

Economic Rights in the Land of Plenty: Monitoring State Fulfillment of  
Economic and Social Rights Obligations in the United States

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## 1. Introduction

The preamble of the *Universal Declaration of Human Rights*, UDHR, commits its signatories to undertake proactive measures to secure the human rights enumerated therein, among them, a series of economic and social rights. Although not legally binding, the UDHR is accepted as customary law by many international lawyers. The United States is not only a signatory to the UDHR, it played a key role in the articulation of the UDHR. The *International Covenant on Economic Social and Cultural Rights*, ICESCR, legally binds its signatories to protect, promote, and fulfill the economic, social and cultural rights of citizens and residents enumerated in the UDHR and elaborated in the ICESCR. Although the United States has yet to ratify the ICESCR, it is a signatory to it. Further, the economic and social rights enunciated in the ICESCR mirror those enunciated in President Roosevelt's "second bill of rights" that many argue continues to provide the moral compass guiding economic and social policy in the United States, despite the United States' failure to ratify the ICESCR to date. But has it?

This paper uses the Economic and Social Rights Fulfillment, ESRF, Index proposed by Randolph, Fukuda-Parr, and Lawson-Remer (Fukuda-Parr et al 2009, Randolph et al 2009) to quantitatively assess the extent to which the United States fulfills the economic and social rights obligations enunciated in the UDHR, ICESCR, and consistent with the "second bill of rights". Three questions structure the analysis. First, how does the United States stack up against other high income OECD countries when it comes to meeting its economic and social rights obligations? Second, is there wide variation across states in the United States in the extent to which economic and social rights obligations are met, and if so, which states do particularly well in meeting these

obligations and which do particularly poorly? Finally, how and to what extent does the assessment of the extent to which different states meet their human rights obligations change once the principle of non-discrimination is taken into account.

Development indicators, like the Human Development Index (HDI) are increasingly used to assess whether countries are meeting their economic and social rights obligations. While these types of indicators help policy makers to better focus on the metrics of development most relevant to people's lives, they are seriously flawed when it comes to gauging compliance with economic and social rights obligations. Human development indicators are aspirational in nature; they assess the extent to which development aspirations are being realized. Development indicators measure the right-holder's (non)enjoyment of rights, but do not reflect the duty incumbent upon the duty bearer, i.e., the state. Any indicator purporting to assess the extent to which states are meeting their economic and social rights obligations must assess the enjoyment of the right relative to the duty bearer's obligation to fulfill the right. As articulated under international law, the duty to fulfill economic and social rights is subject to the principle of progressive realization, and countries with more resources are held to a higher standard of achievement. More specifically, states are obligated to fulfill economic and social rights to the maximum extent feasible in the face of their resource constraint.

The principle of progressive realization poses a challenge to measurement. Specifically, how can one translate this principle into a measurable standard specific to each country, or state? Several recent initiatives have sought to develop economic and social rights indicators, Cingranelli and Richards (2007), Kimenyi (2007) and jointly by Randolph, Fukuda-Parr, and Lawson-Remer (Fukuda-Parr et al, 2009 and Randolph, et.

al. 2009), among them. The methodology developed by Randolph, Fukuda-Parr and Lawson-Remer, henceforth the RFL methodology, has a number of advantages over other methodologies. First, rather than comparing performance to average performance, it compares performance to best practice as is consistent with the requirement that states fulfill economic and social rights obligations “to the maximum extent feasible”. Second, the RFL methodology takes into account performance on each of the economic and social rights dimensions articulated in the UDHR and ICESCR, and is decomposable across rights, whereas the Cingranelli and Richards (2007) and Kimenyi (2007) methodologies only take into account the rights to health and education and are not decomposable across rights. Third, unlike the alternative methodologies, the RFL index incorporates differences in the feasibility of transforming income into rights enjoyment across rights and different aspects of rights. A fourth advantage of the RFL index is that it is comparable across time. Finally, an adaptation of the RFL methodology allows one to take into the account the principle of non-discrimination. As a result, our assessment adapts the Economic and Social Rights Fulfillment, ESRF, Index proposed by Randolph, Fukuda-Parr, and Lawson-Remer (Fukuda-Parr et al 2009, Randolph et al 2009) to learn the extent to which economic and social rights obligations are met in the United States.

The paper’s organization is as follows. The basic RFL methodology is elaborated in section 2 along with its advantages over the alternative methodologies. Section 3 compares the success of the United States to that of other high income countries in fulfilling four basic economic and social rights obligations—the right to education, the right to health, the right to food, and the right to decent work. The international comparison is constrained in the economic and social rights examined by

the need to use internationally harmonized data sets that are available for a large number of countries. Given the broader range of harmonized data sets available for states in the United States, the disaggregated analysis by US states undertaken in section 4 adapts the RFL methodology to incorporate two additional rights, the right to housing and the right to social security, so as to take into account the full set of economic and social rights articulated in the ICESCR. The principle of non-discrimination is an important aspect of human rights law. The basic RFL methodology fails to take this principle into account, although one methodology to do so is suggested by Fukuda-Parr et al (2009). Section 5 undertakes the first application of this suggested methodology to explore how an accounting for racial and sexual discrimination affects our assessment of the extent to which US states are fulfilling their economic and social rights obligations. The final section both elaborates key findings from our analysis and highlights several methodological issues identified in the course of our assessment that require further analysis.

In brief, our findings reveal that despite its position of political and economic influence internationally, the United States ranks below all other high income OECD countries when it comes to meeting its economic and social rights obligations. It appears the values articulated in the UDHR and ICESCR hold greater moral sway today on the design of economic and social policies in other OECD countries than in the United States. There are dramatic differences across states in the United States in the extent to which economic and social rights obligations are being met and these differences are not strongly correlated with either state per capita income or the American Human Development Index (Burd-Sharps, Lewis, and Martin, 2008). Our findings highlight by state where public polices most urgently need to be directed to

better meet economic and social rights obligations and provide a baseline for assessing their progressive realization going forward. Data limitations preclude an accounting for discrimination across all economic and social rights by race and sex. However, with regard to those rights for which we are able to take discrimination into account--the right to work and the right to health—we find substantial racial, but not sex disparities in the extent to which obligations are being met. Upon taking racial disparities into account, state rankings change, revealing the role played by systemic discrimination, both historical and current.

## **2. The RFL Methodology**

The key conceptual distinction between human development evaluation and economic and social rights, ESR, valuation is that human development focuses on aspirations, where as ESR valuation focuses on entitlements to social arrangements. As a result, human development assessment only takes into account the enjoyment of economic and social achievements, whereas ESR assessment considers whether the level of enjoyment of economic and social rights achievement is at or above the level the State is obligated to provide. That is, ESR assessment must take into account both the rights-bearer's status and the duty bearer's obligation, where the duty bearer's obligation reflects international legal standards and norms. In addition, to focusing on economic and social outcomes, economic and social rights evaluation should ideally take into account the human right norms of conduct, specifically non-discrimination, participation, transparency, accountability, and the principles of progressive realization and non-retrogression.

The principle of progressive realization poses a particular challenge to assessment. It implies that different States are obligated to provide different levels of rights fulfillment. As specified in Article 2 of the ICESCR (1966), each State Party to the Covenant is obligated to “take steps ... to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all appropriate means, including particularly the adoption of legislative measures.” How is one to determine the maximum level of rights fulfillment relative to the country’s resources? Both Cingranelli and Richards (2007) and Kimenyi (2007) set the standard of obligation by regressing the log of per capita income against their indicator of rights enjoyment. The residuals from this regression comprise their indicator with a positive residual interpreted as full compliance and a negative residual as failure to comply. The standard of State obligation implicit is thus the average level of rights fulfillment in other states with the same per capita income level. Yet the phrase “to the maximum of its available resources” obligates States to fulfill ESR to the highest level achievable, and thus reflects best practice performance rather than average performance.

A core advantage of the Economic and Social Rights Fulfillment (ESRF) Index proposed by Fukuda-Parr et al (2009) and further refined in Randolph et al (2009) using the achievement possibility approach is the theoretical coherency of assessing a country’s fulfillment of its obligation of progressive realization based in the level at which a country with a given per capita GDP could perform if it adopted best practice policies. The methodology identifies the best practice performance by estimating achievement possibility frontiers, APF, for each indicator used to reflect an aspect of a right. The achievement possibilities frontier is identified by fitting a curve to the outer envelope of a

plot of the indicator value against per capita income level for all countries and all years since 1990 for which there are data. As an illustration of the approach figure 1 shows the APF for one of the indicators of the right to health, life expectancy. Each black dot (observation) in the graph is the plot of a given country's life expectancy in a given year against its per capita GDP (measured in 2005 PPP\$) in the same year. The green line is the plot of the equation defining the outer envelope of the observations. It specifies the maximum life expectancy achievable at each per capita income level given best practices.

One could simply assess the extent of obligation met as the percentage of the frontier value (for the country's per capita income level) achieved. However, as elaborated in Randolph, et. al. (2009) when aggregating across indicators this ends up implicitly weighting those indicators with a greater practical range more heavily. Consider for example assessing the right to health on the basis of two indicators, life expectancy and the child (under 5) survival rate. The lowest life expectancy observed in any country in any year since 1990 is 23 years (Rwanda, 1992), while the minimum percentage child survival rate observed is 68% (Niger, 1990). The range of values on the percentage of the frontier value achieved for life expectancy will be greater than that for the percentage child survival rate, and as a result, differences across countries in the life expectancy component will drive a health index that averages the two components. Randolph et. al (2009) over come this implicit bias by rescaling the percentage achievement to range between 0 and 100% of the frontier value. Figure 2 illustrates how the rescaling process. Mathematically, the rescaling formula is:

$$100 * \frac{\text{Observed value} - \text{minimum value}}{\text{frontier value} - \text{minimum value}}$$



where the minimum value is the lowest value observed in any country in any year, and the frontier value is specified relative to the country's per capita income level in the year concerned. The objective in setting the minimum value equal to the lowest value observed is to identify the lower bound of the indicator that would be observed in any context. The assessment of economic and social rights in the United States adopts the APF methodology and computes indicator indices as the percentage of the frontier value achieved using the rescaling formula above. The extent to which a country is meeting its obligations with regard to a given aspect of a right (as reflected by the indicator concerned) is assessed relative to what *could* be achieved and is readily understood as the percentage of the obligation met.

