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Supplementary Appendix for At the Edge of War: Frontline Ally Support for the U.S. Military

Overview

These appendices contain supplementary information for the paper Supplementary Appendix for Outside Threats and Public Perceptions of the U.S. Military in Poland. Herein we provide a number of additional resources related to the project. First, we provide basic information about the survey and data collection procedures. Second, we provide some basic descriptive statistics and information to help readers better understand the data and the distribution of key variables and responses. Third, to save space in the primary manuscript we include all of the model tables for the project here. Fourth, we also include a number of additional figures to help communicate the results of our analysis. Finally, we include a number of diagnostic plots generated from the models we run. In general, we focus on a few specific types of plots and, where necessary, on key variables. For example, traceplots for multilevel multinomial logit models can quickly become both numerous and unwieldy in the confines of a PDF or printed document.

Power Analysis

Before analyzing the data we developed a Bayesian power analysis in an effort to evaluate the probability of correctly identifying true effects versus false positives for the experimental treatment effects. We follow Kruschke (2015) in carrying out this test and implement it in the following steps.

First, we wrote a function that would simulate data that look like the expected sample data. In addition to our survey plan, we used data from Michael A. Allen et al. (2020) and Michael A. Allen et al. (2022) to establish a baseline expectation for what the distribution of the variables should look like.

Second, we generate a set of expected coefficient/effect values for all of the variables in our model. Note that for each variable we allow the expected effect to vary, establishing a mean and standard deviation for the expected effect rather than fixing its value. Where our variables overlap with those included in Michael A. Allen et al. (2022), we use their posterior estimates to generate our expected effect sizes and distributions. Where our variables differ (for example, we include variables that capture respondents' income sources/occupational fields) we set the expected effects to 0 with a standard deviation of 0.5 to reflect our uncertainty in the parameter values. This does not apply to the treatment variables, which we address more fully below. We also include varying intercepts for the 16 Polish provinces to match our plan to model the actual data using varying intercepts. In general, where we expect an effect we set the standard deviation so it is less than half of the mean beta value.

Third, following this procedure we generate 200 hypothetical data sets for a given sample size value.

Fourth, we chose a set of hypothetical sample size values to evaluate the model's ability to recover the expected parameter space. Specifically, we choose sample sizes of 1600, 2560, 4800, and 12800. Our actual data are close to 2500, but we chose the other values to assess the model's performance across a wider range of hypothetical circumstances.

In total, we end up with $I \times K$ datasets and models, where I is the number of iterations per sample size (i.e. 200) and K is the number of different sample sizes (i.e. 4. In our case, we generate 800 sample data sets and run the model a total of 800 times. As in our primary manuscript, we model the hypothetical data using a Bayesian multilevel multinomial logistic regression using `{brms}` (Bürkner 2017, 2018).

For the treatment values, we do not have strong priors as to what constitute accurate effects. Accordingly, we generate parameters with a couple of considerations. First, given that we are estimating a multinomial logistic regression, the plausible parameter space is fairly constrained. Extreme values (e.g. $|\beta| > 4$) are unlikely (except in cases where observations appear to be rare). Second, we look at the effect sizes on similar variables in Michael A. Allen et al. (2020) and Michael A. Allen et al. (2022). Third, we generally expect that the different treatment prompts will increase support for a U.S. presence and decrease opposition. However, we also expect they will yield different magnitudes, with the combined treatment mentioning security concerns *and* economic benefits yielding the largest of the three. We also view this as an opportunity to evaluate our ability to recover effects of different sizes, and so we set the parameter distributions to values that we think fall within the plausible range, but also run the range of "small" to "large" effects.

Given these considerations, the distributions we use in the power analysis are as follows.

