# **Supplementary Materials**

*What Moooves Opinion? Examining the Correlates and Dynamics of Mass Support*

*for Supply Management in the Agricultural Sector*

**Table S1.** Sample characteristics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | % of sample | % of CES | % of Population |
| Female |  | 52.2 | 58.1 | 51.4 |
| Age | 18-34 | 31.5 | 24.9 | 27.3 |
|  | 35-54 | 35.0 | 34.4 | 34.1 |
|  | 55+ | 33.6 | 40.7 | 38.6 |
| Education | Bachelor's degree or higher | 32.8 | 37.0 | 28.5 |
| Region | Atlantic | 6.9 | 7.0 | 6.8 |
|  | Quebec | 23.5 | 22.3 | 23.4 |
|  | Ontario | 38.0 | 39.2 | 38.3 |
|  | West | 31.9 | 31.4 | 31.2 |
| French |  | 21.4 | 17.1 | 21.4 |

**Table S2.** Principal Component Analysis Factor Loading

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable (Economic Conservatism)** |  | **Factor** | **Uniqueness** |
| The retirement age to receive Canada Pension Plan benefits should be raised to 70 |  | 0.5308 | 0.7183 |
| The government should take measures to reduce differences in income levels |  | 0.6501 | 0.5773 |
| How much more or less should the following groups pay in FEDERAL taxes? - Corporations |  | 0.7867 | 0.3811 |
| **Variable (Social Conservatism)** |  | **Factor** | **Uniqueness** |
| Possession of marijuana should be a criminal offence |  | 0.7967 | 0.3652 |
| Individuals who are terminally ill should be allowed to end their lives with the assistance of a doctor |  | 0.4920 | 0.7579 |
| The federal government should have more powers to combat terrorism, even if it means that citizens have to give up more privacy |  | 0.6471 | 0.5813 |

**Table S3.** Variable descriptions

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable** | **Description** | **Mean** | **SE** |
| Economic conservatism | 0-1 index of economic conservatism using the following items: To what extent do you agree or disagree with the following statements: 1) The retirement age to receive Canada Pension Plan benefits should be raised to 70; 2) The government should take measures to reduce differences in income levels (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree, don’t know); 3) How much more or less should the following groups pay in federal taxes: corporations (much less, less, the same as now, more, much more, don’t know) | 0.21 | 0.22 |
| Social conservatism | 0-1 index of social conservatism using the following items: To what extent do you agree or disagree with the following statements: 1) Possession of marijuana should be a criminal offence; 2) Individuals who are terminally ill should be allowed to end their lives with the assistance of a doctor; 3) The federal government should have more powers to combat terrorism, even if it means that citizens have to give up more privacy (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree, don’t know) | 0.37 | 0.25 |
| Partisan strength | Very strong, fairly strong, not very strong, no party ID, rescaled from 0-1 | 0.58 | 0.35 |
| Ideological extremity | Folded 0-10 ideological placement scale, rescaled from 0-1 | 0.36 | 0.32 |
| Policy knowledge | No correct commodity identifications, some correct identifications, all correct identifications, rescaled from 0-1 | 0.44 | 0.39 |
| General political knowledge | Rescaled 0-1 index of correct responses to the following: Canada's unemployment rate; second place party in 2015 federal election; 0-10 ideological placement of the Conservative Party to the right of the Liberal Party; 0-10 ideological placement of the NDP to the left of the Liberal Party | 0.50 | 0.30 |
| News exposure | Logged index of news outlets used in previous week: Globe and Mail, Toronto Star, National Post, Journal de Montreal, La Presse, Journal de Quebec, Toronto Sun, Montreal Gazette, Le Devoir, Vancouver Sun, The Province, Local newspaper, Macleans, CBC, CTV, TVA-Nouvelles, CP24, CityNews, Global, CPAC, TV5, OMNI, APTA, Radio-Canada, Sirius-SXM, Local radio; rescaled 0-1 | 0.35 | 0.28 |
| National Post exposure | 1=read *National Post* in print or online in the past week | 0.18 | 0.39 |
| Education | Highest level of education: no schooling; some elementary school; completed elementary school; some secondary/high school; completed secondary/high school; Some technical, community college, CEGEP, College Classique; Completed technical, community college, CEGEP, College Classique; Some university; bachelor’s degree; master’s degree; professional degree or doctorate; rescaled 0-1 | 0.61 | 0.20 |
| Female | 1= female | 0.51 | 0.50 |
| Rural | 1=Forward Sorting Area indicating rural residence | 0.10 | 0.30 |
| Age | In years, rescaled from 0-1 | 0.41 | 0.23 |
| Region |  |  |  |
| *Ontario* | 1=Ontario | 0.07 | 0.25 |
| *Atlantic* | 1=Atlantic | 0.23 | 0.42 |
| *Quebec* | 1=Quebec | 0.38 | 0.48 |
| *West* | 1=West | 0.32 | 0.47 |

**Experimental Primer and Treatments**

Primer

Recently, Canada’s agricultural policy of supply management has been subject to increasing debate. Supply management is a policy where the pricing and production of eggs, poultry, and dairy products are subject to regulation. Specifically, it means that there are strict limits on the amount of egg, milk, and chicken products that can be produced by farmers. It also means that the prices that farmers receive for their products are not set by the free-market, but by agricultural marketing boards.