The shapes of the frontiers for the indicators used to reflect rights fulfillment differ reflecting differences in the feasibility of transforming resources into different aspects of rights fulfillment. In the case of some indicators used to reflect rights fulfillment, the frontier reaches a peak and plateaus at relatively low per capita GDP levels, implying that it is feasible to realize the peak value of the indicator,  $X_p$ , at the low per capita GDP level corresponding to where the curve initially peaks,  $Y_p$ . Some of the indicators relevant to high income countries fail to show any sensitivity to income over relevant per capita income range, implying that using best practices, it is feasible to fully fulfill the right (or right aspect) over the full income range concerned. Countries that fail to do so, are more deficient in meeting their obligations. As such, the ESRF index imposes a penalty on countries with incomes greater than  $Y_p$  that fail to realize the maximum value of the indicator,  $X_p$ . Fukuda-Parr et al (2009) compare a number of alternative penalty formulas using an axiomatic approach. Randolph et. al. (2009) incorporate an

additional parameter on the preferred penalty formula to allow the user to vary the size of the penalty extracted. The resultant penalty formula, and the formula used here is:

$$x^* = 100 \left[ \left( \frac{x}{100} \right) \left( \frac{Y}{Y_p} \right)^\beta \right]$$

where  $x^*$  is the value of the index after the penalty is imposed,  $x$  is the value of the rescaled indicator,  $Y$  is the countries per capita income level,  $Y_p$  is the income level at which the frontier first peaks, and  $\beta$  is a parameter that can be varied to impose different penalties. Greater values of  $\beta$  extract a greater penalty. Figure 3 compares the penalties for  $\beta=1$  (dotted lines) and  $\beta=.5$  (dark lines). In both cases, if the state's score on the indicator is 100%, its score on the indicator index is 100%. However, if the state's score is less than 100%, its score on the indicator index is reduced in relation to the ratio  $Y/Y_p$ , and by a greater amount if  $\beta=1$  than if  $\beta=.5$ . For example if a country achieves 95% on the indicator, as its income increases to 10 times the  $Y_p$  value, the value of the indicator index falls to 60% when  $\beta=1$ , but only to 85% if  $\beta=.5$ . Note that the penalty imposed is greater as income increases a given multiple of  $Y_p$  the lower is the country's achievement on the indicator. Our assessment of economic and social rights in the United States sets  $\beta=.5$ . In the case that an indicator is not subject to progressive realization, as is the case for a number of relevant indicators for high income countries, in the formula above,  $Y_p$  is set equal to \$16,000 (2005 PPP\$) the income demarcation between high and low income countries used by the World Bank (2008).

The economic and social rights articulated in the ICESR are the right to work (Articles 6-8), the right to social security (Article 9), the right to food (Article 11), the right to housing (Article 11), the right to health (Article 12), and the right to education (Article

13). Each of these rights has multiple dimensions. For example, the right to work includes “the opportunity to gain his living by work he freely chooses or accepts (Article 6, paragraph 1), “just and favorable conditions of work” (Article 7, paragraph 1), and “the right to form trade unions and join the trade union of his choice” (Article 8, paragraph 1). The methodologies proposed by Cingranelli and Richards (2007) and Kimenyi (2007) use a composite index that only addresses the right to health and the right to education. An advantage of the RFL methodology is that multiple aspects of rights and the full range of rights can be incorporated into the index. The only limitation is that imposed by data constraints. Their ESRF Index is constructed in a three stage process. First, an index for each given aspect of a right is constructed using the procedure described above. Second, an index for each right is constructed by averaging the index values of indicators used to reflect different aspects of a right. Third, the ESRF is constructed as the weighted average of the rights indices using the following formula:

$$\left[ \sum z_i^{1/\alpha} / n \right]^\alpha$$

Where  $z_i$  is the index for right  $i$ , there are  $n$  rights indicators, and  $\alpha$  is a parameter that can be set by the researcher. Setting  $\alpha=1$  weights all rights dimensions equally, while setting  $\alpha>1$  weights the dimensions more heavily where fulfillment of obligations falls shortest. For the analysis below,  $\alpha$  is set equal to 1 implying that the ESRF index is the simple average of the component right indices. An attractive feature of this index is its additive decomposability across rights.

### 3. International Comparison

Data constraints preclude including more than four economic and social rights into the ESRF Index used in our international comparison between high income OECD countries. In particular, comparable data on indicators reflecting aspects of the right to social security and the right to housing are not available. Table 1 shows the indicators used to reflect each of the other four rights—food, education, health and work—along with the equation defining the frontier, the minimum ( $X_{min}$ ) and peak values ( $X_p$ ) values used to rescale the indicator and impose the penalty.

The percentage of normal birth weight babies (100% - % weighing less than 2500 grams at birth) reflects poor nutrition of mothers as well as poor health status and care of mothers and is our indicator of the right to food. For the right to education, the gross secondary school enrolment rate is used to reflect the access dimension, while the average of the Math and Science scores on the test administered through OECD's Program for International Student Assessment, (PISA scores) captures the quality dimension. Life expectancy and the child survival rate (100% - % under 5 mortality rate) both capture features of access to health care and quality of health care, the former for the whole population and the latter for more vulnerable young children. We capture the access and fair remuneration aspects of the right to work using the % of the labor force that is not long term (12 months or more) unemployed, and the % of the population with income equal to or greater than 50% of the median income, respectively. A fuller discussion of the rationale for selecting particular indicators can be found in Fukuda-Parr et. al.(2009) and Randolph, et. al (2009).

Table 2 shows the results of the analysis. The full index can only be computed for 24 of the high income OECD countries, although 3 of the component indices can be

computed for an additional four countries (Iceland, the Korean Republic, New Zealand, and Portugal). The United States achieves a score of 76.97 on the ESRF Index placing it a distant last among the high income OECD countries for which the index can be computed. The scores for the other 23 countries range between 94.66 (Finland) and 82.54 (Luxembourg). The United States scores highest on the right to health component index (93.77, but still the second lowest) while Italy scores highest (98.99) on this component. It achieves its second highest score on the Right to Food Component (85.43), although this is still the second lowest performance among all the high income OECD countries for which the index can be computed. The results reveal that the United States is the most deficient in both absolute and relative terms when it comes to meeting right to work (component index score of 60.79) and perhaps surprisingly, on the right to education (component index score of 67.89).

The United States has long held itself up as an exemplar for meeting human rights obligations, yet, as the analysis above demonstrates, when it comes to economic and social rights, the example set by the United States is far from exemplary. The United States faces a significant challenge in living up to the ideals President Roosevelt first enunciated in his “second bill of rights” and later the United States played the prominent role in codifying into the UDHR. Below we look further into whether the deficiencies identified reflect a failure to respect, protect and promote economic and social rights equally across all states or unequal performance across states.

#### **4. State Comparison**

The deficiencies identified at the national level may not extend across all states. If the United States is to move as rapidly as possible towards meeting its economic and

social rights obligations, economic and social policies that work in the US context need to be identified and those states that do a better job meeting economic and social rights obligations can provide valuable insights in this regard.

### ***Methodology Adaptation for Disaggregated Analysis by State***

In so far as reasonable and feasible, we use the indicators and frontiers adopted for the international assessment in our state level analysis. However, in several cases, the indicators used for the international assessment are not available disaggregated by State in the United States and so alternative indicators are used. In addition, given the availability of a wider range of harmonized data across US states, our state level analysis is also more comprehensive than the international analysis in two ways. First, we are able to use a somewhat richer array of indicators to assess those economic and social rights included in the international analysis. Second, we are able to extend the analysis to include the right to housing and the right to social security and thus are able to address the full complement of primary economic and social rights. Table 3 summarizes the indicators used in the State level analysis and specifies the formulas defining the frontier values as well as the  $X_{min}$ ,  $X_p$ , and  $Y_p$  values for each indicator. Two indicators are used to assess the right to housing, one reflecting affordable access to quality housing, the percentage of renters spending less than 30% of their income on rent and utilities, and the other reflecting the security of tenure, the percentage of school children who are not homeless. We are also able to capture two dimensions of the right to social security in our state level analysis. The obligation to protect citizens and residents from abject poverty is assessed using the percentage of the population that is not absolutely poor after transfer receipts, while the obligation to

protect citizens and residents from circumstances that harm their well-being is assess using the percentage of the population that has access to health insurance.

There are a number of other notable differences between the indicators used in the international assessment and our state level assessment. First, data directly measuring the food security status of households are available at the state levels, we exploit these data here as our indicator of the right to food. Second, although both an indicator of access to education and one of educational quality are used in our state level analysis, the indicators used differ from those used in the international analysis. We are able to use the preferred measure of secondary school enrollment (net as opposed to gross). Sample sizes for the PISA tests are too small to disaggregate by state. In their stead we use the sum of the 4<sup>th</sup> and 8<sup>th</sup> grade scores for both math and reading on the federally mandated NAEP test to assess the quality aspect of the right to education. Third, in addition to life expectancy at birth and the child survival rate used in the international analysis, we use the percentage of normal birth weight babies (% babies > 2500 grams at birth). Fourth, with regard to the right to work, we measure access to employment using the youth (20-24 year old) employment rate as opposed to percentage of the labor force not long-term unemployed and assess the quality dimension using the percentage of the employed that are not involuntarily underemployed in addition to the percent earning more than 50% of the median income used in our international assessment.

The frontiers,  $X_{min}$ ,  $X_p$ , and  $Y_p$  values are specified with reference to international data to the extent possible. So for example, although we use the net as opposed to gross secondary school enrollment rate in our state level analysis, we set the frontier,  $X_{min}$ ,  $X_p$ , and  $Y_p$  values for this indicator using available data from all

countries since 1990. Annex A details the selection of indicators for each right, as well as the specification of frontiers, setting of  $X_{min}$ ,  $X_p$ , and  $Y_p$  values, and data sources used for each indicator.

