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# SOCIAL WEALTH ECONOMIC INDICATORS FOR A CARING ECONOMY<sup>i</sup>

Indradeep Ghosh, PhD

## Abstract

This essay introduces the reader to an entirely new set of measures that are urgently needed by policymakers and business leaders to foster personal, business, and national economic success. Social Wealth Economic Indicators are measures suggested by a partnership model of society, and they inform us that care work matters tremendously but is grossly undervalued. In our contemporary knowledge-service economy, the essential ingredient for social and economic progress is high-quality human capital, and the way to build such human capital is to support the work of caring and caregiving, traditionally considered “women’s work.” The data presented in this essay clearly show that early childhood care and education, family-friendly workplace practices, and the status of women are key determinants of economic success. But they are also necessary for healthy, creative, and cohesive societies in which members work in partnership with each other and with the natural environment to improve living conditions for all. This is the true meaning of social wealth.

**Keywords:** caring; environment; family; partnership; social wealth; women

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## 1. Introduction

In 2012, US Gross Domestic Product (henceforth, GDP) was reported at \$15.5 trillion, and US financial wealth was reported at \$70.9 trillion. With a population of 315 million, these numbers translate to an average income of approximately \$49,200, and an average financial wealth of approximately \$225,000, putting the US in the top 10 richest countries worldwide. Yet, the picture is misleading for a number of reasons. For one, averages do not tell us anything about dispersion around the mean, and especially in the case of the US (and to a lesser extent, other developed countries), they hide a long-term trend of growing inequality of both income and wealth.

Furthermore, it is by now widely recognized that GDP is not an adequate measure of well-being because it is a measure of spending rather than a genuine indicator of social advancement. By the same token, financial wealth, which is a certain accumulated stock of assets of a certain exchange value, does not by itself offer any indication of whether a particular society is thriving in terms of the desires and aspirations of all of its members being met. More egregiously, financial assets often do not bear any direct link to actual productive activity.

In this essay, I will argue that in order to arrive at a genuine measure of human flourishing, it is imperative that policymakers work with new categories of indicators, and I will present an extensive list of such measures that are based on the principles of “caring economics” rather than those of “neoclassical economics” that undergird the measurement of GDP, financial wealth, and the like. Collectively, these new measures will be called “Social Wealth Economic Indicators” (henceforth, SWEIs) and they will be centered on the work of caring and caregiving, or care work, whose economic value is greatly under-appreciated in contemporary measurements of productive activity.

While care work most obviously refers to the work that human beings do in caring for other human beings, it also refers in the broader sense to the work of caring for the environment. Thus, SWEIs not only cover the work that parents do in caring for their children, or that individuals do in caring for their elderly parents and relatives, or that direct-care workers do in caring for the sick and disabled, but they also cover the attention and resources that policymakers and business leaders devote to maintaining the quality and integrity of the natural environment. Furthermore, the notion of caring is understood to embrace a concern for the vulnerable in society, and these include not only children but also the historically alienated and disempowered. As such, a caring economics pays attention to and seeks to address existing social inequities so that all members of society might be equally positioned to develop and express their full human capacities. So a significant aspect of the SWEIs, as we will

discover in this essay, is their concern for social cohesion, social connectivity, and social equity.

Neither care work nor social wealth is a new topic of research for scholars. Of the two, however, the former is the more recent, with its origins attributable perhaps to psychologist Carol Gilligan and philosopher Nel Noddings, whose writings in the 1980s helped to shape care ethics as a distinct moral theory. Gilligan (1982) and Noddings (1982) provided the impetus not only for further research in the social sciences into the nature of care work, but also for a number of social movements rooted in the concerns of care ethics (such as the need for universal healthcare and preschool education, to name only two). There is now an extensive literature on what comprises care work and how crucial it is to the economic well-being of societies (see, for example, Antonopoulos and Hirway, 2010; Eisler, 2012; Esquivel, 2011; Folbre, 2006; Landefeld et al., 2009).

Social wealth, on the other hand, has a long history of theorization that reaches at least as far back as the 19<sup>th</sup> Century to Marx's use of "social capital" (Marx, 1867). There, however, the term was used as a category of political economy, and, according to Farr (2004), it was not until Dewey (1900, 1915) that the concept of social capital began to be formulated as signifying the strength of association between members of a society, a sense that was later, towards the end of the 20<sup>th</sup> Century, popularized by sociologists such as James Coleman and Robert Putnam (Coleman, 1988; Putnam, 2000). Today, the World Bank defines social capital on its website as "the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions .... not just the sum of the institutions which underpin a society - it is the glue that holds them together."<sup>ii</sup> Our definition of social wealth encompasses these conceptions of social capital but also extends beyond them, since for our purposes, social wealth not only includes the quality and quantity of a society's social interactions, but is also taken to mean the innate human capacities of the members of a society. Building social wealth is then not only creating a culture of care, trust, collaboration, and generosity, but also recognizing

that such a culture allows for the full flourishing of human capacity, and thereby for social and economic prosperity.

Although there have been numerous attempts to measure aspects of social wealth at the national level, such as the Better Life Index published by the Organization for Economic Co-operation and Development (henceforth, OECD) and the Social Progress Index published by the Social Progress Initiative, SWEIs are unique for a variety of reasons.<sup>iii</sup>

Firstly, most of the new indicators primarily focus on outcome variables or outputs, such as rates of poverty, infant mortality, educational attainment, or environmental quality. They ignore the critical matter of inputs, or what is needed for better outputs. SWEIs, on the other hand, distinguish clearly between inputs into social wealth (such as budget allocations and spending on education, or parental leave) and outputs (such as health outcomes and educational attainment). Distinguishing between these two categories of measures does not, however, mean that the SWEIs treat them as conceptually independent from each other. Rather, the objective is to make visible the interactions between inputs and outputs. Thus, for example, Nordic countries are shown to have the highest public spending on education (an input), and also some of the highest educational attainment rates (an output).

Secondly, unlike existing indicators, SWEIs pay considerable attention to outcomes by race, ethnicity, and gender. Since social wealth refers to the collective contributions of members of a society to economic success and quality of life, matters of equity are particularly important for its proper measurement. It is not enough to keep track of income and wealth inequities for the population at large. Rather, it is equally important to make visible how these inequities mirror existing structural problems of differential opportunities for different races, ethnicities, and genders. In particular, the gender piece is shown by SWEIs to matter significantly for economic and business success. To illustrate, a number of studies (which will be detailed below) show that the status of women is one of the best predictors of the general quality of life as well

as economic competitiveness. Other studies show that women are disproportionately poorer worldwide, including in the US as documented in the 2014 Shriver report.<sup>iv</sup> SWEIs include these types of data, but go an important step further by showing that this disproportionate poverty among women (and with them, also children) is a major obstacle to both a society's general quality of life and its economic competitiveness, and that one of its main roots is the devaluation of care work, which is still primarily considered "women's work."

Thirdly, while SWEIs pull together data from existing sources such as the OECD, the World Health Organization (henceforth, WHO) and the United Nations (henceforth, UN), among others, as other existing indicators do, SWEIs also embed these scattered measures within a new conceptual framework that emphasizes the role of a culture of partnership and caring as a key driver of economic and business success. Existing indicators of social wealth crucially miss the importance of care work in building social wealth, and so they miss the urgent need for policies that support such work. Using existing data, but in new combinations, allows SWEIs to connect these data to illuminate hitherto hidden interactions between supporting care work through business and government policy and human capacity development, and hence economic prosperity.

SWEIs are collected into two broad categories: Human Capacity Indicators and Care Investment Indicators. The former measure the degree of human capacity development, where human capacity is understood to refer to the capacities that people learn to utilize not only in service of their own advancement but also in collaboration with others for the advancement of the society and economy in which they live. While care work nurtures human capacity, the capacity to care for others and the environment is itself a human capacity, and so the development of human capacity may be measured in terms of outcomes such as the time adults devote to care work, the care that children receive, educational attainment from early childhood through to adulthood, indicators of good health (or the lack thereof), environmental quality, and measures of social cohesion, social connectivity, and

social equity. Collectively, Human Capacity Indicators primarily measure the outputs of social wealth. On the other hand, Care Investment Indicators measure the investments that the public and private sectors make toward building human capacity, and so the second category measures inputs into social wealth accumulation. These inputs may take the form of direct financial assistance to parents and families, or laws that support care work, or public and private expenditure toward preserving the integrity and quality of the natural environment.

In their current version, SWEIs represent country-level measures and allow for comparisons between the US and other countries. In some cases, however, as with the race/ethnicity dimension of social equity, the data presented pertain only to the US, and allow for state-level comparisons. It is hoped that future iterations of these indicators can be adapted to the state and local levels so that they can begin to inform policy at these levels. But for now, the emphasis is on showing how countries fare, relative to one another, in their development of human capacity and in their investments towards such development. One conclusion that clearly emerges from the country-level data is that the US significantly lags behind other developed countries along both of these dimensions. So one of the benefits of SWEIs, with their emphasis on tracking both inputs and outputs, is in demonstrating to US policymakers and business leaders ways in which this gap may be closed.

SWEIs also promise a rich source of information for businesses and society, and indicate the benefits to them of instituting caring policies. In order to get a measure of such benefits, it is necessary to look beyond individual indicators that capture the various dimensions of social wealth, and to explore, instead, the strength of the relationship between measures of social wealth and measures of economic growth, productivity, and competitiveness. For example, we might ask whether greater investment in high quality early childhood care and education is associated with fewer behavioral problems such as delinquency, as well as lower child poverty and lower crime rates. We might also explore other key matters not generally addressed in economic analyses, such as how the status of women correlates with measures of

human, economic, and social development. Answers to such questions enable us to appreciate the value of SWEIs in both guiding and evaluating policy at all levels of government and for businesses, with the ultimate intention of nurturing true economic and social prosperity.

In what follows, I divide the discussion into sections in order to explore the above themes in greater detail. Section 2 presents the conceptual framework that underscores the urgent need for a new set of indicators, and provides the basis for the conceptualization of SWEIs. Section 3 presents the first category of SWEIs, namely Human Capacity Indicators, while Section 4 presents the second category, namely Care Investment Indicators. Each of these categories comprises multiple sub-categories of measures, and so these sections are further divided into sub-sections so that the sub-categories may be properly explored. Data is presented on a small subset of these measures so that cross-country comparisons can be made. In Section 5, I turn to the relationship between SWEIs and economic and social development, in order to demonstrate the value of SWEIs to policymakers and business leaders. Section 6 concludes this essay.

## **2. A New Conceptual Framework**

The dominant metric of economic prosperity, widely used in the media and in academic economics, is GDP. In recent decades, however, the practice of measuring economic and social progress by GDP has come under criticism. Stiglitz et al. (2010) state many of the objections, among which are that GDP overlooks (because of its focus on market activity) economic activity such as household work or the work of a stay-at-home parent, does not factor in the environmental impacts of economic decisions, and offers no account of economic inequality so that much of society might be worse off even as it gets richer.

While these are all valid criticisms, there is a wider context of understanding within which the use of GDP as any kind of measure of progress may be faulted, and that is that measurements such as GDP are supported by a certain structure of thinking that

is deeply flawed. I am referring here to the neoclassical paradigm in economics, according to which “the economy” is conceptualized in terms of two distinct but interdependent spheres of activity. The microeconomic sphere is populated by atomistic, rational subjects making decisions in a purely instrumental fashion, so that a mathematical calculus may be applied to economic subjectivity, rendering it measurable and predictable. Then the macroeconomic sphere is constructed by a simple linear aggregation over the atoms, wherefrom GDP arises as the monetary value of everything that is produced and sold in all of the markets in an economy during a particular length of time. Needless to say, such an understanding of economic subjectivity that treats human beings as if they were devoid of belief and intention and were instead merely rational, calculating machines, has come under a lot of criticism not only from outside the discipline, but also from within. And yet, very few critics have been able to propose a radical reformulation of the subject matter of economics that might enable a more enlightened understanding of what economic and social progress might really mean.

*The Real Wealth of Nations: Creating a Caring Economics* by Riane Eisler (2008) is a notable exception, and it is to her conceptual framework that the proposal to measure economic and social progress according to SWEIs owes its intellectual origins. Therefore, in the rest of this section, I offer a description of Eisler’s framework so that the relevance of situating SWEIs within the context of a caring economy can come into focus, and so that the particular choice of measures that constitute the SWEIs, to be discussed in the next two sections of this essay, can be better appreciated.

The first innovation of caring economics is to extend the definition of “the economy” beyond the neoclassical compartments of the market economy, the government economy, and the illegal or black economy, to a “full-spectrum economic map” that also includes the household economy, the unpaid community economy, and the natural economy. Indeed, the latter three sectors are now considered foundational because without them, the neoclassical sectors would not even exist. Furthermore,

the household economy is positioned as the core inner sector of the economy, and the real heart of economic productivity. In neoclassical economics, the household enters only on the side of consumption, but in caring economics, the household is also, and more -quality human capital being its primary form of output. For it is the case that human capital is not only the product of secondary and tertiary education, but also and crucially, the product of early childhood care and pre-primary education. Neuroscience research informs us that the quality of early childhood care is critical to the human being's capacity for social, emotional, cognitive, and physical development (Perry, 2002). So high-quality human capital is really a work-in-progress from the very beginning of a person's life and especially during the early years.

The second innovation of caring economics is to go beyond the neoclassical conception of the economy as a mechanical totality and adopt a systems dynamics approach in which a more integral totality emerges as the foundation for thinking economic life. In a mechanical totality, activities unfold according to certain laws, and there is no room for novelty or emergence. More importantly, the categories of analysis employed in neoclassical economics, such as labor, capital, and technology (to name only a few) are, in the final instance, no more than abstract mathematical entities with little or no social content, and this makes neoclassical economics inadequate for social analysis. So it is not surprising that GDP cannot inform us about social progress. A truly systemic approach would have to employ social categories that describe the totality of a society's beliefs and institutions, and then economic activity might be imagined as being embedded within as well as emergent out of such a totality.

Caring economics situates itself within a framework of social analysis that utilizes the categories of "domination system" and "partnership system" that describe society as a relational structure, irrespective of whether those relations exist within the family or within a corporation or within governmental institutions. These categories describe human relations in the broadest of terms so that all relations, including gender relations, may be viewed in their light. And this is to our advantage, because the

categories of domination (system) and partnership (system) may not only be used to appreciate the importance accorded to caring values and care work in an actual social system, which is never either totally a domination system or totally a partnership system, but may also be mapped onto a set of gendered values whereby the reason for undervaluing caring values and care work in an actual social system is found to also be lurking behind the diminished status of women in that system. To be clear, caring and empathy are not likely to be highly valued in predominantly domination systems that also emphasize stereotypically masculine values of intemperate strength and unbridled courage. And by the same token, these societies are unlikely to accord a very high status to their women since feminine values of nurturing and empathy are looked down upon, whether they are embodied in men or women. In other words, the devaluation of women and the feminine in domination systems directly affects whether or not caring values guide social and economic policies and practices.

Furthermore, these categories may also be used to characterize the nature of institutional orientation in societies. They enable us to frame the fundamental dichotomy of political economy not as one of capital versus labor, but one of top-down threat and domination versus mutual respect and care. Domination systems are identified with authoritarian structures of rigid hierarchy in which the threat of pain and violence, if not actual violence, is held out as the disciplinary mechanism to maintain social order, so that violent personality traits come to be moralized as efficient and therefore desirable. Social equity, on the other hand, is not a primary objective of policymaking. The orientation in partnership systems is one of collaboration and trust, democratic decision making, restorative rather than punitive justice, and equity along all dimensions, whether they be those of age, or race and ethnicity, or gender.

