Testing a Theory of Modern Slavery

Kevin Bales[1]

Introduction

It is a simple yet potent truth that slavery is a relationship between (at least) two people. Like other common and patterned relationships in human societies, slavery takes various forms and achieves certain ends. The ends or outcomes of slavery tend to be more similar across time and cultures, the forms less so. The different outcomes of slavery are exploitative in nature: appropriation of labor for productive activities resulting in economic gain, use of the enslaved person as an item of conspicuous consumption, sexual use of an enslaved person for pleasure and procreation, and the savings gained when paid servants or workers are replaced with unpaid and unfree workers. Any particular slave may fulfill one, several, or all of these outcomes for the slaveholder.

While the outcomes of slavery tend to be similar, the forms of enslavement are more varied. There is a core of central attributes that define a relationship as slavery, but these attributes are embedded in a wide variety of forms reflecting cultural, religious, social, political, ethnic, commercial, and psychological influences and combinations of these influences. The mix of influences that dictate the form of any particular slave/slaveholder relationship may be unique, but follow general patterns reflective of the community and society in which that relationship exists. This is part of the challenge of understanding slavery both historically and today – to parse out the underlying attributes shared by all forms of slavery and to analyze and understand the dynamic and various forms slavery can take in individual cases. The extremely variant nature of the forms of slavery across time and across different societies means that the underlying nature of the slavery relationship - the attributes that indicate that this particular relationship is, in fact, slavery – can be obscured. Religious justifications, "willing" participation, token "payments", the apparent acquiescence in a "contract", and any number of other layers of meaning, rationalization, or explanation can be used as part of the societal or community discourse explaining and rationalizing the slave/slaveholder relationship.

Ten years ago I began to explore the world of contemporary slavery. I quickly found significant confusion in both the academic analysis of slavery and on the ground concerning what constituted a slave/slaveholder relationship. For example, relationships that would be termed "bondage" in one part of India would be explained as "attached labor" not far away. The same relationships would be seen as "slavery" by some local commentators and "charitable help for poor families" by others. In an attempt to understand this I looked carefully at the descriptions and analysis of past and current slavery, and I spoke with and observed people in several countries and social contexts that appeared to me to be slaves and slaveholders. I looked for the common elements shared by such relationships across time and space, and sought to separate out the essential nature of the slavery relationship. I was hoping to determine the core or essential reality of slavery, and what was the cultural and social packaging of slavery.

A Theory of Modern Slavery

In 1999, I published my first, tentative, notions about the nature of slavery[2]. In that work I set out an implicit theory of contemporary slavery, but I did not state the theory formally because I felt it was too early to attempt such an exercise. This implicit theory made the following assertions and developed the following explanation:

In contemporary slavery, the core attributes of slavery remain the same as they have always been. They are the same attributes that determined the status of enslavement in the past – the state of control exercised over the slave, a control based on the potential or actual use of violence; a lack of any remuneration beyond subsistence; and the appropriation of the labor or other qualities of the slave for economic gain. It is my assertion that all slavery shares these attributes while recognizing that there can be occasional exceptions, such as gifts or remuneration beyond subsistence. I would also assert that the key and central attribute, the core, of slavery is the condition of potentially violent control of one person by another.

These assertions I lodged within the context that slavery is a social, economic, and often emotional relationship. I asserted that to understand slavery we must use that relationship as our point of inquiry, that it is the nature of that relationship that determines whether the interaction we are observing is or is not slavery[3]. While any slave/slaveholder relationship may have these essential attributes, the social and cultural "packaging" of that relationship can take various forms. Through history and across cultures we see dynamic change in the packaging that occurs, for example, when the relationship is legally sanctioned, when that sanction is removed, when different notions of racialization obtain, or when the price and value of slaves goes up or down. Some of these changes have been slight and gradual; others have been dramatic and abrupt. At times the change has been fundamental, and the condition of potential violent control ends, and with it the state of enslavement. At that point the relationship ceases to be slavery, though it may be exploitative and controlling, or it may be reflective of extreme differences in power.

My argument builds into a theory of *modern* or *contemporary* slavery through a set of assertions concerning the impact of global demographic and economic change on the nature of the slavery relationship over the past fifty to sixty years. I assert that since about 1950, the nature of both the packaging of slavery and the way the basic relationship is acted out have been significantly altered by a change in the economic equation of slavery. This major alteration in the nature of slavery is based upon a dramatic fall in the price of slaves. This alteration of the basic economic component of the slavery relationship has changed the way that slaves are treated and the way that they fit within local and global economies. This unprecedented fall in the price of slaves has had numerous results outside the slave/slaveholder relations as well. In particular, it has dramatically increased the profits of some slaveholders. Yet paradoxically, because these profits are lodged within a general context of illegality, they do not serve as a stimulus to national economies. In fact, slavery today can be thought of as a drag on economies, preventing development.

That slavery acts as a sheet-anchor on economies is not a new assertion. What is new is that it continues to do so even when the economic equation of slavery is dramatically altered. A key assertion is that even with significantly increased levels of profit, even with a new orientation to the exploitation of slaves, even with the transformation of slaves from capital investments to disposable inputs in an economic process, the relationship remains one that confounds and hinders economic development.

