ESTIMATING THE ECONOMIC COST OF CHILDHOOD POVERTY IN THE UNITED STATES

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ABSTRACT

Poverty has been an issue of ongoing concern for social work practitioners and researchers over the decades. The societal impact of poverty upon a broad range of problems is widely acknowledged throughout the field. However, one vital piece of information regarding poverty has often been missing – its economic cost. This study presents new estimates into the annual costs of childhood poverty in the United States by updating earlier research and including previously unmeasured costs. Our analysis indicates that the annual aggregate cost of U.S. child poverty is $1.0298 trillion dollars, representing 5.4 percent of the gross domestic product (GDP). These costs are clustered around the loss of economic productivity, increased health and crime costs, and increased costs as a result of child homelessness and maltreatment. In addition, we estimate that for every dollar spent on reducing childhood poverty, the country would save between 7 to 12 dollars with respect to the economic costs of poverty. The implications of these findings are discussed.

KEY WORDS: capabilities perspective, childhood poverty, economic costs, social justice, social work advocacy

INTRODUCTION

The profession of social work has historically confronted many of society's most vexing social problems and challenges. Beginning at the end of the 19th and early 20th centuries, social work arose to confront the challenges of poverty and the destructive conditions surrounding impoverishment. Throughout the 20th and 21st centuries, the profession has expanded to tackle a variety of conditions that diminish the quality of life. These include racial disparities, mental illness, child abuse, community disorganization, and many others.

Today, social work addresses a wide range of social and economic problems that impact upon the well-being of individuals, families, and communities. Yet underlying many of these problems remains the destructive condition of poverty. To take but one example, poverty has been shown to exert a powerful influence upon an individual's physical and mental health. Those living in poverty tend to have significantly worse health as measured by a variety of indicators when compared to the nonpoor (Barr, 2014).

The effect of poverty upon children is particularly destructive. As Rank (2004) and others have argued, poverty serves to stunt children's physical and mental development. Poor infants and young children in the United States are far more likely to have lower levels of physical and mental growth (as measured in a variety of ways) than their nonpoor counterparts (Council on Community Pediatrics, 2016). As children grow older, and if they continue to reside in poverty, the disadvantages of growing up poor multiply. These disadvantages include attendance at inferior schools (Biddle, 2013), conditions associated with poverty stricken neighborhoods (Brooks-Gunn, Duncan, & Aber, 1997), unmet health needs (Chung, 2016), and a host of other hardships.

The result is that poverty exacts a heavy toll upon the poor. However, what is perhaps less obvious are the economic costs of poverty to our nation as a whole. In this paper we seek to address what some of those costs might actually be.

We begin by noting that the United States is generally considered the wealthiest country in the world. Yet it is also recognized that the U.S. has some of the highest levels of poverty and income inequality among the industrialized countries (United Nations Development Programme, 2015). Whether we examine children's rates of poverty, poverty among working age adults, or poverty within single parent families, the story is much the same. The U.S. has extremely high rates of poverty in comparison to other OECD countries (Smeeding & Theuenot, 2016).

Although there are many potential reasons for this paradox of poverty amidst plenty, we would argue that one in particular stands out – the U.S. lacks the political will to seriously address poverty. Since President Johnson's declared "War on Poverty" in the 1960's, the U.S. has largely retrenched from supporting and funding strong anti-poverty programs (Brady, 2009; Kenworthy, 2014).

This lack of political will can be attributed to many factors. Among them are the historical and cultural emphasis on individualism and self-reliance, the racial and ethnic heterogeneity of the U.S. population, and the overall tendency towards limited government (Alesina & Glaeser, 2004). However, we would argue that an additional factor for understanding the lack of a political will to address poverty has been a failure to truly appreciate the economic costs that poverty extracts from the nation. In the parlance of social policy, it is important to understand and acknowledge the estimated costs of a social problem. By doing so, one is better able to gauge the overall scope of a problem, and what savings can be accrued by reducing or eliminating the problem.