Thirdly, and finally, unlike neoclassical economics, which was birthed in the 19<sup>th</sup> Century and fine-tuned into an engineering science during the 20<sup>th</sup> Century to understand and serve an economic base of manufacturing, caring economics embraces the contemporary reality of the world in which we live. This is not an industrial or

even post-industrial world, but rather one in which knowledge and service power economic prosperity, and for which the most important ingredient of economic success is high-quality human capital, by which we mean creative and empathetic individuals capable of working in cooperation with one another in a culture of mutuality and partnership rather than one of fear and domination. To build this human capital is to care for the very young and the most vulnerable populations in society - the elderly, the sick, the disabled, and the dispossessed and disempowered. It is to create networks of provision and care in the interest of building social capital that, unlike physical or natural capital, knows no finite bounds and encounters no diminishing returns.

Eisler's conceptual framework opens the space for thinking solutions to social and economic problems that are seemingly intractable when confronted using the neoclassical or other frames of analysis. Problems such as poverty are now seen more clearly as products of rigid hierarchies of domination that stifle the possibility of adequately valuing care work, for it is the case that women and children are disproportionately among the poorest around the world. Problems of ecological catastrophe are now understood to emanate from a mechanistic, scientific paradigm that seeks to establish the human subject's mastery over nature in an attempt to control and dominate it rather than according nature its own active potency with which human power maintains a caring and respectful alliance. Problems of mass incarceration and high recidivism in countries such as the US are now revealed to be the counterparts of an international war machine whose collateral effects include a domestic culture of fear and threat stoked by the militarization of a growing police force.

Understood in this overarching context, SWEIs provide policymakers and business leaders with the missing information that is needed to address contemporary social and economic problems. By highlighting the need for human capacity development, SWEIs focus attention on the essential component of personal, business, and national success in our new knowledge-service era, which is that of care work. Even if much of

this work is currently underpaid or even unpaid, the conceptual framework of SWEIs attests to its fundamentally productive nature, so that SWEIs invite policymakers and business leaders to rethink the very definition of “productive work.” This is all the more imperative as we shift from a time when manufacturing plants employed many thousands of people to one when the same plant is run through automation with just a handful of people, and when even service jobs such as receptionists, telephone customer service personnel, and increasingly also middle management positions are being replaced by automation. Valuing care work means valuing ways of creating value, and although there is nothing new about the value that care work creates, there is not enough awareness about exactly how much value that is, in economic terms, or how far-reaching the impact of such work is. Automation will never be able to replace the human element of care work, and so valuing care work means valuing work that is necessary, and not only because humans need care but also because care needs humans. This is what SWEIs hope to convey, in the present time of massive technological, economic, and social transition.

### **3. Human Capacity Indicators**

The first set of SWEIs measures the development of human capacity, which is the creative potential in human beings. When this creative potential is activated in the service of oneself and others, then human beings flourish and a society’s ability to create, adapt, and transform is enhanced. Human capacity resides in all members of a society - as much in children and youth as in the middle-aged and old, and as much in the able as in the disabled. A society cannot hope to make progress if its members are not empowered to take responsibility for their individual and collective futures. Since neuroscience shows that this empowerment must be cultivated from the earliest stages of life, Human Capacity Indicators (henceforth, HCIs) include measures of the care and education children can access, both in homes and through high quality childcare. And, since children must continue to receive loving care that will fully awaken their creative potential, HCIs also look at factors such as primary and secondary education, health, and environmental conditions. HCIs also recognize the human need for belonging and the benefits to a society of humans bonding across

social stratifications such as age, gender, and race. Without these elements, human beings cannot aspire to anything larger than their own self-interest, and human capacity falls short of its full potential to create a sense of harmony and balance in social life. So measures of social connectivity and social cohesion, and of social equity, are essential components of HCIs. Finally, HCIs also include measures of entrepreneurship and innovation as these are not only vital aspects of human capacity, but also key drivers of business and economic success.

HCIs are divided into seven sub-categories. Each of these sub-categories comprises two or more measures. As noted earlier, data is collected from existing sources, usually at the cross-country level, to indicate how each of these measures may be translated into actual numbers. While I report the full set of measures, a presentation of all of the quantitative data is beyond the scope of this essay, and readers are advised to consult the report cited in the first endnote of the essay for a fuller review. In that report, the data are presented in a variety of forms - tables, bar and line graphs, pie charts, and maps. In this essay, I will only offer a small representative sample, i.e., I report the full cross-country data for only a very small subset of the measures, and always in table form, so that readers might get a taste for what the data presented in detail in the report looks like. For the remaining measures, I offer text descriptions of the data content. Furthermore, since all of the data presented in the report are publicly available, often via the Internet, I include urls in the endnotes of this essay wherever appropriate.

Table 1 in the Appendix reports the full set of measures included in HCIs, and the country coverage for the data currently available on these measures.

### **3.1 Caregiving Measures**

The first sub-category of HCIs is Caregiving Measures, which covers the essential input of caring and caregiving that augments social wealth in terms of nurturing the human capacity of a society's members. The work of caring and caregiving may take many forms. It may involve a mother caring for her children, or an adult caring for his or

her aged parents or other relatives, or community members volunteering to care for the sick and disabled. Much of this work is unpaid and takes place in the informal, household sector, whose production is still not counted among measures of national output or income. Or, when such work is paid, the data show that the rates of pay are extremely low in general. For example, in the US, childcare work is one of the lowest paid occupations, paying \$19,510 per year, or \$9.38 per hour, according to the US Bureau of Labor Statistics.<sup>v</sup> By contrast, plumbers, pipefitters, and steamfitters earn \$49,140 per year, or \$23.62 per hour.<sup>vi</sup>

When the work is unpaid, it can be valued using either a replacement cost methodology, which uses the average wage in the relevant paid care industry, or an opportunity cost methodology, which uses the average wage for all industries. The value of unpaid care work is obtained by multiplying the time spent on care work (usually reported in surveys) by the wage. Given what has just been said about wages for paid care work, the replacement cost methodology produces a much lower estimate. A 2012 US study using the replacement cost methodology finds that incorporating the value of nonmarket household production in the US would raise 2010 US GDP by 26% (Bridgeman et al., 2012). A 2012 Australian study using an average of replacement and opportunity costs finds that the value of unpaid care work in homes constituted just over 50% of reported 2009-2010 Australian GDP (Hoenig and Page, 2012). Similar numbers are obtained in studies of unpaid care work in the state of Massachusetts, the city of Auckland in New Zealand, China and Switzerland. They all clearly indicate the substantial importance of care work in terms of its productive potential.

One of the main data sources used in the measurement of SWEIs is the OECD Family Database.<sup>vii</sup> Among the many pieces of information available through this database is information on time use, from which we may glean a detailed picture of the ways in which adult household members spend their time. Table 2 in the Appendix describes the time dedicated to unpaid care work as a primary or secondary activity in OECD countries. In this table, countries are ranked in descending order of the time that

women aged 25-44 with two or more children spend on care work. Primary care work refers to such activities as the provision of personal care, the supervision and education of a child, including reading and talking with children, and transporting children. Secondary care work refers to such activities as being within earshot when a baby is sleeping to ensure that she or he is OK, and watching TV or going to the cinema with the child to monitor and explain where needed. Not surprisingly, we note from the table that women spend substantially more time with children than men. But also, the amount of time spent on care work varies most significantly for women. For example, mothers in Mexico with two or more children spent about twice as much time on care work as mothers in France. In the case of men, the time spent on care work in the US was among the highest for OECD countries, but in the case of women, the US ranked at the lower end of the scale. For instance, women with two or more children in the US spent about 12.5% of their time on care work, ahead of only Latvia (11.3%) and Canada (8.8%), compared to 22.6% in Mexico, 22.2% in the UK and 21.2% in Germany.

Preschool and pre-kindergarten programs provide children their first opportunity to come together and socialize with others from a diversity of backgrounds. Accordingly, these programs represent one of the most far-reaching investments in the accumulation of social wealth. One measure of their prevalence is the enrollment rate in childcare centers, which varies widely across countries in the OECD, according to the OECD Family Database. For 3-5 year olds, the enrollment rate is close to 100% in Belgium, France, Italy, and Spain, indicating that children are expected to spend close to 3 years in preschool. By contrast, the time spent in preschool is 1.7 years in the US (which is below the OECD average of 2.3 years), and less than 1.5 years in Greece, Poland, Switzerland, and Turkey.

Care work also includes long-term care (henceforth, LTC, also called direct-care in countries like the US), which refers to hands-on care and personal assistance received by older people or those living with disabilities or other chronic conditions. The majority of LTC users in OECD countries are women over 80, and the majority of LTC

workers are also women. Despite the fact that such work is burdensome, leading often to early retirement due to stress or burnout, wages for such work are, as in the care of childcare work, generally low. In the US, direct-care workers earned a median hourly wage of \$10.63 in 2012 (compared to \$16.71 for the average US worker), and have actually experienced declining real wages in the last 10 years, according to the Paraprofessional Healthcare Institute.<sup>viii</sup> More than half of direct-care workers do not have health care coverage and almost half are below the federal poverty level income and therefore dependent on various forms of public assistance benefits. This is especially worrisome as, according to estimates prepared by the American Association of Retired Persons, the population aged 65 or older in the US is projected to grow by 89% between 2007 and 2030, more than four times as fast as the population as a whole.<sup>ix</sup> Similar rates of growth are expected in other developed countries, where life spans have greatly expanded, and so the need for LTC is rapidly expanding even as working conditions for LTC workers remain poor. Thus, it is not surprising that organizations such as Elder Care Workforce project a critical shortage of the geriatric care workforce in the coming years.<sup>x</sup>

### **3.2 Education Measures**

In addition to care, education is vital. It is especially critical if children are to develop the unique gifts and talents that each individual is born with. Education is not only a major factor in a nation's standard of living; it is also one of the most important inputs to building a society's capacity to cultivate in its members the values of caring, trust, collaboration, and generosity. Members of a highly educated society are more actively engaged politically and socially in the work of improving and transforming social conditions for the betterment of all concerned. This is especially true when all the members of a society, irrespective of gender, race, ethnicity, age, or ability, receive the benefits of education. Such an equitable distribution of education enables diversity to manifest its true creative potential in a multifaceted citizenry equipped to confront the unique challenges and opportunities presented by our knowledge-service-based economy.

We have already noted under Caregiving Measures enrollment rates in childcare and preschool, and these enrollment rates also figure under Education Measures. The US is a middling performer in this domain, with an enrollment rate for children aged 3-5 in preschool services of 57%, compared to 98% in Sweden, 94.5% in New Zealand, 91.5% in Denmark, and 90% in Japan. Also of concern for US policymakers is the fact that even as the enrollment rate in pre-kindergarten programs in the US has been growing between 2001-02 and 2011-12, funding allocations for such programs has been trending in the opposite direction, according to Barnett and Carolan (2013).

Educational attainment is also obviously relevant for children beyond preschool, and may be assessed in terms of the extent to which adults have attained primary, secondary, and tertiary schooling. Among OECD countries, according to the OECD Family Database, people in Norway spend the most years in formal education, at nearly 14 years on average, whereas people in Portugal spend the fewest years, at 8.5 years on average. Overall, for all age groups, men spend more time in formal education than women, except in Belgium, New Zealand, Norway, and Spain, where men and women spend equal amounts of time in formal education, and Canada, Finland, Iceland, Ireland, Poland, Portugal, Sweden, and the US, where women spend more time in formal education than men. In most OECD countries, an upper secondary qualification has become the most common education level attained by young people, but tertiary education has also expanded markedly. According to the 2013 OECD publication, *Education At A Glance*, the US ranked 12<sup>th</sup> among OECD countries in 2011 in tertiary educational attainment, with an attainment rate of just above 40% among 25-34 year olds. The attainment rates in Korea, Japan, Canada and Russia exceeded 50%, while Italy, Turkey and Brazil had the lowest rates at under 20%.<sup>xi</sup>

### 3.3 Health Measures

Health is crucial for the flourishing of human capacity. Therefore HCIs include health outcomes, life expectancy being the most common indicator. From the perspective of human capacity development, a special consideration is the health of mothers and infants, and of children of all ages. If these demographics are not adequately served

by healthcare, a society may be deemed to have skewed its priorities away from regeneration and renewal and towards attrition and perhaps even extinction. Maternal health is positively correlated with the efficient use of household resources and overall community health. Studies show that when mothers enjoy better health, they are better able to care for their children, and this in turn helps children become healthier, more creative, and more productive adults, which ultimately results in higher long-term economic growth. Therefore the subcategory of Health Measures pays special attention to health outcomes for mothers, infants, and children.

We begin our foray into Health Measures by considering life expectancy, which is the average number of years a newborn can expect to live. But also, since more years of life do not necessarily mean that those years are spent in good health, a measure called health-adjusted life expectancy (henceforth, HALE) adjusts life expectancy to reflect the average number of years a newborn can expect to live in good health or free of disease and injury. Data on both of these measures are available through the OECD Family Database. On average, in 2008, life expectancy in OECD countries for girls and boys was 82 and 76 respectively, but HALE was 74 and 70, respectively. This means that the proportion of their lifespan that could be limited by disease or injury was 10% for girls, and 8% for boys. For both boys and girls, the US rates for life expectancy and HALE were below the OECD average. It is to be noted that the HALE gender gap is smaller than that for life expectancy. On the whole, the ranking of countries for HALE is very similar to that for life expectancy, suggesting that countries with the longest life expectancies are also the healthiest (Japan, France, Spain, Italy, Iceland, Sweden, Australia, and Switzerland).

Table 3 in the Appendix presents infant mortality rates in OECD countries in 2010. Infant mortality refers to the number of deaths of children under 1 year of age in a given year. The table also reports rates for neonatal mortality (the death of children not yet 28 days) and post-neonatal mortality (the death of children between 28 days and 11 months of life). We see from the table that infant mortality among OECD countries ranged from a low of under 3 deaths per 1000 live births in the Czech

Republic, Japan, the Nordic countries (with the exception of Denmark), Portugal, and Slovenia, to a high of over 10 deaths per 1000 live births in Mexico, Romania, and Turkey. Infant mortality rates were also relatively high (more than 6 deaths per 1000 live births) in Chile, some Central and Eastern European countries, and the US. Around two-thirds of the deaths that occur during the first year of life are neonatal deaths. Congenital malformations, pre-maturity, and other conditions arising during pregnancy are the principal factors contributing to neonatal mortality in developed countries. For deaths beyond a month (post-neonatal mortality), there tends to be a greater range of causes - the most common being SIDS (Sudden Infant Death Syndrome, also known as “cot death” or “crib death”), birth defects, infections, and accidents. Infant and child mortality are well predicted by immunization rates for diseases such as measles, diphtheria, tetanus, and pertussis, and so data on immunizations for these diseases are also included under Health Measures, and sourced from UNICEF and WHO.<sup>xii</sup>

In the domain of maternal mortality, data sources include the World Bank and a report entitled *State of the World's Mothers 2014* published by the organization Save The Children.<sup>xiii</sup> According to the latter report, Western European countries have the lowest rates of maternal death, indicating that these countries have the highest functioning health systems overall. The US rate of 1 death for every 2400 mothers is higher than that of most other developed countries, and also higher than that of East European countries such as Bulgaria, Croatia, and the Czech Republic. The highest rates of maternal death occur in Southeast Asia and Africa.

Yet another indicator of poor US performance in the arena of health is the highest prevalence of teen births among developed countries, according to Blum (2013). The rate, at 40 births per 1000 women aged 15-19, was the highest among 21 developed countries, with most Western European countries and Japan registering single-digit rates.

Finally, Health Measures include indicators of how health is affected by environmental quality. The WHO is the primary data source for this information, since it tracks the health impact of environmental factors along a variety of dimensions.<sup>xiv</sup> For example, outdoor air pollution can fatally affect children and adults. Globally, in 2012, 7 million deaths were attributable to the joint effects of household air pollution and ambient air pollution. Most of these deaths occurred in middle- and low-income countries, which represent 82% of the world's population, with the Western Pacific and South East Asian regions witnessing the most deaths, at 2.8 million and 2.3 million, respectively.<sup>xv</sup>

### **3.4 Social Connectivity and Cohesion Measures**

A society that is divided and fragmented, with its members isolated and alienated from one another, cannot hope to grow networks of provision and care. Only through such a coming together, whether in communities, schools, churches, or other kinds of groups, are people able to develop a sense of being, belonging, and becoming. Whether the occasion for coming together is celebratory or commiserative, the natural human tendency to think and feel in the company of others supports, widens, and deepens the values of caring, trust, collaboration, and generosity that are the hallmark of a caring economy and society.

