Core Support for the New Economy

Neva Goodwin
Tufts University

Follow this and additional works at: http://pubs.lib.umn.edu/ijps

Part of the Income Distribution Commons, Labor Economics Commons, and the Macroeconomics Commons

Recommended Citation
Available at: http://pubs.lib.umn.edu/ijps/vol4/iss1/7

This work is licensed under a Creative Commons Attribution-Noncommercial 4.0 License
Core Support for the New Economy

Acknowledgements
With appreciation to Matt Alpert and Mitch Stallman for skilled and thoughtful research and editing, and to Brandon Taylor for estimates of time and cost.
CORE SUPPORT FOR THE NEW ECONOMY

Neva Goodwin, PhD

Abstract

This paper proposes an income guarantee called Core Support (CS), defined as compensation for household activities such as childcare, food preparation, care of elderly or ill persons in the home, and maintenance of the home and of household vehicles and appliances. The immediate goals of the proposal are to highlight, through compensation, the reality that the productive activities carried on in households are of essential importance for the whole economy and society, and to enable the people who carry out these essential activities to do so without having to short-change the care work because of the need to earn money through the market. The CS concept builds on literature on Basic Income Guarantees (BIG) and on feminist economics, which tends to be skeptical of BIG proposals. By addressing intra-household allocations, CS shows how a basic income system can promote a more caring democracy and a more partnership-oriented socioeconomic system that rewards the essential work of care. Appendix A surveys seven ways by which such a program could be financed.

Keywords: basic income, care economy, core economy, intra-household distribution, unpaid work, women's work, gender norms, feminist economics, valuation, GDP

Copyright: ©2017 Goodwin. This is an open-access article distributed under the terms of the Creative Commons Noncommercial Attribution license (CC BY-NC 4.0), which allows for unrestricted noncommercial use, distribution, and adaptation, provided that the original author and source are credited.

THE MACROECONOMIC CONDITIONS THAT WILL AFFECT WHAT IS POSSIBLE AND WHAT IS DESIRABLE

In 1930 John Maynard Keynes anticipated that, due to the rapidity of technological change that was making labor ever more productive, “in our own lifetimes ... we may be able to perform all the operations of agriculture, mining, and manufacture with a quarter of the human effort to which we have been accustomed.” He predicted that
by the time of his generation’s grandchildren “the economic problem” - the struggle for subsistence - would be solved. (Keynes, 1930, pp. 3-4)¹

In one respect we could say that this prediction has been fulfilled: there is already enough global productive capacity so that a comfortable subsistence could be provided for all humans. That this is not the actual result - that a quarter of the human population still lives in situations of abject poverty - is not because we are technologically incapable. Rather, it is because the prevailing economic systems provide some people, but not all, with the means to be highly productive, in the sense of producing much that is valued in the world’s markets; while others can barely produce enough for their own needs, or they work at jobs whose output is rewarded with very low pay.

The essential assumption underlying Keynes’ prediction was a continuing rise in labor productivity - that is, the average amount of goods or services that one person can produce. This trend has been observable ever since the beginning of the Industrial Revolution, in the 18ᵗʰ century. What has become more dramatic in recent years has been the growing ability to produce goods and services without, it appears, any workers at all. The centuries-old concern of workers that they will be replaced by machines is increasingly becoming a reality, not only through robots in factories, but even in services, which used to be considered relatively safe against the replacement of human beings by machines. We are all accustomed to the computerized voice messages that increasingly replace human beings on phones. Among other ways of replacing humans in the relatively near future is the introduction of mini-computers that can be handed to customers at restaurants so that they can indicate their menu choices, receive their bills, and pay them, with minimal human intervention, to a

¹ A good article that takes off from “Economic Possibilities for our Grandchildren” to discuss why North Americans have not progressed towards the leisure “utopia” imagined by Keynes is Elizabeth Kolbert in, “No Time: How did we get so busy?” (Kolbert, 2014). Keynes’ essay and its implications are also discussed at length in “How much is enough? Money and the good life” (Skidelsky & Skidelsky, 2012).
large degree eliminating the need for waitstaff. Riane Eisler has described the situation thus:

In the United States alone, 50 percent of blue-collar jobs were eliminated between 1969 and 1999 due to robotics and information technology.... And this wave of job losses, in which over ten million jobs involving physical labor and repetitive activities were replaced by automation, is just part of the story. Millions of white-collar jobs, such those of telephone operators and receptionists, were also phased out by automation (Eisler, 2007, p. 166-167)

As I have described at length in another paper, “Prices and Work in the New Economy” (Goodwin, 2014), we cannot know for certain that we will see a continuation of the trend that produces ever more goods and services with ever fewer labor hours. Technology, along with labor organization, has up to now continually increased labor productivity. There is some danger that this trend could be reversed due to resource constraints. With a number of important natural resources such as water, energy sources, minerals, and biota becoming increasingly scarce, or of degraded quality, or more expensive to extract, we could be at or near an inflection point, witnessing the beginning of a reverse trend wherein the average worker will have access to decreasing inputs of materials, capital goods, and inanimate energy.

Such a reverse trend is not the most promising setting for a Core Support program, as that program will be described below. However, if the prediction of Keynes and numerous other recent thinkers comes true, so that less and less human work is required in the whole economy, there will then be a pressing need for some way to guarantee the provision of basic needs to all, including those who are closed out of the job market.
THE CORE SUPPORT PROPOSAL AS A TYPE OF BASIC INCOME GUARANTEE

My earlier paper, “Prices and Work in the New Economy,” considers in depth some alternative scenarios for the future of work, especially focusing on what can be defined as ‘jobs’ - i.e., work in the formal sector of the economy that is paid for in wages or salaries. In this paper I will propose a parallel system of income, not attached to jobs. This system, Core Support, may be defined as a monetary reward for the significant amount of work (often considered equal to one-third or more of the work done in a society) that is not at present paid for. (Estimates of this total will be presented in Appendix A).

The reader may be familiar with a somewhat similar set of proposals that are often referred to as a ‘basic income guarantee.’ These are systems in which citizens or residents of a country regularly and unconditionally receive a specified sum of money from the government. The most ambitious basic income proposals are designed to eradicate poverty. They would supply enough money to cover the cost of purchasing the things that are essential for a decent life: food, housing with basic furnishings, clothes, essential communications, etc.

There are many papers, journals, websites, and so on dedicated to the idea of how to implement a basic income guarantee\(^2\). There have been fewer practical, detailed proposals designed to address another concern, which is different from the focus on poverty, though it often intersects with poverty concerns. This has to do with the fact that so much of the work that is critical for human well-being and essential to support the rest of the economy is performed outside of markets. This “Core”\(^3\) work of

\(^2\) BIEN, [http://basicincome.org/](http://basicincome.org/) is an international network of thinkers and writers on this topic. The US affiliate is USBIG [http://www.usbig.net/](http://www.usbig.net/)

\(^3\) The term “core” is one that I proposed in 1998, when working with Edgar Cahn on conceptual tools for Time Banking systems. (Cahn & Gray, 2015). It has since come into wide use, including in the textbooks I have authored (Goodwin et al, 2014 a, b, and c), where the “core sphere” is defined as the place where people generally raise children, prepare meals, maintain homes, organize leisure time, and care for mildly (or sometimes chronically) ill individuals.
childcare, household management, etc., receives no direct monetary compensation when it is performed by family members, while only the well-to-do can afford to put this work into the market context, hiring nannies, cooks, or housecleaners. While some basic income proposals recognize the greater need for support in households with young children (Pateman, 2004; Baker, 2008; Robeyns, 2014), the point is too rarely made that such income is a reward for socially necessary - indeed essential - work, rather than a handout.

How the Core Support proposal is presented is important, for two reasons. One is that it emphasizes the value of the now unpaid work that is done in households, which is essential for human thriving and surviving. The other - and this is the radical aspect of the proposal - is that such payments will be made with careful attention to which members of a household will actually receive these funds.

This latter point - the question of which individual receives the cash or check - has been ignored to an astonishing degree by most economists, the exceptions being those who identify themselves as feminists, and some development economists. The default position has been to assume the existence of a single “head of household” - officially assumed, until recently, to be male - and to assume that this individual will apply any funds received from government or charitable sources, along with income from jobs, to expenditures that will optimize the welfare of all members of the household.

It can be categorically stated that there is no feasible method for identifying with certainty which member of each household - if any - can be counted on to achieve such optimization. My goal in this proposal is not to achieve perfection, but to do better than the default position just described. This will require spelling out a rather detailed approach to finding the most appropriate person(s) to receive and manage the different elements of the Core Support funds.

If development economics provides support for the idea that government or other ‘aid’-type funds are most effective when channeled directly to women, feminist
Some feminists have argued that basic income will finally deliver the long-awaited recognition of unpaid work and caregiving, work that is primarily performed by women. Other feminists have worried that a basic income would function as hush money, discouraging women from striving for more far-reaching gender equality. (Robeyns, 2008, p. 1)

In the same journal issue, Baker (2008) describes two reasons why feminist economists have resisted basic income schemes:

...any attempt to give more recognition, value and support to care work would risk reinforcing the gendered division of labour, since it would make women’s position within that division more tolerable. Any such attempt would remove one significant reason women have for objecting to the gendered division of labour as such and for engaging in other forms of work that are symbolically valued and materially remunerated more highly. (Baker, 2008, p. 3)

Precisely because a basic income guarantee is universal, it does not seem to play any role in recognising, valuing, and supporting care work (Krebs, 2000). People receive it whether they are involved in care work or not.

