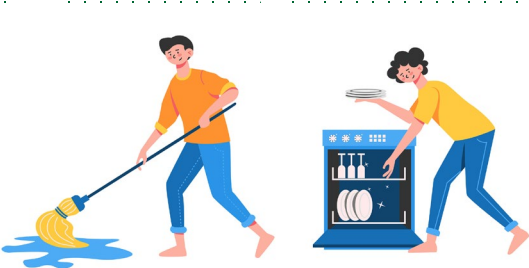
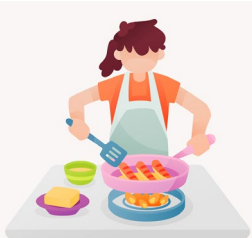
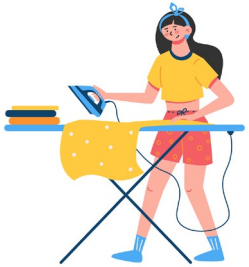




Estimating Unpaid Household Activities by Using Socioeconomic and Labor Force Surveys in Indonesia



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BPS-Statistics Indonesia



Genève, April 26, 2023



Background

- Unpaid household activities is one of the prominent topics in the discussion on the possible better method to measure well-being
- The best practice for estimating unpaid household activities is to conduct time use surveys that measure the amount of time spent by each household member
- However, in Indonesia, the method could have adverse implications on ongoing statistical conduct, primarily in the areas of funding, human resources, staff, and respondent burden, resulting in data quality issues
- This research attempts to estimate unpaid household activities using available annual data (socio-economic survey and labor force survey) as an alternative method, pending the possible availability of better data sources



Data Source: National Socio-economic Survey (SUSENAS)

First survey: 1963 (incidental)

Last survey: 2022 (twice a year: March and September)

Household approach, using sampling area

Sample size (2023):

March : 345.000 households
(sufficient for estimation in province level)

September : 75.000 households
(capable for estimation in municipal level)

Data collection: direct interview (paper base)

Socio-economic survey collects household and household member characteristics:

- Household: consumption by commodities, income by source of income, housing facilities
- Household member identity: domestic role, marriage status, sex, age, education, health condition, birth, activities, employment status in work, work hours, etc.



Data Source: National Labor Force Survey (SAKERNAS)

First survey: 1976 (incidental)

Last survey: 2022 (twice a year: February and August)

Household approach, using sampling area

Sample size (2022):

February : 75.000 households
(capable for estimation in province level)

August : 300.000 households
(capable for estimation in municipal level)

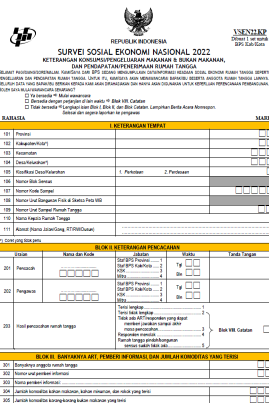
Data collection: direct interview (paper base)

Labor force survey collects household members characteristic:

- role in household, marriage status, sex, age, education and training, activities, status in work, work hours, economic activity classification, job classification, compensation, etc.



