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THE DISTRIBUTION OF SECTORAL VALUE ADDED AND EMPLOYMENT BY FACTOR TYPES IN INDONESIA

Steven J. Keuning and Roger A. Downey

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Indonesia's Gross Domestic Product (GDP) at factor costs is broken down in table 1. In order to maintain a link the aggregated Social Accounting Matrix for Indonesia which has been discussed in a previous paper [Downey and Keuning, 1985], the aggregated SAM account numbers are included in the headings. They show to which consolidated account of the aggregated SAM the detailed groupings in this and following tables belong. In this way it should be possible not to lose sight of the whole when scrutinizing this part of the Indonesian SAM [BPS, 1982].

The subdivision of production activities may be clear enough from the table headings. At the right side of this matrix not only grand totals are given but also a bipartition into total agriculture (adding columns a-e: food crops cultivation, estate crops cultivation, livestock production, forestry and hunting, and fushing) and total non-agriculture (adding columns f-v: all other activities, including food

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TABLE 1: A DECOMPOSITION OF FACTOR INCOMES

Billions of Rupiahs				a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	TOTAL AGRICULTURE	TOTAL NON-AGRICULTURE	TOTALS
Aggregated SAM Account Numbers / Activities / Factors of Production				19	20	19	20	19	21	21	19	21	21	21	21	21	22	22	22	22	22	23	23	23	22			
				Food Crop Cultivation	Estate Crop Cultivation	Livestock Production	Forestry and Hunting	Fishing	Oil, Gas, Coal and Metal Ore Mining	Other Mining	Food Processing	Wood Product Manufacturing and Construction	Textile Manufacturing	Paper, Metal Product and Other Manufacturing	Chemical and Basic Mineral Manufacturing	Utilities	Trade	Restaurants	Hotels	Land Transport	Other Transport	Finance	Real Estate and Business Services	Government, Social and Cultural Services and Recreation	Personal and Other Services			
a	1	WORKERS	Agricultural Paid	Rural	377	83	13	14	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	517	-	517
b				Urban	10	2	3	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	22
c	2		Agricultural Unpaid	Rural	1032	55	40	26	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1185	-	1185
d				Urban	35	3	3	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	-	46
e	3		Manual Paid	Rural	1	1	0	2	0	10	3	52	161	27	25	25	0	5	0	0	50	7	0	2	7	38	4	412	416
f				Urban	0	0	0	0	0	3	5	24	96	28	33	14	10	6	0	0	56	18	2	2	20	36	0	353	353
g	4		Manual Unpaid	Rural	3	0	0	3	0	0	5	56	78	13	17	14	0	1	0	0	47	4	0	0	0	26	5	261	267
h				Urban	0	0	0	0	0	0	5	7	12	4	5	1	1	0	0	0	32	1	0	0	1	26	0	95	95
i	5		Clerical Paid	Rural	0	2	1	2	0	2	2	6	14	1	6	7	3	42	3	2	7	3	4	4	62	51	5	219	224
j				Urban	0	0	0	1	0	6	1	10	12	6	18	10	3	72	3	7	10	23	39	6	123	48	2	397	398
k	6		Clerical Unpaid	Rural	0	0	1	0	0	0	2	1	2	1	1	0	0	359	29	0	1	0	0	0	1	15	2	412	413
l				Urban	0	0	0	0	0	0	0	1	1	1	1	0	0	192	16	0	1	1	0	0	2	12	0	228	228
m	7		Professional Paid	Rural	0	4	0	1	0	1	0	3	5	1	1	2	2	2	0	0	0	1	1	1	358	4	5	382	387
n				Urban	0	1	0	0	0	12	1	4	14	3	9	6	8	16	0	1	3	20	27	5	384	4	1	517	518
o	8		Professional Unpaid	Rural	2	0	0	0	0	0	0	2	4	1	0	1	0	20	3	0	0	0	0	0	6	3	2	40	42
p				Urban	0	0	0	0	0	0	0	4	5	2	3	1	0	77	5	1	2	1	0	1	10	4	0	116	116
q	9	CAPITAL	Unincorporated	Agricultural	1074	255	228	107	169	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1833	-	1833
r				Housing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	358	-	-	-	358	358
s				Other Rural	-	-	-	-	-	0	19	134	34	24	13	10	0	175	46	1	52	8	1	1	10	2	-	530	530
t				Other Urban	-	-	-	-	-	0	38	129	37	37	24	15	1	267	60	5	89	10	2	31	45	5	-	795	795
u			Private Domestic Corporate		2	12	8	78	18	0	1	61	210	23	105	32	7	459	5	1	61	8	14	62	27	8	118	1084	1202
v	10		Public		19	52	1	8	1	499	3	66	52	7	33	122	42	134	0	4	6	145	131	6	43	1	81	1294	1375
w			Foreign		0	13	1	25	7	1740	0	36	4	14	47	19	5	83	0	1	0	0	9	0	0	0	44	1958	2004
TOTAL PAID WORKERS					388	93	17	21	36	34	12	99	302	66	92	64	26	143	6	10	126	72	73	20	954	181	557	2278	2835
TOTAL UNPAID WORKERS					1072	58	44	30	36	0	12	71	102	22	27	17	1	649	53	1	83	7	0	1	20	86	1241	1152	2392
TOTAL CAPITAL					1095	332	238	218	195	2239	61	426	337	105	222	198	55	118	111	12	208	171	157	458	125	16	2077	6019	8097
TOTAL FACTOR INCOME					2555	483	299	269	267	2273	85	596	741	193	341	279	82	1910	170	23	417	250	230	479	1099	283	3874	9451	13324

All totals are subject to rounding errors

processing).

Three broad categories of factor income exist: a) wages and salaries, in kind as well as cash, earned by employees (paid workers), b) labor income imputed, in proportion to hours worked, to employers, self-employed and family workers (unpaid workers), and c) rents on the provision of means of production and on the depletion of natural resources (capital income).