Certainly there has been much discussion regarding the human costs of poverty. Yet surprisingly, very little has been written about what the wider economic costs of poverty might be. Being able to derive a reasonable and prudent estimate of the economic costs of poverty would appear to be an essential piece of information for social workers and policy makers striving to alleviate poverty. In short, it provides a fiscal imperative for poverty reduction.

THE COST OF POVERTY MEASURED THROUGH REDUCED CAPABILITY

Sen's Capability Approach

One way to understand and frame the economic costs of poverty, is through the capability framework of Amartya Sen (1992; 1999). Sen argues that "poverty must be seen as the deprivation of basic capabilities rather than merely as lowness of incomes" (1999: 87). He goes on to note that, "Policy debates have indeed been distorted by overemphasis on income poverty and income inequality, to the neglect of deprivations that relate to other variables, such as unemployment, ill health, lack of education, and social exclusion" (1999:108).

For Sen and others using the capability framework, the meaning of poverty is considerably broader than that of simply low income (Nussbaum and Sen, 1993). Rather, an essential element of poverty is that it undermines human capabilities and potential. From this perspective, the effects of poverty are viewed as particularly pronounced in several specific areas. These include ill health, lower economic productivity, and an increased risk of criminal and dysfunctional activity (Sen, 1999; 2009). Other areas that have been discussed in this context include homelessness and physical and mental abuse (Nussbaum, 2000). In each of these areas, the argument is that poverty stunts an individual's potential and growth by fostering ill health, less education and skills, fewer legitimate opportunities to get ahead in life, greater anxiety and mental stress, and so on. As Rank has argued, "The lack of income is clearly a critical component of poverty and represents a convenient, logical, and pragmatic starting point and measuring stick. But we must go beyond thinking of poverty solely in terms of low income. This involves incorporating a wider set of experiences and deprivations into our understanding" (2004: 182-183).

In applying this perspective to the economic costs of childhood poverty, we are in a sense measuring the loss of human potential that poverty imposes upon society. Such a loss of potential can be tangibly measured through indicators deemed particularly important from the capability perspective – these indicators include measures of ill health, lost economic productivity, and dysfunctional and destructive behavior.

Prior Estimates

To our knowledge, there have been only two attempts to estimate the economic costs of poverty in the United States. In both cases, researchers analyzed the economic costs of childhood poverty. As discussed above, these analyses have focused on the impact of poverty upon the deprivation of several basic capabilities, which in turn results in wider societal costs.

The first analysis was a 1994 study commissioned by the Children's Defense Fund (CDF). This project, entitled *The Costs of Child Poverty Project*, pulled together several different policy analyses in order to arrive at a range of estimates regarding poverty's economic impact (Children's Defense Fund, 1994). The Panel Study of Income Dynamics (PSID) data was used to estimate the price of childhood poverty upon future economic productivity. The argument was that poverty during childhood suppresses levels of education, along with dampening an individual's ability to acquire valuable job skills. These, in turn, result in children being less economically productive as adults. Economic productivity was measured by the amount of paid work in hourly wages during adulthood.

The CDF estimated that the overall economic costs of one year of child poverty ranged from 36 billion dollars to 177 billion dollars, depending on the assumptions and data being used. The bottom line was that childhood poverty represented a significant drag on economic productivity to the U.S. economy.

A second attempt to measure the costs of child poverty was designed to be somewhat broader than the CDF study (Holzer et al., 2007, 2008). Like the CDF study, the Holzer study took into account the impact of poverty upon economic productivity and output, but it also attempted to measure the effect of poverty upon increased criminal activity, as well as elevated health expenditures among the poverty stricken.

The authors reviewed a wide range of research studies that examined the statistical relationship between growing up in poverty and children's future earnings, likelihood to engage in crime, and quality of health in later life. Based upon an overall average of these effects, Holzer and colleagues derived an estimate of the costs of childhood poverty. They calculated that growing up in poverty reduced the nation's aggregate output by 170 billion dollars a year. Similarly, childhood poverty raised the costs of crime by 170 billion dollars a year. Finally, children's impoverishment resulted in increased health expenditures of 164 billion dollars a year.