The coming together of people in groups also holds out the potential for constructive dialogue across cultural, religious, and ideological boundaries, and out of such dialogue may emerge innovative approaches for solving social problems and for visioning a shared future. Even though the proliferation of social media appears to have occasioned a migration online of our social lives with its attendant problems, it has also increased awareness of the problems and concerns that face humanity as a whole, so our coming together offline can now be infused with a more informed and more directed intentionality than before. Perhaps the most important aspect of social connectivity that is relevant to social wealth is that there are no finite limits to the variety of forms that such connectivity can take. Human beings have an extraordinary capacity to relate to one another in new and interesting ways.

The extent to which young people participate in formal and informal organizations is an important indicator of social cohesion. The 2005-07 World Values Survey asked respondents whether they belonged to groups of a particular type, and whether they considered themselves to be “active” or “inactive” members of the groups. The results of the survey, compiled by the OECD Family Database, shows considerable diversity across countries in the formal groups to which young people belong. In general, young people are most likely to be members of a “sport or cultural association” rather than any other group. However, in Finland, Mexico, Sweden, Romania, and the US, young people are most likely to belong to a church (or other religious organization). Membership in an association with a political orientation, including labor unions, is more frequent in Sweden, Finland, the US, and Norway than anywhere else. In the US one-fifth of young people are members of a charitable or humanitarian organization. In Canada and Sweden the percentage is one-third, about twice as high as for the OECD on average.

Another measure of social cohesion is a community’s acceptance of minority groups. Data for OECD countries is available from a Gallup World Poll, which asked: “Is the city or area where you live a good place or not a good place to live for immigrants from other countries?” In Australia, Canada, Iceland, New Zealand, and Norway at least 90% of people thought in 2012 that their country was a good place for immigrants to live. On the other side of the spectrum were Estonia, Greece, and Poland, where less than half of the people believed that their country was a good place for immigrants to live. The US ranked tenth in its tolerance of immigrants. Answers to similar questions about ethnic minorities and gays and lesbians are also available from the survey, and the report cited in the first endnote of this essay presents the relevant data for OECD countries and some others (Argentina, Brazil, India, Indonesia, Russia, and South Africa).

Incarceration and recidivism rates also offer indirect information about social cohesion. According to Deady (2014), the US incarcerates more of its citizens than any other country, 761 people per every 100,000, resulting in 15 times as many prisoners

as Iceland, 14 times as many as Japan, and 10 times as many as Norway. However, it should be noted that some nations, especially those with authoritarian governments, do not report incarceration rates, so the assertion that the US has the highest rate of any nation has to be viewed in this light. The US also has a high recidivism rate, at 52%, compared to 20% in Norway, a country that is often held up as a model of successful incarceration practices, which include government-assisted housing, employment, education, healthcare, and addiction treatment for released prisoners.

### **3.5 Environmental Measures**

Care for our natural environment is critical, as nature not only provides the essentials to sustain human life but also directly affects a society's economic prospects. Not only does the environment nourish and support human life, but its cleanliness and natural beauty contribute to the good health and psychological well-being of human beings, who co-create social reality in alliance with other life forms and the natural environment. Therefore, proper care for the environment is crucial for human capacity to flourish, and damage to the environment not only impedes the accumulation of social wealth but also adversely affects long-term economic health. Conventional measures of economic prosperity such as GDP completely overlook the importance of environmental quality for long-term economic health. Yet current economic practices, including activities counted as positives in GDP, inflict a huge cost on the environment by way of resource depletion, pollution, and climate change. The sub-category of Environmental Measures describes environmental quality and the impact that environmental degradation is having on human health and flourishing.

A 2008 OECD report entitled *Environmental Indicators* reports data for OECD countries on two topics: pollution issues (climate change, ozone layer, air quality, waste generation, and freshwater quality) and natural resources and assets (freshwater resources, forest resources, fish resources, energy resources, and biodiversity).<sup>xvi</sup> Overall, OECD countries have made important progress in measuring their carbon dioxide and greenhouse gas emissions as a separate and highly significant factor in human and economic development, rather than only relying on GDP growth. However,

most countries have not succeeded in meeting their own national commitments. Their emissions continued to increase throughout the 1990s, particularly in the Asia-Pacific region and North America (US and Canada), despite gains in energy efficiency. Since 1980, carbon dioxide emissions from energy use have grown more slowly in OECD countries as a group than they have worldwide. Still, for both greenhouse gases and carbon dioxide, the US and Canada are among the highest polluters in the OECD.

Patterns of consumption - of natural resources and various pollutants - also reflect environmental quality. The Global Footprint Network publishes an important index of ecological deficits and reserves for countries across the globe.<sup>xvii</sup> This index is calculated by comparing a country's biocapacity (reserves, measured in global hectares per capita, of resources such as cropland, grazing land, forest, etc.) with its ecological footprint (its use, measures in global hectares per capita, of those reserves). If the former is greater than the latter, then the country is deemed to be running a net reserve. Countries that run deficits are therefore running down ecological resources on net. Among more than 150 countries, the US is one of only 12 running a deficit larger than 4 global hectares per capita. In Latin America, however, a large number of countries are running ecological reserves, and this is also true of Canada, Australia, New Zealand, and select European countries (Estonia, Finland, Latvia, Russia, and Sweden). Data from the UN indicate that in 2008, consumption of ozone-depleting substances was highest in India, Brazil, China, and the US, and in 2007, carbon-dioxide emissions per capita were highest in industrialized countries (especially Canada, Australia, Canada, Germany, Japan, Russia, and the US). The US and Canada were also among the worst offenders in terms of greenhouse gas emissions in 2008. Finally, critical shortages of renewable freshwater resources are beginning to appear in India, China, Mexico, and parts of continental Europe.<sup>xviii</sup>

### 3.6 Social Equity Measures

To build social wealth, a society must be able to effect an equitable provision of resources to all its members. This sub-category of HCIs includes a variety of measures of the extent to which resources, opportunities, and rights (e.g., to safety and

security) are equitably distributed across a society. Equity requires that special consideration be given to those members of a society whose contributions have been historically undervalued. Without adequate resources, these members have an uphill struggle to grow into flexible, creative, and productive human beings.

Inequity is not only a problem in the domains of income and wealth, but also in the domains of access to education, healthcare, and employment. Inequity manifests according to differing social and demographic stratifications. For example, gender is a universal category of stratification and therefore not country- or geography-specific. When we restrict our focus to the US, race (White, Black, Asian or Pacific Islander, American Indian or Alaskan Native, etc.) and ethnicity (Hispanic, non-Hispanic) also emerge as primary stratifications for the measurement of equity. In India, caste remains a major source of stratification, whereas in some areas religion is used to subordinate “out-groups.” To be sensitive to these differences, Social Equity Measures include various sub-categories of measures. The first of these are broad-based measures of inequity in the domains of income and wealth, i.e., they do not drill down to the level of social and demographic stratifications. Measures of inequity based on gender, race/ethnicity (relevant to the US), and finally other/miscellaneous stratifications, follow.

Many economists take the view that some degree of income and wealth inequity may be a good thing since it creates the necessary incentives for hard work and innovation. There remains, however, little agreement on exactly how much inequity is the “right” amount, because economists have not yet devised a reasonable analytical framework to address this question. From the perspective of creating social wealth, persistent and large wealth and income inequities are harmful. To begin with, such inequities interfere with a proper functioning of the democratic process. In countries where the rich own a growing share of income and wealth, the political process is inevitably captured by their interests, and the poor become objects of disenfranchisement and therefore discrimination. Social mistrust then grows, and political and civil disorder become increasingly likely. Certainly, such has been the reality in recent times in many Western countries such as the US (the 2011-

12 Occupy Movement), the UK (the 2010 student riots), and parts of continental Europe (anti-austerity riots in Spain, Portugal, and Greece). Another critical issue with respect to income is the status of children, who are unable to support themselves and must therefore rely on adults for sustenance.

Data compiled by Piketty (2014) provide information on trends in income inequality for a large group of countries. Since 1980, the share of national income going to the top 1% of the population has risen sharply for four Anglo-Saxon countries - the US, the UK, Canada, and Australia - with the US share, at around 18%, being the highest of the four. The trend is broadly similar for six developing/emerging countries: Argentina, China, Colombia, India, Indonesia, and South Africa. That is, we see once again a U-shaped curve: during the period 1930-1980, the share of total income going to the richest 1% of the population in these countries declined steadily, but then began to pick up, so that during the past few decades, more and more income has been accumulating at the top. In most of these countries, however, the share taken by the top one per cent is quite a bit lower than it is in the US. Also documented by Piketty is the finding that wealth inequality has been growing in both the US and Europe since 1970 but most sharply in the US. In 2010, the American top one per cent owned about a third of all the wealth while the European top one per cent owned about a quarter.

Data from the OECD Family Database indicate that approximately 13% of children in OECD countries were poor in 2009-11, but there is wide variation across countries with the poverty rate exceeding 20% in the US, Chile, Israel, Mexico, and Turkey, and below 9% in Austria, the Nordic countries, and Slovenia. According to the Annie E. Casey Foundation, 13% of children in the US were living in areas of concentrated poverty (poverty rates of 30% or more) in 2008-12, up from 9% in 2000.<sup>xix</sup> These high poverty census tracts were much more likely than others to have high rates of crime and violence, physical and mental health issues, unemployment, and other problems.

Turning to gender inequity, many studies show that globally, systematic social discrimination based on gender limits the opportunities of women and girls, and hence

deprives society of the social and economic contributions they would make if the development of their full capacities were supported. But the damage from gender inequity has other, equally damaging, systemic effects. The devaluation of women and the feminine has led to a gendered system of values where so-called “masculine” rather than “feminine” values drive much of the social and economic agenda-setting. One result has been that the work of caring and caregiving, mostly performed by women and stereotypically considered “soft” or “feminine,” is either not valued at all or undervalued at best - with negative results all around. I will turn to these results in Section 5 of this essay, but for now, I focus the discussion on the different ways in which women are placed at a disadvantage relative to men.

The first of these has to do with employment. Data from the OECD Family Database indicate that in OECD Countries, women are less likely to be employed than men and when they do find employment, women earn less, are concentrated in fewer occupations, are less likely to find themselves in managerial positions, and often have fewer opportunities to change working hours than men. In 2011, the “gender gap” in earnings in the US was 22%, compared to an OECD average of 17.3%, and in employment was 10.3%, compared to an OECD average of 13.6%. Table 4 in the Appendix presents the data for the earnings gap. The spread of female workers across occupations is perhaps the only instance in the entire SWEI catalog in which the US is the top performer, and the US also ranks well (in 4<sup>th</sup> place) for the proportion of managerial positions held by women (more than 35% in 2007). It turns out that no OECD country performs systematically well in terms of gender equity along all of the aforementioned dimensions in the domain of employment.

The second measure of gender inequity is sourced from the World Economic Forum’s Global Gender Gap Index, which seeks to measure the gap between men and women along four dimensions: economic participation and opportunity, educational attainment, health and survival, and political empowerment.<sup>xx</sup> Details on the construction of this index may be obtained from pp. 4-6 of the 2013 Global Gender Gap report published by the World Economic Forum. Of the 136 countries studied, the

Nordic countries are shown to have the smallest gender gaps along all four dimensions. Iceland, Norway, Finland, and Sweden have an overall ranking of first, second, third, and fourth respectively, while the US ranks twenty-third. Countries such as Saudi Arabia, Iran, Syria, Qatar, Pakistan, and Yemen have the largest gender gaps. Although the US has an overall rank of 23, it comes in first along the dimension of educational attainment, albeit alongside several other countries.

A third measure by which women face a disadvantage relative to men is with regard to violence. According to the WHO, one in three women throughout the world will experience physical and/or sexual violence by a partner or sexual violence by a non-partner. Such intimate partner violence has the harmful effect of rendering the victim more susceptible to depression and alcohol addiction, aside from increasing her chances of having a low-birth-weight baby and also her chances of contracting sexually transmitted diseases. Rape, murder, and trafficking of women remain worldwide problems, according to a group of researchers called The Womanstats Project that investigates the security of women.<sup>xxi</sup>

Finally, the devaluing of care work means that women are disproportionately among the poor in both poor and affluent nations. According to the National Center for Law and Economic Justice, in the US, poverty is a women's issue, with 5 million more women than men living below the poverty line, and 2 million more women than men living in deep poverty, in 2012.<sup>xxii</sup> Further, according to Entmacher et al. (2013), these rates of poverty have been on the rise in the last decade or so.<sup>xxiii</sup>

Race and ethnicity are the next categories for studying social equity. Most developed countries are today populated by multi-racial and multi-ethnic communities, some of whom could claim to be natives, others of whom are first-generation immigrants or descended from immigrants that voluntarily settled these countries, and still others whose ancestors were transported to these countries by means of force. These multiple demographics are mirrored in social and economic statistics such as those pertaining to the distribution of income and wealth, as well as to factors that

determine such distributional outcomes as access to education, health, and political representation. These statistics show that, despite ideals of solidarity and cooperation between different races and ethnicities, significant and persistent inequities prevail, creating the potential for social instability that often retards the accumulation of social wealth when it does not destroy such wealth altogether. While these inequalities are a disturbing issue in all nations, the discussion that follows pertains to the US, where racial and ethnic categories are clearly delineated and where persistent racial and ethnic inequality is a pressing problem. Data are sourced from a variety of organizations including the US Census Bureau, Urban Institute, Economic Policy Institute, Diversity Data Kids, Annie E. Casey Foundation, National Urban League, Social Science Research Council, and the National Congress of American Indians.

Overall, the data indicate that among the four racial groups of Blacks, Whites, Hispanics, and Asians, Black households have consistently earned the lowest income over the last four decades, so that in 2010, the average family wealth for White households was more than 6 times that for Black households. In 2011, Black Americans also registered the highest poverty rate, more than twice that for White Americans. During 1964-2012, the unemployment rate among Black Americans was almost consistently twice as high as that among White Americans. In 2010, incarceration rates among Black men were almost 2.5 times as high as that among Hispanic men and almost 10 times as high as that among White men. Black Americans also registered the highest infant mortality rates, the lowest public high-school graduation rates, the highest child poverty rates, and the second highest (after Hispanics) teen birth rates (almost twice that for Whites). In 2014, the National Urban League published its Equality Index, which describes how well Blacks and Hispanics are doing relative to White Americans in the domains of economic, education, health, social justice, and civic engagement. An index of 100% in any one of these domains would indicate perfect equality, and any number less than 100% would indicate a disadvantage for African Americans and Hispanics. An overall index is determined by computing a weighted average of the indices in the different domains. The 2014 overall index

came in at 71.2%. The greatest inequality was registered in the domain of economics (55.5%), whereas social justice fared only slightly better (56.8%). Inequality was present but much lower in health (76.8%) and education (76.8%), whereas in civic engagement, a large increase in African American voter participation in the 2012 Presidential elections meant significant gains towards equality (104.7%).<sup>xxiv</sup>

The situation is not much better for Native Americans or American Indians, although comparative data are not as widely available for this group as they are for Blacks and Hispanics. To cite two domains for which data do exist, the unemployment rate during 2009-2011 among American Indians was higher than that of Whites nationally and in every US state, with the difference being as high as 32.7 percentage points in South Dakota. With respect to basic living characteristics such as the availability of electricity, kitchen facilities, and phone services, American Indians and Alaskan Natives lagged the average American in 2012.

