

# The Relationship between Major Anti-Poverty Proposals and the Health of the Low-Income Population.

Michael O'Grady, PhD, Gail Wilensky, PhD and Robbie Dembo, MA

## Executive Summary:

This work examines the relationships between major anti-poverty proposals and health outcomes for the lower income population. The goal is to estimate the effects, whether associative or causal, between these two policy goals.

Anti-poverty policy development went into a policy hiatus after the Clinton era anti-poverty reforms of the mid-1990s. We are now starting to see a reemergence of anti-poverty efforts from both the right and left. At least some of these proposals have components acceptable to both ends of the political landscape, for example, expansion of the Earned Income Tax Credit (EITC).

This study analyzes the proposals from across the political spectrum and matches them with existing evidence from the peer-reviewed literature. Most of the evidence is focused on the ability of these different policies to reduce poverty, as is appropriate since that is their primary focus. This study asks a different question and looks for evidence that there is also a health effect. This question has become a focus for those concerned about the "Social Determinants of Health"--the non-medical care influences on health outcomes as identified by the World Health Organization. In a similar manner, the Robert Wood Johnson Foundation has identified a Culture of Health that links good health extends to work, family and community life and needs to help empower people to live the healthiest lives they can.

Based on the peer-reviewed literature analyzed for this study, there is not a rigorous or even quasi-rigorous, evidence-base to support the hypothesis that improvements in income result in improved health outcomes. The evidence is mixed at best. This doesn't mean that a relationship doesn't exist but rather that the current evidence is not supportive of such a relationship.

These proposals do, however, reduce poverty. That is their primary policy goal and the fact that we are unable to find a consistent or credible body of evidence that shows more than a correlation between income and health is a secondary issue--albeit a disappointing one.

This leaves policy advocates with two alternatives. First, supporters should make no claims about the health effects of their anti-poverty proposals. Based on the peer-reviewed literature, it is highly unlikely that the official scorers in either the legislative and executive branches would be willing to score any effect on health outcomes. Second, the policy research community needs to take steps to expand and improve the body of research to see whether it is possible to find definitive evidence

previous researchers were unable to find. A controlled experiment like the Negative Income Tax Experiments from the 1960's and 1970's would be most helpful in answering this question but expensive and time consuming to implement. Other studies using observational data that are designed to look at the relationship between poverty reduction and improved health might also help.

While the designers of these anti-poverty proposals would probably prefer to be able to make the claim that their proposals will not only reduce poverty, but also improve the health of lower-income Americans, there is not currently credible evidence to support those claims. There is evidence that their proposals will reduce poverty among lower-income Americans and some proposals more efficiently and effectively than others. Such an outcome would be a major policy success and will need to suffice for its proponents, given the current state of empirical evidence.

# The Relationship between Major Anti-Poverty Proposals and the Health of the Low-Income Population.

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## 1. Overview:

This work examines the relationships between major anti-poverty proposals and health outcomes for the lower income population. The goal is to estimate the effects, whether associative or causal, between these two policy goals. Is increasing income associated with better health outcomes? Are there certain income policies that are more likely to be positively related to health than others? Is there evidence that will allow us to estimate the size of the health effect across different anti-poverty proposals?

The focus of the analysis will be unidirectional. We will examine anti-poverty proposals and attempt to estimate their effect on health outcomes. Effects certainly may flow in the opposite direction as well. It is not unreasonable to suggest that better health leads to an enhanced ability to generate income, but those effect are beyond the scope of this study.

## 2. Synopsis of the current situation:

In many ways anti-poverty policy development went into a policy hiatus after the Clinton era anti-poverty reforms of the mid-1990s. We see this repeated across many policy areas—especially successful ones. For example, policy initiatives to reduce the number of uninsured, there went into a long hiatus after the failure of the Clinton plan. Congress had other pressing issues that had moved to the front of the queue and many of the key proponents were weary of that particular fight. It was almost 15 years before the issue regained its political and policy momentum. The same appears to be happening with anti-poverty policy. The hiatus has been longer, perhaps because the reforms of the mid 1990’s were successful in many ways, certainly more so than the Clinton Health Security Act so returning to the issue wasn’t as pressing a need. Also, the country has taken a long time to come out of the 2008/2010 recession.

We are now starting to see a reemergence of anti-poverty efforts. Right of center we have the ideas of House Speaker Ryan and AEI. From left of center we have President Obama’s policy initiatives as well as the ideas of the Center for American Progress and the Urban Institute. In

addition, a mix of scholars from the left and right have been publishing their ideas through the Brookings Institution. Fortunately, many of these proposals have components acceptable to both sides of the political landscape, e.g., Earned Income Tax Credits (EITC) expansions.

### 3. The Current Study:

In a traditional study, the review of the literature would appear first. In this study, we are presenting the policy proposals regarding poverty reduction strategies before the literature review. Once the proposals have been described, we review the evidence that will indicate what, if any, effect a particular antipoverty proposal might have on health outcomes.

It is important to keep in mind, that even if we find no evidence to support a health effect, the primary goal of all these proposals is the reduction of poverty. Positive health effects would be regarded as a secondary goal by antipoverty strategists although probably not by those supporting a belief in the social determinants of health. Also, even though we don't find evidence to support health effects doesn't mean that there isn't one.

### 4. Synthesizing Anti-Poverty Proposals from Research and Political Organizations

In recent years, several prominent research and political organizations – from the left, right, and center – have proposed policies to address poverty. These proposals come at a time when Americans are still recovering from the Great Recession, the effects of which were exacerbated by decades of plateaued wage growth. The proposals are, for the most part, extensions or modifications of anti-poverty programs or tax policies that already exist. Proposals to create new bureaucracies or radically recreate the ways in which welfare policy is administered are rare. There are obvious differences in orientation and priority across the spectrum of organizations reviewed; but what is more striking is the commonality between many of the proposals, knowingly or not.

As we searched for proposals we found many ideas, but only a few that were developed enough to allow for an analysis. Proposals from the following organizations met these criteria and were reviewed:

- The Obama Administration,
- The House Republicans, i.e., The Ryan Plan,

- The Hamilton Project (a Brookings affiliate),
- The Center on Budget and Policy Priorities,
- The Brookings Institution,
- The American Enterprise Institute,
- The Urban Institute (for the Children’s Defense Fund), and
- The Center for American Progress.

## 4.1. Expanding Tax Credits:

### 4.1.1. *The Earned Income Tax Credit (EITC)*

The Earned Income Tax Credit is the policy most frequently proposed for experimentation, innovation, and expansion. Although Speaker Ryan had advocated expanding the EITC as recently in 2014, the idea received only brief discussion in the House GOP’s recently released agenda, “A Better Way.”<sup>1</sup> The report released in June only states that “Increasing the EITC would help smooth the glide path from welfare to work.”<sup>2</sup> Details about how it should be expanded, and for whom, are not provided. However, if Ryan’s previous pronouncements are any indication, the “increase” would target childless workers, doubling the maximum benefit to more than \$1000, and making it available for workers as young as 21. This policy change is nearly identical to the President’s proposal, according to the Brookings Institute.<sup>3</sup>

The lack of detail in “A Better Way” may be due to the need for “mid-course corrections” as the proposal evolves during the legislative process. Its current focus on childless workers is a significant departure from traditional thinking on the role of public assistance to the poor. There had been a long standing consensus, at least on the right, that public assistance was to protect those who could not work, such as the disabled and children, not for able-bodied workers. EITC has already crossed that policy Rubicon by offering some credits to childless workers. More than doubling those credits may be farther than some traditionalists are willing to go. Senator Orrin

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<sup>1</sup> Ryan, Paul. 2014. Expanding Opportunity in America: A Discussion Draft from the House Budget Committee. [www.budget.house.gov/uploadedfiles/expanding\\_opportunity\\_in\\_america.pdf](http://www.budget.house.gov/uploadedfiles/expanding_opportunity_in_america.pdf).

<sup>2</sup> House Republican Task Force on Poverty, Opportunity, and Upward Mobility. 2016. “A Better Way.”

<sup>3</sup> Brookings Institute. 2014. “Are Obama and Ryan Proposals for an EITC Expansion Pro- or Anti-Mobility?” <http://www.brookings.edu/blogs/social-mobility-memos/posts/2014/08/01-ryan-poverty-plan-eitc-reeves>

Hatch, Chairman of the Senate Finance Committee, the committee who has Senate jurisdiction over both tax and welfare policy may have some hesitations according to the Wall Street Journal.<sup>4</sup>

President Obama's 2017 budget proposal has several key provisions that would address deep poverty and improve the conditions under which low-income families live. Some of the proposals in the budget, specifically those focused on fighting poverty, have potential to reach bipartisan support, according to reporting from the hill. Among the President's anti-poverty proposals, the expansion of the Earned Income Tax Credit for childless workers appears to find common ground with Speaker Ryan's agenda, although the two plans differ on how to offset the costs of such an expansion.<sup>5</sup> The President's other anti-poverty initiatives include:

- An increase in funding and improved targeting of resources for the TANF block grant:
  - The TANF program has not been adjusted for inflation since its creation in 1996. As a consequence, the grant has lost 30% of its value. The President has proposed an addition of \$8 billion in funding to TANF over the five years. The initiative would also realign the program's resources with its core goals: work participation, child care, and cash assistance.
  - The President has also called for an extension of the EITC and Child Tax Credit, which are due to sunset at the end of 2017.<sup>6</sup>
- Administer emergency aid to poor families:
  - The budget proposes \$2 billion over 10 years to test various innovative state and local programs to assist families on the brink of severe poverty and economic crisis. These pilot projects would test approaches to stabilizing families living on as little as \$2 a day, by providing emergency assistance and connecting families to local resources.<sup>7,8</sup>

The Obama administration has pursued other executive actions to fight poverty as well, including extending overtime protections, raising the income threshold to approximately \$47,000, regardless of the employee's classification.<sup>9</sup>

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<sup>4</sup> The Wall Street Journal, Feb. 2, 2016. "Obama, Ryan See Potential for a Tax-Policy Compromise."

<sup>5</sup> Krawzak, P. 2016. Roll Call. "Budget Fights Begin With Obama's \$4.23 Trillion Proposal." [http://www.rollcall.com/news/budget\\_fights\\_begin\\_with\\_obamas\\_423\\_trillion\\_proposal-245812-1.html](http://www.rollcall.com/news/budget_fights_begin_with_obamas_423_trillion_proposal-245812-1.html)

<sup>6</sup> Huang, C. 2015. Center on Budget and Policy Priorities. "Previewing the Obama Budget's Tax Proposals." <http://www.cbpp.org/blog/previewing-the-obama-budgets-tax-proposals>

<sup>7</sup> Pavetti, L. 2016. Center on Budget and Policy Priorities. "President's Budget Boosts Funding To Fight Deep Poverty." <http://www.cbpp.org/blog/presidents-budget-boosts-funding-to-fight-deep-poverty>

<sup>8</sup> Greenspan, R. 2016. Center on Budget and Policy Priorities. "Obama's Budget: More Investment with More Deficit Reduction." <http://www.cbpp.org/sites/default/files/atoms/files/2-9-16stmt.pdf>

<sup>9</sup> Boteach, M., Vallas, R., and Schultz, E. 2016. Center for American Progress. "A Progressive Agenda to Cut Poverty and Expand Opportunity." <https://www.americanprogress.org/issues/poverty/report/2016/06/06/138765/a-progressive-agenda-to-cut-poverty-and-expand-opportunity/>

The Think Tanks on both the right and left have also explored and supported expanding the EITC. Several changes to the tax credit have been proposed, but the most common is its expansion for childless working adults.

