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Luxembourg Income Study Working Paper Series

Working Paper No. 558

Policies To Reduce Child Poverty: Child Allowances Vs. Tax Exemptions For Children

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POLICIES TO REDUCE CHILD POVERTY: CHILD ALLOWANCES VS. TAX EXEMPTIONS FOR CHILDREN

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Introduction

In 2009, 20.7% of US children were officially poor. Since the late 1970s, child poverty in the US has averaged 20%, far exceeding the poverty rates for other age groups; it also exceeds child poverty in other developed countries (Smeeding and Torrey 1988; Pressman 2010).

This has large negative consequences. Holzer *et al.* (2007) estimate childhood poverty costs the US \$500 billion per year, or nearly 4% of GDP. It does this by lowering productivity (and income), increasing crime rates and raising health expenditures. Each contributes around one-third of the overall loss according to the authors.

Poor children are likely to show up at school hungry, adversely affecting learning, IQ and future wages (Klerman 1991). Compared to non-poor children, they are twice as likely to repeat a grade (29% versus 14%), twice as likely to be suspended or expelled from school (12% versus 6%), and twice as likely to be high school dropouts (21% versus 10%) (CDF 1994). Child poverty also leads to increased rates of juvenile delinquency (Berrueta-Clement *et al.* 1984) and greater chances that an individual will engage in criminal activity as an adult (Holzer *et al.* 2007, p. 13). Health problems begin even before birth, due to inadequate prenatal care or inadequate nutrition by poor mothers. They continue after birth due to poor nutrition, an unhealthy living environment, lack of immunizations and improper infant care (Monheit and Cunningham 1992).

This paper looks at how the state can help reduce child poverty. It examines two policies that aid families with children-- child allowances and tax exemptions for children. It then calculates the poverty-reducing impact of both, and simulates the impact of some possible child allowance programs on child poverty in the US.

Child Allowances and Tax Benefits for Children

Child or family allowances are regular payments made to families on behalf of their children (see Macinol 1980; Vadakin 1958, 1968). Usually, they are made regardless of family income and are available to all households with children below a certain age. Their purpose is to raise household income, helping families support their children and keeping families from being penalized economically because they have children.

Excluding the US, most nations have some child allowance program. However, the US has employed some partial child allowances programs in the past. They were used by the military during World War I because of concerns that families could not live on a soldier's regular pay. For similar reasons, teacher pay in Garden City, NY was augmented during the 1950s based on the number of their dependent children (Piccione 1983, pp. 15-6).

Instead of direct spending programs, the US uses tax policy to aid families with children. The earned income tax credit (EITC), which began in 1975, was designed to rebate a portion of social security taxes to low-income households with children (Hoffman and Seidman 1990). More recently, the Economic Growth and Tax Relief Reconciliation Act of 2001 established a child credit of \$600 per child, which increases to \$700 in 2005, \$800 in 2009 and \$1000 in 2010. One problem with the child tax credit as an anti-poverty measure is that (unlike the EITC) it is not refundable. Poor households without tax liabilities fail to benefit from this provision, and households with small tax liabilities benefit only to the extent that they owe income taxes. Finally, the US provides tax exemptions to households for each child. In 2010, each exemption reduced taxable income by \$3650. Like the child tax credit, this does not help low-income households because it is not refundable; those who do not owe taxes do not get any tax benefits from a tax exemption.

Family Allowances and Child Poverty

This section employs the Luxembourg Income Study (LIS)¹ to estimate how family allowances impact child poverty. Surprisingly, there have been few previous attempts to estimate the poverty-reducing impact of family allowances; fortunately, the LIS contains substantial information on child allowances, enabling us to remedy this gap in the literature.

The US poverty measure has been a subject of considerable debate (see Blank 2008; Pressman & Scott 2010). While this is not the place to rehash these controversies, two criticisms are relevant here. First, the official US poverty measure depends on pre-tax income rather than disposable income. This difference was not important in the late 1950s when few poor households paid taxes. Today many poor US households pay considerable social security taxes. The EITC and Child Care Tax Credit help, but do not eliminate the entire tax burden on poor households with children.