The sub-category of Social Equity Measures concludes by reporting some measures for miscellaneous social/demographic stratifications, such as cross-country data for the level of religious tensions in a country stemming from the presence of a dominant religious group that suppresses religious freedoms and seeks to replace civil law by religious law, and attitudes towards immigrants in European countries. Clearly, much more work remains to be done with respect to collecting data for these kinds of stratifications, since any marker of identity can and indeed does become the locus of inequity and conflict, such as caste in India, the place of dwelling (rural vs. urban) in China, and nativity (indigenous vs. those of European descent) in Latin America.

### **3.7 Entrepreneurship and Innovation Measures**

In the new knowledge-service era, we are faced with unprecedented personal, economic, social, and environmental challenges. This essay has already highlighted the pressing need for building high-quality human capital so that these challenges may be confronted and overcome successfully. The mechanisms through which such a confrontation and overcoming become possible are enterprise and innovation.

Entrepreneurship and innovation not only create jobs and increase economic productivity, but they also enable the cultivation of human virtues such as courage, honesty, and generosity, and the actualization of human values such as trust in and respect for one's self and others. Human beings have a natural affinity to be curious and creative, and to seek control over their own lives. Therefore, successful entrepreneurs and innovators are not only exemplary leaders, but they are also an inspiration to younger generations. Their leadership and inspiration are critical components of social wealth because the ability of a society to adapt to new situations and challenges is greatly enhanced by the creativity and dynamism of such individuals.

Accordingly, this sub-category of Human Capacity Indicators attempts to measure the flourishing of entrepreneurship and innovation as vital aspects of the flourishing of human capacity in a society. There are four measures in all, and data on them are sourced from the World Bank.

The first measure, called New Business Density, reflects the number of newly registered firms with limited liability per 1000 working-age people (ages 15-64) per calendar year, for years ranging from 2009 to 2012 (as per data availability). Limited liability is a concept whereby the financial liability of the firm's members is limited to the value of their investment in the company. Partnerships and sole proprietorships are not covered by this concept because of the differences with respect to their definition and regulation worldwide. Data available for over 120 countries indicate that countries such as Hong Kong, Cyprus, Luxembourg, and New Zealand top the rankings, i.e., have the highest new business density, while countries from Africa and Asia come in at the bottom. Among OECD countries, Australia, and the UK also demonstrate high levels of entrepreneurship (after Luxembourg and New Zealand). There is no data on this measure for either the US or Canada.

The second measure tracks the number of worldwide patent applications filed by residents of a particular country in 2012 through the Patent Cooperation Treaty

procedure or with the country's patent office for exclusive rights for an invention, usually a product or process that provides a new way of doing something or offers a new technical solution to a problem. Data available for over 80 countries indicate that China was, by far, the highest innovating country in 2012. The US comes in third worldwide (after Japan), with a number of patents significantly larger than that of any European country. "Newly emerging" countries such as Russia, India, and Brazil are also in the top 20, but, by this measure, they innovate far less than the first three countries on the list. The only Nordic nation in the top 20 is Sweden, at 20<sup>th</sup> position.

The third measure, called Researchers in R&D, tracks the number of professionals engaged in the conception or creation of new knowledge, products, processes, methods or systems and in the management of the projects concerned. Postgraduate PhD students engaged in R&D are also included. Data from 2011 for over 60 countries indicate that the three Nordic countries of Finland, Iceland, and Denmark have the highest number of researchers in R&D (per million people), with Norway and Sweden also figuring in the top 10. The US ranks 17, after Singapore (rank 5), Portugal (rank 11), and Slovenia (rank 14).

The fourth and last measure in this sub-category reflects the share of high-tech exports in manufactured exports for a country. High-tech exports are products with high R&D intensity, such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery. Data is available for 2012 on more than 110 countries. In countries such as Philippines, Singapore, and Costa Rica, the share is above 40%, whereas in the US, it is only 18%. European countries that outperform the US include Switzerland, France, Ireland, the UK, Netherlands, and Norway.

This concludes Section 3 and our discussion of HCIs, which are mostly outputs or outcome variables, and we now turn to the other category of SWEIs that measure inputs into social wealth, namely Care Investment Indicators.

#### **4. Care Investment Indicators**

Since caring and caregiving are foundational for creating and growing social wealth, the successful accumulation of social wealth requires that government and business leaders enact policies that promote caring as a core cultural value. A first step towards this goal is to ensure that economic indicators measure the value of care work, including the unpaid work of caring and caregiving performed in the household and community economy. These economic measurements are a foundation for a caring economic system in which government and business policies and practices encourage and support caring and caregiving. Such policies and practices may take the form of adequate levels of public funding for healthcare, childcare, and other caring activities. They may consist of laws and business practices that grant parents paid leave for the care of children and a certain degree of autonomy to balance their time at work with their time at home. Caring for the future of society also means caring for the environment, so public and private sector investment in environmental protection matters for promoting the cultural value of caring. The four sub-categories of Care Investment Indicators (henceforth, CII) that follow include a variety of measures that describe the degree to which the public and private sectors in a country are engaged in nurturing and supporting a culture of caring that promotes human capacity development.

Before we delve into these sub-categories, the reader is invited to review Table 5 in the Appendix, which lists (in the manner of Table 1) all the four subcategories and their associated measures. While I report the full set of CII in Table 5, as in the case of HCIs, a presentation of the quantitative data on each measure is beyond the scope of this essay, and readers are advised to consult the report cited in the first endnote of the essay for a fuller review. In that report, the data are presented in a variety of forms - tables, bar and line graphs, pie charts, and maps. In this essay, I will only offer a small representative sample, i.e., I report the full cross-country data for only a very small subset of the measures, and always in table form, and for the rest, I offer text descriptions of the data content.

#### 4.1 Government Investment in Care Work

While both the public and private (for-profit and not-for-profit) sectors can influence the extent to which care work is valued, the public sector has an especially important role because of the societal tasks that most countries have deemed a government's responsibility, such as education and healthcare. The reason for this is that the benefits resulting from a healthy and well-educated population accrue across the entire society, and thus society as a whole ought to contribute to the cost of ensuring the provision of education and healthcare systems. In addition, the government has the infrastructure and financial capacity to manage and provide services. This investment in human infrastructure is critical for both well-being and economic effectiveness, especially in the contemporary knowledge-information era. Today, policymakers face a multitude of choices in terms of how to distribute what are often shrinking budgets across not only healthcare and education, but also a large range of public programs. In making these funding and investment choices, governments can support and encourage caring and caregiving, thereby building social wealth. Or they can choose to neglect and destroy social wealth by failing to invest in this essential component of personal, social, and economic success.

Measures of this investment include a number of components. One essential component is investment in caring for and educating children through investment in childcare and early education, family benefits (both cash and in kind), and mandated paid leave for caregiving and family time. Governments can also support human capacity development through public funding of primary, secondary, and tertiary education. Another important area, especially in our time when the population of older citizens is soaring, is investment in caring for them. A society's elders are its repositories of wisdom, and so deserve a special consideration from governments. Measures of government investment in care work include, therefore, measures of public expenditure on LTC and policy actions that mandate leave for caregivers to the elderly. In what follows, we consider each of these components in more detail.

In OECD countries, governments support care work by instituting family-friendly legislation. This may take several forms and among our measures, we look at three different, though not mutually exclusive, forms of government support: all kinds of spending on families,<sup>xxv</sup> specifically cash assistance, and spending on children. Data on these three forms of government support are once again sourced from the OECD Family Database.

OECD countries spent on average 2.6% of their GDP on families in 2009, but there were large variations across countries. While public spending on family benefits was above 4% of GDP in Luxembourg, Ireland, and the UK, it was only around 1% of GDP in Korea and Mexico, and a little over 1% in the US. In over half of the OECD countries, cash assistance does not depend on family income and is paid as a universal benefit. In 2011, the maximum benefit for one child aged 3-12 represented 2% of the average wage of a worker in the US, whereas the numbers for Canada, Denmark, Germany, and New Zealand were 5%, 4%, 5%, and 9% respectively. Although the US does not offer universal benefits, it does offer a child tax credit which reduces tax liability for families making less than \$130,000.

Spending on children may be counted in terms of three age groups: early childhood (ages 0-5 years), middle childhood (ages 6-11 years), and late childhood (ages 12-17 years). The types of spending include: cash benefits and tax breaks, childcare, other benefits in kind, and education (primary and secondary). Table 6 in the appendix presents data for public spending on children by age group in OECD countries. Most countries show an increase in spending as children get older, with most spending in late childhood. Iceland, Denmark, and Mexico have significantly higher spending in middle childhood than in late childhood. Iceland is the only country in which social expenditure decreases from early to middle to late childhood. The US is one of the highest spenders in middle and late childhood, but one of the lowest in early childhood. This last detail about the US is further clarified when we consider those forms of government support that specifically support early childcare (i.e., public spending on day-care services for 0-3 year olds, and preschool services for 3-5 year

olds). The share of GDP that such spending constitutes varies from over 1.0% in France, the Nordic countries, and the UK, to less than 0.4% in Cyprus, Estonia, Poland, Portugal, Slovak Republic, Switzerland, and the US.

Public expenditure on education as a percentage of GDP gives an indication of how a country prioritizes education in relation to its overall allocation of resources, and such expenditure usually involves spending on schools, universities, and other public and private institutions involved in delivering or supporting educational services. All OECD countries invest a substantial proportion of national resources on education. Table 7 presents the data drawn from the OECD Family Database, with countries ranked in descending order of total (public) spending on education as a percentage of GDP. OECD countries, on average, spent around 4.6% of their GDP in 2009 on educational institutions at the primary, secondary, and tertiary levels, with cross-country variation ranging from 5.5% of GDP or more in the Nordic countries to around 3% in Japan, Luxembourg and the Slovak Republic. Public spending on education in the US was slightly above the OECD average. In 2009, the US was the world's largest spender on tertiary education, but most of this was sourced privately and public contributions only amounted to 1.2% of GDP, relative to countries such as Norway, Finland, and Denmark where public spending on tertiary education was around the 2% mark.

Turning to family leave, government investment typically takes the form of laws that enable workers to take time off from work to devote to their families, whether it be for raising children or taking care of older and/or disabled members. There are several different ways to group these laws into sub-headings for an organized perspective. As part of this sub-section on Government Investment in Care Work, I focus on the groupings of maternity leave, family leave, and care leave, and in the next sub-section on Business Investment in Care Work, I focus on parental leave. In all the cases where I report data on leave policies, it is to be noted that the data represent laws and regulations on the books, but often do not reflect realities on the

ground, as the laws and regulations are frequently not enforced or very selectively enforced.

According to a 2014 report published by the International Labor Organization (henceforth, ILO), there has been a gradual global shift towards maternity leave periods that meet or exceed the ILO standard of 14 weeks. The longest average statutory durations of maternity leave are in Eastern Europe and Central Asia (almost 27 weeks), and the developed economies (21 weeks). The shortest regional average is in the Middle East (9.2 weeks). The US offers statutory leave of 12 weeks (which does not meet the ILO standard and is significantly less than other developed countries), and it is unpaid leave. In fact, the US is one of only two countries among the 185 studied (the other being Papua New Guinea) that does not provide paid leave; that is, it does not provide statutory cash benefits during maternity leave.<sup>xxvi</sup> A few US states are now offering paid leave following the lead of California.

Family leave refers to provisions for leave entitlements to help workers match their work and family life commitments. That is, these provisions are in addition to leave entitlements around childbirth. For European countries, the 1993 EU Working Time Directive set a benchmark of a minimum of four weeks of paid annual leave. According to data reported by the OECD Family Database, most OECD countries set a statutory minimum of annual paid leave for those in employment. In practice, European workers are typically entitled to around 30-35 days per year of paid vacation, including public holidays. In Japan and Korea, the relatively high number of public holidays ensures that the overall number of holidays is comparable with practices in Europe. Again, the US is the only OECD country where such a legal minimum of paid leave does not exist at the federal level.

The US also does not mandate paid care leave, which is leave from work specifically designated for taking care of sick children or relatives. This form of (paid) leave is available in three quarters of OECD countries, where it is typically limited to one month or to terminal illness. Scandinavian countries tend to pay the most, close to

the entirety of the worker's actual wage. Countries such as the Netherlands, New Zealand, Norway, Sweden, Slovak Republic, and the UK offer an allowance both to the carer who takes leave and to the person being cared for (usually, so that the latter might be able to hire carers for themselves, thereby reducing the burden on the carer who would otherwise have to take leave). The US does not offer the former type of allowance and has no federal mandates for the latter type of allowance (although these may exist at the state level, for example in Arkansas and New Jersey).

Turning, finally, to LTC work, there is a need for public funding of such work because its cost is high and the need for it is associated with uncertainties (such as when the need will arise, as well as its duration and necessity). The need for public funding of LTC coverage is especially acute since the market for private LTC insurance is small in most OECD countries, being highest in the US at only 7% of total LTC spending, according to a 2011 OECD report entitled *Help Wanted? Providing and Paying for Long-Term Care*. While most LTC in OECD countries is publicly funded, there is significant cross-country variation accounted for by differences along a variety of dimensions - care needs, the structure and comprehensiveness of LTC systems, and family roles and cultural traditions, such as traditions in which women are expected to do all care work for free. The Nordic countries, along with the Netherlands, where these gender norms have been replaced by more flexible gender roles where men do more of the care work, are the highest public spenders, at 1.5% of GDP or higher. In the US, public spending on LTC is just above 0.5% of GDP.<sup>xxvii</sup>

#### **4.2 Business Investment in Care Work**

The private sector may invest in care work through businesses adopting family-friendly workplace practices, which include leave from work arrangements, employer-provided childcare, out-of-school-hours care, elderly care supports, and flexible working time arrangements. In most OECD countries, businesses are seen to support care work by offering some form of parental leave. In some cases, as in Australia's Insurance Australia Group (which, in 2012, announced 20 weeks of parental leave at full pay, and 6 weeks of double pay for employees who return to work after 14 of the

20 weeks), such support is especially generous. Businesses also often allow flex-time and employees have some control over their working hours, though this varies a lot across countries. I review the various forms of business support for care work and human capacity development by considering first parental leave laws, then childcare support and finally, flex-time working arrangements.

Parental leave laws can offer job-protected leave and/or financial support during leave. According to Ray et al. (2009), among 21 developed countries, the US is one of only two countries to offer no paid parental leave. The other country is Australia, which however supports parents with a substantial “baby bonus” regardless of whether they take parental leave. The authors write:

In terms of time, all 21 countries analyzed here protect at least one parent's job for a period of weeks, months, or years around the birth of a child. This job protection allows parents to take time to care for their infant or young child secure in the knowledge that they will be able to return to the same (or a comparable) job at the end of the leave period. Total protected job leave available to couples varies widely across the 21 countries, from only 14 weeks in Switzerland to over 300 weeks (about six years) in France and Spain. The United States, with 24 weeks of combined protected job leave for a two-parent family, ranks 20th (out of 21); Switzerland provides fewer weeks of protected job leave (14), but provides financial support of 80 percent of a mother's usual earnings during that leave. In terms of money, almost all of the 21 countries also provide direct financial support for parents during at least part of the protected leave. Most countries provide between three months and one year of full-time-equivalent paid leave; Sweden, the most generous of the countries examined, provides 40 weeks of full-time-equivalent paid leave. (p.1)

In addition to parental leave, employers may also provide childcare support to their employees. However, because companies often have no reason to report such support to authorities, information on this investment can only be gleaned from surveys. The

Establishment Survey on Working Time held by the European Foundation for the Improvement of Living and Working Conditions reported in 2004-05 that on average for some 21 European countries for which information was available, about 7% of the companies reported providing childcare and/or service support to some of their workforce. The proportion is considerably higher in Latvia, the UK, and particularly the Netherlands, where many employers (in line with collective labor agreements) provide significant financial childcare supports to their employees. In the US, the Fair Labor Standards Act (FLSA) does not require an employer to provide childcare assistance. These benefits are generally a matter of agreement between an employer and an employee (or the employee's representative). According to Matos and Galinsky (2012), only 7% of the employers surveyed by the Families and Work Institute in the US offered childcare at or near the worksite. Employers were much more likely to offer Direct Care Assistance Plans (62%) that help employees pay for childcare with pre-tax dollars, and Child Care Resource and Referral (38%) that provides employees with access to information to help locate childcare in the community.