### ***Findings: Economic and Social Rights Fulfillment by State***

Table 4 shows the ESRF index values by state as well as component rights scores. States are ranked from best performing to worst performing on the basis of their ESRF index score. No state is fully meeting its economic and social rights obligations; the ESRF scores range from 69% to just under 85% of obligation met. The top 5 performing states are all northern plains and mountain states—North Dakota, Wyoming, Montana, South Dakota, and Idaho—while the worst 5 performances are turned in by Louisiana (dead last), California, New York, Oregon, and Texas. Thirteen states fail to meet even 75% of their combined obligation. However, performance across component right index varies widely.

Tables detailing state performance by right and the corresponding indicator indices are included as Annex B. Table 5 shows the mean, median, and range of values on the component indices, as well as the number of states fulfilling 90% of their obligation and the number of states filling less than 75% of their obligation with respect to each component right. States do best in fulfilling their obligations with regard to the right to health and the right to education. Although no state meets 100% of its obligation on this right, 41 states fulfill 90% or more of their education obligations, while 37 states fulfill 90% or more of their health obligations. On the whole, states do the poorest job of fulfilling their obligations with regard to the rights to decent work and decent housing, 39 states score below 75% on the former and 49 states score below 75% on the latter. The variation across states is far higher when it comes to meeting



the right to housing obligations. The low scores and wide variation across states on the right to housing index are reflected in both the indicators that are combined to evaluate the right to housing.

No state scores either among the top 5 or bottom 5 states on all rights. Table 6 shows the top 5 and bottom 5 performing states on each right. Only North Dakota makes the top 5 list on 5 of the 6 rights; three states, Hawaii, New Hampshire, and Vermont, make the top 5 list for 3 rights. It is also the case that no state makes the bottom 5 list across all rights, although Delaware, Louisiana and Texas make the worst 5 list for three of the rights. Connecticut, Hawaii, and West Virginia hold the distinction of making both the top and bottom 5 performing lists. No state can rest on its laurels. The results highlight the areas where each state most needs to renew its efforts to its obligations to fulfill the economic and social rights of its citizens and residents. The wide variation in performance across states invites an examination of the range of policies states have in place with the goal of identifying those policies that best promote economic and social rights. Given that the top performing states on the ESRF index all have small, relatively homogeneous populations, while the bottom performing states tend to be populous and diverse, the results also suggest structural factors, including historical and/or current discrimination, play a role in the relative ease or difficulty states face in meeting their economic and social rights obligations. Before turning to an examination of the role played by racial and ethnic discrimination, we consider the relationship between the ESRF Index and the two most prominent alternative indicators of economic performance and human development: per capita income and the Human Development Index.

## ***Findings: Economic and Social Rights Valuation versus Human Development Valuation***

The relationship between the ESRF Index and per capita GDP is plotted in the left panel of figure 4, while the relationship between the ESRF Index and the American Human Development Index is plotted in the right panel of figure 4. There is a significant negative relationship between the ESRF Index and per capita GDP indicating that as the resources available to states to fulfill their economic and social rights, they are less, rather than more likely, to direct the additional resources to fulfilling economic and social rights obligations. The results also reveal that the ESRF Index measures something different than GDP per capita; the relationship between the two is far from tight. At any given per capita GDP level, some states fulfill their economic and social rights obligations to a much greater extent than others. There is no significant relationship between the ESRF Index and the American Human Development Index. While many of the indicators that underlie the indices are the same, the two indices measure very different things, demonstrating the practical as well as conceptual distinction between human development evaluation and economic and social rights valuation.

### **5. Bringing in the Principle of Non-Discrimination**

Human rights are emphatically concerned with the equal rights of all persons and states explicitly are called on to eliminate discrimination. The duty to remove discrimination is not subject to progressive realization, rather states are duty bound to remove it with immediate effect. Concretely, a state in which the population as a whole enjoys high levels of economic and social rights, but a small minority is systematically denied basic social and economic rights enjoyment, can still receive a high score on our

ESRF index. Discrimination needs to be incorporated into the ESRF index, but doing so is not straight forward; both conceptual and practical issues pose challenges.

Discrimination manifests itself in a number of different ways and the nature of discrimination is historically determined and context specific. Exclusion may occur along tribal, ethnic, or racial lines, or be based on religion, gender, age, geographic location or social class. The social constructions that determine which groups are discriminated against may differ across states as may the relevant divisions within a given social construction. For example, although Native Americans may be subjected to discrimination in some states, in other states the primary target of discrimination may be Hispanics, or Black non-Hispanics. Practically speaking, data delineated according to ethnic, racial, sex, religious, social class, and other relevant divisions are sparse at the national level and more so at the state level. When such data are available, it is possible to take into account differences in rights fulfillment between privileged and marginalized groups. However, inequality of outcomes, such as differences in life expectancies between population subgroups may not reflect discrimination in access to quality healthcare today. Instead, it may result from historical disadvantages and that the state is taking proactive steps to redress today. Further, whether equal rights enjoyment and non-discrimination should be evaluated by assessing whether all persons enjoy the same outcomes (eg. Secondary school completion rates), or the same opportunities (access to free public secondary school education) is subject to debate. Bearing these caveats in mind, we explore one approach to take discrimination into account.

Outcome inequality is conventionally used in human rights assessment as *prima facie* evidence of discrimination, or, at a minimum, unequal treatment and inequality of

opportunity for rights enjoyment. We follow this convention and use outcome disparities as a proxy indicator of discrimination. Insofar as states are obligated to eliminate discrimination in the enjoyment of economic and social rights, inequality in outcomes is an appropriate measure of success (or lack thereof) in this regard. Although outcome inequality could primarily reflect historical disadvantages, a proxy indicator of discrimination focused on outcome inequality calls attention to population subgroups that may currently endure discrimination, and need proactive policies to redress their disadvantage.

The approach to incorporating discrimination taken here is to adjust the score on each of the indicators in a manner that reflects the extent of inequality or discrimination against the most disadvantaged group. Specifically, we use the following formula to “correct” the value of any or all indicators:

$$X^D = (1 - \omega) \sum p_i x_i + \omega x_1$$

Here  $x^D$  is the indicator value corrected for discrimination,  $x_i$  is the value of the indicator for sub-group  $i$  with  $i=1$  assigned to the sub-group with the lowest score on the index,  $p_i$  is the proportion of the population in sub-group  $i$ , and  $\omega$  is a weight between 0 and 1. The value selected for  $\omega$  determines the emphasis placed on non-discrimination (or inequality). If  $\omega=0$ , then the “corrected” value of the indicator is the weighted average of the value of the indicator for the subgroups, and since the weights are the subgroups’ shares in the population, the “corrected” value equals the uncorrected value, so no penalty is imposed for inequality or discrimination. If  $\omega=1$ , then the maximum penalty is imposed and the “corrected” value of the indicator equals the value of the indicator for the sub-groups with the lowest score on the indicator. Thus, as the value of  $\omega$  is increased from 0 to 1, the emphasis placed on inequality or discrimination increases.

One interesting option is to set  $\omega=p_1$ . In this case, the penalty for inequality is greater the larger (proportionately) is the sub-group with the lowest score on the indicator. However, this weighting tends to minimize rights violations for marginalized populations that comprise a small proportion of the population.

Our exploratory analysis considers two different dimensions of discrimination—discrimination based on sex and discrimination based on race or ethnicity. The ICESCR (Article) places an emphasis on ensuring “the equal right of men and women to the enjoyment of all economic, [and] social ... rights set forth in the present Covenant” (Article 3). Pressured by a robust woman’s rights movement, states and the federal government alike have taken numerous steps to redress discrimination against women over the past few decades. We apply our ESRF Index adjusted for sex discrimination to learn whether the steps to redress sex discrimination have succeeded in removing the historical vestiges of sex discrimination. The past several decades has also witnessed efforts at both the state and federal level to redress historical and persisting racial/ethnic discrimination. Within the limits of the data, we also apply our ESRF Index adjusted for discrimination by race and ethnicity to gain insight into the magnitude of the remaining challenge to eliminate and redress race and ethnic discrimination.

### ***Accounting for Sex Discrimination:***

Data limitations preclude adjusting the ESRF for sex discrimination across all six rights dimensions. In particular, state level data on food security are not available nor are data on the percentage of renters spending more than 30% of their income on housing or the percentage of homeless students. As a result, we cannot incorporate the right to food or the right to decent housing. Two of the indicators used to reflect different aspects of the right to health similarly are unavailable disaggregated by state

and sex. Specifically, we are only able to include the child survival rate in the health component of our ESRF disaggregated by sex.

Table 7 shows the results of the ESRF index adjusted for sex discrimination. The results are consistent with the near elimination of sex discrimination. In 21 of the states females are the marginalized group and in 29 males are. The difference in the ESRF Index value setting  $\omega=1$  (the maximum penalty for discrimination) and setting  $\omega=0$  (no penalty for discrimination) is less than one point in all states. The difference only exceeds 1 in the District of Columbia, and not by much at that. But the aggregate results hide stark differences in economic and social rights fulfillment between the sexes. Women continue to be significantly disadvantaged along some rights dimensions, but have surpassed men on others. Annex C details the findings for our rights indices adjusted for sex discrimination. Here we highlight some of the more interesting results.

Our international comparison uncovered serious shortcomings in promoting the right to education. This deficit is sharpest for boys with differences along the quality dimension more pronounced. Although the level of enjoyment of the right to a quality education is consistently higher, the magnitude of the advantage is typically only 3 or 4 points. The difference is considerably smaller for the access component of the right to education and indeed, in about a quarter of the states, boys score higher on this dimension. Given the biological advantage that girl babies enjoy, it is not surprising that girls' enjoyment of the right to health exceeds boys' as measured by the child survival rate. The differences are minor; it only exceeds 1 point on our health index in 5 states.

