

Teaching Guide
Poverty, Inequality, and Sustainable Development

I. Defining Poverty

A. Per Capita GDP

Per capita GDP is the total gross domestic product for a country divided by the total population. It measures the average *per person* income for a country. These figures for Argentina and Perú for are as follows:

Argentina: \$3,650
Perú: \$2,150

These figures are in current dollars for 2003. For purposes of comparison, per capita GDP for the United States in 2003 was \$37,610.¹ In comparing these numbers and thinking about what they mean, we need to consider three things.

First are the absolute numbers. They indicate that the average person in the United States makes approximately 10 times what the average person in Argentina makes, and more than ten times what the average person in Perú makes. Therefore, these numbers do provide some information to indicate that, in general, the average standard of living in Perú and Argentina is less than in the U.S. However, it is important to remember that these figures are *averages*. They include very, very rich families and very, very poor families. Furthermore, the lower bound on the income a person can have is zero. However, there is no upper bound. Per capita income for the U.S. includes Bill Gates as well as people living in poverty. Because there is no upper bound on income, these averages tend to give an inflated picture of the average standard of living in a country. Those with the highest incomes tend to pull the average up more than those with the lowest incomes pull the average down.

The second thing to remember about these numbers is that they are *per person*. That is, they are the average income for every man, woman, and child in a country. However, not every man, woman, and child generate an income. For the purposes of measuring poverty, household statistics provide a more complete picture than per capita statistics.

Lastly, all of these statistics are in dollars. The currencies of Perú and Argentina are *nuevos soles* (usually just called *soles*) and *pesos*, respectively, not dollars. In order to compare incomes in different countries, it is necessary to put them all in the same units of measurement (here, dollars). Therefore, one must use an exchange rate to make Argentine and Peruvian incomes comparable to U.S. incomes. As of October 28, 2004, one Argentine *peso* was worth about 34 U.S. cents (2.98 *pesos* per U.S. dollar) and one Peruvian *sol* was worth about 30 U.S. cents (3.33

¹ All three per capita GDP figures are from the World Bank website.
www.worldbank.org/data/databytopic/GNIPC.pdf

soles per U.S. dollar).² We will use these exchange rates in making other comparisons throughout this discussion.

Although these are the market exchange rates on a particular day, these are not the exchange rates usually used to convert foreign GDP figures into dollars. The World Bank uses two methods to convert GDP data from different countries into a common currency unit. The first method is called the Atlas method. The Atlas method is a way to average out the day to day fluctuations in the value of currencies by using the average exchange rates over a three-year period, corrected for inflation.³ The values of per capita GDP reported above were computed using the Atlas method.

The second exchange rate that the World Bank uses is called the purchasing power parity (PPP) exchange rate. The purchasing power parity exchange rate is the exchange rate that would prevail if the cost of comparable goods were the same in two countries. As an example, consider the cost of a typical soft drink in the U.S. (say 50 cents). If the market exchange rate reflects purchasing power parity between countries, this same soft drink should cost about 1.49 *pesos* in Argentina ($2.98 \times .50$). Let's suppose that the soft drink actually costs 2 *pesos* in Argentina. That would mean that the dollar equivalent price of the soft drink at the market exchange rate is 68 cents. This means that at market exchange rates, the soft drink is relatively more expensive in Argentina than in the U.S.

The purchasing power parity exchange rate would be the exchange rate that would make the cost of the soft drink exactly the same in the two countries. That is, it is the exchange rate that would make 2 *pesos* equivalent to 50 cents. This exchange rate is 4 *pesos* to the dollar (one *peso* is worth 25 cents). One can get a feel for the buying power of a currency by comparing the purchasing power parity exchange rate to the market exchange rate. Using the example above, a purchasing power parity exchange rate (4 *pesos* per dollar) that is greater than the market exchange rate (2.98 *pesos* per dollar) indicates that the cost of living is relatively higher in Argentina. This means that it would be harder for an Argentine citizen living in Argentina to provide for his or her family with a given income in *pesos* than it would be for a U.S. citizen living in the U.S. to provide for his or her family with an equivalent income in dollars.

Using purchasing power parity exchange rates, the per capita GDP figures for Argentina, Peru, and the United States for 2003 are:⁴

Argentina: \$10,920

Perú: \$5,090

United States: \$37,500

These numbers are very different from the per capita GDP figures computed using the Atlas method. Because the PPP per capita GDP figures for Argentina and Perú are larger than those

² "Foreign Exchange Rates." *Wall Street Journal*, Online Edition.

<http://online.wsj.com/documents/mktindex.htm?worldval.htm>. October 29, 2004.

³ www.worldbank.org/data/aboutdata/working-meth.html#World_Bank_Atlas_method

⁴ www.worldbank.org/data/databytopic/GNIPC.pdf

computed using the Atlas method, they indicate that the cost of living is actually *lower* in these countries relative to the U.S. – the opposite of the soft drink example above.

To summarize, there are three problems with using per capita income data to measure economic well-being. They are:

- (1) The average is upwardly biased by the income of the wealthiest citizens.
- (2) The average per person does not reflect the well-being of a household.
- (3) The buying power of the income may be more or less than indicated by the figure, depending on the exchange rate that was used to compute it.

However, having these basic figures in mind (\$3,650 per person in Argentina and \$2,150 in Perú) provide a useful jumping off point for using other methods to think about defining and measuring poverty.

B. The Poverty Line and Unsatisfied Basic Needs

Because of the difficulty in comparing the cost of living across countries, international comparisons of income are not a particularly useful way to define poverty. Therefore, we turn to definitions of poverty which are based on the specific conditions that exist in the individual countries.

1. The Poverty Line

Both Perú and Argentina use the concept of a poverty line as one way to determine which households are in poverty. The poverty line establishes the minimum income or consumption expenditure that a household must have in order to meet their basic needs of life. If a household's income falls short of this amount, they are considered to be impoverished.

In determining the poverty line, Perú uses a standard based on expenditure. Argentina uses income. To determine the minimum, both countries start by establishing daily minimum caloric needs. Argentina defines the minimum to be the calories necessary for a representative adult male between 30 and 59 years of age to maintain a moderate activity level.⁵ Perú defines daily caloric intake by geographical region to account for the differing occupations and activity levels in each region of the country, then makes adjustments to these figures for age and gender.⁶

Once the daily caloric requirements of a typical household are established, the next step is to define the basic food basket, or *Canasta Básica de Alimentos (CBA)*. In Perú, the composition of these baskets also varies by region to account for regional dietary differences. The elements of the *CBA* are valued according to the prices of the products in each region. The resulting value of

⁵ The World Bank Group. 2003. "Argentina – Crisis and Poverty 2003: A Poverty Assessment." Report No. 26127-AR. Washington, DC. p. 4. [http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/\\$FILE/ArgentinaPAMainReport.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/$FILE/ArgentinaPAMainReport.pdf)

⁶ Instituto Nacional de Estadística e Informática (INEI). 2002. *Condiciones de Vida en el Perú, Evolución 1997-2001*. Lima. p. 26. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0502/Libro.pdf

the *CBA* determines the extreme poverty or indigence line. Households whose incomes are below this line cannot afford to satisfy their minimum daily caloric requirements.

The last step is to add non-food necessities of daily living to the *CBA*. These items may include clothing, transportation, school supplies, and health care costs. The idea behind this approach is to define a household budget that allows its members to live a lifestyle that allows a certain level of dignity and personal development.⁷ The addition of these items creates the consumption basket, or *Canasta Básica Total (CBT)*. The value of the *CBT* establishes the poverty line. Households whose incomes are below the value of the *CBT*, but above the value of the *CBA*, are considered to be in poverty, but not in extreme poverty.

Both the Peruvian and Argentine governments employ household surveys to track those in poverty, as well as to collect other household data. The Peruvian survey is called the *Encuesta Nacional de Hogares (ENAHO)*. The Argentine survey is called the *Encuesta Permanente de Hogares (EPH)*. Perú collects data about poverty and living conditions for the *ENAHO* annually during the fourth quarter of every year. They collect other types of data during the other quarters of the year. The data for the *EPH* is collected twice a year. The *EPH* sample comes from metropolitan statistical areas in Argentina. Therefore, all the figures in this discussion should be considered lower bounds for the actual rates of poverty in Argentina, as the rural areas of the country tend to be poorer. The tables below report the regional poverty and indigence lines for Perú and Argentina for 2001, as well as their approximate U.S. dollar equivalent using the exchange rates of 30 cents per *sol* and 34 cents per *peso* as discussed above. These data are also available in the accompanying spreadsheets.

Table 1. Poverty and Indigence Lines – Perú
(Monthly Income in *Nuevos Soles*, Nov. 2001)

Region	Poverty Line	U.S. Dollar Equivalent	Indigence Line	U.S. Dollar Equivalent
Metropolitan Lima	260.2	\$78.06	122.0	\$36.60
Coast – Urban	200.7	\$60.21	104.7	\$31.41
Coast – Rural	163.2	\$48.96	96.7	\$29.01
Sierra – Urban	209.0	\$62.70	114.2	\$34.26
Sierra – Rural	161.3	\$48.39	105.1	\$31.53
Selva – Urban	219.4	\$65.82	138.2	\$41.46
Selva – Rural	147.4	\$44.22	95.0	\$28.50

Source: Instituto Nacional de Estadística e Informática (INEI). 2002. *Condiciones de Vida en el Perú, Evolución 1997-2001*. Lima. p. 35. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0502/Libro.pdf

⁷ Instituto Nacional de Estadística y Censos (INDEC) de la Republica Argentina. 2003. “Acerca del Método Utilizado para la Medición de la Pobreza en Argentina.” www.indec.gov.ar/nuevaweb/cuadros/74/pobreza2.pdf, p. 2, translated and paraphrased from the Spanish.

Table 2. Poverty and Indigence Lines – Argentina
(Monthly Income in *Pesos*, April 2003)

Region	Poverty Line	U.S. Dollar Equivalent	Indigence Line	U.S. Dollar Equivalent
Greater Buenos Aires	232.28	\$78.98	106.55	\$36.23
Cuyo	202.67	\$68.91	95.15	\$32.35
Northeast	205.71	\$69.94	95.68	\$32.53
Northwest	200.65	\$68.22	93.76	\$31.88
Pampas	210.21	\$74.47	100.58	\$34.20
Patagonia	220.56	\$74.99	110.28	\$37.50

Source: Instituto Nacional de Estadística y Censos (INDEC) de la Republica Argentina. 2003. “Valores de la Canasta Básica de Alimentos y de la Canasta Básica Total para el adulto equivalente por regiones estadísticas en abril 2003.” www.indec.gov.ar/nuevaweb/cuadros/74/cba2.xls

It is useful to note that in both these countries, the indigence line represents about \$1 a day of income or expenditure and the poverty line represents about \$1.50 - \$2 per day. The accompanying maps provide the boundaries for the geographic regions above.