Table 8 in the Appendix presents data on, and lists countries in decreasing order of, the proportion of companies (establishments) that provide flexible working time arrangements to their employees. Austria, Denmark, Finland, Germany, and Sweden are the countries with the highest proportion of employers providing flexibility in working time arrangements. The percentage of companies providing flex-time is also relatively large in Ireland and the UK, but in these countries flexibility is often limited to variance in working hours without the possibility to convert accumulated hours to holidays. In Greece employers are the least inclined to allow flexibility of working hours. The extent to which flex-time practices help workers balance employment and family life is co-determined by the extent to which workers have control over these arrangements. This varies considerably across countries, with employees in Finland, Denmark, the Netherlands, Norway, Sweden, and Switzerland often having at least some freedom in choosing their working hours. By contrast, the control of working time by employees is limited in Hungary, Portugal, and Spain, where more than 70% of employees report that working time is entirely fixed by the company.

### **4.3 Public and Private Investment in Protecting the Environment**

The prevention, reduction, and elimination of pollution or any other degradation of the environment is a vital task confronting all societies in the world today. The scope of this work is so vast that usually the responsibility for leading it is vested with the public sector, which is primarily responsible in most parts of the world for waste management and wastewater treatment. But the most effective strategies for protecting the environment involve joint efforts by the public sector, industry (mining and quarrying, manufacturing and industry, gas and water supply), and specialized producers of environmental services (public and private enterprises specializing in producing environmental services). With worldwide energy demand likely to increase in the future, there is a great need for innovative sources of clean, renewable energy. Governments can invite private sector research and development in this area by instituting appropriate policies that make such innovation financially worthwhile.

Data on measures of investment by the public and private sectors in environmental protection are hard to come by. The European Commission's Eurostats database reports the GDP share of public spending on environmental protection for European countries. On average, in 2011, the public sector in the EU-27 spent approximately 0.67% of GDP on environmental protection, with countries such as the Netherlands, Malta, Lithuania, and Romania being the highest spenders, and Estonia, Slovakia, Spain, and Cyprus being the lowest.

Data on the contributions from specialized producers of environmental services is also available from the Eurostats database. On average, in 2011, such producers in the EU-27 spent approximately 1.2% of GDP on environmental protection, with countries such as Estonia, Austria, and Romania being the highest spenders, and Finland and Slovakia being the lowest. In the US, federal spending on natural resources and the environment in 2008 amounted to \$31.9 billion, a 0.22% share of US GDP (which, according to the International Monetary Fund, in 2008 was \$14.7 trillion).<sup>xxviii</sup>

#### 4.4 Comparative Investment Data

The purpose of compiling CII in particular (and SWEIs more generally) is to emphasize those public sector expenditure items that create social wealth. These are such items as education, health, environment, and the work of caring and caregiving. But the public sector also spends on items that do not contribute to social wealth. These are expenditure items such as the military and prisons. Indeed, it might be argued that the second kind of expenditure is necessitated by the absence or paucity of social wealth, so that the more of the first kind of expenditure the public sector is able to undertake, the less there is a need for the second kind of expenditure. In order for policymakers to prioritize the creation of social wealth, it is necessary, therefore, to report on the relative amounts of the two kinds of expenditures. At this stage, we are able to do this only for the US. The picture that emerges clearly indicates a disproportionate emphasis on the second kind of expenditure, and points to the need for a renewed set of policies to address the creation and sustenance of social wealth. For example, data from the US Census and the Vera Institute of Justice indicate that in 40 US states, the public sector spends more per prisoner than per elementary or secondary student in every single state.<sup>xxix</sup> This is remarkable especially when one considers that spending on education may be an effective way of preventing crime and hence high prison costs. Indeed, this is what I will argue in the next section.

Likewise, US military spending was the largest spending item for tax collections in 2012, twice that of the next highest spending item (healthcare).<sup>xxx</sup> Not surprisingly, the US was one of the world's highest military spenders in 2013 (alongside China and Russia).<sup>xxxi</sup>

#### 5. Implications for Policy: Interactions and Correlations

The SWEIs in the previous sections measure key dimensions of social wealth. In this section, I argue that measuring social wealth in terms of SWEIs yields significant insights into what needs to be done for social progress and economic prosperity. That is, SWEIs are important because the areas that they highlight matter for social and economic success. SWEIs show that investing in caring for children and early childhood

education not only supports families and parents in the work of raising children through family-friendly policies and provides children the start they need to grow up into productive and caring adults, but also yields significant social and economic returns in both the short and long term. SWEIs also point to a correlation still generally overlooked by both policy makers and the public: that the status of women is an especially important driver of long-term economic prosperity. Where women are honored and treated with respect, national policies are also designed to build human, social, and natural capital, with the causation running both ways between the status of women and national capital accumulation policies. In particular, violence against women imposes significant economic costs on a country, not to mention the human costs of intimate partner violence that threaten to destabilize the very basic unit of economic decision making, which is the family.

### **5.1 Early Childhood Education and Care**

Early childhood education and care (ECEC) is the most important factor in building human capacity. In the new knowledge-service era, our children should be able to think in new and creative ways and work collaboratively with others from all over the world when they reach working age. These skills are to be deliberately cultivated, and the only way to achieve this is through extensive investment in early childhood development. Much of the inequity that we see in our societies today can be traced to inequities in early childhood development, and research shows that caring for children addresses problems of equity as well as efficiency. Gambaro et al. (2014) and Ruhm and Waldfogel (2012) review this research, and most of the discussion that follows is taken from these two sources. I devote the greater part of the discussion to research pertaining to ECEC in the US, and only briefly review the literature pertaining to other countries.

US evidence on the long-term effects of ECEC comes from small-scale trials, such as the Perry Preschool project, which provided high-quality early childhood education to a randomly selected group of disadvantaged children in Michigan and followed these children into their forties. These studies find positive long-term effects on

educational attainment, employment and earnings, as well as social benefits such as reduced criminal activity (Karoly et al., 2005; Heckman et al., 2010). Other, similar, experimental programs (i.e., small, high-quality interventions on very disadvantaged children) demonstrate significant gains in cognitive achievement owing to the availability of high-quality ECEC (Waldfogel, 2006). Research into the short- and medium-term effects of universal prekindergarten programs indicates positive effects on math and reading skills, and socio-emotional development (Gormley et al. 2005; Gormley et al., 2008; Magnuson et al., 2007a; Magnuson et al., 2007b; Wong et al., 2008). Children attending prekindergarten are also shown to have fewer behavioral problems, and lower suspension or grade retention rates during the first few years of primary school, especially for disadvantaged children (Figlio and Roth, 2009).

US economist and Nobel Prize winner James Heckman and his colleagues have analyzed many long-term studies of early human development and the impact in terms of adult outcomes of investment in early schooling (Heckman, 2011). They find that inequality in early childhood learning experiences produces inequality in ability, achievement, health, and professional and personal success in adulthood. Adverse impacts of genetic, parental, and environmental resources can be overturned through investments in quality early childhood education that provide children and their parents the resources they need to properly develop the cognitive and personality skills needed for productive lives. Investment in early education for disadvantaged children from birth to age five helps reduce the achievement gap, reduce the need for special education, increase the likelihood of healthier lifestyles, lower the crime rate, and reduce overall public costs. In fact, every dollar invested in high-quality early childhood education produces a 7-10% per annum return on investment. Policies that provide early childhood educational resources to the most disadvantaged children produce greater social and economic equity. An economically advantaged child exposed to low-quality parenting is more disadvantaged than an economically disadvantaged child exposed to high-quality parenting.

In numerous studies, W. Steven Barnett, Director of the National Institute for Early Education Research at Rutgers University, has demonstrated the benefits of investing in early childhood education. Barnett (2011) presents evidence that early educational intervention (programs that provide for both the educational needs of children and childcare needs of parents) can have substantial short- and long-term effects on cognition, social-emotional development, school progress, antisocial behavior, and even crime. Early educational intervention can improve the development and adult success of disadvantaged children in the developing world as well as in advanced economies. The potential return to societies on such investments is high and includes increased maternal earnings, decreased K-12 schooling costs, increased lifetime earnings, and decreased costs related to smoking.

Similarly, Barnett and Nores (2013) demonstrate that investments in high quality early childhood care and education lead to greater educational success and higher economic productivity through higher achievement test scores, lower rates of special education and grade repetition, higher rates of high school graduation, fewer behavior problems such as delinquency and crime, greater chance of employment, higher lifetime earnings, lower dependency on welfare, and lower incidences of smoking, drug use, and depression. Further, investments in high quality early childhood education lead to decreased costs to government through lower schooling costs, lower social services costs, lower crime costs, and lower healthcare costs (in part through lower rates of teen pregnancy and smoking).

All of the research reviewed above pertains to ECEC in the US. There is also evidence of the benefits of high-quality ECEC from other countries. In the UK, preschool has been shown to produce higher cognitive and social-behavioral outcomes on entry into primary school (Sylva et al., 2004), and these positive effects are shown to be still apparent at the end of primary school (Sylva et al, 2008). In Denmark, research into the long-term effects of preschool expansions that occurred in the late 1970s and early 1980s shows positive effects of preschool on school completion rates, especially for disadvantaged children and daughters of less-educated mothers, and adult

earnings (Bingley and Westergaard-Nielsen, 2012). In France, research into the long-term effects of preschool expansions that occurred in the 1960s and 1970s shows positive effects of preschool on grade repetition, test scores, high-school graduation, and adult wages, particularly for children from disadvantaged or intermediate (rather than advantaged) backgrounds (Dumas and Lefranc, 2012). In Norway, expanded preschool availability, following the passage of the Kindergarten Act of 1975, is found to raise children's subsequent educational attainment (more years of school, higher rate of college attendance, and lower rate of high-school dropout) and labor market participation, while reducing welfare receipts, with the effects being largest for children of low-educated mothers (Havnes and Mogstad, 2011). In Germany, immigrants attending kindergarten are more likely to be placed in the intermediate or university preparatory tracks of 7<sup>th</sup> grade school placement (Spiess et al., 2003), and center-based care provided to 0-3 year olds positively impacts social development, language skills, and school grades measured at ages 2-10 (Felfe and Lalive, 2011). In Sweden, preschool attendance is found to significantly close a portion of the language score disparity between children of immigrants and their peers with native-born parents (Fredriksson et al., 2010). In Argentina, an additional year of preschool increases language and math test scores, and also produces improved attention, effort, class participation, and discipline, particular for children living in high-poverty areas (Berlinski et al., 2009). In Uruguay, children who attend preschool are more likely to be enrolled in school and complete more grades, with both effects being particularly large for children with low-educated parents or living outside the capital city of Montevideo (Berlinski et al., 2008). In India, participation in government-sponsored early childhood developmental facilities (called Anganwadi) raises the school enrollment of 7-19 year olds and also speeds the grade progression conditional on enrollment (Hazarika and Viren, 2010).

## 5.2 Parental Leave

The importance of high-quality parenting cannot be overstated. Even if a child is economically advantaged, the quality of parenting that that child receives remains crucial for his or her adult success. It is important, therefore, to design family-

friendly policies that will allow working parents to balance their paid work and family lives. Only then will high-quality parenting become a reality, as more mothers and fathers are able to spend time with their children and help them grow into strong, mature, creative, and caring individuals. In this sub-section, I present the results of research that show the numerous benefits of paid parental leave that accrue to businesses, the economy, and families.

The benefits to businesses of granting paid parental leave are numerous. Firstly, women are more likely to stay in the workforce when they take paid parental leave. Women who work at least 20 hours a week prior to a child's birth and who take paid leave are 93% more likely to return to work by 9-12 months postpartum than those who do not take leave (Houser and Vartanian, 2012). Women with access to leave have an increased likelihood of working prior to having their child and also an increased likelihood of returning to the labor market after giving birth (Berger and Waldfogel, 2004). Offering paid family leave increases the number of hours that a woman works after returning to work by about two to three hours per week (Rossin-Slater et al., 2011). The availability of paid leave increases use of leave in the early months for mothers, but also increases their likelihood of returning to work by 9 to 12 months after the birth (Baum and Ruhm, 2013). Secondly, and as a consequence of the higher retention rates reported by the aforementioned studies, businesses save money on employee replacement costs. These costs are not insubstantial, amounting to \$4039 per worker, although there is significant variation by type of employee (Dube et al., 2010). Thirdly, firms do not suffer when employees take leave and often benefit in improved morale. In a study of California firms, Applebaum and Milkman (2011) find that for 99% of employers, paid family leave produced an increase in employee morale; for 87% of them, paid family leave had not caused costs to increase, and for 8.8% of them, paid family leave had resulted in cost savings because employees were able to use the paid family leave (financed by worker payroll taxes) instead of employer-provided benefits such as paid sick leave and vacation days. Because 60% of employers reported that they had coordinated their benefits, the

authors also surmise that the actual share of employers experiencing cost savings was much higher than 8.8%.

Paid parental leave also benefits the economy. Firstly, it does so by reducing the likelihood of employees receiving public assistance in the year after the birth of a child (Houser and Vartanian, 2012). In particular, employees who are offered paid family leave are 39% less likely to receive assistance than women who keep working and have no leave at all. New mothers who are offered paid leave report \$413 less in public assistance on average in the year following the child's birth than mothers who were not offered paid leave. Secondly, paid parental leave increases women's labor force participation, and Aguirre et al. (2012) find that increasing women's labor force participation rates to equal that of their male counterparts would increase GDP substantially in most countries (in the US, 5%; in some other countries, more than 30%). Also, higher labor force participation of women mitigates the effects of a shrinking work force due to aging (Elborgh-Wytek et al., 2013). Thirdly, parental leave policies are associated with higher employment-to-population ratios (by about 3 to 4 percentage points) as well as decreased unemployment (Ruhm, 1998). Fourthly, paid parental leave boosts overall productivity. Bassanini and Venn (2008) find that a one-week increase in available family leave is associated with an increase in aggregate labor productivity and multifactor productivity, that both paid and unpaid leave increase productivity but paid leave has a larger effect, and that the US would see an increase in multifactor productivity of approximately 1.1% over time if it were to institute paid maternity leave at the average OECD level of 15 weeks. And lastly, paid parental leave is an investment in children's human capacity development and therefore in high-quality future human capital. Schweinhart et al. (2005) demonstrate that early childhood care and education initiatives consistently show higher returns than spending on policing or incarceration, and also a high return on investment (henceforth, ROI) in terms of economic independence of participants throughout their lifetimes. In a 35-year study of a Michigan preschool program, those who participated in preschool were 19% less likely to have multiple arrests, 15% less likely to commit a

violent crime, 20% less likely to use illegal drugs, 20% more likely to earn a living wage, 14% more likely to be employed, and 16% more likely to have a savings account.

Finally, paid parental leave is good for families. It catalyzes lasting health and well-being benefits for children. In their early years, children experience rapid rates of brain and nervous system development (Shonkoff and Phillips, 2000), and form important social bonds with their caregivers (US Department of Health and Human Services, 2000). Because women are more likely to breastfeed when they take maternity leave, and because longer leave increases both the likelihood and duration of breastfeeding (Applebaum & Milkman, 2011), paid parental leave can increase bonding between the child and nursing mother, stimulate positive neurological and psycho-social development, and strengthen a child's immune system (US Department of Health and Human Services, 2000). Breastfeeding can also reduce the risk of health problems like diarrheal disease, respiratory illnesses, asthma, acute ear infection, obesity, Type 2 diabetes, leukemia, and sudden infant death syndrome (US Department of Health and Human Services, 2011).