Finally, in my theory of contemporary slavery I asserted an explanation as to why this dramatic fall in the price of slaves had occurred. I argued that at the most basic level the price of slaves had fallen to an all time low because of the increase in the supply of potential slaves. I argued that this process was supported primarily by three factors: 1. the population explosion and especially its impact on the developing world; 2. the alterations of the global economy that increased disparities and impoverished large numbers, again especially in the developing world; 3. the absence of the rule of law in many countries, due to high levels of corruption, providing for potential slaveholders the opportunity to exercise violent control with impunity. Let me expand on the explanation of each of these factors in turn.

Since 1945 the global population has increased from something like 2 billion to 6.4 billion at the time of this writing (September 2004). Most of this growth has occurred in the developing world. Many of the countries of the Global South now have population profiles that are heavily weighted to the young. For example, today over 47 per cent of Africa's population is between the ages of 5 and 24, indicating that the momentum for further population growth is considerable. There are now 426 cities on the world with populations of more than 1 million people, most of these are in the developing world, Mumbai alone has 20 million inhabitants. And in spite of large scale migration to urban areas in the Global South, population pressure in rural areas also remains severe. Significantly increased populations do not, however, in and of themselves create the possibility of enslavement. But increased populations do increase pressure on resources of all sorts, exacerbating impoverishment if productivity increases do not match population growth.

The second factor supporting the drop in the price of slaves is the rapid change in the global economy that has increased impoverishment and vulnerability of sizable parts of the population in the Global South. I appreciate that in briefly discussing the process of economic globalization I am not doing justice to the nuances of this transformation, but I believe we can identify certain patterns. For example, I think it is fair to say that in many developing countries the post-colonial period brought immense wealth to the elite and continued or increased the poverty of significant portions of the population. Throughout Africa, Asia and much of South America, the past fifty years have been scarred by civil war and the wholesale looting of resources by dictators, who were often supported by the powerful nations of Europe and the Cold War superpowers. Countries with little power over the prices of the commodities they sell on the world market have fallen deeply into debt. Meanwhile, traditional ways of agricultural life and farming have been sacrificed to concentrate on cash crops both to serve the elites and to pay off foreign debts. As the

world economy grew and became more global, it had a profound impact on people in the Global South and the subsistence farming that supported them. The shift from small-scale farming to cash-crop agriculture, the loss of common land shared by communities, and government policies that pushed down farm income in favor of cheap food for city workers have all helped to bankrupt millions of peasants and drive them from their land. Across the Global South the slums and shantytowns that surround big cities hold millions of these displaced people. They come to the cities in search of jobs but find they are competing for jobs with thousands of other people. With little income and no job security, they are powerless and very vulnerable. Like population pressure, that increased vulnerability does not, in itself, "cause" enslavement. To convert the abundant and vulnerable into slaves requires the third supporting factor, the third leg of the stool, governmental corruption.

It is often possible to induce a person to enter into a situation of enslavement without using violence. When the economically desperate are promised work they are often ready to take such a risk. Enticement can bring a person into a context where enslavement is possible, but to retain a person in slavery requires the ability to use violence to enforce control over them. This ability to use violence to enforce the condition of enslavement requires that the slaveholder can avoid interference from the state or community. A fundamental concept of government is that it should have a monopoly on violence and use that potential violence to protect its citizens, from each other if necessary. When that basic rule of law no longer holds, the potential for violence flows into the hands of those with the resources needed to mobilize violence. In many countries and for several reasons, the rule of law has collapsed, and the "right" to use violence with impunity is up for sale by corrupt officials. When extreme economic, social and political vulnerability in one part of the population is matched by the ability of another part of the population to mobilize the means of violence and the "right" to exercise it with impunity, the result can be slavery. In many countries in the developing world, the official organs of potential violence, the police and army, are themselves for sale or rent, and can be used to maintain control over enslaved persons.

If these factors supported an increase in enslavement in some countries, as well as a drop in price of slaves worldwide, it leaves open several questions about the role of slavery in the social and economic development of countries. Here there is an interesting tension in the theory. My estimate of the total number of slaves in the world, while rough, suggests that today the largest *number* of people in human history live in slavery. At the same time, the estimated total of 27 million in slavery is just .004% of the world population, possibly the lowest *proportion* of the world population in slavery in human history. The dramatic potential for increased profits from cheaper slaves exists, but the proportion of the workforce in any country held in slavery is likely to be very small. That said, the countries with larger proportions of their populations in slavery, should reflect that fact in their development. Slavery is a potential distortion of local economies that should have a visible result.

Slavery distorts local economies in two crucial ways, ways that spread up the economic ladder and affect economic and social development. The first is that enslaved

labor can depress the wages of free labor in the same economic sector in which they work. Most slaves today are used at the lower end of the production ladder, growing or processing raw materials. For the poorest workers who are not enslaved, enslaved workers represent severe competition. The second way that slavery distorts economies is by the removal of enslaved workers and their families from local economies as consumers. While it is true that slaveholders make profits from their enslaved workers and that they enjoy the benefit of those profits, they are not as likely to spend those profits in the ways that average workers do – for local food, housing, clothing, and so forth – that benefits directly local shops and artisans. Likewise, enslaved families are unlikely to buy school supplies, pay teachers, access medical care or other services that both are part of the local economy and benefit the community. Slaves may make a lot of money for slaveholders, but they tend to be a drag on a country's economy. They contribute only a little to national production, their work is concentrated at the lowest end of the economic ladder, in the basic low-skill jobs that are dirty and dangerous. Slaves work both ineffectively and as little as they can. The value of their work is stolen and pocketed by criminals, who are less likely to spend it on necessities. Slaves are not able to acquire assets. Just as it is for free working poor, asset acquisition is a determining factor in their achievement of economic autonomy. Economically, except for the criminals, slaves are something of a waste. They contribute next to nothing to a country's economy; they buy nothing in a country's markets. They are an untapped economic resource. This was the least explicitly stated portion of my theory of contemporary slavery in 1999. At that time, in part due to the extreme paucity of information concerning the links between slave-based production and the global economy I restricted myself to general statements about the negative impact of slavery on communities and nations. In particular, I pointed to the fact that:

> Sometimes economic growth is presented as a tide that raises all boats, the idea that industrializing the economies of Thailand or Brazil will improve the lives of everyone, rich and poor. This is certainly not true in the short term. Professor Lae Dilokvidhyarat, and economist in Thailand observes, "Some people gain greater benefit from development … but the weaker people pay more than they get in return, much more."[4]

If my theory that the nature of contemporary slavery arose out of certain factors and resulted in a dramatic fall in the price of slaves, it was my implied assertion that the amount of slavery in a country would be a predictor of its level of economic and human development, particularly that slavery would hinder the development of the poorest members of a society.

A Re-Statement

Taking these separate assertions together, this was my theory of modern slavery - I asserted that: the price of slaves has fallen to an all-time low; that this fall has been driven by the three supporting factors of population growth, economic change, and governmental corruption; finally that this alteration in the economic equation of slavery has not altered the effect of slavery as a drag on economies and development. This theory

was based on my observations, and it was supported by the case studies that I carried out on five slave-using economic sectors in five countries. But those case studies did not represent a sufficient test of the theory. While this theory, like all theories, can never be proven, it needs further testing to determine if it is supported generally, rather than simply by individual case studies.

To determine if this theory is generally supported requires three separate tests: 1. a determination as to whether the price of slaves has indeed fallen to an all-time low; 2. the test of a predictive model that explores whether population growth, impoverishment, and corruption are indeed significant causal factors predicting the prevalence of slavery across countries; and 3. a test of the role slavery plays in the social and economic development of nations, particularly whether slavery acts as a drag on development. This paper deploys these three tests, and through them a first, albeit tentative, test of this theory of modern slavery.

Test 1 - Has the price of slaves fallen to an all-time historical low?

My original assertion that slaves were less expensive today than at any time in the past was based on observations in the field. In a marketplace in the central region of the Ivory Coast our local researcher easily purchased two 19 year old agricultural workers for about $30 each. In India, bonded laborers were able to give me precise sums that represented the acquisition cost required to enslave their family (often the debt being taken some generations previously and passed down) – these ranged from as little as $10 to over $100. In Brazil, desperate urban workers placed themselves in the hands of recruiters only to find themselves held under violence far in the forests and charged with a "debt" amounting to a few hundred dollars. Even in Thailand, where teenagers were sold into prostitution, and a premium was charged for their virginity and attractiveness, prices rarely went over $1000.

At the same time a rough and preliminary review of historical prices suggested much higher prices for slaves in the past. The easiest comparison, because of its excellent documentation, was to the cost of African-American slaves in the 1850's and 1860's. A generally agreed cost of around $1000 to $1200 for an "average" slave in that period translates to about $40,000 in contemporary currency[5]. Even given the difficulty of making comparisons between the "true" values of currencies across time, this difference is dramatic, with current prices representing from .00075% to .025% of the American antebellum rate.

This evidence, however, was piecemeal. While I did not originally set out to discover that the price of slaves was at an all-time low, I was struck by what seemed to me a remarkable inexpensiveness of slaves around the world. However, translating this observation into a more general test was a challenge for two key reasons. Firstly, the records of slave prices are patchy across time. The wealth of price information for American slavery is not matched elsewhere. Secondly, is the extreme difficulty of comparing costs over time, if a slave in ancient Sumer sold for 30 silver shekels, how could that be brought into comparability with current prices? Put another way, this is a

question of equivalence both over time and between places which is very difficult to determine.

I met this challenge with a mixture of ignorance and industry. Here I have to acknowledge a special debt to Professor Winthrop Jordan who helped me to see the hopelessness of my original plans to test this assertion and at the same time allowed me to ransack his extensive library. Having access to such a rich collection of information about historical slavery, combined with other sources, allowed me and my researchers to locate and record many instances of the prices recorded for slaves over a very long period of time. What became clear as we did so was that attempting to determine equivalent and comparable monetary values across time would be very difficult if not impossible. That said, there were some constants over time. The most important of these was that the actual "object" for sale, the slave, tended to remain basically the same, within a certain range of capabilities and usefulness. That is to say that on offer in ancient Sumer was one human being, let us say a young male agricultural worker, with the capacity for intelligent work and the physical strength equivalent to other members of his society (or species for that matter). True, special skills or special attributes garnered special prices, but such variations in price and "product" tended to be recorded. Throughout history the basic slave "product" (as opposed to special cases) can be thought of as the productive capacity of one human being.