Second, the US poverty measure employs an absolute definition of poverty, while needs change over time. Child care and a second car are not required in a household with one working adult and one caretaker at home. But when most adults work, these become necessary expenses. Without them, the extra income from an additional adult worker would be impossible. Furthermore, there are problems comparing living standards across nations with different currencies. Empirical studies typically use purchasing power parity to make such comparisons; however, this solution is badly flawed (Pressman 1998). A relative definition of poverty solves these problems and also assures us that cross-national empirical results do not depend on lack of data comparability or availability in different countries.

¹ For more information on the Luxembourg Income Study database, see <http://www.lisproject.org/techdoc.htm>. Also, see the LIS website for information on years and data sources. LIS accessed by author between August 29, 2009 and December 9, 2010.

To measure poverty, we adjust household income for differences in household size using OECD recommendations² as well as a relative definition of poverty. A household is deemed poor if its adjusted income falls below half the *adjusted* median household income for that country at that time.

The standard LIS disposable income variable includes earned income, subtracts taxes, and adds government benefits and transfers as well as private transfers (such as alimony and child support). It also adds some near-cash forms of income, such as the value of Food Stamps. We add one additional income source for our empirical analysis-- one-shot income (such as lottery winnings and capital gains). This income is taxed and can support households during the year, so it should be included in household income and should be counted when calculating poverty.

Table 1a reports child poverty rates over a quarter century for 14 developed nations. LIS data is organized into waves, each separated by around 5 years. Wave #1 is centered on 1980; the latest data (Wave #6) is centered on the year 2004.³

Child poverty has averaged a bit more than 12%, remaining relatively constant in the 1980s (Wave #1 to Wave #3)⁴ but rising thereafter. More notable, is the great variation from country to country. Countries cluster into three main groups. First, Belgium, the Netherlands, and the Scandinavian countries all have child poverty rates below, and in many cases well below, 10%. Second, Australia and many continental European countries have child poverty rates around 15%. Finally, Canada and the UK have poverty rates exceeding 15%, while Italy and

² Each additional adult requires .7, and each child .5, of the income needed by the household head.

³ See the LIS website for information on dates and data sources.

⁴ The decline from Wave #1 to Wave #2 is mainly due to the lack of data from countries with low child poverty rates in Wave #1.

the US have child poverty rates around 25%. The US figure exceeds the official US poverty rate for children because we employ a relative definition of poverty with higher poverty thresholds than the official definition.

Table 1b re-estimates child poverty rates without family allowances. It subtracts family allowances from household income and then recalculates the child poverty rate. Of course, family allowances might *increase* child poverty by encouraging households to have more children. According to the standard economic analysis of fertility (Becker 1981), state support for children reduces the cost of having children and thereby increases the demand for children. In addition, child allowances increase household income, which should also increase the demand for children. Since poverty rates are higher for larger families, child allowances may contribute to child poverty by increasing family size.

Empirically, this concern can be easily dismissed. Rathbone (1924, p. 219), an early advocate of family allowances in the UK, noted that in the three years after family allowances were introduced in France, birth rates actually fell – although the policy was supposed to increase them. Vadakin (1968, pp. 96-7) notes that after Canada introduced family allowances (1945-1950), the gross reproduction rate in Canada fell below the US rate. More telling, a comprehensive cross-national and time-series analysis covering 22 industrial nations found that family allowances were positively related to fertility; however, the real world effect was small. Gauthier and Hatzius (1997) estimated that a 25% increase in the value of family allowances would increase fertility by only .07 children per woman.

Table 1c shows the extent to which child allowances reduce child poverty by subtracting the figures in Table 1a from the figures in Table 1b. The impact varies from nation to nation, and even varies somewhat within one nation over time. In general, child allowances are an effective antipoverty policy. On average (including the US), they reduce child poverty by close to 7

percentage points, but there are large differences across nations due to the generosity of national family allowance programs. In some countries (Australia and Luxembourg) the impact is much greater. In France, there seems to be a secular decline in the poverty-reducing impact of family allowances; in Australia and Canada family allowances became a more effective poverty-reducing policy beginning with Wave #4 as a result of increased allowances.