Children whose mothers take time from work after childbirth are more likely to receive well-baby checkups and all the recommended vaccinations in the first year of life (Berger et al., 2005). Not only is child health positively impacted by paid parental leave, but also, and more importantly, such leave improves mothers' overall and psychological health. Women who took maternity leave longer than 12 weeks reported fewer depressive symptoms, a reduction in severe depression, and, when leave is paid, an improvement in overall and mental health (Chatterji et al., 2011). There is a positive association between the duration of breastfeeding and a reduction in a woman's risk of breast cancer (especially in women with a family history of the disease) and ovarian cancer (Stuebe et al., 2009). There is also a positive association between the duration of breastfeeding and a reduction in a woman's risk of rheumatoid arthritis (Karlson et al., 2004). And lastly, fathers who take time from work around childbirth are more likely to spend more time with their children in the months following childbirth (Nepomnyaschy and Waldfogel, 2007).

### 5.3 Status of Women

Closing gender gaps is not only a matter of human rights and equity - it is also a matter of efficiency, productivity, and economic growth. The 2013 Global Gender Gap report demonstrates that countries with a smaller gender gap (which, as stated earlier, is the gap between men and women in the four key domains of economic participation and opportunity, educational attainment, health and survival, and political empowerment) are also more competitive economically, have greater GDP per capita, and score higher on the Human Development Index. Investment in girls' education has significant multiplier effects - it reduces high fertility rates, lowers infant and child mortality rates, lowers maternal mortality rates, increases women's labor force participation rates and earnings, and fosters educational investment in children. Countries that have made investments in women's health and education generally see the returns on this investment in terms of women's economic and political participation. These countries include the Nordic countries, the US, the Philippines, Canada, New Zealand, and Australia. According to research, also cited in the report, closing the male-female employment gap has been an important driver of European economic growth in the last decade, and further closing of this gap would have massive economic implications for developed economies, boosting US GDP by as much as 9% and euro zone GDP by as much as 13%.

Gender equity matters as well for the quality of life. Eisler et al. (1995) find that measures of the status of women can be an even better predictor of quality of life than conventional indicators such as GNP or GDP. For example, gender equity variables correlated more highly with overall literacy than GDP. A larger literacy gap between females and males correlated strongly with lower life expectancy and higher infant mortality. Of particular interest was that the prevalence of contraception had a stronger relation to basic quality-of-life indicators such as infant mortality and life expectancy than GDP. One of the main reasons that gender equity correlates strongly with better quality of life is that in countries where women have higher status, caring and caregiving are given more value, whether it is performed by women or men. For example, in countries such as Sweden, Norway, and Finland, caregiving professions

such as childcare, nursing, and teaching have higher status and higher wages relative to those same professions in other countries. Caring for people and nature is also given more priority in national budgets and other policies. All this contributes to a higher quality of life for all.

The ideals of democracy are also served by enhancing gender equity. The World Values Surveys are the largest international surveys of attitudes and how they correlate with economic development and political structure. For the first time in 2000, the World Values Survey focused attention on attitudes toward gender equity. Based on data from 65 countries representing 80% of the world's population, it found that the relationship between support for gender equity in politics and the society's level of political rights and civil liberties is remarkably strong. These results are reported in Inglehart et al. (2002), who also find that the belief that women and men should be equal goes along with a shift from traditional authoritarian styles of child rearing to increasing emphasis on imagination and tolerance as important values to teach a child. These shifts in attitudes about gender and child rearing, in turn, are linked with greater interpersonal trust, a lessening of reliance on outside authority, a rising sense of subjective well-being, a higher living standard, and other aspects of what the authors call post-modern "self-expression" rather than traditional "survival" values.

Finally, violence against women is shown to impose significant direct and indirect economic costs. In a wide-ranging UN survey of the literature on the economic costs of violence against women, Day et al. (2005) state:

Costs of violence against women are widespread throughout society. Every recognizable effect of violence has a cost whether it is direct or indirect. Direct costs come from the use of goods and services for which a monetary exchange is made. Direct costs exist for capital, labor, and material inputs. Indirect costs stem from effects of violence against women that have an imputed monetary value even though they do not involve an actual monetary

exchange, such as lost income or reduced profits. Effects of violence against women also include intangible costs such as premature death, and pain and suffering for which there is no imputed monetary value in the economy. Costs can also be borne in the short-run or the long-run. (p. 6)

These costs can be very high, reaching up to 23 billion British pounds in the UK when direct and indirect costs, including pain and suffering, are counted, and up to \$450 billion in the US when tangible and intangible costs are counted. Similarly, for the EU region, Walby and Olive (2013) find that violence against women is estimated to cost EUR 226 billion each year, including EUR 45 billion for services and EUR 24 billion in lost economic output. The costs of preventive measures are substantially less than the cost of the violence.

## **6. Conclusion**

The purpose of this essay has been to introduce the reader to an entirely new set of measures that are urgently needed by policymakers and business leaders to foster personal, business, and national economic success. SWEIs inform us that care work matters tremendously but is grossly undervalued, with the possible consequence that many countries will be unable to effectively meet the challenges that the contemporary knowledge-service economy will throw their way. It is of the utmost importance that countries invest in high quality human capital and build networks of provision and care and cultures of trust, collaboration, and generosity, if they are to ensure social progress and economic prosperity for their citizens. The information we have reviewed in Section 5 of this essay clearly attests to this. It shows that early childhood care and education, family-friendly workplace practices, and the status of women are key determinants of economic success. But they are also necessary for healthy, creative, and cohesive societies in which members work in partnership with each other and with the natural environment to improve living conditions for all. This is the true meaning of social wealth.

Section 3 has laid out a detailed template for measuring human capacity development, which is the essential component of social wealth. We have seen that HCIs may also be conceptually understood as the outputs of social production. Section 4, on the other hand, has focused on what is needed for such outputs to manifest, namely CIIIs that describe the care investment inputs required for human capacity development. In turn, the HCIs and CIIIs, together constituting SWEIs, stand in the foreground of a new conceptual framework that prioritizes partnership as a desirable orientation for individuals as well as institutions if some of the most intractable and pressing problems of social and economic development, such as poverty, social inequity, and environmental degradation are to be solved. The accumulation of social wealth is arrested by the presence of these problems and is therefore not served by existing models of civic and economic engagement that appear to emphasize a domination system informed exclusively by stereotypically masculine values. A shift from a domination system to a partnership system also entails a shift in our understanding of human subjectivity. Not only is it important to recognize that human beings are emotional beings before they are rational beings, but also it is crucial to cultivate the positive emotions of love, compassion, and empathy that are truly the basis for happiness and fulfillment at both the individual and societal levels.

In their current iteration, SWEIs provide a stark and telling account of the US' performance (mediocre at best) relative to other developed countries. Policymakers and business leaders in the US are called to institute change that will not only support care work but also deliver gender and racial equity through more caring policies. Indeed, SWEIs show that equity need no longer be considered as being in conflict with efficiency, so that the benefits of efforts to ensure the former will invariably accrue to all US citizens in the form of better health and higher productivity.

Across the US, two parallel efforts in the public sector are underway at the local government levels that would benefit from SWEIs as a robust and creative measurement framework: firstly, an ongoing effort to make the economic and business case for supporting policies such as paid parental leave, tax credits for child

care, tax credits for caregivers, and government support for parents and parenting, and secondly, an ongoing effort to quantify, and track over time, well-being indicators, such as health, social cohesion, educational attainment, and gender and racial equity. The challenge that lies ahead is ensuring that SWEIs - as the first metrics that adequately reflect an economic system in which care, care work, and social equity in all forms count and are counted - are used by our national policy makers. At the same time, further development of SWEIs will focus on adapting these metrics for pilot projects at the state and local levels in the public sector as well as for specific business uses in the private sector. In such development work, critical attention will have to be accorded to the dynamic interaction between policy changes in the public sector and policy changes in the private sector. For it is the case that the conceptual framework that underwrites the measurement of SWEIs incorporates spillover effects from one sector to the other. Thus, for example, we have seen that governments mandating paid parental leave help businesses reduce turnover and save costs, and conversely, businesses instituting family-friendly workplace practices help reduce the need for public assistance and help curtail public spending on health and law and order.

Public sector performance metrics are overwhelmingly short-sighted and granular. This is a major obstacle to long-term planning, For instance, not having the tools to articulate the long-term ROI of public investment in care and care work makes it difficult for public administrators and officials to push these policies forward, especially with current budget cuts in public spending at all levels. With continued development, SWEIs will provide a template for local and state governments to incorporate long-term ROI metrics into their existing performance measures. The current iteration of SWEIs provides the foundation for the inclusion of these metrics, offering the jumpstart needed to draft indicators for state and local governments. SWEIs also show the long-term ROI to businesses of paid parental leave, childcare support, gender balance, and flexible time for families. This makes SWEIs a useful tool for long-term business planning as well as helping business leaders persuade government officials that public investment in these policies has a tremendously

positive impact on a nation's economy. In conclusion, therefore, it is hoped that this essay will help fuel a conversation around the urgent need for SWEIs and will also help energize their future development into authentic measures of social and economic progress at all levels of government and business practices.

## 7. References

- American Association of Retired Persons Public Policy Institute. (2009). *Factsheet*. Retrieved from [http://assets.aarp.org/rgcenter/health/fs\\_hcbs\\_hcr.pdf](http://assets.aarp.org/rgcenter/health/fs_hcbs_hcr.pdf)
- Aguirre, D., Hoteit, L., Rupp, C., & Sabbagh, K. (2012). *Empowering the third billion: Women and the world of work in 2012*. San Francisco, CA & Stuttgart, Germany: Booze & Company, Inc.
- Appelbaum, E., & Milkman, R. (2011). *Leaves that pay: Employer and worker experiences with paid family leave in California*. Washington DC: Center for Economic and Policy Research.
- Antonopoulos, R., & Hirway, I. (2010). Unpaid work and the economy. In R. Antonopoulos & I. Hirway (Eds.), *Unpaid work and the economy* (pp. 1-21). New York, NY: Palgrave MacMillan.
- Barnett, W. S. (2011). Effectiveness of early educational intervention. *Science*, 333, 975-978.
- Barnett, W. S., & Carolan, M. E. (2013). *Trends in state funded preschool programs: Survey findings from 2001-2002 to 2011-2012*. Rutgers, NJ: National Institute of Early Education Research. Retrieved from [http://nieer.org/sites/nieer/files/Trends%20in%20State%20Funded%20Preschool%20Programs\\_0.pdf](http://nieer.org/sites/nieer/files/Trends%20in%20State%20Funded%20Preschool%20Programs_0.pdf)
- Barnett, W. S., & Nores, M. (2013). *Investing in early childhood education: A global perspective*. Rutgers, NJ: National Institute of Early Education Research. Retrieved from <http://nieer.org/sites/nieer/files/Investing%20in%20Early%20Childhood%20Education%20A%20Global%20Perspectivei.pdf>
- Bassanini, A., & Venn, D. (2008). The impact of labor market policies on productivity in OECD countries. *International Productivity Monitor*, 17(Fall), 3-15.

- Baum, C. L., & Ruhm, C. J. (2013). The effects of paid family leave in California on labor market outcomes. *NBER Working Paper No. 19741*. Cambridge, MA: National Bureau of Economic Research.
- Berger, L. M. & Waldfogel, J. (2004). Maternity leave and the employment of new mothers in the United States. *Journal of Population Economics*, 17(2), 331-349.
- Berger, L. M., Hill, J., & Waldfogel, J. (2005). Maternity leave, early maternal employment, and child health and development in the U.S. *The Economic Journal*, 115 (February), F29-F47.
- Berlinski, S., Galiani, S., & Manacorda, M. (2008). Giving children a better start: Pre-school attendance and school-age profiles. *Journal of Public Economics*, 92(5-6), 1416-1440.
- Berlinski, S., Galiani, S., & Gertler, P. (2009). The effect of pre-primary education on primary school performance. *Journal of Public Economics*, 93(1-2), 219-234.
- Bingley, P., & Westergaard-Nielsen, N. (2012). Intergenerational transmission and day care. In J. Ermisch, M. Jantti & T. Smeeding (Eds.), *From Parents to Children: The Intergenerational Transmission of Advantage* (pp. 190-204). New York, NY: Russell Sage Foundation.
- Blum, R. W. (2013). *A global look at adolescent pregnancy prevention: Strategies for success*. Washington DC: United States Department of Health and Human Services, Office of Adolescent Health. Retrieved from [http://www.hhs.gov/ash/oah/news/assets/May%202013%20TPP%20Event/blum\\_ppt\\_presentation.pdf](http://www.hhs.gov/ash/oah/news/assets/May%202013%20TPP%20Event/blum_ppt_presentation.pdf)
- Bridgeman, B., Dugan, A., Lal, M., Osborne, M., & Villones, S. (2012). Accounting for household production in the National Accounts, 1965-2010. *Survey of Current Business*, 92(5), 23-36. Retrieved from [http://www.bea.gov/scb/pdf/2012/05%20May/0512\\_household.pdf](http://www.bea.gov/scb/pdf/2012/05%20May/0512_household.pdf)
- Chatterji, P., Markowitz, S., & Brooks-Gunn, J. (2011). Early maternal employment and family well-being. *NBER Working Paper Series No. w17212*. Cambridge, MA: National Bureau of Economic Research.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *The American Journal of Sociology*, Supplement 94, S95-S120.

- Day, T., McKenna, K., & Bowlus, A. (2005). *The economic costs of violence against women: Evaluation of the literature*. New York, NY: United Nations. Retrieved from <http://www.un.org/womenwatch/daw/vaw/expert%20brief%20costs.pdf>
- Deady, C. W. (2014). *Incarceration and recidivism: Lessons from abroad*. Newport, RI: Pell Center for International Relations and Public Policy. Retrieved from [http://www.salve.edu/sites/default/files/filesfield/documents/Incarceration\\_and\\_Recidivism.pdf](http://www.salve.edu/sites/default/files/filesfield/documents/Incarceration_and_Recidivism.pdf)
- Dewey, J. (1915). *The school and society*. Chicago, IL: University of Chicago Press.
- Dewey, J. (1900). *The elementary school record*. Chicago, IL: University of Chicago Press.
- Dube, A., Freeman, E., & Reich, M. (2010). *Employee replacement costs*. Berkeley, CA: UC Berkeley Institute for Research on Labor Employment. Retrieved from: <http://escholarship.org/uc/item/7kc29981>
- Dumas, C., & Lefranc, A. (2012). Early schooling and later outcomes. In J. Ermisch, M. Jantti & T. Smeeding (Eds.), *From Parents to Children: The Intergenerational Transmission of Advantage* (pp. 164-189). New York, NY: Russell Sage Foundation.
- Elder Care Workforce Alliance. (n.d.) *Caring for an aging America: Meeting the healthcare needs of older adults (Issue Brief)*. Retrieved from [http://www.eldercareworkforce.org/files/QA\\_Issue\\_Brief\\_-\\_FINAL.pdf](http://www.eldercareworkforce.org/files/QA_Issue_Brief_-_FINAL.pdf)
- Eisler, R., Loye, D., & Norgaard, K. (1995). *Women, men and the global quality of life*. The Center for Partnership Studies.
- Eisler, R. (2008). *The real wealth of nations: Creating a caring economics*. San Francisco, CA: Berrett-Koehler Publishers, Inc.
- Eisler, R. (2012). Economics as if caring matters. *Challenge*, 55(2), 58-86.
- Elborgh-Woytek, K., Newiak, M., Kocchar, K., Fabrizio, S., Kopdar, K., Wingender, P., Clements, B., & Schwartz, G. (2013). *Women, work, and the economy: Macroeconomic gains from gender equity*. Washington, DC: International Monetary Fund. Retrieved from <https://www.imf.org/external/pubs/ft/sdn/2013/sdn1310.pdf>

- Entmacher, J., Robbins, K. G., Vogtman, J., & Frohlich, L. (2013). *Insecure and unequal: Poverty and income among women and families 2000-2012*. Washington, DC: National Women's Law Center. Retrieved from [http://www.nwlc.org/sites/default/files/pdfs/final\\_2013\\_nwlc\\_povertyreport.pdf](http://www.nwlc.org/sites/default/files/pdfs/final_2013_nwlc_povertyreport.pdf)
- Esquivel, V. (2011). *The care economy in Latin America: Putting care at the center of the agenda*. San Salvador, SV: Procesos Graficos.
- Farr, J. (2004). Social capital: A conceptual history. *Political Theory*, 32(1), 6-33. Retrieved from <http://www.nisd.cass.cn/upload/2012/12/d20121221230747408.pdf>
- Felfe, C., & Lalive, R. (2011). *How does early childcare affect child development? Learning from the children of German unification*. Manuscript, University of St. Gallen.
- Figlio, D., & Roth, J. (2009). The behavioral consequences of pre-kindergarten participation for disadvantaged youth. In J. Gruber (Ed.), *The Problems of Disadvantaged Youth: An Economic Perspective* (pp. 15-42). Chicago, IL: University of Chicago Press.
- Folbre, N. (2006). Measuring care: Gender, empowerment, and the care economy. *Journal of Human Development*, 7(2), 183-199.
- Fredriksson, P., Hall, C., Johansson, E.-A., & Johansson, P. (2010). Do pre-school interventions further the integration of immigrants? Evidence from Sweden. In E.-A. Johansson (Ed.), *Essays on Schooling, Gender, and Parental Leave, Economic Studies 121* (pp. 45-68). Department of Economics, Uppsala University.
- Gambaro, L., Stewart, K., & Waldfogel, J. (Eds.). 2014. *An equal start?: Providing quality early education and care for disadvantaged children*. Bristol, UK: Policy Press.
- Gilligan, C. (1982). *In a different voice*. Cambridge, MA: Harvard University Press.
- Gormley, J., Gayer, T., Phillips, D., & Dawson, B. (2005). The effects of universal pre-K on cognitive development. *Developmental Psychology*, 41(6), 872-884.