$$

$$\text{Support} \begin{cases} Treatment_{SecurtyandEconomic} & \sim N(1.0, 0.3) \\ Treatment_{Security} & \sim N(0.5, 0.1) \\ Treatment_{Economic} & \sim N(0.1, 0.02) \end{cases}$$

$$\text{Oppose} \begin{cases} Treatment_{SecurtyandEconomic} & \sim N(-0.8, 0.3) \\ Treatment_{Security} & \sim N(-0.5, 0.2) \\ Treatment_{Economic} & \sim N(-0.1, 0.05) \end{cases}$$

$$\text{Don't know/Decline to answer} \begin{cases} Treatment_{SecurtyandEconomic} & \sim N(-0.5, 0.25) \\ Treatment_{Security} & \sim N(-0.2, 0.1) \\ Treatment_{Economic} & \sim N(-0.1, 0.08) \end{cases}$$

$$

The following figures show the results of our power analysis. The first figure shows the average $Pr(Direction)$ score for the treatment variables. The $Pr(Direction)$ statistic tells us the proportion of the posterior distribution that falls above/below 0 on the same side as the median value. If we had a median coefficient estimate where the median $\beta = 0.5$ and $Pr(Direction) = 0.97$, this tells us that there is a 97% chance of a positive effect. An average $Pr(Direction)$ of 0.90, for example, would therefore tell us that, on average, there is a 90% chance of a positive effect.

It is common to see power analyses presented in terms of what proportion of models' 95% confidence intervals exclude 0 and demonstrate an effect. We adopt this alternative approach because it allows us to more directly incorporate information about the posterior distribution into our assessment than the conventional frequentist approach.