What is done to obtain such reductions in child poverty? Here are two examples. In 2008, the basic Canadian benefit was \$2813 for a family with two children, but rose to \$6630 for low-income families (Waldfogel 2009). According to the LIS database, in 2004, Finland provided a basic allowance of €1200 for one child and €2526 for two children, with a €439 per child supplement for single-parent families.

Lacking such a policy, the US experiences much higher child poverty rates. As Table 1b shows, without child allowances, child poverty in the US is not very different from child poverty in many developed nations. Our main shortcoming is the lack of support for low-income families with children.

Tax Exemptions for Children and Child Poverty

Unlike other developed countries, the US aids families with children primarily through its tax system. The main such provision is tax exemptions for children. Each child provides a tax exemption to the household, reducing its taxable income and lowering the income tax it owes.

There are two problems with using this policy to aid families with children. First, as noted above, low-income households typically owe little or nothing in taxes; since the value of the exemption is not refundable, child exemptions are pretty worthless. Second, even if low-income households owe some taxes, they are in the lowest tax bracket. As a result, they get back less from the government than households in higher brackets. In 2004 (Wave #6), each child exemption reduced family taxable income by \$3,100. The value of this was \$1085 for

married couples in the top (35%) tax bracket (with a taxable income greater than \$319,101), but only \$310 for someone in the bottom (10%) tax bracket (married couples with taxable incomes of \$14,300-\$58,100). Those with taxable incomes under \$14,300 get no benefit at all.

While child allowances provide equal support to households for each child, regardless of their income, tax exemptions are an upside-down subsidy, giving greater support to those households that need less help providing for their children. They are the equivalent of bailing out large financial institutions about to fail, but not supporting average homeowners struggling to make mortgage payments.

We simulate the poverty-reducing impact of child exemptions in the US by adding and subtracting items that are included in the LIS definition of gross income to arrive at taxable income according to US tax laws; then we calculate marginal tax rates and the value of child exemptions for each household. We use this to calculate the poverty-reducing impact of these exemptions.

We begin by subtracting items not taxable on US income tax returns (e.g., near-cash benefits such as Food Stamps and half of Social Security income) but part of the LIS definition of income.⁵ Using the 2004 *Statistics of Income, Individual Income Tax Returns*, we take the average adjustments to income by income level and subtract this from LIS gross income figures. These adjustments include such things as IRA and SEP contributions, moving expenses, and interest on student loans. Subtracting these adjustments to income yields adjusted gross income, which appears on line 36 of the 2004 income tax returns.

⁵ We ignore the distinction between qualifying and non-qualifying dividends and the distinction between taxable and non-taxable interest, since so few low-income households receive such income.

From this deductions and exemptions get subtracted. We assume that all households take the standard deduction, which is true of most low-income households.⁶ We subtract the standard deduction and also subtract exemptions (excluding child exemptions). The result is an estimate of what would appear on line 42 of individual US income tax returns for 2004 as taxable family income, except for the excluded child exemptions.

We then go to the 2004 US tax rates (by household type) and calculate the marginal tax rate for each household based on household characteristics and income. Most all households with children will taxed either at the rate for married-couple families or for single adults who head up a household.⁷ LIS lets us distinguish these two cases, and the tax bracket of each household. Multiplying this by the number of children in the household, and the value of each exemption, we can estimate the benefit of tax exemptions for children and the total tax benefit from children (which may be zero if no taxes were owed).

We then subtract the tax benefit of child exemptions from LIS disposable income and recalculate poverty rates for children. Comparing this with our previous estimate of child poverty tells us how tax exemptions for children impact child poverty.

These calculations show that tax exemptions do not provide a great deal of financial assistance to households with children. They reduce child poverty by only .7 of a percentage point, well below the poverty-reducing impact of child allowances for all other countries in our tables. This is not surprising given that poor households with children pay very little in taxes in

⁶ In 2004, this was \$7,150 for a head of household and \$9,700 for a couple filing their taxes jointly.