Tables 3 and 4 report the percent of Peruvians and Argentines who are below the poverty and indigence lines, by department in Perú (the same as a U.S. state) and for statistical regions and urban centers in Argentina. The table also measures the fraction of those below the poverty line who are indigent. It is important to remember that if a household is below the indigence line, then it is also below the poverty line. Therefore, the percentages in the columns labeled “% Below Poverty Line” include all those households who are also below the indigence line. To find the percent of the population that is in poverty, but is not indigent, subtract the numbers in the second column from those in the first column. These data are also available in the accompanying spreadsheets.

There are several striking items of note in these data. The first is that in many parts of Perú and Argentina, over half of households live on less than \$2 a day. In addition, in many places, indigent households constitute the majority of households living in poverty. The accompanying maps provide a useful image of the distribution of poverty throughout Perú and Argentina.

Table 3. Poverty and Indigence Rates – Perú, 2002

Department	% Below Poverty Line	% Below Indigence Line	% of Those Below Poverty Line who are Indigent
Amazonas	79	53	67
Áncash	55	24	44
Apurímac	76	51	67
Arequipa	39	11	28
Ayacucho	71	41	58
Cajamarca	76	51	67
Cusco	60	34	57
Huancavelica	83	61	73
Huánuco	83	61	73
Ica	41	6	15
Junín	61	29	48
La Libertad	49	21	43
Lambayeque	61	22	36
Lima y Callao	34	3	9
Loreto	65	40	62
Madre de Dios	50	16	32
Moquegua	35	10	29
Pasco	65	32	49
Piura	62	27	44
Puno	78	49	63
San Martín	54	25	46
Tacna	31	5	16
Tumbes	38	7	18
Ucayali	68	43	63

Source: “Resultado de Consulta: Anos 2000, Departamentos_1, Pobreza.” www.inei.gob.pe/Sisd/index.asp

Table 4. Poverty and Indigence Rates – Argentina, 2002

Region	% Below Poverty Line	% Below Indigence Line	% of Those Below Poverty Line who are Indigent
Greater Buenos Aires	54	25	46
City of Buenos Aires	21	6	27
Adjacent districts	64	31	47
Cuyo	61	30	49
Greater Mendoza	58	29	49
San Luis – El Chorrillo	63	27	44
Greater San Juan	68	34	50
Northeastern Argentina	72	42	59
Corrientes	74	43	58
Formosa	69	37	54
Posadas	70	43	62
Greater Resistencia	72	43	60
Northwestern Argentina	69	35	51
Greater Catamarca	63	28	45
Jujuy - Palpalá	73	36	50
La Rioja	66	29	43
Salta	70	43	61
Santiago del Estero – La Banda	67	32	48
Greater Tucumán – Tafi Viejo	71	34	48
Pampas	57	27	48
Bahía Blanca - Cerri	46	20	44
Concordia	78	51	65
Greater Córdoba	59	28	48
Greater La Plata	44	17	39
Mar del Plata – Batán	47	21	45
Greater Paraná	67	32	48
Río Cuarto	54	23	42
Greater Rosario	61	30	49
San Nicolás – Villa Constitución	63	33	53
Greater Santa Fe	64	34	53
Santa Rosa – Toay	50	21	42
Patagonia	46	21	46
Comodoro Rivadavia – Rada Tilly	42	19	46
Neuquén – Plottier	51	24	48
Rawson – Trelew	52	25	48
Río Gallegos	33	11	33
Ushuaia – Río Grande	38	17	45
Viedma – Carmen de Patagones	52	27	51

Source: www.indec.gov.ar/indec/ingles/iu020303.xls.

2. Unsatisfied Basic Needs

*Vivir en pobreza no sólo implica la falta de los artículos necesarios para el bienestar material, sino la denegación de la oportunidad de vivir una vida tolerable. La vida puede acortarse prematuramente, puede hacerse difícil, dolorosa o riesgosa, puede estar privada de conocimientos y comunicación. También se puede denegar la confianza y el respeto por sí mismo, así como el respeto de los demás. Todos son aspectos de la pobreza que limitan y afectan la vida de millones de peruanos.*⁸

In English:

Living in poverty not only means the lack of those things necessary for material well-being, but also the lack of opportunity to live a normal life. A life in poverty can be one that ends prematurely, is difficult, painful, or risky, and can be deprived of knowledge and connections with others. Poverty can denigrate one's own confidence and self respect, as well as respect from others. All of these are aspects of poverty that limit and affect the lives of millions of Peruvians.

Thus begins a discussion of the qualitative aspects of poverty in the Peruvian government's 2001 report, *Conditions of Life in the Departments of Perú*. The report continues:

There is great interest in determining who is affected by poverty, and "the desire to measure it at times has obscured the fact that poverty is too complex to be reduced to a single dimension of human life."

In order to determine the level of poverty at the national and departmental levels, the country establishes poverty lines based on expenditures. Even though this concept is an important dimension of poverty, it only provides a partial picture of the many ways poverty affects human life. It is possible that someone in poverty enjoys good health and lives a long life, but is illiterate and remains excluded from learning, communication and interaction with others. Another person might be literate and have advanced to university study, but is susceptible to premature death due to illness or accident. A third person might remain excluded from participation in the important decision-making processes that affect his or her life. The monetary measure of poverty does not tell the story about the material conditions of life that are the product over time of being in or out of poverty.

Another aspect of poverty that ought to stand out is that people have different perceptions of their hardship. Each person and community has their own definition of the hardships and disadvantages that affect their lives.⁹

For these reasons, it is useful to consider qualitative, multidimensional measures of poverty as well. One multidimensional measure of poverty is Unsatisfied Basic Needs (*Necesidades*

⁸ Instituto Nacional de Estadística e Informática (INEI). 2002. *Condiciones de Vida en los Departamentos del Perú, 2001*. Lima, p. 55. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0501/Lib.pdf

⁹ *Ibid.*, Translated from Spanish.

Básicas Insatisfechas or *NBI* in Spanish). The Peruvian government considers five types of basic needs when assessing the level of poverty in a region:¹⁰

1. Households in homes with inadequate physical characteristics (*Vivienda físicamente inadecuada*) – A home is considered physically inadequate if (a) The exterior walls are made of woven mat; (b) The exterior walls are made from wattle and daub (a structure of interlaced bamboo and wood covered with plaster, a traditional building method in Perú. See photo in accompanying slides.), stone and mud (adobe) or wood and have a dirt floor; (c) are “improvised” or in a location unfit for human habitation.¹¹
2. Overcrowded homes (*Viviendas hacinadas*) – A home is considered overcrowded if, on average, more than 3.4 people live in each room. The bathroom, kitchen, hallways, and garage are not included in the number of rooms in the house.
3. Homes without toilets (*Vivienda sin servicio higiénico*)
4. Households with children not in school (*Hogares con niños que no asisten a la escuela*) – A household has at least one child between the ages of 6 and 12 who is not attending school.
5. Households with high economic dependence (*Hogares con alta dependencia económica*) – A household is considered economically dependent if the head of household has completed at most 2 years of primary school and there are more than 3 people working, or no one in the household is working.

The Peruvian government finds that these measures are useful in characterizing poverty. For example, they find that the lack of indoor plumbing is strongly related to infant mortality due to illnesses that would be prevented if there were an adequate sewer system.¹² Perú employs the *NBI*, along with its monetary definition of poverty, to define four types of households in poverty:¹³

The chronically poor – those who are below the poverty line and have at least one *NBI*

The structurally poor – those who are above the poverty line and have at least one *NBI*

The temporarily poor – those whose basic needs are satisfied but are below the poverty line

The socially integrated – those who are not in poverty by either the monetary or *NBI* definition

¹⁰ Instituto Nacional de Estadística e Informática (INEI). 2000. *Perú: Niveles de Vida y Pobreza, 1999*. Lima, pp. 46-47. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0392/Libro.pdf

¹¹ In Perú, many people establish settlements on land that is not theirs. These homes would be considered “improvised” – at least until the settlement becomes established enough to earn a de facto property right. Economist Hernando de Soto discusses this phenomenon of informal housing in his book *The Other Path*.

¹² Instituto Nacional de Estadística e Informática (INEI). 2002. *Condiciones de Vida en los Departamentos del Perú, 2001*. Lima, p. 59. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0501/Lib.pdf

¹³ *Ibid.*, p. 61.

The Argentine government uses a similar strategy to characterize households with unsatisfied basic needs:¹⁴

1. Overcrowded homes – Households in homes with more than 3 people per room.
2. Unsuitable housing (*Vivienda de tipo inconveniente*) – Housing is considered unsuitable if it is a tenement or some other poorly built house, apartment, or shack.
3. Houses without toilets
4. Households with children between the ages of 6 and 12 not attending school.
5. Survival capacity (*Capacidad de subsistencia*) – Households which have 4 or more working members as well as those households whose head of household has not completed the third year of primary education.

Tables 5 and 6 below report data on Unsatisfied Basic needs for Perú and Argentina, respectively. Table 7 reports the distributions of types of poor for Perú, with the departments ordered from poorest to least poor based on the most general definition of poverty. The accompanying slides provide some maps indicating the geographic distribution of households with NBI. The raw data are included in the accompanying data packages.

In Perú, it is interesting to note that even though many households have at least one unsatisfied basic need, the rates of school non-attendance are relatively low. Argentina has a relatively lower percentage of households with at least one unsatisfied basic need. Thus, using Perú's taxonomy for types of poverty, most Argentines living in poverty would probably be considered temporarily poor. In other words, their incomes are below the poverty line but they are able to satisfy their basic needs. As we shall see in a later section, many of these Argentines fell into poverty as a result of the 2002 financial crisis. They are often called the “new poor.”

¹⁴ Instituto Nacional de Estadística y Censos (INDEC). 2003. “Mapa de Necesidades Básicas Insatisfechas 2001.” *Aquí se Cuenta: Revista Informativa del Censo 2001*. No. 7, September, p. 1. www.indec.gov.ar/webcenso/aquise cuenta/Aqui7.pdf.