Men enjoy greater fulfillment of the right to work than women; their score on the right to work index exceeds that of women in 36 states by an amount ranging from

barely over zero to just over 4. If one delves deeper, some stark differences are revealed. Men's enjoyment of the right to decent work paying a living wage far surpasses women's. Women are marginalized along this dimension across all states without exception. The difference is large, exceeding 10 points in half the states. Women's enjoyment of the right to work with regular hours, paying benefits and offering job security is also lower than men's, but here the magnitude of the difference is small. When it comes to access, however, young men are more likely to be marginalized. Men score lower on the youth unemployment component of the right to work than women in all but 16 states and the difference is pronounced, exceeding 10 points, in over a third of the states.

Enjoyment of the right to social security is nearly equal—or so it looks when one views the aggregate social security index. Perhaps surprisingly, men's enjoyment of the right to health insurance is lower than women's in all states; the difference is generally about 5 points. The opposite holds when it comes to enduring abject poverty. Women are uniformly marginalized along this dimension, and the difference is generally 5 points as well. These two aspects offset each other in the social security index.

***Accounting for Race and Ethnic Discrimination:***

As was the case when we incorporated sex discrimination, data limitations precluded inclusion of two rights, the right to food, and the right to housing, in our ESRF Index adjusted for race and ethnic discrimination. We are only able to include the full set of component indicators for the right to social security. Assembling state level data on the net secondary school enrollment rate by race and ethnicity required such heroic assumptions that we restricted our examination of the right to education to the educational quality component alone. While we were able to compile state level data on

the under 5 survival rate and the proportion of infants of normal birth weight (weighing more than 2500 grams) by race and ethnicity, data on life expectancy at birth were not available by race and ethnicity. Similarly, with regard to the right to work, state level data on youth unemployment were not available by race and ethnicity, so we are only able to incorporate the two work quality indicators (percent of population not relatively poor and percent of employed not involuntarily part time employed).

We encountered several other problems when adjusting the ESRF Index to take into account race and ethnic discrimination that did not pose a problem in the case of our sex discrimination adjusted ESRF Index. Whereas the sex categories were constant across indicators, the racial and ethnic categories are not and it is not usually feasible to reconcile the differences in categories across indicators. Data on some indicators separated out non-Hispanic whites and non-Hispanic blacks from whites and blacks, respectively. The breakdown for other indicators resulted in overlapping categories for these groups—White (including white Hispanics), Black (including black Hispanics) and Hispanics. In those instances where we had the choice of either breakdown ascertained that differences in the indicator scores by state for “Black non-Hispanic” and “Black” were quite minor. The difference was larger for the alternative white categorizations. Similar problems emerged in the case of the alternative Asian categorization schemes--some included Pacific Islanders in this group, and/or Native Hawaiians—and in the case of other native groups—some combined Native Alaskans with Native Americans and others separated out the two.

A further problem encountered was the small size of many of the race/ethnic categories in some states, especially those with small fairly homogenous population. In the face of these problems, when adjusting the ESRF Index to incorporate race and



ethnic discrimination only whites, blacks and Hispanics are considered as possible marginalized groups. However, in the detailed tables showing the index values by state and race/ethnic group in Annex D, we include data on all the race/ethnic categories available for the indicator concerned. In the tables the category “white” refers to white non-Hispanics whenever that option was available, while the category “black” refers to the more common categorization scheme, “blacks, including Hispanic blacks”. Finally, it was often the case that the data sources for the state-wide versus race/ethnic breakdown for a given indicator differed. For example, the state-wide data on the percentage of the population with health insurance used as its denominator the state population whereas for the race/ethnic breakdown by state, the denominator was the non-elderly population. To ensure comparability, we adjusted both the race/ethnic data and the state-wide data for the non-elderly population to reflect the whole population. In a few cases, there was very recent data for the state-wide data, while the race/ethnic breakdown was only available for a couple of years earlier or as a three year average (a tactic taken by some agencies to increase sample size). In these cases, while we used the most recent data for our state level analysis, to ensure comparability, we recomputed the state-wide index using the older or data averaging three years for the analysis incorporating discrimination by race and ethnic group. In all cases, we recalculated the state-wide component right indices to include only the indicators available by race/ethnicity.

The ESRF Index adjusted to account for race and ethnic discrimination shows evidence of substantial discrimination. The United States is seriously delinquent in its duty to respect, protect, and promote the economic and social rights of black Americans in particular. Table 8 summarizes our results while Annex D details the results. Data

constraints limit our computation of the aggregate ESRF Index to 26 states. The results show evidence of pervasive and significant discrimination. The ESRF Index adjusted for ethnic and race discrimination setting  $\omega=1$  is nearly 10 points lower than the index without any adjustment for ethnic and racial discrimination. The reduction in the ESRF Index taking ethnic and racial discrimination into account is more than half as great as the variation in the ESRF Index across high income OECD countries.

There is substantial variation across states in the extent to which the ESRF Index declines upon taking ethnic and racial discrimination into account. In California it falls by less than 3 points, whereas in Wisconsin and Missouri it falls by over 18 points. A comparison of economic and social policies in those states where accounting for ethnic and racial discrimination barely budges the ESRF Index with those where declines are large holds the promise of isolating those policies that best respect, protect, and promote economic and social rights. Although the aggregate results for the ESRF index adjusted for race and ethnic discrimination are revealing, as was the case for our ESRF Index adjusted for sex discrimination, the component right indices hold some surprises.

The enjoyment of the right to a quality education differs dramatically across ethnic groups. Table D.1. in Annex D details these differences. The great divide is between Whites and Asians on the one hand and all other ethnic groups on the other. While the marginalized race is blacks in most states, Hispanics fare worst in 8 states. Setting  $\omega=1$  yields a drop in the Education Index of 17 points on average across the states.

The health component right index can be calculated for 43 states. Tables D.2., and D.3. in Annex D detail the results. Without exception when it comes to health, blacks are the marginalized group in each state. The difference in the value of the index

setting  $\omega=1$  hovers around 10 points (5 points setting  $\omega=1/2$ ) in each state. The disadvantage of blacks is greatest for the normal birth weight indicator, whereas Hispanics enjoy the highest level of fulfillment on this indicator. Black children's disadvantage at birth extends to their survival to age 5, although here the gaps are not as large between this indicator for blacks and the relatively most advantaged group, Asians.

Among all the economic and social rights, the United States is most deficient in meeting the right to work. One might hope then that discrimination by race and ethnicity was less marked than along other rights dimensions. Alas, this is a rights dimension where discrimination is most marked as can be seen from tables D.4 and D.5. in Annex D. Whites hold a significant advantage over all other ethnic groups when it comes enjoying access to decent work. The index scores are similar for blacks, Hispanics and Asians. The difference in the value of the decent work index setting  $\omega=1$  is just shy of 20 points. The difference is staggeringly large, between 35 and 45 points in three states, Iowa, Missouri, and Washington State. For Blacks and Hispanics, finding a job providing decent pay is the dimension of the right to work where discrimination is most pronounced. The Relative poverty index scores hover between 10 and 30; they are about 10 points higher for Hispanics. Asians, on the other hand do nearly as well as whites on this aspect of the right to work. However, they fare poorly when it comes to enjoying jobs with benefits and security and on this dimension; their scores are roughly 30 points lower even than those for blacks and Hispanics.

Although not as severe as for the right to work, blacks and especially Hispanics enjoy a far lower level of social security. Adjusting the index for race and ethnic discrimination by setting  $\omega=1$  reduces the social security right index by 20 points, as can

be seen from table D.7. in Annex D. Table D.6. in Annex D. reveals the disadvantage of the most marginalized group, Hispanics, is most strongly related to their lack of health insurance. The gaps between blacks and Hispanics on the one hand and whites on the other remain large when it comes to avoiding absolute poverty. Still, available safety nets, although far from sufficient to fully protect against absolute poverty, do suffice to yield an absolute poverty index that is substantially higher than the health insurance index.

## **6. Summary and Some Final Thoughts**

Evaluation of economic and social rights does not amount to the same thing as evaluation of human development. Economic and social rights evaluation requires looking at the duty bearer's obligation as well as the rights bearer's status. Taking the duty bearer's obligation into account requires identifying a practical means of incorporating the principle of progressive realization. The ESRF Index does just that (Fukuda-Parr et. al. 2009, Randolph et. al. 2009). This paper has investigated the status of Economic and Social Rights Fulfillment in the United States using the ESRF Index.

The United States has long prided herself on being a defender and promoter of human rights. Yet our analysis reveals the United States falls far short of meeting her obligations to respect, protect, and promote economic and social rights. Relative to other high income OECD countries, the United States ranks last. In absolute terms, she has succeeded in meeting just over 75% of her obligation. Our State level analysis reveals some states are far more successful than other in meeting their economic and social rights obligations. Although beyond the scope of our current analysis, the results

hold promise in identifying the policies that best promote economic and social rights. In this regard, no state hold a monopoly on the policies that best promote all economic and social rights, rather some states do better in promoting certain economic and social rights and others excel at promoting other economic and social rights.

An innovation of this paper was to pilot an approach to incorporate discrimination into the ESRF Index. Two different dimensions of discrimination were considered—sex discrimination and discrimination on the basis of race and ethnicity. The results of this effort underscore the importance of the decomposability feature of the ESRF. While in the aggregate there was little evidence of sex discrimination, an examination of the component indicators revealed discrimination across different aspects of component rights. Our analysis of race and ethnic discrimination revealed that discrimination on the basis of race and ethnicity is pronounced. Discrimination is worst for the right to work, but nearly as bad for the right to social security and education. Again, though, there are sharp differences across states and this variation should be exploited in future work to identify policies that help protect against discrimination.

Our analysis has also revealed several methodological issues that bear further attention. First, the index values are sensitive to where the  $X_{min}$  value is set. Although this issue does not pose a conceptual problem, it does present a practical problem. Second, in those cases where progressive realization does not apply at the relevant income levels, the setting of the income level where the penalty kicks in is not without ambiguity. Finally, our adaptation of the index to take into account discrimination was revealing and with further analysis holds the promise of providing useful policy insights. However, data limitations frustrate such explorations. Getting serious about upholding the principle of non-discrimination requires devoting resources to expanding the

availability of key indicators by race and ethnicity as well as other dimensions of discrimination.