The maximum EITC for a childless adult between ages 25 and 64 is approximately \$500, but most workers receive a much smaller credit. In 2013, the average credit received by eligible childless workers was \$281.

According to the Center on Budget and Policy Priorities, a left-of-center group that supports such an expansion. The EITC helps raise 1% of childless adults out of poverty. By comparison, workers *with children* received an average credit of \$3,100 in the same year, helping raise 15% of such households out of poverty.<sup>10</sup>

The Brookings Institute, who has scholars on this topic ranging from left to right, has also weighed in. Writing in a Brookings-affiliated publication, Harry Holzer, former chief economist for the Department of Labor, suggests that a childless adult EITC between \$1,500 and \$2,000 can incentivize lower-skilled workers to accept and keep lower-paying jobs, and help workers support their families.<sup>11</sup>

The right-of-center American Enterprise Institute has been working in this area in collaboration with the Brookings Institution. An AEI/Brookings collaborative report recommends raising the childless EITC to \$1,000, consistent with the Ryan plan.<sup>12</sup>

The left-of-center Urban Institute suggests that in order for an expansion of the childless EITC to be effective, the income range to which the benefit applies must also be expanded. The current childless EITC phases out before the phase out for adults with children even begins, such that a single, full-time, minimum-wage earning adult with no children does not qualify for a tax credit. On the other hand, a full-time, minimum-wage earning adult with children can receive the maximum benefit ranging from about \$3,300 (for one child) to almost \$6,300 (for three or more children). The Urban Institute also suggests removing or expanding the age limits for workers without children (currently 25-64).<sup>13</sup>

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<sup>10</sup> Center on Budget and Policy Priorities. 2016. “Chart Book: The Earned Income Tax Credit and Child Tax Credit.” <http://www.cbpp.org/research/federal-tax/chart-book-the-earned-income-tax-credit-and-child-tax-credit#PartFour>

<sup>11</sup> Holzer, H. 2016. “Reducing poverty the Democratic way.” <http://www.brookings.edu/research/papers/2016/02/29-reducing-poverty-the-democratic-way-holzer>

<sup>12</sup> AEI/Brookings Working Group on Poverty and Opportunity. 2015. “Opportunity, Responsibility, and Security.” [https://www.aei.org/wp-content/uploads/2015/12/opportunity\\_responsibility\\_security\\_doar\\_strain\\_120315\\_FINAL.pdf](https://www.aei.org/wp-content/uploads/2015/12/opportunity_responsibility_security_doar_strain_120315_FINAL.pdf)

<sup>13</sup> Maag, E. Urban Institute. 2016. “Tax credits could reduce poverty even more—by including workers without children at home.” <http://www.urban.org/urban-wire/tax-credits-could-reduce-poverty-even-more-including-workers-without-children-home>

There have been other proposed changes to the EITC, in addition to expanding the credit for childless workers. A number of these alternative do not increase benefits for childless workers and may be more acceptable to traditionalists in both parties who hesitate to further subsidize able-bodied workers with no link to children or the disabled. These include:

- Expanding the EITC for the largest group of recipients, families with one child<sup>14</sup>
- Providing a more generous EITC to families with young children<sup>15</sup>
- Allowing families to access up to \$500 of their EITC midway through the tax year through a partial early refund<sup>16</sup>
- Making individuals who receive the EITC categorically eligible for the maximum Pell Grant<sup>17</sup>
- Administering a secondary earner tax credit that addresses the so-called EITC penalty for married couples<sup>18</sup> by basing credits on personal instead of family income<sup>19</sup>
- Creating a credit based solely on earnings, regardless of the number of children<sup>20</sup>

Most of these proposals have not received econometric estimations simulating their effects. However, the Urban Institute modeled an EITC expansion proposal developed by the left-of-center Children’s Defense Fund that would provide a larger credit at lower levels of income, and estimated an associated reduction in child poverty by 8.8%.<sup>21</sup> Similar estimations are needed to better gauge the poverty (and health) effects of an expanded EITC benefit.

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<sup>14</sup> Hoynes, H. The Hamilton Project. 2014. “Building on the Success of the Earned Income Tax Credit.” [http://www.hamiltonproject.org/papers/building\\_on\\_success\\_of\\_earned\\_income\\_tax\\_credit](http://www.hamiltonproject.org/papers/building_on_success_of_earned_income_tax_credit)

<sup>15</sup> Ibid.

<sup>16</sup> Boteach, M., Vallas, R., and Schultz, E. 2016. Center for American Progress. “A Progressive Agenda to Cut Poverty and Expand Opportunity.” <https://www.americanprogress.org/issues/poverty/report/2016/06/06/138765/a-progressive-agenda-to-cut-poverty-and-expand-opportunity/>

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

<sup>19</sup> Sawhill, I. and Karpilow, Q. 2014. Center on Children and Families at Brookings. “A No-Cost Proposal to Reduce Poverty & Inequality.” <http://www.brookings.edu/~media/research/files/papers/2014/01/09-no-cost-proposal-to-reduce-poverty-inequality-sawhill/no-cost-proposal-sawhill.pdf>

<sup>20</sup> Maag, E. 2016.

<sup>21</sup> Giannarelli, L, et al. 2015. Urban Institute. “Reducing Child Poverty in the US.”

<http://www.urban.org/sites/default/files/alfresco/publication-pdfs/2000086-Reducing-Child-Poverty-in-the-US.pdf>

#### 4.1.2. The Child Tax Credit (CTC):

Some of the policy think tanks have proposed modifications to the Child Tax Credit (CTC), which shares key features with the EITC. The Child Tax credit is a credit given to taxpayers for each dependent child who is under the age of 17 at the end of the tax year. The Child Tax credit is a nonrefundable credit that reduces the taxpayer's liability on a dollar-for-dollar basis. The Child Tax credit is intended to provide an extra measure of tax relief for taxpayers with qualifying dependents.

There is also a provision that is refundable for lower income families. It's called the "Additional Child Tax Credit". This is for families where the Child Tax credit exceeds the amount of the tax they owe. This refundable credit. Is available to families with at least three children or other qualifying dependents. The family must also have earned at least \$3000 to receive the credit.

The AEI/Brookings joint report suggests extending the Additional Child Tax Credit, which is due to sunset at the end of 2017. Their report also proposes increasing the CTC benefit for families with children at key developmental stages, between the ages of 0 and 5.<sup>22</sup>

The left-of-center Center for American Progress (CAP) offers a similar recommendation, proposing a supplementary "Young Child Tax Credit" of \$1,500 for families with children under 3 years of age. CAP also proposes making the full credit available to lower- and moderate-income families, and indexing the credit to inflation so that its true value does not diminish over time.<sup>23</sup>

The Urban Institute as part of their modeling for Children Defense Fund simulated the effects of making the Child Tax Credit fully refundable. They estimated that child poverty would be reduced by an estimated 11.6%.<sup>24</sup>

#### 4.2. Raising the Minimum Wage:

There is less consensus about proposals to raise the minimum wage, although many think tanks do support it. The concerns about raising the minimum wage focus on two related dynamics.

The first concern, still hotly debated, is that while a higher minimum wage would increase workers' earnings, such a change may decrease hiring and increase job loss among lower-skilled

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<sup>22</sup> AEI/Brookings Working Group on Poverty and Opportunity. 2015.

<sup>23</sup> Boteach, M., Vallas, R., and Schultz, E. 2016.

<sup>24</sup> Giannarelli, L, et al. 2015. Urban Institute.

and less educated workers.<sup>25</sup> Brookings' Holzer, who had been Chief Economist for the U.S. Department of Labor during the Clinton Administration, advises an increase, but only to (unspecified) levels that would prevent such job losses.

The second concern is that raising the minimum wages is an inefficient tool for lowering poverty rates and spends scarce federal tax dollars mostly on people who are not poor. Sawhill and Karpilow also from Brookings, caution that a higher minimum wage would not specifically target the poor, as only one-fifth of minimum wage workers live below the federal poverty line (FPL) and two-thirds live above 200% of the FPL. Nevertheless, those researchers recommend raising the minimum wage to \$10.10 and indexing it for inflation, which aligns with President Obama's proposal.<sup>26</sup>

The AEI/Brookings collaboration also suggests a higher minimum wage, but that it should be "below what the Administration has proposed, but still large enough to substantially improve the rewards associated with work among the less-skilled."<sup>27</sup>

The Urban Institute estimates that raising the minimum wage to \$10.10 would reduce child poverty by 4%,<sup>28</sup> and the Center for American Progress projects that a \$12 minimum wage by 2020 would help 4.6 million people escape poverty.<sup>29</sup>

#### 4.3. Modifying Temporary Assistance for Needy Families (TANF):

The Temporary Assistance for Needy Families (TANF) program is designed to help needy families achieve self-sufficiency. States receive block grants to design and operate programs that accomplish one of the purposes of the TANF program. The four purposes of the TANF program are to:

1. Provide assistance to needy families so that children can be cared for in their own homes
2. Reduce the dependency of needy parents by promoting job preparation, work and marriage
3. Prevent and reduce the incidence of out-of-wedlock pregnancies

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<sup>25</sup> Holzer, H. 2016. Federal Reserve Bank of San Francisco, Economic Letter, The Effects of Minimum Wages on Employment, David Neumark. 2015-37 | December 21, 2015.

<sup>26</sup> Sawhill, I. and Karpilow, Q. 2014.

<sup>27</sup> AEI/Brookings Working Group on Poverty and Opportunity. 2015.

<sup>28</sup> Giannarelli, L, et al. 2015. Urban Institute. "Reducing Child Poverty in the US."

<sup>29</sup> Boteach, M., Vallas, R., and Schultz, E. 2016.

4. Encourage the formation and maintenance of two-parent families<sup>30</sup>

There have been a number of proposed changes to the TANF program, although few of the recommendations are made by more than one organization:

- The block grant aspect of the program allows states to use TANF funds on other priorities, if they deem it necessary. Some states have taken this option repeatedly raising concern that only a fraction on the funds intended for the TANF population is actually reaching the target population. To address this concern, researchers at the Hamilton Project (Brookings) suggest a requirement for states to spend at least 25 percent of annual TANF funds on cash assistance and at least 50 percent on the “core support categories.” To further bolster the program’s effectiveness, the Hamilton authors also suggest Congress can expand both who eligible for TANF as well as the federal funding that is allocated to the program during economic downturns. Finally, the Hamilton Project authors suggest restoring the value of the block grant to its 1997 inflation-adjusted level.<sup>31</sup>
  
- The AEI/Brookings collaborative report recommends a continuation of the emergency employment program created under TANF as part of the American Recovery and Reinvestment Act during 2009-2010, in order to increase employment rates among low-income and lower-skilled adults. An evaluation of the program found net employment growth by employers who hired the subsidized applicants, along with some post-subsidy improvements in the employees’ earnings.<sup>32</sup>
  
- The House Republican Task Force on Poverty, Opportunity, and Upward Mobility produce a set of recommendation in a document - “A Better Way.” The authors of the report indicate that states have been able to avoid engaging many TANF recipients in work-related activities. They suggest that a reauthorization of the program should require states to focus on preparing clients to enter or re-enter the workforce.<sup>33</sup> Similar to a recommendation from the Urban Institute, a common theme in the GOP’s report is also the

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<sup>30</sup> <http://www.acf.hhs.gov/ofa/programs/tanf/about>.