Table 5. Unsatisfied Basic Needs (NBI) – Perú, 2001
(Percent of population in each situation)

Department	Physically Inadequate Home	Overcrowded Home	Home without Toilet	Households with children not attending school	Households with high economic dependence	With 1 NBI	With 2 to 5 NBI	With at least 1 NBI
Amazonas	25.0	30.5	29.4	8.3	4.2	34.3	26.2	60.5
Áncash	1.9	11.6	32.0	1.7	3.0	31.8	8.6	40.4
Apurímac	3.2	20.3	32.2	0.9	3.3	35.9	11.6	47.5
Arequipa	5.6	16.0	9.4	0.8	3.0	21.2	6.7	27.8
Ayacucho	11.2	24.8	39.3	3.8	1.3	32.3	21.5	53.8
Cajamarca	7.0	36.2	21.5	7.8	2.8	34.4	17.5	51.9
Cusco	5.8	30.6	52.0	2.8	0.9	39.2	24.4	63.6
Huancavelica	10.4	22.1	81.1	7.2	1.5	56.5	30.3	86.8
Huánuco	6.2	31.3	41.2	7.3	4.0	37.4	23.5	60.9
Ica	5.5	7.5	23.5	1.2	1.3	26.3	5.8	32.1
Junín	9.5	21.2	24.8	5.8	2.9	28.9	14.7	43.6
La Libertad	2.6	13.9	22.9	3.6	4.7	26.0	8.9	34.9
Lambayeque	4.9	18.6	21.1	5.3	4.7	27.7	11.0	38.7
Lima y Callao	10.1	13.7	8.8	0.6	1.6	19.1	7.0	26.1
Loreto	34.7	28.5	34.1	4.1	2.8	27.6	34.6	62.2
Madre de Dios	32.0	22.4	14.6	0.9	2.4	37.9	16.6	54.5
Moquegua	9.2	13.6	24.7	0.5	0.9	26.6	10.4	37.0
Pasco	3.4	37.1	57.2	2.1	2.8	43.7	27.8	71.5
Piura	23.2	13.7	32.9	3.2	4.9	33.7	19.3	53.0
Puno	3.7	14.5	40.4	1.5	0.9	39.3	10.4	49.7
San Martín	49.6	23.6	11.6	3.9	5.2	33.5	26.3	59.9
Tacna	6.2	12.4	7.6	0.6	0.8	15.9	5.6	21.5
Tumbes	41.6	13.3	23.6	1.0	1.5	29.1	23.6	52.8

Source: Herrera, Javier. 2002. *La Pobreza en el Perú en 2001: Una Vision departamental*. Instituto Nacional de Estadísticas e Informática (INEI). Lima, p. 97 www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0500/Lib.pdf

Table 6. Unsatisfied Basic Needs (NBI) – Argentina, 2001

Province	% of Households with at least one NBI
Ciudad de Buenos Aires	7.1
Buenos Aires	13.0
24 Parts of Gran Buenos Aires	14.5
Rest of the Province of Buenos Aires	10.5
Catamarca	18.4
Chaco	27.6
Chubut	13.4
Córdoba	11.1
Corrientes	24.0
Entre Ríos	14.7
Formosa	28.0
Jujuy	26.1
La Pampa	9.2
La Rioja	17.4
Mendoza	13.1
Misiones	23.5
Neuquén	15.5
Río Negro	16.1
Salta	27.5
San Juan	14.3
San Luis	13.0
Santa Cruz	10.1
Santa Fe	11.9
Santiago del Estero	26.2
Tierra del Fuego, Antarctica and South Atlantic Islands	15.5
Tucumán	20.5

Source: www.indec.gov.ar/censo2001s2/Datos/01000C413.xls

Table 7. Types of Poverty – Perú, 2001
(% of total population in each department)

Department	Based on NBI or Expenditures	Based on Expenditures	Based on NBI	Only based on Expenditures	Only based on NBI	Based on NBI and Expenditures	Population that is above the poverty line and has no NBI
	Population with any type of Poverty	Population below the poverty line	Population with at least one NBI	Temporarily Poor	Structurally Poor	Chronically Poor	Socially Integrated
Huancavelica	95.1	88.0	86.8	8.3	7.0	79.7	4.9
Huánuco	85.5	78.9	60.9	24.6	6.6	54.3	14.5
Apurímac	85.1	78.0	47.5	37.6	7.1	40.4	14.9
Amazonas	84.8	74.5	60.5	24.4	10.3	50.1	15.2
Pasco	83.6	66.1	71.5	12.1	17.5	54.0	16.4
Ucayali	83.1	70.5	61.3	21.8	12.6	48.7	16.9
Puno	82.6	78.0	49.7	33.0	4.6	45.0	17.4
Cajamarca	81.9	77.4	51.9	30.1	4.6	47.3	18.1
Cusco	81.2	75.3	63.6	17.7	5.9	57.7	18.8
Loreto	81.2	70.0	62.2	19.0	11.2	51.0	18.8
Ayacucho	79.6	72.5	53.8	25.8	7.1	46.6	20.4
San Martín	79.0	66.9	59.9	19.1	12.0	47.9	21.0
Piura	73.1	63.3	53.0	20.0	9.7	43.3	26.9
Lambayeque	69.6	63.0	38.7	30.9	6.6	32.1	30.4
Junín	68.3	57.5	43.6	24.7	10.8	32.8	31.7
Áncash	67.4	61.1	40.4	27.0	6.3	34.1	32.6
Madre de Dios	66.2	36.7	54.5	11.7	29.5	25.0	33.8
Tumbes	66.0	46.8	52.8	13.2	19.2	33.5	34.0
La Libertad	61.6	52.1	34.9	26.6	9.5	25.4	38.4
Ica	53.9	41.7	32.1	21.8	12.2	19.9	46.1
Arequipa	50.2	44.1	27.8	22.4	6.1	21.7	49.8
Moquegua	46.5	29.6	37.0	9.5	16.9	20.1	53.5
Lima y Callao	43.6	33.4	26.1	17.5	10.3	15.8	56.4

Source: Instituto Nacional de Estadística e Informática (INEI). 2002. *Condiciones de Vida en los Departamentos del Perú, 2001*. Lima, p. 62.
www.inei.gov.pe/biblioineipub/bancopub/Est/Lib0501/Lib.pdf

C. Development Indices

All of the measures of poverty we have examined thus far tend to focus on the physical aspects of poverty. Another way to measure poverty is to focus on the human aspects of being poor. The United Nations Development Program (UNDP) produces several measures of poverty that focus on these other aspects of poverty. There are two indices of interest: The Human Development Index (HDI) and the Human Poverty Index – version 1 (HPI-1).

In order to understand these measures of poverty, it is important to understand index numbers. An index number is a unitless measure of some phenomenon – in this case poverty. It is a useful way to combine information from several different types of data with different units of measurement into a single unit. Generally speaking, index numbers have a pre-set value which serves as a basis of comparison for all other possible values of the number. For the HDI this value is 1. For the HPI-1, this value is 100. If the value of the HDI for a particular country is 1, then this country has the maximum possible value for each of the elements of the HDI. A lower value of the HDI (closer to zero) indicates a country with relatively lower human development. The values of the HPI-1 work similarly, except that because the HPI-1 measures poverty, zero is the best possible number, indicating no poverty. An HPI-1 value of 100 would indicate that a country has the worst possible value for each of the elements of the Human Poverty Index.

1. Human Development Index

The United Nations considers three elements of life when calculating the Human Development Index:¹⁵

A long and healthy life – measured using life expectancy at birth

Knowledge – measured by the adult literacy rate and the gross enrollment ratio

A decent standard of living – measured using GDP per capita converting to US dollars using purchasing power parity exchange rates

Life expectancy at birth measures how long, on average, a child born in a particular country is expected to live. The adult literacy rate measures the percent of the adult population who can read. The gross enrollment ratio measures the percent of children of school age who are enrolled in school. Per capita GDP and purchasing power parity are discussed above.

In order to combine these four statistics into a single number, it is necessary to first calculate an index for each element of life individually. To do this, the UNDP first sets standards for the minimum and maximum possible values for each element. The minimum and maximum values for each element of life are as follows:

Life expectancy – minimum = 25, maximum = 85

Adult literacy rate – minimum = 0, maximum = 100

Gross enrollment ratio – minimum = 0, maximum=100

Per capita GDP – minimum = \$100, maximum = \$40,000

¹⁵ United Nations Development Program. 2004. *Human Development Report 2004: Cultural liberty in today's diverse world*. New York, p. 259. <http://hdr.undp.org/reports/global/2004/>.

The minimum and maximum values for life expectancy and per capita GDP are chosen so as to reflect values in the richest and poorest countries in the world, respectively. Because the literacy rate and enrollment ratio are percentages, their natural minimum and maximum values are 0 and 100, respectively. The UNDP then applies the formula:

$$\text{Index} = \frac{\text{actual value} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

This formula measures how much above the minimum value a particular country is with respect to each aspect of life, relative to the maximum amount they could possibly exceed the minimum. Notice that if the actual value for a country equals the minimum value, then the value of the index number is zero. If the actual value for a country equals the maximum value, then the value of the index number is one. To compute the Human Development index, the UNDP averages the individual index numbers for life expectancy, knowledge, and standard of living. The table below reports the values of the human development index for Perú and Argentina, as well as the values of the individual elements of the table.

Table 8. Values of the Human Development Index and Components, 2004

Country	HDI, 2004	Life Expectancy, 2002	Adult Literacy Rate, 2002	Gross Enrollment Ratio, 2001/02	GDP per Capita, 2002	Life Expectancy Index, 2004	Education Index, 2004	GDP Index, 2004
Perú	0.752	69.7	85.0	88	\$5,010	0.74	0.86	0.65
Argentina	0.853	74.1	97.0	94	\$10,880	0.82	0.96	0.78

Source: United Nations Development Program. 2004. *Human Development Report 2004: Cultural liberty in today's diverse world*. New York, pp. 139-140. <http://hdr.undp.org/reports/global/2004/>.

Based on these numbers, Argentina is considered to have high human development and Perú to have medium human development. The cutoff line between high and medium human development is 0.80. Argentina is the highest ranking country in Latin America in terms of human development. Norway and Sweden rank first and second overall. The United States ranks 8th with an HDI value of 0.939.

