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Sheldon Danziger and
Jonathan R. Kesselman

UNIVERSITY OF WISCONSIN - MADISON

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Sheldon Danziger and Jonathan R. Kesselman
Institute for Research on Poverty
University of Wisconsin-Madison

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ABSTRACT

Changes in the individual income tax have successively reduced the role of personal exemptions and placed increasing reliance on standard deductions, the low-income allowance, and per capita credits. This paper examines the rationales for the exemption and evaluates its performance in meeting the stated objectives. Alternatives including nonrefundable credits, refundable credits, and vanishing credits are explored. All approaches can be designed to exclude the poor from taxation. However, departures from the personal exemption would achieve greater tax-rate progressivity and less tax differentiation by family size at higher family income levels.

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I. Introduction

The U.S. Tax Reduction Act of 1975 provides a per capita tax credit of $30 in addition to the $750 personal exemption. This is a new feature of the federal income tax, although at least 16 states have already instituted per capita credits in their income-tax laws.[1] The 1975 act also raises the minimum standard deduction, or low-income allowance, from $1300 for all filers to $1600 for single filers and to $1900 for joint filers. The act represents a compromise between the two congressional bodies. The House of Representatives sought to raise the minimum standard deduction from $1300 for all filers to $1900 for single filers and to $2500 for joint filers and to increase the percentage standard deduction and the maximum allowable standard deduction. The Senate proposed a $200 per capita credit as an option that families could choose instead of $750 personal exemptions. It further proposed decreases in the lowest marginal tax rates.[2] These were all attempts to reduce or eliminate the tax burden on low-income and middle-income families without raising the exempted income of those with large incomes. Thus, in the debate over the recent tax reduction no serious consideration was given to increasing the personal exemptions.

This attitude reflects a long-term evolution of the individual income tax, in which personal exemptions have come to play a reduced role. The objectives of personal exemptions are in part replaced and

in part altered by minimum standard deductions and per capita credits. Still, personal exemptions remain an important feature of the individual income tax. They are regarded "to be part of the normal tax structure and therefore not to result in tax expenditures," according to the Office of Management and Budget (OMB).[3] We estimate the revenue costs of exemptions at $26.9 billion for 1971 and $33.6 billion for 1974. These figures compare with the OMB estimates of $55.5 billion in fiscal year 1974 for all tax expenditures on individuals, excluding special exemptions.[4]

The large revenue cost of exemptions makes them a prime subject for critical examination. Indeed, a major explanation for the muted interest in expanding personal exemptions is the revenue cost of such moves. A $100 increase per exemption from $750 in 1974 would have decreased revenues by about $4.0 billion.[5] Along with the revenue cost, another reason for reduced reliance upon personal exemptions is their distributional impact. Each exemption reduces taxable income by a constant amount. Since a higher-income taxpayer incurs a higher marginal tax rate, the exemption provides tax savings that increase with the filer's taxable income. Exemptions also afford no benefits to persons so poor that they would pay no taxes even in the absence of exemptions.

Alternatives to exemptions, such as minimum standard deductions and per capita credits, have different distributional effects. The minimum standard deduction reduces taxable income by a constant amount per tax return. Its main beneficiaries are low-income taxpayers, who do not find it advantageous to claim the percentage standard or itemized

deductions. A credit reduces tax liability by a constant amount per filer and per dependent. The credit yields a tax saving that does not increase with the filer's taxable income. A nonrefundable credit can, at most, reduce tax liability to zero; a refundable credit can provide a net payment to the filer if its total credits exceed tax liability. A vanishing credit reduces tax liability by an amount that decreases with the filer's income.

In this paper we examine the performance of the personal exemption in meeting a set of policy objectives. These objectives are the exclusion of low-income households from taxation, differentiation of tax liability by family size, and an increase in effective rate progressivity. We begin in section II with a legislative review that reveals an increased awareness of the shortcomings of exemptions and a recurrent interest in credit alternatives. In sections III through V we investigate the performance of exemptions and the potential of credits in the tax treatment of the poor, the nonpoor, and special groups. In section VI we analyze several types of credits to replace exemptions and simulate their distributional effects.

II. Legislative History of the Personal Exemption

The legislative history of personal exemptions prior to the 1975 Tax Act shows that their expansion has been resisted mainly because of their distributional impact and high revenue cost. Alternative provisions have been devised to concentrate tax relief on the lower-income population in the face of the declining real value of the exemption.

The minimum standard deduction, and later the low-income allowance, were devised to meet this objective. Apparently, those involved in the political process have found this approach to be preferable to raising personal exemptions and simultaneously increasing the progressivity of rate schedules. Proposals for tax credits to replace or supplement the exemption have surfaced periodically over the past 27 years.

The Revenue Act of 1948, vigorously opposed by President Truman and Treasury Secretary Snyder, raised the exemption to $600 per capita. The Administration had promoted, instead, a $40 per capita tax credit to accompany the existing $500 exemption. It argued that the proposed credit's "effect is to increase the exemptions from $500 to a little over $700 per capita at the bottom of the income scale and by amounts which gradually decrease for taxpayers in the higher brackets, where there is less pressing need for a cost-of-living adjustment."[6] The 1948 act was sustained over the President's veto, and its exemption level persisted for 21 years.

The tax reductions of the early 1960s provided an opportunity for raising the exemptions. Yet, in his 1963 tax message President John Kennedy argued:

> [Raising] the personal exemption above its present level of $600 . . . is an extremely costly approach, and one which would not fulfill our objective of giving relief where it is needed most. As a more effective and less costly means of securing the same objective, I recommend the adoption of a minimum standard deduction. (U.S. Congress, House, 1963)

Kennedy's suggestion was adopted by the Congress, and this approach was to grow in importance in later legislation. The minimum standard deduction increased the effective exemption for lower taxable incomes,

but did not increase it for higher incomes.[7] By tying allowances to persons taking the standard deduction, this approach provides no benefits to higher-income families who itemize deductions.

In the 1969 tax legislation proceedings, increased personal exemptions were not requested by the Administration. Treasury Secretary David Kennedy testified that expanding the minimum deductions in a low-income allowance was preferable for distributional reasons to raising the exemptions.[8] Exemption increases did not appear in the House bill but were inserted by the Senate. In the resulting Tax Reform Act of 1969, an increase to a $750 exemption was slated in four annual steps, to be completed in 1973. The Revenue Act of 1971 expedited the increases to reach $625 in 1970, $675 in 1971, and $750 in 1972.

