

Chapter 5 Entrepreneurial income: Mixed income

Introduction

5.1 Mixed income represents the entrepreneurial income, generated in the production of goods and services, of unincorporated business. This income accrues to the capital factors of production, in the same way that operating surplus does for corporations and government business enterprises (see Chapter 4). However, unincorporated business income is described as mixed income¹ because it contains remuneration for work undertaken by the owner(s) that cannot be separated from the return to the owner(s) as entrepreneur(s).

5.2 Mixed income (proprietors' revenue) captures a class of income that is difficult to classify—essentially falling between labour income and business profits. It is the amount that independent owners who are in business for themselves, but who have not incorporated their businesses, earn. The amount that the owner of an unincorporated business earns in a year is typically considered by the owner to be profit, yet a significant amount ends up as remuneration to the owner for his labour services.

5.3 The SNA 1993 defines mixed income as follows:

“Mixed income is the surplus or deficit accruing from production by unincorporated business owned by households; it implicitly contains an element of remuneration for work done by the owner, or other members of the household, that cannot be separately identified from the return to the owner as entrepreneur but it excludes the surplus coming from owner-occupied dwellings”.² (*System of National Accounts 1993* paragraphs 7.4, 4.134 and 7.81)

5.4 In the Canadian System of National Accounts (CSNA), the net imputed rent generated by owner-occupied dwellings is added to mixed income. The income generated by owner-occupiers in their capacity as producers of housing services is included in mixed income, as it represents all income generated by unincorporated business.

5.5 Mixed income specifically refers to the net income of both farm and non-farm unincorporated business and represents approximately 6% of income-based gross domestic product (GDP). Within the Income and Expenditure Accounts (IEA), mixed income is broken into two main components: accrued net income of farm operators from farm production; and, net income of non-farm unincorporated business. The latter is broken down into two sub-components: net income excluding rental income and net rental income, both paid and imputed.

Statistical details of mixed income

5.6 This chapter presents sources and methods used to estimate these components of income-based GDP. One practical distinction between the Income and Expenditure Accounts (IEA) and the generation of income account (as presented in Table 4.1) relates to the treatment of capital consumption allowances (CCA) and the net property income payable from production activities for unincorporated businesses. In the IEA, the mixed income component is presented on a net basis, after deducting CCA and the net property income payable of unincorporated businesses while the operating surplus includes them along with the estimates for the other sectors of the economy. On the other hand, the generation of income account presents mixed income before allowances for those two components. For this reason, the mixed income shown under the generation income account in Table 4.1 is described as net while the operating surplus is on a gross basis. It would be preferable to include the CCA and the net property income payable of unincorporated businesses in the mixed income component as recommended by the SNA 1993, but statistical and methodological difficulties obviate this presentation in the IEA.

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1. The income generated by owner-occupiers in their capacity as producers of housing services is included with the mixed income component in the Canadian SNA as it represents all income generated by unincorporated businesses. In the SNA 1993 it is included with operating surplus in the generation of income account.
 2. The rationale for excluding imputed rent from mixed income in SNA 1993 is that there is no labour input into the production of these services.

5.7 In the Canadian System of National Accounts (CSNA), the two components of mixed income are presented explicitly as part of income-based GDP and as part of the income portion of the income and outlay account's persons and unincorporated business sector of the Income and Expenditure Accounts (IEA). In the input table — also known as the intermediate use table — of the Input-Output Tables (IOT), only the mixed income aggregate is provided. Table 5.1 shows mixed income as presented in the IEA and the IOT.

Table 5.1 Mixed income, 2000

Description of steps	Millions of dollars	Publication
Accrued net income of farm operators from farm production	1,243	<i>National Income and Expenditure Accounts</i> , catalogue no. 13-001, Table 1, line 5
+ Net income of non-farm unincorporated business, including rent:	64,944	<i>National Income and Expenditure Accounts</i> , catalogue no. 13-001, Table 1, line 6
Non-rent portion	37,830	Unpublished
Rent portion	27,114	Unpublished
= Mixed income	66,187	<i>Input-Output Tables</i> , catalogue no. 15-201, input matrix

5.8 Both the IEA and the IOT use the North American Industry Classification System (NAICS) as the statistical framework for producing mixed income estimates; only the level of industry aggregation differs. IEA's working level detail estimates for the year 2000 are shown in Table 5.2. A lower level of industry detail³ is available within the IOT from Industry Accounts Division.

Table 5.2 Mixed income - industry details, 2000

Industry description	Industry classification code		Mixed income in IEA			Mixed income Input-Output S-level
	Input-Output	NAICS	From farm production	Excluding rent and farm production	From rent	
			millions of dollars			
Crop and animal production	1A	111, 112	1,243	1		1,244
Forestry and logging	1B	113		438		438
Fishing, hunting and trapping	1C	114		527		527
Support activities for agriculture and forestry	1D	115		108		108
Support activities for agriculture	115100, 115200	1151, 1152		73		...
Support activities for forestry	115300	1153		35		...
Mining and oil and gas extraction	21	21		167		167
Utilities	22	221		7		7
Construction	23	23		5,397		5,397
Manufacturing	3A	31-33		516		516
Wholesale trade	41	41		935		935
Retail trade	4A	44-45		3,381		3,381
Transportation and warehousing	4B	48-49		2,226		2,226
Information and culture	51	51		180		180
Finance, insurance, real estate and rental and leasing	5A	52, 53, 55		1,774	27,114	28,888
Finance and insurance	5A0620,5A0630	5231, 5232, 5239, 5241, 5242, 5269		1,241		
Real estate and rental and leasing	5A0300, 5A0400, 5A0510, 5A0520, 5A0640	5311, 5312, 5313, 5321, 5322-5324, 5331		533	27,114	
Professional, scientific and technical services	54	54		6,667		6,667

3. The Input-Output small (S) level of industry classification includes 25 categories. Table 5.2 shows the 20 S level industries for which mixed income is reconciled. The other industrial levels of aggregation in the Input-Output Tables are the medium (M), link (L), and worksheet (W) levels. The M level has 62 industries, the L level has 117 industries, and the W level has 283 industries for publication and 300 at the working level. These classification are available in *The Input-Output Structure of the Canadian Economy*, catalogue no. 15-201.