Baker continues with the following response to these arguments:

Precisely because basic income is not conditional on identifying worthwhile occupations, it can serve not as a payment for care work but as a universal support for care work, providing everyone with a more effective opportunity to engage in it, whether by partial or complete withdrawal from the labour market. At the same time, it can be thought of as operating on the
presumption that nearly everyone is engaged in a range of worthwhile activities that it is legitimate for society to support. So it is not true that basic income does nothing to recognise the value of care work. On the contrary, basic income can be presented as recognising care work as one of a range of (partially) noncommodifiable activities that people can engage in and for which people deserve to be materially supported (McKay, 2013). Whether basic income is understood in this way depends on how it is framed in public discourse, which itself depends on the broader ideological climate. (Baker, 2008, p. 6-7)

It is my hope that the approach of the Core Support proposal will overcome most of the objections that feminists have had to other basic income schemes - even while it may raise other objections, from feminists or others. To see how this can work, I will conclude this section with an outline, in Figure 1, of what activities would be covered in a Core Support (CS) program. In the next section I will dive directly into descriptions of how a CS system would apply to a variety of household types.

In a more developed CS proposal, finer distinctions could be used to define exactly what kinds of core work are to be compensated. For now, this paper will depend on categories from the American Time Use Survey (ATUS), proposing to cover the following types of work (Note, however, that the hours counted by ATUS require careful evaluation; for example, for failing to account for the requirement for an adult to be available when a sick person is sleeping or when a child is not demanding immediate attention):

CS.1) Child care: ATUS categories 03.01, 03.02 and 03.03

CS.2) Care of ailing and elderly persons in the home: ATUS category 03.04, “Caring for household Adults”

CS.3) “Other” household activities: category 02. This includes housework, food and drink preparation and clean-up, interior and exterior maintenance, repair and decoration, lawn, garden, and houseplants, pets, vehicles, appliances, and household management (including financial management).

In the remainder of this paper, with respect to proposals for compensation through a CS program, all these categories would be compensated at the same rate. Alternatives could be imagined, such as giving a higher rate for CS.1 and CS.2. It is noteworthy that, while these activities can be major components of core work in households where there are children or elderly or ailing persons, those households are in the minority. Hence, spread over all households, the majority of hours spent on core work are in category CS.3.

**Figure 1: The Essential Core Activities of Caring for Home and Family**
SOME EXAMPLES OF HOUSEHOLD CONFIGURATIONS

The simplest example of how a CS system might apply is that of Example 1: a single-person household. For this individual, child care and care of ailing and elderly persons in the home will not be relevant; the only core activities for which he or she will be compensated are in category CS.3. According to the American Time Use Survey (ATUS), the average time an individual spends on such activities is 1.86 hours per day. At an implicit wage of $15.00 per hour (another arbitrary choice), that would come to $10,190 per year.⁴

Example 2 is a household with only one adult and one or more children under the age of 12. Here again it is obvious that the entire CS allocation will go to the single adult. (As will be seen below, children 12 or over may be candidates for receiving some of the CS funds.) A CS that is generous enough to allow a single parent (or other caregiving adult) to eschew exhausting, low-paying work in favor of devoting most of his or her time to child care. The rest of the activities on the CS list would have a number of positive consequences.

- It would provide much more stable, less stress-filled environments for the more than 9 million children under age 18 now living in poverty in single-parent households in the US.⁵
- It would significantly reduce poverty (The poverty rate for single parent households in the US is 27% - nearly twice the average poverty rate for the country⁶)

---

⁴ What if the individual living alone has some serious disability which prevents her or him from taking paid work, and requires the employment of others to come in and assist from time to time? An appropriate solution would depend on what disability compensations remain in force, rather than being replaced by a CS system. To the extent that some are replaced, then this individual would receive the extra amount (indicated below) that would go to a household containing a person with disability.

⁵ This is based on figures from the most recent report on poverty from the U.S. Census Bureau (DeNavas-Walt & Proctor, 2014). See also Children’s Defense Fund (2013), using 2012 US Census data.

• It would provide some opportunity for single parents to invest in education and skills - an opportunity that is now out of reach for most of those who are scrambling to combine childcare and wage work.

• It would put upward pressure on both wages and quality of jobs offered, since this group of workers would not be under the great pressure they now feel to take whatever job they can get, no matter how undesirable or at what low wages.

Except for the first point, all of these advantages are relevant to the entire CS program; they are introduced here first because the need for poverty reduction, for investment in skills and education, and for improving the bargaining position of workers is so salient in the case of single parents. It is not only from the point of view of these parents and their children that these needs are critical; they are also critical for the welfare of the whole society, present and future.

Now let us suppose a more complex situation. Example 3 is a 5-person household containing two able-bodied adults, plus an elderly or sick person, and two children - an infant (under age 3) and a 12-year-old. This raises a number of questions such as, is it appropriate to accept the average time commitments for child care suggested in the ATUS (see Appendix B)? Or is further research needed? Also, an algorithm will need to be devised to take account of the items that concern the care needed for members of the household who are not fully able to care for themselves. This calculation will be based on the answers to questions such as the following:

• What necessary activities is the disabled member of the household unable to perform for herself or himself? How many hours of care per day does he or she require? Is he or she able to contribute (and does he or she contribute) to some of the other household chores, including childcare?

• What assumptions does society want to make about the hours of adult home supervision required for a 12-year-old child? Would this family agree that some
portion of the family’s Core Support income should go directly to this child, to compensate for that child’s contributions to household work?

- Would we assume that all children under age 3 require constant supervision? There is much variation in how many hours of the day different babies are asleep; to determine such details, it would be best for a panel of experts to engage the population at large with an effort to decide what would be, on average, a fair set of assumptions about the time required to care for young children.⁷ (A similar process would be required for defining the care and attention needs for healthy mental and physical development of children in other age-groups, such as 4-5, 6-9, etc.)

Data from the ATUS (some copied in Appendix B, Box 4,) will assist with these calculations.

ALLOCATING CORE SUPPORT: VALUES AND PRACTICAL CONSIDERATIONS

In the simplest example given so far there was an obvious answer to who should receive all of CS income - namely, the single adult. I will now discuss how to address this in more complex situations, partly guided by practicality, but also depending on values. I will start by spelling out the values that will guide my reasoning on a question which has rarely been raised with respect to poverty alleviation programs in the industrialized world, supposing that we have arrived at an amount that is due to each household: Which individual, in each household, would be the actual recipient?

---

⁷ About three in ten children (28%) in the US today are being raised by a stay-at-home mother. Overall, according to a Pew Report, mothers at home spend 18 hours a week on child care, compared with 11 hours for working mothers, a seven-hour difference (Cohn et al., 2014). The lower figure for working mothers can be interpreted in a variety of ways: 1) there are alternative sources of care that allow the mother to work, either paid for out of her income, or given by unpaid family or friends; 2) the children of working mothers are receiving sub-optimal amounts of care; or 3) the children of stay-at-home mothers are getting more attention than is necessary.
This determination depends on three further questions. The first one is about fairness:

(1) Who, in the household, performs the core work that should be compensated?

The second question is about competence and responsibility:

(2) Who, in the household, is most able, and most likely, to disburse these funds fairly and responsibly, to ensure that all members of the household have their basic needs met?

The third question addresses a slippery but important issue of cultural expectations:

(3) How can these funds be administered so as not to reinforce undesirable stereotypes, but to help motivate change toward greater overall social and individual well-being?

With respect to the third question, I will align the values of this proposal with the following propositions:

a. In situations where women work at market jobs, it is not fair that the addition of core work should (as is now commonly the case) make their working day substantially longer than the workday of men in the same household.

b. There is much variety in how childcare and other household tasks are divided among household members, which may include parents, siblings, other relatives, and unrelated individuals. It is undesirable to create programs that reinforce stereotypes, and it is desirable to support individual solutions that allow each household to understand the work involved, and to share it in ways that will result, especially, in good childcare.

c. While childcare and parenting are especially important to the health of a society, other core activities also contribute greatly to individual well-being and health, as well as to the ability of a given household to negotiate the complexities of modern life. It is desirable to encourage households to recognize the importance of
all these activities and to be conscious about how responsibilities for them are best allocated - rather than leaving this, by default, to stereotypes.

Managing household finances (an aspect of ATUS category 02 as shown in Figure 1) is a case in point for proposition c, as an aspect of essential core activities that is often given too little attention. Where there is insufficient attention to, or capacity for, handling household finances, families can fall into unmanageable debt, lose their homes, etc. In the typical gendered division of household labor in the US, as in many other countries, men expect to manage the major household finances. There is no reason to believe that, in general, men do this more effectively than women; studies from a variety of countries have shown that, most often, women carry this out more responsibly and fairly\(^8\). To be sure, some women lack experience and self-confidence in handling these sums of money, which for many families are their major expenses. Equally, some men lack the sense of responsibility and forward-thinking required in order to have the funds on hand when bills come due. These are the stereotypical complaints; for any given household the complaints might just as realistically be lodged in reverse. Considering the psychology of the changes and discussions that would be provoked if the CS system were implemented, it seems preferable to provide a fresh start for thinking about who, in each case, is best suited to be responsible for these important tasks of financial management.