2. Human Poverty Index

Although the Human Development Index is designed to measure the presence of various elements of a quality life, the Human Poverty Index measures the lack of such elements. The United Nations Development Program computes two versions of the Human Poverty Index, HPI-1 and HPI-2. The HPI-1 is used to measure poverty in countries that are considered developing, such as Perú and Argentina. The HPI-2 is used to measure poverty in selected Organization of Economic Cooperation and Development (OECD) countries.^{16,17} The HPI-1 employs the same

¹⁶ United Nations Development Program. 2004. *Human Development Report 2004: Cultural liberty in today's diverse world*. New York, p. 260. <http://hdr.undp.org/reports/global/2004/>.

¹⁷The OECD is a group of 30 democracies with market-based economies. Member countries include the United States, Canada, the EU member countries, Australia, New Zealand, Japan, South Korea, Mexico and Turkey. www.oecd.org.

three elements of life as the HDI. However, because the HPI-1 is designed to measure the lack of these elements, the statistics to measure each element are different:

- Long and healthy life – Probability at birth of not surviving to age 40
- Knowledge – Adult illiteracy rate
- Decent standard of living – percent of population without access to an improved water source and the percent of children who are underweight for their age¹⁸

Notice that all of these statistics range in value from 0 to 100, and that in each case the best possible value for each statistic is zero. As a result, lower values of the HPI-1 are better, as they indicate relatively less poverty. The UNDP combines these statistics to form a single index number using a method similar to that discussed above for the HDI. The table below reports the values of the HPI-1 for Perú and Argentina, as well as the data for each component of life.

Table 9. Values of the Human Poverty Index and Components, 2004

Country	HPI-1, 2004	Probability at Birth of Not Surviving to Age 40 (2000-05)	Adult Illiteracy Rate (% ages 15 and above) 2002	Population without sustainable access to an improved water source, 2000	Children under weight for age (% under age 5) 1995-2002
Perú	13.2	10.2	15.0	20	7
Argentina	n/a	5.1	3.0	n/a	5

n/a = not available

Source: United Nations Development Program. 2004. *Human Development Report 2004: Cultural liberty in today's diverse world*. New York, pp. 146-147. <http://hdr.undp.org/reports/global/2004/>.

Perú ranks 23rd in the world in human poverty. A ranking is not available for Argentina because not all the data to compute the index are available. For purposes of comparison, the United States ranks 17th, with a human poverty index of 15.8.¹⁹ Note that this index number is not directly comparable to Perú's because the index is computed using version two of the HPI. Version 2 uses slightly different statistics to measure each element of life than HPI-1. However, it is interesting to note that the United States ranks last out of the 17 OECD countries for which the UNDP computes the poverty index. This means that Perú is just 23 places behind the U.S. in terms of poverty, whereas it is 78 places behind the U.S. when ranked according to the Human Development Index.

¹⁸ United Nations Development Program. 2004. *Human Development Report 2004: Cultural liberty in today's diverse world*. New York, p. 260. <http://hdr.undp.org/reports/global/2004/>.

¹⁹ United Nations Development Program. 2004. *Human Development Report 2004: Cultural liberty in today's diverse world*. New York, p. 150. <http://hdr.undp.org/reports/global/2004/>.

II. Defining Inequality

The other side of poverty is inequality. That is, what are the differences between those with the highest incomes and those with the lowest? Is the country uniformly poor, or are there great disparities between rich and poor? What is size of the middle class? The income distribution of a country has important implications for its potential for development in the future.

A. The Gini Coefficient

The Gini coefficient is a way to measure how unequal the income distribution of a country is. In order to compute the Gini coefficient, it is first necessary to plot a Lorenz curve. The Lorenz curve plots out the percent of total national income held by each percent of the population, from poorest to richest. If a country had a perfectly equal income distribution, then the poorest 10% of the population would have 10% of the income, the poorest 20% would have 20% of the income, and so on. The resulting Lorenz curve would be a 45-degree line, as shown below.

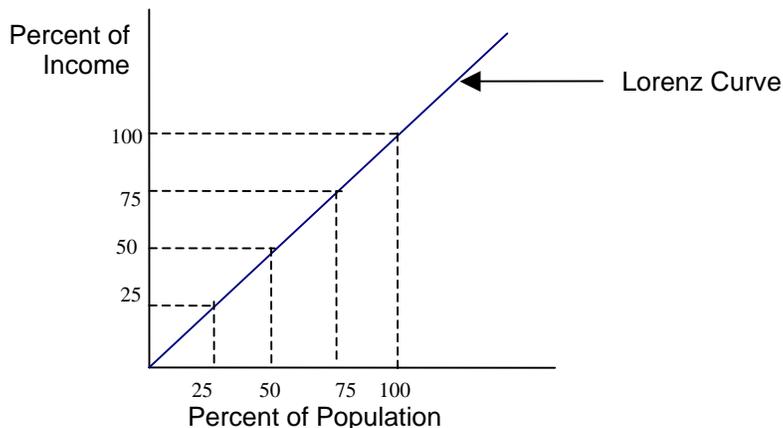


Figure 1. Lorenz Curve for an Equal Income Distribution

No country has a perfectly equal income distribution. In practice, the poorest 10% have less than 10% of the income, and the richest 10% have more than 10% of the income. The difference between the poorest and richest segments of society is what generates the value of the Gini coefficient. As a result, a more typical looking Lorenz curve is one that is bowed below the 45-degree line, as shown below. The Lorenz curve in Figure 2 shows a very unequal income distribution, as the poorest 75% of the population only have about 25% of the income.

To compute the Gini coefficient, compute the area between the Lorenz curve and the 45-degree line. Then divide this number by the area between the 45-degree line and the horizontal axis. Note that using this formula, if a country had a perfectly equal income distribution, then the 45-

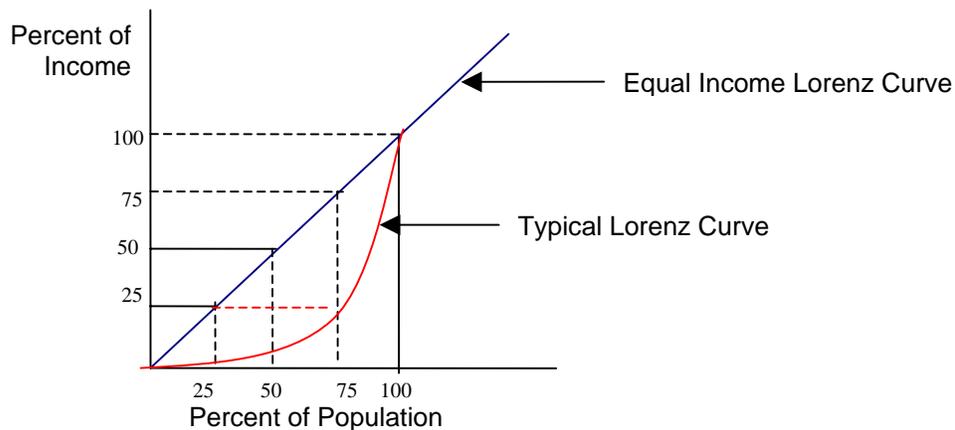


Figure 2. Typical Lorenz Curve

degree line and the Lorenz curve would be the same, making the area between the Lorenz curve and the 45-degree line equal to zero. As a result, the Gini coefficient equals zero as well. If a country had a perfectly unequal income distribution, then all the country's income would be concentrated in the hands of one person. This would make the Lorenz curve a vertical line at 100% of the population. In this case, the area between the Lorenz curve and the 45-degree line is the same as the area between the 45-degree line and the horizontal axis. As a result the value of the Gini coefficient would be one. Gini values close to zero indicate relatively equal income distributions, and Gini values close to one indicate highly unequal income distributions.

The Gini coefficients for Argentina and Perú are 0.522 and 0.498, respectively. These numbers indicate that these countries have relatively unequal income distributions. The countries with the lowest Gini coefficients are Hungary and Denmark, with Ginis of 0.244 and 0.247, respectively. The United States has a Gini coefficient of 0.408.²⁰

B. Shares of Income

A simpler way to think about inequality is to examine the relative shares of income of the poorest and richest members of society. Table 10 reports these data below. Using these measures, the levels of inequality in Perú and Argentina are quite similar.

²⁰ United Nations Development Program. 2004. *Human Development Report 2004: Cultural liberty in today's diverse world*. New York, pp. 188-189. <http://hdr.undp.org/reports/global/2004/>.

Table 10. Income Shares and Ratios

Country	Share of Poorest 10%	Share of Poorest 20%	Share of Richest 20%	Share of Richest 10%	Ratio: Richest 20% to Poorest 20%	Ratio: Richest 10% to Poorest 10%
Perú	0.7%	2.9%	53.2%	37.2%	18.3	53.1
Argentina	1.0%	3.1%	56.4%	38.9%	18.2	38.9

Source: United Nations Development Program. 2004. *Human Development Report 2004: Cultural liberty in today's diverse world*. New York, pp. 188-189. <http://hdr.undp.org/reports/global/2004/>.

C. Inequality in Practice – Health and Education

Although the numbers above can help to provide a picture of income inequality, they do not tell the whole story.

1. Health

One might expect that a high degree of income inequality results in extremely large differences in the health of the richest and poorest members of society. In practice, poorer members of society might have higher rates of disease due to the lack of clean water and sewer systems. Infant mortality rates might be higher as a result of poor maternal nutrition or access to medical care. For the same reasons, life expectancies might be lower as well.

Both the Peruvian and Argentine governments make an effort to ensure that all their citizens have access to health care. As a result, the differences between rich and poor are not as great as one might expect them to be.

