and Cost Trends, Agency for Healthcare Research and Quality: Medical Expenditure Panel Survey, 2011</i> . 2013.
Taxes and Tax Credits	Federal Taxes and Credits	2017	IRS. Revenue Procedure 2017-35 . 2017.
	State Taxes	2017	Bankrate. Median Tax by State . 2017
Emergency Savings	Median Unemployment Spell	2017	Bureau of Labor Statistics. " Table 30: Unemployed Total and Full-Time Workers by Duration of Employment ." <i>Current Population Survey</i> . 2017.
	Median Employee Tenure	2018	Bureau of Labor Statistics. " Employee Tenure ." <i>Current Population Survey</i> . 2018.

	UI replacement rate	2017	U.S. Department of Labor. Unemployment Insurance Data Summary . Washington, DC: US Department of Labor, 2017.
	UI Maximum Benefits	2014	U.S. Department of Labor. Comparison of State Unemployment Laws: Monetary Entitlement . Washington, DC: U.S. Department of Labor, 2014.
	Rate of Return for a 4-week Treasury Bill	2016	"Selected Interest Rates." Federal Reserve Statistical Release . 2016.
Retirement Savings	National Elder Index	2016	The Economic Security Database . Was developed by the Gerontology Institute at the University of Massachusetts, Boston with Wider Opportunities for Women (WOW), and is maintained in partnership with the National Council on Aging (NCOA).
	Life Expectancy	2017	Life Expectancy Calculator by Social Security Administration at https://www.ssa.gov/planners/lifeexpectancy.html
	Employer-match for savings	2007	Dworak-Fisher, Keenan. " Employer generosity in employer-matched 401(k) plans, 2002-03. " <i>Monthly Labor Review</i> , 2007: 11-19.
	Average Social Security Benefits	2017	U.S. Social Security Administration. Annual Statistical Supplement to the Social Security Bulletin, 2017 . Washington, DC: U.S. Social Security Administration, 2017.
	Average Social Security Benefits	2016	U.S. Social Security Administration. OASDI Beneficiaries by State and County, 2016 . Washington, DC: US Social Security Administration, 2016.
	Needed Future Amount	2009	Present Value Tables for a Series of Future Payments .
	Interest Rate	2017	The 2017 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds (p. 111, Table V.B2.).
Education Savings	2 year college tuition and fees	2017	National Center for Education Statistics. Digest of Education Statistics, 2017 . Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2017.
	4 year college tuition, fees, room, and board	2017	National Center for Education Statistics. Digest of Education Statistics, 2017 . Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2017.
	Transportation and book costs	2017	College Board. Trends in College Pricing, 2017 . Washington, DC: College Board, 2017.
	Grant Ratios	2007	National Center for Education Statistics. National Postsecondary Student Aid Study, 2007-2008 . Washington, DC: US Department of Education, National Center for Education Statistics, 2010.
	529 Savings Plans	2005	Clancy, Margaret, Reid Cramer, and Leslie Parrish. Section 529 Savings Plans, Access to Postsecondary Education, and Universal Asset Building . Washington, DC: New America Foundation, 2005.
Homeownership Savings	Lower Quartile Home Prices	2017	U.S. Census Bureau. "Detailed Tables: B25076 Lower Value Quartile (Dollars)- Universe: Owner- Occupied Housing Units." 2016 American Community Survey, 1-year Estimates . 2017.
	Lower Quartile home prices by bedroom ratios	2017	U.S. Census Bureau. 2016 American Community Survey: 1 year estimates . 2017.
	National Housing Price Index	2018	Federal Housing Finance Agency. House Price Indexes . 2018.
	Average Closing Costs	2017	Bankrate. 2017 State-by-State Closing Costs . 2017.
	Interest Rates	2016	"Selected Interest Rates." Federal Reserve Statistical Release . 2016.

All

Inflation Rates

March
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END NOTES

¹ Data are not available for Guam, Puerto Rico, and the Virgin Islands.

² Children younger than 19 are divided into four age categories: infant (0-12 months), preschooler (13 months-4 years), schoolchild (5-12 years), and teenager (13-18 years old).

³ Many BEST expenses are applicable to working adults 65 and older. However, such older adults are likely to participate in Medicare and to receive Social Security, which contradict BEST health care and income assumptions. For information on the income needs of fully retired elders, see the Elder Economic Security Standard Index at <http://www.basiceconomicsecurity.org/EI/>.