Data Source for Estimating Value Added of Unpaid Household Activities



SUSENAS questionnaire

BLOK IV.2. PENGELUARAN UNTUK BARANG-BARANG BUKAN MAKANAN SELAMA SEBULAN DAN SETAHUN TERAKHIR (DALAM RUPIAH) (LANJUTAN)				
No. Urut	Kode COICOP	Rincian	Sebulan Terakhir	Setahun Terakhir
(1)	(2)	(3)	(4)	(5)
		Biaya sekolah/kursus (R.265 s.d. R.270)		
265	10000000	Sumbangan pembangunan sekolah (uang pangkal)		<input type="text"/>
266	10000000	Uang sekolah (SPP/UKT) dan iuran komite sekolah/POMG		<input type="text"/>
267	10000000	Iuran sekolah lainnya (ketramplan, les, tes, dsb.)		<input type="text"/>
268	0951000/ 12700008	Buku pelajaran, foto copy bahan pelajaran		<input type="text"/>
269	09540000	Alat-alat tulis (pulpen, pensil, penghapus, penggaris, kalkulator, jangka, dsb.)		<input type="text"/>
270	10500000	Uang kursus/bimbingan belajar di luar sekolah		<input type="text"/>
		Biaya transportasi, akomodasi, dan jasa (R.271 s.d. R.279)		
271	0731/20000	Transportasi darat (biaya naik becak, ojek, taksi, mikrolet, minibus, bus, kereta api, sewa mobil, dsb.)		<input type="text"/>
271.a		Transportasi ke fasilitas kesehatan yang dibayar tunai dalam setahun terakhir: <input type="text"/>		<input type="text"/>
271.b		Biaya ambulans yang dibayar tunai dalam setahun terakhir: <input type="text"/>		<input type="text"/>
272	07330000	Transportasi udara/pesawat (tiket, airport tax, dsb.)		<input type="text"/>
272.a		Transportasi ke fasilitas kesehatan yang dibayar tunai dalam setahun terakhir: <input type="text"/>		<input type="text"/>
273	07340000	Transportasi laut/kapal feri, kapal laut		<input type="text"/>
273.a	07340000	Transportasi ke fasilitas kesehatan yang dibayar tunai dalam setahun terakhir: <input type="text"/>		<input type="text"/>
274	07240000	Lainnya (uang parkir, karcis tol, dsb.)		<input type="text"/>
275	11200001	Hotel/motel/penginapan		<input type="text"/>
276	09400000	Hiburan (menonton di bioskop, menonton sandiwara/pertunjukkan, menonton pertandingan olah raga, dekoder, langganan TV kabel, dan rekreasi lain (kecuali termasuk transport dan pembelian barang untuk rekreasi))		<input type="text"/>
277	05621000	Gajipupah pembantu rumah tangga, satpam, tukang kebun, dan sopir	<input type="text"/>	<input type="text"/>
278	12621000	Jasa lembaga keuangan (jasa ATM, jasa kartu kredit, biaya transfer, dsb.)		<input type="text"/>
279	12700000	Jasa lainnya (pembuatan KTP, SIM, akta kelahiran, fotokopi, foto, jasa penitipan bayi, dsb.)		<input type="text"/>

$$\text{VAUHA} = \text{homemaker} \times \text{homemaking cost}$$

data source from National Labor Force Survey (SAKERNAS, see slide 8)

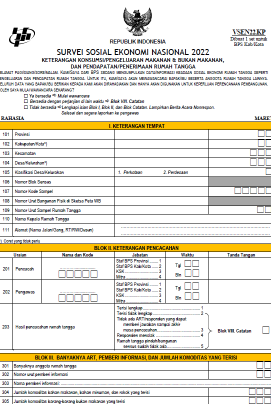
data source National Socio-economic Surveys (SUSENAS)

Note:
VAUHA: Value Added of Unpaid Household Activities

Align with market-based estimation suggested in SNA: transactions should be valued at market prices, if no market price is available then value is determined based on the market price of comparable products on the market



