

**Marginal and Average Income Tax Rates and Tax Support
for Families with Children and Students
as Family Income Increases
2015 Law**



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The amount of income tax owed and tax benefits received at any level of income is determined by the interaction of the taxpayer's income and filing status with the other characteristics of the taxpayer's family. These figures present the marginal and average tax rates faced by five typical family types with different incomes. For families with dependents, the amount of tax support provided to the family due to the presence of that dependent is also shown.

Taxpayers with dependent children pay lower taxes than similar families without children through the following major tax provisions of the individual income tax:

- *Personal exemptions* – taxpayers may claim an exemption of \$4,000 for each taxpayer and dependent child (including students through age 23).
- *Filing status* – unmarried taxpayers who are supporting a dependent child may be eligible to file as a head of household, instead of as a single filer. Head of household status has a higher standard deduction and a more favorable rate structure than is available to single filers.
- *Child credit* – taxpayers may be eligible for a partially refundable child credit of \$1,000 for each child up through age 16. In general, the child credit is non-refundable, but taxpayers with insufficient tax liability may claim the refundable additional child credit for 15% of earned income greater than \$3,000 up to the value of the unused portion of the child credit. The child credit phases out beginning at \$75,000 (\$110,000 for married filers).
- *Earned income tax credit (EITC)* – taxpayers may be eligible for a refundable earned income tax credit. The credit initially phases in with income, remains constant over a range of income, and then phases out as income increases further. For families with one child, the maximum credit is \$3,359. The credit begins to phase out at a higher income level for married taxpayers and is more generous for families with more children (up to 3). Taxpayers without qualifying children may be eligible for a much smaller EITC.
- *American opportunity tax credit (AOTC)* – taxpayers with education expenses may be eligible for an AOTC of up to \$2,500, with up to 40% of the credit being refundable. The credit phases out beginning at \$80,000 (\$160,000 for joint filers) and is available for four years.
- *Child and dependent care tax credit (CDCTC)* – taxpayers with child care expenses may be eligible for a nonrefundable child and dependent care tax credit. The maximum credit rate is 35% of up to \$3,000 of child care expenses for one child and \$6,000 for two or more children and the credit rate phases down with income until reaching 20% (for a \$600 or \$1,200 maximum credit) at incomes in excess of \$43,000. The credit is available for children under age 13.

In order to produce these figures, a number of simplifying assumptions about the families were made. First, the examples assume that all income is earned income (e.g., wages) and families are only eligible for the benefits listed above. Second, taxpayers may claim a standard deduction that varies with filing status or itemize deductions. The examples assume that 18 percent of family income will be spent on expenses that would qualify for an itemized deduction, and that the family itemizes when it is tax beneficial to do so. Because itemized expenses and therefore deductions rise with income (at a rate of 18 percent), the marginal tax rate for itemizers is



reduced by 0.18 times the statutory tax rate. The presentation also includes a simplified alternative minimum tax which reduces the value of itemized deductions and personal exemptions. Certain other provisions (“PEP” and “Pease”) reduce or phase-out the value of personal exemptions and itemized deductions, but at higher levels of income than shown on these graphs. The figures are illustrative and do not account for the specific circumstances of any actual family that would affect their tax liability. Marginal tax rates are calculated based on thousand dollar earnings increments, except in Figure 1 which uses hundred dollar increments.

Figure 1 presents the marginal and average tax rates faced by a single filer. The actual marginal tax rate deviates from the statutory marginal rate schedule due to the EITC and itemization. The EITC decreases the marginal tax rate as the credit phases in, and increases it as the credit phases out. Itemization drops the rate of tax on the last dollar earned.

Figure 2 presents the marginal and average income tax rates faced by a married filer with one dependent child and no child care expenses. The figure also presents the amount of tax support the family receives as a result of the child. Key components of the marginal tax rate are the large negative tax rates as the EITC and additional child credit phase in followed by a high marginal rate as the EITC phases out; a drop in the marginal tax rate due to itemizing; a temporary increase in the marginal tax rate as the child credit phases out; and a loss of any further tax support on behalf of the child as the family enters the AMT (marginal rates rise slightly).