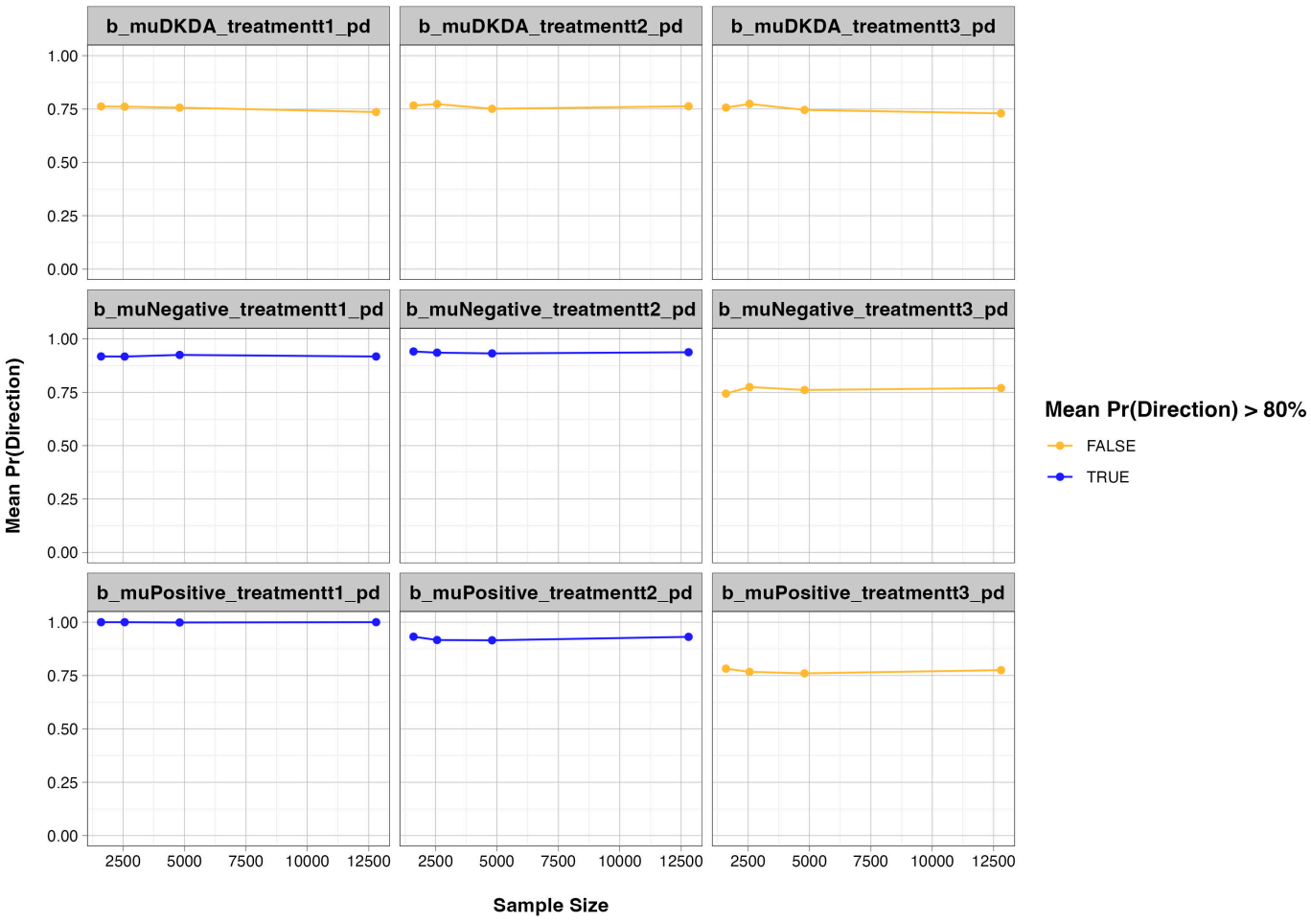


Figure 1

The second figure shows spaghetti plots whereby the posterior distributions for the treatment effects from the 200 different models are overlaid on top of one another. While this figure does not provide us with a specific statistic as in the case of the previous figure, it does give us a visual check on the distribution of the recovered coefficients and the accompanying uncertainty.

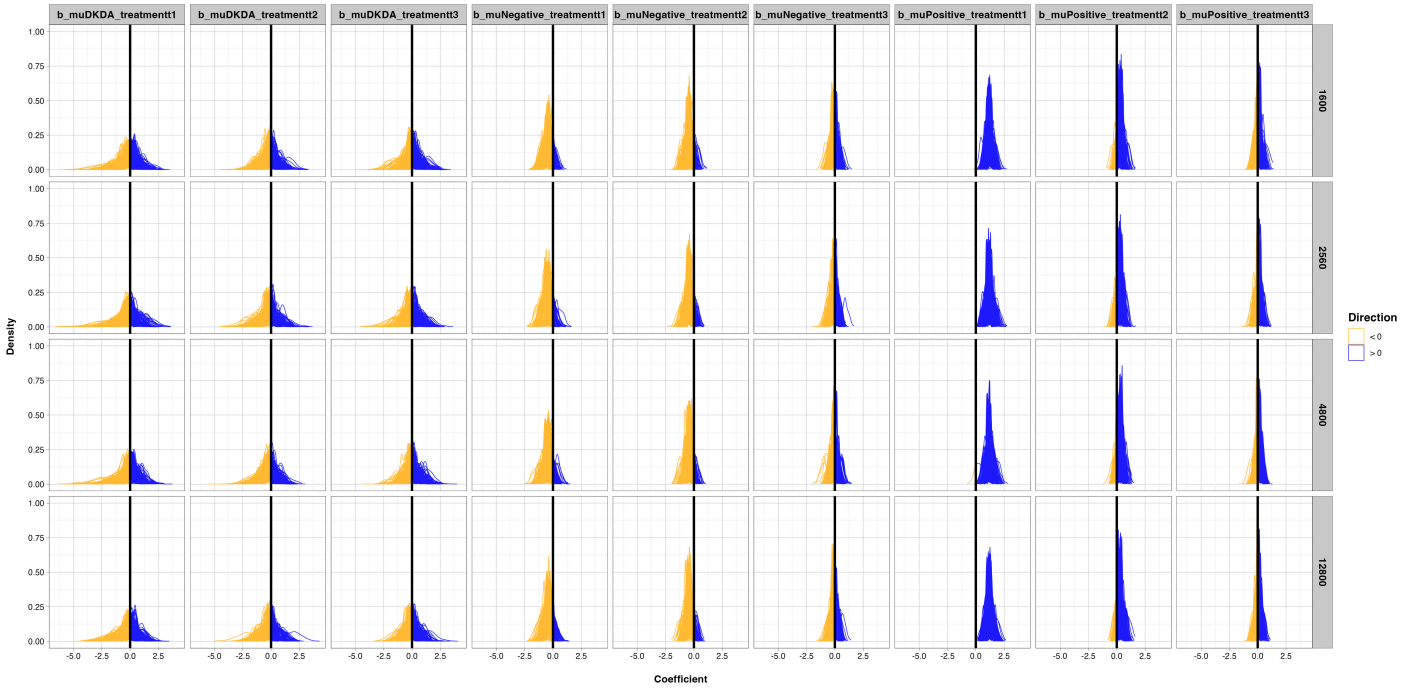


Figure 2

In general, the models do a fairly good job of recovering the parameter values we set in our simulation. The average $Pr(Direction)$ score is above 80% for the first and second treatment variables in the Positive and Negative response categories. The mean expected effect in these cases is approximately 1.0, 0.5, and 0.1 f or the Positive response equation and -0.8, -0.5, and -0.1 for the negative response model. For the Don't know/Decline response equation we set the expected values to -0.5, -0.2, and -0.1, but we set the standard deviation to a higher value given the relatively low incidence of these responses in existing data and the high level of uncertainty accompanying these responses.