---

\(^8\) Studies of aid given to promote development in poorer countries have generated literature that provides some answers to the question: “Who, in the household, is most able, and most likely, to disburse these funds fairly and responsibly, in order to ensure that all members of the household have their basic needs met?” There is considerable evidence that the well-being of all members of a household is more likely to be promoted when a woman is responsible for spending the funds; see, e.g., (Doss, 2013): “One of the central messages from research on gender is that many key development outcomes seem to depend on women’s ability to negotiate favorable intrahousehold allocations of resources.” See also Kittay, 1999; also the section on Dominator Intra-household Resource Allocation in Eisler (2012).

Among recent empirical studies of gender-based policies, Khogali and Takhar (2001) point to successes, Gitter and Barham (2008) point to unclear outcomes, Molyneux and Thomson (2011) highlight a variety of factors, and Luccisano (2006) notes the role that conditional receipt of benefits and administrators of those benefits play, and, like Robeyns (2014), is concerned with reifying gender roles. Braido et al. (2012) document outright failures. For a review of some of the complexities of accounting for these issues, see Bennett (2013). All of these articles include citations to the classic sources which have linked support to females with improved outcomes for all family members.
A central issue for Core Support is that it should not be presented as a handout, but rather as payment - at least partial payment - for essential services. To be sure, it will never be possible to devise a system for rewarding household caring work with money compensation that precisely reflects the value of the work. Indeed, when I first started writing this paper, more than 40 years ago, I abandoned the project because of a concern that no price could be found that would appropriately represent the work being done in homes. What is the right wage for really good childcare? And how would one distinguish between good and harsh or uncaring childcare?

The same questions could be asked about the other aspects of core work - and they could also be asked about other work. Neoclassical economic analysis says that wages are *ipso facto* fair if the market is working in such a way that the wage equals the marginal product contributed by the worker. There has been a growing chorus of questions about the marginal product of CEOs whose compensation is in the millions of dollars, while other literature (Tavani & Vasudevan, 2014; Dew-Becker & Gordon, 2005; Levy & Kochan, 2012; Goodwin et al, 2014a) suggests that worker productivity has increased faster than worker pay over the last two or three decades, with the additional rewards to productivity going to managers or owners rather than to workers. My conclusion from this - and part of the reason I felt it worthwhile to go back to this study - is twofold.

First, our current system does not supply fair compensation for work, and will never be capable of doing so as long as it depends only on market forces of supply and demand, along with the assumption that perfect labor markets exist in which wages are equal to marginal product. That assumption ignores the element of power in economic relations. And dependence on markets to set compensation makes it impossible to provide compensation for activities - no matter how essential - that are carried on outside of the market.

---

9 That means, in brief, that the wage should equal the amount that the employer would lose if it lost one worker in the class of the worker whose salary we are examining.
Second, given the lack of fairness throughout the system (e.g., the people who provide food, essential for survival, are very low-paid as compared to financial wizards whose contribution to general well-being is often negative; while home-care of the elderly is often paid nothing), it is worthwhile to move in a direction of greater fairness, even if we know we will never achieve perfect fairness.

Thus, moving in the direction of greater equity, or fairness, does not depend on the level at which core activities are being compensated. The proposal in this paper for $15/hour is arbitrary; quite likely pilot programs would be implemented at different levels and for political reasons, some of these would doubtless be lower. The point is that almost any program that began to recognize the value of core work would be an improvement.

Another reason why I dropped this project 40 years ago was the concern that to claim that sums of money can precisely reflect the human value of core work would have at least two bad effects: it could carry even further the present unfortunate trend of commodification - equating human value with money; and it would perpetuate the mystique of objectivity and infallibility that neoclassical economics has struggled to create. Regarding the second of these issues, I have returned to this project in a post-2008 world that is increasingly recognizing that the Emperor of neoclassical economics has no clothes (Martin, 2016). If the positive trend of looking for the naked truth continues, and if a proposal for Core Support is tried, I don’t think we need to worry that this proposal will prop up a failed system of theory. Regarding the first concern, I would hope similarly that any realization of a CS system would occur in a context of cultural value change. The change that is needed - for many reasons of individual and social well-being - is one in which people are less committed to the belief that a person’s wealth and income are good proxies for that individual’s human worth.

To return to the question of who, in a household, receives CS funds, the goal of fairness is obvious - but it needs to be paired with the other issues mentioned above: cultural expectations, and a goal of encouraging change in the direction of more
fairness, as well as practicality, not only as a generality, but also in relation to individual circumstances. The ideal is that these funds, however the amounts are calculated, should be assigned to whoever is actually doing the work in the three categories described in Figure 1. However, some starting assumptions, or default positions, will be necessary, and it seems undesirable to administer CS starting from an assumption that women are doing most of this work. Instead it would be best, if this can be achieved, to create a system that does not just accept the status quo, whatever that is, but that promotes fairness both in the distribution of work and in the recognition and compensation for that work. In Appendix B I will provide my initial proposal for these defaults, with an application of that scheme in Example 10, and with a glimpse of the corresponding bureaucratic forms in Figure 3.

The default proposals are what the government will fall back on if the household does not agree on some different apportionment. They represent a very generalized attempt at a first cut at fairness. If the default offered is accepted, it is hoped that this will put pressure on members of the household to define their fair portion of the work - and to do it. Thus, if an individual accepts, say, 20% of the CS allocation, but does much less than one-fifth of the work, then the rest of the household will be in a good position to petition for an adjustment.

Perhaps the greatest downside of this whole scheme is that it could encourage the already litigious nature of US culture. This will be addressed below, along with other outstanding problems.

WHAT CORE SUPPORT MIGHT COST AT THE UPPER END

As will be described in some detail in Appendix B, the price tag for each of the CS elements will be calculated for each household through an algorithm that will take into account the size and age composition of the household. In this draft I will rely on the ATUS to give a rough idea of what the whole program might cost. As shown in Appendix A, the first draft of this total is about $3 trillion, or a little less than 17% of
2015 GDP. I will now propose some parameters, based on estimates made by others, along with some back-of-the-envelope guesses or suggestions of my own.

As a starting point for discussion I am proposing a wage of $15.00 an hour for Core Support. Many people would argue that $15/hour is inadequate, especially (but not only) when compared to the salaries earned by people whose work arguably provides less human benefit (the currently popular example is a high-end bond trader). Others would argue that there is no sum that accurately reflects the value of much of the core work; critical services such as food, shelter, health care, and childcare are incommensurable with any monetary valuation. I am very much in sympathy with both of these arguments. However, as remarked earlier, the goal of this proposal is to go in the right direction, not to achieve perfection.

We saw above, in Example 1, that $15/hour results in CS of $10,190 per year for an individual living alone. Now let us extend this to a very different situation (Example 4) in which a single able-bodied adult lives with two young children and an elderly, incapacitated relative. The ATUS suggests that the weekly time spent by one adult on housework alone amounts to 13 hours. Childcare can easily add 20-25 hours a week to the other CS elements\(^\text{10}\). Considering the needs of the sick individual, we might, using the ATUS figures, add another 12 weekly hours. This total is now 48 hours. With an annual CS income of $37,400 (\(48 \times 52 \times \$15\)) such an individual would be enabled to hire some outside assistance. The possibility that such a system could offer a way out of poverty is vividly described by Widerquist and Lewis (2006):

\[^{10}\text{Figure 4 in Appendix B shows estimates for the average time spent actively tending to children of different ages, based on the ATUS. These estimates seem low to me: does a responsible caregiver really leave a 3-year-old child alone all day except for 1.4 hours? Presumably some respondents in the survey added these hours to the time they were taking care of other children, or other household activities, while in other cases the children may be out of the house, e.g., in daycare or under the eyes of other family members. The market solution is only possible for those who have substantial financial resources: Paid child care for a single four-year-old averages $4,000 to $6,000 per year, and can rise to $10,000 or more for the top centers. The average annual cost for a four-year-old in an urban area is more than the average annual cost of public college tuition, in nearly all states. Care for infants is even more expensive, and if a family has more than one child in care the costs multiply accordingly. Care for the chronically ill and elderly raise similar dilemmas. (Shulman, 2000, p. 1)\]
People at the low end of the job market know that the jobs available to them pay very little and offer little hope of advancement. A minimum wage job requires a single parent with two children to work two jobs just to get by; which could take 70 to 80 hours of work a week just to reach the poverty line, and she can’t get there unless she has access to a large amount of free childcare. This person would not be able to save money to start his own business and would not have time outside of work to learn skills to improve her situation. It would take years to advance out of this situation. It is not surprising that people faced with these options do not develop a strong work ethic. If we want people to value work, we must make work valuable to them in the short run, not as a distant promise coming after years of poverty wages. (Widerquist & Lewis, 2006, p. 13).

In order to be both economically and politically realistic about the acceptability of CS for households with a significant load of care work, we should note that the median household income in the US was $52,250 per year in 2013 (Noss, 2014). Keeping in mind that, of the households represented in the surveys which result in official calculations of median household income, only a relatively small minority experience the degree of needs and stresses of our hypothetical Example 4, I will leave open the question of whether it would be politically impossible to offer a CS program that might come close to the median household income.

**COMPARING CORE SUPPORT TO OTHER BASIC INCOME PROPOSALS**

Similar to other basic income guarantee proposals, CS would be offered without a means test. It would require some way of identifying the living conditions of each individual or household recipient.

What about other needs that are currently addressed through a variety of government programs? Would it be desirable to design CS so that it could replace all of the
existing government safety nets in the US? These include: federal rental assistance programs; the Earned Income Tax Credit; household dependents deductions; Medical Out-of-Pocket deductions; Affordable Care Act health insurance plans; the Supplemental Nutritional Assistance Program (SNAP); the Low Income Home Energy Assistance Program (LIHEAP); the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); Medicaid (including the Cash and Counseling Program, which compensates for in-home elder care in participating states); unemployment and disability benefits (e.g., SSI); Social Security; university-level financial aid; and a variety of other local, state, and federal programs.