While monetary equivalents proved elusive, as we recorded slave sale records we noted that the value of slaves was often recorded in non-monetary ways. Some of these were not useful, what, for example, was the value of a "roll" of tobacco? What did that tell us about a slave that cost 10 to 20 rolls[6]? On the other hand, we found three items that had relative equivalents in different places and time periods and comparability within their own context: oxen; land; and "wages". I defined these loosely since the historical record usually failed to define them, and admit once more that this is a tentative and exploratory test. In many ways the easiest equivalent was oxen. In the same way that the slave represents the productive capacity of one human being, the ox represents the productive capacity of one ox. It brings much greater muscle power to the task, but much less intelligence. The beginning of an understanding of equivalents occurred when I noted that the price of slaves was sometimes given at different times and places as a certain number of oxen. For the modern historical period, it was also possible to find the cost of a slave in, for example, 1850 US dollars, and then to discover the price of an ox in the same time and general location. This allowed the "price" of a slave to be computed into an equivalent in oxen even when they were not the normal medium of exchange for slaves.

Estimation of equivalents in land or "wages" were more difficult and is also presented as a rough and tentative test. The value of a slave in land was noted in some of the earliest recorded transactions. Again, in ancient Sumer, the value of a slave is recorded as "one productive field" or "one grove of date palms". Fortunately the monetary cost of land tends to enter the historical record more readily than the price of oxen, and can be compared to the contemporaneous price of a slave. In an attempt to maintain equivalence I took the decision to adjust the size of land units to that which

could be productively cultivated by an individual, so that the "field" noted in Sumer is likely to be smaller than the 40 acre unit I used for comparison purposes for the antebellum South.

Wages were the third item for comparative estimation of slave price. Several sources noted how the price of a slave compared to the annual wage of a free worker. For other times and places, it was possible to find the monetary cost of a slave and the recorded wages of different types of laborer. In this way the price of a slave could be calculated as a ratio to the average annual wage of a worker. In all of the data points that concerned wages I used the closest equivalent to an average agricultural worker in that time and context. Fortunately, it is not unusual to find agricultural wage rates recorded. The following table shows the equivalent oxen, land units, or annual wage units that were available or that could be calculated for the price of a slave at each place and time.

Slave Price Equivalents in Oxen, Land, and Annual Wages by Place and Year[7]

Place and Date	**No. of Oxen**	**No. of Fields**	**No. of Annual Wages**
Sumer 2000 BC	2	1	
Ugarit Syria 1400 BC	4		3
Greece 800 BC	4		
Rome 200 AD	8		
England 450	8		
England 816	4		
England 1000	6		
Tuscany 1400	4		
Virginia 1700	4		2
America 1714			1
America 1750			2
USA 1847	7	2	1.6
USA 1850	6	2	1.3
USA 1853		2	1.6
USA 1856	4.4	3	1.3
USA 1859	5	3	2.5
Hijaz 1920s			1.4
Aden 1939			.5
Mecca 1943			1
Cote d'Ivoire 2001			**.038**
India 2004[8]	**.17**	**.0067 - .0135**	**.047 - .185**

There are a number of caveats that apply to this table. The most obvious is that these prices and equivalents are the few that have survived to the present day and there is no way to know if they are themselves representative of the prices that applied at the time. That said, the emerging pattern is clear. Over the centuries the number of oxen needed to buy a slave never dropped below two and could go as high as eight. In a relatively similar context today, that of agricultural debt bondage in Northern India, the

acquisition cost of a person is less than one-fifth the cost of a single ox. In land equivalent the cost of slaves in the past never fell below one productive field, today the acquisition cost of a slave in the India context is between .6% and 1.3% of the cost of a single productive field that can be operated by an individual. In wage equivalents the price of a slave in the past varied from one annual wage total for an agricultural or manual worker to three annual wage totals. In the Indian debt bondage context of today, the equivalent is 5% to18.5% of the local annual wage rate. At most the cost of a slave in this example has fallen to one-fifth of the cost of the past, and in this example falls as low as six-tenths of one percent. If this preliminary test is indicative of patterns that exist across other situations of slavery past and present, then the cost of slaves has reached an all-time low as asserted. I would emphasize that this test is preliminary, that it needs extension and enlargement, having said that, it supports the case study information and other anecdotal evidence that the price of slaves has fallen to an historical low.

Test 2 – Are population growth, impoverishment, and corruption significant causal factors predicting the prevalence of slavery across countries?

To address this question I have taken a two-stage approach. In the first stage I assembled a data set with information on all the countries of the world (but excluding geographical entities that were dependencies of other states). This information came from a number of sources[9], but primarily the United Nations statistical handbook, and the 76 variables collected included measures of:

- economic activity
- energy consumption
- basic health measures
- food production
- tourism movements
- the distribution of the population into various industrial sectors
- the population profile
- the cars and telephone lines per capita
- the gross domestic product per capita
- population growth in rural and urban areas
- the extent of censorship
- the extent of governmental corruption
- the country's international debt loading
- indices of political and civil liberties
- the level of conflict and social unrest

And to those variables I added from my own research files, the best estimates I could construct of:

- the estimated amount of slavery in that country
- the estimated amount of human trafficking from the country
- the estimated amount of human trafficking to the country.