⁴ American Factfinder, 2016 1-year data

⁵ Child Care Aware of America in 2017 surveyed Child Care Resource & Referral (CCR&R) State Network offices and local CCR&Rs about 2016 cost data. They collected data on the average prices of child care for infants, toddlers, 4-year-old children, and school-age children. In order to make it comparable to the children's age categories in the BEST index (infant (0-12 months), preschoolers (13 months-4 years), school-age children (5-12 years), and teenagers (13-17 years)), we take the average of child care costs of toddlers and 4-year-old children for those of preschoolers.

⁶ In 2016, 70 percent of part-time employees in the private sector worked at firms that offered health insurance. Only 8.4 percent of part-time employees at firms that offer health insurance were enrolled, and only 20 percent were eligible for health insurance (U.S. Department of Health & Human Services, Agency for Healthcare Research and Quality, 2018).

⁷ This is the standard used by the Affordable Care Act to determine a standard of decent coverage when calculating the premium tax credits.

⁸ Authors calculations, state income tax forms.

⁹ BEST families may save for higher education in 529 college savings plan. Savings into 529 accounts are tax-deductible in some states. For detailed

information about state-by-state 529 tax benefits, please refer to Clancy, Cramer, & Parrish (2005).

¹⁰ The need for emergency savings is difficult to operationalize, partly because emergency needs can be very diverse. The BEST operationalizes the emergency for which workers save as the average value of the median unemployment spell during the most recent business cycle. Other emergencies such as exceptional car repair costs are included within averages found in BEST private transportation expense. Similarly, very high medical expense is inherent within average out-of-pocket costs within the greater BEST health care expense. Most families are not likely to be able to cope with catastrophic health costs with their own savings, and families' economic security lies to some degree in the hands of the health care insurance system. The examination of unemployment accords with the BEST assumption that all adults are workers, and will allow subsequent use of BEST data in analyses and discussions of the nature and impact of unemployment.

¹¹ Data on employment tenure are collected through supplemental questions in the Current Population Survey every two years. The average includes median tenure in January of 2008, 2010, 2012, 2014, and 2016.

¹² Between January 2007 and January 2017, the average rate of return on four-week Treasury bills was 0.64 percent. There was a sharp decline from 4.31 percent in January 2007, to 1.27 percent in January 2008, to 0.10 percent in January 2009. As of January 2016, rates are rising, and in January 2017, the rate was 0.83 percent. The 1.5 percent selected for the analysis anticipates a return to a conservative rate.

¹³ The national average replacement rate is from the U.S. Department of Labor Unemployment Insurance Data Summary for 1st Quarter 2017 (2017b). The national weighted average maximum benefit was calculated using the U.S. Department of Labor Comparison of State Unemployment Laws (2017a).

¹⁴ The total amount of retirement savings is the amount of savings needed to fill the gap of the unmet

consumption needs throughout a worker's retirement years. According to the Social Security Administration Life Expectancy calculator, life expectancy at age 65 is 19.3 years for a man and 21.6 years for a woman. For the simplicity of calculation, the BEST assume that an elder couple consists of a husband and wife of the same age; that both retire at age 65. Therefore, an elder couple is expected to live together after retirement for 19.3 years and then the wife is assumed to live alone for an additional 2.3 years. Similarly, the BEST assume that a single elder lives for 20.45 years after retirement (average of the life expectancies of a man and a woman).

¹⁵ US Bureau of Labor Statistics, "Table 2. Retirement benefits: Access, participation, and take-up rates, private industry workers, National compensation Survey, March 2017," accessed at <https://www.bls.gov/ncs/ebs/benefits/2017/ownership/private/table02a.htm> (April 12, 2018).

¹⁶ The BEST estimates the amount of social security income using the average social security benefits reported in Social Security Administration's (2017) *Annual statistical supplement to the Social Security Bulletin, 2017* and in the SSA's (2013) *OASDI*

Beneficiaries by State and County, 2016. The BEST uses the average family benefit amount for a worker and spouse in estimating social security income for elder couples. Since women tend to live longer than men, the BEST utilizes the average benefit amount of female-worker only families for social security income of the elder couple after the husband's death. For single-elder households, BEST uses the retired workers number.

¹⁷ The Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Fund's 2017 Annual Report assumes that the trust fund real interest rate is 2.9% a year (p. 111, Table V.B2., <https://www.ssa.gov/oact/TR/2017/tr2017.pdf>).

¹⁸ More than 60% of community college students live with their parents (Choy and Berker 2003).

¹⁹ The BEST assumes that college expenses increase at a rate equal to the rate of return on investment. Although college tuition increased almost twice as fast as the general inflation rate, the rate of increase is similar to increases in rates of return on 10-year Treasury bonds between 2008 and 2018.