It seems obvious that replacing all of this through CS this would not be possible. However many basic income proposals are designed to appeal to a distrust of government that has been growing in the US since the middle of the last century; they often suggest that a single, simple income guarantee for all citizens could make it possible for governments to get out of the rest of people’s lives. There are a number of problems with such a suggestion.

One obvious problem is that the amount of money offered through CS - or any other basic income scheme - would need to be enormous to cover all of these things. This is especially true if the same amount is offered to everyone: the specialized care needed for someone with a severe mental or physical handicap is not needed for everyone else. If CS (or some different basic income guarantee) was the only government program of support, either it would have to offer hundreds of thousands of dollars yearly to all, or else those with expensive special needs would be left without support.

In fact, few if any basic income proposals are so ambitious; all, if looked at carefully, pick and choose which existing government programs they could replace, and which they could not. That is what I would propose for CS. Most importantly, in the US it would replace “The Personal Responsibility and Work Opportunity Reconciliation Act of 1996,” popularly known as “welfare reform,” with its employment requirements
and time limits, called Transitional Assistance to Needy Families (TANF). This is paired with a requirement that states spend some of their own dollars on programs for needy families; this is known as the “maintenance of effort” (MOE) requirement. Total combined expenditures of TANF and MOE funds for the fiscal year 2004 equaled $28.5 billion (Coven, 2005).

...TANF recipients with very young children are required to work or prepare for work in return for their benefits... [TANF recipients] are paid less than minimum wage, and far below the poverty line...Single parents are the main participants in workfare. Its goal is to get single parents into the workforce, assuming that the reason they do not work is because they lack a work ethic or adequate human capital. This is a departure from the strategy of AFDC [Aid to Families with Dependent Children], which before 1988 did not require single parents of children under six to work outside the home (Lewis, 1995). Workfare requires that single parents put their children in someone else’s care while they work. This increases the cost of the program. Part of the strategy of workfare seems to be to discourage people from deciding to become single parents, but it does not offer anything very attractive to people who are single parents nor does it deal very well with the lack of available time of single parents as a cause of poverty. (Widerquist & Lewis, 2006, p.7-8.

Other candidates for replacement by CS might include household dependents deductions and some unemployment and disability benefits. In considering exactly what existing government programs might be replaced, keep in mind that the essential goals of the CS proposal are twofold. One is to highlight, through financial compensation, the reality that the productive activities carried on in households are of essential importance for the whole economy, and the society within which it is embedded. The other goal is to make it possible for the people who are carrying out these essential activities to do so without having to short-change the care work because of the need to earn money. Thus there is an important poverty-alleviation aspect to CS, which is especially relevant to individuals and households where much
time is required to give adequate care to dependents. For other households – including single individuals – the CS proposal would offer an income supplement that would be meaningful to those with few desires, and of less relevance to others who want to live much above bare subsistence. As will be discussed below, this is by no means as sweeping as some BIG schemes that claim that they would replace all government social spending.

Of particular interest is the question of what CS might mean for the arts. There is a long tradition of aspiring painters, poets, actors, etc. living on relatively little money, supporting a minimal standard of living with jobs in restaurants etc. As noted earlier, even this source of income for artists may be seriously damaged by computerization of much of the work of waitstaff. This issue emphasizes the importance of a basic income system to be available to everyone in a society in which enough goods and services for all can be produced through technological systems which (as Keynes predicted) result in much less market demand for human labor.

As noted earlier, such a world seems plausibly, though not certainly, to be on the horizon. A recent surge of interest in BIGs responds to the fact that, if this is the world of the future, there will be an urgent need for some way to allow all to participate in the output of the market, even if not all are involved in market production. Comparing CS and other BIG proposals, CS, with its emphasis on caring labor in households, could provide some relief to artists with dwindling market-work prospects, but would not go as far as some BIG proposals. We will see some of these in the next section.

For one other comparison with the basic income literature, I consider whether or not CS income would be subject to taxation. Against taxing CS income is Example 4, in which the single adult needs all the help he or she can get. Some arguments can be made on the other side, in favor of including CS income with all other household income for the purpose of determining the tax incidence. The strongest argument relates to the question of incentives and disincentives to work. A sharp jump from no
tax on CS to some tax on everything that is earned beyond CS could be felt as a disincentive to work for taxable income. A better approach, for appearances and/or for actual psychological effect, could be a very progressive tax system that starts with a low levy - perhaps 3% on all CS income - and gradually increases to a high of as much as 75% on individual earnings beyond some amount ($500,000?) above the CS.  

COST COMPARISONS: SOME EXAMPLES OF BASIC INCOME GUARANTEE PROPOSALS

I will now move from specific examples of my own (very preliminary) calculations to some other estimates to be found in the literature. All of the examples I will cite concern only basic income support; I have not found any examples that are very similar to the core support I propose.

Widerquist comments on many examples of basic income schemes that rely heavily on funds derived from taxation schemes:

*(Example 5)* ...Charles Clark (in Clark & Healy, 1997) estimated that a flat tax of 36 percent on all income would support a basic income of just under $8,000 for each adult and $2,000 for each child. Under this plan, the government would pay every individual a basic grant and would withhold 36 percent of income from all other sources. A person with no private income would receive only the $8,000 basic grant.... Most citizens would be net taxpayers, but the system would be structured so that all individuals could count on a guaranteed minimum grant. (Widerquist, 2001, p. 750)

---

11 I will leave aside many significant details, such as the difference between taxing household income (as suggested in this proposal) and taxing individual incomes. I also leave for Appendix A the very large issue of whether we should base a large part of the government revenue that would be used to fund CS on individual incomes, or should look preferentially to other sources.
The least ambitious plan among 15 reviewed by Widerquist is Leonard Greene’s “The National Tax Rebate”, which would finance the plan by canceling all federal, state, and local programs aimed at supporting income (except Social Security).

(Example 6) The programs [that Greene] proposes to cut include not only what we think of as “welfare” but also tax deductions for individuals and corporations as well as programs supporting the income of people in specific industries such as agricultural price supports. According to Greene, canceling these programs would free up $720 billion a year in government revenue or enough to fund a monthly tax rebate of $400 for each adult and $200 for each child. (Widerquist, 2001, p. 756)

Widerquist goes on to comment that: “Many guaranteed income supporters may be cautious about Greene’s plan because of its low benefit level. Most of the other recent guaranteed income plans are designed so that a person could solely live on the basic grant if necessary, but Greene’s tax rebate is more of a supplement.” (Widerquist, 2001, p. 756)

(Example 7) At the other end of the spectrum is Robert R. Schutz’s The $30,000 Solution: A Guaranteed Annual Income for Every American. Schutz proposes a minimum income of $30,000 per year for every adult in the USs (Shutz, 1996). Widerquist (2001) expresses skepticism that the savings Schutz expects to pay for his scheme would actually do so.

Certainly there are significant savings to be found, if the CS plan or a strong BIG were to be implemented in such a way as to replace some, or even most, of the existing government safety nets listed above. The most extreme BIG proposals imagine replacing all government spending with a basic citizen income. Such suggestions implicitly if not explicitly eliminate government spending on military, infrastructure, public services (from police and fire departments to public education), and other activities that are not otherwise directly affected by an income guarantee. These do
not seem worth much consideration, except to note that we should be aware that this is image may be part of a naïve conversation on the subject.

It seems likely, though not inevitable, that tax increases over the levels now in place in the US (which are lower than in most other advanced nations), would be a necessary part of a CS scheme. A wide variety of other sources of funding for basic income schemes have been suggested; some are collected in Appendix A.

**EFFECTS OF CORE SUPPORT ON MOTIVATION AND EMPLOYMENT**

People who are suspicious of government programs to reduce poverty often cite the danger that ‘unearned’ income will make people less willing to work.\(^\text{12}\) Widerquist and Lewis comment on this issue:

> The guaranteed income would work very well to prevent poverty *if inadequate demand for labor is the cause of poverty*, whether it causes low wages or high unemployment. The unemployed would be able to live off of the minimum income until they found another job, while low-wage workers would receive a supplement bringing their income above the poverty line, always making them better off than those who are not working. (Widerquist & Lewis, 2006, p. 22)

The question raised by this passage is whether or not the present and the foreseeable future macroeconomic situation is likely to be one in which there is inadequate demand for labor, even while maintaining enough productive capacity that all basic human needs could be met. If this were the case, then something like CS would (like other basic income guarantees) be a good solution; at the simplest level it would make it possible for those who do not have enough earned income to share in the general wealth.