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Figure 1: Achievement Possibilities Frontier for Life Expectancy at Birth

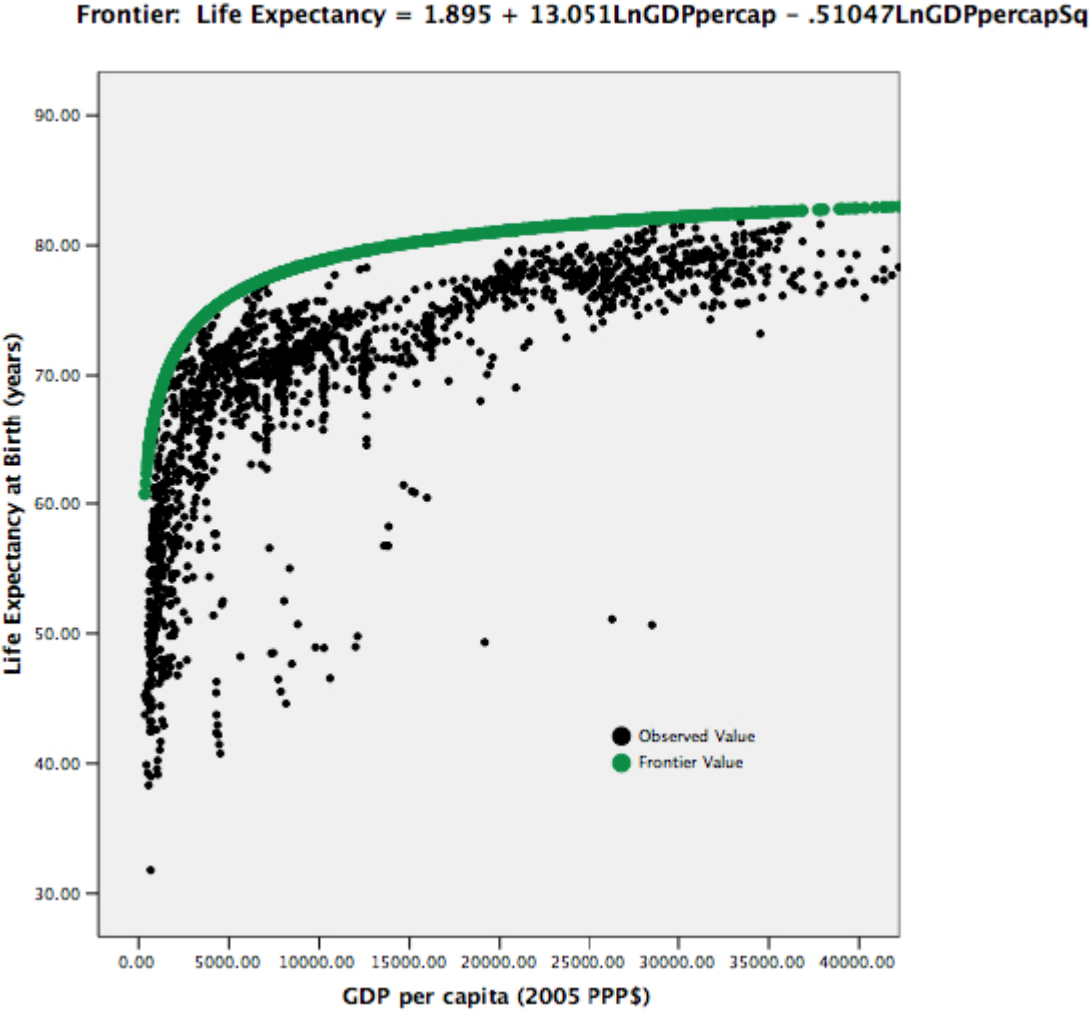


Figure 2: Rescaling Indicator Values

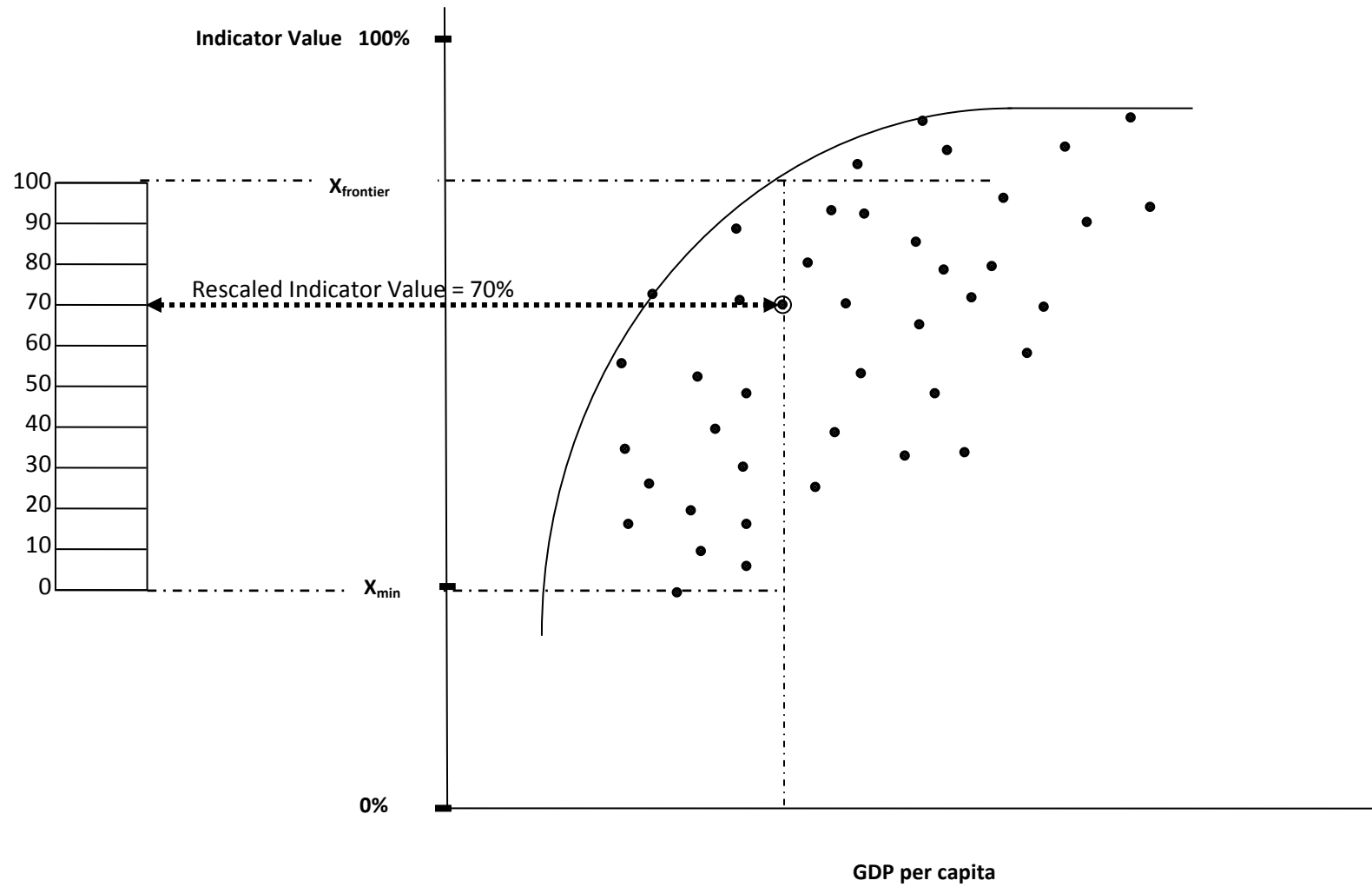


Figure 3: Penalty Comparing  $\beta=1$  with  $\beta=.5$ .

