

Child care expenses: the child care credit

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A nonrefundable credit based on employment-related expenses of household-type services for the care of children.

The Internal Revenue Code provides tax benefits in the form of a credit or exclusion for child care expenses incurred by taxpayers deemed to be gainfully employed. The credit was enacted in the Tax Reform Act of 1976 by repealing Section 214, which allowed an itemized deduction for child care expenses, and replacing it with Section 44A (redesignated as Section 21 by the Tax Reform Act of 1984). The Section 129 dependent care exclusion for assistance from employers was enacted by the Economic Recovery Tax Act of 1981 and subjected to a \$5,000 cap by the Tax Reform Act of 1986.

Both the credit and the exclusion are subject to earned income ceilings that limit the qualified child care expenses in any taxable year to an amount not in excess of the earned income of the employee or, if the employee is married, the lower of the employee's earned income or the earned income of his or her spouse. Thus, these benefits generally are not available to one-earner couples. (Spouses who are full-time students or incapable of caring for themselves are deemed to earn \$200 per month for one dependent or spouse being cared for, or \$400 per month for more than one.)

From 1976 to 1981, a credit of 20 percent of qualified child care expenses was allowed, with a maximum credit of \$400 for each of the taxpayer's first two dependents. The 20 percent credit was the same for all taxpayers. In an effort to make the credit more progressive, Congress enacted a sliding scale credit in 1982, which is 30 percent of qualified expenses for taxpayers with incomes of \$10,000 or less. The credit is reduced by 1 percent for each \$2,000 or fraction thereof of income above \$10,000.

For taxpayers with adjusted gross income (AGI) above \$28,000, the credit rate is 20 percent. The maximum credit for a taxable year ranges from \$720 for a taxpayer whose AGI is \$10,000 or less to \$480 for a taxpayer whose AGI exceeds \$28,000. When there is more than one dependent, the maximum credit ranges from \$1,449 to \$960. Effective in 1989, the Family Support Act of 1988 reduced dollar-for-dollar the amount of expenses eligible for the credit by the amount of expenses excludable from income under Section 129.

Focus of research

This entry focuses on the child care credit, examining its impact on the progressivity of the federal individual income tax from 1979 through 1988. (See Altshuler and Schwartz 1996, who use a life-cycle approach to examine the progressivity of the credit, and Gentry and Hagy 1996, who examine the distributional effect of both the credit and the exclusion.)

The child care tax benefit progressivity issue has been addressed by Congress several times. The 1976 conversion of a deduction to a credit and the 1982 change to a sliding scale credit were intended to increase the credit's progressivity. Congress again addressed the perceived regressivity of the credit in the Revenue Reconciliation Act of 1989 debates, but no changes to the credit were enacted at that time.

Table 1 reports the total child care credit and total credits claimed during the 1979–1988 period on all returns filed as reported by Publication 1304, *Individual Income Tax Returns*. The child care credit represents a large portion of the total credits claimed, increasing substantially over the sample period. ("Total credits" as reported in Publication 1304 do not include the earned income credit that was refunded or offset against taxes other than income taxes. For example, in 1988, individual taxpayers paid approximately \$413 billion in income tax after credits and received \$12 billion in credits (including \$5 billion of earned income credit), of which \$4 billion was child care credit.) This research extends Dunbar and Nordhauser's (1991) progressivity research on the child care credit by (1) using the Kakwani index in addition to the Suits

TABLE 1

Total Credits Claimed on All Returns and Credits Claimed on Sample (thousands of dollars)	Returns									
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Child Care Credit	793,143	956,439	1,147,907	1,501,453	2,051,462	2,648,834	3,127,702	3,397,090	3,438,314	3,812,849
Total Credits	6,780,186	7,215,839	7,905,294	7,854,493	8,190,737	9,263,308	10,248,044	7,020,731	6,329,438	7,047,140

Source: Internal Revenue Service.

index, (2) considering the impact of the income distribution on these indices, and (3) adding two years, 1987 and 1988, to the sample period. A comparison of the Suits and Kakwani tax indices is provided in Formby et al. (1984) (see also Progressivity, measures of). This research extends the Suits and Kakwani tax indices for credit purposes.

The Suits credit index (S) relates cumulative credits with cumulative income. The value of S ranges from -1 to 1, with the -1 to 0 range representing a regressive credit and the 0 to 1 range representing a progressive credit. The Kakwani credit index (K) considers two relationships: cumulative credits with cumulative tax returns and cumulative income with cumulative tax returns. The value of K ranges from -1 to 2, with the -1 to 0 range representing a regressive credit and the 0 to 2 range representing a progressive credit.

Because the S is based upon an integration that is performed with respect to income, while K is based upon an integration with respect to tax returns, Formby et al. (1984: 303) noted that the two indices may provide conflicting implications when time-series or cross-sectional comparisons are made. (See Suits 1977 for the approximation procedure used to compute the integrals used in the Suits tax index. The Kakwani tax index is derived in Kakwani 1976.) They state, however, that "there is no apparent conceptual reason to prefer one of the measures over the other. For this reason, both K and S warrant consideration when progressivity is measured."

Index computation

Three alternative measures of "income" are used to provide some assurance that the conclusion will not be dependent on the income measure: taxable income (TI), AGI, and expanded AGI (EXPAGI). EXPAGI modifies AGI by

1. adding the untaxed portions of capital gains, dividends, interest, and unemployment compensation;
2. adding back adjustments to income for deductible IRA and Keogh retirement plan contributions and the deduction for the working married couple; and
3. adding back amounts subtracted from AGI for net partnership losses, net S corporation losses, net estate or trust losses, and net rental losses.