As it had 21 years earlier, the credit concept surfaced again in 1969 with a Senate move to raise the exemptions. Senator Jack Miller proposed $150 per capita nonrefundable credits to replace the then-current $600 exemptions.[9] In 1971 he proposed $25 per capita credits on top of the $675 exemption, to replace a Senate plan to raise the exemption to $800. This proposal reflected a realization that complete conversion of exemptions to credits would raise tax liabilities at higher incomes.[10] Representative James Corman offered a bill in 1973 to substitute $180 per capita credits for exemptions.[11] None of these attempts was successful.

III. Tax Treatment of the Poor

A. The Declining Role of Exemptions

A commonly expressed rationale for personal exemptions is to avoid taxing families with incomes below some minimal living standard.[12]

However, exemptions have been raised only infrequently, and by not enough to keep pace with inflation over the past generation. Table 1 illustrates, for a nonaged family of four, the dollar amount of exemptions as a percentage of median family income (column d) for 1947 through 1975. In 1948, the exemptions sheltered from taxation a maximum of 75.3 percent of median family income, but the portion sheltered has fallen steadily to an estimated 21.4 percent in 1975.

As the importance of exemptions has diminished, two other features of the federal income tax have been employed to serve a similar purpose. One is the standard deduction used by a family with enough income to be just at the threshold of paying taxes. From 1947 through 1963 this deduction was 10 percent of the filer's adjusted gross income, up to a maximum of $1000. For any filer just at the threshold of paying taxes, this was equivalent to an 11.1 percent increase in the personal exemption. In 1964 a minimum standard deduction of $200 per return plus $100 per exemption, with a maximum of $1000, was introduced. The Tax Reform Act of 1969 converted this to a low-income allowance of a flat amount--$1100 in 1970, $1050 in 1971, and $1300 from 1972 onwards. In 1975 this allowance was raised to $1600 and $1900 for single and joint filers, respectively. Another feature of the 1975 act, the per capita credit, further serves to keep low-income taxpayers from incurring income taxes.

Together, the personal exemptions and minimum deductions determine the maximum income a family can have without paying taxes. Let us call this the tax threshold for that family. Table 1 traces the tax threshold for a family of four between 1947 and 1975 (column b). In

1975, the per capita credit further raises the tax threshold by offsetting the tax liability on a certain amount of taxable income.[13] Under the percentage form of standard deduction that operated until 1964, personal exemptions always accounted for 90 percent of a family's tax threshold. This proportion has been falling since 1964, due to the introduction and expansion of the low-income allowance (Table 1, column c). In 1975 the exemptions accounted for only 52 percent of a four-person family's tax threshold.[14]

B. Exclusion of the Poor, 1948-1975

Since 1948, tax thresholds have generally been falling as a proportion of median family incomes (Table 1, column e). This suggests that income taxes have been reaching further down in the income distribution. Median family income growth partly reflects rising real income, but the official poverty line is adjusted only for changes in the cost of living. Because the poverty line is increasingly distant from the median income, it is not accurate to conclude that income taxes have been encompassing ever more of the poor population. As we have seen, the tax thresholds have increasingly been raised by tax devices other than the personal exemption. The effects of all of these devices will be considered together in examining the tax treatment of the poor.[15]

Table 2 presents tax thresholds as a percentage of poverty thresholds for selected years between 1948 and 1975. When this measure exceeds 100 percent for any family type, it means that none of its poor constituents will have to pay income taxes; when it falls below

100 percent, some poor persons will pay income taxes. From 1948 onwards, the aged poor and aged near-poor have almost always escaped taxation, owing to their double exemptions, even without accounting for the nontaxability of Social Security receipts. In most years, elderly couples with adjusted gross incomes of one and one-half times their poverty threshold have been free of tax.

Some of the nonaged poor do pay taxes, as indicated in Table 2. In all years, some of the nonaged single poor have had tax liability; in 1969 a single nonaged person with income as little as half of the poverty line paid taxes. For every year prior to 1970, the ratio of tax threshold to poverty threshold rises with family size. This reflects the relatively large role of exemptions in tax thresholds over this period and the scale economies of family size implicit in poverty thresholds. From 1970 onwards this relation no longer holds, owing to the enlarged role of the flat low-income allowance. The progress of the Tax Reform Act of 1969 in removing the poor from the tax rolls is quite graphic, and the goal was nearly achieved by 1972.[16] Until the Tax Reform Act of 1975, inflation steadily eroded this accomplishment.

From the inception of the income tax until 1946, the value of an exemption had varied by marital and dependent status of a family member. In 1946, a "per capita" $500 level was adopted for all exemptions.[17] Table 3 illustrates the relative tax thresholds for families of different sizes by comparing six-person and one-person families in years in which relevant tax components changed. Prior to 1964, the per capita exemptions combined with percentage standard deductions to make the

ratio of tax thresholds for any two families equal to the ratio of the family sizes. Thus, in 1948, the tax threshold for a family of six was six times that for a single person. Introduction of minima into the standard deductions altered this relationship. These departures from a true per capita system recognize the scale economies of larger households at the poverty line: The official poverty threshold for a family of six is 2.60 times that for a single person.

C. Per Capita Credits and Exclusion of the Poor

Nonrefundable tax credits can also exclude the poor from taxation. We now compare the tax credit and the personal exemption, abstracting from minimum standard deductions. Flat per capita exemptions under a progressive tax recognize the scale economies for larger families at the poverty threshold by exempting smaller amounts of income for successive increments to family size. For example, let us take a family filing jointly under the existing tax rate schedule but with $140 per capita credits in place of exemptions. For the first member of the family, the credit exempts $1000 of income ($140/0.14); for the second member, the credit exempts $933 of income ($140/0.15). The incremental exemption implicit in the addition of the credit for the sixth member is $737 ($140/0.19).

A flat per capita tax credit cannot prevent the poor from paying taxes at minimum revenue loss without a low-income allowance. Under two alternative assumptions about the low-income allowance, Table 4 presents the tax credit per additional person that would be just

sufficient to keep poor families of each size from paying taxes. Table 4 shows that, without a low-income allowance, credits would have to depart widely from a per capita basis to meet this objective. If the 1974 low-income allowance of $1300 per return were retained, a per capita credit of $145 for families would come very close to the objective.[18] For single persons with poverty-line income, this would carry a $40 tax liability. Hence, the per capita credit for single filers might be raised to $185, or to stay within a more general per capita credit system, the low-income allowance for single filers could be set at $1600. With the assistance of a low-income allowance, per capita credits could exclude the poor from taxation.