The *Instituto Nacional de Estadística e Informática* (INEI) of Perú surveys people once a year about the state of their health during the past three months and their access to health care. When asked whether they have experienced any symptoms, illnesses or injuries during the past three months, 58% of the poor and 63.2% of the non-poor respond that they have²¹. These results are somewhat surprising, as one would expect the rate of reported illness to be higher among the poorer population. Although there are several explanations for this result, one is that both well-to-do and poor Peruvians have access to health care services. There are two systems for health care provided through the Peruvian government. One is ESSALUD, which is designed for those employed in the formal sector. The ESSALUD program is similar to health insurance in the U.S., in that it is funded by employee contributions.²² Those who are unemployed or employed through the informal sector can obtain health care in hospitals and clinics run by the Ministry of Health. There is also a separate health care system for those in the police and armed forces and

²¹ Instituto Nacional de Estadística e Informática (INEI). 2002. *Condiciones de Vida en el Perú, Evolución 1997-2001*. Lima. p. 242. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0502/Libro.pdf

²² Younger, Stephen D. 2000. "The Incidence of Public Services and Subsidies in Peru." Working Paper, Cornell University Food and Nutrition Policy Program. p. 6. <http://www.he.cornell.edu/cfnpp/images/wp103.pdf>.

their families. Not surprisingly, the poor tend to primarily use community clinics, and the better off tend to use the services provided by their health insurance, if they have it. Overall 43.8% of Peruvians have health insurance. Fifty percent of the non-poor have insurance, and 38.4% of those classified as poor have insurance.²³ The major difference between the poor and the non-poor appears to be their access to physicians. Nearly eighty percent of the non-poor who stated they sought medical treatment during the previous three months saw a physician, as compared to 60.9% of the poor.²⁴

There are four systems in place to provide health care to Argentines. The first is the National Health Insurance System (*Sistema Nacional de Seguro de Salud* or *SNSS*). This system is financed by deductions from workers' paychecks, which then go to health insurance funds called *Obras Sociales*, which are organized by the various workers' unions. The second system is PAMI, which provides health care to retirees and pensioners. It is similar to Medicare in the United States. The third source of health insurance is the provincial health funds, which are a provincial-level version of the *obras sociales* of the SNSS. They are financed in a manner similar to the National Health Insurance System. Lastly are the public hospitals, which provide health care to those without some form of health insurance.²⁵

During the 2002 crisis, many people lost their health insurance when they lost their jobs. In addition, the costs of providing medical services, particularly the cost of imported medicines, rose dramatically as the value of the Argentine peso fell. As in Perú, just under 40% of poor households have no health coverage (the exact figure is 39.8%).²⁶

After the 2002 crisis, the World Bank conducted a survey of Argentines to examine the effect of the crisis on the health sector. As noted above, one effect was that many Argentines could no longer afford health insurance, forcing them to rely on those services provided by the state. However, not all state services are free. Prescription medications and diagnostic tests still carry a charge. Tables 11 and 12 report some results of this survey regarding Argentines' inability to access health services. Interestingly, affordability was an issue for Argentines at all income levels. Poorer Argentines face the additional difficulties of lack of health insurance and service difficulties – perhaps due to their reliance on an increasingly overburdened public health care system.

²³ Instituto Nacional de Estadística e Informática (INEI). 2002. *Condiciones de Vida en el Perú, Evolución 1997-2001*. Lima. p. 247. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0502/Libro.pdf

²⁴ *Ibid.*, p. 246.

²⁵ The World Bank Group. 2003. "Argentina – Crisis and Poverty 2003: A Poverty Assessment." Report No. 26127-AR. Washington, DC. pp. 37-38. [http://wbi018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/\\$FILE/ArgentinaPAMainReport.pdf](http://wbi018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/$FILE/ArgentinaPAMainReport.pdf)

²⁶ Instituto Nacional de Estadística y Censos (INDEC). 2003. "Mapa de Necesidades Básicas Insatisfechas 2001." *Aquí se Cuenta: Revista Informativa del Censo 2001*. No. 7, September, p. 2. www.indec.gov.ar/webcenso/aquise cuenta/Aqui7.pdf.

Table 11. Argentines' Access to Health Services

% of households who needed care who were:	Income Quintile					Total
	Lowest 20%	2 nd Lowest 20%	Middle 20%	2 nd Highest 20%	Highest 20%	
Unable to buy medication	61	45	37	30	20	38
Unable to see a physician	39	34	27	22	13	27
Unable to have prescribed tests	52	43	29	26	16	33

Source: Uribe, Juan Pablo and Nicole Schwab. 2002. "The Argentine Health Sector in the Context of the Crisis."

World Bank Office for Argentina, Chile, Paraguay, and Uruguay, Working Paper No. 2/02. para. 39.

[http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/5996dfbf9847f67d85256736005dc67c/2878961aaf5934be85256d5d0054b9fd/\\$FILE/ESW02-02_salud_eng.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/5996dfbf9847f67d85256736005dc67c/2878961aaf5934be85256d5d0054b9fd/$FILE/ESW02-02_salud_eng.pdf)

Table 12. Reasons for Lack of Access – Argentina

Reason (%):	Income Quintile					Total
	Lowest 20%	2 nd Lowest 20%	Middle 20%	2 nd Highest 20%	Highest 20%	
Lack of money (for fees, physician, medication, transportation)	71	62	67	67	60	66
Services not provided or covered by health fund	6	16	22	29	27	18
Does not have health fund	28	18	15	8	4	17
Service difficulties (appointment, waiting)	18	18	15	9	7	15

Source: Uribe, Juan Pablo and Nicole Schwab. 2002. "The Argentine Health Sector in the Context of the Crisis."

World Bank Office for Argentina, Chile, Paraguay, and Uruguay, Working Paper No. 2/02. para. 42.

[http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/5996dfbf9847f67d85256736005dc67c/2878961aaf5934be85256d5d0054b9fd/\\$FILE/ESW02-02_salud_eng.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/5996dfbf9847f67d85256736005dc67c/2878961aaf5934be85256d5d0054b9fd/$FILE/ESW02-02_salud_eng.pdf)

2. Education

Numerous studies have shown that one of the best tools to alleviate poverty is education. As individuals obtain more education, they improve their job prospects and earning possibilities, resulting in a higher standard of living for their family. This effect tends to be cumulative, as the next generation builds on the education and earning potential of the previous. The converse is true as well. Gaps in the educational systems for the wealthy and the poor will tend to perpetuate poverty and inequality, creating a vicious cycle. Therefore, one of the ways to alleviate both poverty and inequality is to invest in education, particularly for those at lower income levels. One study of poverty in Perú indicated that households in which the head's highest level of education is primary school are 2.7 times more likely to be poor than those headed by an individual with a higher education. Households in which the head has completed secondary school are 1.8 times more likely to live in poverty than those headed by someone with more

education. These effects are magnified in urban areas, where households headed by someone with a primary education are 3.4 times more likely to live in poverty than households whose head has more years of education.²⁷

There are vast differences between the educational services available to rural and urban Peruvians, as well as to rich and to poor. The Peruvian government provides education to 94.9% of those who live in poverty, and to 99.6% of those who live in extreme poverty. However, only 71.5% of those who are not poor attend state-funded schools. To see the difference between a private and state school in Perú, consider this description of a private school outside of Lima:

We drove south out of the city on the highway – to the west you can see the Pacific Ocean and to the east the slums of Lima. The further out we drove, the poorer the housing seemed to become until eventually there were just very small huts on large, sandy hillsides. We were told that the owners of this land have planted trees to prevent the expansion of the squatters who set up house here. After about half an hour driving, we came upon a wetland to the west, a park or nature preserve of some kind where there were many different birds. We turned into this area and followed a road back in to an area far removed from the highway, passing a golf course before coming to the site of Cambridge College – a private school where instruction is given in English.

This is an international school – kindergarten through 5th form. There is no middle school system so students go K-6 and then 1-5, which is like our 7-12. ...the headmaster, met us and he and the lower school principal (a woman) showed us around. To me, the school had a very CA feeling in that the rooms were open to the outdoors; students eat outside on picnic tables (with cloth napkins and real glasses!). Kids were milling around, as it was snack time. They wear uniforms, which consist of gray pants, plaid skirts, and blue sweaters. This private school costs \$450 (pesos I think, but am not sure) a month or \$4800 a year plus an entry fee of \$3000 for the lower school and \$4000 for the upper school.

There are 850 students K-5. School is from 8:20 AM - 2:50 PM with an after school session for dance, sports, music, and theater. We were shown classrooms (though we did not go in), the gym, a gymnastics center, music rooms, science labs, computer labs, & karate and dance studios. Classes are 40 min. long; foreign language classes (other than English) meet twice a week. School is in session Aug.-Dec. and Mar....

...There were lots of flowers planted all over the campus (bougainvillea, geraniums, and hibiscus) and the grounds were very well kept, buildings painted pale yellow. I cannot get over the juxtaposition of this school and golf course directly across the highway from probably one of the poorest parts of town. I still have difficulty with the image of this

²⁷ Herrera, Javier. 2002. *La Pobreza en el Perú en 2001: Una vision departamental*. Lima: Instituto Nacional de Estadística e Informática (INEI). p. 66. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0500/Lib.pdf

shantytown on a hillside, on top of which were several cell towers looking down over a nature preserve, a golf course and an exclusive school.²⁸

The vast majority of both poor and non-poor students (99.6% and 92%) who live in rural areas attend state-financed schools. In addition to having fewer resources than private schools, these schools face additional challenges. Many people living in rural Perú are of indigenous descent, and speak languages other than Spanish. These students face the additional difficulty of having to learn to read and write in a language other than their native language. In addition, the system of education may not incorporate these students' values, traditions, and culture. The result is that students feel alienated from the mainstream and may drop out of school. These problems with rural education may serve to continue the cycle of poverty and inequality.^{29,30} Below is a description of the Virgen of Guadalupe school, a rural school at the head of the Urubamba Valley in Perú:

The next stop was to a school, The Virgen of the Guadalupe. As educators who constantly complain about cutbacks in our schools, we were extremely humbled as we viewed a school with so little. This was extreme poverty here. School is in session for ½ day, and there are two sessions, with a different teacher each session. Students may walk 1 to 2 hours to attend classes. The school is available for students ages 6 to 16 years. Teachers are paid the equivalent of 200 soles per month (\$59)!! Fujumori built 3000 schools during his tenure; illiteracy rates dropped from 40 to 20 percent. He also offered breakfast and lunch for the students. It definitely will be hard to listen to my students complain about school lunches and bus rides. The buildings were old, classrooms small (about 20 students), and the students were eager for our attention.³¹

There are 3-4 buildings on the compound with a dirt soccer field in the middle. The classrooms are dark and furnished with old desks and a chalkboard. Perhaps the most striking thing about this school is that there are about a dozen parents who are digging a foundation to build a new building for the school.

These education gaps are evident in the education data for Perú in the accompanying data package. Although there are very small gaps in the attendance rate for poor and non-poor children in primary school (children ages 6-11), there are differences in the performance of children at the primary level. Although 59.7% of non-poor children are enrolled in a grade level consistent with their age, only 36.5% of those children living in extreme poverty are performing at grade level. Nearly half (47.8%) of children in extreme poverty have been held back, while only a quarter of non-poor children are in this situation.

²⁸ Fulbright-Hayes Summer Seminar, Southern Cone Exploration Journal. Entry for July 6, 2004. <http://www.utexas.edu/cola/depts/llilas/centers/outreach/journal.pdf>.