These variables I showed to other professionals working on human trafficking and enslavement and asked them to help me to refine and correct my estimates for each country. They are not precise numerical measures of the actual number of people trafficked (such measures do not exist), but represent slavery and trafficking on a five point scale:

Presence of Slavery or Human Trafficking (to or from) in this country is:
- Unknown
- Rare
- Occasional, but persistent
- Regular, but in small numbers
- Regular, and in large numbers

I chose to first test the assertion that population growth, impoverishment, and corruption are significant causal factors predicting the prevalence of slavery across countries by examining one aspect of contemporary slavery – human trafficking from a country. Because human trafficking is often a trans-border crime, I was first able to find more evidence of estimated trafficking flows than of numbers enslaved within countries. At the same time, the conditions that lead to enslavement are also thought necessary for human trafficking to proceed from a country. Anecdotal evidence from law enforcement personnel and other workers on the ground points to poverty, social unrest, government corruption, population pressure, and the perception of opportunity (of lack thereof) as predictors of both enslavement within, and human trafficking out of, a country. Of course, many of these factors are related. If a country has a "young" population profile, that is, a large proportion of the population is below the age of 18, there will be intense competition for employment and a concomitant lack of perceived opportunity. Likewise, there are well known links between poverty and higher levels of fertility.

For the first stage of this analysis I used a simple multiple regression to examine the relationship between possible predictive factors and human trafficking from a country. For these data, the following factors explained 57% of the variation in trafficking from countries.

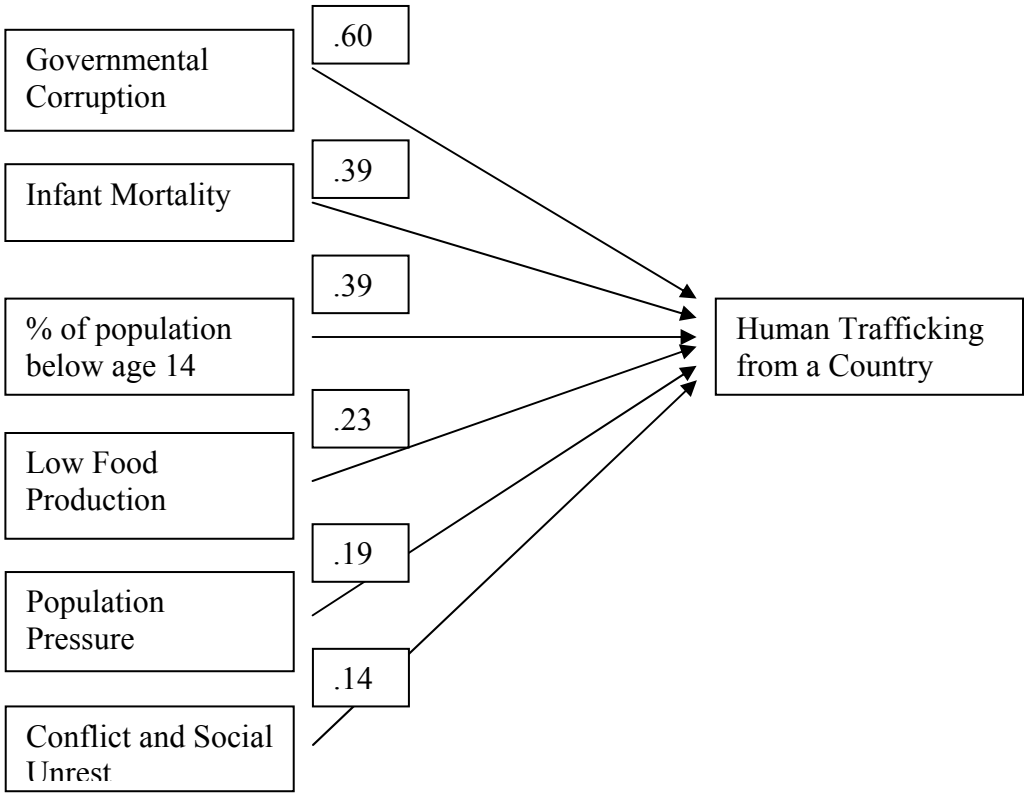
In calculating the regression I included, through several iterations, all of the various types of information I had collected on the world's countries. For example, while I was doubtful that the number of television receivers per 1000 of population in the country of origin was a significant predictor of trafficking from that country, I still treated it as a predictor until it was excluded statistically by the regression procedure. The factors listed below, then, are those that have "survived" and have been denoted as significant predictors of trafficking from a country.

The following individual variables were found to be significant predictors of trafficking from a country, and are given in order of their power to do so:

- governmental corruption
- the country's infant mortality rate

- the proportion of the population below the age of 14
- the country's food production index
- the country's population density
- conflict and social unrest

Given these results we can then specify the precise relationships between our predictive factors and human trafficking in this way:



The fractional numbers in the small boxes are the *beta coefficients*; these give the relative strength of each of the predictive factors. All of the beta coefficients shown are statistically significant at the .05 level or better.

This first stage of analysis does support the assertion that population growth (as shown by the proportion of the population under the age of 14 and the population density), impoverishment (as shown by higher infant mortality and low food production), and corruption (as shown by the corruption index) are significant causal factors predicting the prevalence of slavery across countries at least in the form of human trafficking from those countries. The presence of conflict and social unrest in a country is an addition predictor – not surprising given the reported increase in enslavement that accompanies most conflicts and the likelihood that conflict will rapidly impoverish populations.