IV. Tax Treatment of the Nonpoor

We now turn to the role of personal exemptions in the tax treatment of the nonpoor. The principal justification for exemptions at nonpoverty income levels is to differentiate tax liabilities for families of different size.[19] This argument derives from a particular interpretation of "ability to pay."[20] In this view, subsistence needs of a family, needs that vary with family size, should not be taxed, even if the family has total income well above the subsistence level. Only that income above subsistence, or "clear income," should be taxable. Acceptance of this argument requires that dependents--spouse or children--be regarded as something other than consumption goods.

As noted before, an additional dependent exemption conveys greater tax-dollar savings to a high-income family than to a low-income family.

Therefore, the use or expansion of exemptions affects the progressivity of the income-tax system. Personal exemptions are undeniably a progressive component of the system, in that they are a larger percentage of low incomes than of high incomes.[21] Yet, as demonstrated in section VI, per capita credits are still more progressive than exemptions.

Brannon and Morss (1973, p. 600) have argued that "The choice of technique for the allowance for dependents is not a matter of how progressive we want the system to be, because we can get the same progression under either [exemption or credit] system." They are implicitly referring to the possibility of changing the tax rate schedules. Brannon and Morss argue for the superiority of exemptions over credits on the basis of a philosophical preference for the "clear income" concept. The legislative history of exemptions and related tax features, presented earlier, poses an alternative view. Congress has revealed its preference for channeling relief to low-income households. The minimum standard deduction reflects the concern that increases in the exemption would disproportionately benefit higher-income families. The system has in effect departed successively further from the "clear income" concept.

Inflation and tax-bracket changes have altered the relation between tax savings for a dependent at different income levels, generally to the advantage of high-income families. We shall examine these developments, including exemptions and other features that grant tax benefits to persons with dependents. Table 5 reports the tax saving to a married couple of having a first child in selected years between 1947 and 1975.[22] The dollar amount of tax saving at the median family

income is recorded in column b; the tax saving relative to that at the median income is recorded in columns c, d, and e at multiples of 0.6, 2, and 5 times the median. At the median income, the tax saving in current dollars changed very little through 1970. In 1971 it began a steep rise as exemptions were raised and as median-income taxpayers climbed to higher tax brackets, largely because of inflation.

The tax saving at 0.6 times the median income, relative to that at the median income, has fallen since 1964 to a low of 82 percent in 1973 and then has risen somewhat. The linkage of the minimum standard deductions to exemptions from 1964 to 1969 had little impact on this development even for the groups that benefited from it.[23] The recent rise in relative tax savings for low-income groups reflects the relative tax-rate progressivity at these income levels and also the advent of the per capita credit in 1975. The relative tax savings for the higher-income groups, at two and five times the median, have exhibited a strong upward trend since 1948.[24]

Tax credits offer another approach to the differentiation of tax burden by family size at nonpoverty incomes. A per capita credit offers the same dollar tax savings per dependent regardless of the family's income level. While this departs from ability to pay based on the notion of "clear income," credits still might be considered a more equitable way for society to subsidize the subsistence costs of children. It is easier to reject the "clear income" notion if children carry consumption benefits to higher-income families.[25] Issues of population policy are also implicit in the choice between exemptions and credits.[26]

V. Tax Treatment of Special Groups

A. The Aged

Since 1948, persons aged 65 or over have been allowed to claim two personal exemptions each.[27] This provision has survived periodic criticism. Its enactment was opposed by the Truman Administration, which preferred a small, nonrefundable tax credit for persons of all ages. In his tax message, President John Kennedy said "the extra $600 exemption helps most those with substantial incomes" (U.S. Congress, House, 1963). He urged that the extra exemption and the retirement income credit be eliminated and be replaced by a nonrefundable tax credit of $300 per aged person.[28] In late 1968, Treasury Secretary Henry Fowler (1969) advocated the elimination of the same features as had President Kennedy, and further requested the taxation of Social Security and railroad retirement benefits. In return he offered a special elderly exemption of $2500 for singles and $4200 for couples, above the regular exemption, which would be phased out at middle incomes.

Unlike the regular personal exemption, the extra elderly exemption is officially recognized as a tax expenditure. The revenue cost of this provision is estimated at $1.15 billion in fiscal year 1974, rising to $1.25 billion in fiscal year 1976.[29] On all returns filed for tax year 1971, a total of 8,671,000 extra elderly exemptions were claimed, a portion of them on nontaxable returns.[30] This compares with an elderly population of 19,351,000 in 1971. It is clear that most aged persons do not have taxable income, and that the extra elderly exemptions are in part responsible for this exclusion.

The putative rationale for the provision of an extra exemption is two-fold. First, it has been claimed that elderly persons need more income to realize the same living standards as nonaged persons. However, household budget studies find the converse to be true. Second, the average income of elderly persons is substantially below that of the nonaged. This does not necessarily provide a reason for differential tax treatment of the elderly versus other persons with similar incomes. Yet, even if society desires to assist the aged poor, extra exemptions are not an effective means of doing so. Table 2 reveals that in recent years most of the aged poor would have paid no tax even without their extra exemptions.[31] Consequently, almost all of the tax relief of the extra exemptions has benefited the nonpoor elderly. Only some form of refundable credit would assist the elderly poor. The 1975 Tax Act offers a one-time $50 refundable credit to each Social Security recipient, but does not remove the extra elderly exemption.

B. Children and Students

A taxpayer and his or her dependent can each claim an exemption for the dependent if the taxpayer furnishes more than half support. The dependent must have gross income less than the exemption, but this requirement is waived for children under 19 years of age and for those aged 19 or over who are full-time students.[32] Pechman (1957) estimated the revenue cost of extra dependent exemptions at $100 million for calendar year 1956. One aspect of the extra dependent exemptions--the benefits for full-time students aged 19 or older--has been estimated

officially as a tax expenditure. For calendar year 1971, the revenue cost was $550 million. The lowest 48.3 percent of all returns filed, each with adjusted gross income below $7000, received only 10.5 percent of the total benefits.[33] The revenue cost is placed at $655 million in fiscal year 1974 and $690 million in fiscal year 1976.[34] These figures do not include other beneficiaries of extra dependent exemptions. An informal estimate of the total number of such extra exemptions currently claimed, supplied us by the U.S. Treasury Department, is 7.5 million.[35]

The original provision of an extra dependent exemption was motivated by several problems inherent in the tax treatment of dependents, but on ordinary equity grounds the extra exemption can hardly be justified.[36] It has frequently been employed to shelter from tax the income from property given to children by their parents.[37] The extra exemption for students is more likely to benefit higher-income families, who can more easily satisfy the half-support test. If only one exemption were allowed per dependent, the question is whether the dependent or parent could claim it. Usually, the tax savings for the family would be greater if the exemption were claimed by the parent(s). Under a per capita credit, especially a refundable one, this issue need not arise. The tax savings would be identical regardless of who claimed the credit, and each person would give rise to only one credit.