---

\(^{12}\) Those opposing such programs are often, oddly, aligned with the position taken to the extreme by Representative Paul Ryan, whose “road map” proposed removing all taxes from all forms of unearned income.
As noted earlier, another possible future is one in which resource constraints reduce the productivity of labor faster than technology increases it, making it necessary to keep a large proportion of the population in the workforce in order to produce what the whole population requires for a decent life. Perhaps some such expectation is behind the concern for reduction in work effort that motivates some opponents of guaranteed incomes of any kind. Assuming the need to keep most able adults in the workforce, they ask, “Why would people work if they could get along without doing so?” There have not yet been enough experiments to allow a final response to this, but those that have occurred have showed encouraging results. A fairly typical example is the following description of the “MINICOME” experimental guaranteed income which ran in Manitoba, Canada, between 1974 and 1979:

The experiments generally found a 13% reduction in work effort from the family as a whole, with one-third of the response coming from the primary earner, one-third from the secondary earner and the final third coming from additional earners in the family (Levine et al. 2005: 99). Because the primary earner typically worked many more hours than the secondary and tertiary earners, this implied a relatively small reduction in work effort by primary earners. Female spouses reduced their hours and re-entered the workforce less quickly after a break. The general result that secondary earners tend to take some part of the increased family income in the form of more time for household production, particularly staying home with newborns, was found in all the experiments. Tertiary earners, largely adolescent males, reduced their hours of work dramatically but the largest decreases occurred because they began to enter the workforce later. Taking a first job at an older age suggests that some of these adolescent males might be spending more years in school. The biggest effects, that is, could be spun as either an economic cost in the form of work disincentives, or an economic benefit in the form of human capital accumulation. (Forget, 2011, p. 5)

Another study that contradicted the likelihood of a decline in work incentive was a pilot project implemented in 2008 and 2009 in the Namibian village of Omitara. A post-project assessment reported that:
The introduction of the BIG has led to an increase in economic activity. The rate of those engaged in income-generating activities (above the age of 15) increased from 44% to 55%. Thus the BIG enabled recipients to increase their work both for pay, profit or family gain as well as self-employment. The grant enabled recipients to increase their productive income earned, particularly through starting their own small business, including brick-making, baking of bread and dress-making. The BIG contributed to the creation of a local market by increasing households' buying power. (From the Website of the Basic Income Grant Coalition: http://www.bignam.org/BIG_pilot.html)

These comments are clearly not the last word: they come from sources that are intrinsically sympathetic to the idea of a basic income guarantee. More experiments are required, to find out how work effort actually is affected.

Regardless of expectations about macroeconomic conditions, a common objection to any generous basic income scheme is that people need the goad of wages in order to work hard enough to feel fulfilled. Without that goad, it is feared, many people would lose a sense of meaning in their lives.

A fully implemented CS scheme would have enough in common with the kind of welfare states now to be found in Europe’s Nordic countries that it is worth asking how well these are working out. They are succeeding in most of their aims: poverty is almost unheard of; inequality is less than in most other nations of the world; women’s job opportunities come closer, on average, to those of men than in most other countries; children are well cared for and well educated; health care is good and fairly allocated; life expectancy is high; and crime and corruption are low. What more could you ask for?

Indeed, according to the 2013 World Happiness Report compiled by Columbia University’s Earth Institute, which surveys 156 countries, Denmark, Norway, Switzerland, the Netherlands, and Sweden are the world’s happiest countries.
(Helliwell et al., 2013). For another rating, the Economist Intelligence Unit in 2005 created a Quality of Life Index; the top five countries were Ireland (pre-2008 crash), Switzerland, Norway, Luxembourg, and Sweden. Denmark was #9, the US was #13, Canada was #14, and the Netherlands was #16 (The Economist Intelligence Unit’s Quality of Life Index, 2005).¹³ (See also Veenhoven, 1993).

In the essay quoted in the introduction to this paper, Keynes addresses the issue of possible loss of meaning. The following excerpts summarize his comments on this problem:

...we have been expressly evolved by nature - with all our impulses and deepest instincts - for the purpose of solving the economic problem. If the economic problem is solved, mankind will be deprived of its traditional purpose.... for the first time since his creation man will be faced with his real, his permanent problem - how to use his freedom from pressing economic cares, how to occupy the leisure, which science and compound interest will have won for him, to live wisely and agreeably and well.... It is a fearful problem for the ordinary person, with no special talents, to occupy himself, especially if he no longer has roots in the soil or in custom or in the beloved conventions of a traditional society.... it will be those peoples, who can keep alive, and cultivate into a fuller perfection, the art of life itself ... who will be able to enjoy the abundance when it comes. (Keynes, 1930, PP 4-5)

An early reader of this paper, a feminist who has spent a good deal of time in Sweden, described the problem differently. She said that what people need is the feeling that one needs to work in order to achieve one’s goals, whether those goals are simply survival, or more complex achievements. The social goal, she said, should

¹³ This metric depends on the following variables: GDP per capita; life expectancy at birth; political stability and security as assessed by the Economist Intelligence Unit; divorce rate; church attendance and trade union membership (to stand in for “Community life”); latitude, to distinguish between warmer and colder climes; unemployment rate; political freedom (as assessed by Freedom House); and ratio of average male and female earnings (to indicate gender equality).
be an economy in which all adults, whatever their abilities, can, through their work, earn a reasonable livelihood (A. Rockefeller, personal communication, October, 2014).

This goal is by no means denied by a CS system - rather, it would be a public (and intra-household) affirmation that the work it compensates is real work, necessary for society as well as for the individuals it touches. Someone like the mother described in Example 4, who was taking care of two small children and an adult with disabilities, would be working for her living, and getting decently paid for it.

THE PROBLEMS OF GOVERNMENT CAPACITY AND COMPLEXITY IN A CORE SUPPORT PROGRAM

Another issue that must be addressed in considering the macroeconomic jobs effect of CS is the impact on government employment. CS is unlike other basic income schemes in that, for all the government jobs that might be eliminated if CS replaced welfare and some other government benefits, it could conceivably create as many new jobs. These would be in three categories. One category would be census takers: the national census would probably need to occur more often than every 10 years; portions at least would need to be updated annually, with records of births, deaths, and health status. A second group of jobs created by a CS program would be in the back office component, to manage and run the computer programs that would annually calculate the CS amounts due each household.

The third and largest requirement would be for people with the ability to fairly and reasonably adjudicate in households that either do not accept the default proposals for which household member(s) will receive the funds, or cannot agree among themselves on an alternative allocation. However, at the same time, this arbitration would provide a framework to address concerns that CS would reify gender roles (Robeyns, 2014). These arbitrators would be expected to visit households at a time
when all household members could be present. Often this would entail evening visits, although in-person visits, travel time, and home intrusion could be limited by using virtual tools. The possibility of virtual conferencing will, however, raise a whole new set of issues.

Especially in the early years of the program, a significant part of the arbitrators’ job would be an educational one - simply to explain the system to the household members. In addition to good communication skills, these positions would require considerable skill in negotiation, including the personal qualities (such as patience and empathy) that can encourage all parties to present their case, and a high degree of ethical responsibility, to avoid corruption. Training in counseling would be an appropriate background; additional ‘train the trainers’ jobs would need to be created, several years in advance of a CS implementation, to prepare a cohort of trainers to prepare the arbitrators for their roles in counseling and negotiations.

The state of macroeconomic demand will determine, in part, whether the employment generation aspect of CS is to be regarded as a plus or a minus for the scheme: are more formal jobs needed (as might be the case in a technologically optimistic scenario), or is the society already facing a situation of tight labor force demand? How would jobs created through CS compare to the government jobs that they would replace, in terms of job satisfaction as well as pay?

The CS proposal has one obvious disadvantage compared with other basic income schemes: its relative complexity. Other schemes suggest some flat amount per household, or one amount per child and a different amount per adult. The finest divisions I have yet come across are in a Canadian scheme by Lerner et al, who estimate that:

(Example 9) A flat tax of just over 41 percent could support all government spending plus a basic income large enough to virtually eliminate poverty in Canada. That is, $7,000 (Canadian) for each person sixty-five and over, $5,000 for each person twenty-one to sixty-four, $3,000 for each child, and an
additional $5,000 for each household regardless of size. (Lerner, 1999; cited in Widerquist, 2001, pp 1021-22)

This proposal does not appear likely to eliminate poverty. It would provide a supplement that would be of value to those most in need, but would still depend on a number of other government programs to assist with many situations.

In contrast to other proposals, each household’s total CS income would depend not only on the number of individuals in the household, but also their age and state of health (required to ascertain the need for in-home health care). The algorithms calculated according to these data would need to be updated yearly (as would also be the case in the Lerner proposal just cited, and most others), to account for the changes in ages. The CS proposal would also require annual updating to reflect other changes in household composition as people leave or enter the household. The Lerner proposal, like many others, attaches the proposed payments to individuals: for example, if an elderly person goes to live with relatives, that person’s $7,000 (as proposed by Lerner) would follow her or him and would presumably be deposited in the name of the elderly person, not in the hands of the care-givers. In contrast, to calculate the apportionment of CS within a household it will be necessary to know what household each individual is part of, not just their ages.

There are several disadvantages to complexity in a government scheme. One is simply that, given current widespread distrust of government, greater complexity might encourage greater distrust. Furthermore, for households departing from the default apportionment scheme, arbitrators would be involved. This would need to be handled very delicately, or it would be perceived and actively felt as a pronounced form of government intrusion literally into the home. On the other hand, if a CS scheme encouraged the awarding of greater respect to core work, this could create a generally more humane society, encouraging societal trust generally - which could result in a better relationship between individuals and government.
Another disadvantage of complexity is the possibility that it will enable more cheating. The most obvious place for cheating in a CS scheme would be in reports of health, a constant problem in all existing disability-related schemes. An interesting difference here is that it is not only the disabled individual who needs to report on her or his health, but also other household members, and the compensation for care does not go to the disabled individual. At the same time, a person claiming disability might have a smaller claim on a share of the household’s other CS funds. It is hard to assess how these different issues might affect the likelihood of cheating in this area under a CS scheme as compared to other welfare schemes.