<sup>31</sup> Bitler, M., and Hoynes, H. 2016. The Hamilton Project. “Strengthening Temporary Assistance for Needy Families.” [http://www.hamiltonproject.org/assets/files/bitler\\_hoynes\\_strengthening\\_tanf.pdf](http://www.hamiltonproject.org/assets/files/bitler_hoynes_strengthening_tanf.pdf)

<sup>32</sup> AEI/Brookings Working Group on Poverty and Opportunity. 2015.

<sup>33</sup> House Republican Task Force on Poverty, Opportunity, and Upward Mobility. 2016.

reduction of burdensome reporting requirements, and granting greater flexibility at the local level.<sup>34</sup>

- The Center for American Progress recommends expanding TANF in two ways: 1) Repeal the law that bans individuals with felony drug convictions from accessing TANF; 2) Significantly raise or eliminate asset limits for TANF.<sup>35</sup>

#### 4.4. Concluding Thoughts about the Range of Policy Proposals:

The proposals above are described in descending order of consensus. Innovations to the Earned Income Tax Credit are widely supported--from the Obama Administration to Speaker Ryan and the House GOP.

Raising the minimum wage has also been proposed by a range of organizations, including AEI on the right, Brookings in the center, and the Urban Institute and CAP on the left. However, most of the people who would benefit from a higher minimum wage are already above the poverty line.

Several ideas have been advanced about ways to modify the TANF program, although there does not appear to be a unified or coherent proposal supported across the political spectrum. The Urban Institute and the House GOP agree that federal requirements are burdensome and may obstruct caseworkers from actually helping clients engage in gainful activities, but that is as far as the common ground goes.

## 5. The nature of the association between income and health – A review of the peer-reviewed literature.

It has been posited widely in the social and health sciences that there is a positive association between income and health. The reader should be reminded that the relationship observed is an association or correlation, not a definitive causal statement, i.e., that changes in income cause changes in health status or outcomes. The relationship has been found for a range of health

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<sup>34</sup> Hahn, H. 2016. Urban Institute. “How to expand opportunity through a better TANF program.”

<http://www.urban.org/urban-wire/how-expand-opportunity-through-better-tanf-program>

<sup>35</sup> Boteach, M., Vallas, R., and Schultz, E. 2016.

outcomes, including mortality, chronic illnesses, disability and functional limitations, self-rated health, and mental health.<sup>36</sup> Scholars have proposed different mechanisms to explain the relationship between lower income and worse health, including material deprivation, decreased social participation, decreased control over one's life, unsafe neighborhoods, lack of nutrition, health care, and clean air.<sup>37</sup>

A more complete review of the literature appears in Appendix 2. The highpoints are summarized below. The evidence of a direct, causal relationship remain mixed, at best.<sup>38</sup>

A study by one of the staff economists from the congressional Joint Committee on Taxation focused on the effect of the Earned Income Tax Credit (EITC) found that no significant effect of increased income on either perceived health status or functional limitations modeled using the two major federal databases and analyzing both pre and post-tax income. Using more sophisticated modeling than many other researchers, he used techniques to ensure the elimination of any bias in the estimates. The most significant effect found was that increased income did increase the affordability of hearing aids for the hearing impaired.<sup>39</sup>

In a 2012 study, the authors first modeled low, medium and high income counties with premature mortality as the dependent variable. They found a significant association between their income measures and premature mortality. However, when they remodeled low-income counties and high-income counties separately, the income measures were non-significant in the low-income counties. While they were still significant in higher income counties. In other words in low-income counties increased income is not associated with significant reductions in premature mortality. In the low-income counties, education variables, i.e., high school freshman graduation rate and the percentage of adults with a 4-year college degree, were both significantly associated with reducing premature death.<sup>40</sup>

In 2002 study of the interaction between higher income and health reported that doubling income reduced the probability of death between 17% and 27%.<sup>41</sup> However this occurred when the author only controlled for years of schooling. Once race and other socio-economic variables were included, the influence of income became unclear on health outcomes. "There is no relationship between income inequality and mortality once we control for the racial composition of American states and

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<sup>36</sup> Larrimore, J. (2011). Does a higher income have positive health effects? Using the earned income tax credit to explore the income-health gradient. *Milbank Quarterly*, 89(4), 694-727.

<sup>37</sup> Cheng, E. R. & Kindig, D.A. (2012). Disparities in premature mortality between high-and low-income US counties. *Preventing Chronic Disease*, 9.

<sup>38</sup> Kawachi, I., Adler, N. E., & Dow, W. H. (2010). Money, schooling, and health: Mechanisms and causal evidence. *Annals of the New York Academy of Sciences*, 1186(1), 56-68.

<sup>39</sup> Larrimore, 2011, op cit.

<sup>40</sup> Cheng & Kindig, 2012, op cit.

<sup>41</sup> Deaton, A. (2002). Policy implications of the gradient of health and wealth. *Health Affairs*, 21(2), 13-30.

cities. More generally, inequality almost certainly affects health, but income inequality is not the key.”<sup>42</sup>

Another study found that increasing the minimum wage to \$15 in New York would reduce premature deaths by, between 8 and 5 deaths per 100,000, translating to between 2,800 and 5500 fewer deaths between 2008 and 2012.<sup>43</sup> These results are contradictory to the other studies, although the authors did control for similar socio-economic variables. The difference remains unexplained.

In an imaginative, quasi-experimental approach researchers tracked lottery winners, pre and post winning. Lindahl examined the longitudinal effects of lottery payments on health status in three waves of the Swedish surveys (1968, 1974, and 1981) in which respondents were asked about amounts of money earned from betting or playing the lottery.<sup>44</sup> The effect of changes in health were examined over the range of independent variables effected by the lottery winnings. The research found a statistically significant, if not substantial effect. A 10% increase in income was associated with an increase in life expectancy of between 5 and 8 weeks.<sup>45</sup>

## 5.1. Evidence base of social policies, programs, and interventions, targeting income and health

Rather than studying the effect of income directly, some researchers have evaluated the effects of social policies and programs on participants’ health. In their review of research on welfare reform, Bitler and Hoynes (2006) note that most findings of health effects are small, mixed, and often insignificant.<sup>46</sup> In their own analysis of five states, they find mostly inconclusive and insignificant results with respect to insurance coverage, utilization, and access.<sup>47</sup> In another study of welfare

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<sup>42</sup> Ibid 23-24.

<sup>43</sup> Tsao, T. Y., Konty, K. J., Van Wye, G., Barbot, O., Hadler, J. L., Linos, N., & Bassett, M. T. (2016). Estimating potential reductions in premature mortality in New York City from raising the minimum wage to \$15. *American Journal of Public Health*, 106(6), 1036-1041.

<sup>44</sup> Lindahl, M. 2002. Estimating the effect of income on health and mortality using lottery prizes as exogenous source of variation in income. Institute of Study of Labor (IZA), Discussion Paper No. 442. Bonn, Germany. Accessed at: <http://papers.ssrn.com/abstract=300662>.

<sup>45</sup> Kawachi, I., Adler, N. E., & Dow, W. H. (2010). Money, schooling, and health: Mechanisms and causal evidence. *Annals of the New York Academy of Sciences*, 1186(1), 56-68.

<sup>46</sup> Bitler, M., & Hoynes, H. W. (2006). Welfare reform and indirect impacts on health (No. w12642). National Bureau of Economic Research.

<sup>47</sup> Ibid.

reform, Knab et al. (2008) found that although welfare was associated with higher rates of health insurance, it was only associated with positive health effects as a function of a quadratic, curvilinear relationship. In other words, they concluded that when welfare benefits are low, increases in generosity have positive health benefits, but when benefits are high, further increases lead to negative outcomes. This is consistent to Cheng and Kindig's (2012) proposition that the relationship between income and mortality is nonlinear, with the protective effects of individual income on health diminishing at higher income levels.

Reviews of other social policies have been mixed. Osypuk et al. found limited positive effects from income support policies, such as minimum wage laws, the EITC, and unconditional income supplementation.<sup>48</sup> Ludbrook and Porter (2004) also note that studies of cash benefits often result in insignificant health improvements, and that welfare to work policies produce few sustained benefits to health.<sup>49</sup> On the other hand, Arno and Wicks-Lim (2015) review several other studies of the EITC, and suggest that the program is, in fact, beneficial for health in many ways, including on physical and mental health domains.<sup>50</sup>

Deaton argues (2002) that there is strong evidence that factors directly affected by income, such as nutrition and housing, determine health.<sup>51</sup> A policy of income provision to the poor may be more effective than spending the same amount on a weak health delivery system. Dow et al. (2010) make a similar claim, writing that while income support policies can raise an individual's income dimension of SES, raising income without intervening on the many other dimensions of that person's SES (such as education, social capital, neighborhood, etc.) may have only limited benefits.<sup>52</sup>

## 5.2. Conclusions about the evidence base:

As stated above there is a mixed record about the association between income and health outcomes. There is no "smoking gun" of causality. To compound the problem the research in this area is often lacking in rigor or so esoteric as to make it inappropriate for policy making.

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<sup>48</sup> Osypuk, T. L., Joshi, P., Geronimo, K., & Acevedo-Garcia, D. (2014). Do social and economic policies influence health? A review. *Current Epidemiology Reports*, 1(3), 149-164.

<sup>49</sup> Ludbrook, A., & Porter, K. (2004). Do interventions to increase income improve the health of the poor in developed economies and are such policies cost effective? *Applied Health Economics and Health Policy*, 3(2), 115-120.

<sup>50</sup> Arno, P. S., & Wicks-Lim, J. (2015). The Earned Income Tax Credit's Impact on Health. *Grantmakers for Children, Youth, and Families: Insight*, 25.

<sup>51</sup> Deaton, A. (2002), *op cit*.

<sup>52</sup> Dow, W. H., Schoeni, R. F., Adler, N. E., & Stewart, J. (2010). Evaluating the evidence base: Policies and interventions to address socioeconomic status gradients in health. *Annals of the New York Academy of Sciences*, 1186(1), 240-251.

Too many of the authors seemed to be determined to show a relationship that their data doesn't support. A model with only one independent variable (income) is not a model. It is just a correlation. When other variables that would reasonably be hypothesized to be associated with health outcomes, e.g., educational attainment, type of neighborhood, insurance coverage, are added to the model, income often becomes non-significant. Too many of the authors continued to discuss the association between income and health outcomes, when their model has just shown it to be non-significant with the addition of the other independent variables that should have been included in the first place.

Too many of the models report their results in terms of change in health outcomes per standard deviation change in income. Not a particularly useful form for policymaking. With some digging the reader can find the standard deviation and do their own calculation, assuming that a standard deviation reported as "8" means \$8,000 in income, not \$8 in income. The reader is left guessing. Reporting results in log form is equally unhelpful, unless you expect policymakers to calculate their own antilogs in order to be able to interpret the results.

Finally, in this type of modeling there are typically two questions that need to be answered:

- 1) Was association between the independent variable (income), and the dependent variable (health outcomes) statistically significant when the effects of other variables are controlled for?
- 2) What percentage of the observed variation in your dependent variable can be explained by the model?

Almost none of the research answers the second question. After reviewing the literature, the reader has a mixed picture where some of the studies find a statistically significant association and some do not. However, even for those where there was a statistically significant association, the reader has no idea where the model explained 2 percent of the variation in health outcomes or 92 percent. It's hard to see how such modeling can be useful in policy development or estimating tax or budget effects without knowing the overall power of the model used. It is therefore not surprising that staff at the Joint Committee on Taxation would feel compelled to build and publish their own model, rather than relying on this literature.