VI. Alternatives to the Personal Exemption

A. Optional Nonrefundable Credit

In the legislative proceedings concerning the 1975 Tax Act, the Senate adopted an optional $200 per capita nonrefundable credit that

families could choose instead of the $750 personal exemption. Senator Walter Mondale proposed this optional credit, but it was opposed in the House Ways and Means Committee as being too complicated for taxpayers.[38] The concept did not survive the conference committee in Congress.

The Senate optional credit of $200 would have been chosen by families in tax brackets with marginal rates below 27 percent ($200/$750). For them, the tax savings of the credit would have exceeded those of the exemptions. In some marginal cases, especially those of larger families, taxpayers in slightly higher brackets would also have chosen the credit. For single taxpayers, the 27 percent bracket begins at $10,000 of taxable income--now defined as gross of exemptions. For joint returns, the 28 percent bracket begins at $16,000 of the newly defined taxable income.

By our estimates, the revenue cost of a $200 per capita optional credit in 1974 would have been $5.4 billion. All of the benefits would have gone to the 89 percent of all taxpayers below tax brackets of about 27 percent, who would have chosen the optional credit. Had a $200 per capita nonrefundable credit been substituted for the exemption on a mandatory basis, the revenue cost in 1974 would have been a substantially lower $3.6 billion. Thus, the optional aspect of the device increases the revenue cost by approximately $1.8 billion.

The politics of the 1975 act were those of tax reduction. Movement to a mandatory tax credit as a replacement for exemptions would have carried tax increases for some higher-income taxpayers, unless the credit had been very large. Tax credit proponents who favored the

optional credit may have hoped to make the credit mandatory at some future time. Alternatively, they may have envisioned periodic increases in the value of the optional credit with the exemption held constant at $750.

B. Equal-Cost Nonrefundable Credits

A common way of converting the exemption into a nonrefundable credit, used by several states, is to compute the credit as the exemption times the first-bracket rate (Pechman, 1971, p. 74). This approach will clearly carry less revenue cost when substituted for exemptions. A more relevant comparison, suggested by Seltzer (1968) and Robinson (1970), lies between exemptions and credits of the same aggregate revenue cost. We now proceed to examine several such equal-cost alternatives. The methodology for calculating these alternatives and their distributional impact appears in the Appendix.

In 1971, nonrefundable credits of $148 per capita could have been substituted for the $675 personal exemption at no revenue cost. A nonrefundable $175 per capita credit could have replaced the $750 exemption in 1974. These estimates assume that the elderly would receive two credits apiece, similar to their double exemptions under the existing tax system. If the extra aged credit were eliminated, the equal-cost per capita credit in each of these years could rise by about 3.6 percent. The credit value could be raised at least another 2 percent by offering only one credit per dependent. Since exclusion of the aged poor from taxation does not require an extra aged credit, all of the benefits of an extra credit would go to the nonpoor elderly.[39]

A rationale often offered for the personal exemptions is that they supply "a significant graduation of effective tax rates in the lower of taxable income groups" (Seltzer, 1968, p. 85). This purpose can be served equally well by a simple system of per capita credits. Table 6 compares the effective tax rates in 1974 for unrelated persons and families of four at various income levels with $750 exemptions to the rates that would apply under the $175 nonrefundable credits.[40] For lower-income taxpayers of either type, the credit approach makes the overall system more progressive than does the exemption approach. The two approaches carry equal tax burdens for an individual at about $8000 of income, and for a family of four about $15,000 of income. The tax burdens for higher-income families are heavier with the credit system than with exemptions. Yet, the effective rate progressivity is not altered much at the high end.

The 1974 distribution of benefits from the nonrefundable credits and the exemptions are compared in Table 7 for the two principal types of filers. The distributional impact of moving from exemptions to nonrefundable credits is particularly notable in the tails of the distribution. Even small percentage differences in the distribution of benefits are significant, because the total benefits of exemptions in 1974 were $33.6 billion. Families filing joint returns with incomes below $14,398 would have gained $2.21 billion, while those with incomes above $26,180 would have lost $2.15 billion. Persons filing single returns with incomes below $5235 would have gained $430 million, while those with incomes above $19,635 would have lost $140 million.

C. Equal-Cost Refundable Credits

Refundable per capita credits provide greater benefits to persons with little or no taxable income. The exemptions could have been converted into $125 per capita refundable credits in 1971 and into $152 per capita credits in 1974. These estimates assume that the elderly would receive double credits. Without an extra aged credit, the equal-cost per capita credit in each of these years could be raised by approximately 10 percent.[41] Since refundable credits would distribute substantial sums to the aged poor, there is a stronger justification for extra aged credits than there is in the case of nonrefundable credits. Double refundable credits would have paid a nontaxable elderly couple $51 per month in 1974.

Table 8 displays the relative distribution of benefits under exemptions and refundable credits in 1974. All types of filers have been aggregated, and a separate class of nonfilers has been added to the table. Persons with incomes under $6544, including nonfilers, received 18.4 percent of exemption benefits and would have received 32.2 percent of refundable credit benefits. The differential benefit of refundable credits for this lower tail is $4.67 billion. Persons with incomes over $26,175 would have lost $2.55 billion from such a policy change.

Refundable credits call into question other aspects of the tax system, especially the nontaxability of certain kinds of income receipts. The most prominent nontaxed incomes are public transfer benefits and factor receipts such as municipal bond interest. Many voters would object to making net payments in the form of refundable credits to persons receiving substantial amounts of nontaxed incomes. Reforms to

make these sources taxable are needed on their own grounds; adoption of refundable credits would only heighten the need.

D. Equal-Cost Vanishing Refundable Credit

A vanishing refundable credit decreases with income to reflect a lesser need for family-size tax differentiation at higher income levels.[42] The simplest way to condition the credit on income is to offset it with a fixed percentage of the household's adjusted gross income (AGI). Adjusted gross income appears to be a more satisfactory base than taxable income for income conditioning as it avoids the effect of nonbusiness deductions. The vanishing refundable credit could be a simple, three-line calculation on the tax form.