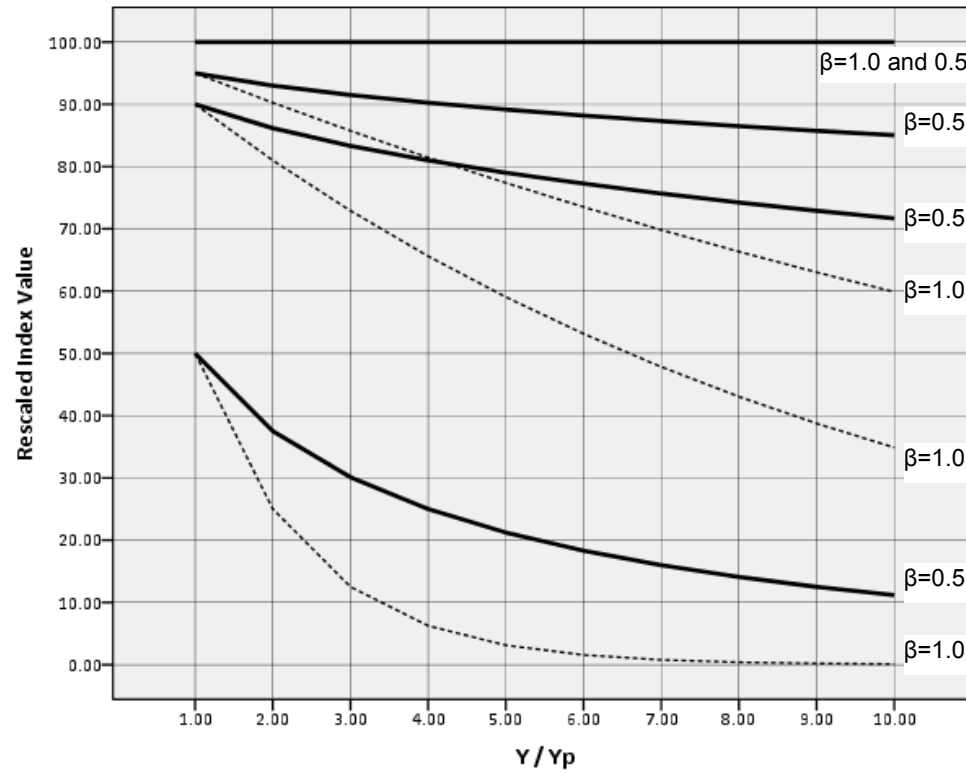


Figure 4: Relationship between ESRF Index and Development Indicators

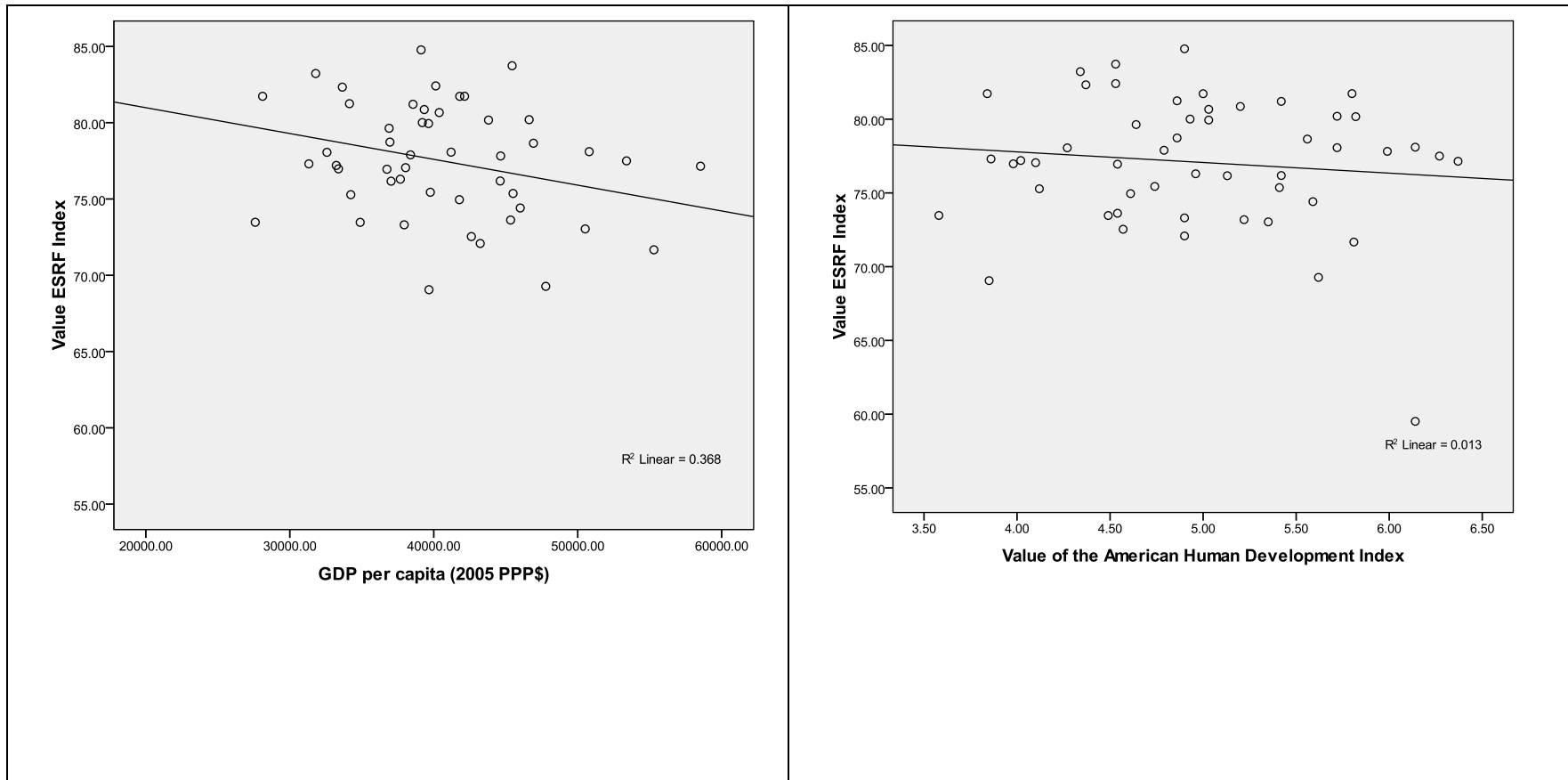


Table 1: Rights Indicators, Frontier Equations, and Xmin, Xp, and Yp Values for International Comparison.

Indicator	Frontier Equation	Minimum Indicator Value, Xmin	Peak Indicator Value, Xp	Income Level when Indicator Reaches Peak, Yp
<b>Right to Food</b>				
% normal (not low)birth weight, NBW	% NBW = 97.1%	40% (Lao, PDR 1991, 1994)	97.1% (Iceland 1992)	\$16,000
<b>Right to Education</b>				
Gross secondary school enrollment rate (Max=100%) , GSE	%G SE = -322.563 + 54.860 Ln(GDP per capita)	5% (Mozambique, 1999)	100%	\$2214
Average math & science PISA score, PISA	PISA = 332.345 + .017203(GDP per capita) - .000000323068(GDPpercapita_squared) 555 for per capita GDP>\$22,190	310 (Peru, 310)	555	\$22,190
<b>Right to Health</b>				
Child (under 5) survival rate, U5S	% U5S = 100.895 – 7334.1/Gdp per capita; Constrained to 99.74 for per capita GDP>\$6350	68% (Niger 1990)	99.74%	\$6350
Live Expectancy, LE	LE = 1.895 + 13.051 (LnGDP per capita) -.51045(Ln GDP per capita_squared)	23 years (Rwanda, 1992)	None over relevant income range	None over relevant income range
<b>Right to Work</b>				
% Not Relatively poor = % with > 50% median income, NRP	NRP% = 97.95%	72% (Peru, 2004)	97.95% (Slovak Republic, 1992)	\$16,000
% LF not long-term unemployed, NLTU	NLTU% = 100%	69% (Armenia, 2001)	100%	\$16,000

\* Minimum values are the minimum value observed for any country between 1990 and 2007, rounded down.

Table 2: ESRF Index and Component Rights Indices for High Income OECD Countries

	Country	2007 GDP per capita (2005 PPP\$)	Right to Health Index	Right to Food Index	Right to Education Index	Right to Work Index	ESRF-2 Index	Rank ESRF-2 Index
1	Finland	33324	96.99	96.55	100.00	85.09	94.66	1
2	Netherlands	36956	96.96	93.52	93.05	89.19; a	93.18	2
3	Sweden	34090	98.45	96.83	87.27	88.94	92.87	3
4	Denmark	34905	95.74	93.89	87.49	88.92	91.51	4
5	Czech Republic	22953	95.54	91.49	85.31	89.16; a	90.38	5
6	Norway	49359	97.14	94.00	81.29	86.01	89.61	6
7	Austria	35537	97.18	89.38	88.37	82.36	89.32	7
8	Canada	36260	97.09	92.07	93.81	72.82	88.95	8
9	Australia	32735	97.96	91.48	92.34	73.65	88.86	9
10	France	31625	98.26	90.72	85.94	79.93	88.71	10
11	Poland	15634	94.45	93.87	94.90	71.36; a	88.64	11
12	Hungary	17894	92.26	90.09	85.16	85.66	88.29	12
13	Belgium	33399	97.40	88.14	90.35	76.15	88.01	13
14	Japan	31689	99.68	84.04	93.37	73.92; a	87.76	14
15	Germany	33181	97.04	90.43	89.07	73.25	87.45	15
16	Switzerland	37581	98.28	89.98	77.25	81.50	86.75	16
17	Slovak Republic	19342	92.72	91.95	84.18	76.83; a	86.42	17
18	United Kingdom	33717	96.20	88.89	83.84	73.17	85.52	18
19	Spain	28536	98.42	90.17	84.09	68.49	85.29	19
20	Ireland	41036	96.41	94.54	86.82	62.89	85.17	20
21	Italy	28682	98.99	91.05	80.54	68.83	84.85	21
22	Greece	26928	97.63	86.59	80.74	65.92	82.72	22
23	Luxembourg	72783	95.92	93.14	68.29	72.80	82.54	23
24	United States	43055	93.77	85.43	67.89	60.79	76.97	24
25	Iceland	36118	98.78	98.44	85.79	.	.	.
26	Korea, Rep.	23399	97.14	96.90	91.80	.	.	.
27	New Zealand	25281	97.62	93.72	93.81	.	.	.
28	Portugal	21169	97.12	90.90	79.30	.	.	.
Total	N	28	28	28	28	24	24	24

a. Data on relative poverty rate (< 50% median income) pre-2000.

Table 3: Rights Indicators, Frontier Equations, Xmin, Xp, and Yp Values for State Level Analysis.