Table 5.2 Mixed income - industry details, 2000

Legal, accounting, tax preparation, bookkeeping and payroll services	541A0	5411,5412	4,519	
Legal services		5411	2,625	
Accounting, tax preparation, bookkeeping and payroll services		5412	1,894	
Architectural, engineering and related services	541300	5413	355	
Other professional, scientific and technical services	541500, 541800, 541B00	5414, 5415, 5416, 5417, 5418, 5419	1,793	
Administration and support, waste management and remediation services	56	56	1,673	1,673
Educational services	61	61	721	721
Health care and social assistance	62	62	10,324	10,324
Offices of physicians	621100	6211	6,162	
Offices of dentists	621200	6212	1,644	
Miscellaneous ambulatory health care services	621A00	6213-6216, 6219	1,280	
Nursing and residential care facilities	623000	623	23	
Social assistance	624000	624	1,215	
Arts, entertainment and recreation	71	71	489	489
Accommodation and food services	72	72	774	774
Accommodation services	721100, 721A00	7211 - 7213	260	
Food services and drinking places	722000	722	514	
Other services	81	81	1,525	1,525
Repair and maintenance	811	811	563	
Dry cleaning and laundry services	812300	8123	72	
Personal care services and other personal services	812A00, 812200	8121, 8122, 8129	890	
Other personal services and funeral services		8122, 8129	278	
Personal care services		8121	612	
Total			1,243	37,830
			27,114	66,187

Accrued net income of farm operators from farm production

Concepts and definitions

5.9 Accrued net income of farm operators from farm production (ANIFO) comprises gross proceeds from the sale of agricultural products, including payments made to farmers under government programs, plus the imputed value of farm output consumed by farming households, plus the value of investment in farm-held inventories, less farm operating expenses and depreciation on buildings and farm machinery. It also includes an adjustment to transform earnings arising out of grain transactions of the Canadian Wheat Board from a cash to an accrual basis. Cash payments made to farmers under government programs are also adjusted to an accrual basis. Other sources of farm income, such as income from net rent and interest are included in other components of income-based gross domestic product. (see Table 5.4)

5.10 Estimates of accrued net income of farm operators from farm production can be subject to large fluctuations from one period to another. A variation in one of the key components can have a significant effect on both the level and the period-to-period movements of ANIFO. Cash receipts, which are closely tied to weather conditions and other unforeseeable factors, can experience large variations. In addition, investment in farm-held inventories, part of ANIFO, is affected by rapid changes in supply and demand of agricultural products at the national and international levels, making it a relatively unstable component. Changes in farm operating expenses are generally more stable.

Annual estimation methods and data sources

5.11 Annual estimates of accrued net income of farm operators from farm production (ANIFO) for Canada and the provinces⁴ are derived from the sum of the quarterly estimates. Methods used to derive quarterly estimates are described in the quarterly estimation method and data sources section (see paragraphs 5.13 to 5.22).

5.12 Estimates follow the Canadian System of National Accounts four year revision cycle. The inputs to the benchmarking process for accrued net income of farm operators from farm production are produced by the Income and Expenditure Accounts Division (IEAD). They include all farm activity as described in the North American Industry Classification System (NAICS), meaning all industries related to crop production (111) and animal production (112), except animal aquaculture (1125), which is included in non-farm unincorporated business (mixed income for aquaculture is available from the Input-Output Tables). Table 5.3 shows the relationship between the two sets of accounts.

Table 5.3 Accrued net income of farm operators from farm production: reconciliation between Income and Expenditures Accounts and Input-Output Tables, 2000

	Industry classification			Millions of dollars
	Input-Output		NAICS	
	Working level ²	Code		
Income and Expenditure Accounts				
Accrued net income of farm operators from farm production ¹	...	1A	111, 112	1,243
Input-Output Tables				
Use (input) matrix, mixed income, crop and animal production	S	1A	111, 112	1,244
Crop and animal production	M	11A	111, 112	1,244
Crop and animal production	L	11A0	111, 112	1,244
Greenhouse, nursery and floriculture production	W	111400	1114	426
Crop production (except greenhouse, nursery and floriculture production)	W	111A00	1111-1113, 1119	-679
Animal aquaculture	W	112500	1125	1
Animal production (except animal aquaculture)	W	112A00	1121-1124, 1129	1,496

1. Excludes animal aquaculture (112500).

2. These classification are available in *The Input-Output Structure of the Canadian Economy*, catalogue no. 15-201.

4. Since 1999, estimates for the Yukon and the Northwest Territories have been added to those for Canada using annual farm cash receipts and operating expenses data provided by the Agriculture Division. Throughout this section the estimation methods described refer to those used for the ten Canadian provinces (farm activities in the northern regions are very limited).

Quarterly estimation methods and data sources

5.13 Table 5.4 illustrates the calculation of accrued net income of farm operators from farm production. The following paragraphs examine each component.

Table 5.4 General approach to estimation of accrued net income of farm operators from farm production, 2000

Description of steps	Millions of dollars
Farm cash receipts (including CWB ¹ and government program payments)	32,728
+ Farm income in kind	149
+ Business investment in farm-held inventories	79
= Gross income of farm operators	32,956
- Farm operating expenses and depreciation charges	30,945
= Net income of farm operators	2,011
- Farm corporate profits before taxes	664
= Net income of unincorporated farm operators from farm production	1,347
- Adjustment of CWB ¹ profits and government program payments	-104
= Accrued net income of unincorporated² farm operators from farm production	1,243

1. Canadian Wheat Board.

2. The term unincorporated is omitted from the heading in Table 1, line 5 of *National Income and Expenditure Accounts*, catalogue no. 13-00

Farm cash receipts

5.14 *Farm Cash Receipts* include income received from the sale of agricultural products, Canadian Wheat Board payments and government payments made under farm support programs. Farm cash receipts are estimated from both administrative and survey data. Data sources vary by province and by product. The main sources are Statistics Canada survey data as well as administrative data from Agriculture and Agri-Food Canada, the Canadian Wheat Board, marketing and regulatory boards, and government and private agencies.

5.15 As Table 5.5 shows, farm cash receipts cover all crops, livestock, livestock products, and direct payments made to producers from various programs, such as crop insurance, income stabilization payments and other one-time payments made by federal and provincial governments to compensate producers for losses due to extreme weather, disease or other factors.⁵ Some payments, such as property tax credits and fuel tax rebates, are deducted directly from expenses rather than being included on a gross basis in farm cash receipts.

Table 5.5 Farm cash receipts, 2000

	millions of dollars
Farm cash receipts¹	32,728
Crops	12,981
Wheat, excluding durum	1,898
Durum wheat	452
Wheat, Canada and Ontario Wheat Board payments	681
Oats	196
Barley	478
Barley, Canadian Wheat Board payments	91
Rye	15
Flaxseed	149
Canola	1,560
Soybeans	678

5. *Direct Payments to Agriculture Producers*, catalogue no. 21-015.

Table 5.5 Farm cash receipts, 2000

	millions of dollars
Corn	676
Sugar beets	33
Potatoes	680
Vegetables	1,301
Apples	192
Other tree fruits	68
Strawberries	54
Other berries and grapes	233
Floriculture and nursery	1,589
Tobacco	348
Ginseng	47
Mustard seed	64
Sunflower seed	31
Lentils	245
Canary seed	34
Dry beans	123
Dry peas	270
Chick peas	63
Forage and grass seed	83
Hay and clover	203
Maple products	181
Forest products	117
Christmas trees	70
Miscellaneous crops	77
Livestock and livestock products	17,097
Cattle	6,048
Calves	827
Hogs	3,355
Sheep	5
Lambs	82
Dairy products	4,030
Hens and chickens	1,368
Turkeys	263
Hatcheries (chicks and poults)	33
Eggs	511
Pregnant mare's urine	x
Wool	1
Honey	69
Furs	46
Embryos	x
Horses	x
Miscellaneous livestock	321
Government programs payments	2,650
Net Income Stabilization Account payments	456
Crop insurance payments	451
Provincial stabilization payments	411
Dairy subsidies	73
Other payments	1,259

1. These differ from Agriculture Division data for Canadian Wheat Board payments which are reallocated based on the crop year; exclude adjustment of deferred grain receipts and private insurance programs; and include, Yukon and the Northwest Territories estimates.