Data Source for Estimating Additional Household GFCF



SUSENAS questionnaire

37

Jumlah komoditas barang-barang bukan makanan yang terisi pada halaman ini

BLOK IV.2 - PENGELUARAN UNTUK BARANG-BARANG BUKAN MAKANAN SELAMA SEBULAN DAN SETAHUN TERAKHIR (DALAM RUPIAH) (LANJUTAN)				
No. Unit	Kode COICOP	Rincian	Sebulan Terakhir	Setahun Terakhir
(1)	(2)	(3)	(4)	(5)
289		D. BARANG TAHAN LAMA		<input type="text"/>
290	05110000	Meubelair (meja, kursi, tempat tidur, lemari pakaian, lemari pajang, rak pajang, kaca/cermin, rak sepatu, dsb.)		<input type="text"/>
291	05300000	Peralatan rumah tangga (mesin jahit, lemari es, kipas angin, mesin cuci, AC, dsb.)		<input type="text"/>
292	05200000	Perengkapan perabot rumah tangga (kasur, bantal, taplak, sprei, sarung bantal, selimut, gorden, sajadah, kapak, permadani, bilar, dsb.)		<input type="text"/>
293	055221000	Perkakas rumah tangga (setrika, sapu, gunting, pisau, golok, cangkul, gergaji, vacuum cleaner, gantungan baju, jemuran, alat solder, dsb.)		<input type="text"/>
294	05400000	Alat-alat dapur/makanan (rak piring, kompor, peruk, panci, ember, pisau dapur, penggorengan, sendok, termos, piring, gelas, mixer, rice cooker, blender, microwave, oven, dan pecah belah lainnya yang terbuat dari gelas/keramik/melamin/plastik, dsb.)		<input type="text"/>
295	05110000	Barang-barang pajangan/hiasan (hiasan dinding, aquarium, barang hiasan terbuat dari keramik, porselen, oryx, marmar, kayu, dsb.)		<input type="text"/>
296	05523000	Perbaikan perabot, perlengkapan, dan perkakas rumah tangga		<input type="text"/>
297	0820000710	Pembelian HP/smartphone dan aksesorisnya, termasuk perbaikannya		<input type="text"/>
298	09120000	Pembelian kamera, kaca mata, video camera, alat-alat optik lainnya, termasuk perbaikannya		<input type="text"/>
299	12300000	Pembelian anjoo, jam, payung, tas, koper, termasuk perbaikannya		<input type="text"/>
300	1231-40000	Perhiasan mahal terbuat dari logam dan batu mulia (emas-beleranti, mutiara, dsb.); termasuk perbaikannya		<input type="text"/>
301	09310001-12	Pembelian mainan anak (sepeda roda tiga), perhiasan murah, dan imitasi, termasuk perbaikannya		<input type="text"/>
302	0911300000	Pembelian televisi, radio, video, DVD, kaset, radio kaset, gitar, piano/organ, komputer, laptop, tablet, termasuk perbaikannya		<input type="text"/>
303	09320000	Pembelian alat dan perlengkapan olahraga (catur, raket, bola, net, bet, stik, baju renang, baju renang, sepatu bola/hoda, kasamata renang); termasuk perbaikannya		<input type="text"/>
304	07100000	Pembelian kendaraan untuk transportasi (mobil, sepeda motor, sepeda perahu motor, dsb.)		<input type="text"/>
305	0931400000	Bintang dan tanaman peliharaan, termasuk biaya pemeliharaannya (makawan, kawatangan, papuk, dll.)		<input type="text"/>
306	04500000	Barang tahan lama lainnya (instalasi listrik/telepon/ leding, ayunan, kereta bayi, dsb.), termasuk perbaikannya		<input type="text"/>

data source
National Socio-
economic
Survey
(SUSENAS)

Household Gross Fixed Capital Formation (GFCF) due to including unpaid household activities as part of the economic activity



Result: Effect on Unemployment and LF Participation, 2022

	Male	Female	Total
Population 15+	104.636.251	104.784.132	209.420.383
Unemployment	5.208.623	3.217.308	8.425.931
Employed	82.553.960	52.742.753	135.296.713
Homemaking	3.621.185	37.628.780	41.249.965
Schooling	7.548.454	8.061.085	15.609.539
Others	5.704.029	3.134.206	8.838.235
Unemployment rate (%)	5,93	5,75	5,86
Unemployment rate* (%)	5,70	3,44	4,56
Labor Force Participation Rate (LFPR) (%)	83,87	53,41	68,63
Labor Force Participation Rate (LFPR)* (%)	87,33	89,32	88,33

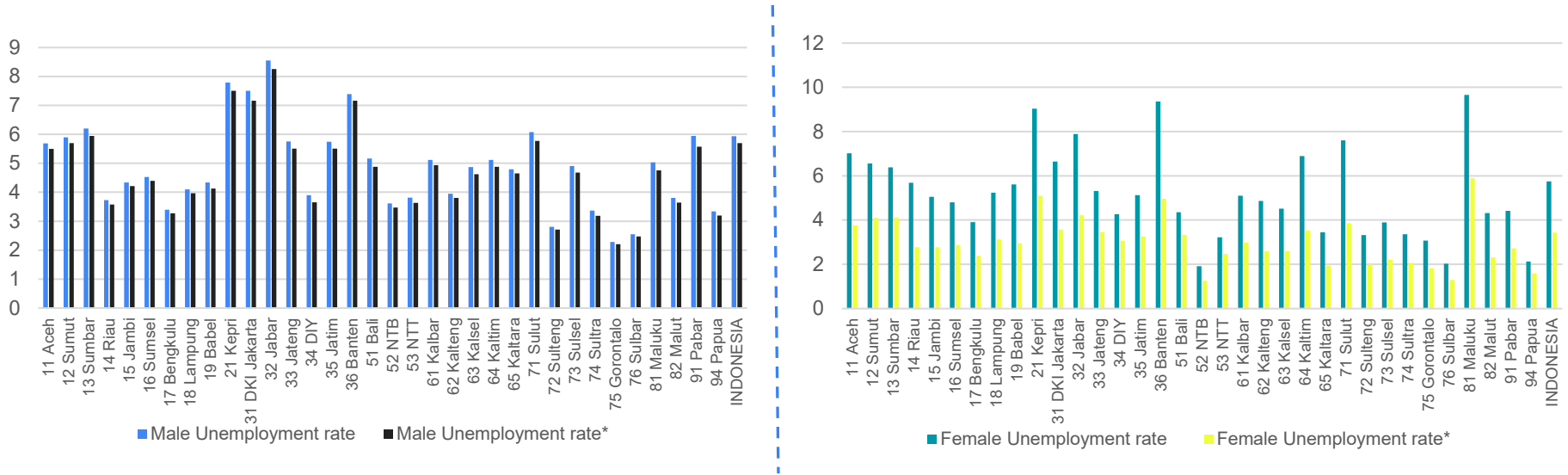
Unpaid household activities decreases unemployment rate and labor force participation rate, particularly among women