²⁹ Instituto Nacional de Estadística e Informática (INEI). 2002. *Condiciones de Vida en los Departamentos del Perú, 2001*. Lima, pp. 185-186. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0501/Lib.pdf

³⁰ Discussion with Dra. Laura Vilte about rural education, July 31, 2004, Purmamarca, Argentina.

³¹ Fulbright-Hayes Summer Seminar, Southern Cone Exploration Journal. Entry for July 15, 2004. <http://www.utexas.edu/cola/depts/llilas/centers/outreach/journal.pdf>.

Larger gaps begin to appear at the secondary level. Eighty-two percent of non-poor students attend secondary school, while only 56% of poor students do. These gaps are troubling because it is education at the secondary level and beyond that makes the largest difference in pulling a family out of poverty. The vicious cycle is evident in the educational attainment statistics. Poor individuals 25 age or older have on average 6.6 years of education, while those who are not poor have 10.1 years. The increased years of education is both possible because those who are not poor have more resources and can afford to forgo working to spend more time in school, and makes it easier for an individual to obtain a good paying job and stay out of poverty. Those who have few years of education are poor because they have few job possibilities, and they and their children may remain poor because they have few opportunities to obtain the knowledge and skills that might increase their income. This cycle is a difficult one to break. The attached data package for Perú provides additional information about the educational gaps that exist between the poor and non-poor in Perú.

The situation is similar in Argentina. In examining Argentina's education statistics, it is important to keep in mind that the Permanent Household Survey (*Encuesta Permanente de Hogares*, or *EPH*) does not collect data for rural areas. Thus, both the poverty and education statistics should be considered conservative estimates of the actual figures, as both poverty and educational attainment tend to be worse in the rural parts of Argentina.

When considering current data about educational gaps between rich and poor in Argentina, it is important to keep in mind the effect of the 2002 crisis. As a result of this crisis, many middle class Argentines' fell into poverty. These Argentines' incomes are comparable to those traditionally classified as poor, but their educational levels tend to be higher. Therefore, some educational gaps appear smaller than they might otherwise be, as a result of the addition of the "new poor" to the ranks of Argentina's poor population.

Although public schools in Perú are financed at the national level, public schools in Argentina are financed by provinces, the city of Buenos Aires, and the federal government. The provinces are responsible for running education at all levels except the university level. There are some secondary schools in the provinces that are affiliated with universities as well. These schools receive much more national-level funding as a result of their connection to the university. Below is a description of one such school in Córdoba:

After lunch we visited the Colegio Monserat, which is still a functioning high school. The colegio was founded 50 years after the founding of the university. Although it is a public school, students must take an entrance exam. About 1000 students apply each year for 250 slots. 1800 students attend the school – 900 in the morning session and 900 in the afternoon. The morning session runs from 7:15 am - 1:15 pm. It consists of eight 40-minute periods with 5 minute passing periods. The afternoon session is from 1:30-7:30 pm. It has the same structure (eight 40 minute periods) as the morning session. Students may first apply to attend the school at age 10. They may not be admitted after age 13 because they will be too far behind the other students. They study a classics-based curriculum which includes Latin, Greek, History, Chemistry, and Math. There are 300 faculty members and 30-31 students per class.

This school is unique in that its funding comes from the university. Students are required to buy their own books, although many teachers author their own texts due to the uniqueness of the curriculum. This has the added advantage of lowering the costs to the students. About 85% of the students go on to study at university. About half the group got the opportunity to observe classes during the 4:15 session. They observed a variety of classes to include philosophy and literature, as well as a diversity of teaching styles, and appreciated the opportunity to observe the pedagogy employed in Argentine classrooms.

... We sat in the classroom of black iron framed desks with wooden tops which had turned black from many coats of shellac and were creaky upon movement. There were two 8-foot fluorescent bulbs hanging in a very large classroom where there was one large window. There was an adequate chalkboard and chalk.

The orange and cream colored room was cheerful in color yet sad from huge peelings of paint while the high white ceiling showed signs of stress from water leakage and the floor creaked with age. The 18 high school students were jovial, paid attention sporadically, yet whispered among themselves, displaying universal teenage behavior. Their uniform was a navy blazer, shirt, and tie (or maybe a sweater) and mostly completed with blue jeans. The teacher was a younger female dressed in black jeans and sweater with a short red top beneath. She taught in a casual, participative manner, discussing material the students had in front of them. When too much chatter interfered with her lesson, she would gain their attention with “CHICOS!”³²

The requirement to purchase books and uniforms makes this school prohibitively expensive for some poorer Argentines. In addition, many attending poorer schools may not have adequate academic preparation for the rigorous curriculum at schools such as the one described above. In this way, the opportunities that an education such as this one provides are unavailable to the poorer members of the population.

Rural schools in Argentina face similar challenges in educating students as rural Peruvian schools. These schools face the additional challenges posed by uneven financing provided by the provincial governments. A description of conditions in the rural schools in Purmamarca, Jujuy, Argentina follows:

Children here are in school one week and then home two weeks with projects. The teachers go to their homes during these two weeks but do not get paid any extra. They earn 250 pesos (\$83)/month to teach but many have not been paid for the past few months due to no money in the government.³³

Prior to 2002, the federal government provided money to the poorer provinces for books, school supplies, teacher training, and infrastructure. However, these funds dropped dramatically as a

³² Fulbright-Hayes Summer Seminar, Southern Cone Exploration Journal. Entry for August 2, 2004. <http://www.utexas.edu/cola/depts/llilas/centers/outreach/journal.pdf>.

³³ Fulbright-Hayes Summer Seminar, Southern Cone Exploration Journal. Entry for July 31, 2004. <http://www.utexas.edu/cola/depts/llilas/centers/outreach/journal.pdf>.

result of the 2002 crisis. In addition to these funds, the Argentine government provides \$5 per month per child for school lunches. Although these funds are supposed to be supplemental, in many poor provinces, they are the only funding available for students, for nutrition or other expenses.³⁴

Even before the 2002 crisis, many provinces had difficulty funding schools and paying teachers. Many teachers are owed 6 months or more of back pay.³⁵ The poor working conditions and lack of pay results in teacher strikes or work slowdowns, in which teachers come to school but do not teach. The result is lost school days for students. The table below reports the school days lost in the rural provinces for 2001 and 2002. The school year in Argentina is 180 days long. These figures indicate that in some provinces, half or more of the school year was lost. Because these

Table 13. School Days Lost by Province

Province	2001	2002	Cumulative
San Juan	56	81	137
Jujuy	68	31	99
Río Negro	47	35	82
Entre Ríos	10	60	70
Tucumán	11	50	61
Formosa	21	8	29
Chubut	0	20	20
Misiones	17	0	17

Source: Parandekar, Suhas D., Sergio España, and Maria Paula Savanti. 2003. "The Impact of the Crisis on the Argentine Educational System." World Bank Office for Argentina, Chile, Paraguay, and Uruguay. Working Paper no. 3/03, p. 10.

[http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/5996dfbf9847f67d85256736005dc67c/0477dd44edd1d89385256d5d005291e7/\\$FILE/ESW03-03_proeduc_eng.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/5996dfbf9847f67d85256736005dc67c/0477dd44edd1d89385256d5d005291e7/$FILE/ESW03-03_proeduc_eng.pdf)

are officially acknowledged missed days, they should be considered a lower bound on the actual number of days lost.³⁶

When children miss school days, teachers have two choices. One is to lower academic requirements and promote students to the next grade despite the fact that they have not met the standards for promotion (through no fault of their own). The second is to require students to have knowledge not presented in class. If a student's family does not have the resources to keep the student's learning at grade level by working at home, then the student is held back.³⁷ Clearly, neither one of these options is desirable. The result is that poor students' education suffers, thus limiting their options to exit poverty in the future.

³⁴ Parandekar, Suhas D., Sergio España, and Maria Paula Savanti. 2003. "The Impact of the Crisis on the Argentine Educational System." World Bank Office for Argentina, Chile, Paraguay, and Uruguay. Working Paper no. 3/03, p. 12. [http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/5996dfbf9847f67d85256736005dc67c/0477dd44edd1d89385256d5d005291e7/\\$FILE/ESW03-03_proeduc_eng.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/5996dfbf9847f67d85256736005dc67c/0477dd44edd1d89385256d5d005291e7/$FILE/ESW03-03_proeduc_eng.pdf)

³⁵ *Ibid.*, p. 9.

³⁶ *Ibid.*, p. 10.

³⁷ *Ibid.*, p. 11.

The gaps between the educational opportunities and attainment between rich and poor Argentines are evident in the accompanying statistical tables. Non-poor Argentines have, on average, 3 more years of schooling than poor Argentines. Somewhat disturbingly, this gap has grown over time. The increase in this gap indicates that inequality may increase in Argentina in the future if the trend is not reversed. One encouraging sign is that 83.8% of poor Argentines are enrolled in secondary education. However, a larger percentage of them (37.7%) are not performing at grade level. The result of this performance is evidenced by the gap in between poor and non-poor Argentines attending post-secondary education (35.3% vs. 59.9%). In a post-industrial economy such as Argentina's, education beyond the secondary level is critical to finding a good job. Perhaps the most disturbing trend is that the fraction of 15-17 year olds who do not attend school who haven't completed primary or secondary education has grown over the past seven years. It will be extremely difficult for this growing subset of the population to avoid poverty in the future.