INDICATOR	Frontier Equation (GDP measured in 2005 PPP\$)	Xmin	Xp	Yp (2005 PPP\$)
<b>Food</b>				
Percentage Food Secure (PFS) [2005-2007 Average]	PSF constant at 100%	30%	100%	\$16,000
<b>Education</b>				
Access: Net Secondary School Enrollment Rate (NSE) [2007]	$NSE = -451.1469 + 111.4896(\ln \text{ GDP per capita}) - 5.6421 (\ln \text{ GDP per capita SQ})$ for GDP per capita $\leq$ \$18600; else Xp	2.5%	99.6%	\$18600
Quality: Summed 4 <sup>th</sup> grade reading and math and 8 <sup>th</sup> grade reading and math NAEP scores (SumNAEP) [2007]	$\text{SumNAEP} = 1131.869 - 3582090.314/(\text{GDP per capita});$	590	1131.87	Beyond data range
<b>Health</b>				
Life Expectancy at birth (LE) [2005]	$LE = 1.895 + 13.05 (\ln \text{GDP per capita}) - .51047 (\ln \text{GDP per capita SQ})$	23 years	84 years	Beyond data range
% Under 5 Survival Rate (U5S) [2003-2005 Average]	$U5S = 100.895 - 7334.1/\text{GDP per capita};$ Constrained to 99.74%	68%	99.74%	\$6350
Percentage Normal Birth Weight Babies (NBW) [2004-2006 Average]	NBW constant at 97.1%	40%	97.1%	\$16,000
<b>Decent Work</b>				
Access: 100% - Youth Unemployment Rate (YE) [2005]	YE constant at 97%	55%	97%	\$16,000
Quality:				
% with > 50% median income (NRP) [2007]	NRP constant at 98%	(72%) 45%	98%	\$16,000
100% - involuntary Part-time Employment rate (NIPTE) [2004]	NIPTE constant at 99.5%	(86%) 75%	99.5%	\$16,000
<b>Housing</b>				
Affordable housing: 100% - % renters spending more than 30% income on housing (AH30) [2007]	AH30 constant at 75%	45%	75%	\$16,000
Homeless Students: % students in school that are homeless (HS) [2007]	HS constant at 100%	95	100	\$16,000
<b>Social Security</b>				
% with Health Insurance (HI) [2006-2007 Average]*	Constant at 100%	0%	100%	\$16,000
Absolute Poverty Rate (US standard) (NAP) [2007]	$NAP = 33.503 + .002495788 (\text{GDP per capita}) - 2.5865E-8(\text{GDP per capita SQ})$ for GDP per capita $\leq$ \$48,600; else Xp	30%	93.7%	48,600

**Table 4: Economic and Social Rights Fulfillment, ESRF, Index by State**

	State	2007 GDP per capita (2005 PPP\$)	Value Right to Food Index	Value Right to Education Index	Value Right to Health Index	Value Right to Work Index	Value Right to Housing Index	Value Right to Social Security Index	Value ESRF Index	Rank ESRF Index
1	North Dakota	39117.91	86.04	97.20	94.02	79.45	63.24	88.68	84.77	1
2	Wyoming	45442.13	77.32	93.07	90.12	75.87	79.12	86.91	83.73	2
3	Montana	31796.97	81.61	95.10	93.06	73.05	68.30	88.22	83.22	3
4	South Dakota	40134.93	79.08	94.76	92.49	77.00	63.64	87.50	82.41	4
5	Idaho	33648.35	77.28	95.22	93.56	77.68	60.78	89.47	82.33	5
6	New Hampshire	42140.77	82.74	96.88	93.58	76.42	49.41	91.38	81.73	6
7	West Virginia	28107.75	80.25	94.30	89.86	70.70	64.35	90.92	81.73	7
8	Nebraska	41802.52	79.13	94.02	93.08	74.54	62.53	87.06	81.73	8
9	Maine	34143.33	73.63	97.73	93.35	73.83	55.88	93.06	81.25	9
10	Vermont	38557.54	78.45	97.56	94.24	77.86	48.29	90.84	81.21	10
11	Wisconsin	39338.90	80.64	95.47	93.00	73.95	50.61	91.51	80.86	11
12	Iowa	40380.73	74.91	94.95	93.43	76.88	53.92	89.91	80.67	12
13	Minnesota	46626.02	78.09	95.78	94.21	76.76	46.04	90.32	80.20	13
14	Hawaii	43803.85	81.15	87.43	93.21	78.89	47.93	92.42	80.17	14
15	Kansas	39203.60	72.74	95.95	92.17	72.96	57.87	88.34	80.01	15
16	Pennsylvania	39635.44	78.58	95.27	90.93	71.73	53.34	89.81	79.94	16
17	Indiana	36896.71	78.69	94.74	90.43	70.37	54.36	89.21	79.64	17
18	Utah	36953.09	74.45	94.06	94.15	77.32	43.36	89.03	78.73	18
19	Virginia	46923.68	81.31	94.48	90.48	72.24	47.73	85.68	78.65	19
20	New Jersey	50796.68	78.80	94.59	91.22	71.77	47.10	85.13	78.10	20
21	Rhode Island	41202.68	76.26	90.35	92.30	71.03	49.58	88.89	78.07	21
22	South Carolina	32578.34	74.42	92.93	88.60	67.70	57.89	86.81	78.06	22
23	Ohio	38380.52	74.37	96.14	90.17	69.16	49.19	88.32	77.89	23
24	Maryland	44644.98	80.48	92.65	89.58	73.04	43.39	87.76	77.82	24
25	Massachusetts	53388.83	80.31	96.58	92.14	69.05	36.75	90.15	77.50	25
26	Arkansas	31323.42	72.51	92.82	89.57	72.66	51.75	84.50	77.30	26
27	Oklahoma	33227.79	74.68	92.52	90.15	68.89	52.83	84.12	77.20	27
28	Connecticut	58530.29	77.59	92.79	91.65	62.73	48.01	90.10	77.15	28
29	Tennessee	38044.52	73.19	90.83	88.28	70.77	55.38	83.88	77.05	29
30	Alabama	33377.75	76.50	88.55	87.62	73.55	49.34	86.29	76.97	30
31	Missouri	36745.63	73.51	92.83	90.65	69.42	47.48	87.82	76.95	31



	State	2007 GDP per capita (2005 PPP\$)	Value Right to Food Index	Value Right to Education Index	Value Right to Health Index	Value Right to Work Index	Value Right to Housing Index	Value Right to Social Security Index	Value ESRF Index	Rank ESRF Index
32	Florida	37678.08	80.87	91.95	91.13	75.64	35.65	82.54	76.30	32
33	Illinois	44613.41	78.47	91.77	90.41	71.29	40.19	84.95	76.18	33
34	Michigan	37034.27	75.42	92.88	90.80	67.71	42.05	88.13	76.17	34
35	Georgia	39761.72	72.41	90.21	88.60	72.32	47.26	81.84	75.44	35
36	Washington	45507.52	77.17	92.87	93.77	66.83	34.73	86.81	75.36	36
37	Kentucky	34235.78	74.76	93.47	89.76	68.92	40.06	84.72	75.28	37
38	North Carolina	41777.71	72.57	91.41	89.10	68.34	47.00	81.30	74.95	38
39	Colorado	46008.14	74.84	92.33	90.68	70.84	35.60	82.17	74.41	39
40	Nevada	45337.27	76.04	85.19	89.90	74.54	33.98	82.06	73.62	40
41	Mississippi	27598.12	68.84	90.17	86.78	64.79	45.91	84.35	73.47	41
42	New Mexico	34888.61	70.21	88.84	91.34	69.47	42.81	78.14	73.47	42
43	Arizona	37946.43	74.75	88.71	92.48	69.35	33.12	81.43	73.31	43
44	Delaware	63699.93	76.68	88.17	86.83	70.21	32.17	85.07	73.19	44
45	Alaska	50520.44	70.65	87.26	92.65	65.90	38.55	83.22	73.04	45
46	Texas	42612.07	68.12	91.85	90.81	65.68	44.61	74.16	72.54	46
47	Oregon	43227.69	72.77	90.43	93.66	68.19	25.56	81.90	72.08	47
48	New York	55290.95	75.76	91.12	91.31	66.35	23.32	82.14	71.67	48
49	California	47779.46	76.24	87.28	93.30	66.80	11.68	80.34	69.27	49
50	Louisiana	39667.01	75.13	87.81	85.93	67.25	21.50	76.70	69.05	50
51	District of Columbia	142541.23	57.93	71.20	76.94	53.09	24.67	73.23	59.51	.
53	United States	42868.02	75.70	.	.	.	.	.	.	.
Total	N	52	52	52	51	51	51	51	51	50

Table 5: Summary Right Component Index Ranges

Right	Component Right Index Range	Number of States Index >90%	Number States Index < 75%	Mean	Standard Deviation
Food	68.12% - 86.04%	0	20	76.4	3.67
Education	85.19% – 97.73%	41	0	92.6	3.05
Health	85.93%---94.24%	37	0	91.2	2.11
Decent Work	62.73%---79.45%	0	39	71.6	4.01
Decent Housing	11.18% -- 79.12%	0	49	46.7	12.48
Social Security	75.18%---92.10%	9	2	86.1	4.1

Table 6: Best Performing and Worst Performing States

State	ESRF	Food	Education	Health	Work	Housing	Social Security
<b>Top 5 Performing States</b>							
Connecticut							X
Hawaii		X			X		X
Idaho	X				X		
Maine			X				X
Massachusetts			X				X
Minnesota				X			
Montana	X	X				X	
New Hampshire		X	X				X
North Dakota	X	X	X	X	X	X	
South Dakota	X					X	
Utah				X	X		
Vermont			X	X	X		
Virginia		X					
Washington State				X			
West Virginia						X	
Wyoming	X					X	
<b>Worst 5 Performing States</b>							
Alabama				X			
Alaska		X	X				
California	X		X			X	
Connecticut					X		
Delaware				X	X	X	
Georgia		X					X
Hawaii			X				
Indiana					X		
Kentucky							X
Louisiana	X		X	X			X
Mississippi		X		X			
Nevada			X				
New Mexico		X					X
New York	X					X	
Oregon	X					X	
Tennessee				X	X		
Texas	X	X				X	X
West Virginia					X		