Both labor types mentioned above are further subdivided by location (rural/urban) and occupation: agricultural worker (ISCO 6), non-agricultural manual worker (ISCO 7/8/9), clerical sales and services worker (ISCO 3/4/5), and professional, managerial and non-cilivian worker (ISCO 0/1/2/00). Capital income is broken down into four types of unincorporated capital (agricultural, housing, other rural and other urban) and three types of incorporated capital (private domestic, public and foreign).[1]

Total value added by activity is also part of input-output tables, but apart from indirect taxes, usually only aggregated wages and salaries and a rather ambiguous residual category, called operating surplus, are differentiated. Sometimes, depreciation is given separately. Operating surplus then combines returns on invested capital and the remuneration of the self-employed. Explicitly estimating the share of unincorporated profits and subsequently the labor component thereof allows one to compare the relative importance of these "unmarketed" workers' incomes with wage and salary incomes. Moreover, an estimation of much neglected unincorporated capital incomes may yield interesting insights in differences in rates of return and choice of technology between corporate and unincorporated business.

The subdivision of operating surplus in each activity into unincorporated, private domestic corporate, public and foreign is based on <u>legal status</u> and <u>capital ownership</u> of the enterprise.[2] The records of joint ventures are segregated in accordance with the distribution of share-holding

between the two (or more) parties. Operating surplus of corporate owners equals their capital income, but operating surplus of non-corporate owners consists of two parts: imputed labor income which is estimated separately, and capital income which is computed as a residual.

Unpaid labor income is arrived at by multiplying the number of hours worked by each type of own-account workers by a wage rate which is derived from the salary of similarly placed employees: the same type of occupation, sex, age group, location, importance of the job (primary/secondary).[3]

Examining total incomes of workers on the right hand side of table 1, it becomes clear that, overall, imputed "unpaid" labor income almost equals "paid" labor income, and that among agricultural workers and (rural) clerical, sales and services workers, the former category even dominates.

Computation of column percentages from table 1 yields the factorial distribution of income by sector of activity.[4] This is presented in table 2 which also relates total factor income to cost of production at producer's prices (see the bottom row). The latter ratio is low in the manufacturing sectors (notably in food processing) and restaurants. Such a dependence on intermediate inputs indicates the existence of important backward linkages (provided that the orders are not placed abroad), which should be kept in mind when reviewing for instance sectoral employment. Even if the just mentioned sectors do not generate much <u>direct</u> employment, substantial <u>indirect</u> employment may be created with suppliers. An assessment of these indirect effects requires the computation of the <u>inverse</u> Social Accounting Matrix, or even a full-fledged model if production capacity is fully utilized in some sectors.

Continuing with the functional distribution of income, it is striking that a very high share of Indonesia's GDP accrues to capital (60.8%). Moreover, merely unincorporated capital already accounts for more than a quarter (26.5%). This demonstrates that it is wrong to identify capital income

Table 2: THE DISTRIBUTION OF VALUE ADDED (AT FACTOR PRICES) BY ACTIVITY AMONG FACTORS OF PRODUCTION (COLUMN PERCENT)

