

HOUSING PRICE, FAMILY STRUCTURES AND HOUSEHOLD CONSUMPTION: EMPIRICAL EVIDENCE OF TAIWAN

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1. Data description

The data of the paper was sourced from SRDA (Survey Research Data Archive), which is based on the Survey of Family Income & Expenditure in Taiwan Area of the Republic of China, conducted by the Directorate-General of Budget, Accounting and Statistics (DGBAS), Taiwan. The annual report is available to researchers and academic studies. The report contains three parts – a summary analysis, tables containing results of surveys in the past, and detailed statistics. Plans of the survey, terminologies with their explanation and survey methods used for yearly surveys are also provided for users as a reference in their study.

The main objective of this survey conducted by the Department of Local Statistics, Executive Yuan of Taiwan government, is to comprehensively understand the income and expenditure patterns of households across various social strata in the Taiwan region. This information serves as a crucial basis for government policymaking and aids researchers in studying the distribution of household income, consumption, and savings. The survey aims to explore income, saving, and consumption patterns, providing valuable insights for reference. The key points of this survey plan are outlined below.

1. Survey Scope:

The survey covers the Taiwan region, excluding Kinmen County and Lienchiang County.

2. Survey Participants:

The survey targets individuals and households residing in the Taiwan region and holding Republic of China citizenship (excluding individuals in collective business households and those in military service for at least six months during the year.)

3. Statistical Units:

The survey data is categorized based on the nature of the statistical items, with "households" and "individuals" as the statistical units.

4. Data Collection Period:

Dynamic survey data was based on the accumulated figures from January 1st to December 31st of the year 2018. Static data is based on the figures at the end of the year 2018.

5. Survey Items:

The survey includes the following items:

- (1) Household facilities and housing conditions.
- (2) Composition of households.
- (3) Income and expenses.
- (4) Consumption expenditures.

6. Survey Implementation:

The survey fieldwork is conducted simultaneously with the Household Income and Expenditure Survey in municipalities directly under the central government. The selection and training of surveyors, survey promotion, execution and supervision, as well as progress monitoring, are carried out according to the regulations of the Household Income and Expenditure Survey plan.

7. Implementing Agencies:

The survey is organized by the Directorate-General of Budget, Accounting and Statistics of the Executive Yuan, which is responsible for national planning, execution, data compilation, analysis, and report preparation. The municipal governments and county/city governments' statistical offices serve as cooperating agencies, responsible for data collection, preliminary examination, and other related tasks.

8. Funding:

The necessary funding for the survey is provided under the budget for statistical survey operations by the Directorate-General of Budget, Accounting and Statistics of the Executive Yuan. However, municipal governments provide support in accordance with their survey implementation plans.

This survey adopts a stratified two-stage sampling method with counties and cities as subpopulations. The Ts'un and Li, a basic administrative unit, is designated as the primary sampling unit (PSU), and the household in the PSU is the secondary sampling unit (SSU). The universal sampling rate was about 0.20%, which is 16,528 households in 2018. The items of survey are as follows:

- a. Household members;
- b. Household facilities and housing conditions;
- c. Income and expenditure;
- d. Consumption expenditure;

For annual cumulative statistics, the reference time is the one-year period from January 1 to December 31. For static data, the reference time is the end of the year. The interview is executed from next January to February. The final result of the survey will be released at the end of August and the report will be published in October.

Survey Method: Employing a Combination of Interview and Account Survey

- Interview Survey:
Interviewers visit households once a year, querying the major income and expenditure items for the entire year.
- Account Survey:
Household expenses are recorded daily based on actual expenditures. Surveyors inspect the account books daily to prevent errors and omissions.
- Comparison:
Interview surveys, while susceptible to memory errors and omissions, are less accurate compared to account surveys. However, conducting account surveys requires substantial manpower and funding. To address this, a limited number of households are selected for account surveys alongside interview surveys, aiding in the comprehensive analysis of the overall interview survey results.