Putting these three estimates together resulted in an overall annual cost of childhood poverty in 2006 of approximately 500 billion dollars, or 3.8 percent of overall gross domestic product (GDP). As the authors write, "The high cost of childhood poverty to the U.S. suggests that investing significant resources in poverty reduction might be more cost-effective over time than we previously thought" (Holzer et al., 2007: 2).

Yet as both of these studies readily acknowledge, their cost estimates undoubtedly underestimate the true expense of poverty. For example, there are many additional costs that have not been accounted for, including child homelessness and maltreatment costs. Furthermore, both studies have been conducted a number of years ago. Consequently, there is a need to provide an analysis that both updates these original costs of poverty as well as incorporates additional costs that were not included in these seminal studies.

In our analysis, we build upon this research to arrive at a new estimate of the cost of U.S. child poverty. Specifically, we use the Holzer study as our starting point. We recompute the costs of lost economic productivity, increased crime rates, and increased health expenditures using the same methodology as the Holzer analysis. We then calculate several additional costs that were not included in the Holzer study.

METHODOLOGY

Our analysis follows the approach that has been used to estimate the economic costs of a variety of social problems including crime (Anderson, 1999), physical inactivity (Ding et al., 2016), opioid abuse (Florence, Zhou, Luo, & Xu, 2016), child maltreatment (Fang et al., 2012), and child poverty (Holzer et al., 2008) in previous peer-reviewed articles. While each of these studies examined a different phenomenon, they rely on the same definition of an economic cost and use an annual, incidence-based approach to calculate the annual costs of a social problem.

Following this line of work, our study defines a cost as anything that reduces the aggregate social welfare of the U.S. Costs include both opportunity costs and social harms that people would pay to avoid (Boardman et al., 2010). Cost-measurement studies discuss each cost in turn, explain how the cost was measured, and then tally the costs to produce a total cost. We have adopted this approach for our analysis as well. We also rely on the incidence-based approach for estimating costs. This approach tallies all the costs incurred in a single year

(Haddix et al., 2003). Thus, we calculate the lifetime costs of all new cases of child poverty occurring in a single year.

Our paper includes seven costs of child poverty. Similar to the Holzer study, we measure the reduced adult earnings of children growing up in poverty, the increased cost of crime committed by children who grew up poor, and the increased health care costs for children in poverty. In addition, we measure the cost of child homelessness and child maltreatment that occurred due to poverty, as well as the increased costs of corrections spending and the social costs of incarceration that are incurred due to poverty. These costs were included because: (1) they were identified by prior literature as a negative outcome arising from child poverty; (2) they are consistent with the capabilities perspective used to frame our analysis; and (3) data were available to estimate the economic cost. Certainly, there are other costs of child poverty that are not included in this study, however data were not available to make a reliable estimate of these economic costs. For example, child poverty clearly causes emotional harm to the children who live in poverty. Unfortunately, we were not able to obtain data to estimate the cost of this emotional harm.

The inputs to calculate the costs included in this study come from a variety of sources, including the U.S. Census Bureau, the Panel Study of Income Dynamics, and findings of prior literature. Our analysis relies on data from 2015 whenever possible. In the absence of 2015 figures, data from 2012, 2013, or 2014 are used. All costs have been adjusted to 2015 dollars.

A critical assumption of this analysis is that child poverty is responsible for reductions in adult earnings, increased crime, and so on. Our assumption is grounded not merely in correlations between poverty and social outcomes, but in evidence that child poverty can have a deleterious effect on brain structure and cognitive development (Noble et al., 2015). While the causal pathways are not entirely clear, child poverty appears to result in toxic stress that can manifest itself in negative social outcomes (National Scientific Council on the Developing Child, 2005/2014). Nevertheless, it is not yet possible to precisely identify the extent to which negative adult social outcomes are attributable solely to child poverty (Holzer et al., 2008). Hereditary factors, for example, undoubtedly also play a role (Jencks & Tach, 2006).