A serious danger is that a CS program could encourage the already litigious nature of U.S. culture. How could it be designed and managed so as to strike a balance between empowering individuals to stick up for their rights and employing a huge amount of human resources as households take their differences to arbitration and vast numbers of arbitrators are required to make the system work?

An argument in favor of the scheme would be that it is high time for human civilizations to face up to the unfairness that has, through much of known history, characterized many if not most households, in which women’s work hours are significantly longer than men’s, while little respect or status is attached to this work. The counter-argument might be: Human civilizations are not yet ready to take that on. To this I would respond that there has been progress on many issues of rights and fairness: though racial, ethnic, and gender equality have not been fully achieved, there has been widespread improvement in these and many other areas. In some parts of the world people have had more than a century of practice in how to replace stereotypes with a fresh look at the humanity of individuals. Bringing this home to every household that contains a mix of ages and genders would start many conversations, some of them acrimonious, but my personal opinion is that the outcome could be healthy. It would provide a new basis for understanding the real contributions people make.
TENTATIVE CONCLUSIONS

Appendix A will describe one way of calculating the total cost of a CS program in the US, using data from the ATUS on how much time, on average, people contribute to the different aspects of core work that were described in Figure 1. Brandon Taylor, Research Assistant for this paper, used the data in that survey to build a model to predict the total amount of time spent in the core sphere by the non-elder adults in a household. He found that the average time per day per adult is 2.22 hours. There are about 248 million adults in the US (Total Population by Child and Adult Population, n.d.). If a CS program were to compensate this activity at $15 per hour, the annual total cost would be $3,016,380 trillion. \((2.22 \times 248 \text{ million} \times \$15 \times 365.25 = \$3,016,380 \text{ trillion})\) US GDP for 2015 was $18.0366 trillion; thus the proposed CS program would cost a little under 17% of GDP\(^{14}\).

Appendix A will discuss a variety of ways that the government could fund this. For now, in concluding this paper, I will provide some summary comments on the need for, and the feasibility of, a Core Support program - or, indeed, a Basic Income Guarantee of any kind.

During the remainder of the 21st century, it seems likely that humanity will face one or more of these four problems (among others):

1. Growing inequality, accompanied by severe poverty and social unrest.
2. Severe resource constraints, resulting in significantly reduced production and consumption possibilities (i.e., lower wages for less productive work).
3. Shortage of jobs resulting from technological unemployment.
4. The need for many people to find a new sense of meaning in life, when work for subsistence is no longer needed.

\(^{14}\) For another view, estimates for the early 2000s concluded that the value of household services in Germany were around €820 billion, and €62.8 billion for Finland. Had these services been included in the national accounts, GDP in Germany would have been about 34 percent higher than reported under standard methodology, and GDP in Finland 40 percent higher. (Bridgman, Dugan, Lal, Osborne, & Villones, 2012). See also Hoskins & Rai, 2007; INSTRAW, 1996; Gomez Luna, 2005.
The last of these “problems” (in quotation marks, because it looks a lot less dire than the other three) might occur under circumstances in which technologically supported abundance, or a culturally supported revision of the concept of sufficiency\textsuperscript{15}, have greatly reduced the demand for work. This “problem” could occur with or without a CS system.

The CS program described in this paper would solve major problems in some types of macroeconomies, but would be difficult or impossible to implement in other types. Looking only at the economic conditions (and leaving politics aside), it would seem especially difficult to fund or operate CS in a very poor country - one in which all the efforts of the existing workforce are barely sufficient to support the whole population at a low standard of living. Such conditions would present two principal obstacles.

The first concern in such a situation has to do with the additional jobs required to make CS work. These jobs would employ people to manage a complete and accurate census; people who can operate the computer programs to calculate annually the CS amounts due to each household; and - the largest group - people with the skills to adjudicate allocations in households that cannot agree among themselves. The question here is: Does this economy in fact contain a large pool of excess labor with the skills to do these jobs?

An even greater concern is that, in an economy in which there is very little money circulating (i.e., low GDP per capita), it would be extremely difficult for a government to withdraw (through taxes), and re-inject, a significant proportion of that money efficiently and rapidly enough to avoid either a massive government default or episodes of severe deprivation. Essentially, a large proportion of available funds would be withdrawn from poor people, then recycled to essentially the same people, with little basis on which to make the return larger than what has been taken away. If, indeed, the country has great inequality, and the funds used for a BIG

\textsuperscript{15} See Skidelsky & Skidelsky (2012).
program came from the very rich and went to the very poor, that would be another story - but it is a story that many people have tried to write under many different schemes, and it usually fails because it is blocked by the political power of the rich.

There is an alternative to financing CS through taxation: the government could print money which it would then hand out to its citizens via a BIG program. The obvious danger here is inflation; any government would need to be very astute, carefully increasing the creation of money only as long as there were actually local goods and services that would be produced and traded in response to increased overall purchasing power. (Other funding alternatives are described in Appendix A.)

Thus economies in which a BIG program seems more economically feasible (leaving aside political feasibility) include the following types:

- The productivity of labor and other inputs is high enough to power a vibrant private sector, which generates enough wealth so that government could command a large portion (possibly 1/4th of total GDP) to be recycled to all households.

- In a different macroeconomy, the government sector / private sector proportions would shift substantially from what obtains in the US today - perhaps more like the proportions found in some Nordic countries. Government sources of income might include ownership of productive resources that some people feel should be common property, such as energy sources, communications and transportation systems, and financial institutions, to name a few.

The second description is a poor fit for the US as it exists today. If other forces for change arose to move the country in this direction, those forces might benefit from having the idea of CS as a goal to accompany the other changes.
What about the first description? It might fit the US in the present. However, before venturing upon a CS program, prudence would suggest waiting a decade or so to see how the large issues of technology, resources, demography, etc., are playing out, before drawing up a new description of the U.S. macroeconomy and proposing such an important change in it. But it is worth thinking about it now, to provide the vision and the motivation required for a transition to a more humane and sustainable economy.

* With appreciation to Matt Alpert for skilled and thoughtful research and editing, and to Brandon Taylor for helpful estimates of time and cost.

References


Appendix A: Potential Cost, and Possible Sources of Funding, for Core Support

Since Marilyn Waring’s path-breaking book, *If Women Counted*, there have been many efforts to calculate the value of the essential core activities performed in households, ranging from 1/4 to 1/2 of GDP, depending on the country studied, the methods used, and the implicit wage assigned to the core work. (Waring, 1988).

Some of the latest work in the field is captured in Folbre (2012) and Bjørnholt & McKay (2014). For example, in the latter collection, Aslaksen and Koren (2014) concluded that household work was equivalent to 26% of Norway’s GDP in 2010, down from 40% in 1970. Cahn (2006) states that in 1998 the total household work done in the US was valued at $1.9 trillion, which would have been about 21% of the US GDP of $9.09 trillion (World Bank, 2015).^{16}

---

Another approach multiplies the hours spent on household work by the wages commanded in the market for these various activities. For example, according to 2012 research by insure.com, the typical mother spends 14 hours per week cooking. The U.S. Bureau of Labor Statistics estimates the average wage for cooks at about $9 per hour. This implies that the annual value of a mother’s cooking labor is over $6,000. Applying the same approach to other household tasks, including child care, cleaning, shopping, yard work, and driving, the annual value of a full-time stay-at-home mother is over $60,000. Similar research by salary.com shows an even larger market value—about $113,000 annually! (Briody, 2012)

Brandon Taylor, research assistant for this paper, used the data in the ATUS to estimate the total amount of time that would be compensated under a CS program. (Note that using ATUS data constrained him to consider only the core work done by non-elder adults, which does not coincide exactly with the assumptions that will be laid out in Appendix B, in which adults up to age 84 and children age 12 and older are assumed to contribute to the running of the household – an assumption which is put forth for consideration and possible revision by each household).

The Taylor model estimates that 1.86 hours a day per adult is the average spent on housework in the US in settings with no children and no dependent adults; the average core work time for all adults in the US is 2.22 hours per day. The difference between these two averages is explained by the additional time spent, in a relatively small number of households, on care for children and dependent adults.

This model has been used to predict the total cost for a CS program as described in this paper. There are about 248 million adults in the US. If a CS program compensated the household activities included in the proposal at $15 per hour, the total is $3,016,380 trillion. US GDP for 2015 was $18.0366 trillion; thus the proposed CS program would cost a little under 17% of GDP.
The question immediately arises: How could such a program be funded? Many Basic Income Guarantee (BIG) proposals are put forth as if they could be financed simply by cutting out other government programs, especially welfare support. These proposals are often not realistic, in that many of the government programs assumed to be substituted for by BIGs are supplying public goods, such as the justice system, infrastructure, etc., which would not receive support in any proposed BIG.

Earlier I proposed that a CS program might replace the US federal program of Transitional Assistance to Needy Families (TANF) plus the associated state “maintenance of effort” (MOE) requirement. In fiscal year 2004, total TANF and MOE expenditures totaled $28.5 billion. CS might replace, in part or in full, some of the other government safety nets listed previously; some portion of CS could be funded by cutting parts of these other programs. This suggestion would be understandably unpopular with those who have worked hard to get these programs in place; given current anti-government sentiments, and seemingly widespread indifference to poverty in the US, there would be justifiable fear that cuts would be made without adequate replacement.

Cuts to other programs, however, are not the only way that a new basic income guarantee could be supported. As examples of other possible sources of funding for a CS program, I will list in the remainder of this appendix some of the sources of funding that have been proposed for BIGs.