Figure 3 repeats Figure 2 for a head of household filer with one dependent child and no childcare expenses. The marginal rate graph in Figure 3 shares all of the key features seen in Figure 2, but with a less generous underlying statutory marginal rate schedule and lower income levels for credit phase-outs. The amount of tax support for this family type includes the added element that the child creates eligibility for head of household status, and thus a more generous rate schedule than applies to other unmarried taxpayers. The portion of the tax support due to the difference in schedules is shown in a lighter blue than the portion due to the remaining child-related provisions.

Figure 4 presents the marginal and average tax rates faced by a married filer with a dependent student who is assumed to have sufficient education expenses to qualify for the maximum credit. The figure also presents the amount of tax support the filer receives as a result of the student. Key differences between this figure and Figure 2 are the large initial benefit from the refundable portion of the AOTC, which affects tax support but not marginal rates; no eligibility for the child credit; and higher marginal tax rates as the AOTC phases out.

Figure 5 presents the marginal and average tax rates faced by a head of household filer with one dependent child and sufficient child care expenses to qualify for the maximum child and dependent care credit. The figure also presents the amount of tax support the filer receives as a result of the child. Key differences between this figure and Figure 3 are the higher marginal rates for taxpayers earning modest incomes as the child and dependent care credit phases down, and the additional benefit from this credit affecting taxpayers at all but the lowest levels of income.



Figure 1
Marginal and Average Tax Rates as Family Income Increases
Single Filer No Dependents
Tax Year 2015