Farm income in kind

5.16 Farm income in kind consists of the estimated value of food and forestry products produced and consumed on farms for personal use. Home-consumed products are valued at prevailing market prices at the farm level. It excludes net rent imputed for dwellings on farms, already measured as part of the net income of non-farm unincorporated business including net rental income component. The composition and value of the farm income-in-kind is shown in Table 5.6. It consists mainly of forestry and livestock products. The data are compiled from surveys, the *Census of Agriculture* and administrative data.⁶ The monthly data are distributed using ratios derived from a variety of data sources.

Table 5.6 Farm income in kind, 2000

	millions of dollars
Farm income in kind	149.1
Dairy products	4.4
Cattle	20.1
Calves	2.2
Hogs	2.3
Sheep and lambs	3.0
Hens, chickens and turkeys	1.6
Eggs	2.8
Potatoes	0.2
Vegetables	0.3
Fruits	0.5
Maple products	2.8
Honey	0.0
Wool	0.0
Forest products	108.9

Investment in farm-held inventories

5.17 For crops, investment in farm inventories is estimated for each grain type, using quantities valued at the market prices prevailing in the reference period. Withdrawals from inventories (which consist of sales, food for livestock, seed and waste) are deducted from production that has been placed into inventories, to arrive at an estimate of the value of inventory changes.⁷ The same approach is applied to potato and tobacco crops. For livestock, the value of inventory change is calculated directly from physical quantity changes and market prices obtained from Agriculture Division surveys.⁸ The investment in inventories chapter explains the sources and methods used to estimate investment in farm inventories, a component of expenditure-based GDP (see Chapter 10).

Farm operating expenses and depreciation

5.18 Operating expenses and depreciation represent the costs incurred by farm operators for goods and services used in the production of agriculture commodities. There is a wide range of expenses related to farm production, as itemized in Table 5.7. To arrive at net operating expenses, direct payments (rebates), made to producers to reduce the costs of inputs, are deducted. They are estimated annually by the Agriculture Division,⁹ using a number of sources. Total annual expenses are distributed quarterly using ratios established from a study conducted by the Income and Expenditure Accounts Division.

5.19 Estimates of depreciation are produced by the Agriculture Division. They reflect economic depreciation, or the loss in fair market value of the capital assets. Estimates cover farm buildings (including the farm business share of houses) and farm machinery (including the farm business share of automobiles or trucks).

6. *Net Farm Income*, catalogue no. 21-010.

7. Seasonal adjustment of the quarterly grain inventory series creates particular problems. For further details, see the technical paper *Treatment of Grain Production in the Quarterly Income and Expenditure Accounts*, catalogue no. 13-604, no. 2.

8. Survey no. 3460, published in *Cattle Statistics*, catalogue no. 23-012; *Hog Statistics*, catalogue no. 23-010; *Livestock Statistics*, catalogue no. 23-603; and *Sheep Statistics*, catalogue no. 23-011.

9. *Farm Operating Expenses and Depreciation Charges*, catalogue no. 21-012.

Table 5.7 Farm operating expenses and depreciation charges, 2000

Components	Millions of dollars
Total operating¹ expenses and depreciation charges	30,945
Operating expenses	26,613
Property taxes	518
Cash rent	805
Share rent	377
Cash wages including room and board	3,285
Interest	2,536
Repairs to buildings and fences	658
Electricity	610
Telephone	239
Heating fuel	356
Machinery fuel	1,547
Machinery repairs and other expenses	1,922
Business insurance	518
Custom work	546
Stabilization premiums	160
Crop and hail insurance	299
Fertilizer and lime	2,067
Pesticides	1,550
Commercial seed	918
Irrigation	21
Twine, wire and containers	358
Commercial feed	3,789
Livestock and poultry purchases	1,688
Artificial insemination and veterinary fees	573
Legal and accounting fees	688
Other operating expenses	585
Depreciation charges	4,332
Depreciation on buildings	930
Depreciation on machinery	3,401
Rebates paid directly to producers	131
Property taxes	64
Cash wages	2
Interest	22
Machinery fuel	39
Other ²	3

1. Operating expenses are net of rebates paid to farmers. Yukon and Northwest Territories estimates are included.

2. This item includes rebates for electricity, heating fuel, fertilizer, pesticides, commercial seed, commercial feed, inspection costs, veterinary fees and purchase of livestock.

Farm corporate profits before taxes

5.20 Farm corporate profits before taxes represents profits from incorporated farm operations. Estimates are derived from Canada Revenue Agency tax data files. This component is not included in farm income since it is measured as part of corporation profits before taxes.

Adjustment of Canadian Wheat Board profits and government program payments

5.21 This adjustment is necessary because gross domestic product measures income arising from current production and not current receipts. Consequently, profits arising out of the operations of the Canadian Wheat Board¹⁰ (CWB) are allocated to farm operators when they are earned regardless of when they are actually paid to farmers. As well, an inventory valuation adjustment is calculated to eliminate any holding gains or losses from the initial CWB earnings reported.

5.22 Similarly, government program payments to farmers are adjusted from a cash basis to an accrual basis to reflect current agricultural production.

Provincial and territorial estimation methods and data sources

5.23 Provincial estimates are established from the quarterly estimates, which are estimated by province.

Relationship with other parts of the Income and Expenditure Accounts

5.24 A number of the components of accrued net income of farm operators from farm production are also included in other variables of gross domestic product. Investment in farm-held inventories appears directly on the expenditure side of the Income and Expenditure Accounts. Income-in kind for food is included as part of farm-consumption and other imputed food expenses, appearing under personal expenditure on consumer goods and services. All taxes and subsidies, whether part of income or expenses of farm operators, are included in either taxes less subsidies on factors of production or taxes less subsidies on products. Finally, depreciation, which is part of farm operating expenses, is included in capital consumption allowance, an income-based GDP component.

5.25 Accrued net income of farm operators from farm production is part of the unincorporated business net income in the persons and unincorporated businesses sector.

5.26 Investment in farm-held inventories is divided between the unincorporated sector and the incorporated sector, using a ratio derived from the *Census of Agriculture* data on farm cash receipts.

Reconciliation of estimates with the Agriculture Division

5.27 Agriculture Division produces a number of economic statistics on farming.¹¹ Most of them are included in the estimation of accrued net income of farm operators from farm production. Table 5.8 shows the reconciliation between the two estimates.

10. The CWB buys wheat and barley from farm operators and sells the grain on various markets, notably the export market, on their behalf.