RESULTS

Increased health costs ($192.1 billion)

Growing up in poverty can have deleterious effects on a person's health (Brooks-Gunn & Duncan, 1997; Case, Lubotsky, & Paxson, 2002; Ravallion, 2016). Poor children are more likely to be admitted to a hospital, have poor nutrition, and become disabled (Wood, 2003). While some of these health effects may be attributable to hereditary factors, there is strong evidence to suggest that the physical environment in which poor children are raised plays a major role. For example, poor children are significantly more likely to be exposed to high levels of lead and other toxic pollutants which in turn cause a range of health problems (Brody et al., 1994; Evans, 2004).

While child poverty is likely to be responsible for a large number of health costs, we focus on measuring the costs for which we have data available. These costs include: (1) direct health expenditures; (2) special education costs; and (3) a reduction in quality-adjusted life years (QALYs). In measuring these costs we rely on the identical methodology found in the Holzer study (2008).

The direct health costs and increased spending on special education attributable to child poverty has been estimated to be $26 billion (Holzer et al., 2008). Holzer et al., basing their estimate on the findings of Cutler and Richardson regarding quality-adjusted life years (Cutler &

Richardson, 1998), find that there is an additional $248,000 in health capital costs incurred for each child in poverty. This figure is multiplied by the number of children born each year (four million) and the percentage of these children that are born into poverty (15 percent) to generate the aggregate cost of these quality-adjusted life years, which is $149 billion. Adding this amount to the direct health expenditures and special education costs mentioned earlier, adjusting it downward by 7 percent to eliminate hereditary factors (Case, Fertig, & Paxson, 2005; Case, Lubotsky, & Paxson, 2002), and converting to 2015 dollars, results in an aggregate health cost of $192.1 billion.

Reduced earnings ($294.0 billion)

Children who experience poverty during their childhood earn less money when they become adults compared to their nonpoor counterparts. This constitutes lost economic productivity and is therefore an economic cost of poverty. This process has been extensively documented and captured through the concept of cumulative inequality. As Rank and colleagues (2014) demonstrate, children growing up in poverty are often exposed to an inferior education. This, in turn, results in fewer skills and abilities developed, which in turn results in employment in lower paying and less stable jobs. The result is that across the span of adulthood, children growing up in poverty are less economically productive than their nonpoor counterparts.

We can estimate the amount of such reduced earnings following the methodology used in the Holzer study (see Appendix A for the technical details regarding the specific calculations). Using the Holzer method, we arrive at an overall estimate of $294.0 billion in reduced earnings as a result of childhood poverty.

Increased victimization costs of street crime ($200.6 billion)

Children from the bottom quintile of income are significantly more likely to commit a crime when they become adults (Bjerk, 2004). This should not be surprising, since economic theory suggests that people commit crimes when the benefit exceeds the cost (Becker, 1968) and poor people have a higher rate of return from crime (Kelly, 2000). The annual victimization cost of street crime is $700 billion (Ludwig, 2006). Holzer (2008) estimates that 20 percent of this cost is the result of childhood poverty, or approximately $140 billion. This figure is doubled to account for the underreporting of crime (Hindelang, Hirschi, & Weis, 1981) and then adjusted downward by 40 percent to rule out hereditary factors (Jencks & Tach, 2006). This produces an estimate of approximately $170 billion, which is $200.6 billion in 2015 dollars.

Increased corrections and crime deterrence costs ($122.5 billion)

Because child poverty increases crime (Bjerk, 2004), it also increases corrections costs, private spending on crime deterrence (car alarms, locks, etc.), and the opportunity cost of time spent planning and executing crimes (Anderson, 1999; Cohen, 2005; Ludwig, 2006). These costs, which totaled $612 billion in 2006, are multiplied by the amount attributable to child poverty (20 percent) (Holzer et al., 2008), and then adjusted downward by forty percent to remove hereditary effects (Jencks & Tach, 2006). In addition, the lost value of criminals' time is multiplied by two to adjust for the underreporting of crime (Holzer et al., 2008). The total cost is estimated to be $103.8 billion, which is $122.5 billion in 2015 dollars.