These results indicate that for the largest effect sizes we have a fairly strong chance of recovering the parameter of interest. However, for the smaller effect sizes we are looking at only a 70-75% chance of recovering the parameter of interest. Though this figure may seem high, the smallest value that the $Pr(Direction)$ statistic can take on is (roughly speaking) 0.50 as it is necessarily tied to the median posterior sample value. Since we do not set any of the Don't know/Decline coefficients to values close to 0, it makes sense that the posterior samples often have a "larger" portion of their distributions falling below 0. Accordingly, we should be cautious in treating small effects as definitive given our relatively small sample size.

However, our expectations regarding the effects of the treatments prove to be quite wrong. As we discuss in the manuscript, and as we show in the tables below, the treatment effects do not generally correlate strongly with the outcome response. Overall, our expectations regarding the effects of the informational prompts were wide of the mark.

Descriptive Figures

This section includes additional descriptive figures not included in the primary manuscript.

Views of Major Powers

Figure 3 shows the distribution of views of U.S. military personnel deployed to Poland in March of 2023 at the time of our survey. This is a different representation of the 2023 data we show in Figure 1 of the primary manuscript.

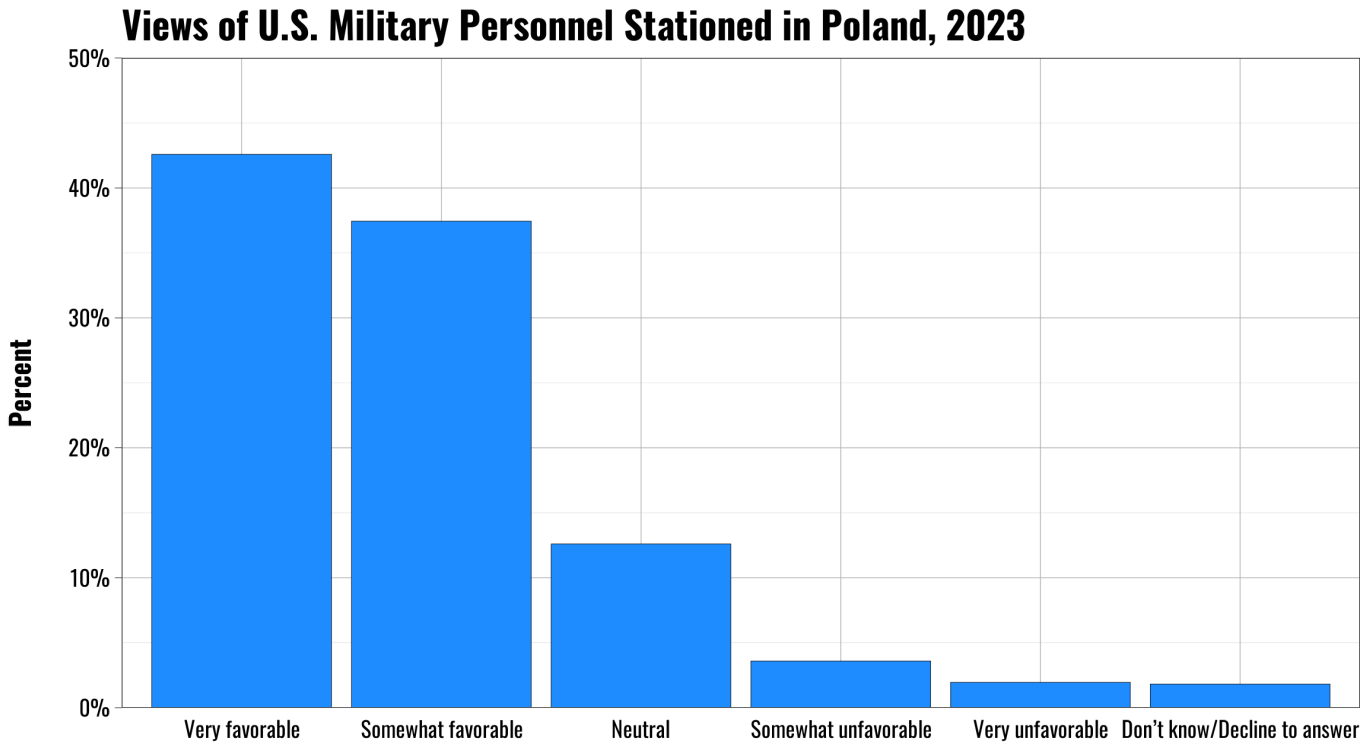


Figure 3: Views of U.S. military personnel in Poland among Polish adults

Figure 4 shows the distribution of Polish adults' views of Poland's relations with Russia in March of 2023 at the time of our survey.Overwhelmingly respondents indicate that relations between Poland and Russia are "Somewhat hostile" or "Very hostile."

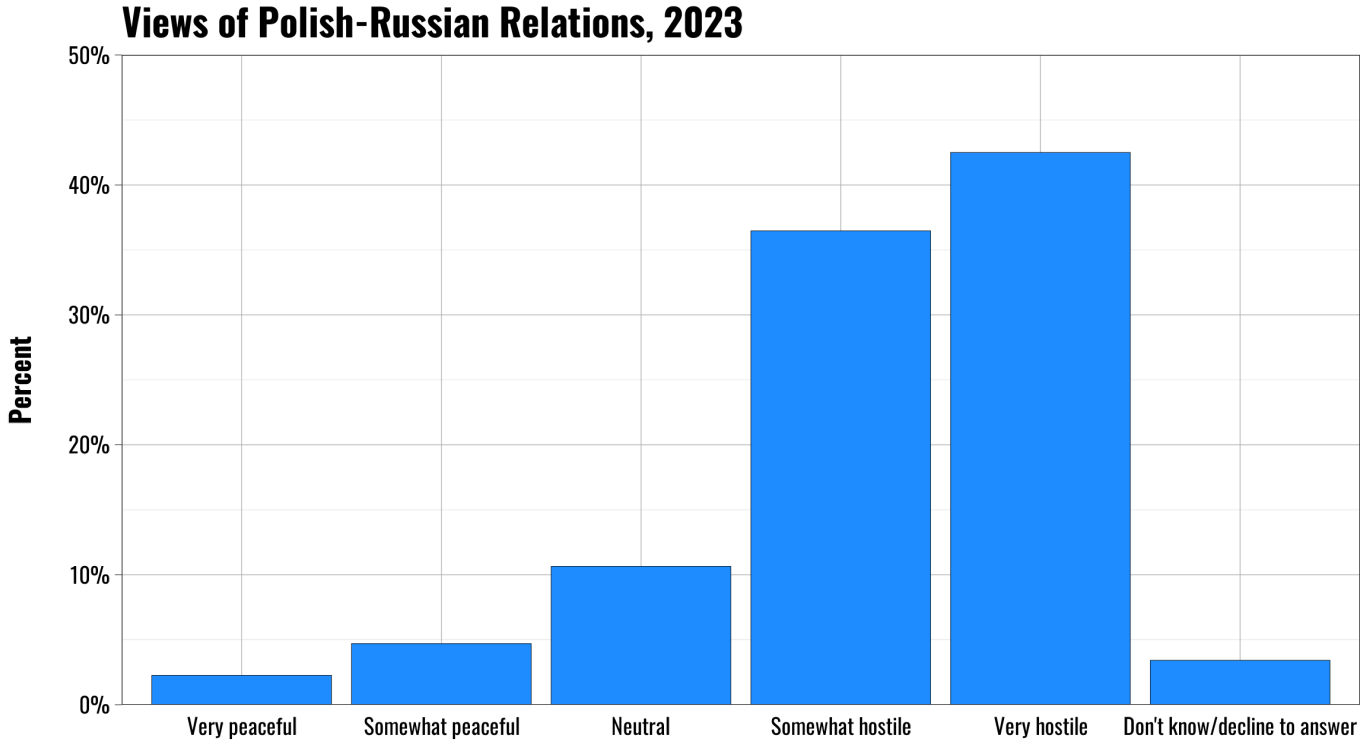


Figure 4: Views of Russia among Polish adults

Distribution of respondents

Figure 5 shows the number of respondents per province In general, most of the group sizes fall between 100 and 200 respondents per province. The lowest number of respondents per group is 52 (Opolskie) and the highest is 339 (Mazowieckie).