11. Agriculture Division's series Agriculture Economic Statistics includes: *Net Farm Income*, catalogue no. 21-010, *Farm Cash Receipts*, catalogue no. 21-011, *Farm Operating Expenses and Depreciation Charges*, catalogue no. 21-012, *Value of Farm Capital*, catalogue no. 21-013, *Farm Debt Outstanding*, catalogue no. 21-014, *Direct Payments to Agriculture Producers*, catalogue no. 21-015, *Balance Sheet of the Agricultural Sector*, catalogue no. 21-016, *Agriculture Value Added Account*, catalogue no. 21-017, and *Farm Business Cash Flows*, catalogue no. 21-018. Agriculture Division also offers additional statistics on various agricultural outputs.

Table 5.8 Accrued net income of farm operators from farm production: Reconciliation statement with Agriculture Division net farm income, 2000

	millions of dollars
Net farm income ¹	2,461
- Agricultural corporation profits before taxes ²	664
+ Adjustment related to farm inventories ³	-251
+ Other adjustments related to farm income ⁴	-303
= Accrued net income of farm operators from farm production ⁵	1,243

1. *Net Farm Income*, catalogue no. 21-010.

2. This adjustment involves deducting profits of farm businesses before taxes, as those profits are already included in the corporate profits before taxes component of GDP.

3. In the Income and Expenditure Accounts the value of inventory change is calculated on a quarterly basis (based on average quarterly prices) while Agriculture Division determines this value on an annual basis (based on average annual prices).

4. Gross Domestic Product measures income based on current output rather than on cash receipts. Adjustments are made to convert government program payments made to farmers and profits from the Canadian Wheat Board to an accrual basis. Estimates for the Yukon and the Northwest Territories are also included.

5. *National Income and Expenditure Accounts*, catalogue no. 13-001.

Net income of non-farm unincorporated business, excluding net rental income

Concepts and definitions

5.28 Net income of non-farm unincorporated business, excluding net rental income, measures the net earnings of proprietors from their own businesses in all industries except agriculture. It includes the net income of private consultants, accountants, lawyers, doctors and other independent professionals.

Annual estimation methods and data sources

5.29 Estimates follow the Canadian System of National Accounts four year revision cycle. Annual benchmarks for the years t-4 and t-3 are provided by Industry Accounts Division (IAD) as part of the annual benchmarking program. These estimates are produced at the industry level. Reconciliation between the Input-Output Tables (IOT) and the Income and Expenditure Accounts (IEA) is done for the industries and aggregates shown in Table 5.9. The level of detail corresponds roughly to the highest level of aggregation in the IOT.

5.30 As evident from Table 5.9, Canada Revenue Agency's (CRA) T1 individual income tax returns are the main source of information used to derive estimates of net income of unincorporated business, excluding net rental income by industry. In some cases, CRA information is adjusted for the understatement of income on tax returns using other sources of information, so as to adjust for unreported activity.

5.31 Canada Revenue Agency's T1 individual income tax returns are used in combination with survey information to estimate net income of unincorporated business, excluding net rental income for a number of industries. In addition to CRA data, estimates for the retail trade industry use data collected through the annual *Retail Store Survey*. Estimates for the architectural, engineering and related services industry are supplemented with information from the *Annual Survey of Engineering Services* and the *Annual Survey of Architectural Services*. The estimate for other professional, scientific and technical services incorporates information obtained from two surveys: the *Annual Survey of Advertising and Related Services* and the *Annual Survey of Software Development and Computer Services*. The accommodation services estimate makes use of survey data from the *Annual Survey*

of *Traveller Accommodation* and the *Annual Survey of Travel Arrangement Services*. Finally, the food services and drinking places industry estimate uses data from the *Annual Survey of Service Industries: Food Services and Drinking Places*.

5.32 For a small number of industries, survey information is the single source of information used to establish the annual benchmark. This is the case for the following industries:

- accounting, tax preparation, bookkeeping and payroll services;
- dry cleaning and laundry services;
- other personal services and funeral services; and
- personal care services.

5.33 Finally, certain industries require a variety of data sources and methods to produce annual estimates. For the transportation and warehousing industry, Canada Revenue Agency (CRA) information is adjusted for the understatement of income for small operators in the urban transit industry. In addition, survey information taken from the annual *Survey of the Taxi and Limousine Services Industry* is adjusted for undeclared tips. In the real estate and rental and leasing industry, estimates of mixed income for real estate agents and brokers are based on CRA information on gross income, and a historical ratio of net income to gross income. For the remainder of the industry, CRA information is supplemented with *Labour Force Survey* data on self-employment. A similar approach is taken to derive annual estimates for the repair and maintenance industry. The automobile portion is based on CRA information adjusted for the understatement of income on tax returns. The remaining portion of the industry mixed income is derived from gross income reported on CRA's T1 individual income tax returns and a historical net income to gross income ratio.

5.34 Benchmark estimates for the private educational services industry are a projection of a historical benchmark using growth rates for that industry.

Table 5.9 Sources and methods of net income of non-farm unincorporated business, excluding rent for benchmark years, 2000

Industry description	Input-Output ¹ industry code	Millions of dollars	Summary of methods for benchmark years
Forestry and logging	1B	438	Net income from CRA T1 individual income tax returns, adjusted for understatement of income on tax returns.
Fishing, hunting and trapping	1C	527	Net income from CRA T1 individual income tax returns.
Support activities for agriculture and forestry	1D	109	
Support activities for agriculture	115100, 115200	74	Net income from CRA T1 individual income tax returns.
Support activities for forestry	115300	35	Net income from CRA T1 individual income tax returns, adjusted for understatement of income on tax returns.
Mining and oil and gas extraction	21	167	Net income from CRA T1 individual income tax returns, adjusted for understatement of income on tax returns.
Utilities	22	7	Net income from CRA T1 individual income tax returns.
Construction	23	5,397	Net income from CRA T1 individual income tax returns, adjusted for understatement of income on tax returns.
Manufacturing	3A	516	Net income from CRA T1 individual income tax returns.
Wholesale trade	41	935	Net income from CRA T1 individual income tax returns, adjusted for understatement of income on tax returns.
Retail trade	4A	3,381	Net income from the annual <i>Retail Store Survey</i> and CRA T1 individual income tax returns, adjusted for understatement of income on tax returns.
Transportation and warehousing	4B	2,226	Net income from CRA T1 individual tax returns, adjusted for small (less than \$200,000 gross business income) operators in the urban transit industry. Combined with data on net income for taxi and limousine service taken from the annual <i>Survey of Taxi and Limousine Services</i> , with an imputation for undeclared tips.
Information and culture	51	180	Net income from CRA T1 individual income tax returns.
Finance, insurance, real estate and rental and leasing	5A	1,774	
Finance and insurance	5A0620, 5A0630	1,241	Net income from CRA T1 individual income tax returns, adjusted for understatement of income on tax returns.
Real estate and rental and leasing	5A0300, 5A0400, 5A0510, 5A0520, 5A0640	533	Real estate agents and brokers: gross income from CRA T1 individual tax returns multiplied by a historical tax data derived net/gross ratio. Other services related to real estate: CRA T1 individual tax returns combined with <i>Labour Force Survey</i> data on self-employed.
Professional, scientific and technical services	54	6,667	
Legal, accounting, tax preparation, bookkeeping and payroll services	541A00	4,519	
Legal services		2,625	Net income from CRA T1 individual tax returns, adjusted for understatement of income on tax returns.
Accounting, tax preparation, bookkeeping and payroll services		1,894	Net income from the <i>Annual Survey of Accounting and Bookkeeping</i> .
Architectural, engineering and related services	541300	355	Net income from the <i>Annual Survey of Engineering Services</i> , combined with data on net income from CRA T1 individual income tax returns.
Other professional, scientific and technical services	541500, 541800, 541B00	1,793	Net income from the <i>Annual Survey of Advertising and Related Services</i> , and the <i>Annual Survey of Software Development and Computer Services</i> , combined with data on net income from CRA T1 individual income tax returns.
Administration and support, waste management and remediation services	56	1,673	Net income from CRA T1 individual tax returns, adjusted for understatement of income on tax returns.
Educational services	61	721	Growth in gross output of the industry applied to old estimates
Health care and social assistance	62	10,324	
Offices of physicians	621100	6,162	Net income from CRA T1 individual income tax returns.