Note:

* Including unpaid household activities as part of the economic activity



Result: Effect on Unemployment Rate at Province Level (%), 2022

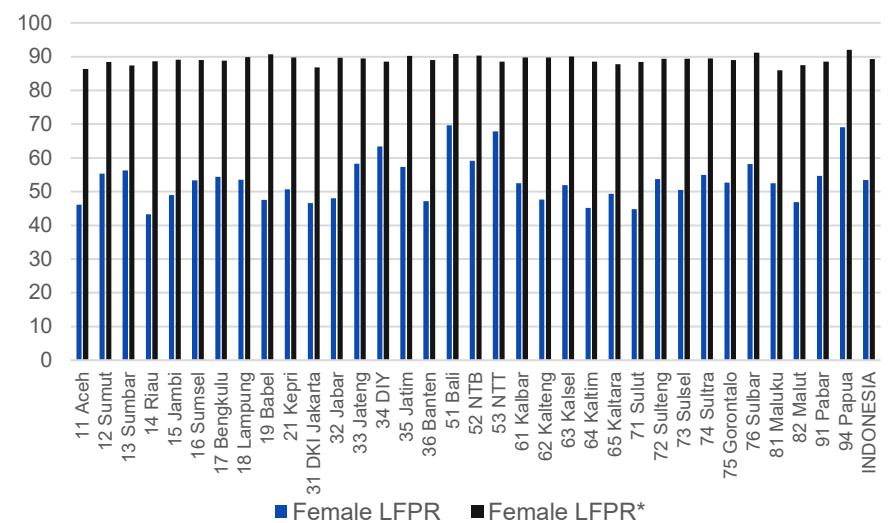
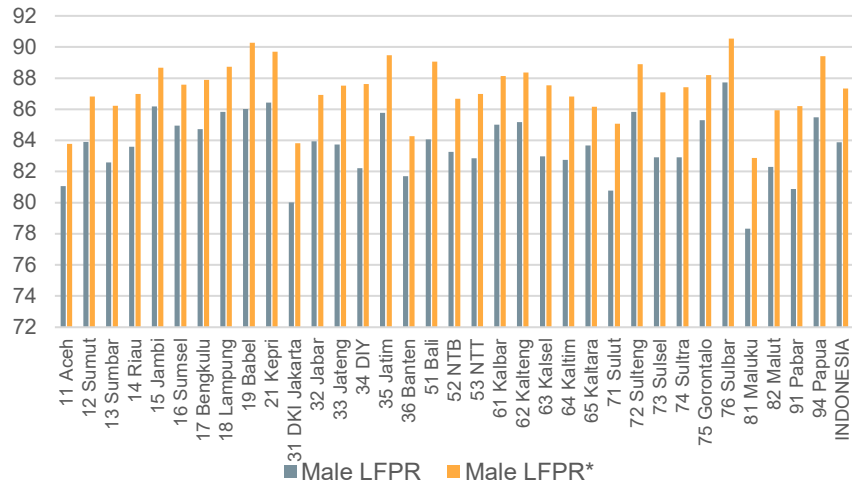


* Including unpaid household activities as part of the economic activity

Unpaid household activities decreases unemployment rate in all provinces, particularly among women. Female unemployment rate decrease deeper than male



Result: Effect on LF Participation Rate at Province Level (%), 2022



* Including unpaid household activities as part of the economic activity

In all provinces, unpaid domestic work increases the labor force participation rate (LFPR). Female LFPR rises more rapidly than male. Even female LFPR surpasses male LFPR in every province.