				a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v			
	Aggregated SAM Account Numbers			19	20	19	20	19	21	21	19	21	21	21	21	21	22	22	22	22	22	23	23	23	22			
	Factors of Production / Activities			Food Crop Cultivation	Estate Crop Cultivation	Livestock Production	Forestry and Hunting	Fishing	Oil, Gas, Coal and Metal Ore Mining	Other Mining	Food Processing	Wood Product Manufacturing and Construction	Textile Manufact.	Paper, Metal Product and Other Manufacturing	Chemical and Basic Mineral Manufacturing	Utilities	Trade	Restaurants	Hotels	Land Transport	Other Transport	Finance	Real Estate and Business Services	Government,Social and Cultural Serv and Recreation	Personal and Other Services	Total Agriculture	Total Non-Agriculture	Total Value Added
a b	1	WORKERS	Agricultural Paid	Rural	14.8	17.1	4.2	5.3	11.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.3	--	3.9
				Urban	0.4	0.5	0.8	0.5	2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.6	--	0.2
c d	2		Agricultural Unpaid	Rural	40.4	11.5	13.5	9.8	11.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	30.6	--	8.9
				Urban	1.4	0.6	1.0	0.4	1.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.2	--	0.3
e f	3		Manual Paid	Rural	0.0	0.2	0.0	0.8	0.1	0.4	3.2	8.7	21.7	14.0	7.2	8.8	0.2	0.3	0.0	0.4	12.0	2.8	0.1	0.3	0.7	13.5	0.1	4.4	3.1
				Urban	0.0	0.0	0.0	0.1	0.0	0.1	6.0	4.1	12.9	14.3	9.7	5.2	12.0	0.3	0.1	0.6	13.3	7.1	0.8	0.4	1.8	12.7	0.0	3.7	2.7
g h	4		Manual Unpaid	Rural	0.1	0.0	0.0	1.1	0.0	0.0	6.0	9.5	10.5	6.7	5.1	4.9	0.2	0.1	0.1	0.0	11.2	1.6	0.0	0.0	0.0	9.1	0.1	2.8	2.0
				Urban	0.0	0.0	0.0	0.0	0.0	0.0	5.5	1.2	1.6	2.2	1.4	0.3	0.9	0.0	0.0	0.0	7.6	0.6	0.0	0.0	0.1	9.3	0.0	1.0	0.7
i j	5		Clerical Paid	Rural	0.0	0.4	0.3	0.6	0.1	0.1	2.0	1.0	1.9	0.9	1.6	2.7	3.5	2.2	1.9	9.1	1.7	1.1	1.6	0.9	5.6	17.8	0.1	2.3	1.7
				Urban	0.0	0.1	0.0	0.3	0.1	0.3	1.3	1.6	1.6	3.1	5.2	3.5	4.2	3.8	1.5	28.5	2.3	9.1	17.1	1.3	11.2	17.1	0.0	4.2	3.0
k l	6		Clerical Unpaid	Rural	0.0	0.0	0.4	0.1	0.1	0.0	1.9	0.2	0.2	0.2	0.4	0.1	0.0	18.8	17.1	0.4	0.2	0.1	0.0	0.0	0.1	5.4	0.1	4.3	3.1
				Urban	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.2	0.1	0.4	0.3	0.1	0.0	10.1	9.0	0.4	0.3	0.2	0.0	0.0	0.2	4.0	0.0	2.4	1.7
m n	7		Professional Paid	Rural	0.0	0.8	0.1	0.3	0.0	0.0	0.1	0.4	0.7	0.5	0.3	0.8	1.8	0.1	0.0	1.1	0.1	0.6	0.6	0.1	32.5	1.5	0.1	4.0	2.9
				Urban	0.0	0.2	0.0	0.0	0.0	0.5	0.8	0.6	1.9	1.4	2.5	2.0	9.4	0.8	0.0	3.7	0.8	8.0	11.9	1.1	35.0	1.4	0.0	5.5	3.9
o p	8		Professional Unpaid	Rural	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.5	0.5	0.2	0.4	0.0	1.0	1.6	0.1	0.0	0.2	0.0	0.0	0.5	0.9	0.1	0.4	0.3
				Urban	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.7	1.0	0.9	0.3	0.0	4.0	2.7	3.0	0.6	0.4	0.1	0.3	0.9	1.4	0.0	1.2	0.9
q r	9	CAPITAL	Unincorporated	Agricultural	42.0	52.7	76.3	39.9	63.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	47.3	--	13.8
				Housing	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74.8	--	--	--	3.8	2.7
s t				Other Rural	--	--	--	--	--	0.0	22.6	22.5	4.6	12.3	3.7	3.7	0.1	9.2	27.0	5.1	12.4	3.1	0.4	0.3	0.9	0.8	--	5.6	4.0
u				Other Urban	--	--	--	--	--	0.0	45.0	21.7	5.1	19.3	7.0	5.3	1.5	14.0	35.6	23.4	21.2	3.9	0.7	6.4	4.1	1.9	--	8.4	6.0
			Private Domestic Corporate		0.1	2.5	2.7	29.0	6.8	0.0	0.8	10.2	28.4	12.1	30.8	11.3	8.3	24.0	3.1	3.2	14.6	3.3	6.0	13.0	2.5	2.7	3.0	11.5	9.0
v w	10		Public		0.7	10.8	0.4	3.0	0.3	21.9	3.5	11.0	7.0	3.5	9.7	43.6	51.8	7.0	0.0	17.1	1.6	57.9	56.7	1.2	3.9	0.3	2.1	13.7	10.3
			Foreign		0.0	2.6	0.2	9.1	2.5	76.6	0.0	6.0	0.5	7.5	14.0	6.7	6.1	4.3	0.2	3.9	0.0	0.0	4.1	0.0	0.0	0.0	1.1	20.7	15.0
			Total Paid workers		15.2	19.3	5.5	7.7	13.7	1.5	13.4	16.5	40.8	34.2	26.6	23.2	31.1	7.5	3.6	43.4	30.2	28.7	32.1	4.1	86.8	64.1	14.4	24.1	21.3
			Total Unpaid workers		42.0	12.1	14.9	11.3	13.6	0.0	14.6	12.0	13.6	11.1	8.3	6.1	1.1	34.0	30.5	3.9	20.0	3.1	0.1	0.3	1.8	30.2	32.0	12.2	18.0
			Total Capital		42.8	68.6	79.6	80.9	72.7	98.5	72.0	71.5	45.6	54.7	65.2	70.7	67.8	58.5	65.9	52.7	49.9	68.2	67.8	95.6	11.4	5.7	53.6	63.7	60.8
			Total Factor Income		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
			Value Added/Total Cost of Production (%)		77.4	69.2	67.2	75.4	67.6	95.7	88.6	25.0	35.6	32.2	36.4	34.4	50.3	85.2	32.0	49.5	65.3	54.2	79.8	86.0	88.4	54.4	74.5	59.3	63.0

with corporate income based on the assumption that in "informal" firms value added only consists of (imputed) labor payments.[5]

Across sectors a wide rage of proportions is received by each factor type. The capital income/value added ratio can be considered as a proxy for "capital intensity". It is particularly high in the (oil) mining sector (depletion of mineral reserves!), in the real estate sector (house rents, paid and imputed), in the forestry sector (using up natural resources?) and in livestock production (combining cattle and land with relatively little, unskilled human care). With the help of the same indicator only two service sectors can be labeled as really labor intensive (see columns u and v). As expected, unpaid labor income receives a large share in food crop production, trade, restaurants, and personal and other services.

Several forces combine to yield such a high capital income/value added ratio in this labor-abundant country. Firstly, substantial quasi-rents are earned on the exploitation of Indonesia's vast natural resources (minerals, forests, oceans). Note, however, that a significant part of oil rents is siphoned off by a special tax, and that in general, the labor factor receives a larger proportion of disposable income than of earned income. Secondly, the high population density in Java and Bali (where two third of all Indonesians live) turns the distribution in agricultural sectors in favour of land, the main capital factor. In general, the abundant and elastic supply of non-unionized and unskilled workers serves to keep wages down.

Thirdly, in some activities, notably (wholesale) trade, the relatively large share of capital income may point to a lack of competition. Finally, in manufacturing most value added is generated in large and medium firms which do not create concomitantly much employment. There is some evidence that these tendencies are reinforced by government policies (concentration of government investment in large-scale capital intensive industries, complicated admini-

strative procedures hindering entry of new firms, an overvalued exchange rate, cheap but rationed credits, and biased effective protection). The most labor-intensive manufacturing subsector (see columns h-1) is wood products manufacturing and construction. That is also the most "domestic" subsector (hardly any direct linkages with the rest of the world).

Regarding the type of capital, foreign capital dominates in (oil) mining and public capital controls other transport (including communication), finance, utilities, and to a somewhat less extent chemicals and basic minerals manufacturing (fertilizer, cement). Private domestic corporate capital is important in paper, metal products and other manufacturing, wood products manufacturing and construction, forestry, and trade, while unincorporated capital prevails in the other sectors.