Table 5.9 Sources and methods of net income of non-farm unincorporated business, excluding rent for benchmark years, 2000

Industry description	Input-Output ¹ industry code	Millions of dollars	Summary of methods for benchmark years
Offices of dentists	621200	1,644	Net income from CRA T1 individual income tax returns.
Miscellaneous ambulatory health care services	621A00	1,280	Net income from CRA T1 individual income tax returns.
Nursing and residential care facilities	623000	23	Net income from CRA T1 individual income tax returns.
Social assistance	624000	1,215	Net income from CRA T1 individual tax returns, adjusted for understatement of income on tax returns.
Arts, entertainment and recreation	71	489	Net income from CRA T1 individual income tax returns.
Accommodation and food services	72	774	
Accommodation services	721100, 721A00	260	Net income from CRA T1 individual income tax returns, combined with net income data from <i>Annual Survey of Traveller Accommodation</i> and <i>Annual Survey of Travel Arrangement Services</i> .
Food services and drinking places	722000	514	Net income from <i>Annual Survey of Food Services and Drinking Places</i> , adjusted for understatement of net income.
Other services	81	1,525	
Repair and maintenance	811	563	Auto repair and maintenance: net income from CRA T1 individual income tax returns, adjusted for understatement of income on tax returns. Other repair and maintenance industries: based on current production and historical data available from Input-Output Tables.
Dry cleaning and laundry services	812300	72	Net income from <i>Annual Survey of Personal Services</i> .
Personal care services and other personal services	812A00, 812200	890	
Other personal services and funeral services		278	Net income from <i>Annual Survey of Personal Services</i> for combined industries 8121 and 8129. Split between 8121 and 8129 using personal expenditures information.
Personal care services		612	Net income from <i>Annual Survey of Personal Services</i> for combined industries 8121 and 8129. Split between 8121 and 8129 using personal expenditures information.
Total		37,830	

1. Input-Output industry classification and its relationship to the NAICS classification is presented in the publication *The Input-Output Structure of the Canadian Economy*, catalogue no. 15-201.

5.35 Data sources and methods used for the non-benchmark years are dependent on the availability of benchmark data. Canada Revenue Agency's (CRA) T1, along with some survey information, is used in for estimating t-2. Sources of data that are used for the first three years of the revision cycle are not usually available to assist in preparing estimates for the year t-1. In this case, annual estimates are obtained by using the sum of the quarterly estimates (t-1) as a projector.

5.36 Table 5.10 presents the method of estimation used for the non-benchmark years, by industry. The t-2 estimates are an extension of the benchmark period. Most of the estimates are derived using net income from Canada Revenue Agency's (CRA) T1. For retail and wholesale trade industries, survey information is the sole source of information used to produce the t-2 estimates.

5.37 With the exception of the physicians, dentists and the other health industry, t-1 estimates by industry are obtained by using the corresponding industry's sum of its quarterly estimates as a projector. For offices of physicians and dentists, provincial government expenditures on medicare and personal expenditures on medical and dental services are used respectively as the projectors. Finally, net income of the other health industry is projected using earnings information from the *Survey of Employment, Payrolls and Hours* on health care and social assistance.

Table 5.10 Sources and methods of net income of non-farm unincorporated business, excluding rent for projection years

Industry description	Summary of methods ¹ for projection years	
	t-2	t-1
Forestry and logging	Net income from CRA T1 individual tax returns, adjusted for understatement of income on tax returns.	Sum of quarters used as projector
Fishing, hunting and trapping	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Support activities for agriculture and forestry	Sum of components	Sum of components
Support activities for agriculture	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Support activities for forestry	Net income from CRA T1 individual tax returns, adjusted for understatement of income on tax returns.	Sum of quarters used as projector
Mining and oil and gas extraction	Net income from CRA T1 individual tax returns, adjusted for understatement of income on tax returns.	Sum of quarters used as projector
Utilities	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Construction	Net income from CRA T1 individual tax returns, adjusted for understatement of income on tax returns.	Sum of quarters used as projector
Manufacturing	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Wholesale trade	Value of total annual wholesale sales (<i>Wholesale Trade Survey (Monthly)</i>) used as projector.	Sum of quarters used as projector
Retail trade	Value of total annual retail sales (<i>Monthly Retail Trade Survey</i>) used as projector.	Sum of quarters used as projector
Transportation and warehousing	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Information and culture	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Finance, insurance, real estate and rental and leasing	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Finance and insurance	Not projected, see aggregate	Not projected, see aggregate
Real estate and rental and leasing	Not projected, see aggregate	Not projected, see aggregate
Professional, scientific and technical services	Sum of components	Sum of components
Legal, accounting, tax preparation, bookkeeping and payroll services		
Legal services	Net income from CRA T1 individual tax returns, adjusted for understatement of income on tax returns.	Sum of quarters used as projector
Accounting, tax preparation, bookkeeping and payroll services	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Architectural, engineering and related services	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Other professional, scientific and technical services	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Administration and support, waste management and remediation services	Net income from CRA T1 individual tax returns, adjusted for understatement of income on tax returns.	Sum of quarters used as projector
Educational services	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Health care and social assistance	Sum of components	Sum of components
Offices of physicians	Net income from CRA T1 individual income tax returns.	Provincial government expenditures on medicare used as projector
Offices of dentists	Net income from CRA T1 individual income tax returns.	Personal expenditures on dental and child care services used as projector
Other health	Net income from CRA T1 individual income tax returns.	Personal expenditures on medical and child care services used as projector
Miscellaneous ambulatory health care services	Not projected, see aggregate	Not projected, see aggregate
Nursing and residential care facilities	Not projected, see aggregate	Not projected, see aggregate
Social assistance	Not projected, see aggregate	Not projected, see aggregate