III. Programs to Combat Poverty and Inequality

A. Programs in Perú

In the United States, there are programs such as welfare, food stamps, and unemployment insurance to provide income support to families in poverty. Poor families can receive health care through the Medicaid program. These programs are intended to provide a safety net to families until they can get back on their feet. Because they involve transfers of money from the government to poor families, these programs are called transfer payments. Perú cannot afford to fund large transfer payment programs such as these. Most of Perú's assistance to the poor comes in the form of funds for food, education, and health care. These programs are designed to assist the most vulnerable households. Education accounts for 60-65% of Perú's social spending, health care 25-30%, and food assistance most of the remainder.³⁸

Perú's primary food assistance programs are:

Vaso de Leche (Glass of milk)

Comedor Popular (Community Kitchen)

Wawa wasi

Comedor Infantil (Infant Kitchen)

Alimentos por trabajo (Food for work)

Canasta alimentaria (Food basket)

Programa de complementación alimentaria (Supplemental food program)

Alimentación y nutrición para el paciente con tuberculosis (Feeding and nutrition for tuberculosis patients)

Desayuno escolar (School breakfast)

Alimentación escolar (School feeding)

Nutrición infantil (Infant nutrition)³⁹

³⁸ Younger, Stephen D. 2000. "The Incidence of Public Services and Subsidies in Peru." Working Paper, Cornell University Food and Nutrition Policy Program. p. 27. <http://www.he.cornell.edu/cfnpp/images/wp103.pdf>

³⁹ Instituto Nacional de Estadística e Informática (INEI). 2002. *Condiciones de Vida en el Perú, Evolución 1997-2001*. Lima. p. 389. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0502/Libro.pdf

Over two-thirds (67.7%) of those in extreme poverty benefit from at least one of these programs. Nearly half (48.6%) of those who are poor but not in extreme poverty benefit from at least one of these programs, and 20.9% of non-poor Peruvians benefit from at least one food assistance program.⁴⁰

Although these programs are designed to assist those in poverty, it is often the case that some people who are not in poverty benefit as well. If a program's benefits primarily go to the poor, then it is termed *progressive*. If a program's benefits go primarily to those with higher incomes, then it is termed *regressive*. If a program's benefits are equally distributed across income groups, then it is *neutral*. In assessing whether a given program is successful in reducing poverty, it is important to know whether it is progressive, regressive, or neutral. Ideally, programs to fight poverty should be highly progressive. The tables in the attached data package provide information on the distribution of benefits from Perú's food assistance, education, and health programs. A recent study on the effectiveness of Perú's social programs found that the vast majority of the programs are progressive, and that many programs are progressive on the per capita level as well.⁴¹ This means that per-person benefits that lower income people receive are greater than the benefits that those in higher income groups receive. As a result, these programs do seem to have some positive effect in reducing inequality in Perú.

The two food assistance programs which benefit the greatest number of poor Peruvians are *vaso de leche* (glass of milk) and the *comedores populares* (community kitchens). The *vaso de leche* program provides school age children with a glass of milk and a biscuit or grain-based porridge of equivalent nutritional value each day.⁴² Children receive this food at school. Many food assistance programs are provided through the schools. Providing food assistance through the schools is an efficient, centralized way for the government to distribute the benefits to those in need. In addition, it serves to lower the cost to poor families of sending their children to school, as food is provided as a part of the school day. This increases the incentive for school attendance as well.

The *comedores populares* are a way to bring poor families together to pool their resources for the purchase and preparation of food. These organizations also have some subsidy from the government as well as non-governmental organizations. A recent study has shown that having local community members control the administration of assistance programs, as is the case with both *vaso de leche* and the *comedores populares*, is one key to ensuring that the poorest and neediest citizens receive the most benefits from the programs.⁴³

Although public education in Perú is free, there are still costs associated with school attendance such as uniforms, school supplies, and parents' organization fees. Perú has a variety of programs designed to encourage poor families to send their children to school. School feeding programs

⁴⁰ Instituto Nacional de Estadística e Informática (INEI). 2002. *Condiciones de Vida en el Perú, Evolución 1997-2001*. Lima. p. 390. www.inei.gob.pe/biblioineipub/bancopub/Est/Lib0502/Libro.pdf

⁴¹ Younger, Stephen D. 2000. "The Incidence of Public Services and Subsidies in Peru." Working Paper, Cornell University Food and Nutrition Policy Program. p. 36. <http://www.he.cornell.edu/cfnpp/images/wp103.pdf>

⁴² *Ibid.*, p. 27.

⁴³ *Ibid.*, p. 36.

such as *vaso de leche* and school breakfast provide one incentive to send children to school. In addition, Perú has programs to allay the costs of uniforms and school supplies. There are also programs to provide vocational training to youths and women, as well as training in health and nutrition and adult literacy programs. The purpose of the programs aimed at school-age children is to improve attendance rates and reduce dropout rates. The programs for youths and adults are aimed at helping improve their prospects in the job market. The attached data package includes information about how the benefits from these programs are distributed among Perú's citizens.

As discussed above, the Ministry of Health provides health care services to poor Peruvians. These services are provided through hospitals and community clinics and posts. In addition, there are several programs which are targeted at specific health concerns. These are: well-child care, family planning, tuberculosis control, immunization programs, and control of diarrheic illnesses. The programs from which the poor benefit the most are immunizations and well-child care, followed by family planning services. The attached data package contains additional information on the distribution of benefits from Perú's health care programs.

B. Programs in Argentina

As in Perú, social spending in Argentina is focused on food assistance, education, and health care. In addition, Argentina does have several cash transfer programs designed to help poor and unemployed families. Funding comes from the national, provincial, and municipal governments. The national government accounted for approximately half of all social spending in Argentina in 2002. Provincial governments contributed 43% of all funds, and the municipal governments contributed the remainder.⁴⁴ In addition to social spending, the Argentine government also provides social insurance. These programs such as unemployment and health insurance, are typically funded through payroll deductions. As a result, they tend to favor those with higher incomes.⁴⁵

The two primary food assistance programs in Argentina are the *Programa de Emergencia Alimentaria* (Emergency Food Program) and the *Programa Fondo Participativo de Inversión Social* (Social Turnaround for the Lowest Participants). These two programs provide food rations to poor families through community kitchens. The object is to target those most vulnerable to food insecurity, such as those who are pregnant, children, and the elderly. The programs do not provide food directly, but rather provide families, municipalities, and provinces with block transfers of money. Because the funds are not earmarked directly for food, they seem to have little effect on malnutrition.⁴⁶

In addition to these programs, Argentina funds the *Ingreso para el Desarrollo Humano (IDH)* (Income for Human Development), a cash transfer program for poor families. The purpose of

⁴⁴ Ridao-Cano, Cristóbal. 2002. "Government Services for the Poor." *Argentina – Crisis and Poverty 2003: A Poverty Assessment*. Background Paper No. 5. World Bank. p. 3
[http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/\\$FILE/ArgentinaPABP5.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/$FILE/ArgentinaPABP5.pdf)

⁴⁵ *Ibid.*, p. 4.

⁴⁶ The World Bank Group. 2003. "Argentina – Crisis and Poverty 2003: A Poverty Assessment." Report No. 26127-AR. pp. 37-29. [http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/\\$FILE/ArgentinaPAMainReport.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/$FILE/ArgentinaPAMainReport.pdf)

the IDH is to promote the development, education and health of children. The program provides cash transfers to families on the condition that the children attend school and meet certain health requirements. The amount a family receives depends on the number of children in the household. The maximum transfer is 150 pesos per family per month.⁴⁷ It is important to remember that this amount is the equivalent of approximately 50 U.S. dollars.

As in Perú, there are costs to attending school in Argentina even though public education is free. The Argentine government provides assistance to poor families to encourage school attendance through three programs: *Útiles Escolares* (School Supplies), *Becas Estudiantiles* (Student Scholarships), and school lunch programs. As the name implies, *Útiles Escolares* is a program to help poor families purchase school supplies. The *Becas Estudiantiles* is a grant program designed to help poor children attend school, particularly at the secondary level.⁴⁸

As discussed above in the health section, there is a system of public hospitals in Argentina which provides health care services to those without health insurance. This system provides all of the preventative and wellness care that is typical of a public health system. In addition, there is a national program called *REMEDIAR* to provide essential medicines free of charge to poor individuals, as well as a national immunization program.⁴⁹

Lastly, Argentina has programs to provide infrastructure and community development in poor neighborhoods through two programs PROMEBA, which funds community development projects, and PROPOSA (Program for the Provision of Potable Water and Basic Sanitation), which funds water and sewer infrastructure projects.⁵⁰

Although Argentina has a large network of government-provided social services to assist the poor, historically these services have been very poorly coordinated. As a result, the social safety net in Argentina has many holes through which a family can fall. In addition, a study by the World Bank has found that the programs fail to reach many poor people. The non-poor receive 35% of social assistance benefits, and 70% of the poorest Argentines receive no benefits at all.⁵¹ It is also important to remember that rural areas, where poverty tends to be higher, are not included in Argentina's poverty statistics. It is difficult to target programs to a population if there is incomplete information about who that population is and where they live. Therefore, the people who need these programs the most may not have access to the benefits.

⁴⁷ The World Bank Group. 2003. "Argentina – Crisis and Poverty 2003: A Poverty Assessment." Report No 26127-AR. Washington, DC. pp. 37-29. [http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/\\$FILE/ArgentinaPAMainReport.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/$FILE/ArgentinaPAMainReport.pdf)

⁴⁸Ridao-Cano, Cristóbal. 2002. "Government Services for the Poor." Argentina – Crisis and Poverty 2003: A Poverty Assessment. Background Paper No. 5. World Bank. p. 11 [http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/\\$FILE/ArgentinaPABP5.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/$FILE/ArgentinaPABP5.pdf)

⁴⁹ *Ibid.*, pp. 11-12.

⁵⁰ *Ibid.*, p. 12.

⁵¹ *Ibid.*, p. 14.

C. The Effect of the 2002 Financial Crisis and the *Plan Jefes y Jefas de Hogar*

1. Background

Beginning in late 1997, world financial market fell into turmoil as investors pulled their money out of several emerging economies in southeast Asia (Thailand and Indonesia), and then in Russia in 1998. In early 1999, the crisis moved to Brazil. As a result the Brazilian government chose to devalue their currency, the real, which had been roughly fixed at one-to-one with the dollar prior to this event. The Argentine economy had been in recession since 1998, and the Brazilian devaluation in 1999 served to make matters worse. Brazil and Argentina are competitors in world trade. With the Brazilian currency now worth approximately 1/3 as much as the Argentine peso, Brazilian exports cost 1/3 as much as similar goods from Argentina. Argentine exports declined, worsening the condition of the economy. By late 2001, it was clear that the Argentine financial situation was critical, and the government could no longer afford to maintain the policy of keeping the value of the peso fixed at one-to-one with the dollar. In early 2002, the fixed exchange rate was abandoned and the value of the peso was allowed to fluctuate according to market conditions. The value of the peso fell from one peso to the dollar to about 3 pesos to the dollar.

It is important to remember that the Argentine government had the fixed exchange rate policy in place for about a decade when it collapsed in 2002. In fact, the policy was more than a fixed exchange rate policy; it was a currency board policy. This means that for every peso that the Argentine government printed, it had one dollar in its reserves. Any Argentine citizen could be confident that he or she could get dollars in exchange for his or her pesos whenever it was necessary. This system was not much different from the gold standard system that we had in existence in the United States prior to the World Wars. In Argentina, the U.S. dollar was playing the role of the gold.