With respect to the type of workers, it is obvious that in agricultural activities mainly, but not exclusively, agricultural workers earn a living. In manufacturing and land transport many manual laborers are engaged, most of them in rural areas. Utilities, however, are concentrated in the cities. Trade and restaurants employ above all own-account clerical, sales and service workers and their (unpaid) families. Hotels operate on a larger scale, relatively more in towns and with more paid labor. That also applies to other transport and finance which moreover give work to higher skilled personnel. This group of professionals and technicians receives even the bulk of value added in the government, social and cultural services and recreation sector. Finally, in the personal and other service sector it is striking that wages and salaries largely exceed imputed labor payments.

Table 3 looks at the same figures from a slightly different angle and tries to answer the question in which activities each production factor earns its income. Concerning total factor income, more than half is earned in

Table 3: THE DISTRIBUTION OF FACTOR INCOME BY ACTIVITY (RON PERCENT)

					a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v			
				Aggregated SAM Account Numbers	19	20	19	20	19	21	21	19	21	21	21	21	21	22	22	22	22	22	23	23	23	22			
				Activities / Factors of Production	Food Crop Cultivation	Estate Crop Cultivation	Livestock Production	Forestry and Hunting	Fishing	Oil, Gas, Coal and Metal Ore Miners	Other Mining	Food Processing	Wood Product Manufacturing and Construction	Textile Manufacturing	Paper, Metal Product and Other Manufacturing	Chemical and Basic Mineral Manufacturing	Utilities	Trade	Restaurants	Hotels	Land Transport	Other Transport	Finance	Real Estate and Business Services	Government, Social and Cultural Serv. and Recreation	Personal and Other services	Total Agriculture	Total Non-Agriculture	Totals
a	1	WORKERS	Agricultural Paid	Rural	73.0	16.0	2.4	2.7	5.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100.0	--	100
b				Urban	47.3	9.9	11.3	5.9	25.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100.0	--	100
c	2		Agricultural Unpaid	Rural	87.0	4.7	3.4	2.2	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100.0	--	100
d				Urban	76.2	5.8	6.5	2.3	9.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100.0	--	100
e	3		Manual Paid	Rural	0.1	0.3	0.0	0.5	0.1	2.4	0.6	12.5	38.7	6.5	5.9	5.9	0.0	1.2	0.0	0.0	12.0	1.7	0.1	0.4	1.8	9.2	1.0	99.0	100
f				Urban	0.0	0.0	0.0	0.1	0.0	0.8	1.4	6.9	27.1	7.8	9.4	4.1	2.8	1.8	0.0	0.0	15.7	5.0	0.5	0.5	5.6	10.2	0.1	99.9	100
g	4		Manual Unpaid	Rural	0.9	0.0	0.0	1.1	0.0	0.0	1.9	21.2	29.1	4.8	6.5	5.1	0.1	0.4	0.1	0.0	17.5	1.5	0.0	0.0	0.1	9.6	2.0	98.0	100
h				Urban	0.0	0.0	0.0	0.1	0.0	0.0	4.9	7.6	12.0	4.5	5.0	1.0	0.8	0.3	0.0	0.0	33.4	1.7	0.0	0.1	1.0	27.6	0.1	99.9	100
i	5		Clerical Paid	Rural	0.2	0.8	0.4	0.7	0.2	1.0	0.8	2.7	6.4	0.7	2.4	3.4	1.3	18.7	1.5	1.0	3.2	1.2	1.6	1.9	27.6	22.5	2.3	97.7	100
j				Urban	0.1	0.1	0.0	0.2	0.0	1.6	0.3	2.4	3.0	1.5	4.5	2.5	0.9	18.0	0.6	1.7	2.4	5.7	9.9	1.5	30.8	12.2	0.4	99.6	100
k	6		Clerical Unpaid	Rural	0.1	0.0	0.3	0.1	0.1	0.0	0.4	0.3	0.3	0.1	0.3	0.1	0.0	86.9	7.0	0.0	0.2	0.1	0.0	0.0	0.2	3.7	0.5	99.5	100
l				Urban	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.5	0.4	0.5	0.1	0.0	84.2	6.7	0.0	0.5	0.2	0.0	0.1	1.0	5.0	0.0	100.0	100
m	7		Professional Paid	Rural	0.1	1.0	0.1	0.2	0.0	0.2	0.0	0.7	1.3	0.2	0.2	0.6	0.4	0.5	0.0	0.1	0.1	0.4	0.4	0.1	92.4	1.1	1.3	98.7	100
n				Urban	0.0	0.2	0.0	0.0	0.0	2.3	0.1	0.7	2.8	0.5	1.7	1.1	1.5	3.1	0.0	0.2	0.6	3.9	5.3	1.0	74.2	0.8	0.3	99.7	100
o	8		Professional Unpaid	Rural	5.0	0.0	0.0	0.0	0.0	0.0	0.9	3.9	9.2	2.4	1.3	2.9	0.0	47.0	6.6	0.1	0.4	1.0	0.0	0.0	13.4	6.0	5.0	95.0	100
p				Urban	0.0	0.0	0.1	0.0	0.0	0.0	0.1	3.1	4.6	1.7	2.6	0.6	0.0	66.7	3.9	0.6	2.1	0.9	0.2	1.1	8.4	3.4	0.1	99.9	100
q	9	CAPITAL	Unincorporated	Agricultural	58.6	13.9	12.4	5.9	9.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100.0	--	100
r				Housing	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	100.0	--	--	--	100.0	100
s				Other Rural	--	--	--	--	--	0.0	3.6	25.4	6.4	4.5	2.4	2.0	0.0	33.0	8.7	0.2	9.8	1.4	0.2	0.2	1.8	0.4	--	100.0	100
t				Other Urban	--	--	--	--	--	0.0	4.8	16.3	4.7	4.7	3.0	1.9	0.2	33.5	7.6	0.7	11.1	1.2	0.2	3.9	5.7	0.7	--	100.0	100
u			Private Domestic Corporate		0.1	1.0	0.7	6.5	1.5	0.0	0.1	5.1	17.5	2.0	8.7	2.6	0.6	38.2	0.4	0.1	5.1	0.7	1.2	5.2	2.3	0.6	9.8	90.2	100
v	10		Public		1.4	3.8	0.1	0.6	0.1	36.3	0.2	4.8	3.8	0.5	2.4	8.9	3.1	9.8	0.0	0.3	0.5	10.5	9.5	0.4	3.1	0.1	5.9	94.1	100
w			Foreign		0.0	0.6	0.0	1.2	0.3	86.8	0.0	1.8	0.2	0.7	2.4	0.9	0.2	4.1	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	2.2	97.8	100
			Total Paid Workers		13.8	3.3	0.6	0.7	1.3	1.2	0.4	3.5	10.7	2.3	3.2	2.3	0.9	5.1	0.2	0.4	4.4	2.5	2.6	0.7	33.6	6.4	19.6	80.4	100
			Total Unpaid Workers		44.8	2.4	1.9	1.3	1.5	0.0	0.5	3.0	4.2	0.9	1.2	0.7	0.0	27.1	2.2	0.0	3.5	0.3	0.0	0.1	0.8	3.6	51.9	48.1	100
			Total Capital		13.5	4.1	2.9	2.7	2.4	27.7	0.8	5.3	4.2	1.3	2.7	2.4	0.7	13.8	1.4	0.2	2.6	2.1	1.9	5.7	1.5	0.2	25.6	74.4	100
			Total Factor Income		19.2	3.6	2.2	2.0	2.0	17.1	0.6	4.5	5.6	1.5	2.6	2.1	0.6	14.3	1.3	0.2	3.1	1.9	1.7	3.6	8.2	2.1	29.1	70.9	100

