

Components of the Income Aggregate: “Encuesta de Condiciones de Vida, Ecuador 1995/1996”¹

Prepared for the Rural Income Generating Activities (RIGA) Project²

of the Agricultural Development Economics Division,

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This document provides the survey-specific details associated with the income aggregate construction. For more information about the RIGA project, please refer to <http://www.fao.org/es/esa/riga>. For additional detail regarding the overall RIGA income aggregate construction approach, please refer to Carletto, et al (2007), “Rural Income Generating Activities Study: Methodological note on the construction of income aggregates,” found on the RIGA website.

The Ecuador *Encuesta de Condiciones de Vida* (Survey of Living Conditions; ECV) was carried out in late 1995 and early 1996. The sample frame for the sample selection is made up of listings obtained from the 1990 Census of Population and Housing and from a subsequent update of the frame due to jurisdictional changes which took place in September of 1993.

For the 1995 ECV, a two-stage sampling design was used for the self-representing cities and a three-stage sampling design was applied to the rest of the urban domains. For the rural part, a three-stage sampling design was used. The primary sampling units are the domains (enumeration areas) and are chosen with equal probability. The ultimate sampling units (USU) are the housing units in all the domains. The number of housing units selected from every urban enumeration area for interview was 9 and it was 12 in the rural areas. The expansion factor is represented by variable FEXP which is included in each file.

5,810 households were selected for the final sample of which 2,532 are rural households and 3,278 are urban households. In the original datasets, AREA is the variable distinguishing urban from rural households. Urban is defined as any jurisdiction known in Spanish as *Cabeceras Cantonales* (CC) or *Cabeceras Parroquiales* (CP) with 5,000 or more inhabitants in 1995. The definition of rural includes the CC's and CP's with less than 5,000 inhabitants the periphery of all the CC's and of all the provincial capitals and the dispersed areas of all the CP's.³ In the

¹ The information provided in this document relies substantially upon the Ecuador 1994 and 1995 Sample Design guide, provided with the 1994/1995 Ecuador ENV data..

² The RIGA Project is a collaboration between FAO, the World Bank and American University in Washington, D.C. Original data can be obtained from the World Bank's Living Standards Measurement Study by visiting the LSMS website at: <http://www.worldbank.org/lsm>.

³ Definitions of rural and urban come from the Ecuador 1994 and 1995 Sample Design

calculation of the income aggregate area is renamed to URBAN in order to use the same variable name across different surveys.

The average household size in Ecuador was 4.66 persons in 1995.⁴ All money amounts are in the local currency, Sucres. In 1995, the official exchange rate was 2,564.49 Sucres = 1.0 USD.⁵ **The income aggregates are calculated at the household level and all aggregates are annualized.**

The various household-level modules of the ECV survey can be linked using the seven variables that create the unique household identifier: REGION, CIUDAD, AREA, ZONA, SECTOR, VIVIEN, HOGAR and NUMERO. These variables are combined to create the unique identifier HH.

Regarding income from different sources, revenues and costs were disaggregated when such information was available. The disaggregated sources for each income component are summarized in output variables column of Table 1. The net variables and the data files included in the final total income aggregate (Income.dta) are in **bold**. **All variables included in the aggregate income variable are net of costs, unless otherwise noted.**

Comments

- In all sections, the raw data undergoes a transformation (it is annualized, aggregated, taken from person – household level, etc) before a check for outliers takes place.
- In all sections numbers starting with 9**** were coded as missing based on the codebook.
- In the Crop Production section, the reference period is the previous 12 months. Two total crop income variables are created: *cropincome1* and *cropincome2*. *Cropincome1* includes estimates of own crop consumption based on the agricultural production module of the household questionnaire. *Cropincome2* includes estimates of own crop consumption based on the food expenditure section of the questionnaire in which household consumption was recorded and updated periodically over a given time frame.
- The reference period for the consumption of own produce (from the food expenditure section of the questionnaire, corresponding to *Cropincome2*) is based on a period of 16 days for rural clusters (which were visited eight times at two-day intervals) and of 33 days for urban clusters (which were visited eleven times at three-day intervals).
- For the Livestock, Other Income, Rentagric and Transfers sections, the reference period is the previous month or the previous 12 months.
- Other Income includes income from non-labor, non-farm sources and includes farm and non-farm rent.
- Rentagric calculates gross income from the rented and sharecropped agricultural land.
- For Transfer income the estimate calculated is the gross value of transfers. Households are not asked about outflows, therefore a net value cannot be calculated..
- In the Wage employment section, the reference period is the duration of employment as specified by the respondent in the questionnaire for the first and second full-time and part-time jobs held in the last 7 days. In case the job was not held in the last 7 days, the job held

⁴ Source: the ENV basic dataset – variable HHSIZE

⁵ Exchange rate used is the period average official exchange rate from the World Development Indicators.

during the last 12 months is reported. All household members 10 years and older were interviewed.