Farmer

Farmers argue that the regulations imposed by supply management ensure that food and dairy products are of high quality and are safe to consume, and that the prices that consumers pay for these products are consistent and stable. Crucially, farmers further argue that by setting prices through marketing boards, the prices they receive ensure a fair return which reflects their hard work and effort.

Free-market

Critics argue that supply management forces the price of these goods to increase by limiting the supply of supply managed products on the market. As a result, supply managed goods are more expensive for everyday consumers compared to in other countries. Critics further argue that the dairy, poultry, and egg industries are the only sectors that benefit from supply management and that this government intrusion privileges these industries over other agricultural areas like beef, pork, and vegetables.

Social inequity

Critics argue that supply management forces the price of these goods to increase by limiting the supply of supply managed products on the market. As a result, these increased prices disproportionately hurt single-mother and low-income families. Chicken, eggs, and dairy products are often considered ‘staple’ products meaning that families rely on these products for their children. Given that the prices of these goods are higher in Canada than elsewhere, single-mothers and low-income families are forced to spend a higher proportion of their hard-earned income than are dual-parent and higher-income families.

**Table S4.** Observational estimates

|  |  |  |
| --- | --- | --- |
|  | Coef. | SE |
| Economic conservatism | -0.18\*\*\* | 0.04 |
| Social conservatism | 0.05 | 0.06 |
| Partisan strength | 0.00 | 0.03 |
| Ideological extremity | 0.02 | 0.03 |
| Policy knowledge | 0.02 | 0.02 |
| General knowledge | 0.03 | 0.03 |
| News exposure | 0.10\*\* | 0.04 |
| National Post exposure | -0.07\*\* | 0.03 |
| Education | 0.06 | 0.05 |
| Female | 0.00 | 0.02 |
| Age | -0.02 | 0.04 |
| Rural | -0.03 | 0.03 |
| **Region (Reference = Ontario)** |  |  |
| Atlantic | -0.00 | 0.04 |
| Quebec | 0.06\*\* | 0.02 |
| West | 0.01 | 0.02 |
| **Treatment (Reference = Control)** |  |  |
| Farmer frame | 0.10\*\*\* | 0.02 |
| Free-market frame | -0.04\* | 0.02 |
| Social inequity frame | 0.01 | 0.02 |
| Constant | 0.39\*\*\* | 0.04 |
| R2 | 0.08 | |
| N | 1042 | |

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

**Table S5.** Experimental moderation estimates, economic conservatism

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Free-market | | Social Inequity | |
|  | Coef. | SE | Coef. | SE |
| Frame | -0.07\*\* | 0.03 | -0.02 | 0.03 |
| Economic conservatism | -0.18\*\* | 0.08 | -0.18\*\* | 0.08 |
| Frame \* economic conservatism | 0.09 | 0.10 | 0.06 | 0.11 |
| Constant | 0.51\*\*\* | 0.02 | 0.51\*\*\* | 0.02 |
| R2 | 0.02 | | 0.01 | |
| N | 641 | | 659 | |

HC2-robust standard errors; \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

**Table S6.** Experimental moderation estimates, policy knowledge

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Farmer | | Free-market | | Social Inequity | |
|  | Coef. | SE | Coef. | SE | Coef. | SE |
| Frame | 0.14\* | 0.08 | -0.08 | 0.07 | -0.24\*\*\* | 0.07 |
| Mid knowledge | -0.10\*\*\* | 0.04 | -0.10\*\*\* | 0.04 | -0.10\*\*\* | 0.04 |
| High knowledge | -0.03 | 0.04 | -0.03 | 0.04 | -0.03 | 0.04 |
| Frame \* mid knowledge | 0.07 | 0.05 | 0.12\*\* | 0.05 | 0.19\*\*\* | 0.05 |
| Frame \* high knowledge | 0.05 | 0.06 | 0.06 | 0.06 | 0.18\*\*\* | 0.06 |
| Political interest | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Frame \* interest | -0.01 | 0.01 | -0.01 | 0.01 | 0 | 0.01 |
| Ideological extremity | 0.01 | 0.06 | 0.01 | 0.06 | 0.01 | 0.06 |
| Frame \* extremity | 0.01 | 0.08 | 0.07 | 0.08 | -0.04 | 0.08 |
| Partisan strength | -0.04 | 0.05 | -0.04 | 0.05 | -0.04 | 0.05 |
| Frame \* partisan strength | -0.01 | 0.08 | -0.01 | 0.08 | 0.18\*\* | 0.08 |
| Constant | 0.51\*\*\* | 0.04 | 0.51\*\*\* | 0.04 | 0.51\*\*\* | 0.04 |
| R2 | 0.05 | | 0.03 | | 0.05 | |
| N | 558 | | 577 | | 586 | |