three activities, namely food crops cultivation, mining and trade. Mining alone generates more than a quarter of capital income, and apparently almost all returns from direct foreign investments come from this activity. Regarding the involvement of private domestic capital, trade is the largest sector. The lion's share of unincorporated capital income originates in food crops cultivation and trade. Unpaid workers also largely depend on the latter two sectors, with the exception of manual own-account workers who receive most of their income from manufacturing in the rural areas and from land transport and personal and other services in the urban areas.

Skilled employees are salaried to a large extent by the government, social and cultural services and recreation. The category of jobholding manual workers receives a substantial share of its wage bill from the wood products and construction sector, and agricultural laborers earn their living primarily in food crops cultivation.

The above analysis is still somewhat inaccurate, in the sense that it draws conclusions from value figures whereas the underlying quantities (numbers of workers) and prices (wage rates) need not follow the same trends. This is remedied in tables 4 and 5. The former gives a detailed overview of the number of workers equivalents, defined as 40 hours of work per week for a 52-week year. The availability of data on hours worked by each person in <u>each</u> occupation enabled a more precise calculation of labor input than merely counting the number of laborers. The latter method yields distorted employment and labor income estimates, in view of widespread underemployment and, on the other hand, multiple jobholding and extremely long work weeks by many of the poor.[6]

Turning to the figures in table 4, the paramount importance of food crops cultivation for the employment of Indonesia's labor force is marked. It absorbs 46.5% of all worker equivalents (55.2% in rural areas).[7] Note also the

Table 4: WORKER EQUIVALENTS IN EACH ACTIVITY BY TYPE OF WORKER

x 1000 workers

				a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v			
Aggregated SAM Account Numbers				19	20	19	20	19	21	21	19	21	21	21	21	21	22	22	22	22	22	23	23	23	22	Total Agriculture	Total Non-Agriculture	Totals
Activities / Workers				Food Crop Cultivation	Estate Crop Cultivation	Livestock production	Forestry and Hunting	Fishing	Oil, Gas, Coal and Metal Ore Mining	Other Mining	Food Processing	Wood Product Manufacturing and Construction	Textile Manufact.	Paper, Metal Product and Other Manufacturing	Chemical and Basic Mineral Manufact.	Utilities	Trade	Restaurants	Hotels	Land Transport	Other Transport	Finance	Real Estate and Business Services	Government, Social and Cultural Serv. and Recreation	Personal and Other services			
a	1	Agricultural Paid	Rural	5519	898	106	55	232	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6809	--	6809
b			Urban	142	22	6	5	49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	224	--	224
c	2	Agricultural Unpaid	Rural	15389	628	293	110	238	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16659	--	16659
d			Urban	433	24	14	4	37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	511	--	511
e	3	Manual Paid	Rural	6	14	0	11	2	19	28	495	918	363	169	236	1	33	0	1	419	59	0	6	30	480	33	3257	3290
f			Urban	0	1	0	1	1	8	4	175	428	173	124	85	24	39	1	1	381	77	3	4	69	267	3	1859	1862
g	4	Manual Unpaid	Rural	47	2	0	13	0	0	57	492	715	201	147	177	1	9	3	0	392	30	0	1	7	325	62	2557	2619
h			Urban	0	0	0	0	0	0	3	50	57	28	18	8	2	2	0	0	216	6	0	0	3	202	1	596	596
i	5	Clerical Paid	Rural	9	17	3	8	3	5	13	46	89	14	31	58	10	422	40	13	76	15	6	18	238	874	41	1966	2006
j			Urban	2	2	0	1	1	6	2	41	34	24	54	38	8	443	29	26	67	69	39	15	379	723	7	1996	2003
k	6	Clerical Unpaid	Rural	8	0	8	3	2	0	12	9	11	5	7	2	0	4437	400	1	10	1	0	0	5	219	22	5118	5140
l			Urban	0	0	0	0	0	0	1	6	3	3	4	1	0	1598	188	1	7	2	0	0	8	18	0	1941	1941
m	7	Professional Paid	Rural	2	29	1	3	1	3	0	14	20	6	5	9	2	15	0	2	3	8	2	2	947	35	36	1072	1108
n			Urban	0	1	0	0	0	5	0	10	24	7	15	10	10	25	0	2	12	38	12	2	741	17	2	929	931
o	8	Professional Unpaid	Rural	15	0	1	0	0	0	2	9	15	5	3	7	0	297	20	1	2	3	0	0	17	19	16	398	414
p			Urban	0	0	0	0	0	0	0	9	10	5	6	2	0	185	15	2	8	2	0	1	17	13	0	276	276
TOTAL RURAL PAID				5536	958	110	78	238	26	41	555	1027	382	206	303	13	470	40	16	497	82	9	26	1214	1389	6919	6295	13214
TOTAL RURAL UNPAID				15460	630	302	126	241	0	71	510	741	210	158	186	2	4742	423	1	404	34	0	1	28	563	16759	8073	24832
TOTAL RURAL				20996	1588	412	204	479	26	111	1065	1767	592	363	489	14	5212	463	17	901	117	9	26	1242	1953	23678	14368	38045
TOTAL URBAN PAID				144	26	7	7	51	19	6	225	486	203	192	133	42	506	30	29	459	184	53	21	1189	1008	235	4784	5019
TOTAL URBAN UNPAID				433	24	14	4	37	0	5	65	70	36	28	11	2	1786	203	2	232	11	0	1	28	333	511	2812	3324
TOTAL URBAN				578	49	21	11	88	19	11	290	556	240	220	144	44	2292	233	31	691	194	53	22	1217	1341	746	7596	8343
TOTAL PAID				5680	983	117	85	289	45	47	781	1512	586	398	436	55	976	70	44	956	266	62	47	2403	2397	7154	11079	18233
TOTAL UNPAID				15893	654	316	130	278	0	75	575	811	246	185	197	3	6528	626	4	636	45	0	2	56	896	17271	10885	28155
TOTAL WORKERS				21573	1637	432	215	567	45	122	1355	2323	832	583	633	58	7504	696	48	1592	311	62	48	2459	3293	24424	21964	46388