- The classification of wage employment activities into industries and skilled/unskilled categories is based on the enclosed documentation with the Living Standard Measurement survey and corresponds to the United Nations International Standard Industrial Classification for all Economic Activities (ISIC). Given these standards, the employment sectors include: (1) Agriculture, Livestock, Hunting and Fishing, (2) Mining, (3) Manufacturing, (4) Electricity and Utilities, (5) Construction, (6) Commerce, (7) Transportation, Storage and Communications, (8) Finance, Insurance and Real Estate, (9) Services and (10) Other Industries.
- Earnings from wage employment include all in-cash and in-kind benefits received from the employer.
- The Self Employment (Selfemp) section accounted for income from nonfarm enterprises owned by the household. For expenditures, the reference period was the last 1 day, 1 week, 2 weeks, 1 month, 3 months, 6 months and 12 months. For revenues, the reference period is the last month. Both expenditures and income are annualized based on the amount of months the enterprise was in existence.
- For all sections, whenever information was available regarding the share of a business, enterprise, or any other income activity owned by the household, the income earned from that activity was weighted by the share owned by the household.
- A final outlier check is imposed at the end of the Aggregateincome.do file in which households with income shares from any given activity greater than or less than 3 (300%) are dropped from the final income aggregate. Using this criteria, 56 households were dropped from this survey.
- Although we would normally compute the income aggregate using information based on present household members (defined as having lived in the dwelling a minimum 6 of the previous 12 months), such information is not available in this survey, therefore the full sample is kept for the income aggregate construction.
- Participation and income share variables are also included in the final income aggregate.

The programs that calculate each household's income aggregate component are summarized in Table 1. Tables 2 and 3 summarize the results from the created income aggregate.

Table 1

do file	input dta files	output dta files	output variables
Sample.do	BASIC95.DTA	Sample.dta	
Prices.do	E95PA10.dta E95GA10.dta Sample.dta	prodpricetemp.dta homeowntemp.dta prices.dta	pricedata1 – pricedata10
Food.do	E95GA10.DTA E95GA20.DTA E95GA30.DTA	foodown-crop.dta foodown-livestock.dta	foodownimp
Rentagric1.do	E95FA10.DTA Sample.dta	agrrentinc1.dta agrrentinc2.dta agrrentinc3.dta	rentinc1imp rentinc2imp rentinc3imp

Rentagric2.do		agrrentinc4.dta Rentagric.dta agrrentexp1.dta agrrentexp2.dta agrrentexp3.dta agrrentexp4.dta Rentagricnet.dta	rentinc4imp aggrentincimp rentexp1imp rentexp2imp rentexp3imp rentexp4imp farmrntimp
Cropincome1.do	E95FA10.DTA	seedexp.dta fertexp.dta pestexp.dta packexp.dta	seedexpimp fertexpimp pestexpimp packexpimp
Cropincome2.do	E95FD10.DTA	templaborexp.dta partlaborexp.dta fulllaborexp.dta machrent.dta animalrent.dta techexp.dta	templaborexpimp partlaborexpimp fulllaborexpimp machrentimp animalrentimp techexpimp
Cropincome3.do	E95FA10.DTA	<i>cropexp.dta</i>	cropexpimp
Cropincome4.do	E95FE10.DTA	<i>cropinc.dta</i> <i>cropbypr.dta</i>	cropincomeimp sharcropnetimp cropown1imp cropbyprsoldimp cropbyprownimp
	Foodown-crop.dta Sample.dta	Cropincome.dta	cropincome1imp cropincome2imp
Employment1.do	E95PE11.DTA	employ1.dta	wge (by industry, skilled)
Employment2.do	Sample.dta	employ2.dta	wgem
Employment3.do		employ3.dta	wgeimp
Employment4.do		employ4.dta employ5.dta employ6.dta employ7.dta employ8.dta Employment.dta	
Livestock1.do	E95FE10.dta	livstinc1.dta	livstsold1imp
Livestock2.do	SEC11.DTA Sample.dta livstown.dta	livstinc2.dta livstbypr1.dta livstbypr2.dta livstexp1.dta livstexp2.dta Livestock.dta	owncons1imp labor1imp livstsold2imp livstbyprsold1imp livstbyprown1imp livstexp1imp livstexp2imp livstincimp
Otherinc.do	E95GC10.dta Sample.dta	otherinc.dta nonfarmrnt.dta Otherinc.dta	otherincimp nonfarmrntimp otherincimp
Selfemp.do	E95NE10.dta	selfempinc.dta selfempexp.dta	hhrevimp hhrexpimp