A $300 credit with a 4 percent reduction rate represents an equal-cost vanishing credit for 1974. Unlike the flat refundable credit, this estimate does not allow an extra credit for the elderly. Many combinations of the two parameters could have achieved the equal-cost objective.[43] The credit at any given income level increases with family size; similarly, for any given family size, the credit decreases with income. At $15,000 AGI, the credit is zero for a family of two and $300 for a family of three ($300 x number of credits - .04 x $15,000). For a family of three, the credit is zero at $22,500 AGI ($300 x 3 - .04 x $22,500).

The last column of Table 8 displays the distribution of benefits from the vanishing credit in 1974. Households with no tax liability, including nonfilers, would have received payments, as the credit is refundable. High-income households would have received no benefits because of the

vanishing feature. Persons with incomes under $6544, including nonfilers, would have received 42.7 percent of vanishing credit benefits, as against 18.4 percent of exemption benefits. The differential benefit of vanishing credits for this group is $8.17 billion. Persons with incomes over $26,180 would have lost $4.77 billion from a move to vanishing credits. As expected, the vanishing refundable credit is the most egalitarian of the credit alternatives treated in this paper.

E. Other Effects of the Alternatives

Each of the credit alternatives has a more progressive distributional impact than the exemption. Credits can also exclude the poor from taxation and provide less tax differentiation by family size at higher incomes. As disucssed in section III.C. and shown in Table 4, a $145 per capita credit alongside the $1300 low-income allowance would have excluded the poor from tax in 1974. Our estimates for 1974 included the low-income allowance and found the equal-cost credit alternatives to be $175 nonrefundable, $152 refundable, and $300 vanishing refundable (with 4 percent offset on AGI). Thus, any of the schemes would have satisfied the objective of excluding the poor from taxation in 1974.

Each credit alternative to the personal exemption offers different tax savings by income level of the parents for having a child. The policies can be evaluated in relation to one's philosophy about the need for tax differentiation by family size at different income levels. Table 9 reproduces some earlier results on the tax savings with an exemption in 1974. For the same year, we have calculated the tax savings under the four alternative programs at the median family income and at

multiples of 0.25, 0.60, 2, and 5 times the median. We now construe tax savings to include net payments to a low-income family, as under a refundable credit.

Table 9 shows that all of the alternatives reduce the relative tax saving of having a first child at higher income levels. An optional $200 nonrefundable credit does not alter the absolute tax saving of those who still choose the exemption, but lowers its value relative to the credit taken by a median-income family. A nonrefundable $175 credit makes the tax savings identical for all taxable families but does not affect nontaxable families. A refundable $152 credit provides an equal tax saving for families at all income levels. A refundable $300 credit that decreases at 4 percent of AGI provides an equal tax saving up to the income range at which the child's credit vanishes. For still higher incomes, the vanishing credit yields no tax savings.

VII. Summary

Recent changes in tax legislation have reduced the role of personal exemptions and have introduced a small per capita tax credit into the individual income tax. Personal exemptions are a revenue-costly way of achieving several objectives--excluding the poor from taxation, differentiating the tax burden by family size, and enhancing tax rate progressivity in the lower brackets. Each of the credit alternatives discussed here meets these objectives and, at the same revenue cost of $33.6 billion in 1974, distributes the benefits in a more progressive manner. Replacement of the personal exemption by an expanded per capita credit should be an important focus for tax reform.

APPENDIX

The estimates and tables presented in the text are based on data from the Internal Revenue Service, Statistics of Income 1971 (the latest year for which published data were available when the analysis was undertaken). For each of the five types of returns filed with the IRS--joint returns of husbands and wives, separate returns of husbands and wives, returns of heads of households, returns of surviving spouses, and returns of other single persons--data were available for 25 classes of adjusted gross incomes (AGI).

For each type of return, and for each income class, we computed average AGI, average deductions, and average exemptions. By applying the appropriate tax tables, the following were estimated for each group:

(a) Average tax liability based on the existing notion of taxable income (AGI less deductions less exemptions); and

(b) Average tax liability that would result if personal exemptions were not a part of the tax system and taxable income were defined as AGI less deductions.

By aggregating across all income classes and return types, the revenue raised under the present system and the amount that would have been raised if there were no personal exemptions were computed. The difference between these two revenue yields is the aggregate value of the personal exemption. This simulation produced a revenue estimate for the 1971 tax system of $85.7 billion, which comes close to the $85.9 billion actually raised in 1971. If exemptions had been disallowed in 1971, revenues would have been increased by $25.2 billion to $28.7 billion. (It is the mean of these two estimates that is reported in the text.)

To arrive at estimates for 1974, the following assumptions were applied to the 1971 data:

(i) the number of returns filed in each income class grew at the rate of growth of population, 2.3 percent;

(ii) adjusted gross incomes and deductions for all income classes grew by 30.9 percent, the same rate as the wages and salaries (exclusive of supplements) component of national income; and

(iii) the value of exemptions was increased from $675 to $750, and the number of exemptions increased by the population growth rate.

The effect of these assumptions is to produce a constant distribution of both AGI and taxable income. Because the minimum standard deduction increased from $1050 to $1300, and the maximum standard deduction from $1500 to $2000, while itemized deductions may have grown at different rates, there may be some bias in our estimates for 1974. However, our revenue yield for calendar year 1974, $124.7 billion, lies between the official OMB estimates of $119.0 billion for fiscal year 1974 and $130.9 billion for calendar year 1975. Estimates for 1974 of the revenue cost of personal exemptions ranged from $31.3 billion to $36.0 billion.

The estimation of both a lower and an upper bound for the value of personal exemptions was necessitated by the nature of the IRS data. The lower bound estimate is based on taxable returns; it assumes that if a return is nontaxable under the present system of exemptions, it would also be nontaxable if exemptions were abolished. The benefits of the exemptions to these returns are valued at zero. It is assumed that for each of these returns, AGI less deductions is zero and that exemptions are not used to offset taxable income.

For 1971, nontaxable returns were 19.7 percent of all returns. They reported $22.4 billion in AGI and $17.5 billion in deductions. Since some of these returns would have been taxable if there had been no personal exemption, this first assumption produces a lower bound estimate. The upper bound estimate is based on all returns filed; it assumes that all returns would have been taxable in the absence of exemptions, and that the exemptions were of value to each return.

Equal-cost per capita credits were derived by dividing the lower and upper bound estimates by the appropriate population base. For a nonrefundable tax credit, the lower bound estimate was divided by the number of exemptions claimed on taxable returns, since the nonrefundable credit is of no value to nontaxable returns. This estimate was adjusted for the fact that taxable returns in the lower income brackets do not receive the full value of the nonrefundable credit. The refundable credit was computed by dividing the upper bound estimate by the total number of exemptions (the sum of the number of exemptions claimed by filers under the present system and by those who are not required to file now, but would file under a system of refundable credits).