All totals are subject to rounding errors.

negligible share of oil, gas, coal and metal ore mining (0.1%). Most worker equivalents turn out to be unpaid, particularly in restaurants, trade and food crops cultivation. In all non-agriculture about an equal amount of paid and unpaid worker equivalents are involved. Although in food crops cultivation most labor is unpaid, this sector is still by far the biggest employer (absorbing 31.2% of all paid worker equivalents, and in rural areas even 41.9%).

The regional break-down reveals that 82.0% of all (full-time) employment is created in rural areas, where 81.4% of the population lives. Still, urban members of the labor force typically have longer work weeks, because the cities are relatively more inhabited by economically inactive people (students, housewives without additional activity, pensioners, unemployed, children and disabled).[8]

In urban areas, salaried work is more common than self-employment, especially in the service sectors. A large part of the entire urban labor force (27.5%) and the majority of urban own account workers (53.7%) operate in the trade sector. Nevertheless the number of own account traders is more than 2.5 times bigger in the countryside than in the cities.

In both locations over 40% of the salaried jobs outside agriculture are provided by the government and related services and personal and household services.

For each category of workers roughly the same remarks apply to the sectoral composition of their employment as we made earlier about the sectoral distribution of their labor income. One noticeable exception concerns paid clerical, sales and service workers. This group depends on the government and related services for about 30% of their salaries (in both areas). However, the same sector accounts for only 12% of their employment in rural areas and for only 19% in urban areas. Obviously these discrepancies are caused by wage differentials. That leads us to the next table.

At one glance it is clear that considerable differences

Table 5: AVERAGE WAGE RATE PER WORKER EQUIVALENT IN EACH ACTIVITY BY TYPE OF WORKER

Thousands of Rupiahs

		Aggregated SAM Account Numbers / Activities / Workers		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	Average Agriculture	Average Non-Agriculture	Average Wage Rate
				19	20	19	20	19	21	21	19	21	21	21	21	21	22	22	22	22	22	23	23	23	22			
				Food Crop Cultivation	Estate Crop Cultivation	Livestock Production	Forestry and Hunting	Fishing	Oil, Gas, Coal and Metal Ore Mining	Other Mining	Food Processing	Wood Product Manufacturing and Construction	Textile Manufacturing	Paper, Metal Product and Other Manufacturing	Chemical and Basic Mineral Manufact.	Utilities	Trade	Restaurants	Hotels	Land Transport	Other Transport	Finance	Real Estate and Business Services	Government,Social and Cultural Serv and Recreation	Personal and Other Services			
a	1	Agricultural Paid	Rural	68	92	118	260	129	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	76	--	76
b			Urban	74	101	408	248	114	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	99	--	99
c	2	Agricultural Unpaid	Rural	67	88	138	239	134	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	71	--	71
d			Urban	80	114	220	295	114	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	89	--	89
e	3	Manual Paid	Rural	94	83	--	181	117	526	98	105	175	75	145	104	290	154	123	131	119	118	1020	262	255	80	120	126	126
f			Urban	370	121	--	198	101	374	1455	139	224	160	269	171	415	167	182	179	146	231	707	494	289	134	163	190	190
g	4	Manual Unpaid	Rural	50	77	--	219	56	--	90	115	109	64	119	77	156	109	50	--	119	135	--	221	57	79	86	103	102
h			Urban	370	--	--	227	--	--	1463	146	200	154	261	128	415	156	59	--	147	259	--	503	319	130	140	160	160
i	5	Clerical Paid	Rural	48	107	310	186	140	480	135	130	162	119	172	1317	292	99	83	160	94	174	581	233	260	58	127	111	112
j			Urban	134	191	117	827	125	979	520	240	351	25	332	261	410	162	88	256	146	330	1016	414	324	67	254	199	199
k	6	Clerical Unpaid	Rural	30	--	4	90	94	--	127	127	132	101	185	111	--	81	72	157	95	191	--	--	167	69	88	80	80
l			Urban	136	--	--	--	--	--	456	217	331	263	300	189	--	120	82	176	150	232	--	414	308	97	100	118	118
m	7	Professional Paid	Rural	155	132	166	210	158	309	242	191	249	159	182	262	689	130	--	144	137	186	632	282	378	120	142	356	349
n			Urban	1004	723	619	446	571	2592	1707	385	597	420	586	551	781	652	209	476	267	529	2291	2291	519	234	705	556	556
o	8	Professional Unpaid	Rural	138	78	--	--	--	--	234	173	264	212	170	183	--	66	138	56	76	123	--	--	326	136	133	100	101
p			Urban	--	--	619	--	--	--	164	381	546	390	531	382	--	416	301	387	291	479	2601	2006	561	303	500	419	419
AVERAGE RURAL PAID				68	93	124	238	129	494	111	109	175	78	150	114	361	104	83	157	115	135	607	243	352	67	77	161	117
AVERAGE RURAL UNPAID				67	88	137	233	133	--	100	116	112	68	123	81	112	80	75	106	119	135	--	221	238	77	71	88	77
AVERAGE RURAL				67	91	134	235	131	494	104	113	149	74	138	102	334	82	76	153	117	135	607	242	349	70	73	120	91
AVERAGE URBAN PAID				75	142	402	325	116	1112	1140	168	251	179	311	226	501	186	91	268	149	329	1289	633	443	88	109	265	257
AVERAGE URBAN UNPAID				80	114	222	290	114	--	1100	186	254	197	321	181	415	151	98	343	152	300	2601	1269	465	125	90	156	146
AVERAGE URBAN				79	128	280	313	115	1112	1122	172	252	182	312	222	497	159	97	274	150	328	1291	666	444	97	96	224	213
AVERAGE PAID				69	95	140	245	127	751	244	126	200	113	228	148	468	147	86	229	132	269	1192	417	397	76	78	206	155
AVERAGE UNPAID				67	89	141	235	131	--	164	124	124	87	152	87	275	99	83	264	131	174	2601	929	351	95	72	106	85
AVERAGE ALL WORKERS				68	92	141	239	129	751	194	125	174	105	204	129	459	106	83	231	131	256	1194	435	396	81	74	156	113