⁷ A few households with children are taxed at higher rates because the child is taken as a deduction on the tax return of a divorced parent who the child does not live with regularly. The number of such cases is small, and this is usually only true of wealthier families, so this should not affect our overall results.

the US. According to the LIS, the median poor household with children faced a tax rate of only 2.6%, mainly Social Security payroll taxes.

Some Possible Policy Reforms

The LIS also lets us simulate the impact of possible child allowance programs on child poverty. We do this by adding the value of child allowances to household income, thereby increasing median adjusted household income and our poverty threshold. Then we recalculate child poverty rates.⁸

A \$1000 per child allowance—paid to each household regardless of income or tax status-- would reduce child poverty in the US slightly, from 26.3% to 23.2%. A \$2000 allowance reduces child poverty to 20.4%, a \$3000 allowance reduces child poverty to 17.6%, and a \$4000 allowance reduces child poverty to 14.8%.

With a \$1000 or a \$2000 per child allowance, the US would remain behind the rest of the developed world in term of child poverty. A \$3000 allowance would reduce child poverty rates in the US to nearly the level of other Anglo-Saxon nations, while a \$4000 allowance would reduce US child poverty to around the average of our 14 nations.

There were nearly 40 million children in the US in 2004. A \$2000 allowance would have cost less than \$80 billion, a \$3000 allowance less than \$120 billion, and a \$4000 allowance under \$160 billion. A \$3000 per child allowance would cut child poverty in the US by around 40% and a \$4000 per child allowance would have cut it nearly in half. If we accept the estimates of Holzer et al (2009) on the total cost of child poverty, for 2004, a \$3000 child allowance would have

⁸ This calculation assumes that family allowances are not taxable. If they were taxable, it would allow for larger allowances at the same cost. This would further reduce child poverty since few low-income households would owe taxes on the allowances.

saved the US nearly \$200 billion by reducing child poverty and a \$4000 allowance would have saved nearly \$250 billion, making this a highly cost effective antipoverty policy.

These empirical results constitute a strong argument that the US should follow the rest of the world and adopt a liberal child allowance program.

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TABLE 1a

CHILD POVERTY RATES ACROSS NATIONS AND OVER TIME

COUNTRY	WAVE # 1	WAVE # 2	WAVE # 3	WAVE # 4	WAVE # 5	WAVE # 6
<i>Australia</i>	17,8%	17,4%	17,5%	12,8%	13,9%	14,7%
<i>Belgium</i>	N.A.	5,7%	6,1%	9,1%	7,9%	N.A.
<i>Canada</i>	18,0%	17,7%	17,0%	16,6%	18,3%	19,5%
<i>Denmark</i>	N.A.	5,4%	5,0%	3,5%	3,9%	5,1%
<i>Finland</i>	N.A.	3,9%	3,1%	2,3%	4,8%	5,5%
<i>France</i>	11,8%	13,2%	12,3%	12,4%	14,0%	N.A.
<i>Germany</i>	5,9%	10,0%	7,6%	12,6%	11,1%	12,9%
<i>Italy</i>	N.A.	14,1%	7,3%	22,2%	21,0%	24,5%
<i>Luxembourg</i>	N.A.	7,5%	5,9%	8,9%	17,7%	17,1%
<i>Netherlands</i>	N.A.	4,8%	8,8%	9,1%	9,2%	N.A.
<i>Norway</i>	4,9%	4,7%	5,2%	4,8%	4,2%	6,3%
<i>Sweden</i>	6,3%	4,5%	3,9%	10,6%	6,3%	6,7%
<i>UK</i>	10,0%	15,2%	20,9%	22,8%	21,1%	16,9%
<i>US</i>	24,8%	29,9%	31,0%	30,2%	27,0%	26,3%
<i>Averages (unweighted)</i>	12,4%	11,0%	10,8%	12,7%	12,9%	14,1%