**Table 7: ESRF Index Adjusted for Sex Discrimination by State**

State	2007 GDP per capita (2005 PPP\$)	Marginalized Sex	Value ESRF Index: $\omega=0$	Value ESRF Index: $\omega=1$	Value ESRF Index: $\omega=1/2$	Difference Value ESRF Index: $\omega=1 - \omega=0$	Difference Value ESRF Index: $\omega=1/2 - \omega=0$
Alabama	33378	female	85.84	85.54	85.69	-.30	-.15
Alaska	50520	Male	82.93	82.36	82.64	-.57	-.29
Arizona	37946	Male	84.22	83.53	83.87	-.69	-.34
Arkansas	31323	Male	86.36	86.35	86.35	-.01	.00
California	47779	Male	83.16	82.79	82.98	-.37	-.19
Colorado	46008	Male	85.58	85.08	85.33	-.50	-.25
Connecticut	58530	female	85.59	85.29	85.44	-.30	-.15
Delaware	63700	Male	84.00	84.03	84.02	.03	.01
District of Columbia	142541	Male	69.22	68.01	68.61	-1.21	-.61
Florida	37678	Male	86.61	86.23	86.42	-.38	-.19
Georgia	39762	Male	84.90	84.62	84.76	-.28	-.14
Hawaii	43804	Male	88.83	88.27	88.55	-.56	-.28
Idaho	33648	Male	89.78	89.70	89.74	-.08	-.04
Illinois	44613	Male	85.94	85.31	85.62	-.63	-.32
Indiana	36897	female	87.36	87.07	87.22	-.29	-.15
Iowa	40381	female	89.85	89.50	89.68	-.35	-.18
Kansas	39204	Male	88.33	87.96	88.15	-.38	-.19
Kentucky	34236	Male	85.87	85.64	85.76	-.23	-.11
Louisiana	39667	female	81.24	80.80	81.02	-.44	-.22
Maine	34143	Male	90.34	89.60	89.97	-.74	-.37
Maryland	44645	female	87.21	87.16	87.18	-.06	-.03
Massachusetts	53389	Male	88.39	88.05	88.22	-.35	-.17
Michigan	37034	female	86.11	85.74	85.92	-.37	-.18
Minnesota	46626	female	90.17	89.82	90.00	-.35	-.18
Mississippi	27598	female	83.44	83.04	83.24	-.40	-.20
Missouri	36746	female	86.33	85.65	85.99	-.68	-.34

State	2007 GDP per capita (2005 PPP\$)	Marginalized Sex	Value ESRF Index: $\omega=0$	Value ESRF Index: $\omega=1$	Value ESRF Index: $\omega=1/2$	Difference Value ESRF Index: $\omega=1 - \omega=0$	Difference Value ESRF Index: $\omega=1/2 - \omega=0$
Montana	31797	female	88.46	88.38	88.42	-.08	-.04
Nebraska	41803	Male	88.17	87.83	88.00	-.34	-.17
Nevada	45337	Male	84.50	84.48	84.49	-.02	-.01
New Hampshire	42141	Male	90.73	90.16	90.44	-.57	-.29
New Jersey	50797	Male	87.19	87.06	87.13	-.13	-.07
New Mexico	34889	Male	83.41	82.70	83.06	-.71	-.35
New York	55291	Male	84.18	83.31	83.74	-.87	-.44
North Carolina	41778	female	83.95	83.50	83.72	-.46	-.23
North Dakota	39118	female	90.61	89.73	90.17	-.88	-.44
Ohio	38381	Male	87.25	87.14	87.20	-.11	-.05
Oklahoma	33228	female	85.45	85.40	85.43	-.05	-.02
Oregon	43228	Male	84.55	84.05	84.30	-.50	-.25
Pennsylvania	39635	Male	88.24	88.08	88.16	-.16	-.08
Rhode Island	41203	female	86.78	86.72	86.75	-.06	-.03
South Carolina	32578	Male	85.64	85.13	85.38	-.51	-.25
South Dakota	40135	female	88.65	88.80	88.73	.15	.07
Tennessee	38045	female	84.92	84.59	84.76	-.34	-.17
Texas	42612	Male	82.16	82.16	82.16	.00	.00
Utah	36953	female	89.48	89.38	89.43	-.10	-.05
Vermont	38558	female	90.95	90.33	90.64	-.62	-.31
Virginia	46924	female	86.96	86.59	86.78	-.37	-.18
Washington	45508	Male	86.21	85.43	85.82	-.78	-.39
West Virginia	28108	Male	87.87	87.22	87.54	-.65	-.33
Wisconsin	39339	Male	89.45	89.36	89.40	-.09	-.04
Wyoming	45442	female	87.80	87.49	87.65	-.30	-.15
51	51	51	51	51	51	51	51

**Table 8: ESRF Index Adjusted for Ethnic and Racial Discrimination by State**

State	2007 GDP per Capita (2005 PPP)	ESRF Index Value				ESRF Index Adjusted for Race Discrimination					
		White	Black	Hispanic	State	Marginalized Race	Value of Index: $\omega=0$	Value of Index: $\omega=1$	Value of Index: $\omega=1/2$	Difference Value Index: $\omega=1 - \omega=0$	Difference Value Index: $\omega=1/2 - \omega=0$
Alabama	33378	89.2	68.0	.	76.2	.	76.2	.	.	.	.
Alaska	50520	88.3	.	.	76.2	.	76.2	.	.	.	.
Arizona	37946	90.2	.	70.3	75.2	.	75.2	.	.	.	.
Arkansas	31323	89.2	66.8	71.0	77.6	Black	77.6	66.8	72.18	-10.81	-5.41
California	47779	87.5	69.7	68.5	71.2	Hispanic	71.2	68.5	69.86	-2.69	-1.35
Colorado	46008	88.1	69.3	65.8	75.5	Hispanic	75.5	65.8	70.64	-9.65	-4.82
Connecticut	58530	89.2	65.5	65.4	77.3	Hispanic	77.3	65.4	71.31	-11.90	-5.95
Delaware	63700	87.7	68.3	.	75.7	.	75.7	.	.	.	.
District of Columbia	142541	.	56.6	59.4	62.8	.	62.8	.	.	.	.
Florida	37678	90.1	70.3	77.4	77.7	Black	77.7	70.3	74.02	-7.42	-3.71
Georgia	39762	89.9	70.3	69.1	75.5	Hispanic	75.5	69.1	72.31	-6.43	-3.22
Hawaii	43804	87.1	.	78.3	78.0	.	78.0	.	.	.	.
Idaho	33648	89.7	.	71.1	81.2	.	81.2	.	.	.	.
Illinois	44613	88.8	65.1	73.2	76.1	Black	76.1	65.1	70.58	-10.99	-5.50
Indiana	36897	89.6	69.4	73.5	80.8	Black	80.8	69.4	75.11	-11.35	-5.67
Iowa	40381	89.5	.	72.9	81.7	.	81.7	.	.	.	.
Kansas	39204	89.8	70.6	69.9	80.7	Hispanic	80.7	69.9	75.31	-10.80	-5.40
Kentucky	34236	85.9	68.0	.	77.8	.	77.8	.	.	.	.
Louisiana	39667	86.9	62.5	.	71.1	.	71.1	.	.	.	.
Maine	34143	89.8	.	.	82.8	.	82.8	.	.	.	.
Maryland	44645	90.9	74.6	73.8	79.1	Hispanic	79.1	73.8	76.45	-5.24	-2.62
Massachusetts	53389	89.5	.	68.0	80.8	.	80.8	.	.	.	.
Michigan	37034	88.3	63.8	71.8	76.4	Black	76.4	63.8	70.13	-12.60	-6.30
Minnesota	46626	90.6	65.7	66.8	81.0	Black	81.0	65.7	73.37	-15.34	-7.67
Mississippi	27598	91.3	68.0	.	75.3	.	75.3	.	.	.	.
Missouri	36746	88.8	60.7	73.5	79.0	Black	79.0	60.7	69.85	-18.25	-9.12
Montana	31797	89.6	.	.	81.4	.	81.4	.	.	.	.
Nebraska	41803	89.1	.	66.4	79.6	.	79.6	.	.	.	.
Nevada	45337	86.9	70.7	70.5	75.0	Hispanic	75.0	70.5	72.78	-4.52	-2.26
New Hampshire	42141	89.4	.	.	83.1	.	83.1	.	.	.	.
New Jersey	50797	90.3	70.8	70.9	78.8	Black	78.8	70.8	74.80	-8.00	-4.00

State	2007 GDP per Capita (2005 PPP)	ESRF Index Value				ESRF Index Adjusted for Race Discrimination					
		White	Black	Hispanic	State	Marginalized Race	Value of Index: $\omega=0$	Value of Index: $\omega=1$	Value of Index: $\omega=1/2$	Difference Value Index: $\omega=1 - \omega=0$	Difference Value Index: $\omega=1/2 - \omega=0$
New Mexico	34889	89.4	.	74.8	73.7	.	73.7	.	.	.	.
New York	55291	87.5	69.6	69.5	74.7	Hispanic	74.7	69.5	72.11	-5.24	-2.62
North Carolina	41778	87.9	69.1	64.7	74.6	Hispanic	74.6	64.7	69.67	-9.90	-4.95
North Dakota	39118	90.7	.	.	83.1	.	83.1	.	.	.	.
Ohio	38381	89.0	66.8	70.3	79.3	Black	79.3	66.8	73.03	-12.47	-6.23
Oklahoma	33228	87.9	69.8	68.1	77.3	Hispanic	77.3	68.1	72.70	-9.17	-4.59
Oregon	43228	84.9	.	62.8	74.4	.	74.4	.	.	.	.
Pennsylvania	39635	90.0	69.0	70.3	80.3	Black	80.3	69.0	74.64	-11.38	-5.69
Rhode Island	41203	88.7	65.1	65.3	77.6	Black	77.6	65.1	71.37	-12.46	-6.23
South Carolina	32578	90.3	70.3	72.4	77.2	Black	77.2	70.3	73.76	-6.85	-3.42
South Dakota	40135	90.9	.	.	82.2	.	82.2	.	.	.	.
Tennessee	38045	86.5	68.8	69.2	76.0	Black	76.0	68.8	72.40	-7.28	-3.64
Texas	42612	89.2	69.7	69.6	72.7	Hispanic	72.7	69.6	71.14	-3.08	-1.54
Utah	36953	89.5	.	68.5	80.5	.	80.5	.	.	.	.
Vermont	38558	89.9	.	.	83.8	.	83.8	.	.	.	.
Virginia	46924	89.0	72.7	72.7	78.6	Hispanic	78.6	72.7	75.65	-5.98	-2.99
Washington	45508	87.2	.	67.9	76.3	.	76.3	.	.	.	.
West Virginia	28108	86.6	.	.	79.8	.	79.8	.	.	.	.
Wisconsin	39339	90.8	62.6	70.7	80.9	Black	80.9	62.6	71.75	-18.33	-9.16
Wyoming	45442	86.3	.	.	78.9	.	78.9	.	.	.	.
51	51	50	32	37	51	26	51	26	26	26	26