## 6. Policy Implications/Conclusions:

When writing a paper like this, the objective is to be able to establish new interesting findings in the research. That is not possible here. If antipoverty issues do gain political traction in the near future, there is not a rigorous or even quasi-rigorous, evidence base to support the hypothesis that improvements in income will produce improved health outcomes.

This conclusion does not diminish the ability of these proposals to reduce poverty. That is their primary policy goal and the fact that there is not a consistent body of evidence indicating that there is more than a correlation between income and health doesn't diminish their effectiveness in reducing poverty.

In addition, not all research is created equal. As discussed above some of the research lacks rigor. Other research is so arcane, that is likely to be useless to policymakers. The finding that the most balanced and rigorous example was from a government economist on the staff of the congressional Joint Committee on Taxation provides a clear indication of the evidence the Congress will most likely use. Joint Tax has the congressional authority over all official estimates of tax-related legislation, not the Congressional Budget Office, or any other congressional agency. The most relevant window into how the congress will assess the health effects of these mostly tax-related antipoverty proposals has already been established in Dr. Larrimore's research. He applied the best data and modeling available and found no substantial health effects.

This leaves two strategic alternatives. One, advocates shouldn't continue to make claims about the health effects of anti-poverty proposals. The best evidence is that the official scorers in both the Congress and the Administration wouldn't score any effects associated with health outcomes. Two, continue reviewing the existing research with the goal of finding evidence previous researchers were unable to find. This seems unlikely given the comprehensive nature of the Joint Tax study. There is no larger data base than the Census' Current Population Survey or more detailed a data base as the Survey of Program Participation, both of which were use in the Larrimore/Joint Tax modeling. A well designed random control trial, might be able to identify a clear significant effect where the analysis of survey data cannot.

While the designers of these anti-poverty proposals from both the left and right would probably prefer to make the claim that their proposals will not only reduce poverty, but also improve the health of lower-income Americans, we have not found conclusive evidence to support those claims. There is evidence, as discussed above, that their proposals will reduce poverty among lower-income American and some proposals more efficiently and effectively than others. Such an outcome would be a major policy success. The importance of poverty reduction and other social determinants of health to improve health outcomes will need to rely on other research.

## Appendix 1: Summary and Key Points in Anti-Poverty Policy Proposals

### The Hamilton Project (Brookings Institute)

#### “Strengthening Temporary Assistance for Needy Families”

[http://www.hamiltonproject.org/assets/files/bitler\\_hoynes\\_strengthening\\_tanf.pdf](http://www.hamiltonproject.org/assets/files/bitler_hoynes_strengthening_tanf.pdf)

The Great Recession revealed important weaknesses in the central cash welfare program for families with children in the United States, Temporary Assistance for Needy Families (TANF). First, TANF fails to reach a sizeable share of needy families, does little to reduce deep poverty, and is not targeted to the most-needy. Second, in its current form the program does not automatically expand during economic downturns, when the need for the program is likely greatest and the additional consumer spending would be particularly welcome. To strengthen TANF, we propose reforms to expand its reach, improve its responsiveness to cyclical downturns, and enhance its transparency.

- Expand the reach of TANF: Require states to spend at least 25 percent of annual TANF funds on cash assistance and at least 50 percent on the “core support categories.” To make it feasible to meet these new rules, we propose that Congress reduce the work participation rate targets to 40 percent for the full caseload and 70 percent for two-parent families, to encourage states to keep those who are least work-ready on the TANF caseload.
- Make TANF more responsive to economic downturns: Temporarily expand both who is eligible for TANF and the amount of federal funding is allocated to the program during economic downturns. Specifically, we propose that time limits and work requirements be waived under the same economic conditions that make a state eligible to waive SNAP time limits for able-bodied adults without dependents.
- Restore the value of the block grant: In 1997 the TANF block grant was set at \$16.5 billion and has remained unchanged in nominal terms since then. We propose that Congress restore the value of the block grant to its inflation-adjusted 1997 level (today approximately \$24 billion), and index the block grant to inflation going forward.

#### “Building on the Success of the Earned Income Tax Credit”

[http://www.hamiltonproject.org/papers/building\\_on\\_success\\_of\\_earned\\_income\\_tax\\_credit](http://www.hamiltonproject.org/papers/building_on_success_of_earned_income_tax_credit)

Under the current design of the EITC, childless earners and families with only one child, for instance, receive disproportionately lower refunds. In 2014, families with two children (three or more children) are eligible for a maximum credit of \$5,460 (\$6,143) compared to \$3,305 for families with one child. Married couples, despite their larger family sizes, receive only modestly more-generous EITC benefits compared to single filers. Childless earners benefit little from the EITC, and have a maximum credit of only \$496—less than 10 percent of the two-child credit. Prominent proposals seek to mitigate these inequalities.

President Obama’s fiscal year 2015 budget includes an expansion of the childless EITC, a concept outlined by John Karl Scholz in 2007 in a proposal for The Hamilton Project. Notably, MDRC is currently evaluating Paycheck Plus, a pilot program for an expanded EITC for workers without dependent children, for the New York City Center for Economic Opportunity (MDRC 2014). The recent Hamilton Project proposal for a secondary earner tax credit addresses the so-called EITC penalty for married couples (Kearney and Turner 2013). And the more generous EITC credit for three or more children was recently enacted as part of the American Recovery and Reinvestment Act of 2009, and is currently scheduled to sunset in 2017.

This policy memo proposes an expansion for the largest group of EITC recipients: families with one child. In particular, I propose to expand the one-child schedule to be on par with the two-child schedule, in equivalence scale-adjusted terms. An equivalence scale captures the cost of living for a household of a given size (and demographic composition) relative to the cost of living for a reference household of a single adult, and is a standard component in defining poverty thresholds. The proposal expands the maximum credit for one-child families to \$4,641, from \$3,305 under current law, an increase of about 40 percent. The expansion will lead to a roughly \$1,000 increase in after tax income for taxpayers in the bottom 40 percent of the income distribution receiving the higher credit.

## Center on Budget and Policy Priorities

### “The Earned Income Tax Credit and Child Tax Credit”

<http://www.cbpp.org/research/federal-tax/chart-book-the-earned-income-tax-credit-and-child-tax-credit#PartFour>

#### Fixing the Glaring Gap in the EITC for “Childless Workers”

Many “childless workers” — including adults without children as well as non-custodial parents not claiming dependents for purposes of the EITC — receive little or nothing from the EITC. Largely as a result, they are the sole group that the federal tax system taxes into (or deeper into) poverty. President Obama, House Speaker Paul Ryan, and other members of Congress including Senator Sherrod Brown and Representative Richard Neal have proposed to make the EITC more adequate for this largely left-out group. Making more childless workers eligible for the EITC and boosting the very small credit for childless workers now eligible hold strong promise of increasing employment and reducing poverty.

- **Childless workers are the lone group the federal government taxes into poverty.** Federal taxes pushed 7.5 million childless workers below — or further below — the poverty line in 2014, in large part because they receive little if any EITC.
- **Childless workers receive very small EITCs.** The maximum EITC for a childless worker between ages 25 and 64 is just over \$500. Most workers receive far less — the average credit for eligible workers was \$281 in 2013, the latest year for which data are available. This was less than *one-tenth* the average \$3,100 EITC for tax filers with children that year.

- **The EITC for childless workers with poverty-level earnings offsets only a small part of their federal taxes.** Their EITC reduces their combined federal payroll and income taxes of \$1,170 in 2016 by just \$184, less than their income tax bill alone.
- **The EITC lifts about 1 percent of childless households out of poverty.** In contrast, it lifts about 15 percent of households with children out of poverty.
- **Filling the hole in the EITC for childless workers could boost employment rates.** Labor-force participation has fallen among less-educated young adults who aren't raising children, making them a prime candidate for a more adequate EITC.

## Brookings Institution

“Reducing Poverty the Democratic Way”

<http://www.brookings.edu/research/papers/2016/02/29-reducing-poverty-the-democratic-way-holzer>

By virtually all accounts, poverty in America is too high, and the opportunities for low-income children to succeed in life remain too low. The Democratic Party has traditionally led the fight for less poverty and more opportunity in America. I accordingly take on a simple question here: What policies should the 2016 Democratic nominee for president propose to address these problems?

What we need—very simply—are policies that will:

- Raise education and skills among poor children, youth, and adults.
- Make work pay” for the unskilled, and make more jobs available to them when needed.
  - We have two prominent ways of “making work pay”: raising the minimum wage and expanding the Earned Income Tax Credit (EITC). Regarding the minimum wage, we should certainly raise it, but only to levels that do not greatly threaten job loss among the young and less-educated.
  - On the EITC, one group of poor adults now benefits very little from it: childless adults, especially non-custodial parents. A childless adult EITC (in the amount of \$1,500–\$2,000) should raise their incentives to accept and keep low-wage jobs, as well as their ability to support families.
- Address the specific problems of such groups as ex-offenders, non-custodial parents, children in very poor families or neighborhoods, and people with disabilities.

“A No-Cost Proposal to Reduce Poverty and Inequality”

<http://www.brookings.edu/~media/research/files/papers/2014/01/09-no-cost-proposal-to-reduce-poverty-inequality-sawhill/no-cost-proposal-sawhill.pdf>

While a higher minimum wage will help to boost earnings, critics worry about its effects on hiring, arguing that employers will create fewer jobs if they have to pay higher wages. Although past increases do not appear to have adversely affected employment, there is no denying the risk that much larger increases might pose to the least skilled workers. Raising the minimum from its current \$7.25 to \$15.00 per hour, as some have advocated, would more than double the cost to an employer and likely have some impact on hiring. In addition, a higher minimum isn't well targeted

on just the poor. Many of the people who would benefit from a higher minimum are secondary workers from more advantaged families. About two-thirds live above 200 percent of the federal poverty line. Only about a fifth are poor.

If we are really worried about families at the bottom, a better way to improve their lot is to increase the Earned Income Tax Credit (EITC) since it is well-targeted to those who most need assistance and will not significantly affect employers. That said, any increase in the generosity of the EITC could cost billions of dollars—unlikely to be approved in today’s fiscally constrained environment. Moreover, as currently designed, although it clearly encourages work, it may discourage marriage, or encourage unwed childbearing. (Empirical evidence for the last two effects is lacking but they remain a concern.)

A better way to boost earnings is to combine the best elements of each policy, allowing them to work in tandem to reduce poverty and inequality. Specifically, we recommend the following hybrid policy:

- Raise the minimum wage to \$10.10 and index it for inflation;
- Provide a more generous EITC to families with young children (and somewhat less to large families);
- Provide a significant benefit to childless individuals;
- Eliminate the marriage penalty for most households by basing credits on personal instead of family income;
- Impose a work requirement for childless workers (and a less stringent one for second earners) and restrict eligibility for these two groups to households below 200 percent of the federal poverty line.

## AEI/Brookings Institution

### “Opportunity, Responsibility, and Security: A Consensus Plan for Reducing Poverty and Restoring the American Dream”

[https://www.aei.org/wp-content/uploads/2015/12/opportunity\\_responsibility\\_security\\_doar\\_strain\\_120315\\_FINAL.pdf](https://www.aei.org/wp-content/uploads/2015/12/opportunity_responsibility_security_doar_strain_120315_FINAL.pdf)

To improve the quantity and quality of work in ways that will better prepare young people—men as well as women—to assume the responsibilities of adult life and parenthood:

1. Improve skills to get well-paying jobs.
2. Make work pay more for the less educated
  - Low wages tend to discourage work, especially among less-educated men. We have therefore reached consensus on a pair of policies to “make work pay” better for less-educated and low-income groups. Specifically, we propose to expand the federal childless EITC and to raise the federal minimum wage.