Sampling Method:

- Stratified Two-Stage Random Sampling
Villages are the first-stage sampling units, and households within villages are the second-stage sampling units.
- Stratification:
Counties and cities serve as the auxiliary population. To enhance stratification, the initial three strata (urban, town, rural) were modified since 1997, using employment and education levels within each village as stratification variables. This led to up to 6 strata within each village.
- Sample Allocation:
 - New Taipei City: 2,500 households
 - Taipei City: 2,000 households
 - Taoyuan City: 1,500 households
 - Taichung City: 2,000 households
 - Tainan City: 1,500 households
 - Kaohsiung City: 2,200 households
 - Other areas in Taiwan: 4,828 households

Sample households within each stratum were allocated based on the proportion of households in the stratum to the total households in the region. In the first stage, 20% of villages were systematically selected as sample villages. Sample households within these villages were then selected using a systematic method, with an average sampling rate of 0.96%. Combining both stages, the average overall sampling rate was 1.9%.

2. Questionnaire

Name of sampling householder: _____ Address: _____

Name of household head: _____

Serial No. of Sample Household

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1. Household Member

Item	Members living in the household														Members living			
	With the same household register as the household head										With different household register to the household head				Outside with the same household register as household head			
Member code	1	2	3	4	5	6	7	8	9	10	31	32	33	34	51	52	53	54
Name																		
Relation to the household head																		
Sex																		
Age																		
Education	Educational attainment																	
Full time	Industry																	
	Occupation																	
Part time																		
Employment status																		
Employment or not																		
Income recipient or not																		
Place of work																		
Married status																		

2. Household Equipment

Equipment	Amount	Equipment	Amount	Equipment	Amount
1. Color TV		11. Cell phone		21. Vacuum cleaner	
2. DVD player		12. Sedan vehicle		22. Geyser	
3. Movie camera		13. Motorcycle		23. Hot-warm water fountain	
4. Stereo		14. Electro-magnetic oven		24. Micro wave oven	
5. Piano		15. Air conditioner		25. Newspaper	
6. Digital camera		16. Dehumidifier		26. Magazine	
7. Video game		17. Washing machine		27. Internet with computer	
8. Cable TV		18. Drier		28. LCD \ PDP TV	
9. Personal computer		19. Air-clean machine		29. Video On Demand	
10. Telephone		20. Water filter machine		30. Internet without computer	

3. Housing

- (1) **Tenure of dwelling** 1. Self-owned (by usually living number of this household)
 2. Owned by spouse, parents or children not living together
 3. Rented 4. Allotted 5. Borrowed and others
- (2) **Usage of dwelling** 1. Independent 2. Connected
- (3) **Style of building** _____ Number of stories
- (4) **Piped water equipment** 1. Possessed of 2. Not possessed of
- (5) **Parking lot** Self-owned Rented None
- (6) **Room and area** Housing land area (pins): _____ Total room area (pins): _____

4. Specified Items

(1) Interview Status

1. Original sampled registered household
 2. Residents

Reason for substitution:

3. Excluded objects
 4. The sample registered household changing register to other address.
 5. The sample registered household not living at the registered address.
 6. Nobody at home
 7. Refused
 8. Address not existed
 9. Other

(2) **Classification of Sampling Farm Household** 1. Farm household. 2. Non-farm household.

(3) **Operation Type of Farm Households** 1. Rice planting; 2. Vegetables planting; 3. Fruits planting; 4. Flowers planting;
 5. Sundry and Special crops planting; 6. Other crops planting; 7. Hogs raising;
 8. Chicken raising; 9. Other livestock & poultry raising; 10 Without Operating.

(4) **Agricultural Acreage** _____ hectares, _____ ares

(5) **Number of livestock & poultry** Large livestock & poultry: _____ Number of beef, _____ Number of others.
 Medium livestock & poultry: _____ Number of hogs, _____ Number of others.
 Small livestock & poultry: _____ Number of chicken, _____ Number of others.