To test this assertion in a second way I worked with my PhD student, Lorena Arocha, at Roehampton University London, to build a more robust data set and to test the fundamental assertion that population growth, impoverishment, and corruption are significant causal factors predicting the prevalence of slavery across countries. The results I give here are a précis of work she is doing as part of her Ph.D. thesis under my supervision.

The data set employed for this second stage is an extensively improved version of the data used in the first test. Because the assembled data set includes a number of variables that are categorical in nature it was decided that a more reliable test could be carried out using Ordered Logit[10] analysis. For example, as noted earlier, the dependent variable is slavery, a categorical variable with 5 different levels. This variable is measured on an ordinal scale, from 0 to 4, which represents crude measurement of an underlying interval and continuous scale. The total number of people enslaved in each country is difficult to measure; given that slavery is an illegal and underground activity. The categorical variable slavery is therefore a proxy to this unmeasured latent variable. The value for each country on this ordinal scale depends on whether or not each country has crossed a particular threshold.

In the test of the ordered logit model, the predicted factors were found to be significant. One variable introduced in this analysis was the Human Development Index, a measure originating with the United Nations that indicates a country's ability to deliver such services as health care and education. These are markers of human as opposed to economic development; but they are also excellent indications of the wealth or impoverishment of a population. In brief, the results were that an increase in the population of a given country increases the probability of a country having persistent and substantial amounts of slavery, but decreases the probability of no or little slavery. An increase in the score on the Human Development Index, that is, an improvement in the general well-being of the peoples of a given country, decreases the probabilities of a country suffering persistent and substantial amounts of slavery and increases the probability of a country suffering no or little slavery. A similar result was found for the GDP per capita of a country. Therefore, as one would expect, the more populated a country is, the higher the supply of potential slaves, and the higher the probability of a country having increased amounts of slavery. Likewise, the more developed a country and the richer its people, the lower the probability of slavery in the country.

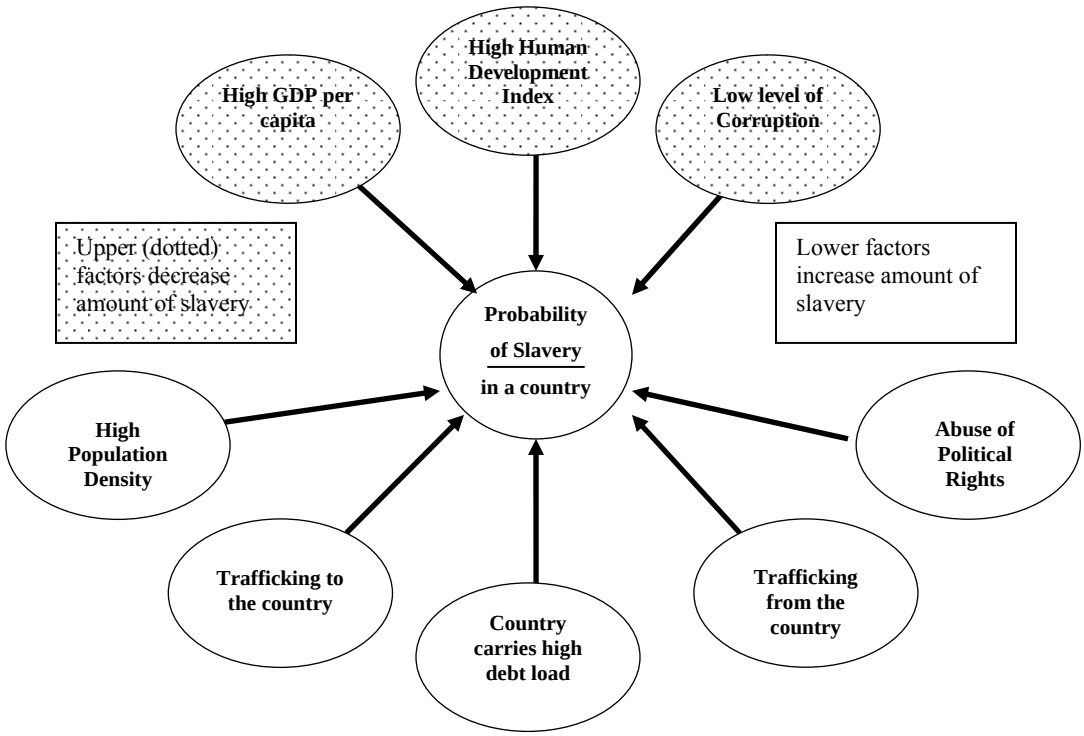
A decrease in the estimated amount of corruption increases the probability of no or little slavery. Further, a variable measuring the permitted exercise of political rights also showed that a marginal increase in respect for political rights in a country increases the probability of no or little slavery. Therefore, institutional variables such as these affect the level of slavery in a given country, with corruption and low respect for political rights increasing the chances of a country suffering from slavery. Likewise, an increase in a country's international indebtedness, another indicator of impoverishment, also increases the likelihood of increased levels of slavery.

All of this is easier to see in the diagram below. The variables at the top of the diagram are those whose coefficients are negative in our model. Accordingly, an increase in their value is said to increase the probability of a country having no slavery. Therefore, following the diagram, we can say that an increase in the value of GDP per capita, the Human Development Index or the corruption index (which is associated with lower corruption levels), increase the probability that any one country will have no slavery, other things being equal.