Source: Author's calculations from the Luxembourg Income Study datasets

Note: See text for definition of poverty

TABLE 1b
CHILD POVERTY RATES ACROSS NATIONS AND OVER TIME,
LESS CHILD ALLOWANCES

COUNTRY	WAVE # 1	WAVE # 2	WAVE # 3	WAVE # 4	WAVE # 5	WAVE # 6
<i>Australia</i>	20,6%	20,0%	19,8%	25,1%	26,0%	27,1%
<i>Belgium</i>	N.A.	18,9%	17,5%	18,6%	15,3%	N.A.
<i>Canada</i>	19,9%	19,8%	18,6%	21,3%	23,9%	25,1%
<i>Denmark</i>	N.A.	7,7%	8,8%	7,4%	8,3%	9,3%
<i>Finland</i>	N.A.	8,3%	10,1%	14,1%	15,0%	13,3%
<i>France</i>	18,4%	24,9%	24,4%	22,2%	21,9%	N.A.
<i>Germany</i>	11,7%	15,9%	13,7%	17,6%	18,7%	22,6%
<i>Italy</i>	N.A.	N.A.	16,5%	N.A.	N.A.	28,2%
<i>Luxembourg</i>	N.A.	15,2%	17,8%	19,7%	29,2%	28,5%
<i>Netherlands</i>	N.A.	13,0%	13,9%	15,5%	14,5%	N.A.
<i>Norway</i>	7,8%	7,1%	10,4%	11,3%	7,9%	11,3%
<i>Sweden</i>	8,5%	7,7%	8,5%	13,5%	10,9%	11,0%
<i>UK</i>	15,7%	23,2%	26,0%	29,7%	28,5%	23,4%
<i>US</i>	24,8%	29,9%	31,0%	30,2%	27,0%	26,4%
<i>Averages (Unweighted)</i>	15,9%	16,3%	16,9%	18,9%	19,0%	20,6%

Source: Author's calculations from the Luxembourg Income Study datasets

Note: See text for definition of poverty

TABLE 1c
THE IMPACT OF CHILD ALLOWANCES ON CHILD POVERTY RATES

COUNTRY	WAVE # 1	WAVE # 2	WAVE # 3	WAVE # 4	WAVE # 5	WAVE # 6
<i>Australia</i>	-2,8%	-2,6%	-2,3%	-12,3%	-12,1%	-12,4%
<i>Belgium</i>	N.A.	-13,2%	-11,4%	-9,5%	-7,4%	N.A.
<i>Canada</i>	-1,9%	-2,1%	-1,6%	-4,7%	-5,6%	-5,6%
<i>Denmark</i>	N.A.	-2,3%	-3,8%	-3,9%	-4,4%	-4,2%
<i>Finland</i>	N.A.	-4,4%	-7,0%	-11,8%	-10,2%	-7,8%
<i>France</i>	-6,4%	-11,7%	-12,1%	-9,8%	-7,9%	N.A.
<i>Germany</i>	-5,8%	-5,9%	-6,1%	-5,0%	-7,6%	-9,7%
<i>Italy</i>	N.A.	N.A.	-9,4%	N.A.	N.A.	-3,7%
<i>Luxembourg</i>	N.A.	-7,7%	-11,9%	-10,8%	-11,5%	-11,4%
<i>Netherlands</i>	N.A.	-8,2%	-5,1%	-6,4%	-5,3%	N.A.
<i>Norway</i>	-2,9%	-2,4%	-5,2%	-6,5%	-3,7%	-5,0%
<i>Sweden</i>	-2,2%	-3,2%	-4,7%	-2,9%	-4,6%	-4,3%
<i>UK</i>	-5,7%	-8,0%	-5,1%	-6,9%	-7,4%	-6,5%
<i>US</i>	0,0%	0,0%	0,0%	0,0%	0,0%	-0,1%
<i>Averages (unweighted)</i>	-3,5%	-5,5%	-6,1%	-7,0%	-6,7%	-6,4%

Source: Author's calculations from the Luxembourg Income Study datasets

Note: See text for definition of poverty