To Tell the Truth on Farm Subsidies

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There has been a lot of public discussion lately about farm incomes in Canada and the role of agricultural subsidies. Lawrence Solomon of the Urban Enterprise Institute has been at the forefront of these discussions[1]. His argument is that as a result of exorbitant subsidies, the government is sponsoring the industrialization of agriculture, which threatens the family farm at untold environmental costs. This is a surprising line of reasoning, given that the more common argument is that subsidies misallocate resources in such a way that smaller, less efficient farms can persist when they otherwise couldn't, and that subsidies cause farmers to more intensely farm an acre of land. In fact, it is primarily the small farm advocates that argue for more subsidies.

In any case, the significant claim made by Mr. Solomon is that government subsidies exceed the value contributed by agriculture to the Canadian economy. This claim is patently false, and only serves to confuse the public's understanding of the current income situation of Canadian grain and oilseed farmers. This misconception must be corrected. When Solomon first made these ridiculous claims last year, we thought the best response was to ignore them hoping most people would ignore them, as they deserve. But since the National Post has seen fit to publish them again, they need to be corrected.

Mr. Solomon's comments are based on a study by he and Jessica Zippin[2] that contains two significant problems. The first is methodological. The authors take net farm income (aggregate farm profit) and deduct government payments to farmers to obtain farm income not received from government. Then, they take total government transfers and divide it by farm income not received from government to obtain the farm subsidy ratio.

$$(1) \quad SubsidyRatio = \frac{TotalGovernmentTransfers}{NetFarmIncome - DirectPayments}$$

But what they calculate in (1) is government transfers as a percentage of income not received from government transfers, which is absurd. How can you have something as a percentage of what you don't have? The correct arithmetic procedure (if you believe that total government transfers is the legitimate measure of farm subsidy) is to divide total government transfers by net farm income, which

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[1]For example, *Big farms harvest subsidies,* National Post, April 6/2001, and *How subsidies are ploughing the family farm under,* National Post March 22/2001

[2]*Agricultural Subsidies in Canada: 1990-1999* by Lawrence Solomon and Jessica Zippin. The Urban Renaissance Institute. June 22/2000

gives transfers from government as a percentage of net farm income (including subsidies). This is given in (2).

$$(2) \qquad SubsidyRatio = \frac{TotalGovernmentTransfers}{NetFarmIncome}$$

This gives government support as a share of the whole of farm income. The authors' use of (1) is either an egregious error in their report, or they have intentionally biased downward the denominator in the calculation to inflate their farm subsidy ratio and advance their point.

The second major problem with the study is contextual. The total government transfers data that the authors use as a measure of farm subsidies contains items that are not farm subsidies. A farm subsidy is a payment directed at farm income support; we have some of these, and they are distortionary and support inefficiency. However, the Solomon-Zippin report includes (along with legitimate subsidies) regulatory transfers (from marketing systems that increase farm prices but involve no cash transfers from government to farmers), government expenditures that fund agricultural research, and food inspection/grading. To do this their way would be equivalent to the assignment of all government expenditures on highways as a subsidy to the transportation industry. There is a difference between a subsidy and a public service. Moreover, it is easily argued that many of the services they call subsidies are in no way producer subsidies. Food inspection ensures food safety to consumers. Most agricultural research enhances farm productivity - and therefore reduces prices to consumers (and may reduce farm incomes in the long term).

Government transfers to agriculture are categorized by Agriculture and Agri-Food Canada under the following four program objectives: 1) Revenue Enhancing, 2) Cost Reducing, 3) Productivity Enhancing, and 4) Quality Control. With respect to the first two categories, whether they are cash or regulatory transfers, there is little question where these programs are aimed- these are subsidies to farmers. The definition provided for the latter two government transfer categories make it obvious that they confer benefits to the agri-food system; they are not targeted to farmers' incomes. Productivity research helps make farmers more efficient, which is one of the primary factors leading to lower food prices. Some of these benefits are temporarily captured in farm profits by early adopters of new technology, but to a greater extent it is passed on through increases and improvements in the supply of farm products. The ultimate result is a larger supply of better food, which has the effect of lowering the price of food. As a result, the bulk of the benefits from agricultural research actually accrue to low income consumers for whom food is a significant portion of expenditures.

Food safety and grading is an obvious consumer (as well as farm) benefit. Product grades reward farmers for producing premium quality product, but also penalize those producing lower quality, so its impact on farm incomes is ambiguous. However, it is of great benefit to food processors and consumers who can better judge the safety and quality of the food they are buying. It is not a subsidy- it is the cost of maintaining and enforcing food standards.