in average wage rates exist, both between sectors and between locations and between occupational groups. To start with the first-mentioned, at the lower end we find food crop cultivation. This sector employs 47% of Indonesia's labor force and typically yields only 67,700 Rp., or about 163 U.S. dollars, for a full work year. On the other hand, a representative worker in finance earns 1,194,100 Rp., or almost 18 times as much. In between, other less rewarding activities are personal and other services, restaurants, estate crop cultivation, textile manufacturing and trade. Apart from finance, salaries are high in other sectors which employ very little labor such as oil mining, utilities and real estate. Only the government and related service sector offers sizeable employment at a relatively reasonable rate. In general, labor payments are twice as high outside agriculture as in agriculture.

Despite the fact that the imputed wage rate equals the paid wage rate for each of the (originally) 288 labor-factor categories, the mean earnings of all own-account workers amount to hardly half the average compensation of employees. The reason for this is simple: own account workers abound in lower paid professions (agricultural workers) and in less remunerative activities (food crop cultivation, trade), as can be seen from the previous table. This is probably not just a fortuitous phenomenon, but denotes that people who do not succeed in getting a job are generally pushed into more marginal activities.

The considerable urban-rural nominal wage differentials[9] - on an average but also by occupation, by activity, and for paid and unpaid workers alike - indicate that migration to the cities is still an attractive option for the rural poor, and the more so as the ratio of the number of worker equivalents to the labor force (which by definition includes the unemployed) is also more favourable in the cities (1.11, versus 0.90 in the country-side). Since the concept of worker equivalents

already corrects for differences in the degree of employment, this "employment ratio" is an indicator for the extent to which employment opportunities exist (in a certain area).[10] Only lack of information, risk aversion, and the costs and disutility of moving might then prevent many rural dwellers from migrating to the cities.[11] Anyhow, in accordance with established migration theory [e.g. Todaro, 1976] a combination of wide-spread and substantial urban-rural wage differentials and a higher employment ratio in urban areas should provoke an exodus to the towns, which indeed occurs [Titus, 1978; Hugo, 1979], although partly in the form of circular migration [Jellinek, 1978; Hugo, 1978; Bagus Mantra, 1981; Forbes, 1981].

Variations in wage rates are even slightly more pronounced across activities than across occupational groups. The standard deviation of the former distribution is 89,919 Rp. against 85,987 Rp. for the latter.[12] Clearly, this is not in conformity with the neo-classical model of factor price equalization across sectors (for each labor type).[13]

It is not astonishing that professionals, managers and non-civilians who hold a job in the cities as a rule earn the highest salaries, while unpaid rural agricultural workers are worst off. Some of the detailed wage rates in this table have to be considered with caution due to the small size of the sample on which they are based (compare the previous table).

Finally, it is added that even more detailed data, not presented here [BPS, 1982:table 3.1.5], show that female workers receive considerably lower wages in all but one of twenty labor-force categories. On an average, a male worker equivalent earns twice as much (about 133,000 Rp.) as a female one (approximately 66,000 Rp.). Female worker equivalents number about 14,2 million against males circa 32.2 million.[14] This implies an "employment ratio" of 0.99 for men and 0.83 for women, disregarding the time spent on housekeeping.

The last table of this section (table 6) indicates the degree of detail which is available for parts of the Indonesian System of Socio-economic Accounts. This table is still linked to the aggregate SAM, since on the one hand the types of land shown in the row headings belong to private domestic (unincorporated agricultural) capital, and on the other hand harvesting the crops listed in the column headings is an important part of food production. The link with table 1 is even more direct. Total factor income in food crop cultivation equals 2,555 billion Rupiah (column a of table 1), consisting of wages and salaries (443 billion Rp.) and operating surplus (2,112 billion Rp.)[15]. After the operating surplus from cassava processing (104 billion Rp.) is deducted, the residual (2,008 billion Rp.) refers to total operating surplus from harvesting food crops, shown in the last row of column (11) in table 6.

Unfortunately, separate data on productivity and profitability by type of land (wet land, dry land) are only available for rice, Indonesia's staple crop. As the other crops are predominantly cultivated on dry land, all proceeds are assigned to that land type.

Small farms dominate in Indonesia: fifty-five percent of profits from sawah and fourty-five percent of profits from dry land are earned on plots measuring less than 0.75 hectare. Rice accounts for more than half of total operating surplus. The degree of diversification hardly varies by size of the (dry land) holding.[16]

The four final columns of this table sketch the origins of profits (cf. Keuning [1984a]). Both column (12) and column (14) show very clear and consistent patterns for both wet and dry land: the smaller the land holding size, the more intensive its cultivation and the higher the profits per cultivated hectare (of food crops). This tendency is smoothed somewhat, but not completely, if non-food crops are included. It implies, among others, that agricultural operating surplus is spread less unevenly than agricultural land holdings.