Table 5.10 Sources and methods of net income of non-farm unincorporated business, excluding rent for projection years

Industry description	Summary of methods ¹ for projection years	
	t-2	t-1
Arts, entertainment and recreation	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Accommodation and food services	Sum of components	Sum of components
Accommodation services	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Food services and drinking places	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Other services	Sum of Components	Sum of components
Repair and maintenance	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Personal and laundry services	Sum of Components	Sum of components
Dry cleaning and laundry services	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Personal care services and other personal services	Sum of Components	Sum of components
Other personal services	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector
Personal care services	Net income from CRA T1 individual income tax returns.	Sum of quarters used as projector

1. Canada Revenue Agency (CRA).

Quarterly estimation methods and data sources

5.38 There is no direct quarterly information on the net income of non-farm unincorporated business excluding net rental income. As a result, related indicators are used to extrapolate the annual estimates. These indicators are based on a combination of survey and administrative data. The sub-annual indicator is also used to derive the quarterly pattern of the time series in question, including the benchmark years. This is done using the Denton-Cholette quadratic minimization method.¹² This method adjusts sub-annual estimates to the annual benchmark in such a way as to preserve, as much as possible, the movement of the sub-annual estimates. Table 5.11 provides a summary of the quarterly methodology.

5.39 Current quarterly estimates of nine industries are obtained using industry related personal expenditure data as a projector. These industries are:

- support activities for agriculture;
- educational services;
- arts, entertainment and recreation;
- accommodation services;
- food services and drinking places;
- repair and maintenance;
- dry cleaning and laundry services;
- other personal services and funeral services; and
- personal care services.

5.40 In six other cases, quarterly projectors are derived using a combination of real industry estimates (gross domestic product, and gross output by industry) produced by the Industry Accounts Division and an industry related personal expenditure on consumer goods and services price index. These industries are:

- utilities;
- legal services;
- accounting, tax preparation, bookkeeping and payroll services;

12. This procedure is sometimes called the Denton-Cholette Method. For more detail about the method, see Cholette, P.A. (1984): Adjusting sub-annual series to yearly benchmarks. *Survey Methodology*, 10, 35-49.

- architectural, engineering and related services;
- other professional, scientific and technical services; and
- administration and support, waste management and remediation services.

5.41 For a third group of industries quarterly estimates are derived using labour related projectors. They consist of labour income estimates prepared as part of the Income and Expenditure Accounts (IEA), payroll information from the *Survey of Employment, Payrolls and Hours* (SEPH) and data from the *Labour Force Survey* (LFS) on self-employment. For finance, insurance, real estate and rental and leasing, labour data is combined with real estate commissions to produce a projector. The industries using labour related projectors are:

- forestry, logging and support activities for forestry;
- fishing, hunting and trapping;
- mining and oil and gas extraction;
- transportation and warehousing;
- information and culture; and
- finance, insurance, real estate and rental and leasing.

Table 5.11 Sources and methods of net income of non-farm unincorporated business, excluding rent for quarterly estimates

Industry description	Summary of methods ¹
Forestry and logging	Labour income used as projector
Fishing, hunting and trapping	Labour income used as projector
Support activities for agriculture and forestry	Sum of components
Support activities for agriculture	Personal expenditure on pet care used as projector
Support activities for forestry	Labour income used as projector
Mining and oil and gas extraction	Labour income used as projector
Utilities	Constant dollar GDP at basic prices for utilities industry combined with price index used as projector
Construction	Combined capital expenditure data on work put-in-place, highway construction and alterations used as projector
Manufacturing	Value of total manufacturing shipments from <i>Monthly Survey of Manufacturing</i> used as projector
Wholesale trade	Value of total wholesale sales from <i>Wholesale Trade Survey (Monthly)</i> used as projector
Retail trade	Value of total retail sales from <i>Monthly Retail Trade Survey</i> used as projector
Transportation and warehousing	<i>Survey of Employment, Payrolls and Hours</i> weekly payroll used as projector
Information and culture	<i>Survey of Employment, Payrolls and Hours</i> average weekly earnings combined with <i>Labour Force Survey</i> data on the self-employed used as projector
Finance, insurance, real estate and rental and leasing	<i>Survey of Employment, Payrolls and Hours</i> weekly payroll combined with transfer costs (real estate commissions) used as projector
Finance and insurance	Not projected, see aggregate
Real estate and rental and leasing	Not projected, see aggregate
Professional, scientific and technical services	Sum of components
Legal, accounting, tax preparation, bookkeeping and payroll services	Constant dollar gross output combined with price index used as projector
Legal services	Constant dollar gross output combined with price index used as projector
Accounting, tax preparation, bookkeeping and payroll services	Real GDP at basic prices combined with price index used as projector
Architectural, engineering and related services	Real GDP at basic prices combined with price index used as projector
Other professional, scientific and technical services	Real GDP at basic prices combined with price index used as projector
Administration and support, waste management and remediation services	Real GDP at basic prices combined with price index used as projector
Educational services	Personal expenditures on education used as projector
Health care and social assistance	Provincial government expenditures on medicare combined with personal expenditures on medical, dental and child care used as projector
Offices of physicians	Not projected, see aggregate

Table 5.11 Sources and methods of net income of non-farm unincorporated business, excluding rent for quarterly estimates

Industry description	Summary of methods ¹
Offices of dentists	Not projected, see aggregate
Miscellaneous ambulatory health care services	Not projected, see aggregate
Nursing and residential care facilities	Not projected, see aggregate
Social assistance	Not projected, see aggregate
Arts, entertainment and recreation	Personal expenditures on recreational services used as projector
Accommodation and food services	Sum of components
Accommodation services	Personal expenditures on board, lodging and hotels used as projector
Food services and drinking places	Personal expenditures on meals outside the home used as projector
Other services	Sum of components
Repair and maintenance	Personal expenditures on various types of repairs used as projector
Dry cleaning and laundry services	Personal expenditures on laundry and dry-cleaning used as projector
Personal care services and other personal services	Sum of components
Other personal services and funeral services	Personal expenditures on funerals, photography and miscellaneous household services used as projector
Personal care services	Personal expenditures on hairstyling for men and women used as projector

1. Quarterly estimates are adjusted to annual benchmarks using the Denton-Cholette quadratic minimization method. This method adjust sub-annual estimates to the annual benchmark in such a way as to preserve as much as possible the movement of the sub-annual estimates.

5.42 The remaining industries use a variety of sources to establish quarterly estimates. The construction industry estimate employs data on gross capital formation excluding machinery and equipment as its projector. Manufacturing, wholesale and retail trade industries use their respective monthly survey information as projectors. For the health care and social assistance industry, no sub-industry detail is estimated on a quarterly basis. It is projected using the movement of provincial government expenditures on medicare, combined with personal expenditures on medical, dental and child care.