The commonest assumption, after “replacement of existing government programs,” is that #1, tax increases, is likely to be the primary source. Number 2, closing loopholes, simply supports #1. Number 3, monetary policy, is easiest to imagine in times of recession, but probably could not provide enough money to be realistic when there was any danger of inflation. Numbers 4 (collective resource ownership) and 5 (fees on monopolies) are ways to create pools of socially-owned money, as alternatives (or supplements) to taxation schemes. Number 6 (child support) describes a similar program that could be broadened and made over into CS. Numbers 7 (universal stock...
ownership) and 8 (a giant indexed mutual fund) are included here because they have been suggested specifically in relation to BIGs; I doubt that they would work well for a CS scheme.

1. **Tax increases**

There are good reasons to consider, in addition to income taxes, many other sources of government revenue, such as wealth taxes of various kinds, sales taxes, sumptuary taxes, or land taxes. A long line of economists have urged that policy makers distinguish between wealth, which includes land, and productive capital, which doesn't, noting that, unlike other forms of physical capital (such as machinery, computers, or tools), an increase in the value of land does not normally imply a greater productive capacity. Since land is roughly fixed in supply, there's little one can do to escape a land tax. Thus economists often favor a land tax, because it does little or nothing to distort incentives (Orszag 2015). Stiglitz notes that

One of the general principles of taxation is that one should tax factors that are inelastic in supply, since there are no adverse supply side effects. Land does not disappear when it is taxed. Henry George, a great progressive of the late nineteenth century, argued, partly on this basis, for a land tax. It is ironic that rather than following this dictum, the U.S. has been, through its preferential treatment of capital gains, doing just the opposite.

But it is not just land that faces a low elasticity of supply. It is the case for other depletable natural resources. Subsidies might encourage the early discovery of a resource, but they do not increase the supply of the resource; instead, that is largely a matter of nature. That is why it also makes sense to tax natural resource rents, from an efficiency point of view, at as close to 100 percent as possible. (Well-designed auctions enable government to capture most of the rents derived from government owned assets.) (Stiglitz, p. 8)

I would favor a highly progressive tax system, including many of the proposals made by liberal economists to ensure that taxes on labor income are at least no higher than taxes on “unearned” income (e.g., inheritance taxes, capital gains, interest on loans,
and dividends from stock ownership; the latter two at present are taxed at a significantly lower rate than wages and salaries), as well as imposing or strengthening luxury taxes, the Tobin tax on financial transactions, and taxes on environmental and other “bads” (such as a carbon tax; See, for example: http://climateandprosperity.org and http://www.yesmagazine.org/issues/cities-are-now/in-alaska-everyone-gets-paid-thousands-in-oil-dividends-per-year). However that is beyond the scope of this paper, except to make the point that affordability is plausible when a CS system is combined with such a tax system, along with reduction or elimination of some present-day welfare-related outlays, and including social savings as a result of less crime as well as increases in some tax receipts associated with wealth redistribution towards the poor.

2. Closing tax loopholes
The following is just one example of a tax loophole that could be closed, with an estimated income to the federal government of $169 billion over ten years. As described in a March 15, 2014 message from Public Citizen’s Commercial Alert:

“A new proposal — from Representative David Camp, a Republican who chairs the House committee most responsible for tax policy — would close a loophole that incentivizes runaway corporate advertising. Under the reform bill proposed by Rep. Camp, businesses would no longer be able to take one-time tax deductions for all of the billions and billions they spend on marketing. With U.S. ad spending expected to increase in 2014 to $160.8 billion — much of which targets children, promotes unhealthy foods and products, or encourages runaway consumption — it’s past time to close loopholes that promote advertising.” (viewed at http://www.commercialalert.org/)

3. The use of monetary policy
A New York Times article describes a common assumption: “Since the financial crisis in 2008, nations grappling with economic weakness have repeatedly turned to one tool to try to fix things: The power of their central banks to create new money from thin air and push it into the financial system by buying bonds” (Irwin, 2015, p. 1). It is
hard to understand why an alternative has seldom been considered - namely, instead of printing money for direct bank funding, money is printed to give directly to citizens who then spend it in the economy, while banks are funded indirectly through deposits. The obvious objection is that this would be prudent only when the economy is suffering from deficient demand, or deflation. The response is that the method of financing a basic income scheme does not need to be consistent under all economic circumstances. In the exceptional circumstances of severe recession, tax relief would be especially welcome; to the extent that a BIG were normally funded by taxes, the financing method could switch to money creation by the central bank, with the new money going to something like the CS, instead of being pushed directly into the financial system. In *Debt or Democracy: Public Money for Sustainability and Social Justice*, Mary Mellor says:

If the creation of public currency is not through the commercial sector, money doesn’t need to be made out of money. Unlike the banks, publicly created public currency doesn’t have to be commodified. It can be spent or allocated as a public resource without the need to be returned (with profit). However it is not wise to create unlimited amounts of money (memo to the banking sector before the crash). The public money circuit is therefore completed not by repayment of debt, but payment of taxes or fees. Tax in this case is not a fiscal instrument as in the commercial money circuit (raising taxes from individuals, households and companies for the public sector to spend) but a monetary instrument, to retrieve money from circulation that could otherwise be inflationary. This creates a very different position for the taxpayer. Instead of ‘hardworking families’ paying out their ‘hard-earned money’ in taxes, they can be seen as returning money that has done its work in creating public benefit (paying doctors, building bridges, environmental work, care for the elderly). An example is Guernsey in the Channel Islands where, rather than borrowing, new money is created for major expenditure together with proposals for future equivalent taxation. (Mellor, p. 74).
The main difference between the commercial and public circuits of money is that publicly created money may be issued as debt, but bank-created money can only be issued as debt.

....A citizen income could only be ‘afforded’ if money creation and circulation was through the public money circuit, and it should certainly be an element in a sufficiency provisioning system (Mellor, 2016, p. 74).

4. **Collective resource ownership and “Common Wealth Dividends”**
This category includes profits generated by publicly owned enterprises (e.g., state enterprises). Proposals have also been made for programs that equitably distribute wealth deriving from commons, such as natural resources (similar to the carbon tax mentioned above). Rents from extractive industries would go directly to citizens rather than to either private enterprise or the state. The following commentary could be rewritten to apply to many other natural resources:

Poor perpetually-broke California, trapped by Proposition 13 and other handcuffs on its taxing power! Yet there’s liquid gold underfoot. The state could charge for water, thus recognizing that we the people own the water... The state could put a meter on every ground-water pump, and charge accordingly. Overnight, California’s fiscal deficit would become a surplus. Yes, some water-hogging crops like rice and hay and alfalfa might move away, as they should. That would release water for the more valuable, intensive fruit and vegetable crops for which California is famous—and which provide far more employment. (Cleveland & Gaffney, 2014)

Ranalli (2014) cites a variety of ways to capture the public’s share of wealth from use of common resources, including taxation, auctioning of permits (e.g., pollution permits, which generate revenue while limiting use of ecosystems services to sustainable levels), and competitive bidding for contracts to exploit natural resources (concessions). Concessions have the advantage of being in wide use throughout the developed and developing world, and of their ability (if the bidding process is
competitive) to return 100% of resource rents (calculated as income beyond the cost of labor and capital and a fair profit) to the public. Revenue gathered in one of these ways can be managed and distributed to the public directly by government or (as in the case of Alaska’s Permanent Fund) by means of a trust.

Ranalli further cites a calculation by Segal (2011), that natural resource rents in developing countries, if distributed as dividends to citizens of those countries, could effectively halve global poverty rates.

Figures from the World Bank (2015) indicate that in 2012, the 146 countries receiving foreign aid had combined natural resource rents of $1.4 trillion USD, an order of magnitude higher than the $126.9 billion USD in official development assistance contributed by major donor countries that year. Potential common wealth revenue is even higher, as the World Bank rent figures do not include ecosystem service revenues or certain types of lucrative natural resource rents (e.g., broadcast spectrum licenses). The potential cited here assumes that ecosystem services etc. can be monetized for in-country use - an issue that takes us back to the question of the amount of money circulating in private hands in a given country, though this proposal is put forth for developing nations.

5. **Fees from government-created monopolies** (such as the broadcast spectrum and utilities)
   This is a variation on the theme of #4.

6. **Child support programs**
   Child support programs that already exist in many countries accomplish much of what has been suggested in this paper. Revising them along the lines that have been suggested here would gain in some aspects of social welfare (such as within-household equity and recognition of the work contributed by young adults), while, creating more, or different, complications compared to existing programs. These existing programs generally work by providing cash allowances to poor families for every child
living with them, sometimes requiring that the families meet certain conditions, such as school attendance and doctor visits (generally done in Latin America). In other cases, e.g. Britain, the funds are distributed by numbers of children, regardless of financial circumstances. Jeff Madrick reports that, with support from the allowances and several other Blair programs, the bottom 20 percent (by income) of British families received roughly $5000 a year. Columbia University’s Jane Waldfogel, who has closely researched the British program, found that families spent the money on clothes, food, and books for their children—indeed, more so than did higher-income parents, who spent more of their money on items for themselves, such as alcohol. A recently published long-term study on the effects of a similar Canadian program found that most parents spent the allowance constructively on their children (Madrick, 2016).

On the one hand, the fact that such programs do exist widely (the US is one of the few developed countries that does not have a system for supporting poor children directly) suggests that the CS idea is not so radical that it could not be considered. On the other hand, there is the common, practical approach of “If it ain’t broke, don’t fix it”; as long as these child support programs are working well, one would need to be very sure that a CS program would work better before making the shift.