- Gormley, W. T., Phillips, D., & Gayer, T. (2008). Preschool programs can boost school readiness. *Science*, 320, 1723-1724.
- Havnes, T., & Mogstad, M. (2011). No child left behind: Subsidized child care and children's long-run outcomes. *American Economic Journal: Economic Policy*, 3, 97-129.
- Hazarika, G., & Viren, V. (2010). The effect of early childhood developmental program attendance on future school enrolment and grade progression in rural north India. *IZA Discussion Paper 5209*. Bonn, Germany: Institute for the Study of Labor.
- Heckman, J. J. (2011). The economics of inequality: The value of early childhood education. *American Educator*, 35(1), 31-35, 47. Retrieved from <http://www.aft.org/pdfs/americaneducator/spring2011/Heckman.pdf>
- Heckman, J. J., Moon, S. H., Pinto, R., & Savelyev, P. A. (2010). The rate of return to the HighScope Perry Preschool Program. *Journal of Public Economics*, 94(1-2), pp 114-128.
- Hoenig, S. A., & Page, A. R. E. (2012). *Counting on care work in Australia*. Sydney, Australia: AECgroup Limited.
- Houser, L., & Vartanian, T. P. (2012). *Pay matters: The positive economic impacts of paid family leave for families, businesses and the public*. New Brunswick, NJ: The Center for Women and Work. Retrieved from <http://smlr.rutgers.edu/paymatters-cwwreport-january2012>
- Inglehart, R. F., Norris, P., & Welzel, C. (2002). *Comparative Sociology*, 1(3/4), 321-346.
- International Labor Organization. (2014). *Maternity and paternity at work: Law and practice across the world*. Retrieved from [http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms\\_242617.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_242617.pdf)
- Karlson, E. W., Mandl, L. A., Hankinson, S. E., & Grodstein, F. (2004). Do breastfeeding and other reproductive factors influence future risk of rheumatoid arthritis? Results from Nurses' Health Study. *Arthritis & Rheumatology*, 50(11), 3458-3467.

- Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005). *Early Childhood Interventions: Proven Results, Future Promise*. Santa Monica, CA: RAND Distribution Services.
- Landefeld, L. J., Fraumeni, B., & Vojtech, C. M. (2009). Accounting for household production: A prototype satellite account using the American Time Use Survey. *Review of Income and Wealth*, 55(2), 205-225.
- Magnuson, K. A., Ruhm, C., & Waldfogel, J. (2007a). Does prekindergarten improve school preparation and performance? *Economics of Education Review*, 26(1), 33-51.
- Magnuson, K.A., Ruhm, C., & Waldfogel, J. (2007b). The persistence of preschool effects: Do subsequent classroom experiences matter? *Early Childhood Research Quarterly*, 22(1), 18-38.
- Marx, K. (1867). *Capital: A critique of political economy* (E. Mandel, Ed., B. Fowkes, Trans.). New York, NY: Penguin, 1976.
- Matos, K., & Galinsky, E. (2012). 2012 National Study of Employers. New York, NY: Families and Work Institute. Retrieved from [http://familiesandwork.org/site/research/reports/NSE\\_2012.pdf](http://familiesandwork.org/site/research/reports/NSE_2012.pdf)
- National Urban League. (2014). *State of black America 2014*. Retrieved from <http://iamempowered.com/soba/2014/read/sobaonlinereader>
- Nepomnyaschy, L., & Waldfogel, J. (2007). Paternity leave and fathers' involvement with their young children: Evidence from the American Ecls-B. *Community, Work and Family*, 10(4), 427- 453.
- Noddings, N. (1982). *Caring: A feminine approach to ethics and moral education*. Berkeley CA: University of CA Press.
- Organization for Economic Co-operation and Development. (2013). *Education at a glance*. Retrieved from [http://www.oecd.org/edu/eag2013%20\(eng\)--FINAL%2020%20June%202013.pdf](http://www.oecd.org/edu/eag2013%20(eng)--FINAL%2020%20June%202013.pdf)
- Organization for Economic Co-operation and Development. (2011). *Help wanted? Providing and paying for long-term care*. Retrieved from <http://www.oecd.org/els/health-systems/help-wanted.htm>

- Organization for Economic Co-operation and Development. (2008). *Key environmental indicators*. Retrieved from <http://www.oecd.org/env/indicators-modelling-outlooks/37551205.pdf>
- Paraprofessional Healthcare Institute Factsheet. (2013). *America's direct-care force*. Retrieved from <http://phinational.org/sites/phinational.org/files/phi-facts-3.pdf>
- Perry, B. (2002). Childhood experience and the expression of genetic potential: What childhood neglect tells us about nature and nurture. *Brain and Mind*, 3(1), 79-100.
- Piketty, T. (2014). *Capital in the twenty-first century* (A. Goldhammer, Trans.). Cambridge, MA: Belknap Press.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon & Schuster.
- Ray, R., Gornick, J. C., & Schmitt, J. (2009). *Parental leave policies in 21 countries: Accessing generosity and gender equality*. Washington, DC: Center for Economic Policy and Research. Retrieved from [http://www.cepr.net/documents/publications/parental\\_2008\\_09.pdf](http://www.cepr.net/documents/publications/parental_2008_09.pdf)
- Rossin-Slater, M., Ruhm, C. J., & Waldfogel, J. (2011). The effects of California's paid family leave program on mothers' leave-taking and subsequent labor market outcomes. *NBER Working Papers 17715*. Cambridge, MA: National Bureau of Economic Research, Inc.
- Ruhm, C. J., & Waldfogel, J. (2012). Long-term effects of early childhood care and education. *Nordic Economic Policy Review: Economics of Education*, 23(1), 23-51.
- Ruhm, C. J. (1998). The economic consequences of parental leave mandates: Lessons from Europe. *The Quarterly Journal of Economics*, 113(1), 285-317
- Save the Children. (2014). *State of the world's mothers 2014: Saving mothers and children in humanitarian crisis*. Retrieved from [http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SOWM\\_2014.PDF](http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SOWM_2014.PDF)

- Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). Lifetime effects: The High/Scope Perry Preschool study through age 40. *Monographs of the High/Scope Educational Research Foundation, 14*. Ypsilanti, MI: High/Scope Educational Research Foundation.
- Shonkoff, J. P., & Phillips, D. (Eds.) (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.
- Stiglitz, J. E., Sen, A., & Fitoussi, J.-P. (2010). *Mismeasuring our lives: Why GDP doesn't add up*. New York, NY: The New Press.
- Stuebe, A. M., Willett, W. C., Xue, F., & Michels, K. (2009). Lactation and incidence of premenopausal breast cancer: A longitudinal study. *Archives of Internal Medicine, 169*(15), 1364-1371.
- Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2004). *The Effective Provision of Preschool Education (EPPE) Project: Final Report*. London: Department for Education and Skills.
- Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2008). *Final Report from the Primary Phase: Preschool, School and Family Influences on Children's Development during Key Stage 2 (7-11)*. Research Report DCSF-RR061, London: Department for Children, Schools and Families.
- The Shriver Report. (2014). *A woman's nation pushes back from the brink*. Retrieved from <http://shriverreport.org/special-report/a-womans-nation-pushes-back-from-the-brink/>
- United Nations Children's Fund & World Health Organization. (2014). *Immunization summary*. Retrieved from [http://www.childinfo.org/files/immunization\\_summary\\_2012\\_en.pdf](http://www.childinfo.org/files/immunization_summary_2012_en.pdf)
- United States Department of Health and Human Services. (2011). *The Surgeon General's call to action to support breastfeeding*. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General.
- United States Department of Health and Human Services. (2000). *HHS blueprint for action on breastfeeding*. Washington, DC: Department of Health and Human Services, Office on Women's Health.

- Walby, S., & Olive, P. (2013). *European added value of a directive of combating violence against women*. Brussels, Belgium: European Union. Retrieved from [http://www.europarl.europa.eu/RegData/etudes/etudes/JOIN/2013/504467/IPOL-JOIN\\_ET\(2013\)504467\(ANN02\)\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/JOIN/2013/504467/IPOL-JOIN_ET(2013)504467(ANN02)_EN.pdf)
- Waldfogel, J. (2006). *What Children Need*. Cambridge, MA: Harvard University Press.
- Wong, V. C., Cook, T. D., Barnett, W. S., & Jung, K. (2008). An effectiveness-based evaluation of five state pre-kindergarten programs. *Journal of Policy Analysis and Management*, 27(1), 122-154.
- World Economic Forum. (2013). *The Global Gender Gap Report*. Retrieved from [http://www3.weforum.org/docs/WEF\\_GenderGap\\_Report\\_2013.pdf](http://www3.weforum.org/docs/WEF_GenderGap_Report_2013.pdf)
- World Health Organization. (2014). *Burden of disease from air pollution*. Retrieved from [http://www.who.int/phe/health\\_topics/outdoorair/databases/FINAL\\_HAP\\_AAP\\_BoD\\_24March2014.pdf?ua=1](http://www.who.int/phe/health_topics/outdoorair/databases/FINAL_HAP_AAP_BoD_24March2014.pdf?ua=1)

## Appendix

Table 1: Human Capacity Indicators

Sub-category	Measures	Country Coverage
Caregiving Measures	Value of Unpaid Care Work	US, Australia, New Zealand
	Time Spent on Unpaid Care Work - Time Use Surveys - Other Surveys	OECD
	Childcare and Early Education Enrollment	OECD
	Pay for Childcare Work vs. Plumbers, Pipefitters, Steamfitters	US
	Direct-Care Workers	US
	Social Care Workforce	UK
	Long-Term Care - Users - Workers	OECD
Education Measures	Educational Attainment	OECD
	Preschool Enrollment	OECD
	Pre-K Programs - Enrollment - Funding trends	US
	Tertiary Educational Attainment	OECD
Health Measures	Infant Mortality	OECD
	Maternal Mortality - Risk of Maternal Death - Maternal Mortality Rates	Various
	Infant and Child Vaccination	Various
	Life Expectancy and Health-Adjusted Life Expectancy	OECD
	Teen Births	Industrialized Countries
	Environmental Factors that Affect Health	Various

	<ul style="list-style-type: none"> <li>- Global Effects of Air Pollution</li> <li>- Global Impact of Climate Change</li> </ul>	
Social Connectivity and Cohesion Measures	Young People Active in Groups	OECD
	Community Acceptance of Minority Groups	OECD
	Incarceration and Recidivism	Various
Environmental Measures	Key Environmental Indicators	OECD
	Consumption Measures <ul style="list-style-type: none"> <li>- Ecological Deficit/Reserve</li> <li>- Ozone Depletion</li> <li>- Carbon Dioxide Emissions</li> </ul>	Various
	Greenhouse Gas Emissions	Various
	Resource Depletion <ul style="list-style-type: none"> <li>- Freshwater Resources</li> </ul>	Various
Social Equity Measures	Income and Wealth <ul style="list-style-type: none"> <li>- Income Inequality, Single Observations</li> <li>- Income Inequality, Time Series</li> <li>- Wealth Inequality, Time Series</li> <li>- Child Poverty</li> <li>- Concentrated Child Poverty</li> </ul>	<p>Various</p> <p>Various</p> <p>US, Europe</p> <p>OECD US</p>
	Gender <ul style="list-style-type: none"> <li>- Earnings Gap</li> <li>- Employment Differences</li> <li>- Occupational Distribution</li> <li>- Management Positions</li> <li>- Opportunities to Change Working Hours</li> <li>- Global Gender Gap</li> <li>- Violence Against Women</li> <li>- Women's Poverty</li> </ul>	<p>OECD</p> <p>OECD</p> <p>OECD</p> <p>OECD</p> <p>OECD</p> <p>Various</p> <p>Various</p> <p>US</p>
	Race/Ethnicity <ul style="list-style-type: none"> <li>- Income and Wealth Disparities</li> <li>- Poverty</li> </ul>	US

	<ul style="list-style-type: none"> <li>- Unemployment</li> <li>- Incarceration</li> <li>- Treatment by Credit Markets</li> <li>- Public High-School Graduation</li> <li>- Infant Mortality</li> <li>- Job Quality</li> <li>- Child Poverty</li> <li>- Children Living in High Poverty</li> <li>- Teen Births</li> <li>- National Urban League's Equality Index</li> <li>- American Indian-White Employment Gap</li> <li>- Living Standard for Native Americans</li> </ul> <p>Other Social/Demographic Stratifications</p> <ul style="list-style-type: none"> <li>- Level of Religious Tensions</li> <li>- Attitudes towards Immigrants</li> </ul>	<p>Various Europe</p>
<p>Entrepreneurship and Innovation Measures</p>	<p>New Business Density</p> <p>Patent Applications filed by Residents</p> <p>Researchers in R&amp;D</p> <p>High-Tech Exports</p>	<p>Various</p> <p>Various</p> <p>Various</p> <p>Various</p>

**Table 2: Percentage of Time dedicated to Care Work, by Number of Children under School Age, OECD Countries, 1999-2008\***

Country	Men aged 25-44			Women aged 25-44		
	No child	1 child	2 children or more	No child	1 child	2 children or more
Mexico	2.8	6.2	6.7	7.5	17.6	22.6
UK	1.3	6.9	8.3	3.1	16.3	22.2
Germany	1.2	5.9	8.4	2.6	14.4	21.2
Finland	1.0	6.0	7.7	1.9	13.5	20.6
Slovenia	1.4	5.1	6.9	1.9	11.2	18.9
Italy	0.8	5.5	6.3	2.4	13.9	18.8
Poland	1.8	6.4	7.3	2.8	14.0	18.3
Norway	1.0	5.2	8.3	2.5	11.4	18.1
Lithuania	1.3	3.3	7.5	1.9	10.3	17.9
Estonia	1.7	5.6	6.2	2.7	12.8	17.5
Spain	0.7	4.8	6.9	1.9	11.5	17.2
Sweden	1.6	6.5	9.0	2.9	13.0	17.2
Japan	0.3	2.5	4.1	2.2	11.7	16.6
Bulgaria	1.2	4.2	5.6	1.8	11.4	15.6
Belgium	0.6	4.0	5.6	1.4	8.9	14.6
France	1.1	3.6	4.5	2.2	8.8	12.8
US	2.3	6.8	7.5	2.3	11.0	12.5
Latvia	1.3	3.5	3.1	2.4	11.4	11.3
Canada	2.1	5.6	6.6	1.9	7.7	8.8

\* Year: 1999: France; 2000: Estonia, Finland, Hungary; 2001: Norway, Slovenia, Sweden, United Kingdom; 2002: Germany; 2003: Italy, Latvia, Lithuania, Spain; 2004: Poland; 2005: Canada; 2006: Belgium, United States.