As a result of this policy, many bank accounts and contracts in Argentina were denominated in dollars (since a dollar and a peso were essentially the same). When it became clear that the government was going to allow the value of the peso to fall, people rushed to withdraw their dollars from their accounts. If the peso is going to be less valuable, it makes sense to have dollars, which will hold their value. However, banks did not have enough dollars on reserve to be able to honor everyone's withdrawals. The risk was that the banking system would collapse, similar to what happened in the Great Depression in the U.S. In order to prevent this, the government froze all bank accounts and declared a bank holiday. This meant that people could not access their money. Needless to say, people were not happy. There were many protests in the street over these policies.

Since the peso and the dollar were no longer equivalent, there was a question about what to do with all of the bank accounts denominated in dollars. The decision was to convert their values to pesos at a one-to-one rate. For example, if you had a \$300 bank account before, it would have 300 pesos in it now. This process was called *pesification*. The problem is, 300 pesos is now worth on \$100 because of the change in the exchange rate. Two hundred dollars of your savings just vanished into thin air! Obviously, this did not make people happy either. Protests,

sometimes violent, against the government and banks continue to this day, as evidenced by a recent bombing of two Citibank branches and a branch of Banco de Galicia de Buenos Aires.⁵²

B. Effect of the Crisis on Poverty

The loss of financial liquidity and the rapid exit of investment funds threw the Argentine economy into a deep recession. Many people lost their jobs and their savings. Unemployment rose to 21.5% in May of 2002.⁵³ The fraction of people living below the poverty line rose of 37% to 58%, and the number of people living in indigence doubled.⁵⁴

Many of the people who fell into poverty as a result of the crisis had previously been part of the middle class. These people, who had homes, cars, and higher levels of education, were different from those who had typically been poor in Argentina. These people are called the “new poor.” The evidence indicates that this group of people was the hardest hit by the crisis, and they have had a difficult time coping with their new circumstances. The traditionally poor in Argentina, also called the structurally poor, tend to live in areas which lack basic infrastructure and social services. These people may live in substandard housing and have lower levels of education. Their numbers have not changed appreciably as a result of the crisis, and the evidence indicates that they have coped better with the crisis, possibly because their circumstances before and after the crisis are similar.⁵⁵

The Argentine government has made an effort to help the poor during the crisis by increasing social spending with a focus on spending focused on the poor. Although total social spending increased, the real value of the spending fell by 32%. In addition, because of the increased numbers of poor people, per-person targeted real social spending fell by 16%.⁵⁶ The government also attempted to address the needs of the poor in the crisis by creating a new program, the *Plan Jefes y Jefas de Hogar*.

C. Plan Jefes y Jefas de Hogar

The stated objective of the *Plan Jefes y Jefas de Hogar* (Heads of Household Plan) is:

To provide financial assistance to male/female household heads with children in order to guarantee the Family Right of Social Inclusion, ensuring (1) the school attendance and

⁵² “One Dead in Bombing of Two Buenos Aires Bank Branches.” *Wall Street Journal*, Online Edition. http://online.wsj.com/article_pring/0,,BT_CO_20041117_004215,00.html. November 17, 2004.

⁵³ Fiszbein, Ariel, Paula Inés Giovagnoli, and Isidro Adúriz. 2002. “Argentina’s crisis and its impact on household welfare.” World Bank Office for Argentina, Chile, Paraguay, and Uruguay, Working Paper No. 1/02, p. 1. [http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/5996dfbf9847f67d85256736005dc67c/1c506119f270f43a85256d5d00531139/\\$FILE/ESW01-02_bienestar_eng.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/5996dfbf9847f67d85256736005dc67c/1c506119f270f43a85256d5d00531139/$FILE/ESW01-02_bienestar_eng.pdf)

⁵⁴ The World Bank Group. 2003. “Argentina – Crisis and Poverty 2003: A Poverty Assessment.” Report No. 26127-AR. Washington, DC. p. i. [http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/\\$FILE/ArgentinaPAMainReport.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/$FILE/ArgentinaPAMainReport.pdf)

⁵⁵ *Ibid.*, pp. 14-15.

⁵⁶ *Ibid.*, p. ii.

health of the children; (2) access of beneficiaries to formal job training and education; and (3) their participation in productive projects or community services.⁵⁷

The purpose was to provide a source of income to those families whose heads had become unemployed as a result of the crisis. Each eligible participant received a cash transfer of 150 pesos per month. To be eligible to participate, one had to be an unemployed head of household with eligible dependents – children under 18 or someone with a disability. Initially, the program was open to anyone who met these criteria, regardless of poverty level. However, early evidence indicated that many people who were participating were not those who needed the program the most. In 2002, the program added a work requirement to create a disincentive for those not in need from participating. The work requirement was 20 hours or community work, job training, school attendance, or employment in a private company with the government subsidizing the wage.⁵⁸ The idea was that the 150 pesos per month wage was less than the going market wage, so that only those who would otherwise be unemployed had an incentive to participate.

Despite these requirements, the evidence indicates that the program has not been particularly successful in meeting its stated goals. Although the program is reaching the poorer segments of the population – household per capita income of program participants is 30% of the national average for working adults, the program also contains a large percentage of ineligible participants. The average participant in the program is a married female who is not considered the head of the household.⁵⁹ Although it is certainly a possibility for a female spouse to be considered a head of household, in order to be eligible for the program, she must have been previously working outside the home or searching for work. The data indicate that most of the female participants were not members of the labor force prior to enrolling in the program.⁶⁰ In addition, the program does appear to be reaching 75% of those people who are eligible to participate.⁶¹

Given the large number of ineligible participants, it is not surprising that the program was fairly ineffective in reducing unemployment. A new study by the World Bank has found that the program did not contribute to lowering the unemployment rate in 2002 over and above the amount that it fell on its own as a result of the economy starting to recover from the worst effects of the crisis.⁶² This is largely due to the fact that many people participating in the program were not considered unemployed because they were not participants in the labor force prior to participating in the program. The program essentially gave jobs to many people who would not have sought out a job had the program not been in place. This problem was compounded by the fact that the work requirement was not rigorously enforced in many parts of the country. In addition, it appears that the program had a very small effect on reducing poverty. On a positive

⁵⁷The World Bank Group. 2003. “Argentina – Crisis and Poverty 2003: A Poverty Assessment.” Report No. 26127-AR. Washington, DC. p. 31. [http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/\\$FILE/ArgentinaPAMainReport.pdf](http://wbln0018.worldbank.org/lac/lacinfoclient.nsf/d29684951174975c85256735007fef12/3d29a0ed02294a8b85256db10058dbdd/$FILE/ArgentinaPAMainReport.pdf)

⁵⁸ Galasso, Emanuela and Martin Ravallion. 2003. “Social Protection in a Crisis: Argentina’s Plan Jefes y Jefas.” Washington, DC. World Bank Policy Research Working Paper No. 3165. pp. 3-7 http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2003/01/07/000094946_02121204015351/Rendered/PDF/multi0page.pdf

⁵⁹ *Ibid.*, p. 11.

⁶⁰ *Ibid.*, p. 24.

⁶¹ *Ibid.*, p. 24.

⁶² *Ibid.*, p. 20.

note, the study estimates that if the program had not been in place, an additional 10% of the population would have fallen into poverty.⁶³ Therefore, the program was successful in providing a safety net to a small proportion of the population.

IV. The Link to Sustainable Development

Economists typically define sustainable development as each subsequent generation being at least as well off as the previous generation. In societies in which there is a large degree of poverty and inequality, this definition may imply persistent poverty and inequality over time. Although economic growth can help to alleviate poverty, how the benefits of growth are distributed is important as well.

In practice, large gaps between rich and poor may minimize a country's growth potential. One of the sources of growth is productivity, and productivity, at least in part, arises from education. As we have seen, there are large and persistent gaps between the educational levels and opportunities between rich and poor in both Perú and Argentina. The presence of these gaps means not only limited opportunities for those with less education, but also a limit to the economic potential of the country. Therefore, reducing the gaps between rich and poor is of interest to the country as a whole, as it can increase the country's growth potential and put it on a development path that results in increased living standards for all. Therefore, the types of educational support programs, such as school breakfast and subsidy for uniforms and school supplies, are an important factor in both reducing income gaps between rich and poor and improving the overall development of the country.

In order to have sustainable development, a country must first have development. Although there are hundreds of definitions of economic development, most people who think about this issue agree that economic growth is an important component. Increasing the size of the pie increases the number of opportunities available to everyone. Policies that promote growth, such as a well-defined legal structure, and a simple and effective tax system, are critical to this process. Economic growth will also almost certainly involve some use of a country's natural resources. As these resources dwindle, it is important to use them in such a way that does not erode the country's future economic potential. Economist Robert Solow has a simple idea for ensuring this does not happen – invest resource rents.⁶⁴ That is, a country takes the income from use of its natural resources and re-invests it – in its people (through education and health care), in its land (through preservation and restoration projects), and in its infrastructure. In this way, opportunities are preserved for future generations.

As we have seen above, poor families often lack access to basic infrastructure such as electricity, water, and sewage. Providing these services will involve some use of natural resources as well.

⁶³ Galasso, Emanuela and Martin Ravallion. 2003. "Social Protection in a Crisis: Argentina's *Plan Jefes y Jefas*." Washington, DC. World Bank Policy Research Working Paper No. 3165. pp. 22-23. http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2003/01/07/000094946_02121204015351/Rendered/PDF/multi0page.pdf

⁶⁴ Solow, Robert. "An Almost Practical Step towards Sustainability." Invited lecture on the occasion of the 40th anniversary of Resources for the Future. In Oates, Wallace E., ed. *The RFF Reader in Environmental and Resource Management*. Washington, DC: Resources for the Future, 1999. pp. 263-272.

However, there are new alternatives available, such as solar and wind power, that may be competitive in the very near future. Employing such alternatives may make it possible to improve the quality of life of rural citizens while preserving what is unique about the rural areas in which they live. It may also make it possible for these people to create a better future for themselves while preserving the cultural aspects of their life – something that may be lost if people have no choice but to move to the cities to find opportunity.

Targeted programs such as those for food, education, and health in Perú and Argentina are the one way for a country with limited resources to improve the lives of its poorest citizens. Judicious investment of the gains from economic growth will enable these countries to embark on a growth path that improves the lives of all their citizens.

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