By counting these items as subsidies to farmers, when in fact they support the Canadian agriculture and food system, Solomon and Zippin greatly exaggerate subsidy levels. They calculate that subsidies averaged 355% of net farm income from 1990-99. Below we have the correct numbers on farm subsidies, using the correct procedure and data (given in (3) below).

$$(3) \quad CorrectSubsidyRatio = \frac{TotalDirectPayments}{NetFarmIncome}$$

The table below gives net farm income (including subsidies and in-kind income), the *real* subsidies to farmers, and the subsidy as a percentage of net farm income. These are very different than the Solomon-Zippin ratios, and importantly, they do not indicate that agriculture

Subsidy Ratios in Canada, 1990-99

CANADA

	Total Net Income (Thousand Dollars)	**Total Direct Payments* (Thousand Dollars)**	**Subsidy Ratio (%)**
1990	3,405,282	1,853,239	54.42
1991	2,058,179	2,361,743	114.75
1992	2,460,067	3,790,839	154.09
1993	3,629,223	2,842,658	78.33
1994	3,362,666	1,824,899	54.27
1995	3,496,680	1,305,416	37.33
1996	4,482,918	1,318,732	29.42
1997	2,397,178	1,112,183	46.40
1998	2,676,680	1,419,797	53.04
1999	3,037,800	1,980,654	65.20
Average	**3,100,667**	**1,981,016**	**63.89**

* **Includes crop insurance payments, ASA - price stabilization, ASA - tripartite plans, provincial stabilization programs, dairy subsidy, Net Income Stabilisation Account (NISA), Gross Revenue Insurance Plan (GRIP), companion programs, and other payments**

cannot pay for itself as Mr. Solomon alleges. Over the 1990-99 period, subsidies were 63.9% of net farm income. They reflect the pattern of farm incomes over the last 10 years, in particular that in periods of low farm prices (1992-93 and 1998-99 for example) the percentage of net farm income received as subsidy increased (in compensation for low prices). Thus, income supports have, at least informally, been countercyclical in nature (which is their intent), rather than lining farmers' pockets in the good times. Solomon and Zippin also allege particular regional patterns in farm subsidies. These are also incorrect. Below we have corrected provincial farm subsidy ratios using the procedure in (3).

Provincial Subsidy Ratios by Province; 1990-99 Averages
Subsidy Ratio (%)

British Columbia	27.86
Alberta	62.49
Saskatchewan	73.44
Manitoba	72.80
Ontario	53.38
Quebec	71.15
New Brunswick	36.39
Nova Scotia	28.35
PEI	42.66
Newfoundland	44.86
Canada	**63.89**

The regional pattern of subsidies speaks to diversification. The provinces that are highly dependent on grains have higher farm subsidy ratios; regions with a mix of crop, livestock, and horticultural enterprises have lower subsidy ratios. The primary exception is Quebec, which receives a large proportion of dairy subsidy (which is being phased out) and operates a provincial revenue assurance scheme. According to Mr. Solomon, Ontario, the most diverse agricultural province, had a subsidy:net farm income ratio of 620%. It simply isn't so. As one would expect, the prairie provinces that have more limited alternatives (and hence riskier farm incomes) and a greater number of acres in cultivation receive a greater share of farm income as subsidy.

Agricultural subsidies are a troubling issue for Canadians. The analysis is simple- subsidies support farm incomes, which generates additional production that lowers commodity prices, which depresses farm incomes, which guarantees subsidies will be required again. Why should the non-farm population continually underwrite farm incomes in this way? Having 64% of net farm income occur as a result of subsidies to farmers is certainly nothing to be proud of. After years of debate, many farmers are even willing to concede that there must be a better way to support efficiency in Canadian agriculture. But when it comes to determining how to reduce subsidies and encourage efficiency and innovation in agriculture, Mr. Solomon is late getting to the party.

Mr. Solomon seems to think that as it exists today, farming is a wholesale waste of societal resources. It is not. He also advises that by eliminating subsidies entirely, agriculture would proliferate into some idyllic structure of small farms with red barns. Not only is he incorrect, but his logic is entirely backwards- farms would likely get larger as greater production revenue must replace subsidies as a means to cover fixed costs. Someone forgot to tell him there are high fixed costs and scale economies in agriculture- due to technology, not subsidies.

But most importantly, if we eliminated the government funded research and inspection activities that Mr. Solomon calls subsidies, farmers, food manufacturers and consumers would all be worse off. Without these measures, food prices would be higher, and Mr. Solomon would be well reminded that increasing the cost of food is the *most* regressive form of taxation on the poor. Canadian farmers are

not peasants or serfs; instead, Canada provides the infrastructure in which they can be efficient and earn a comparable standard of living with urbanites, <u>and</u> deliver among the lowest cost food in the world- largely on the fruits of their labours, not on the kind of subsidies he claims.

References

Solomon, Lawrence and Jessica Zippin. *Agricultural Subsidies in Canada: 1990-1999* The Urban Renaissance Institute. June 22/2000

Data Sources

Total Farm Income: Statistics Canada Cansim Data Series

Newfoundland	D200098
Prince Edward Island	D200117
Nova Scotia	D200125
New Brunswick	D200113
Quebec	D200114
Ontario	D200149
Manitoba	D200200
Saskatchewan	D200209
Alberta	D200218
British Columbia	D200227
Canada	D210630

Total Direct Payments: Statistics Canada Cansim Data Series

Newfoundland	D209225
Prince Edward Island	D209320
Nova Scotia	D209359
New Brunswick	D209397
Quebec	D209437
Ontario	D209482
Manitoba	D209533
Saskatchewan	D209582
Alberta	D209631
British Columbia	D209677
Canada	D209283

Total Government Transfers:
Data provided by Troy Hennigar, Agriculture and AgriFood Canada, Economic and Policy Analysis Directorate, Policy Branch