HC2-robust standard errors; \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

**Table S7.** Robustness tests

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Environment | Language | 5 regions | Alternative IVs | Economic Conservatism \* Treatment |
|  | 1 | 2 | 3 | 4 | 5 |
| Economic conservatism | -0.15\*\*\* | -0.18\*\*\* | -0.18\*\*\* | -0.15\*\*\* | -0.23\*\*\* |
|  | (0.04) | (0.04) | (0.04) | (0.04) | (0.09) |
| Social conservatism | 0.07 | 0.05 | 0.05 | 0.04 | 0.05 |
|  | (0.06) | (0.06) | (0.06) | (0.03) | (0.06) |
| **Treatment (Reference = control)** |  |  |  |  |  |
| Farmer | 0.11\*\*\* | 0.10\*\*\* | 0.10\*\*\* | 0.10\*\*\* | 0.11\*\*\* |
|  | (0.02) | (0.02) | (0.02) | (0.02) | (0.04) |
| Free-market | -0.04\* | -0.05\* | -0.04\* | -0.04\* | -0.06\* |
|  | (0.02) | (0.02) | (0.02) | (0.02) | (0.03) |
| Social inequity | 0.01 | 0.01 | 0.01 | 0.01 | -0.01 |
|  | (0.03) | (0.03) | (0.03) | (0.03) | (0.04) |
| Environmental protection index | 0.12\*\*\* |  |  |  |  |
|  | (0.03) |  |  |  |  |
| French language |  | 0.06\*\*\* |  |  |  |
|  |  | (0.02) |  |  |  |
| Farmer \* Economic conservatism |  |  |  |  | -0.00 |
|  |  |  |  |  | (0.12) |
| Free-market \* Economic conservatism | |  |  |  | 0.09 |
|  |  |  |  |  | (0.11) |
| Inequity \* Economic conservatism |  |  |  |  | 0.09 |
|  |  |  |  |  | (0.12) |
| Constant | 0.32\*\*\* | 0.34\*\*\* | 0.39\*\*\* | 0.38\*\*\* | 0.40\*\*\* |
| R2 | 0.09 | 0.08 | 0.08 | 0.08 | 0.08 |
| N | 1042 | 1042 | 1042 | 1042 | 1042 |

Standard errors in parentheses; \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. Note: Model 1 includes a control for environmental protection attitudes; Model 2 controls for language rather than region of residence; Model 3 includes a 5 category classification of Canadian regions (Atlantic, Quebec, Ontario, Prairie, and BC); Model 4 uses alternative measures of economic and social conservatism omitting questions related to retirement age and assisted suicide; Model 5 interacts economic conservatism with treatment condition. Environmental protection index constructed from the following items: 1) To help reduce greenhouse gas emissions, the federal government should institute a carbon tax; 2) The federal government should support the building of oil pipelines in Canada (reverse coded); 3) The Earth is getting warmer mostly because of human activity, such as burning fossil fuels (response categories: strongly agree-strongly, don’t know.

**Table S8**. Effect of farmer frame for rural and non-rural residents

|  |  |  |
| --- | --- | --- |
|  | Coef. | SE |
| Farmer Frame (Reference = Control) | 0.08\*\*\* | 0.02 |
| Rural | -0.01 | 0.04 |
| Farmer \* Rural | 0.04 | 0.07 |
| Constant | 0.48\*\*\* | 0.02 |
| R2 | 0.02 | |
| N | 623 | |

HC2-robust standard errors; \* p<0.1, \*\* p<0.05, \*\*\* p<0.01.

**Table S9.** Experimental balance tests, multinomial regression estimates

|  |  |  |  |
| --- | --- | --- | --- |
| Base = Control | Farmer | Free-market | Social inequity |
| Education | 0.29 | 0.23 | -0.17 |
|  | (0.38) | (0.37) | (0.36) |
| Female | 0.08 | -0.01 | 0.16 |
|  | (0.15) | (0.15) | (0.15) |
| Age | 0.65\* | 0.42 | 0.53 |
|  | (0.34) | (0.33) | (0.33) |
| Rural | -0.22 | 0.06 | -0.07 |
|  | (0.25) | (0.23) | (0.23) |
| Atlantic | -0.28 | 0.04 | 0.15 |
|  | (0.33) | (0.30) | (0.29) |
| Quebec | 0.07 | -0.16 | 0.06 |
|  | (0.19) | (0.19) | (0.19) |
| West | 0.06 | -0.00 | -0.18 |
|  | (0.18) | (0.17) | (0.17) |
| Constant | -0.52 | -0.26 | -0.09 |
| LR chi2 | 17.25 | | |
| Prob > chi2 | 0.69 | | |
| N | 1538 | | |

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01.