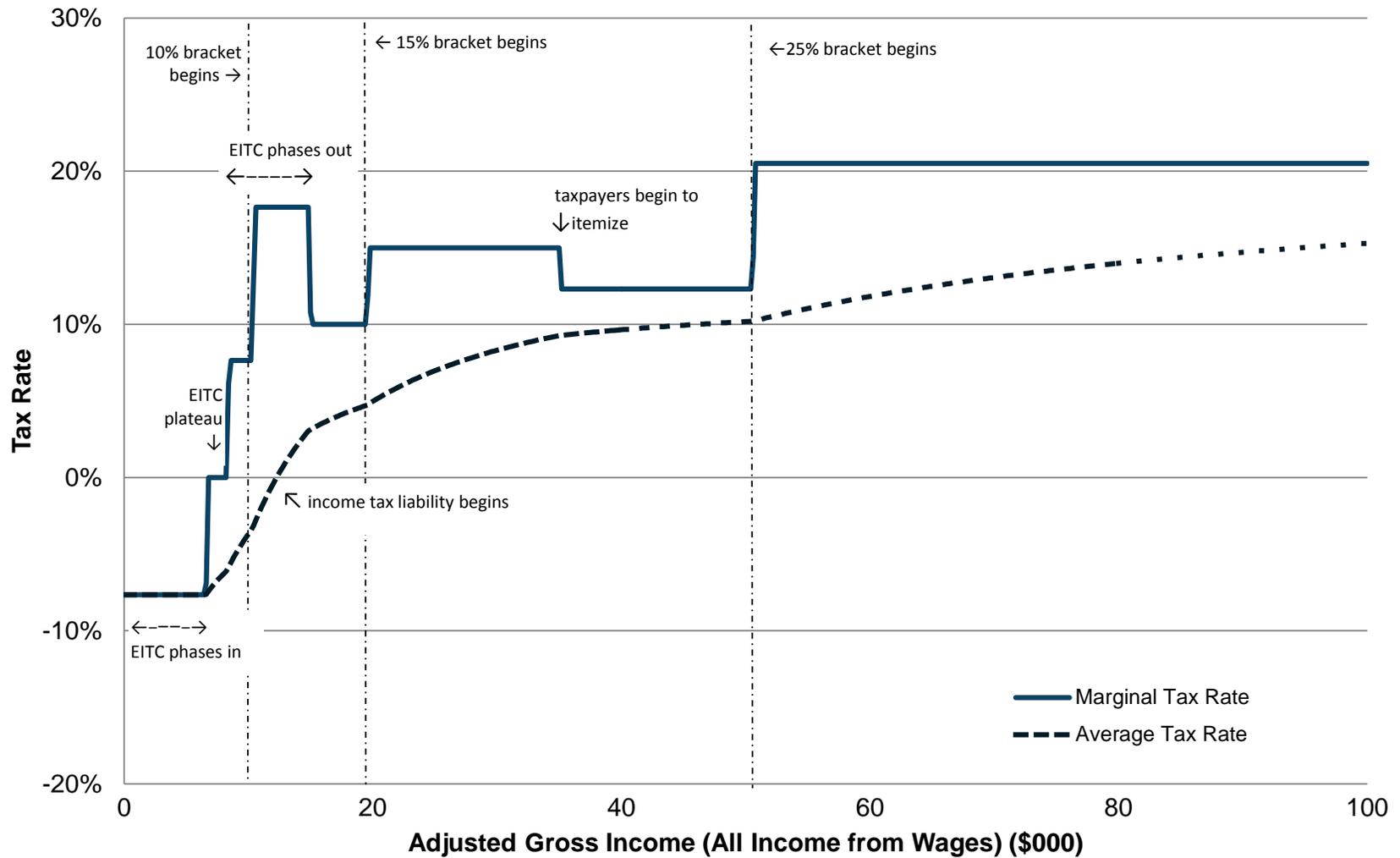


Figure 2
Marginal and Average Tax Rates and Tax Support for a Child for
Joint Filer with One Dependent Child
Tax Year 2015

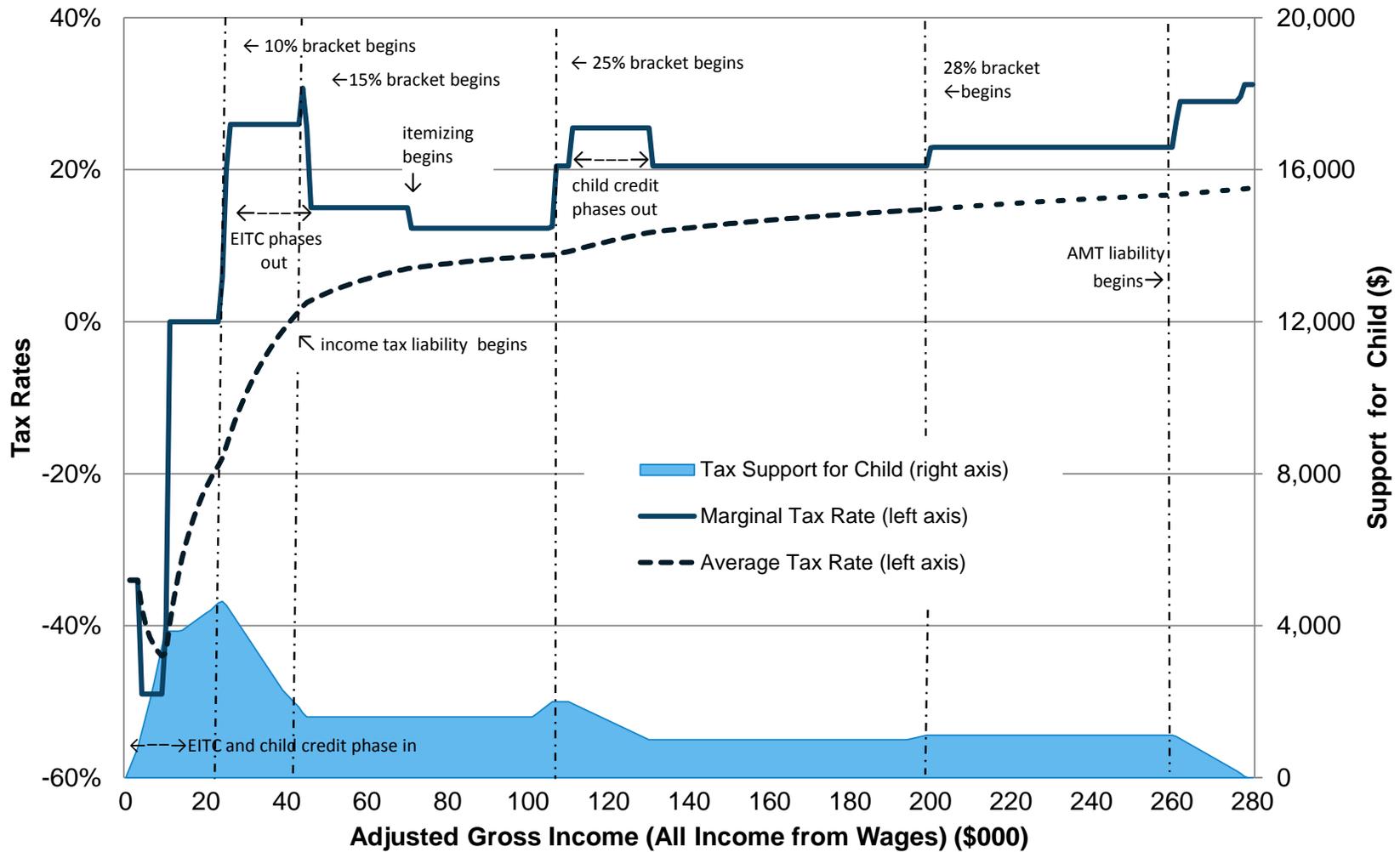


Figure 3
Marginal and Average Tax Rates and Tax Support for a Child for
Head of Household Filer with One Dependent Child
Tax Year 2015