Riane Eisler has proposed something similar to CS, but couches her proposal in terms of making investments in human capital, rather than emphasizing (though she also agrees with) the fairness issue, of paying for essential, hitherto mostly unpaid work:

Instead of a guaranteed annual income or negative income tax, Congress and state governors—prodded by businesses, unions, and activists—must quickly launch programs that invest in developing the high-quality human capital that can meet the challenges we face. This means changing the rules of the game so that the essential work of caring for ourselves, our children, and our growing elderly population has high value, with funds allocated for training and support. (Eisler, 2007, p. 166-167).
Under these new rules, expenditures supporting parental leave, child care, education, and health care would no longer be expensed every year, adding to government deficits, as is now the case. These expenditures would be recognized as essential investments in a nation’s most important asset: its future human capital. They would be amortized over the span of a generation, as is done for investments in the other infrastructures that make it possible for organizations to function effectively. (Eisler, 2007)

7. Universal stock ownership
There are a few proposals in which BIG income would be tied to the success of corporate America -- that is, those corporations large enough to be listed on a stock exchange. (Weitzman, 1986; Shangula, 2011). In A Future for Socialism, John Roemer proposes that stock coupons given to each person at age21 would not be convertible to cash, and would revert to the treasury on the death of the holder. Proposals in this category suggest that the portfolio would either be managed like a pension fund, or would be a kind of index fund. As an example of the latter case, Dwight Murphey’s book, A Shared Market Economy, proposes a giant indexed mutual fund that would pay equal dividends to everyone (like the Alaska Permanent Fund). He claims that the Federal Reserve Bank could capitalize this fund without raising taxes.

Appendix B: Proposed Intra-Household division of Core Funds
Figure 2 presents my initial proposal for some default positions regarding the apportionment of Core Support funds within a household, and Example 10 applies this default to a sample case. The proposed allocations, defined as default positions, are intended to balance as well as possible the not-always-coinciding answers to the three questions that had been posed earlier:

(1) Who, in the household, performs the core work that should be compensated?
(2) Who, in the household, is most able, and most likely, to disburse these funds fairly and responsibly, to ensure that all members of the household have their basic needs met?

(3) How can these funds be administered so as not to reinforce undesirable stereotypes, but to help motivate change toward greater overall social and individual well-being?

With respect to the default positions listed in Figure 2, it is essential to note that a household consensus will normally override the default positions. Such a consensus will probably be easier to arrive at, however, if the household can see what default will be put in place, given their circumstances, if they are not able to agree on a different allocation.
When the calculation has been made for the total amount of Core Support funds for a particular household, this amount will initially be divided into 10 portions. The starting assumption is that every household member, from age 12 up to age 84, will normally do some share of the work. I then propose the following initial division (recognizing that few households will contain members in every age category described below):

- one tenth (10%) of the total will be divided among any household members age 12-14
- two tenths (20%) of the total will be divided among any household members age 15-18
- four tenths (40%) of the total will be divided among any household members age 19-62
- two tenths (20%) of the total will be divided among any household members age 63-75
- one tenth (10%) of the total will be divided among any household members age 76-84

(Default #1) Adults in the 19-62 age group will receive at least 40 percent of the core support amount. Amounts specified for other age groups that are not present in a given household will be added to this. For example, if there is no one in the household between ages 15-18, an additional 20% will be added to the age 19-62 allocation, for a total of 60%.

(Default #2) If there is more than one adult in the 19-62 age range, this portion will be divided evenly among these individuals (regardless of gender).

(Default #3) In the rare case where the members of the household who are younger than 19 and older than 62 are so numerous that their shares would add up to more than 60% of the total, nevertheless the 19-62 age adult(s) will receive at least 40% of the total. The remaining 60% will then be divided in such a fashion that individuals ages 15-18 and 63-75 will each receive 2 shares of this remainder, and those age 12-14 and 79-85 will receive one share.

(Default #3) can be illustrated through Example 10: imagine a group home for the elderly in which there are 2 people between ages 63-75 and 3 people between ages 76-84, as well as one or more adults ages 19-62. The default assumption is that the latter - the adults ages 19-62 - will receive 40% of the CS allocation. The remaining 60% of these funds will be divided into 7 shares (two 63-75 year olds receiving 2 shares each, totaling 4 shares for that age group; three 76-84 year olds receiving one share each, totaling 3 shares each for that age group). Thus, at approximately 8.57% (1/7th of 60%) per share, each of the two people in the 63-75 age group will receive approximately 17.14% of the household’s CS allotment, and each of the 76-84 year old members will receive 8.57% of that total.

Figure 2. Allocation of Core Support (CS) Funds

Figure 3 presents a sample communication from the CS Administration. For a general understanding of this proposal, it is important to note that this system would be unworkable if it assumed every household to be capable of the fractional or decimal calculations proposed in Figure 2. It would be essential - and now, in the computer age, possible - that each household be presented with a simple form that will look
like Figure 3, which is a draft of a communication from the CS Administration that would be received by each household. Note that the text that is in italic in Figure 3 explains the form to readers of this paper; those passages would not appear at all on the final form. Words formatted in Figure 3 in bold as well as italic indicate places where the generic description would be replaced by specifics about individuals in the particular household.

**Figure 3. Sample Communication from the CS Administration**

1) Your household consists of individuals in the following categories:

A computer print-out would list up-to-date census information as follows:

- Name, age, disability if any
- Name, age, disability if any
- Name, age, disability if any
- Etc.

If any of this information is incorrect, or if the composition of your household changes at any time, it is important that you contact the CS Administration immediately, at (phone and email contact, and address.)

2) Given this household composition, the total weekly Core Support amount that your household is entitled to receive is $___. Please see the back of this form for an explanation of how this total is calculated. *(The back of the form will lay out something like Box 3, above)*

3) The default assumption for your household is that the Core Support amount will be allocated as follows:

- Name: amount
- Name: amount
- Name: amount
- (etc.)

Very important: the total CS amount, and the amounts assigned to different individuals, have been carefully calculated. Unless you believe that Paragraph (1) above contains misinformation, the total amount is not subject to change.

However, the allocations described in Paragraph (3) simply represent a guess as to what is fair and practical for an average household like yours. *If all members of your household who are between the ages of 15 and 80 agree on a different allocation*, you may request a visit from an arbitrator, at some time when all of these household members can be present. The arbitrator is likely to accept your household’s unanimous preference. If some members strongly disagree with the default allocations proposed under paragraph 3, but cannot agree among themselves on an alternative, an arbitrator will visit to discuss the proposed alternative, and to understand the reasons for disagreement. Recognizing that households should not have to wait for arbitration to receive its CS income, the default positions will be put in place until arbitration can be concluded.
Figure 4 provides estimates based on the ATSU for the average time spent actively tending to children of different ages. These estimates do not indicate the time that an adult must be near enough to monitor a child’s safety and well-being, even if not actively engaged; this is 24 hours a day for young children. In essence, these figures assume that someone is in the home, possibly engaged in other core work, and show only the additional time spent for each child, whether that is the only child in the home or one of several. Note that for the oldest children values become negative: these children instead make a net contribution to the household.

<table>
<thead>
<tr>
<th>Child age</th>
<th>Extra hours per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>4.8</td>
</tr>
<tr>
<td>1-2</td>
<td>3</td>
</tr>
<tr>
<td>2-3</td>
<td>3</td>
</tr>
<tr>
<td>3-4</td>
<td>1.4</td>
</tr>
<tr>
<td>4-5</td>
<td>1.6</td>
</tr>
<tr>
<td>5-6</td>
<td>1.3</td>
</tr>
<tr>
<td>6-7</td>
<td>2.1</td>
</tr>
<tr>
<td>7-8</td>
<td>1.1</td>
</tr>
<tr>
<td>8-9</td>
<td>0.79</td>
</tr>
<tr>
<td>9-10</td>
<td>1.3</td>
</tr>
<tr>
<td>10-11</td>
<td>1.2</td>
</tr>
<tr>
<td>11-12</td>
<td>1.4</td>
</tr>
<tr>
<td>12-13</td>
<td>0.93</td>
</tr>
<tr>
<td>13-14</td>
<td>0.53</td>
</tr>
<tr>
<td>14-15</td>
<td>1.2</td>
</tr>
<tr>
<td>15-16</td>
<td>-0.026</td>
</tr>
<tr>
<td>16-17</td>
<td>-1.1</td>
</tr>
<tr>
<td>17-18</td>
<td>-0.7</td>
</tr>
</tbody>
</table>

Figure 4: Estimates for the Average Time Spent Actively Tending to Children of Different Ages, Based on the American Time Use Survey
Neva Goodwin, a PhD economist, is Co-director of the Global Development And Environment Institute at Tufts University. She is active in a variety of attempts to systematize and institutionalize an economic theory - “contextual economics” - that will have more relevance to contemporary real world concerns than does the dominant economic paradigm. She has edited more than a dozen books, and is the lead author of three introductory textbooks: *Microeconomics In Context*, *Macroeconomics in Context* and *Principles of Economics in Context*. A Transitional Economies edition was translated into Russian and Vietnamese, and a European edition of the macro text is being prepared. Goodwin seeks ways to translate an understanding of the economy in its full social and ecological contexts into action and policy. She also seeks a deeper theoretic understanding from exposure to on-the-ground experiments in alternative socio-economic institutional design, and is involved with efforts to motivate business to recognize social and ecological health as significant, long-term corporate goals.

Correspondence about this article should be addressed to Neva Goodwin at Neva.Goodwin@Tufts.edu