Result: Effect on Household Income and Consumption, 2020**

Household	Value	Value*
Total Disposable Income	9.658,8	10.319,7
a) Disposable Income	9.658,9	9.658,9
b) Additional disposable income: unpaid household activities	-	660,9
Total Consumption	8.861,4	9.362,5
a) Additional consumption: unpaid household activities	-	660,9
b) Consumption other than durable goods	8.702,6	8.702,6
c) Durable goods part of GFCF	158,8	-
Total GFCF	765,0	923,8
a) GFCF	765,0	765,0
b) Durable goods part of GFCF	-	158,8

- Unpaid household activities increase household value added, income, consumption, and GFCF, while keep other transactions remain the same
- In total it increases household final demand

* Including unpaid household activities as part of the economic activity

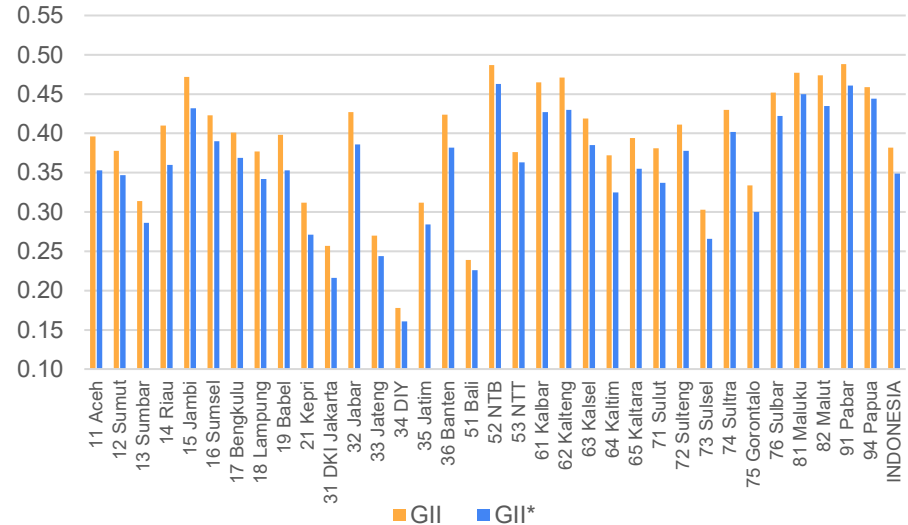
** Currently, latest available data for household accounts is 2020 (in trillion Rupiah)



Result: Effect on Gender Inequality Index, 2022**

Indicator	Value		Value*	
	Male	Female	Male	Female
1. Proportion of married or ever married women (15-49 yo) which give birth not in health facilities**		0,098		0,098
2. Proportion of ever-married women (15-49 yo) which first give birth before 20 yo**		0,265		0,265
3. Share of seats in parliament (%)	78,26	21,74	78,26	21,74
4. Population with at least some secondary education (%)	43,34	39,00	43,34	39,00
5. Labor Force Participation Rate (LFPR, %)	83,87	53,41	87,33	89,32
GII		0,382		0,349

Proxy indicators for Maternal Mortality Ratio and Adolescent Birth Rate due to the availability annual data in province and municipal level



* Including unpaid household activities as part of the economic activity

** Preliminary figure

Gender Inequality Indices in national and provincial level decrease due to increase of Female LFPR



Limitations and Future Efforts

Despite its availability and sufficiency to estimate annual unpaid household activities until municipal level, these data source have limitations and need some efforts to improve their quality

Limitations

- There is less specificity regarding unpaid household activities in national socioeconomic survey
- Socio-economic survey usually provide underestimation

Future Efforts

- Splitting the questions in socio-economic surveys questionnaire to capture the unpaid household activities
- Aligning the estimation procedure within the SUT frameworks to attain a more accurate estimation level



Conclusion

- Estimating unpaid household activities plays important role in explaining welfare. Including it in the national accounts and gender statistic compilation could:
 1. Increase household value added, consumption, and GFCF
 2. Increase labor force participation rate, particularly for female. In Indonesia case the increase of female LFPR is higher than male, event the level of women LFPR to be higher than male
 3. Decrease gender inequality index
 4. The result of point 2 and 3 show in both national and provincial level
- By considering that ultimate goal of human development is enlarging people choice (including choice to work or homemakig), the resluts above sugest that government has an alternative solution to incerase well-being than encourage women to participate in work market
- Additional resarch could be alocated to find best strategy to improve the role of women in doing unpaid household activities to support the well-being
- The use of socio-economic survey and labor force survey cover most of unpaid household activities coverage and is prospective to be improved
- Cooperation with other ministries and institutions should be conducted to improve the provision of better data source



Thank You

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