5. Income and Outlay

Part A:

Unit: NT\$

Income recipient Serial No. and amount Item	Household head								Household income can not be taken apart to former income recipient	Sub-total amount
	1	2	3	4	5	6	7	8		
Code of member in household	101	102	103	104	105		10"	108	—	100
1. Compensation of employee	191	192	193	194	195	196	19"	198	199	190
(1) Full time payroll	211	212	213	214	215	216	217	218	219	210
(2) Part time and spare time payroll	221	222	223	224	225	226	227	228	229	220
a. Retirement pay	151	152	153	154	155	156	157	158	159	150
I. Lump-sum retirement pay	081	082	083	084	085	086	087	088	089	080
II. Monthly retirement pay	091	092	093	094	095	096	097	098	099	090

Income recipient Serial No. and amount Item	Household head								Household income can not be taken apart to former income recipient	Sub-total amount
	1	2	3	4	5	6	7	8		
b. Other pan time payroll	161	162	163	164	165	166	167	168	169	160
(3) Other receipts or subsidies	231	232	233	234	235	236	237	238	239	230
a. Overtime pay	111	112	113	114	115	116	117	118	119	110
b. Awards	121	122	123	124	125	126	127	128	129	120
c. Insurance of GEL, LI, & SI by employers	131	132	133	134	135	136	137	138	139	130
d. Insurance of NHI by employers	701	702	703	704	705	706	707	708	709	700
e. Fringe & death benefits	141	142	143	144	145	146	147	148	149	140
2. Entrepreneurial income	241	242	243	244	245	246	247	248	249	240
(1) Agricultural & livestock income	261	262	263	264	265	266	267	268	269	260
(2) Net forest income	271	272	273	274	275	276	277	278	279	270
(3) Net fishing income	281	282	283	284	285	286	287	288	289	280
(4) Net operation surplus	291	292	293	294	295	296	297	298	299	290
3. Property income	331	332	333	334	335	336	337	338	339	330
(1) Interest income	341	342	343	344	345	346	347	348	349	340
(2) Investment income	351	352	353	354	355	356	357	358	359	350
(3) Others	361	362	363	364	365	366	367	368	369	360
4. Imputed rent income	391	392	393	394	395	396	397	398	399	390
5. Current transfer receipts	411	412	413	414	415	416	417	418	419	410
(1) From individuals	421	422	423	424	425	426	427	428	429	420
(2) From government	431	432	433	434	435	436	437	438	439	430
a. Low income household	301	302	303	304	305	306	307	308	309	300
b. Old-age allowance	311	312	313	314	315	316	317	318	319	310
c. National Annuity	871	872	873	874	875	876	877	878	879	870
d. Old-age farmer annuity	371	372	373	374	375	376	377	378	379	370
e. Insurance of GEL, LI, FHI & NAI by government	201	202	203	204	205	206	207	208	209	200
f. Insurance of NHI by government	951	952	953	954	955	956	957	958	959	950
g. Lottery bonus	911	912	913	914	915	916	917	918	919	910
h. Others	381	382	383	384	385	386	387	388	389	380
(3) Benefit of social insurance	451	452	453	454	455	456	457	458	459	450
a. Benefit of GEL LL FHL and SI	981	982	983	984	985	986	987	988	989	980
b. Benefit of NHI	941	942	943	944	945	946	947	948	949	940
c. Benefit of NAI	881	882	883	884	885	886	887	888	889	880
(4) From enterprises	441	442	443	444	445	446	447	448	449	440
a. Cash benefit of life and casualty insurance	461	462	463	464	465	466	467	468	469	460
b. Others	471	472	473	474	475	476	477	478	479	470
(5) From abroad	451	482	483	484	485	486	487	488	489	480
6. Miscellaneous receipts	491	492	493	494	495	496	497	498	499	490
Total receipts	401	402	403	404	405	406	407	408	409	400

Part B:

Unit: NT\$

Income recipient Serial No. and amount Item	Household head		2	3	4	5	6	7	8	Household income can not be taken apart to former income recipient	Subtotal amount
	1										
1. Interest	541		542	543	544	545	546	547	548	549	540
(1) House loans	511		512	513	514	515	516	517	518	519	510
(2) Others	521		522	523	524	525	526	527	528	529	520
2. Current transfer expenditures	561		562	563	564	565	566	567	568	569	560
(1) To private	571		572	573	574	575	576	577	578	579	570
a. Expenditure of marriage, birth and funeral	551		552	553	554	555	556	557	558	559	550
b. Charities	171		172	173	174	175	176	177	178	179	170
c. Others	181		182	183	184	185	186	187	188	189	180
(2) To government	581		582	583	584	585	586	587	588	589	580
a. House tax and land tax	591		592	593	594	595	596	597	598	599	590
b. Income tax	611		612	613	614	615	616	617	618	619	610
c. Other taxes	621		622	623	624	625	626	627	628	629	620
d. Lottery payout	891		892	893	894	895	896	897	898	899	890
e. Others	631		632	633	634	635	636	637	638	639	630
(3) Social insurance	641		642	643	644	645	646	647	648	649	640
a. Expenditure on GEI	651		652	653	654	655	656	657	658	659	650
b. Expenditure on LI	661		662	663	664	665	666	667	668	669	660
c. Expenditure on Farmer's health insurance	671		672	673	674	675	676	677	678	679	670
d. Expenditure on Fisherman's health insurance	851		852	853	854	855	856	857	858	859	850
e. Expenditure on SI	861		862	863	864	865	866	867	868	869	860
f. Expenditure on NHI	681		682	683	684	685	686	687	688	689	680
g. Expenditure on NAI	531		532	533	534	535	536	537	538	539	530
(4) To abroad	691		692	693	694	695	696	697	698	699	690
Nonconsumption expenditure	601		602	603	604	605	606	607	608	609	600

6. Consumption Expenditure

Unit: NT\$

Item	Serial No.	Amount
1. Food and non-alcoholic beverages	1010	
(1) Main food	1001	
(2) Supplementary food	1002	
(3) Milk, cheese and eggs	1003	
(4) Fruit	1004	
(5) Sugar, jam, honey, confectionery and seasonings	1005	
(6) Non-alcoholic beverages	1006	
2. Tobacco, alcoholic beverages and betel nuts	1020	
(1) Tobacco	1021	
(2) Alcoholic beverages	1022	
3. Clothing and footwear	1030	
(1) Clothing	1031	
(2) Footwear	1032	
4. Housing, water, electricity, gas and other fuels	1040	
(1) Actual rentals for housing	1041	
(2) Imputed rentals of owner-occupiers	1042	
(3) Imputed rentals of issued and leased	1043	
(4) Maintenance and repair of the dwelling	1044	
(5) Water supply and refuse collection	1045	
(6) House insurance	1046	
(7) Electricity	1047	
(8) Gas	1048	
(9) Liquid and solid fuels	1049	
5. Furnishings, household equipment and routine household maintenance	1060	
(1) Furniture and furnishings	1061	
(2) Household textiles	1062	
(3) Durable household equipment	1063	
(4) Glassware, tableware, small tools and miscellaneous accessories	1064	
(5) Domestic services and household services	1065	
(6) Non-durable household goods	1066	
6. Health	1080	
(1) Therapeutic equipment	1081	
(2) Outpatient and hospital services	1082	
(3) Pharmaceutical and other medical products	1083	
(4) Life & casualty insurance	1084	
(5) Medical consumption of NHI*	1085	

Item	Serial No.	Amount
7. Transport	1110	
(1) Purchase of vehicles	1111	
(2) Operation of transport equipment	1112	
(3) Transport services	1113	
(4) Insurance of vehicles	1114	
8. Communication	1130	
(1) Purchase of communication equipment	1131	
(2) Operation of communication equipment	1132	
(3) Postal and communication services	1133	
9. Recreation and culture	1150	
(1) Package holidays	1151	
(2) Recreational and cultural services	1152	
(3) Newspapers, books and stationery	1153	
(4) Recreational facilities	1154	
10. Education	1180	
(1) Tuition of the formal education	1181	
(2) Tuition except for the formal education and tutors	1182	
(3) Tutors	1183	
11. Restaurants and hotels	1200	
(1) Catering services of marriage, birth and funeral	1201	
(2) Food and beverages in restaurants	1202	
(3) Board	1203	
(4) Accommodation services	1204	
12. Miscellaneous goods and services	1220	
(1) jewellery, clocks, watches and other personal effects	1221	
(2) Financial services	1222	
(3) Appliances, articles and products for personal care	1223	
(4) Hairdressing salons and personal grooming establishments	1224	
(5) Expenses of marriage, birth and funeral (food excl.)	1225	
(6) Other miscellaneous expenses	1226	
(7) Non-saving insurance	1227	
(8) Social protection	1228	
Total Consumption Expenditure	1000	