Increased social costs of incarceration ($83.2 billion)

A growing body of research suggests that incarceration creates a large number of social costs that do not appear in government budgets (Alexander, 2010; Western, 2006). These include costs to incarcerated persons, children and families, and communities (Clear, 2007). Incarceration results in increased rates of eviction, reduced rates of marriage and increased divorce, and criminal justice debt, among other things (DeVuono-Powell et al., 2015). The non-budgetary cost of incarceration was estimated to be $923.6 billion in 2014 (McLaughlin et al., 2017).

Removing the reduced earnings of formerly incarcerated persons from the social cost of incarceration (to avoid double-counting reduced earnings) results in a cost of $693.6 billion. This study assumes that if child poverty increases crime (Bjerk, 2004) it also increases incarceration, thereby increasing the social costs of incarceration. We multiply the non-budgetary social costs of incarceration by the 20 percent that is attributable to child poverty and then further adjust downward by 40 percent to eliminate hereditary factors (Jencks & Tach, 2006), which produces an estimated cost of $83.2 billion.

Child homelessness ($96.9 billion)

Poverty is a primary contributor to child homelessness (The United States Conference of Mayors, 2007). This is a significant problem; at least 2,483,539 children became homeless at some point in 2013 (Bassuk et al., 2014). This creates costs for children and society. Perlman and Willard (2012) identify thirteen different costs stemming from child homelessness; these include emergency room visits, lead toxicity, mental health conditions, and other costs. When these costs are aggregated, the annual cost per homeless child is estimated to be $37,168 (Perlman & Willard, 2012). Multiplying this figure by the number of homeless children yields an estimated cost of $92.3 billion, which is $96.9 billion in 2015 dollars.

Increased child maltreatment ($40.5 billion)

Child abuse and neglect cannot be viewed outside the context of poverty (Pelton, 1978). Income is strongly associated with child maltreatment (Drake & Jonson-Reid, 2014), and evidence suggests that income plays a causal role (Berger, Font, Slack, & Waldfogel, 2016;

Cancian et al., 2013). Thus, poorer children are more likely to be maltreated, which leads to a number of costs (child welfare case management, foster care services, deaths from abuse or neglect, etc.). The annual cost of child maltreatment in the United States is $124 billion in 2010 (Fang et al., 2012). Research suggests that thirty percent of children would not be in the welfare system if they were not poor (Courtney et al., 2004; Torrico, 2009); this implies that $37.2 billion in child maltreatment costs could be avoided if child poverty were to be eliminated. This is $40.5 billion in 2015 dollars.

Total cost of child poverty (1.0298 trillion)

The sum total of the seven costs measured in this study is $1.0298 trillion (see Table 1). This is over twice as large as the previous estimate (Holzer et al., 2008). In addition, this represents 5.4 percent of the U.S. gross domestic product in 2015.

[Table 1 about here]

More than one-third of the costs pertain to increased crime and incarceration (see Figure 1). The cost of reduced earnings and increased health costs are also substantial, while child homelessness and child maltreatment are each responsible for less than ten percent of the cost of child poverty.

[Figure 1 about here]

An important caveat to our findings, is that one could conceivably argue that we have slightly overestimated the costs of poverty by using the official poverty line instead of the Supplemental Poverty Measure (SPM). The SPM provides a lower rate of child poverty because it adds the value of welfare and tax transfers to families' income (Wimer et al., 2016). In 2015, the SPM indicated that child poverty was about 20 percent lower than the official poverty rate would suggest (U.S. Census Bureau, 2016b). Reducing our aggregate cost of child poverty by

20 percent would result in a new figure of $823.8 billion. While this is lower than our original estimate using the official poverty measure by approximately two hundred billion dollars, it is still 50 percent larger than the previous estimate provided in the original Holzer study.

The bottom line is that child poverty represents a significant economic burden to the U.S. This is largely because living in poverty stunts the growth and undermines the potential of children. As noted at the beginning of this paper, the costs of poverty can be understood through the process of basic capabilities deprivation as argued by Amartya Sen. Or as Ravallion notes, “Children growing up in poorer families tend to suffer greater human development gaps, with lasting consequences for their adult lives” (2016, p. 595). Impoverished children grow up with fewer skills and are less able to contribute to the economy. They are more likely to engage in crime and experience more frequent health care problems. These costs are ultimately borne by the children themselves, but also by the wide society as well.