The vanishing refundable credit permits one credit per person regardless of age. For each income and family size class by type of return, we computed the tax bill on the difference between AGI and the value of the deductions. The credit benefit was then computed as the number of credits times the value per credit less the reduction rate times AGI. Where this difference was negative, the value of the credit was set at zero; where positive, the tax bill

was reduced by this amount. For computing the value of the vanishing credit for nonfilers, we assumed that each had an AGI of $1000.

NOTES

[1]This count includes only tax credits based on the number, sometimes age, and dependency status of persons in the tax filing unit. It includes credits intended to offset the sales tax burden on low-income units, but does not include credits conditioned on payment of property tax or rent or tax to another state. As of the tax year 1974, these states offered such credits: Arkansas, California, Colorado, District of Columbia, Georgia, Hawaii, Iowa, Kentucky, Massachusetts, Michigan, Minnesota, Nebraska, New Mexico, Ohio, Vermont, and Wisconsin. In many states these credits supplement rather than replace personal exemptions. (Commerce Clearing House, 1974).

[2]The Wall Street Journal, March 24, 1975, p. 3.

[3]Special Analyses, p. 102.

[4]This figure has netted out the tax expenditures of $655 million for parental personal exemptions for students aged 19 and over and $1,150 million for additional exemptions for persons aged 65 and over. (Special Analyses, pp. 108-109).

[5]The Appendix details the methodology for most estimates presented in this paper. The cost of a comparable $100 increase in the exemption was estimated at $2.5 billion in 1959 (Seltzer, 1959b) and $3.5 billion in 1969 (Kennedy, 1969, p. 541). Escalation of this cost stems from population growth, the rising proportion of the population with taxable incomes, and the higher marginal tax rates faced by most taxpayers as incomes have grown.

[6]Annual Report of the Secretary of the Treasury, 1948, pp. 50-51, 300-308, 319-321.

[7]Seltzer, 1968, p. 21. Also see Seltzer (1959a).

[8]Kennedy, 1969, pp. 509, 525.

[9]Congressional Record (daily ed., December 3, 1969) 36664, 36669-36670.

[10]Congressional Record (daily ed., November 15, 1971) 41319-41320.

[11]Congressional Record (daily ed., January 6, 1973) 386-393. The proposed Tax Equity Act of 1973 also would have converted all non-business deductions into tax credits at 24 percent of their value.

[12]Seltzer (1968, ch. 5) provides a good discussion of this rationale.

[13]The contribution of per capita credits to the tax threshold can be computed as follows. For a nonaged family of four, filing jointly, the total credit is $120. The first tax bracket is $1000 wide with a rate of 14 percent. Hence, $857 of taxable income ($120/0.14) can be offset by the credits. Calculations are a bit more complex for larger families, where the credits offset taxable income in more than one bracket.

[14]Since the introduction of a low-income allowance in 1964, the proportion of a tax threshold accounted for by personal exemptions has varied with family size. In 1975, for example, the proportion was 29 percent for a single person and 63 percent for a family of eight filing jointly.

[15]Exemptions have also been viewed as an offset to other taxes that bear heavily on the poor, such as sales and payroll taxes. But insofar as exemptions are not outright payments to the poor, they are limited in their ability to achieve this objective. The earnings subsidy, or "work bonus," in the 1975 act does help to serve this aim for some of the working poor. Also, the act provides a one-time $50 payment to all recipients of Social Security. Alternatively, a refundable tax credit could meet the objective more systematically by replacing or supplementing the personal exemption (see section VI.C.).

[16]The objective in introducing the low-income allowance was, as expressed by President Nixon, to "assure that persons or families in poverty pay no Federal income taxes" (U.S. Congress, House, 1969).

[17]According to Seltzer (1968), the per capita system of exemptions "was believed to facilitate the construction of simple tax tables for the use of taxpayers . . . and of employers." Deviating from a per capita system, for exemptions or credits, would not involve any serious complications. The Canadian income tax in 1974 offered the following exemptions: filer $1706, if aged an additional $1066, spouse $1492, child under age 16 $320, and child age 16 or over $586. No apparent difficulties have arisen from this system.

[18]The major discrepancy is the required $100 credit for the third family member and the $182 credit for the fourth member. These two average out close to a $145 per capita credit; at any rate, the system would exempt some nonpoor families of three, but fall on target for all larger families. The poverty thresholds for families of three and four also reflect the differing age compositions of average families of these sizes.

[19]An additional justification is that a portion of the taxpayer's income should be nontaxable regardless of total income. This case might arise if permissible deductions fail to make sufficient allowance for the costs of earning incomes. Common examples are commuting expenses and the extra costs of meals at work. However, the fact that personal exemptions are allowed to offset tax on any source of income, including property incomes, belies this argument. Moreover, the generous provisions for deducting other nonbusiness expenses in the U.S. income tax removes the need for further allowance at nonpoverty incomes.

[20]The background of this argument, as well as an opposing viewpoint, is well reviewed by Groves (1963, pp. 9-13). Also see Seltzer (1968, pp. 96-100), Robinson (1970), Brannon and Morss (1973), and Pogue (1974).

[21]An illustration by Pechman (1971, Figure 4-2) shows the relative importance of exemptions in reducing effective tax rates across the income spectrum.

[22]The results would be little different if the tax savings for a second (or other) child were calculated--except in some years at 0.6 times the median income, when the family would be rendered nontaxable by additional children.

[23]The minimum standard deduction of 1964 to 1969 altered the tax savings of having a child at low-income levels by only the value of an extra $100 deduction. The low-income allowances of 1970 onwards are flat amounts independent of family size and hence yield no further tax savings to having a child. The differential $1600 and $1900 allowances for single and joint filers, respectively, under the 1975 act also yield no tax saving for child dependents.

[24]The decline in recent years of the relative tax saving of the two higher-income groups can be explained as follows. For joint filers, the tax brackets from $4000 to $44,000 of taxable income are all $4000 wide, and the rates jump about 3 percent per bracket. A rise from a 19 percent to a 22 percent marginal bracket represents a 15.8 percent rise in marginal tax rate; a rise from a 42 percent to a 45 percent marginal bracket carries only a 7.1 percent increase. The change in tax savings for a child depends largely on such marginal bracket changes, for given exemption amounts.

[25]Pogue (1974) argues these points well; for a more extensive social rationale, see Groves (1963).

[26]Brannon and Morss (1973) explore some of the issues.

[27]Both filers on a joint return may claim an extra exemption if both are aged, but an extra exemption is not allowed for an aged dependent.