- We support doubling the childless EITC to at least \$1,000 per year. President Obama has released a proposal to double the size of the EITC for childless workers, to broaden its phase-out range, and to expand eligibility to younger workers. Paul Ryan, now the Speaker of the U.S. House of Representatives, has proposed a similar EITC expansion. The support of both President Obama and Speaker Ryan shows that the expansion enjoys at least some bipartisan support.
  - In addition, we endorse an increase in the statutory federal minimum wage, which is currently \$7.25 an hour. The public widely supports a minimum wage increase, which would cost no public revenues.
  - The Congressional Budget Office (CBO) recently reviewed the research on this topic and predicted the likely effects of the Obama Administration’s proposal (to raise the minimum up to \$10.10 per hour over three years and then index it to inflation). Its estimate of the likely employment loss was 500,000 jobs over three years, with 16 million to 24 million workers enjoying wage increases and 1 million people being lifted out of poverty. But the study also found that more than 80 percent of the earnings increase would go to people already above the poverty line, and that it would modestly raise consumer prices, potentially hurting poor consumers who don’t have a family member who benefits from the raise.
3. Raise work levels among the hard-to-employ, including the poorly educated and those with criminal records.
- We should consider strengthening the work support system, especially for children, even while requiring more work of beneficiaries. We endorse some specific proposals for improvements, like extending the Additional Child Tax Credit beyond 2017 (when it is due to expire), as long as the credits are based on earnings from work rather than overall income.
  - In addition, we believe several possible changes should at least be analyzed and evaluated, because they could help protect children in families with very low or no earnings. These could include raising the EITC or the Additional Child Tax Credit payments for families with children in the critical developmental age range of 0-5, providing more state funding for child care, allowing higher SNAP benefits for children in this age range, or offering summer nutrition programs for families with young children.
4. Ensure that jobs are available.
- A more promising approach to creating jobs is the emergency employment program created under TANF as part of the American Recovery and Reinvestment Act during 2009–10. In a short time, roughly 260,000 workers were placed in jobs created by this federal subsidy. A nonexperimental evaluation suggested net employment growth among the employers who hired the subsidized applicants, along with some post-subsidy improvements in the employees’ earnings (relative to a carefully chosen comparison groups).

## Urban Institute

### “It takes a package of policies to substantially reduce poverty”

<http://www.urban.org/urban-wire/it-takes-package-policies-substantially-reduce-poverty>

The Children's Defense Fund's recent policy recommendations could reduce the number of children living in poverty by 60 percent—down from 10.9 million to 4.3 million, according to our analysis. Our study also shows something that we've seen in other analyses of anti-poverty policies: that it takes a *package* of policies, not just a single policy, to substantially reduce poverty.

The Children's Defense Fund (CDF) contracted with the Urban Institute to assess the costs and impacts of nine different anti-poverty policies. We found that each individual policy would reduce child poverty by anywhere from 1 percent to 21 percent; but none of the individual effects are nearly as large as the 60 percent reduction in child poverty when the policies are all combined. Here's the full list of CDF proposals, with our estimate of how much child poverty would be reduced from smallest to largest impacts:

- Child support “pass through” (child support for children receiving TANF is paid to the family instead of retained by the government, and a portion is disregarded in computing SNAP benefits): 1 percent reduction in the number of children in poverty
- Expanded child and dependent care tax credit: 1 percent reduction
- Expanded child care subsidies: 3 percent reduction
- Minimum wage increased to \$10.10: 4 percent reduction
- Expanded EITC: 9 percent reduction
- Guaranteed transitional jobs for unemployed or under-employed parents: 11 percent reduction
- Child tax credit made fully refundable: 12 percent reduction
- SNAP benefit increase of about 30 percent: 16 percent reduction
- Guaranteed housing vouchers for low-income families with children facing high rent relative to their income: 21 percent reduction

### “Reducing Poverty in the United States”

<http://www.urban.org/sites/default/files/alfresco/publication-pdfs/2000151-reducing-poverty-in-the-united-states.pdf>

During the Great Recession, the official poverty rate in the United States rose to its highest level in over 15 years. Reducing poverty continues to be a serious public policy concern. This report examines the effects of a package of policies that aim to alleviate poverty through increased work supports and other measures, and estimates that these policies would reduce poverty rates in the

United States by more than 50 percent. The policy package, designed by the Community Advocates Public Policy Institute, includes:

- a transitional jobs program providing wage-paying work for unemployed and underemployed people;
- an increase in the federal minimum wage to \$10.10 an hour;
- an expansion of the earned income tax credit, providing a roughly \$4,000 increase in the maximum credit for both childless taxpayers and taxpayers with children, and eliminating virtually all the credit's marriage penalties by allowing both the head and spouse of a married tax unit to claim the credit based on their individual earnings;
- increased support for individuals receiving Social Security and Supplemental Security Income in the form of a tax credit that would raise recipients' incomes to 150 percent of the official poverty guidelines; and
- expanded funding for child care subsidies to guarantee subsidies to individuals with incomes below 150 percent of the official poverty guidelines.

The effects of the policy package were estimated using the TRIM3 microsimulation model, a comprehensive model maintained by the Urban Institute that simulates the effects of the tax and transfer system in the United States. Results were estimated for 2010, at the height of the recent recession, and poverty was measured using the Census Bureau's Supplemental Poverty Measure (SPM), which takes into account the effects of taxes and government programs on poverty. The policy package as a whole is simulated to reduce the SPM poverty rate in 2010 from 14.8 percent to 7.4 percent (or 6.3 percent with more generous take-up assumptions for transitional jobs). This represents a drop of 50 to 58 percent in the number of people in SPM poverty. The direct cost of the policy package is estimated to be \$332 billion to \$399 billion. These results suggest that a comprehensive policy package can have substantial antipoverty effects, even during a deep recession.

### **“Tax credits could reduce poverty even more—by including workers without children at home”**

<http://www.urban.org/urban-wire/tax-credits-could-reduce-poverty-even-more-including-workers-without-children-home>

To date, tax assistance has had almost no effect on childless workers and non-workers. For childless workers, there's a relatively easy fix: expand the childless EITC or create a credit based solely on earnings without regard to the number of children living at home. Using the tax system to reduce poverty for non-workers would likely require people who currently do not need to file taxes to begin doing so—and may be a leap too far, administratively.

For the EITC to be effective for childless workers, two things must happen:

- The maximum benefit (now just \$506) needs to be increased, and the income range to which it applies must be expanded. At present, the childless EITC phases out entirely before the phase-out for workers with children even begins: a single, full-time minimum-wage worker without children qualifies for no EITC. Compare this with a full-time minimum-wage worker with children who can receive the maximum EITC ranging from

\$3,373 (one child) to \$6,269 (three or more children). To be even more inclusive, the age limits that apply only to workers without children (who must be ages 25 to 64 to benefit from the EITC) could be removed or expanded.

Several proposals to expand the childless EITC exist, including one already proposed by Speaker Ryan (which is nearly identical to the one proposed by President Obama in recent budgets). Another option would be to create a worker credit for all low-income workers. Working-age men without children living at home are much less likely to be employed than men with children at home. Analysts believe that a substantial work-related credit could encourage these men to work, which in turn, would likely reduce poverty. Improving work incentives for all workers might be just the “Better Way” Speaker Ryan and House Republican leadership seek.

### “How to expand opportunity through a better TANF program”

<http://www.urban.org/urban-wire/how-expand-opportunity-through-better-tanf-program>

- The block grant that funds TANF has remained unchanged since 1997, meaning that its real value has eroded by one-third. States spend most of the funds on things other than cash assistance and helping people access work and child care. TANF cash assistance reaches fewer than one in four poor families and fewer than one in three families eligible for assistance (including just 12 percent of families where both parents are eligible), although these figures vary by state.

And for the relatively few families who do receive TANF, the assistance may be their only source of cash for purchasing diapers, personal care products, and other basic necessities. Yet, the amount is minimal—less than \$400 per month on average. These numbers reflect the incentives that come with a flexible and eroding block grant and without legal obligation for states to support poor families through cash or work. To better align TANF’s incentives with poverty reduction and better opportunity, we should shore up the block grant and direct funds to cash assistance or employment for poor families.

Current TANF policies and limited or complex connections with the workforce and child care subsidy systems create disincentives and barriers to truly meeting the complex needs of TANF families. In our research, state TANF administrators and frontline workers express frustration that current federal rules drive them to focus on paperwork and on steering parents to activities that meet state performance measures rather than those that help them find and keep employment.

To better help these families climb the ladder of opportunity, federal TANF performance measures should give states incentives to take a balanced approach to promoting work, family economic stability, and child well-being. States should have greater flexibility through reduced reporting requirements and fewer restrictions on specific client activities. At the same time, performance measures should focus more broadly on client outcomes. Coupling these changes with careful evaluation of state approaches could build evidence on TANF’s effectiveness in ultimately reducing poverty and enhancing opportunity.

## Center for American Progress

### “A Progressive Agenda to Cut Poverty and Expand Opportunity”

#### Building better jobs and wages

- **Raise wages**
  - Raising the minimum wage to \$12 per hour by 2020 would lift more than 4.6 million Americans out of poverty.
- **Make the tax code work better for low-wage working families**
  - Strengthen the EITC by lowering the eligibility age and boost the credit’s value for childless workers. Allow families to access up to \$500 of their EITC midway through the tax year through a partial early refund. Make individuals who receive the EITC categorically eligible for the maximum Pell Grant.
- **Guarantee basic labor standards**
  - Broaden the application of overtime protection
  - Update labor laws so workers are protected against being misclassified as independent contractors or subcontractors, rendering them ineligible for benefits.
  - Strengthen collective bargaining and remove barriers to union membership.
- **Ensure equal pay**
  - Combat pay discrimination and remove barriers to the full participation of women in the workforce.

#### Invest in and improve access to jobs for disadvantaged workers

- **Apprenticeships**
  - Provide employers with tax credits and competitive grants to support public-private partnerships.
- **National service programs**
- **Subsidized employment**
  - Create a national subsidized jobs program that would allow states to create employment opportunities for workers with labor-market disadvantages, with workers’ wages either partially or fully subsidized by the government for the duration of their participation in the program.

#### Valuing all families

- **Strengthen families’ economic foundations**
  - Strengthen the Child Tax Credit (CTC), making the full credit available to all low- and moderate-income families and indexing the credit’s value to inflations.
  - Offer a supplemental Young Child Tax Credit (YCTC) of \$1500 per year for children under age 3.
- **Ease tensions between work and family life**
  - Pass the “Healthy Families Act,” which allows workers to accrue 7 paid sick days per year; Pass the “Family and Medical Insurance Leave” Act, which offers wage replacement to workers in need of family and medical leave for long-term obligations.
- **Help keep families together**

- Repeal the law that bans individuals with felony drug convictions from accessing TANF and SNAP.
- **Invest in services and supports to increase family well-being and parenting with dignity**

#### Ensuring basic living standards

- **Nutrition assistance**
  - Switching to USDA’s Low-Cost Food Plan would increase SNAP benefits.
- **Social Security and Supplemental Security Income**
  - Boost minimum benefits
- **Unemployment insurance**
  - Improve the program’s solvency, reverse cuts made to benefit adequacy and duration, and repair the Extended Benefits program
- **Health care**
  - Expand Medicaid
- **Affordable housing**
  - Increase investments in the housing voucher program and prohibit landlords from rejecting prospective tenants just because they carry a voucher.
  - Expand the Low-Income Housing Tax Credit
  - Do away with exclusionary zoning that effectively bars affordable housing construction from high-opportunity neighborhoods.
- **Reforms to counterproductive savings and ownership penalties on income assistance programs**
  - Significantly raise or eliminate asset limits for TANF, SNAP, the Low Income Home Energy Assistance Program, and Supplemental Security Income.