Table 6: FOOD CROP PROFITS AND LAND PRODUCTIVITY BY SIZE-CLASS OF WET AND DRY FARM LAND HOLDING

(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Type of land \ Crop		OPERATING SURPLUS										OPERATING SURPLUS PER HARVESTED HECTARE	HARVESTED AREA	HARVEST INTENSITY	OPERATED AREA (EXCL. FISH PONDS)
		Rice	Maize	Cassava	Other Root Crops	Peanut	Soybean	Other Beans and Nuts	Vegetables	Fruits	TOTAL				
	Units	Billions of Rupiahs										'000 Rp	'000 Ha	Ratio	'000 Ha
SAWAH	Holding ≤ 0.24 ha	141									141	147	960	1.60	600
	Holding 0.25 - 0.49 ha	244									244	137	1783	1.54	1161
	Holding 0.50 - 0.74 ha	129									129	129	999	1.50	667
	Holding 0.75 - 1.49 ha	254									254	123	2064	1.34	1540
	Holding 1.50 - 2.99 ha	122									122	113	1074	1.25	857
	Holding ≥ 3.00 ha	46									46	102	454	1.23	371
	Subtotal	935	-	-	-	-	-	-	-	-	935	128	7334	1.41	5196
DRY FARM LAND	Holding ≤ 0.24 ha	6	16	25	6	8	9	2	25	61	158	138	1151	1.65	696
	Holding 0.25 - 0.49 ha	10	24	35	9	13	13	2	35	62	203	125	1626	1.58	1030
	Holding 0.50 - 0.74 ha	6	17	23	6	8	8	2	22	33	125	119	1053	1.63	647
	Holding 0.75 - 0.99 ha	11	18	28	9	9	8	2	24	33	141	118	1198	1.28	937
	Holding 1.00 - 1.99 ha	23	31	53	17	15	14	4	46	57	260	117	2213	1.17	1890
	Holding 2.00 - 2.99 ha	12	11	20	7	6	5	1	17	19	98	115	853	0.89	960
	Holding 3.00 - 3.99 ha	6	4	8	3	2	2	1	6	7	37	113	333	0.68	490
	Holding ≥ 4.00 ha	5	6	10	4	3	3	1	9	8	49	109	448	0.64	695
	Subtotal	78	127	202	60	65	61	14	184	281	1072	121	8874	1.21	7345
TOTAL LAND		1014	127	202	60	65	61	14	184	281	2008	124	16209	1.29	12542

All totals are subject to rounding errors

FOOTNOTES

1. See Downey et al. [1982] for more details on classification of factors of production.
2. Refer to Keuning [1985] for a more detailed treatment of both an organizational classification of enterprise and methods for disaggregating operating surplus along these lines.
3. Paid wages and the number of hours worked (in one or more types of employment) were derived from retabulations of the results of Sakernas, an extensive survey of over 93,000 households, conducted during September-December 1976 [BPS, 1978]. Afterwards total labor payments were reconciled with the input-output tables [Downey et al., 1982].
4. All percentages have been calculated from unrounded figures.
5. Moir [1981], in a study on Jakarta's informal sector, found that virtually all surveyed enterprises were run on a sole proprietorship basis, that the average size of the enterprise was 1.329, and that the median earnings of enterpreneurs were 2.33 times the median wage of (paid) workers. Imputing the same labor income to entrepreneurs as their employees received, it can be inferred that only about 1.329/(0.329+2.33) x 100% = 50% of value added in these unincorporated firms accrued to labor. Moir also concludes that value added per worker "is not a small sum considering the little capital employed and the conditions under which it is generated" (p.116).
6. Refer also to Jones [1981] and Moir [1979] for further evidence on these points.
7. The data presented here still neglect seasonal fluctuations in the length of the work week (though not in the number of laborers). As the Sakernas survey was

conducted in a period of low agricultural activity, the number of worker equivalents in food crop cultivation is even somewhat underestimated.

8. Each population is made up of the labor force and the economically inactive. Here the former refers to the people aged 10 or above, who either worked at least an hour a day or were temporarily out of work or were looking for work, during the week preceding the interview [BPS, 1978]. In urban areas 31.0% of the inhabitants belong to the labor force, against 39.6% in rural areas. This disproportion is more pronounced among women. Population and labor force data were derived from the 1976 Sakernas survey, scaled up about 2% in order to correct for undercoverage.

9. The gap in real wages is smaller because of higher costs-of-living in the cities, particularly for housing (cf. Downey [1984]).

10. An outcome precisely equal to one means a total work week of 40 hours for a typical member of the group concerned. Since the number of worker equivalents in a few minor sectors has been adjusted during the reconciliation process (which left aside the labor force data as such), the ratios presented above may not be exact. Nevertheless the gap is sufficiently large to justify the conclusion that more employment opportunities exist in the cities (assuming an equal preference for leisure in both locations). A sectoral disaggregation revealed that underemployment is severe in food crops cultivation. In the slack season (cf. footnote 15) it mostly takes less than 32 hours a week of those who are primarily working in that activity.

11. Some of the social and cultural elements, here summarized as the disutility of moving, are discussed by Hugo [1981] who specifically refers to Indonesia.

12. All wage rates have been weighted with the number of worker equivalents in each group.

13. Neither do the early theories of dualism provide a sufficiently satisfactory explanation. There are other authors who also point to the existence of distinct segments in the Indonesian labor market (e.g. Manning [1980]). We will see below that also both sexes do not seem to operate on the same market.
14. Keuning [1984b:table 4] gives a condensed overview of gender differences in the labor market.
15. It can be inferred from column a) of table 3.1. that wages and salaries (computed from the input-output table) partly serve as an imputed payment for the labor of self-employed farmers. However, most of farmers' income is included in operating surplus.
16. Among regions the cropping patterns are much less similar. Kalimantan specializes in rice while Java/ Bali and the Eastern part of Indonesia yield a greater variety of food crops.

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