Similarly, the variables on the bottom of the diagram are those whose coefficients are positive in our model. Correspondingly, an increase in their value is believed to increase the probability of slavery in several economic sectors of a country. Therefore, the diagram shows how increases in the average population, the degree of trafficking, both to and from a country, whether the country is highly indebted or an increase in the political rights index (which is consistent with more abuses), will all increase the probability that slavery will be a regular feature in several economic sectors in any one country, other things being equal.

The results of both stages of the analysis support the assertion that population growth, impoverishment and corruption are predictors of slavery in a country.

Figure 1 – Factors increasing or decreasing the amount of slavery in a country



Test 3 – In spite of the altered economic equation of slavery brought about by the decline in the price of slaves, does slavery still act as a drag on national economies and social development?

This part of the test of the theory of contemporary slavery draws very heavily on the work of Robert B. Smith[11]. Dr. Smith adapted the data I had assembled on contemporary slavery into a data set that he had built also using primarily information from the United Nations but specifically including the UN Human Development Index. What Smith did for the first time was to conduct a multilevel analysis that included Bales's measure of a country's level of slavery as a determinant of the country's level of human development, with the country being nested in its region, along with the other countries in that region. Slavery explained the between-region variability in human development and had a strong effect on the countries' levels of human development. His test was not to determine what predicted slavery, but to examine what the causal impact of slavery might be on the variability in human development between the regions of the world, and among the countries that were nested within these regions. Countries were analyzed in their regional context since comparisons of the development of, for example, Senegal and Sweden are not especially useful. Smith thus asked what were the key determinants of these variations in human development within the countries of a region, and between the regions. This is a question with important policy implications. Certain factors, such as governmental corruption and social conflict, have an obvious negative impact on human development in a country. The decision to include measures of slavery was based on the fact that slavery acts as a drag on local economies, foiling human development, in several ways.

As discussed earlier, unfree labor tends to pull down the wages of free labor in the same area, thus lessening the disposable incomes of free families. Slaves are not able to take a full part in the local economy, they have little or no purchasing power and subsist on the barest of necessities. Their children do not receive education, slaves have few resources to meet disease or any other crisis, their life span is shortened, and they are generally malnourished[12]. They contribute next to nothing to a country's economy; they buy nothing in a country's markets. They are an untapped economic resource.

What had never been measured was what impact the presence of slaves might have on the development of a country, and how it might fit with other factors that are known to affect development. Given the large amount of work that has been done to explore determinants of development in the Global South, it was remarkable that as Smith explains: "When the full range of the covariates are retained, and when the four categories of slavery are used to classify the regions, the resulting Model 4 is the best of the models thus far in terms of reducing the significance of the variability that is between regions … These statistics imply that slavery explains much of the regional variability in the Human Development Index rank scores." (p. 21) Smith goes on to draw out the policy implications:

> Among the covariates studied here, slavery (debt bondage, forced labor, forced prostitution, chattel slavery) and the lack of political freedom explain much of the variability that is between regions and corruption explains much of the variability among countries within a region. Additionally, countries with higher values of conflict and social unrest and higher values of national debt have significantly

> worse Human Development Index rank. To enhance human development countries should eliminate debt bondage and other forms of slavery, move toward fully democratic political systems, and eliminate corruption. (p. 25)

Clearly there are inter-relationships between these factors. We have seen that corruption supports slavery and here we note that corruption also depresses development. Conflict increases enslavement and decreases opportunity. This inter-relationship points to the circular and reinforcing nature of violations of human rights. In terms of human development, and what that suggests in terms of economic development, the result from Smith's analysis is clear: slavery continues to exert a drag on economies and societies in spite of the fact that the proportion of slaves in the global population is small, their productive capacity is small, and their value, as measured by price, has reached an all-time low.

Conclusion

Slavery is a relationship between, at least, two people that is social, economic, and, at times, emotional in nature. It is my assertion that there are certain fundamental or essential attributes of any slave/slaveholder relationship. These are the state of control exercised over the slave, a control based on the potential or actual use of violence; a lack of any remuneration beyond subsistence; and the appropriation of the labor or other qualities of the slave for economic gain. Further I assert that while there are essential attributes that determine what is, and what is not, a slave/slaveholder relationship, these attributes and those relationships are "packaged" in many ways, reflecting their social and cultural context. If those two assertions are acceptable, and I admit that they may be debated, then this paper has been a test of a further set of assertions, an outline theory that rests upon them. This paper explores whether, in the current period, a dramatic fall in the price of slaves, that is, an alteration in the nature of one of the essential attributes of slavery, can be documented and examined in both its origins and impact.

The documentation of the fall in the relative price of slaves in the current period is shown in an, admittedly rough, comparison of equivalences of slave prices with annual agricultural wages, and the price of oxen and land over time. The origins of large numbers of people who are potential slaves, their enslavement, and the subsequent impact of this flooding of the market, have been examined through a statistical analysis of a data base of the world's countries. The impact of this altered form of slavery on the development, especially the human development, of countries was also examined through statistical analysis. The outcome of these tests was to support the theoretical assertions that the price of slaves has fallen to an all-time low; that this fall has been driven by the three supporting factors of population growth, economic change, and governmental corruption; finally that this alteration in the economic equation of slavery has not altered the effect of slavery as a drag on economies and development.