Provincial and territorial estimation methods and data sources

5.43 Generally, provincial and territorial estimates are prepared in the same method as the Canada annual estimates, using provincial and territorial versions of the source data. There are, however, a few exceptions. For the most current year, the fishing, hunting and trapping industry is projected using the Department of Fisheries and Oceans' data on value of commercial landings. In addition, estimates of net income for legal services and the accounting, tax preparation, bookkeeping and payroll services industries are derived using labour related information as opposed to real industry estimates (gross domestic product, and gross output by industry).

Net rental income of non-farm unincorporated business

Concepts and definitions

5.44 The rental portion of net income of non-farm unincorporated business includes all net rental income of individuals in their capacity as owners, including the implicit income that they generate by inhabiting a dwelling that they own. The latter component is included because, in national accounting, persons who own the dwellings in which they live are treated as owning unincorporated enterprises that produce housing services that are consumed by the households to which the owner belongs.¹³ This imputation is made to ensure that the measure of production will not vary when shifts occur between owner-occupancy and the renting of residential dwellings.

13. See paragraph 9.58 of *System of National Accounts 1993*.

Annual estimation methods and data sources

5.45 For net residential rental income of non-farm unincorporated business, the data for the benchmarking process are estimated by the Income and Expenditure Accounts Division.

5.46 The overall approach is to first estimate the residential rent that is paid to landlords, or imputed to owner-occupants.¹⁴ Rent, paid and imputed, is published in personal expenditure. Next, the rent paid to corporations and governments is subtracted. Then, the expenses incurred by owners (repair costs, property and school taxes, insurance, mortgage interest, depreciation and miscellaneous expenses) are deducted to obtain the net income of non-farm unincorporated business from paid and imputed residential rent, to which Industry Accounts Division's net income of non-farm unincorporated business from non-residential rent is added.¹⁵ (Table 5.14)

Rent, paid and imputed

Rent paid to landlords

5.47 The estimate of paid rent begins with the housing stock, as measured by the *Census of Population*. The housing stock is divided into single-family dwellings, multiple dwellings, mobile homes, cottages, garages and farms. The Census figures on these stocks are extrapolated annually by the Investment and Capital Stock Division, which uses the number of new dwellings completed, plus conversions,¹⁶ less demolitions from the survey of the Canada Mortgage and Housing Corporation (CMHC) and the *Building Permits Survey*. The housing stock is also divided between rented or owned dwellings and occupied or vacant dwellings, using fixed ratios based on the census.

5.48 The average rent is defined as the average price paid by renters for the use of a dwelling (single-family dwellings, multiple dwellings and mobile homes). This average rent is estimated using data drawn from the sample of respondents to the *Labour Force Survey*. The housing component of the *Consumer Price Index* is also based on these same data.

5.49 The number of rented and occupied dwelling units (single-family dwellings, multiple dwellings and mobile homes) is multiplied by the average rent to obtain contract rent. The portion of contract rent that is not related to the dwelling space, that is, expenditures relating to facilities and services provided by landlords, is subtracted to obtain paid rent.¹⁷ These expenditures include depreciation of furniture, stoves, refrigerators and washing machines as well as costs related to water, electricity, heating, parking and maintenance services. Since the average rent is not available for cottages and farms, stocks and estimates of rent for other types of dwellings are used in order to obtain an approximation.¹⁸ For garages, the average rent comes from the *Survey of Household Spending*. Finally, an adjustment is made to remove the portion related to offices in the dwelling.

5.50 Several sources are used to estimate expenditures relating to facilities and services provided by landlords, including the *Survey of Household Spending*, personal expenditure data on furniture and household appliances and on energy, and the *Survey of Employment, Payrolls and Hours* for maintenance services.

5.51 Data provided by the Prices Division indicate that approximately 2% of workers use their dwelling as a workplace. The Income and Expenditure Accounts Division hypothesizes that 25% of rent should be attributed to the business portion. The calculation is as follows:

-
14. Residential rent that is paid to landlords is referred to as paid rent in the rest of this chapter; residential rent imputed to owner-occupants is referred to as imputed rent.
 15. The non-residential portion of net rental income of non-farm unincorporated business represents about 3% of the total.
 16. These are additional dwelling units created from formerly non-residential buildings or from other types of residential buildings.
 17. Paid rent is often referred to as gross space paid rent or gross paid rent for space, emphasizing that this estimate measures only the cost of the space occupied.
 18. Paid rent for cottages, garages and farms accounts for less than 3% of the total.

Paid rent
x Ratio of rent used for office space (25%)
x Ratio of individuals using their dwelling as a workplace (2%)
= Adjustment for offices in the dwelling

5.52 Paid rent is the starting point for estimating rent imputed to owner-occupants.

Rent imputed to owner-occupants

5.53 Dividing paid rent by the rented and occupied housing stock, results in an estimate of the average rent. This estimate is adjusted using a coefficient of quality, since a dwelling that is owned is generally larger and of better quality than a rented dwelling. This coefficient is based on the average number of rooms in owned dwellings compared to that of rented dwellings, according to the *Census of Population*. Imputed rent¹⁹ is obtained by multiplying the number of dwelling units owned and occupied (single-family dwellings, multiple dwellings and mobile homes) by the average rent paid adjusted by a quality coefficient. The calculation is as follows:

Paid rent
÷ Rented and occupied housing stock
= Average rent paid
x Coefficient of quality related to a dwelling that is owner-occupied
x Owned and occupied housing stock
= Imputed rent

5.54 To obtain imputed residential rent for garages, cottages and farms, the procedure is the same as for rented and occupied dwellings (see paragraph 5.49).

5.55 An adjustment is made for offices in the dwelling in the same way as in rented and occupied dwellings (see paragraphs 5.49 and 5.51).

5.56 Imputed rent, like paid rent, is the starting point for estimating the net rental income of non-farm unincorporated businesses. It is published in personal expenditure as imputed rent.²⁰

Net income of non-farm unincorporated business from rent

5.57 Table 5.12, Table 5.13 and Table 5.15 illustrate the calculation of net rental income of non-farm unincorporated business. The calculation is done in three parts: first, net residential rental income imputed to owner-occupants; then net residential rental income of unincorporated businesses; and lastly, net non-residential rental income of unincorporated businesses. Table 5.14 displays estimates for 2000.

Net residential rental income imputed to owner-occupants

5.58 As shown in Table 5.12, the calculation of net residential rental income imputed to owner-occupants begins with imputed rent. From this, owner-occupants' expenditures related to the dwelling are subtracted. These include repair costs, property and school taxes, insurance, mortgage interest, depreciation and miscellaneous expenditures.

19. Imputed rent is often referred to as gross space imputed rent or gross imputed rent for space, emphasizing that this estimate measures only the costs of the space occupied.

20. *National Income and Expenditure Accounts*, catalogue no. 13-001, Table 16, line 10.

5.59 Repair costs are derived from two sources, the *Survey of Household Spending* and the *Homeowner Repair and Renovation Survey* (HRRS).²¹ The total of the expenditures from these two surveys is divided between renters and owners, according to the proportions for the benchmark years, which, again, are based on the HRRS.

5.60 Property and school taxes are derived from the financial documents of provincial and local governments. These are compiled by the Public Institutions Division. The residential portion of property and school taxes is provided by the Industry Accounts Division.