[28]The credit was to be reduced by the taxpayer's bracket rate times one-half of the sum of his Social Security and railroad retirement benefits.

[29]Special Analyses, p. 109.

[30]U.S. Internal Revenue Service, 1973, p. 185.

[31]The proper comparisons in Table 2 are with nonaged families of one and two members, corrected for the lower poverty thresholds of aged persons. For a single person, this raises the ratio of thresholds by about 8 percent; for a couple, this raises the ratio of thresholds by about 10 percent.

[32]This waiver was contained in the Internal Revenue Code of 1954. The original provision of an extra dependent exemption was made in 1944.

[33]Because of nonfilers, the precise number exceeds half of the population. (U.S. Treasury Department and Joint Committee on Internal Revenue Taxation, 1973, p. 34).

[34]Special Analyses, p. 108.

[35]Information provided on tax returns is not adequate to yield an accurate estimate.

[36]See Harriss (1959) for a discussion of these problems.

[37]In 1972 a tax revision limited the possibilities for this kind of behavior. In the tax returns of dependents who are also claimed on the parent's return, the standard deduction or low-income allowance can be applied to offset earned income only.

[38]The Wall Street Journal, March 24, 1975, p. 3.

[39]For example, with one $187 nonrefundable credit in 1974, alongside the $1300 low-income allowance, a single person would have a $2562 tax threshold. Poverty thresholds in 1974 were $2550 for a single nonaged person and $2351 for a single aged person.

[40]Effective tax rates are here defined as tax liability as a percentage of adjusted gross income.

[41]The technique for estimating the refundable credits has already considered the value of the extra dependent exemptions. It is assumed that each dependent gives rise to only one credit, regardless of whether he or she is working.

[42]The exemption has an analogue to this approach in the so-called vanishing exemption. See Seltzer (1968, pp. 134-141). Also, several states have vanishing credits--District of Columbia, Georgia, Hawaii, Massachusetts, Michigan, New Mexico, and Vermont (Commerce Clearing House, 1974).

[43]For 1974, a $250 credit and 2.5 percent reduction rate represent another equal-cost vanishing credit. It is slightly less progressive than the credit discussed in the text.

TABLE 1

Personal Exemptions and Tax Thresholds
For Nonaged Family of Four, 1947-1975

Year	(a) Personal Exemptions	(b) Tax Threshold	(c) = (a) ÷ (b)	(d) = (a) ÷ MFI[1]	(e) = (b) ÷ MFI[1]
1947	$ 2000	$ 2222	90%	66.0%	73.3%
1948	2400	2667	90	75.3	83.7
1950	2400	2667	90	72.3	80.3
1953	2400	2667	90	56.7	63.0
1956	2400	2667	90	50.2	55.8
1959	2400	2667	90	44.3	49.2
1962	2400	2667	90	40.3	44.7
1964	2400	3000	80	36.5	45.7
1967	2400	3000	80	30.3	37.8
1970	2500	3600	69	25.3	36.5
1971	2700	3750	72	26.3	36.5
1972	3000	4300	70	27.0	38.7
1974	3000	4300	70	22.9	32.9
1975[2]	3000	5757	52	21.4	41.1

[1]Median family incomes from Current Population Reports, Consumer Income, Money Income in 1973 of Families and Persons in the United States, Series P-60, No. 97, January 1975; estimate of 1974 median income assumes 8.5 percent annual growth to $13,075; estimate of 1975 median income assumes 7.0 percent annual growth to $13,991.

[2]Assumes joint filing for families of two or more; includes the effects of $30 per capita credits but not of earnings subsidy.

TABLE 2

Tax Thresholds as a Percentage of Poverty Thresholds, by Family Size and Age, 1948-1975

Year	Aged Head		Nonaged Head[1]						
	1	2[2]	1	2	3	4	5	6	7+[3]
1948	116	185	54	84	105	109	116	124	134
1956	103	164	47	74	93	97	102	110	119
1964	108	161	56	78	93	95	100	106	113
1969	92	136	48	66	79	81	84	89	96
1970	127	155	86	91	97	91	91	93	95
1971	124	155	82	89	96	91	91	94	96
1972	140	172	95	100	107	101	101	103	106
1973	132	162	89	94	101	95	95	97	99
1974	119	146	80	85	91	86	85	87	90
1975[4]	138	179	92	107	112	105	104	106	108

Sources: Current Population Reports, Consumer Income, Characteristics of the Low Income Population, 1970 and 1972, Series P-60, Nos. 81 and 91; U.S. Department of Labor, Bureau of Labor Statistics, Handbook of Labor Statistics 1974, Bulletin 1825; Survey of Current Business, March 1975; income tax laws.

[1]Assumes neither head nor spouse is aged, and only one tax form filed per family.

[2]Assumes joint filing by aged couple.

[3]Assumes average of 8.0 persons per unit, based on rough tabulations of Current Population Survey.

[4]Assumes joint filing for families of two or more, and 1974 to 1975 consumer price index rise of 9 percent; includes the effects of $30 per capita credits but not of earnings subsidy.

TABLE 3

Scale Economies in Tax Thresholds, Families of One and of Six, 1948-1975

Year	Family Size[1]	Personal Exemptions	Minimum Deductions	Tax Threshold	Ratio of Thresholds
1948	1	$ 600	$ 67	$ 667	6.00
	6	3600	400	4000	
1964	1	600	300	900	4.89
	6	3600	800	4400	
1970	1	625	1100	1725	2.81
	6	3750	1100	4850	
1971	1	675	1050	1725	2.96
	6	4050	1050	5100	
1972	1	750	1300	2050	2.83
	6	4500	1300	5800	
1975[2]	1	750	1600	2564	2.99
	6	4500	1900	7667	

[1]Assumes neither head nor spouse is aged, and only one tax form filed per family.

[2]Assumes joint filing by family size 6; includes the effects of $30 per capita credits but not of earnings subsidy.

TABLE 4

Schedule of Nonrefundable Credits Needed
To Exempt the Poor Without Exemptions, 1974

Person in Family	Poverty Threshold	Credits without Low-Income Allowance[1]	Credits with Low-Income Allowance[2]
1st[3]	$ 2550	$ 342	$ 185
2nd[4]	3290	209	144
3rd	3913	88	100
4th	5008	163	182
5th	5908	145	166
6th	6642	119	140
7th[5]	--	122	144
8th[5]	8156	122	144

[1]Takes only 15 percent standard deduction; assumes no exemptions.

[2]Takes $1300 allowance for each return; assumes no exemptions.