I hasten to point out that this statement of theory is preliminary, and that the test it is subjected to is based upon estimations that are also first attempts to explore the nature of contemporary slavery. While the amount of descriptive literature about contemporary slavery is growing, there is little or no analytical work, such as the pioneering work of Arocha and Smith, to call upon or build upon. For that reason this test is offered up as a target, a straw man, that I hope will draw both a vigorous critique and further analyses.

The editors of Scientific American had this to say about the study of contemporary slavery in 2002:

> … we worry that the study of contemporary slavery is more of a protoscience than a science. Its data are uncorroborated, its methodology unsystematic. Few researchers work in the area, so the field lacks the give and take that would filter out subjectivity. Bales himself acknowledges all this. As we debated his definitions of slavery, he told us, "There is a part of me that looks forward to being attacked by other researchers for my interpretations, because then a viable field of inquiry will have developed."[13]

It is my hope that this paper has taken the study of contemporary slavery one more step from proto-science to science through the use of sound data and systematic methods.

---

[1] I currently wear three hats: President of Free the Slaves (Washington DC), the American sister-organization of Anti-Slavery International; Visiting Professor of International Studies, Croft Institute for International Studies, University of Mississippi; and Professor of Sociology, Roehampton University London.

[2] Bales, Kevin *Disposable People: New Slavery in the Global Economy*, (Berkeley: U. of Cal. Press, 1999)

[3] I appreciate that slavery has been defined in many ways – within the social sciences and history, as well as in legal and international instruments. Many of these definitions vary significantly from each other. With Peter Robbins, I examined the development of many of these definitions in "No One Shall Be Held in Slavery or Servitude: A Critical Analysis of International Slavery Agreements" *Human Rights Review,* Vol. 2, No. 2, Jan. 2001.

[4] Bales, Kevin *Disposable People: New Slavery in the Global Economy*, (Berkeley: U. of Cal. Press, 1999), p. 235. The quote from Prof. Lae Dilokvidhyarat first appeared in William Greider, *One World, Ready or Not: The Manic Logic of Global Capitalism* (New York: Simon & Shuster, 1997) p. 355

[5] I am indebted to Junius Rodriguez for helping me to understand these comparisons.

[6] See: Phillips, Ulrich Bonnell, "The Slave Economy of the Old South" in *Selected Essays in Economic and Social History,* Eugene D. Genovese (ed.) LSU Press, 1968, p. 142

[7] Sources for the table: Curtain, Philip D. *The Tropical Atlantic in the Age of the Slave Trade* (Washington DC: American Historical Association, 1991); Franklin, John Hope and Alfred A. Moss From Slavery to Freedom: A History of African Americans (New York: McGraw Hill, 1991); Meltzer, Milton *Slavery: A World History* (New York: De Capo, 1993); Miers, Suzanne Slavery in the Twentieth Century (Walnut Creek: Altamira, 2003; Nettels, Curtis P. *The Emergence of a National Economy 1775-1815* (New York: Holt 1962); US State Department Report on the Ivory Coast 2000, Bureau of Human Rights, Democracy, and Labor, February, 2001

[8] Supriya Awathi, South Asia Regional Coordinator for Free the Slaves, collected the following information for me in Uttar Pradesh in August 2004. Irrigated land - per acre is Rs 200,000 =$4444 =.0067. Non - irrigated land - per acre Rs. 100,000 = $2222 = .0135. Cost of one Ox - Rs. 8000. = $178 = .17. Annual income: Quarry labor (working under contractor) - Rs.1800x12; Laborer with mining lease earns - Rs.3000x12; Agriculture labor - Rs.600x12 = $160 = .185; Laborers who do both agriculture and mining work: Rs 1800 +600 x12=$640 = .047 Rs. 3000+600 x12. Largest debt of "Bihari" = $55 – smallest =$27; Current debt of "Santlal: (plowman) = $22

[9] Variables were drawn from the *World Statistics Pocketbook*, United Nations, Sales No. E.95.XVII.7. New York: United Nations, 1995; The International Corruption Index assembled by Transparency International; 'Human Rights Abuses by Country' a table compiled by the Observer Newspaper, London, 25 October,

1999; Amnesty International, *Amnesty International Report 1999*, London, 2000; and from my own database of slavery and trafficking.

[10] The quantity ln (p/1-p) where p is the probability of success is called the logit. The term 'logit' was introduced by Berkson in 1944. Modelling variations in proportions directly is hampered by the need to ensure that estimated probabilities lie in the interval (0, 1). Since corresponding values for the logit lie in the unrestricted interval $(-\infty, \infty)$, models for proportions are usually constructed in terms of logits.

[11] **"**Why Human Development Varies by Region: Exploring Correlates and Causes" by Robert B. Smith, Ph.D. Social Structural Research Inc., 3 Newport Rd., Suite 6, Cambridge MA 02140 E-mail addresses: rsmithphd@comcast.net or rbs144@columbia.edu.

[12] See, for example, Bonner, Raymond. 2002. Bondage's load: heavy bricks, and crushing debt. *New York Times on the Web,* 12 June12; and Forero, Juan. 2002. In Ecuador's banana fields, child labor is key to profits. *The New York Times on the Web*, 13 July.

[13] The Editors, "The Peculiar Institution", SA Perspectives, *Scientific American*, April 2002, p. 4; they were commenting, in part, upon my article in the same issue, "The Social Psychology of Modern Slavery" *Scientific American*, April 2002