#### Invest in human capital

- **High-quality, affordable child care and preschool**
  - High-quality Child Care Tax Credit
- **Prepare k-12 students for college and a career**
- **Expand access to higher education**

#### Removing barriers to opportunity

- **Promise Zones initiative**
  - Offers local governments the resources necessary to implement comprehensive strategies to revitalize high-poverty communities
- **Break the link between mass incarceration and poverty**
  - Individuals with low-level, nonviolent records should be permitted to earn a “clean slate.”
  - Fair chance hiring and housing policies are needed to prevent individuals with records from having their applications pre-emptively dismissed
- **Give workers with disabilities a fair shot**
- **Promote financial empowerment**
  - Make the Saver’s Credit fully refundable
  - Asset limits in aid programs must be significantly increased or eliminated to make it possible for families to build savings

## House Republican Task Force on Poverty, Opportunity, and Upward Mobility

### “A Better Way: Our Vision for a Confident America”

#### Repair the nation’s safety net to expand opportunity

- **Expect work capable adults to work or prepare for work in exchange for welfare benefits**
  - Require states to engage TANF recipients in work
  - Better connect between child-support enforcement programs to workforce development activities
  - Engage beneficiaries as early as possible with effective reemployment strategies
  - Reform SSI to focus on needed services in lieu of cash assistance
  - Insist on work for work-capable adults on SNAP
  - Align housing benefits with TANF benefits
- **Get incentives right so everyone benefits when someone moves from welfare to work**
  - Incentives for recipients: Increase the EITC
  - Increase local control and flexibility, with accountability
  - Federal match rates for administrative costs should be high to incentivize automation and coordination among programs. Federal match rates should be reduced over time to incentivize states to more quickly help recipients.
  - Create individual choice in housing assistance
  - Reduce duplication and overlap across programs
- **Focus support on the people who need it most**
  - Align program data
  - Expand use of information technology to prevent incorrect payments

#### Improve the skills and knowledge of our workforce

- **Strengthen early childhood development**
  - Support research to advance high-quality services
  - Improve coordination to reduce redundancy
  - Help parents make informed decisions
- **Support at-risk youth**
  - Shared information, open communication, and coordination of assessment and treatment are critical to the successful rehabilitation of youth.
  - Prioritize best practice and evidence-based programs
  - Allow for state and local innovation
  - Expand educational choice
- **Improve career and technical education**
  - Empower state and local leaders by curtailing overly prescriptive federal requirements
  - Increase transparency and accountability
  - Improve alignment with in-demand jobs
- **Strengthen America’s higher education system**
  - Empower students and families to make informed decisions by streamlining information and simplifying transparency efforts
  - Simplify and improve student aid

- Promote innovation, access, and completion to reduce college costs
  - Repeal unnecessary data reporting requirements and harmful regulations
- **Improve nutrition for students and working families**
  - Ensure appropriate standards and update the one-size-fits-all nutrition requirements
  - Improve flexibility for nutrition assistance service providers
  - Explore new delivery/funding methods for child nutrition programs
- **Building retirement security through the private retirement system**
  - Prevent a taxpayer bailout of the Pension Benefit Guaranty Corporation
  - Ensure plans are well funded and employers remain in the system
  - Protect access to affordable retirement advice
  - Make it easier for employers to join together to offer 401 (k)s
  - Reduce regulations
- **Ensure access to banking services**

## Appendix 2: Annotated Review of the Peer-Reviewed Literature

Bitler, M., & Hoynes, H. W. (2006). *Welfare reform and indirect impacts on health* (No. w12642). National Bureau of Economic Research.

The impact of welfare reform on insurance coverage and health care utilization is more direct than on health status per se. Health, according to Grossman (2001) is a “durable capital stock” which changes slowly and over time. Although the intention of welfare reform was to increase employment among low-income individuals, thereby increasing their economic resources independent of government assistance, the health impacts are far less direct, and mediated through other changes, e.g. health insurance coverage and health services utilization.

### Impact of Welfare Reform on Health Insurance

- Some research suggests that state waivers and TANF implementation led to reductions in *any* insurance coverage for single women.
  - Declines in Medicaid, increases in employer-provided insurance, and overall decrease in insurance for single mothers and their children.
- Some research finds statistically small and insignificant reductions in health insurance.
- Some research indicates that there might be increases in insurance coverage due to spillover effects of welfare reform on nonrecipients.
- Overall, the authors conclude that the literature is mixed, but the balance of the evidence is toward decreases in insurance following welfare reform implementation. However, much of the evidence is small and statistically insignificant.
  - However, concurrent Medicaid expansion may offset some of these declines.

### Impact of Welfare Reform on Health Outcomes

- The nonexperimental literature suggests small, mixed, and often insignificant impacts on health.
- Reviews of the experimental literature on welfare reform indicate an equal number of studies finding positive and negative health effects of welfare reform.

### Experiments of Five States

- Using an experimental design, the authors evaluate the impact of welfare waivers in five states, focusing on single parents.
- Welfare reform led to increased public insurance coverage in Minnesota and Connecticut, (but net overall increases only occurred in Connecticut), and insignificant and small impacts in the other states (Florida, Iowa, Minnesota, Vermont).
- Effects on utilization and access to healthcare were very inconclusive. Most estimates were non-significant.
- In terms of outcomes, estimates consistently point to improvements in health as a result of welfare reform, *but few of the results are significant*.
- After controlling for multiple inference, the authors find that only Connecticut saw positive and significant effects of adult insurance coverage, but health status and utilization remained small and non-significant.

Knab, J., Garfinkel, I., & McLanahan, S. (2008). The effects of welfare and child support policies on maternal health and wellbeing (No. 06-28). National Poverty Center.

### Abstract

This study examines the effects of welfare and child support policies on maternal health and health behaviors using data from the Fragile Families and Child Wellbeing Study. The researchers found that at low levels of welfare benefits, more generous welfare benefits are associated with increases in health while at high levels of welfare benefits more generous benefits are associated with decreases in health (with the exception of smoking). Increases in the stringency of child support enforcement are associated with decreases in mental health. That generous welfare and stringent child support enforcement may negatively affect mother's mental health is surprising and worrisome.

### Background

- Some research suggests stricter welfare policies are associated with loss of health insurance, but other studies have found no effect.
- There is more conclusive evidence indicating that stringent welfare policies are associated with less health care utilization, and higher incidence of unmet healthcare needs.
- *Despite the loss of health insurance, less use of preventative care, and some evidence of poorer health behaviors, there is little to no evidence that more restrictive welfare policies are associated with poorer health or mental health in the years following welfare reform.*

### Methods

- Fragile Families and Child Wellbeing Study
- N=4,231: roughly 75% are unmarried, 25% married
- Measures: mother had any health insurance; anyone in household didn't go to the doctor because they couldn't afford it; hunger; self-rated overall health; depressed or anxious; behavioral health and stress measures

### Results

In the first part of the analysis, authors examine the relationship between observed welfare and child support receipt and maternal health and health behaviors using OLS regression and controlling for a set of individual characteristics.

- Welfare associated with greater health coverage
- Welfare receipt associated with a number of poor health outcomes: reporting worse overall health, higher rates of depression and anxiety, greater levels of food insecurity, higher rates of stress-related behaviors.

Using quadratic functional forms, the authors find:

- When welfare benefits are low, increases in generosity have positive health effects across all measures (except smoking). When welfare benefits are high, further increases have negative effects.

A possible interpretation:

- One possible interpretation is that at low levels of welfare benefits, increases in benefit levels have the intended effect of reducing maternal stress and thereby improving mental health. But once benefits reach a certain level, the negative effects of higher benefits outweigh the positive effects. High benefits could decrease work and increase isolation, and thereby increase depression, anxiety, and self-medication.

Larrimore, J. (2011). Does a higher income have positive health effects? Using the earned income tax credit to explore the income-health gradient. *Milbank Quarterly*, 89(4), 694-727.

### Background

- The evidence of a positive correlation between individuals' socioeconomic status and their health outcome is extensive, with high-income individuals tending to be in better health than low-income persons. This relationship has been observed for a wide range of health measures, including mortality, chronic conditions, functional limitations, and self-reported health status. Even though the existence of this positive correlation is generally accepted, there is no clear consensus on the direction or the pathway of the relationship.
- Distinguishing which pathway or pathways drive this relationship is extremely valuable to understanding the costs and benefits of both public health policies and public transfer programs. For example, increasing the number of income-support programs may be warranted if a higher income is demonstrated to have a positive health effect.
- This article explores whether increases in income improve the health of the low-income population.

### Methods

- Data: SIPP, 1992-2005
- Current Population Survey, 1996-2005
- Sample focus is working-age adults with an income below 200% of the federal poverty line.
- Measures: self-reported health; functional limitations

### Results

The author uses an “instrumental variable” to deal with the uncertain causality of the correlation between income and health outcomes. Instrumental variables are recommended to deal with simultaneity problems like the interaction between these two variables. It allows the bias introduced by the simultaneity to be purged from the model.

- Neither changes in pretax nor post-tax income had significant positive effects on health. This is the case both for self-reported health and for functional limitations.

Cheng, E. R. & Kindig, D.A. (2012). Disparities in premature mortality between high- and low-income US counties. *Preventing Chronic Disease*, 9.

### Background

- The purpose of this study was to examine the relationship between income and premature mortality in US counties and to determine the relative association of several well-established determinants of health and premature mortality among counties with broadly differing levels of income.
- Increasing evidence suggests that the relationship between income and mortality is nonlinear, with the protective effects of individual income on health diminishing at higher income levels. In addition, risk factors other than income most likely affect the income-mortality relationship at the county level.

## Methods

- Data: Three sources were used:
  - The 2010 County Health Rankings,
  - CDC's Compressed Mortality database, and
  - The 2000 Decennial Census.
- Measures: Premature mortality; county-level demographic and healthcare variables; income inequality
- Analysis: stratified counties into low-, mid-, and high-income groups. Used weighted multivariable regression

## Results

- The modeling revealed interesting patterns in the data that may help policy makers target more effective interventions. First they modeled all counties in their sample. The results were as might be expected with income and a host of other socioeconomic variables being statistically significant.
- The authors then remodeled low-income counties and high-income counties separately. In the low-income counties income measures were no longer significant. In other words in low-income counties increased income is not associated with significant reductions in premature mortality. The variables that were significantly associated with premature death included:
  - Associated with reduced premature mortality – % Hispanic, % Uninsured residents, High school freshman graduation rate and % Adults with a 4-year college degree.
  - Associated with increased premature mortality - % Non-Hispanic blacks, Preventable hospital stays per 1,000, % Children living below federal poverty guidelines, % Single-parent households, % Residents who smoke and % Obese residents.
- One major limitation of this study was there were no measures of the overall predictive power of the model. Typically a measure like an  $R^2$  or an Adjusted  $R^2$  would provide a measure of the total variation explained by the variables in the model. While it is interesting to know if a particular variable is significant or not, a significant variable in a model that can predict 80 percent of the variation in health status is stronger evidence to base policy on than a model that only predict 10 percent of the variation in health status.