DISCUSSION

Several broad arguments can be made in support of reducing poverty. Many of these revolve around the issues of values and social justice. For example, poverty amidst plenty would appear to fundamentally undermine the moral fabric and sense of decency in a society. This is particularly the case for childhood poverty. In addition, the prevalence of childhood poverty violates many of the values that the profession of social work stands for as well.

Childhood poverty would also appear to weaken the American principle and ideal of equality of opportunity. Children being raised in poverty do not have the same chances for success as children who are raised in middle or upper income families. This contradicts our belief in “liberty and justice for all.”

The argument presented here, however, is of a different nature. It is one that is rooted in the concept of self-interest. We contend that alleviating poverty is in all of our collective self-interests. Whether we realize it or not, we each pay a high price for allowing poverty to walk in our midst. Yet what exactly is that price? In this paper we have attempted to provide an empirical answer to such a question.

In approaching this question, it is important to keep in mind three basic principles in weighing the economic costs of poverty. First, poverty ultimately undermines human potential by stunting overall individual development and capacity. This core idea was discussed earlier through the lens of reduced capabilities. For example, the effect of childhood poverty upon economic productivity is largely the result of poverty reducing the quantity and quality of education that children receive, which then affects their ability to compete effectively in the labor market.

Second, a fundamental tenet of social policy is that the prevention of a problem is often a more cost effective approach than programmatic solutions on the back-end of a problem. The old saying "An ounce of prevention is worth a pound of cure" is certainly apropos. It is not a question of paying or not paying. Rather, it is a question of how we want to pay, which then affects the amount we end up spending. In making an investment up front to alleviate poverty, the evidence suggests that we will be repaid many times over by lowering the costs associated with a host of interrelated problems.

Third, a broad net should be cast in terms of conceptualizing poverty reduction as being in our self-interest. This sense of a broad awareness surrounding the costs of poverty can be referred to as enlightened self-interest. In other words, by becoming aware of the various costs associated with poverty or, conversely, the various benefits associated with the reduction of poverty, we begin to realize that it is in our own self-interest to combat the condition of poverty.

Encapsulating all three of these points is a powerful quote from the earlier cited Children's Defense Fund Report. In summarizing the costs of childhood poverty, they note,

> The children who suffer poverty's effects are not its only victims. When children do not succeed as adults, all of society pays the price: businesses are able to find fewer good workers, consumers pay more for their goods, hospitals and health insurers spend more treating preventable illnesses, teachers spend more time on remediation and special education, private citizens feel less safe on the streets, governors hire more prison guards, mayors must pay to shelter homeless families, judges must hear more criminal, domestic, and other cases, taxpayers pay for problems that could have been prevented, fire and medical workers must respond to emergencies that never should have happened, and funeral directors must bury children who never should haves died (Children's Defense Fund, 1994: 99).

Keeping the above principles in mind, we have attempted to estimate the economic cost of childhood poverty in this paper. In order to do so, we quantified the costs of lower economic productivity, higher health care and criminal justice costs, and child homelessness and maltreatment costs. By summing together these costs, we arrived at an overall estimate that in

2015, childhood poverty in the United States was costing the nation $1.0298 trillion dollars a year. This number represents 5.4 percent of the U.S. annual GDP.

Perhaps a better way of gauging the magnitude of the costs of childhood poverty is to compare it with the total amount of federal spending in 2015. The federal government spent a total of $3.688 trillion dollars in 2015 (Congressional Budget Office, 2015). This included the entire range of programs and agencies supported by the government, including Social Security, Medicare, defense spending, and so on. The annual cost of childhood poverty – $1.0298 trillion – therefore represents 28 percent of the entire budget spent by the federal government in 2015.

Consequently, to argue that we pay an enormous economic price for having the highest rates of poverty in the industrialized world is clearly an understatement. Childhood poverty represents a significant drain on both the U.S. economy and society as a whole. It results in sizeable losses in economic productivity, higher health care and criminal justice costs, and significant costs associated with remedial efforts to address the fallout of childhood poverty.