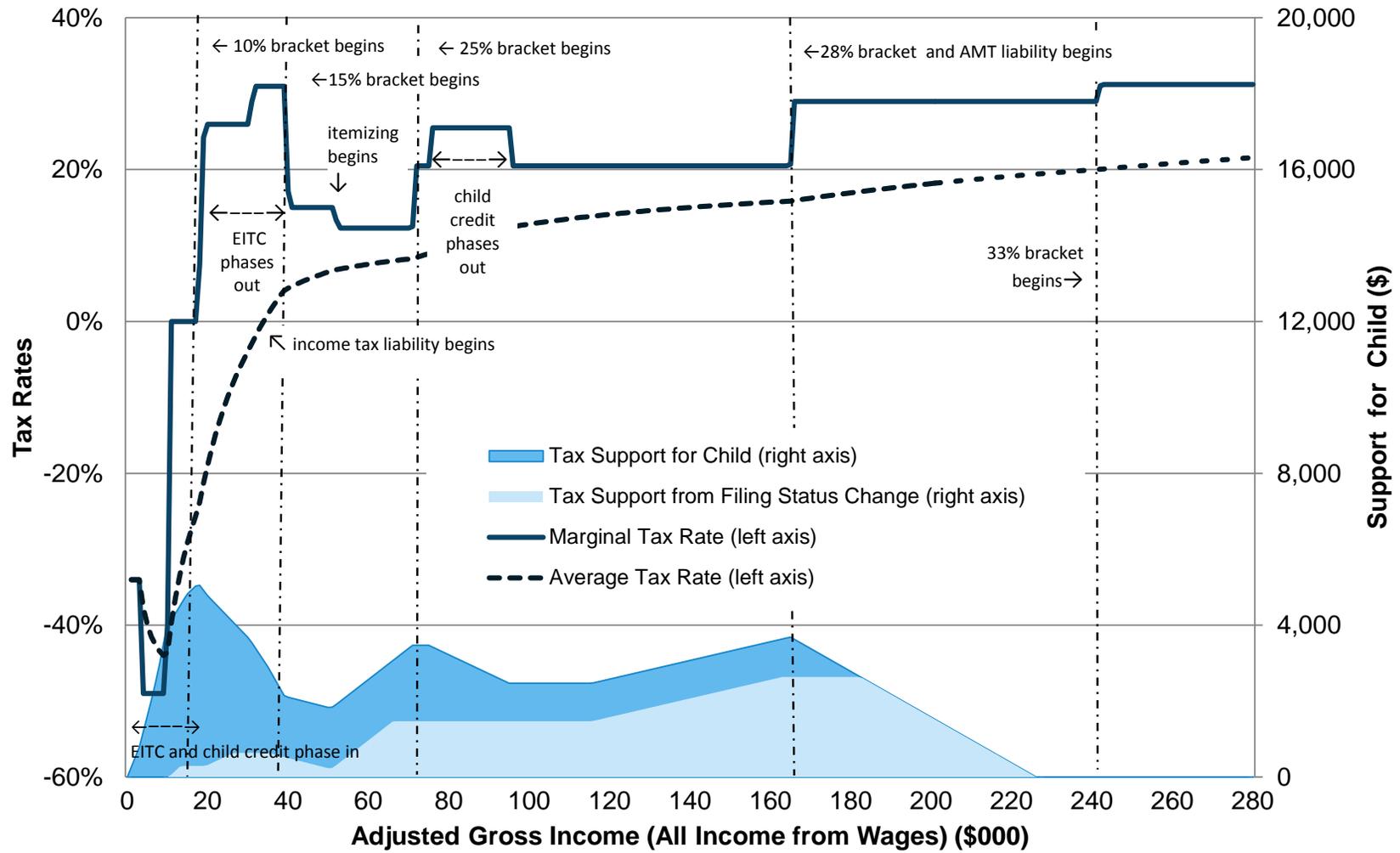


Figure 4
Marginal and Average Tax Rates and Tax Support for a Student for
Joint Filer with One Dependent Student
Tax Year 2015