Taxpayers were ranked by the three measures of income and placed in deciles. The cumulative credit and cumulative income tax after all credits (ITAC), and income tax before the child care credit but after all other credits (ITBC), were determined for each decile. The credit indices were determined based on the proportion of the specific credit relative to in-

come reported by taxpayers in each decile. Likewise, the ITAC and ITBC indices were determined based on the proportion of tax relative to income reported by taxpayers in each decile. If the credit index is positive (negative), the credit is progressive (regressive). To determine the impact of the credit on the income tax and to confirm the sign of the credit indices, the ITAC and ITBC indices were compared. If the ITAC index was greater (lesser) than the ITBC index, the credit increased (reduced) the progressivity of the income tax.

Sample data

The data for 10 years, 1979–1988, were obtained from the Ernst & Young/University of Michigan Tax Research Data Base, specifically the Individual Tax Model Files (model data). The model data are drawn from a stratified sample of returns. Each return has an integer-weighting factor that allows a researcher to simulate the population of the returns filed in each year. The sum of the integer weights corresponds to the population of returns filed in each year. Each year's sample represented on average 97 percent of the returns filed in each year after the elimination of returns from other years that were filed in the sample year and returns that reported additional special taxes. (For example, distributions from a pension plan may be subject to a special tax. The distribution, however, is not included in income on the tax return. Thus, the return could reflect taxes but no taxable income. Because this research determines progressivity by comparisons of various income measures with tax liability, returns that reflected additional taxes were eliminated.)

Results

S and K values were positive across years for all income measures, with the exception of the Ks for 1979–1981 for the AGI income measure and the 1979 index for the EXPAGI income measure. S using the TI measure ranged from 0.2337 in 1981 to 0.4372 in 1988; K ranged from 0.1444 in 1979 to 0.3010 in 1988. S using the AGI measure ranged from 0.0244 in 1979 to 0.2854 in 1986; K ranged from -0.0278 in 1979 to 0.1916 in 1986. S using the EXPAGI measure ranged from 0.0565 in 1979 to 0.2899 in 1986; K ranged from -0.0074 in 1979 to 0.1898 in 1986. Regardless of the income measure used, S and K ITAC indices were higher than ITBC indices in every year, confirming that the child care credit contributed to the progressivity of the income tax during 1979–1988.

Table 2 reports the cumulative distributions of AGI, ITAC, ITBC, and credit by decile for 1981 and 1983. This table confirms Dunbar and Nordhauser's (1991) conclusion that the child care credit became

TABLE 2

Distribution of Adjusted Gross Income (AGI), Income Tax After Credits (ITAC), Income Tax Before Child Care Credit (ITBC), and Child Care Credit: Cumulative Percentages by Sample Decile for Two Years Surrounding Tax Law Change

1981					1983				
Decile	AGI	ITAC	ITBC	Child Care	Decile	AGI	ITAC	ITBC	Child Care
1	0.69%	0.01%	0.01%	0.00%	1	0.67%	0.01%	0.01%	0.00%
2	2.72%	0.21%	0.21%	0.03%	2	2.66%	0.24%	0.24%	0.12%
3	6.14%	1.19%	1.19%	1.65%	3	6.02%	1.20%	1.21%	2.13%
4	11.00%	3.37%	3.38%	6.76%	4	10.79%	3.32%	3.37%	10.08%
5	17.48%	7.28%	7.32%	15.22%	5	17.17%	6.98%	7.09%	22.20%
6	25.91%	13.26%	13.31%	25.64%	6	25.46%	12.77%	12.93%	34.20%
7	36.70%	21.96%	22.02%	37.03%	7	36.14%	21.22%	21.43%	48.44%
8	50.34%	34.16%	34.24%	54.47%	8	49.70%	33.14%	33.37%	64.43%
9	67.93%	51.90%	52.00%	76.95%	9	67.10%	50.17%	50.41%	81.90%
10	100.00%	100.00%	100.00%	100.00%	10	100.00%	100.00%	100.00%	100.00%
Suits Index		0.2199	0.2189	0.0444			0.2253	0.2224	0.1683
Kakwani Index		0.1711	0.1704	-0.0023			0.1733	0.1713	0.0956
Distribution of AGI				0.2689					0.2657
Distribution of Credit				0.2678					0.3135

more progressive after the 1981 law change that increased the credit rate for low-income taxpayers. S increased from 0.0444 in 1981 to 0.1683 in 1983; K increased from -0.0023 to 0.0956. The increase in S and K can be attributed in part to the 1982 law change that increased the credit. In addition, these indices become more progressive because the distribution of AGI becomes more unequal.

To determine the impact of the change in AGI distribution on the credit index, K can be recomputed holding the income distribution constant across 1981 and 1983. Recall that K considers two relationships: credit-returns and income-returns. If we hold the second relationship constant at 0.2689 (distribution of AGI in table 2) in 1981 and 1983, K would equal 0.0892 in 1983 instead of 0.0956. Thus, after controlling for the distribution of income, the credit index still increases.

Conclusion

The child care credit contributes to the overall progressivity of the federal income tax. The tax law change in 1982 increased the progressivity of the child care credit, although the lower deciles continue to reflect regressivity. Many taxpayers are in the lower deciles because they are one-earner families. If such taxpayers are married, they are generally precluded from claiming the credit. If Congress

wishes to increase the progressivity of the credit, the credit could be increased further for low-income taxpayers or the credit for high-income taxpayers could be phased out.

Additional readings

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Cross references: [family](#), [tax treatment of](#); [income tax](#), [federal](#).