Deaton, A. (2002). Policy implications of the gradient of health and wealth. *Health Affairs, 21*(2), 13-30.

The Deaton article follows a now familiar pattern in these studies. The correlation between income and health status is clear and Deaton documents it again. Once he moves away from simply correlations and develop a better specified multivariate model that takes into account race/ethnicity, years of schooling, etc. the strength of the association between income and health status weakens. He is not clear if income is no longer a significant variable. Income serves as a proxy for these other socio-economic variable in simply univariate correlations.

Johnson-Lawrence, V., Kaplan, G., & Galea, S. (2013). Socioeconomic mobility in adulthood and cardiovascular disease mortality. *Annals of Epidemiology, 23*(4), 167-171.

#### Background

Life course models suggest that socioeconomic mobility is associated with decreased cardiovascular disease (CVD) mortality risk. We examined adult socioeconomic mobility measured by household income in relation to CVD mortality risk among older adults. Social mobility models suggest that variability in socioeconomic position (SEP) or patterns of SEP exposure in addition to absolute measures of SEP are associated with variations in disease risk.

#### Methods

Data: Alameda County Study, N=2691

Measures: CVD-cause mortality; household income between 1965 and 1999; demographic controls of age, race, marital status, gender.

Method: Latent variable approach using polynomial functions of time to estimate the likelihood of an individual having a particular income.

#### Results

Increasing patterns of income over the life course are associated with lower CVD mortality risk and provides support for the social mobility model. Adults in the increasing pattern group, which may represent an upwardly social mobile group of adults, may have increased access to medical resources that can prevent poor health, and therefore have decreased risk of CVD mortality. Consistent with other research findings on SEP and CVD mortality, this result suggests that significant increases in financial resources provide a protective effect from CVD mortality

Tsao, T. Y., Konty, K. J., Van Wye, G., Barbot, O., Hadler, J. L., Linos, N., & Bassett, M. T. (2016). Estimating potential reductions in premature mortality in New York City from raising the minimum wage to \$15. *American Journal of Public Health, 106*(6), 1036-1041.

### Background

Research on income and health consistently demonstrates that lower income and poverty are associated with worse health outcomes and earlier death. Efforts to raise the minimum wage, then, will likely have health effects.

### Methods

- Data: 2008 to 2012 NYC Department of Health and Mental Hygiene Vital Statistics estimates to calculate crude rate of premature death
- Measures: Proportion of residents who were low income below 200% FPL, determined from the American Community Survey.
- Assess the potential effects of higher minimum wage using individual-level data to simulate family income of respondents, imputing hourly wages for low income respondents.
- Control for neighborhood demographic characteristics

### Results

- In the “optimistic model,” where minimum wage increases did not reduce employment rates, a \$15 minimum wage would reduce the premature death rate by 15 per 100,000, which translates into 5500 fewer deaths between the years 2008 and 2012.
- In the “pessimistic model,” where minimum wage increases reduced employment rates, a \$15 minimum wage would reduce the premature death rate by 8 per 100,000, translating into 2800 fewer premature deaths between 2008 and 2012.
- A \$15 minimum wage would have the greatest health effects for residents in high-poverty neighborhoods

Dow, W. H., Schoeni, R. F., Adler, N. E., & Stewart, J. (2010). Evaluating the evidence base: Policies and interventions to address socioeconomic status gradients in health. *Annals of the New York Academy of Sciences, 1186*(1), 240-251.

### Background

This chapter discusses the current evidence base for policies that could address socioeconomic status (SES) health gradients in the United States. The present volume has documented an enormous amount of research on the linkages between SES and health, but there are still relatively few studies that rigorously establish the effectiveness of particular policies or interventions in reducing those gradients.

Relatively few out of the thousands of SES health gradient studies are able to tease out what portion of the observed relationship reflects causal pathways from SES to health as opposed to the adverse SES effects of ill health, or third variable explanations.

#### A Framework for Moving From Evidence to Policy

Overview of analytic methods used to study SES and health relationship, including classical randomized trials, decision science, and Bayesian analysis.

#### A Taxonomy of Policies and Interventions to Reduce SES Gradients in Health

- A general difficulty of the evidence base is that where some evidence is available, these studies often speak only to possible effects of the general construct under consideration (e.g., income) with little evaluation of specific interventions needed to influence the construct (e.g., earned-income tax credits vs. cash welfare).
- The time dimension also deserves special attention in terms of the time needed for an intervention to have the expected effects. Many low-SES individuals have been in low SES settings for years, and their families and associated social networks may have been in low SES conditions for generations. Although the evidence is overwhelming that higher SES individuals have better health outcomes than low SES individuals, it is not a simple task to move an individual from one SES milieu to another. Income support policies can raise an individual's income dimension of SES, but raising income without intervening on the many other dimensions of that person's SES (such as wealth, education, social capital, neighborhood, etc.) may have only limited benefits.

##### *Raising SES of the lowest SES Groups*

- Programs like TANF, SSI, SNAP, WIC, EITC, and minimum wage legislation may increase household income, but the consequences of these policies have not been extensively investigated. If anything, there have been conflicting results.
- One issue is that many of the studies studying interventions are relatively short-term, so the long-term health effects remain unknown.
- Many have suggested that investments in early education is effective in increasing income over the source of generations, but the health effects of such investments are not clear.

##### *Redistribution away from the highest SES*

- Increasing taxes on the wealthy to finance anti-poverty programs would be one example, but the evidence on health effects is weak.

##### *Reducing population-wide risk exposures; Targeted exposure reduction among low SES; Buffering negative health consequences of low SES*

- Evidence is scattered and weak, and not particularly relevant to the project.

##### *Strengthening the social safety net*

- E.g. unemployment insurance and job training might help mitigate the negative health consequences of unemployment, but there isn't sufficient evidence.

#### Conclusion

- There is a need for the implantation of health impact assessments (HIAs) of non-health social and economic policy.

Case, Anne, Darren Lubotsky, and Christina Paxson, "Economic Status and Health in Childhood: The Origins of the Gradient." *The American Economic Review* December 2002, VOL. 92 NO. 5, p 1308.

Abstract:

The well-known positive association between health and income in adulthood has antecedents in childhood. Not only is children's health positively related to household income, but the relationship between household income and children's health becomes more pronounced as children age. Part of the relationship can be explained by the arrival and impact of chronic conditions. Children from lower income households with chronic conditions have worse health than do those from higher-income households. The adverse health effects of lower income accumulate over children's lives. Part of the intergenerational transmission of socioeconomic status may work through the impact of parents' income on children's health. (JEL I1)

Background:

This work makes an interesting contribution to the area by positing that there the effect of income on health may not appear in the immediate generation, but in their children. They look at the probability of reporting better health status in the children of higher income families. The results follow a pattern seen in other work where initial positive correlations between income and health are greatly diminished when their model is more appropriately specified and all variables that would be reasonably hypothesized to affect health are included in the model. Income does not become non-significant, as in a number of the other studies. However once parental education is included. However, although statistically significant, it is hard consider these results as policy significant. The authors state: "(T)he gradients remain large and highly significant. Even with controls for parents' educations, a doubling of household income is associated with an increase in the probability that a child is in excellent or very good health of 4.0 percent (for ages 0–3), 4.9 percent (ages 4–8), 5.9 percent (ages 9–12), and 7.2 percent (ages 13–17). It hard to imagine law makers considering a proposal that requires doubling the income of a target population in hopes of improving the probability of a child being in excellent health by at most 7.2 percent?

Kawachi, I., Adler, N. E., & Dow, W. H. (2010). Money, schooling, and health: Mechanisms and causal evidence. *Annals of the New York Academy of Sciences*, 1186(1), 56-68.

Background

An association between higher educational attainment and better health status has been repeatedly reported in the literature. Similarly, studies have found a relationship between higher income and better health. However, whether these repeated observations amount to causality remains a challenge, not least because of the practical limitations of randomizing people to receive different amounts of money or schooling. In this essay, we review the potential causal mechanisms linking schooling and income to health, and discuss the twin challenges to causal inference in observational studies, in other words, reverse causation and omitted variable bias. We provide a survey of the empirical attempts to identify the causal effects of schooling and income on health,

including natural experiments. There is evidence to suggest that schooling is causally related to improvements in health outcomes. Evidence also suggests that raising the incomes of the poor leads to improvement in their health outcomes.

### Empirical Evidence on the Relationship between Income and Health

#### *Experiments*

- New Jersey-Pennsylvania Negative Income Tax Experiment: little evidence that families assigned to negative tax plans experience improved health outcomes (chronic illnesses, hospitalizations, physician visits)
- Cash transfer program like Progresa/Oportunidades in Mexico: additional income had positive health effects for children's physical and psychological development, but also evidence that it increases childhood obesity and hypertension.

#### *Quasi-experiments*

- Lottery studies: A 10% increase in income associated with a significant .01-.02 standard deviation increase on a health status index (or a 5-8 week increase in life expectancy, which is roughly equivalent to estimated gains with the cessation of smoking).
  - Methodological issues discussed
- Research using data from the National Survey of Families and Households, Survey of Income and Program Participation, National Health Interview Study show a positive association between higher income and health (see Ettner study below)
  - Methodological issues discussed
- One study on the "social security notch" found that individuals who received higher payments in social security benefits actually experienced a higher mortality rate.
- A study on psychopathological effects of an income supplement from a local Casino found that a \$6000 increase in income to American Indians brought 14% out of poverty, resulting in the significant improvement of child psychological health.
- Some evidence from studies on the EITC show that the policy was associated with increased obesity prevalence among adults.

#### *Longitudinal, observational studies*

- Smith (2004, 2009) did not find longitudinal causal evidence of the effect of income on health using large, panel data.
- A number of studies point to the importance of early childhood SES for later-life health

#### *Summary*

The causal evidence linking income and health is not there. Many of the studies that find a causal relationship have methodological flaws, and many of the studies that have null findings do not rule out a causal mechanism. There is not definitive evidence that a causal relationship between income and health status exists or does not exist.

Ettner, S. L. (1996). New evidence on the relationship between income and health. *Journal of Health Economics*, 15(1), 67-85.

#### Background

The purpose of this paper is to derive consistent estimates of the effect of income on a variety of health proxies, using two-stage instrumental variables estimation applied to cross-sectional data. This method will yield consistent estimates of the effect of income on health as long as the

identifying instruments are valid. Potential instruments for family income include the state unemployment rate, work experience, parental education, and spouse characteristics.

### Methods

- Data: NSFH, SIPP, NHIS; N=8,063, 20,806, 30,964 respectively
- Outcome measures include self-assessed health status, depressive symptoms, self-reported work limitations, ADLs, days spent in bed due to illness, alcohol use. Demographic controls include sex, age, race, ethnicity, marital status, number of household members, education, metropolitan residence
- Analysis: the structural impact of income on health is assessed using ordinary regression and IV estimates

### Results

#### *Effect of income on health, assuming exogeneity*

- Increasing monthly income by 1 standard deviation would lower the probability of functional limitations by .76 and reduce quarterly bed days by .26.
- Increasing annual income by 1 standard deviation would reduce weekly depressive symptom-days by 1.02 symptom-days per week.

#### *Effect of income on health after instrumenting*

- Increasing monthly income by 1 standard deviation would lower the probability of functional limitations by .49, reduce quarterly bed days by .75, and reduce weekly depressive symptom-days by 3.82.