5.61 Insurance expenditures are derived from the reports of the Office of the Superintendent of Financial Institutions Canada.

5.62 Mortgage interest, the largest expenditure item, is calculated from quarterly documents of the financial institutions involved in mortgage lending. This group includes chartered banks, trust companies, mortgage lending companies, caisses populaires and credit unions, life insurance companies, pension funds and other financial institutions. The total of residential mortgage interest is then distributed between owners and renters by using the proportions of paid and imputed rent.

5.63 Depreciation is calculated quarterly on a replacement cost basis, by dwelling type, by the Investment and Capital Stock Division. Depreciation is distributed between owners and renters using data on rented and owned dwelling units.

5.64 In the case of owner-occupied dwellings, miscellaneous expenditures include only wages and expenditures related to legal costs. The benchmark data are projected using the growth rate for residential rent imputed to owner-occupants.

Table 5.12 Calculation of net residential rental income imputed to owner-occupants

Description of steps

Rent imputed to owner-occupants

- Expenses of owner-occupants

 Repair costs

 Property and school taxes

 Insurance

 Mortgage interest

 Depreciation

 Miscellaneous expenditures

= Net residential rental income imputed to owner-occupants

Net residential rental income of unincorporated businesses

5.65 With one exception, estimates of net residential rental income of unincorporated businesses are based on the same methods and information sources as for net residential rental income imputed to owner-occupants (see paragraph 5.58). The exception is due to the fact that rents are paid not only to unincorporated businesses, but also to incorporated businesses and governments.

5.66 Table 5.13 shows how net residential rental income of unincorporated businesses is calculated. The starting point is residential rent paid to landlords from which rent paid to governments and incorporated businesses is subtracted. The share attributable to corporations is derived from the *Annual Survey of Service Industries: Real Estate Rental and Leasing and Property Management*. The share attributable to governments is no longer available from surveys. The current value is derived using the growth rate for residential paid rent. Expenses are then removed to arrive at net residential rental income of unincorporated businesses.

21. This survey has been integrated into the *Survey of Household Spending* as of reference year 2003. However, some ratios from the survey are still used.

Table 5.13 Calculation of net residential rental income of unincorporated businesses

Description of steps
Rent paid to landlords
- Rent paid to governments ¹
- Rent paid to incorporated businesses ²
= Residential rent paid to unincorporated businesses
- Expenses of unincorporated businesses
Repair costs
Property and school taxes
Insurance
Mortgage interest
Depreciation
Miscellaneous expenditures
= Net residential rental income of unincorporated businesses

1. Rent paid to governments are included in the government sales of goods and services.

2. Rent paid to incorporated businesses are included in corporation profits before taxes.

Net non-residential rental income of unincorporated businesses

5.67 Until 1997, non-residential rent paid to unincorporated businesses came directly from the personal income tax returns. However, the level reported became erratic due to changes in methodologies and treatment of the data. The current approach is to use the growth rate of CRA's T1, linking it to the 1997 level. As seen in Table 5.14, this item accounts for only a very small part of the total.

Table 5.14 Net rental income of non-farm unincorporated businesses, 2000

	Residential		Non-residential
	Paid	Imputed	Paid
	millions of dollars		
Rent, paid¹ and imputed²	28,011	82,586	...
- Rent paid to governments or incorporated businesses	10,689
= Rent paid to unincorporated businesses and imputed to owner-occupants	17,322	82,586	...
- Expenses	15,072	58,599	...
Repair costs	1,385	4,136	...
Property and school taxes	2,956	14,007	...
Insurance	418	2,039	...
Mortgage interest	5,156	24,522	...
Depreciation	2,692	12,864	...
Miscellaneous expenditures	2,466	1,031	...
= Net rent	2,250	23,987	876
Net rental income of non-farm unincorporated businesses		27,113	

1. Paid rent falls under personal expenditures on goods and services. It is a component of the paid rent series on Table 16, line 11 of the *National Income and Expenditure Accounts*, catalogue no. 13-001. In 2000, this item included: rent (28,011), plus rental of furniture and household appliances (310), plus janitorial services (738), for a total paid rent of 29,059.

2. Imputed rent falls under personal expenditures on goods and services, displayed as gross imputed rent on Table 16, line 10 of the *National Income and Expenditure Accounts*, catalogue no. 13-001.

Table 5.15 Calculation of net rental income of non-farm unincorporated businesses**Description of steps**

Net residential rental income imputed to owner-occupants
+ Net residential rental income of unincorporated businesses
+ Net non-residential rental income of unincorporated businesses
= Net rental income of non-farm unincorporated businesses

Quarterly estimation methods and data sources

5.68 The quarterly methodology is the same as the annual methodology (see paragraph 5.45 to 5.67). However, some steps must be modified when the data sources are available only annually.

Rent

5.69 The stocks of single-family and multiple dwellings are available quarterly from the Investment and Capital Stock Division. The quarterly distribution of the stock of single-family dwellings is applied to the stock of mobile homes and cottages.

5.70 The average rent (see paragraph 5.48) is available monthly.

5.71 Except for maintenance services, expenditures related to facilities and services provided by owners are distributed and projected quarterly using personal consumer expenditure series. For maintenance services, wages paid to janitors from the monthly *Survey of Employment, Payrolls and Hours* (SEPH) are used.

Net rent

5.72 Repair costs are estimated using quarterly data on repairs and renovations, produced for purposes of estimating investment in residential construction.

5.73 Property and school taxes (see paragraph 5.60) are estimated using quarterly series on property taxes collected by provincial and local governments as estimated by the Public Institutions Division.

5.74 Mortgage interest and depreciation are estimated quarterly (see paragraphs 5.62 and 5.63 respectively).

5.75 In the absence of quarterly information, a technique for quadratic minimization of differences is used to obtain a quarterly distribution of the annual values of insurance and miscellaneous expenditures. This technique is also used for net non-residential rent.

5.76 All quarterly series are seasonally adjusted using the X-11 ARIMA method.

Provincial and territorial estimation methods and data sources

5.77 The calculations that yield estimates of paid and imputed residential rent are done quarterly by province and territory. The Canada total is the sum of these. However, to go from paid and imputed rent to net rental income, the calculations are first done quarterly for Canada, then the estimates are distributed annually by province. When there are no relevant indicators for a component, rent by province and territory is used to make the distribution.

5.78 Provincial and territorial data from the *Homeowner Repair and Renovation Survey* are used to distribute repair costs.

5.79 Property and school taxes (see paragraph 5.60) are available by province and territory. The residential portion by province comes from the Industry Accounts Division.

5.80 Property insurance premiums paid by province and territory, compiled by the Office of the Superintendent of Financial Institutions Canada, are used to distribute insurance expenditures.

5.81 For mortgage interest, there is no provincial or territorial indicator. The Canada growth rate is applied to each province and territory.

5.82 Depreciation (see paragraph no. 5.63), which is supplied by the Investment and Capital Stock Division, is available quarterly by province and territory.