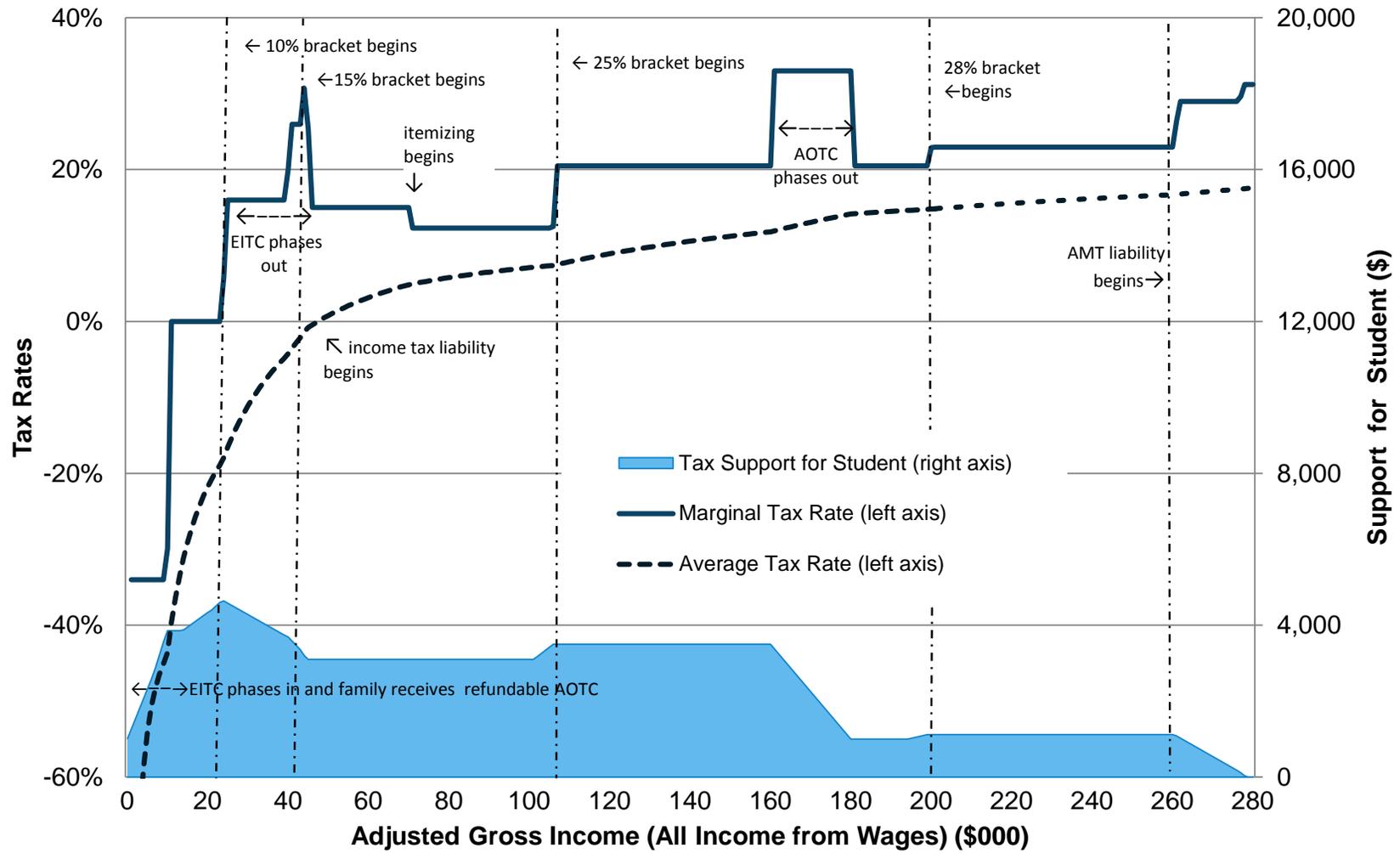


Figure 5
Marginal and Average Tax Rates and Tax Support for a Child for
Head of Household Filer with One Dependent Child in Dependent Care
Tax Year 2015