One question that naturally arises in a study such as ours, is what would it cost to reduce poverty in the United States? Furthermore, might it be more cost-effective to simply accept the high levels of U.S. childhood poverty rather than pay the price of reducing poverty?

With these questions in mind, two recent analyses have indicated that the cost of reducing childhood poverty is a fraction of what such poverty is costing us. The Children's Defense Fund, in conjunction with the Urban Institute, has estimated that childhood poverty could be reduced by 60 percent at a cost of 77 billion dollars (Giannarelli et al., 2015). This would be accomplished through expanding an array of programs which have been shown to be effective in reducing poverty such as the Earned Income Tax Credit, a higher minimum wage, child care subsidies, and so on. Similarly, Shaefer and colleagues (2016) have estimated that by transforming the Child Tax Credit into a Universal Child Allowance, childhood poverty could be reduced by 40 to 50 percent, with extreme poverty eradicated, at a cost of approximately 70 billion dollars. Taking these studies into account, if we assume that childhood poverty could be roughly cut in half through an annual expenditure of 70 billion dollars, that 70 billion dollars would save us approximately half of the 1.0298 trillion dollars that we project poverty costs us, or 515 billion dollars. The bottom line is that according to these studies the ratio of savings to cost is slightly more than 7 to 1. For every dollar spent in poverty reduction, we would save over 7 dollars in terms of the economic fallout from poverty.

However, there is a second way of estimating the difference between the price of ending poverty versus what it is costing us. It is through a measure known as the poverty gap or the poverty income deficit. This measures what it would cost to lift all poor households with children under the age of 18, to the level of the poverty line. In other words, how much total income is needed to pull every American child out of poverty? According to the Census Bureau (2016c), that figure for 2015 was 86.9 billion dollars. For 86.9 billion dollars, every American household with children under 18 in poverty could be raised out of poverty.

We can then compare this figure to our overall estimate of the costs of childhood poverty, which is 1.0298 trillion dollars. Combining these two figures results in a ratio of savings to cost of approximately 12 to 1. Consequently, when using the Census measurement of the costs associated with eliminating poverty, the result is an even higher rate of savings than when using the two earlier mentioned studies.

The bottom line is that reducing poverty is not only justified from a social justice perspective, but from a cost-benefit perspective as well. Investing in programs that reduce childhood poverty is both smart and effective economic policy.

It should be noted that there are many additional costs that we have clearly not accounted for in this analysis. For example, poverty has been shown to be strongly related to teenage childbearing. In turn, research suggests that the economic costs of teenagers bearing children is high (Fletcher & Wolfe, 2009). By reducing childhood poverty, which would lower teenage childbearing, we would bring down these economic and societal costs. Consequently, our estimates should be seen as a lower bound with respect to the costs of childhood poverty.

In addition, there are significant costs associated with poverty during adulthood that we have not at all taken into account. In our analysis we have focused only on the costs of childhood poverty. However, poverty also strikes individuals at various points throughout their lives. In fact, as Rank and colleagues have shown, poverty will strike a majority of Americans at some point during their adulthood (Rank, Hirschl, & Foster, 2014; Rank, 2004). As such, we believe our overall figure of $1.0298 trillion dollars a year is a significant underestimate of the true costs of American poverty.

Furthermore, it is important to point out that our analysis has calculated an overall annual cost to the United States. Rather than a one-time cost, the economic cost of childhood poverty is approximately 1 trillion dollars per year. This clearly constitutes a significant ongoing drag upon the overall U.S. economy.

It is also important to note that since the early 1980's, the overall rate of poverty for children has ranged between 16 and 23 percent (U.S. Census Bureau, 2016d). It has thus remained stubbornly high during this period of time. In fact, children are currently the age group at the highest risk of poverty, and that risk is particularly extreme for younger aged children. If these trends and patterns continue, the cost of childhood poverty in the future will likely remain exceedingly high.