*Notes:*

- 1) School age refers generally to children under age 7, except for the US and Japan where data refer to children under 6, and to children under 5 in Mexico.
- 2) Care work includes here all episodes of care work declared as primary or secondary activity, except for the United States and Canada. It also includes the time spent to care for household members or to informally help other households.
- 3) The data for Japan concern women and men age 15 and over.

*Source:* OECD Family Database

**Table 3: Infant Mortality Rates, OECD Countries, 2010\***

Country	Neonatal mortality	Post-neonatal mortality	Infant mortality
Mexico	8.9	5.2	14.1
Romania	6.0	5.6	11.6
Turkey	8.5	1.6	10.1
Bulgaria	5.0	3.8	8.8
Latvia	5.0	2.9	7.9
Chile	5.4	2.5	7.9
US	4.0	2.1	6.1
Lithuania	3.0	3.1	6.1
Slovak Republic	3.6	2.1	5.7
Malta	2.0	3.5	5.5
Hungary	3.5	1.8	5.3
New Zealand	3.1	2.1	5.2
Canada	3.7	1.4	5.1
Poland	3.5	1.5	5.0
UK	2.9	1.3	4.2
Australia	2.9	1.2	4.1
Austria	2.7	1.2	3.9
Switzerland	3.1	0.7	3.8
Ireland	2.7	1.1	3.8
Netherlands	2.8	1.0	3.8
Israel	2.5	1.3	3.8
Greece	2.5	1.3	3.8
Belgium	2.6	1.1	3.7
France	2.5	1.1	3.6
Cyprus	2.0	1.5	3.5
Denmark	2.6	0.8	3.4
Germany	2.3	1.1	3.4
Luxembourg	2.2	1.2	3.4
Estonia	1.9	1.4	3.3
Italy	2.3	1.0	3.3
Korea	1.8	1.4	3.2
Spain	2.1	1.1	3.2
Norway	1.6	1.2	2.8
Czech Republic	1.7	1.0	2.7
Portugal	1.7	0.8	2.5
Slovenia	1.8	0.7	2.5
Sweden	1.6	0.9	2.5
Finland	1.5	0.8	2.3
Japan	1.1	1.2	2.3
Iceland	1.2	1.0	2.2

\* Year: 2009 for Chile and New Zealand; 2008 for Belgium, Bulgaria, Canada, Cyprus, Ireland, Italy, Latvia, Lithuania, Malta and Romania

**Notes:**

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3) The data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

*Source:* OECD Family Database

**Table 4: Gender Gap in Average Earnings of Full-Time Employees, OECD Countries**

Country	Gap (%)	Year
Korea	36.0	2011
Japan	29.4	2011
Israel	25.8	2010
Czech Republic	25.2	2009
Slovak Republic	24.7	2010
Austria	24.1	2010
Cyprus	24.0	2006
United Kingdom	21.3	2011
United States	21.2	2011
Finland	20.6	2010
Iceland	20.6	2008
Netherlands	20.4	2009
Australia	20.4	2010
France	19.9	2009
Germany	18.9	2010
Sweden	18.2	2010
Canada	17.4	2011
Hungary	16.3	2011
Latvia	16.0	2006
Lithuania	16.0	2006
Norway	14.7	2011
Denmark	14.7	2010
Bulgaria	14.0	2006
Italy	12.4	2010
New Zealand	11.4	2011
Belgium	10.0	2010
Romania	10.0	2006
Greece	9.3	2010
Portugal	8.1	2010
Spain	6.1	2010
Poland	3.2	2010
Malta	3.0	2006

**Notes:**

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*Source:* OECD Family Database

**Table 5: Care Investment Indicators**

<b>Sub-category</b>	<b>Measures</b>	<b>Country Coverage</b>
Government Investment in Care Work	Government Investment in Families - Public Spending on Family Benefits - Family Cash Benefits - Public Expenditures for Children	OECD
	Government Investment in (Public Funding for) Childcare and Early Education	OECD
	Government Investment in Education - Public Spending on Education (all levels) - Public Spending on Tertiary Education	OECD
	Government Investment in Family Leave - Maternity Leave - Paid Family Work Leave	Various OECD
Business Investment in Care Work	Employment-Protected Parental Leave	OECD
	Employer Support for Childcare and Other Care	OECD
	Flex-time Working Arrangements	OECD
Public and Private Investment in Protecting the Environment	Public Investment in Environmental Protection	Europe
	Investment in Environmental Protection by Specialized Producers	Europe
	Federal Spending on the Environment	US
Comparative Investment Data	Education vs. Prison Costs	US
	Military vs. Other Priorities	US
	Share of World Military Expenditures	Various

**Table 6: Public Social Expenditure on Children by Age Group (Proportion of Total Spending per Child), OECD Countries, 2009**

Country	Early Childhood	Middle Childhood	Late Childhood
Iceland	36.8	33.5	29.7
Hungary	34.1	32.3	33.6
Czech Republic	34.1	28.2	37.7
France	30.4	30.1	39.5
Finland	30.2	29.7	40.1
Slovak Republic	30.2	35.1	34.7
Germany	29.7	33.2	37.2
Australia	29.5	33.3	37.2
Norway	29.3	34.1	36.6
Estonia	29.2	31.4	39.5
Slovenia	29.0	37.0	34.0
Sweden	27.9	35.5	36.7
United Kingdom	27.6	35.1	37.3
Luxembourg	27.1	33.4	39.5
Chile	26.0	38.0	36.0
New Zealand	26.0	34.7	39.3
Netherlands	24.8	32.4	42.8
Denmark	24.5	39.7	35.8
Italy	24.1	37.6	38.3
Spain	23.1	34.1	42.8
Ireland	22.4	34.9	42.7
Israel	22.0	39.6	38.4
Belgium	21.7	31.8	46.6
Greece	21.5	35.7	42.7
Austria	20.5	37.6	42.0
Mexico	20.4	42.9	36.7
Korea	19.1	40.3	40.6
Portugal	18.7	34.4	46.9
Poland	16.6	41.5	42.0
Japan	15.0	42.8	42.1
United States	12.0	41.9	46.1
Switzerland	11.1	40.6	48.3

*Notes:* Data missing for Canada and Turkey.

*Source:* OECD Family Database

**Table 7: Public Expenditure on Education by Level as a Percentage of GDP, OECD Countries, 2009**

Country	Primary	Secondary	Tertiary	Total
Denmark	1.9	2.8	2.3	7.0
Cyprus	2.0	3.0	1.6	6.6
Iceland	2.5	2.4	1.4	6.3
Norway	1.7	2.4	2.2	6.2
Sweden	1.6	2.6	1.7	6.0
Finland	1.2	2.5	1.9	5.6
New Zealand	1.3	2.4	1.6	5.3
Belgium	1.4	2.6	1.3	5.3
Malta	1.4	2.8	1.0	5.1
Austria	1.0	2.5	1.5	5.0
France	1.2	2.5	1.2	4.9
Netherlands	1.3	2.2	1.4	4.9
Ireland	1.7	2.0	1.1	4.9
Israel	2.2	1.6	1.0	4.9
United States	1.7	1.9	1.2	4.9
Switzerland	1.5	2.0	1.3	4.9
United Kingdom	1.6	2.3	0.9	4.8
Slovenia	2.3	1.2	1.2	4.6
Portugal	1.4	2.0	1.2	4.6
Poland	1.6	1.9	0.9	4.4
Estonia	1.1	2.2	1.1	4.4
Hungary	1.0	2.3	1.0	4.3
Latvia	1.2	2.1	0.9	4.3
Canada	0.0	2.7	1.6	4.3
Mexico	1.8	1.4	0.9	4.2
Lithuania	0.7	2.4	1.0	4.1
Greece	1.2	1.4	1.5	4.1
Australia	1.4	1.7	1.0	4.0
Germany	0.6	2.2	1.1	4.0
Italy	1.1	2.0	0.8	3.8
Spain	1.1	1.7	1.0	3.8
Korea	1.3	1.8	0.6	3.7
Czech Republic	0.6	2.0	1.1	3.7
Chile	1.5	1.6	0.6	3.7
Romania	0.8	1.5	1.1	3.5
Bulgaria	0.8	1.8	0.8	3.4
Slovak Republic	0.7	1.7	0.8	3.2
Luxembourg	1.7	1.5	0.0	3.1
Japan	1.2	1.3	0.6	3.1

**Notes:**

- 1) Data missing for primary education in Canada and tertiary education in Luxembourg.
- 2) Data refers to 2005 for Canada and Greece.
- 3) Endnote by Turkey: The information in this document with reference to Cyprus relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognizes the Turkish Republic of Northern

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5) The data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

*Source:* OECD Family Database

**Table 8: Proportion of Establishments providing Flex-Time, OECD Countries, 2009**

Country	Possibility to use accumulated hours for days of leave	Possibility to accumulate hours, but no accumulation of full day off	Possibility to vary the start and end of daily work, but no accumulation of hours
Finland	66	8	9
Denmark	53	5	12
Sweden	46	11	10
Austria	43	3	7
Germany	43	7	8
Czech Republic	33	13	24
Luxembourg	33	8	17
Netherlands	33	7	19
Belgium	31	9	14
France	28	8	15
United Kingdom	28	11	31
Poland	27	7	17
Ireland	23	7	31
Slovenia	22	15	14
Portugal	20	13	15
Hungary	18	9	22
Spain	18	13	24
Italy	15	10	24
Greece	5	4	25

**Notes:**

1) Establishments with 10 or more employees; all economic sectors are covered, except for agriculture.

2) Endnote by Turkey: The information in this document with reference to Cyprus relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognizes the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of United Nations, Turkey shall preserve its position concerning the “Cyprus issue.”

3) Endnote by all the European Union Member States of the OECD and the European Commission: The Republic of Cyprus is recognized by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: OECD Family Database

<sup>i</sup> This essay (especially Sections 3, 4 and 5) draws heavily from a report called *Social Wealth Economic Indicators: Measuring Economic and Social Success* prepared under the leadership of the author of this essay for the Center for Partnership Studies. The author of this essay acknowledges his gratitude to his co-authors on the report, who are Natalie Cox, Riane Eisler, and Brandon P. Smith. The report and an accompanying website ([www.socialwealth.us](http://www.socialwealth.us)) are due to be officially launched in November 2014.

<sup>ii</sup> See:

<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTTSOCIALCAPITAL/0,,contentMDK:20185164-menuPK:418217-pagePK:148956-piPK:216618-theSitePK:401015,00.html>

<sup>iii</sup> For the OECD Better Life Index, see <http://www.oecdbetterlifeindex.org>, and for the Social Progress Index, see <http://www.socialprogressimperative.org/data/spi>

<sup>iv</sup> The report, entitled *A Woman's Nation Pushes Back From The Brink* is available at <http://shrivereport.org/special-report/a-womans-nation-pushes-back-from-the-brink/>

<sup>v</sup> See: <http://www.bls.gov/ooh/Personal-Care-and-Service/Childcare-workers.htm>

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- <sup>vi</sup> See: <http://www.bls.gov/ooh/construction-and-extraction/plumbers-pipefitters-and-steamfitters.htm>
- <sup>vii</sup> See: <http://www.oecd.org/social/soc/oecdfamilydatabase.htm>
- <sup>viii</sup> See this PHI factsheet: <http://phinational.org/sites/phinational.org/files/phi-facts-3.pdf>
- <sup>ix</sup> See this AARP factsheet: [http://assets.aarp.org/rgcenter/health/fs\\_hcbs\\_hcr.pdf](http://assets.aarp.org/rgcenter/health/fs_hcbs_hcr.pdf)
- <sup>x</sup> See this ECW brief: [http://www.eldercareworkforce.org/files/QA\\_Issue\\_Brief\\_-\\_FINAL.pdf](http://www.eldercareworkforce.org/files/QA_Issue_Brief_-_FINAL.pdf)
- <sup>xi</sup> The OECD publication is available at: [http://www.oecd.org/edu/eag2013%20\(eng\)--FINAL%2020%20June%202013.pdf](http://www.oecd.org/edu/eag2013%20(eng)--FINAL%2020%20June%202013.pdf)
- <sup>xii</sup> See the report: [http://www.childinfo.org/files/immunization\\_summary\\_2012\\_en.pdf](http://www.childinfo.org/files/immunization_summary_2012_en.pdf)
- <sup>xiii</sup> The report is available at: [http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SOWM\\_2014.PDF](http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/SOWM_2014.PDF)
- <sup>xiv</sup> For a full list of topics, see: [http://www.who.int/phe/health\\_topics/en/](http://www.who.int/phe/health_topics/en/)
- <sup>xv</sup> See: [http://www.who.int/phe/health\\_topics/outdoorair/databases/FINAL\\_HAP\\_AAP\\_BoD\\_24March2014.pdf?ua=1](http://www.who.int/phe/health_topics/outdoorair/databases/FINAL_HAP_AAP_BoD_24March2014.pdf?ua=1)
- <sup>xvi</sup> The report is available at: <http://www.oecd.org/env/indicators-modelling-outlooks/37551205.pdf>
- <sup>xvii</sup> See: <http://www.footprintnetwork.org/en/index.php/GFN/>
- <sup>xviii</sup> See: <http://unstats.un.org/unsd/environment/qindicators.htm>
- <sup>xix</sup> See: <http://www.aecf.org/data/children-living-in-areas-of-concentrated-poverty/>
- <sup>xx</sup> See: <http://www.weforum.org/issues/global-gender-gap>
- <sup>xxi</sup> See: <http://womanstats.org/newmapspage.html>
- <sup>xxii</sup> See: <http://www.nclj.org/poverty-in-the-us.php>
- <sup>xxiii</sup> See: [http://www.nwlc.org/sites/default/files/pdfs/final\\_2013\\_nwlc\\_povertyreport.pdf](http://www.nwlc.org/sites/default/files/pdfs/final_2013_nwlc_povertyreport.pdf)
- <sup>xxiv</sup> For more details on the Equality Index, see the report *2014 State of Black America* available at: [http://iamempowered.com/sites/all/themes/newiae/SOBA/SOBA2014\\_HTML5/SOBA2014-SinglePgs/index.html](http://iamempowered.com/sites/all/themes/newiae/SOBA/SOBA2014_HTML5/SOBA2014-SinglePgs/index.html)
- <sup>xxv</sup> Spending on families may, in turn, take three forms: child-related cash transfers to families with children (e.g. child allowances, income support for parental leave, etc.), spending on services for families with children (e.g. direct financing and subsidizing of providers of childcare and early education facilities); financial support for families provided through the tax system (e.g. tax exemptions, child tax credits). Spending on families does not include spending in other areas of social policy (such as health and housing) that also assist families, but not exclusively.
- <sup>xxvi</sup> The ILO report is available at: [http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms\\_242617.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_242617.pdf)
- <sup>xxvii</sup> The OECD report is available at: <http://www.oecd.org/els/health-systems/help-wanted.htm>
- <sup>xxviii</sup> See: <http://www.publicagendaarchives.org/charts/federal-spending-environment>
- <sup>xxix</sup> See: <http://money.cnn.com/infographic/economy/education-vs-prison-costs/>
- <sup>xxx</sup> See: <http://www.globalissues.org/article/75/world-military-spending>
- <sup>xxxi</sup> See: <http://www.sipri.org/research/armaments/milex/recent-trends>
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