		Selfemp.dta	selfempincimp
Transfers1.do Transfers2.do	E95PE11.dta E95GC10.dta Sample.dta	transprivinc.dta transprivexp.dta transpriv.dta pensions.dta socbenef1.dta socbenef2.dta socbenef3.dta socbenef4.dta socialtransfers.dta Transfers.dta	transprivincimp transprivexpimp transprivimp pensionsimp socbenef1imp socbenef2imp socbenef3imp socbenef4imp socialtransfersimp privtransferimp pubtransferimp transfersgrossimp
AggregateIncome.do	Cropincome.dta Employment.dta Livestock.dta Otherincome.dta Selfemp.dta Transfers.dta Sample.dta	Income.dta	agr_wge nonagr_wge crop1 crop2 livestock other selfemp transfer totincome1 totincome2

Table 2

<i>Ecuador 1995</i>	2,495 Rural HH Observations	Rural, Weighted, Sucres					Rural, Weighted, USD		
<i>Variable</i>		<i># Participants</i>	<i>Participation Rate</i>	<i>Returns to Participation- Participant HHs</i>	<i>Returns to Participation- All HHs</i>	<i>Share of Total Income- All HHs (Mean of Shares)</i>	<i>Share of Total Income- All HHs (Share of Means)</i>	<i>Returns to Participation- Participant HHs</i>	<i>All HHs</i>
agr_wge	Wage Employment- Agriculture	929	39.09%	3,360,132	1,313,466	0.00%	19.35%	1,310	512
nonagr_wge	Wage Employment- Nonfarm	879	34.44%	4,114,695	1,417,164	0.00%	20.87%	1,604	553
crop1	Crop Production	1,667	68.79%	2,524,425	1,736,550	0.00%	25.58%	984	677
livestock	Livestock Production	1,892	76.17%	452,098	344,351	0.00%	5.07%	176	134
selfemp	Non-ag Self Employment	984	38.82%	3,085,710	1,197,958	0.00%	17.64%	1,203	467
transfer	Total Transfers	654	27.30%	686,699	187,502	0.00%	2.76%	268	73
other	Other Income Sources	1,207	48.36%	1,225,465	592,653	0.00%	8.73%	478	231
totincome1	Total Household Income-crop1	2,489	99.81%	6,802,473	6,789,644	0.00%	100.00%	2,653	2,648

Percent Rural (Weighted)	37.40%
Sucres/USD	
1995	2,564.49

Notes:

1. Source data: 1995 Encuesta de Condiciones de Vida (ECV).
2. Exchange rate used is the period average official exchange rate from the World Development Indicators.
3. The variable "crop1" is distinguished from "crop2" in the way home consumption of own production of crops (owncons) is calculated. In crop1, owncons is calculated from the amount reported in the crop section. For crop2, owncons is calculated from the "Consumption of Own Produce" section of the household questionnaire based on the amount reported. Total household income "totincome1" and "totincome2" are therefore calculated with the corresponding crop income variable.
4. All values reported are annual and net of costs (with the exception of income from transfers and land rent, which are gross receipts).

Table 3

<i>Ecuador 1995</i>		2,495 Rural HH Observations		Rural, Weighted, Sucres				Rural, Weighted, USD	
<i>Variable</i>		<i># Participants</i>	<i>Participation Rate</i>	<i>Returns to Participation- Participant HHs</i>	<i>Returns to Participation- All HHs</i>	<i>Share of Total Income- All HHs (Mean of Shares)</i>	<i>Share of Total Income- All HHs (Share of Means)</i>	<i>Returns to Participation- Participant HHs</i>	<i>All HHs</i>
agr_wge	Wage Employment- Agriculture	929	39.09%	3,360,132	1,313,466	0.00%	20.06%	1,310	512
nonagr_wge	Wage Employment- Nonfarm	879	34.44%	4,114,695	1,417,164	0.00%	21.64%	1,604	583
crop2	Crop Production	1,795	73.55%	2,034,229	1,496,169	0.00%	22.84%	793	583
livestock	Livestock Production	1,892	76.17%	452,098	344,351	0.00%	5.26%	176	134
selfemp	Non-ag Self Employment	984	38.82%	3,085,710	1,197,958	0.00%	18.29%	1,203	467
transfer	Total Transfers	654	27.30%	686,699	187,502	0.00%	2.86%	268	73
other	Other Income Sources	1,207	48.36%	1,225,465	592,653	0.00%	9.05%	478	231
totincome2	Total Household Income-crop1	2,488	99.77%	6,564,500	6,549,264	0.00%	100.00%	2,560	2,554

Percent Rural (Weighted)	37.40%
Sucres/USD	2,564.49

Notes:

1. Source data: 1995 Encuesta de Condiciones de Vida (ECV).
2. Exchange rate used is the period average official exchange rate from the World Development Indicators.
3. The variable "crop1" is distinguished from "crop2" in the way home consumption of own production of crops (owncons) is calculated. In crop1, owncons is calculated from the amount reported in the crop section. For crop2, owncons is calculated from the "Consumption of Own Produce" section of the household questionnaire based on the amount reported. Total household income "totincome1" and "totincome2" are therefore calculated with the corresponding crop income variable.
4. All values reported are annual and net of costs (with the exception of income from transfers and land rent, which are gross receipts).