[3]Single taxpayer.

[4]Married taxpayers filing jointly, credit amount is for each of the two; larger families are assumed to file jointly.

[5]Credit amount is average of total for seventh and eighth persons; poverty threshold is not published for family of seven.

TABLE 5

Tax Saving to a Married Couple of Having a Child, at Selected Multiples of Median Family Income, 1947-1975

Year	(a) Impact of Dependent on Tax Threshold	(b) Dollar Saving at MFI	(c) Relative Tax Savings at: 0.6 MFI	(d) 2 MFI	(e) 5 MFI
1947[1]	$ 556	$ 100	100%	121%	191%
1948	667	100	100[2]	100	138
1951	667	122	100	110	148
1958	667	120	100	110	184
1964	700	120	99	118	188
1967	700	114	89	116	205
1970	625	119	91	147	236
1971	675	128	90	132	253
1972	750	143	90	147	252
1973	750	165	82	127	227
1974	750	165	86	132	241
1975[3]	964	195	88	138	219

Note: Multiples of median family income are assumed to be adjusted gross income of the family; both spouses assumed to be nonaged.

[1] Income-splitting was not permitted in this year; for all later years, joint filing is assumed.

[2] Tax savings is calculated at 0.63 of median family income in this case; at 0.60 of median, part of the extra exemption does not offset taxable income.

[3] Includes the effect of $30 per capita credit, but does not include the effect of earnings subsidy, or "work bonus." The latter is available only for families with at least one dependent child. At $4000 of earned income, or 0.286 of the median, it provides a $400 subsidy plus $84 tax savings for having a first child. The total is 248 percent of tax savings at the median family income.

TABLE 6

Effective Tax Rates Under Equal-Cost Exemptions and Nonrefundable Credits, by Income Class, 1974

AGI	Unrelated Person		Family of Four[1]	
	Exemption	Credit[2]	Exemption	Credit[2]
$ 2500	2.5%	0.1%	0%	0%
3500	6.2	4.9	0	0
5000	9.8	9.2	2.0	0
6500	12.1	11.8	5.0	2.3
8000	13.7	13.8	7.1	5.4
10,000	15.3	15.4	9.1	7.9
15,000[3]	18.0	18.3	11.8	11.7
25,000	20.9	21.4	15.0	15.7
50,000	29.6	30.1	22.3	24.3

[1]Assumes joint filing by married couple.

[2]Per capita credit of equal cost to $750 per capita exemptions in 1974 is $175, nonrefundable.

[3]At this income level, single persons are assumed to take $2000 maximum standard deductions, families of four to itemize deductions at 15 percent of AGI. At lower income levels, all filers are assumed to take standard deduction or low-income allowance; at higher income levels, itemizing at 17 percent of AGI is assumed.

TABLE 7

Distribution of Benefits for 1974 Tax Filers of an Equal-Cost Exemption, Nonrefundable Credit

Adjusted Gross Income[1]	Share of Exemptions on All Types of Returns[2]	Share of Benefits From: Personal Exemptions	Share of Benefits From: Nonrefundable Credits
A. Joint returns			
$ 0-3926	0.3%	0.2%	0.2%
3927-6544	4.1	2.8	4.1
6545-10,471	13.8	10.8	13.8
10,472-14,398	19.1	16.8	19.1
14,399-19,634	21.0	20.7	21.0
19,635-26,179	13.3	15.2	13.3
26,180-32,724	5.0	6.7	5.0
32,725-65,449	4.4	7.6	4.4
65,450+	1.1	2.6	1.1
B. Returns of single persons			
$ 0-2617	0.6	0.3	0.5
2618-3926	2.0	1.4	2.0
3927-5235	1.8	1.4	1.8
5236-7853	2.7	2.3	2.7
7854-11,780	2.5	2.5	2.5
11,781-15,707	1.2	1.3	1.2
15,708-19,634	0.5	0.6	0.5
19,635-32,724	0.3	0.5	0.3
32,725+	0.1	0.3	0.1

Note: The distribution includes taxable returns only; see Appendix for reasons.

[1] These brackets are the 1974 equivalents of the 1971 brackets $0-$2999, $3000-$4999, and so on, adjusted for money income growth.

[2] Columns do not add to 100.0 percent because separate returns of husbands and wives, returns of surviving spouses, and returns of heads of households, accounting for 6.3 percent of the exemptions, are not shown.

TABLE 8

Distribution of Benefits to 1974 Tax Filers of an Equal-Cost Exemption and Refundable Tax Credits

Adjusted Gross Income[1]	Share of Benefits From: Personal Exemptions	Refundable Credits	Vanishing Refundable Credit
Nonfilers[2]	0%	10.5%	9.3%
$ 0-3926	9.7	11.8	21.5
3927-6544	8.7	9.9	11.9
6545-10,471	15.1	15.8	17.6
10,472-14,398	17.4	16.6	16.7
14,399-19,634	19.4	16.8	16.5
19,635-26,179	13.8	10.3	4.9
26,180-32,724	6.1	3.4	1.2
32,725-65,449	6.9	4.1	0.4
65,450+	2.8	0.9	0

Note: The distribution includes all returns plus nonfilers. The personal exemption is $750; the refundable credit is $152 per capita. The vanishing refundable credit is $300 per capita less 4 percent of adjusted gross income.

[1] These brackets are the 1974 equivalents of the 1971 brackets $0-2999, $3000-$4999, and so on, adjusted for money income growth.

[2] The elderly, who comprise a majority of nonfilers, are each entitled to two refundable credits but only one vanishing refundable credit. If the refundable credit similarly excluded the extra aged credit, its distribution of benefits would be less progressive. For example, nonfilers' share of benefits would fall from 10.5 percent to 5.4 percent.

TABLE 9

Tax Saving to a Married Couple of Having a First Child, Under Alternative Programs of Equal Aggregate Cost, 1974

Program	Dollar Saving at MFI	Relative Tax Saving at: .25 MFI	.6 MFI	2 MFI	5 MFI
$750 personal exemption	$.165	40%	86%	132%	241%
Optional $200 credit[1]	200	0	100	109	199
Nonrefundable $175 credit	175	0	100	100	100
Refundable $152 credit	152	100	100	100	100
Vanishing refundable credit $300 less 4 percent of AGI	300	100	100	0[2]	0[3]

[1]This is the Mondale plan, which is not of equal aggregate cost, but carries a revenue cost of $5.4 billion.

[2]The second child yields a relative tax saving of 48 percent, and additional children yield relative tax savings of 100 percent.

[3]No tax savings accrue until the seventh child.

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