Finally, returning back to the capabilities perspective, it has been argued that this perspective aligns well with the overall aims and goals of social work (Morris, 2002). As Michael Reisch has written, “At its best, social work stands for the creation of a society in which people, individually and in community, can live decent lives and realize their full human potential” (2002: 351). We have argued that childhood poverty is a significant impediment to accomplishing these goals. The societal and economic costs of poverty can be understood and measured through the loss of human potential that results from such impoverishment.

In conclusion, this paper has built upon the framework provided in earlier analyses of the costs of childhood poverty. We have refined the methodology in order to take into account additional costs not considered in those original studies, as well as to update their analyses with more recent cost accounting. The bottom line is that the price of childhood poverty is exceedingly high. The profession of social work is well positioned to advocate and lobby for the alleviation of poverty with such knowledge. Recognizing the enormous costs of poverty is an important step toward summoning the political will to address this economic and societal blight upon the nation.

Appendix A: Technical Details on Estimating the Costs of Reduced Earnings

Research indicates that child poverty leads to lower adult earnings (Holzer et al., 2008). Doubling a poor family's income has been shown to significantly increase a child's earnings as an adult by as much as forty percent (Corcoran & Adams; Mayer, 1997). This lost productivity reduces the gross domestic product and is therefore a cost of child poverty.

To estimate this cost, we rely on data obtained from the U.S. Census Bureau and prior research. Specifically, we replicate the methodology used in the Holzer study to estimate the value of reduced earnings. The following description walks through the specific steps taken to arrive at our overall estimate.

In 2015, the poverty line for a family of four was $24,036 (Proctor, Semega, & Kollar, 2016). Research suggests that it would take at least twice this amount for a family to meet its basic needs (Dinan, 2009). Following the Holzer approach, we take the difference between the amount that is twice the poverty line ($48,072) and the average income for a family of four that is below the poverty line ($13,918), which yields $34,154. This is equivalent to a difference of 1.24 log points. Prior research has documented an intergenerational elasticity of earnings of about 0.5 (Holzer et al., 2008), consequently we reduce the difference by half to 0.62. Applying this difference to the median per capita earnings for an adult in 2015, which is $29,979 (U.S. Census Bureau, 2016a), suggests that a poor child's adult earnings would be reduced by $16,127 annually, which is 46.2% relative to median earnings. We then adjust for the fact that median earnings were 71.3% of mean earnings in 2015 (Proctor, Semega, & Kollar, 2016) and that earnings are 60.4% of gross domestic product (Federal Reserve Bank of St. Louis, 2017). Finally, we multiply the resulting figure of 19.9% (46.2% * 71.3% * 60.4%) by the figure of 9.6%, which is the percentage of children who spend at least 50 percent of their childhood below the poverty line according to data from the Panel Study of Income Dynamics (Blank, 1997). This implies that the persistent poverty experienced by these children reduces the gross domestic product by 1.91%.

In addition, we multiply the figure of 19.9% by the 8% of children who spend between 25 and 50 percent of their childhood below the poverty line (Corcoran & Adams, 1997). We reduce the resulting figure of 1.6% by 50 percent because shorter poverty spells have less of an effect on adult outcomes (Corcoran & Adams, 1997). Thus, the total reduction in gross domestic product is 2.71% (1.91% + 0.8%). This figure is then reduced by 40% to eliminate the hereditary component, resulting in an adjusted figure of 1.63%. The gross domestic product in 2015 was $18.036 trillion (Bureau of Economic Analysis, 2016) which implies the cost of reducing earnings due to child poverty is $294 billion. These calculations replicate the exact procedures followed in the Holzer (2008) analysis.

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Table 1

The costs of childhood poverty

Type of Cost	Dollar Amount (in billions)
Reduced earnings	294.0
Increased victimization costs of street crime	200.6
Increased health costs	192.1
Increased corrections and crime deterrence costs	122.5
Increased child homelessness costs	96.9
Increased social costs of incarceration	83.2
Increased child maltreatment costs	40.5
Total cost of child poverty	1,029.8

Figure 1

Percentage breakdown of the costs of childhood poverty