[Backlund et al., Relationship Between Income and Mortality in the US, Annals of Epidemiology, Vol. 6, No. 1, January 1996: 12 -20.](#)

### Background:

A follow-up study based on a large national sample was used to examine differences in the well-established inverse gradient between income and mortality at different income levels. The study showed the income-mortality gradient to be much smaller at high income levels than at low to moderate income levels in the working age (25 to 64 years) and elderly (over 65 years) populations for men and women both before and after adjustment for other socioeconomic variables.

In addition, a much larger gradient existed for working age women at extreme poverty levels than for those women at low to moderate income levels or men at the same income level. The income-mortality gradient was much smaller in the elderly than in the working age population. The study also examined the ability of several different mathematic functions of income to delineate the relationship between income and mortality. The study suggested that the health benefits associated with increased income diminish as income increases.

### Data and Methods:

This report uses data from the National Longitudinal Mortality Study (NLMS), a prospective study of 500,000 men and women age 25 and older, to examine the shape of the relationship between income and mortality in the United States.

To examine the shape of the relationship between income and mortality, a Cox proportional hazards model with six indicator variables was used to model the natural log of the relative risk of mortality for each income group relative to the lowest income group. Three different models were formulated for each sex within three broad age groups. The first model adjusted for age, race, and household size; the second added marital status and education to the previous list of adjustment variables; and the third added employment status. The log of the relative risk was then plotted against the midpoint of each income category for each of the three models.

### Conclusions:

Among the lower income group, the researchers found statistically significant associations between increased income and lower mortality risk for three groups - Females 25-44, Females 45-64 and Males over 65. These results were from the most fully specified version of their model, i.e., the version that controlled for the most other possible explanatory variables. While statistically significant the size of the effect was small. An income increase of \$1,000 in income was associated with approximately a one percent reduction in mortality risk.

Osypuk, T. L., Joshi, P., Geronimo, K., & Acevedo-Garcia, D. (2014). Do social and economic policies influence health? A review. *Current Epidemiology Reports*, 1(3), 149-164.

### Background

Although social and economic policies are not considered part of health services infrastructure, such policies may influence health and disease by altering social determinants of health (SDH). We review social and economic policies in the USA that have measured health outcomes among adults in four domains of SDH including housing and neighborhood, **employment**, family strengthening/marriage, and **income supplementation**. The majority of these policies target low-income populations. These social policies rarely consider health as their initial mission or outcomes. When measuring health, the programs document mental health and physical health benefits more than half the time, although some effects fade with time.

- I only review employment and income supplementation policies below as they are the most relevant.

### Employment: Welfare to Work and Wage Subsidies

- National Evaluation of Welfare-to-Work Strategies: Research indicates that welfare reform reduce insurance coverage and service utilization but did not affect health outcomes, except a brief decline in depression.
- New Hope wage subsidy program: Significant improvements in health insurance coverage, self-reported physical health, depression, psychosocial measures through Year 5 of the program, but no significant effects at Year 8.

### Income Support Policies

- Opportunity NYC (conditional cash transfer program): Few effects on health outcomes, but it did improve health insurance coverage, family receipt of dental care, and nutrition and reduce fertility.
- Earned Income Tax Credit: A Cochrane Systematic Review of the health effects of the EITC found low-quality, methodologically-limited evidence of either no effect or mixed effects of EITC on adult health.
- Minimum Wage Laws: One study found reductions in unmet medical needs, but other studies have found no significant effects.
- Unconditional Income Supplementation: Studies of the North American Income Maintenance Experiments: Overall, very few and mixed health effects across four study sites.
- Income supplements from gaming revenues: Redistribution of revenue associated with beneficial effects on mental health (anxiety, alcohol and drug dependence) and physical health (obesity, hypertension, diabetes).

Ludbrook, A., & Porter, K. (2004). Do interventions to increase income improve the health of the poor in developed economies and are such policies cost effective? *Applied Health Economics and Health Policy*, 3(2), 115-120.

### Background

The comparative effectiveness of policies designed to improve health is not widely established. It is not enough to know that there is a well-established association between income and health. There is less evidence that policies aimed at providing income support have any measurable impact on health. Income may be a loose proxy for a set of other characteristics that affect health. So if income support or supplementation does not change those characteristics, there may not be a measurable improvement in health outcomes.

### Methods

A systematic review of literature that addresses interventions aimed to impact the income of the poor with at least one health-related outcome.

### Results

- Cash benefits
  - Most studies found a positive but insignificant relationship between policies of cash supplementation (welfare) and health
- Welfare to work
  - Very few interventions produced sustained increases in income once the program ended.
  - The results across the studies are fairly split. There was no association between income increases and health improvements, although some of the studies did show that participants in welfare demonstrations experienced health improvements (but not attributable to income change).

### What is the evidence?

A growing number of studies are exploring the health effects of the EITC, usually focusing on maternal and child health. Most use a difference-in-differences analytic strategy which tries to isolate the impact of EITC benefits by comparing the outcomes of groups receiving expanded EITC to those who do not.

- Baker (2008) found that EITC led to an increase in average birthweight and reduced incidence of low birthweight.
- Boyd-Swan et al. (2013) found that the EITC expansion in the 1990s generated health benefits for low-skilled mothers including fewer depression symptoms, increased happiness and self-efficacy.
- Evans and Garthwaite (2014) found an association between expanded EITC and improved self-reported mental and physical health and less stress.
- Hoynes, Miller, and Simon (2015) found that expanded EITC benefits were associated with improved birthweights of newborns to single mothers with low educational attainment.
- Strully et al. (2010) found that the presence of state-level supplemental EITC programs was associated with higher average birthweights to single mothers with low education. They suggest that this outcome results from the small, short-term increase in income, which boosted mothers' nutritional intake.
- Baughman and Duchovny (2013) found that state programs were linked to improved child health, which the authors attributed to higher employment rates and increased earnings.
- Wicks-Lim and Arno (2015) found that in New York, a 15% increase in EITC was linked to .45% reduction in low birthweights.

#### What do the findings mean?

The evidence that income supports improve health is small but growing. Research on the EITC indicates that such programs can have positive health effects, especially for women and young children. However, we still do not know what the causal pathway is, e.g. reduced smoking and stress, purchasing needed consumer goods and more nutritious food, improved access to health care, or enhanced neighborhood amenities.

Gunasekara, F. I., Carter, K., & Blakely, T. (2011). Change in income and change in self-rated health: Systematic review of studies using repeated measures to control for confounding bias. *Social Science & Medicine*, 72(2), 193-201.

#### Background

Most of the research on the relationship between income and health uses cross-sectional data or analyzes income and health at only one point in time. Randomized control trials are scarce, and those that do exist have produced inconclusive evidence. A review of randomized and non-randomized studies found that there is mixed evidence as to whether interventions that increase incomes affect health. A definite causal pathway is not clear. This paper presents a systematic literature review of longitudinal studies investigating the causal relationship between income change and **self-rated health**, and includes only those studies with repeated measures.

#### Results

Only a small number of studies met the inclusion criteria of having repeated measures analyses. 10 of the 13 studies found a small, statistically significant positive association between income

increases in improved self-rated health. **Average income** had a much greater impact on self-rated health than income change. Another systematic review (Benzeval and Judge, 2001) also concluded that average income is more important for health than fluctuations in income. Many of the studies reviewed concluded that a one unit increase in log income would result in a 1% increase in self-rated health, a modest effect size. So, even though results may be significant, they may not be meaningful in effect.

Herd, P., House, J., & Schoeni, R. F. (2006). *Income support policies and health among the elderly* (No. 06-27). National Poverty Center.

### Background

There is a growing body of research that documents the robust association between income and health, but there is little research examining the effects of income support or supplementation policies on health. This paper explores the promise and problems associated with research on the relationship between government income support policies and health.

### Why should we study health effects of income support policies and why don't we?

Decades of sociological and epidemiological research supports the hypothesis that income affects health, suggesting that we may be able to improve population health by supporting and supplementing income at the lower end of the income distribution. What is the evidence?

1. People with low incomes die sooner than people with higher incomes. However, income has diminishing returns with increases in income having the most positive impact on health for the poorest individuals.
2. Lower income people have more health problems while they are alive: chronic conditions, functional limitations, higher rates of mental illness, and lower self-reported health.
3. Duration of poverty matters for health; the longer the poverty spell, the worse is one's health.

### This evidence has not been translated into policy action

Policymakers almost exclusively address population health through increasing access to health care and expanding biomedical research. Rarely do policymakers consider the health implications of broader social and economic policies and specifically income support.

### Recent research on causal effects of income on health (and vice versa)

To understand the causal mechanisms, studies employ individual fixed effect models with panel data to control for time invariant individual characteristics; focus on children and elderly, who are less likely to experience direct causal effects on family incomes due to health shocks; use quasi-experimental unanticipated increases in income to examine the relationship to health. Findings from recent research addressing causality have been mixed though mostly consistent with an impact of income on health.

### Evidence for effects of income support policy on health among the elderly

- A \$100 increase in the SSI benefit led to a 1.8 percentage point reduction in the probability of mobility limitations among the poorest 25% of the SSI population,

The current evidence tends to support the claim that expansions of income support, particularly for lower income elderly, have had beneficial effects on old-age disability, and perhaps health

more broadly, with results of quasi-experimental designs generally consistent with those based on non-experimental research designs that require stronger assumptions to infer causality.

Hoynes, H. W., Miller, D. L., & Simon, D. (2012). *Income, the earned income tax credit, and infant health* (No. w18206). National Bureau of Economic Research.

### Background

This paper evaluates the health impact of a central piece in the U.S. safety net for families with children: the Earned Income Tax Credit. Using tax-reform induced variation in the federal EITC, we examine the impact of the credit on infant health outcomes.

### Methods

- Data: US Vital Statistics micro data, covering all births between 1983 and 1999; CPS estimation of family after-tax income, employment and health insurance
- Sample limited to single mothers age 18 and older
- Methods: quasi-experimental design beginning with a difference-in-difference analysis of EITC expansion (OBRA 1993).

### Results

EITC expansion associated with decreases in low birth weight and increases in average birth weight. For single low education mothers, an increase of \$1000 after-tax income is associated with a 1.6 to 2.9% reduction in low birth weight rate.

17. Williams, D. R., Costa, M. V., Odunlami, A. O., & Mohammed, S. A. (2008). **Moving upstream: how interventions that address the social determinants of health can improve health and reduce disparities.** *Journal of Public Health Management and Practice, 14*(Supplement), S8.

### Background

There is considerable policy interest in reducing socioeconomic disparities in healthcare and health status. Much of the policy focus around reducing health disparities has been focused on improving access, coverage, and the quality of healthcare. However, effective efforts to improve health need to pay greater attention to addressing social determinants of health within and outside of the healthcare system. This paper highlights evidence that suggests tackling social determinants of health can lead to reductions in health disparities.

Policies that provide additional income can be effective in improving health:

- The Great Smoky Mountain Study assessed the impact of income supplements on levels of mental health for American Indian children: supplemental income from casino revenue reduced levels of deviant and aggressive behavior and psychiatric symptoms.
- Negative income tax experiments: supplemental income to mothers was associated with a higher birth weight for their children, likely due to improved nutrition.
- Studies of SSI: For every \$100 increase in the maximum SSI benefits, there was a reduction in disability of 4.6%. There was an estimated 11% reduction in disability for a 15-20% change in income.

- Conditional Cash Transfer Programs in Latin America: Additional income associated with increased immunization rates and nutrition monitoring of children, decreased illness rates and reduced levels of child stunting. Other research found decrease in BMI for age percentile, lower prevalence of being overweight, improvements in language development and memory, and an increase in height for age.