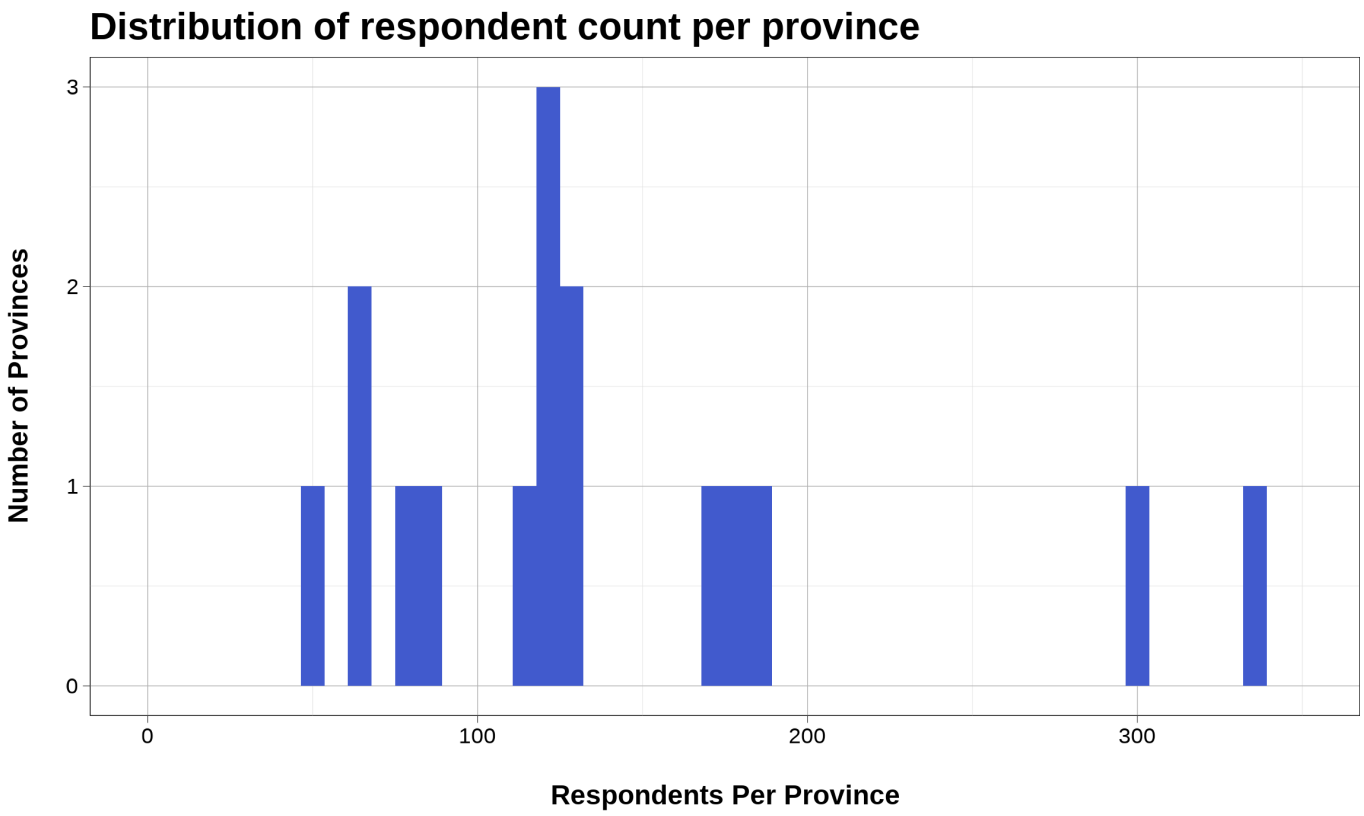


Figure 5: The number of survey respondents per province.

Figure 6 shows the number of respondents per district—the lower level administrative unit below the province. Here we can see substantial skew in the number of respondents per unit. 47 districts produce only one respondent. 64 districts only produce 2 respondents. At the other end of the distribution we have a few districts that produce a vastly disproportionate share of our respondents. 51 respondents come from Łódź, 54 from Poznań, and 150 come from Warszawa. Though we run supplemental analyses using districts as a grouping unit, we do not rely on these estimates to discuss variation in attitudes as a function of geography.

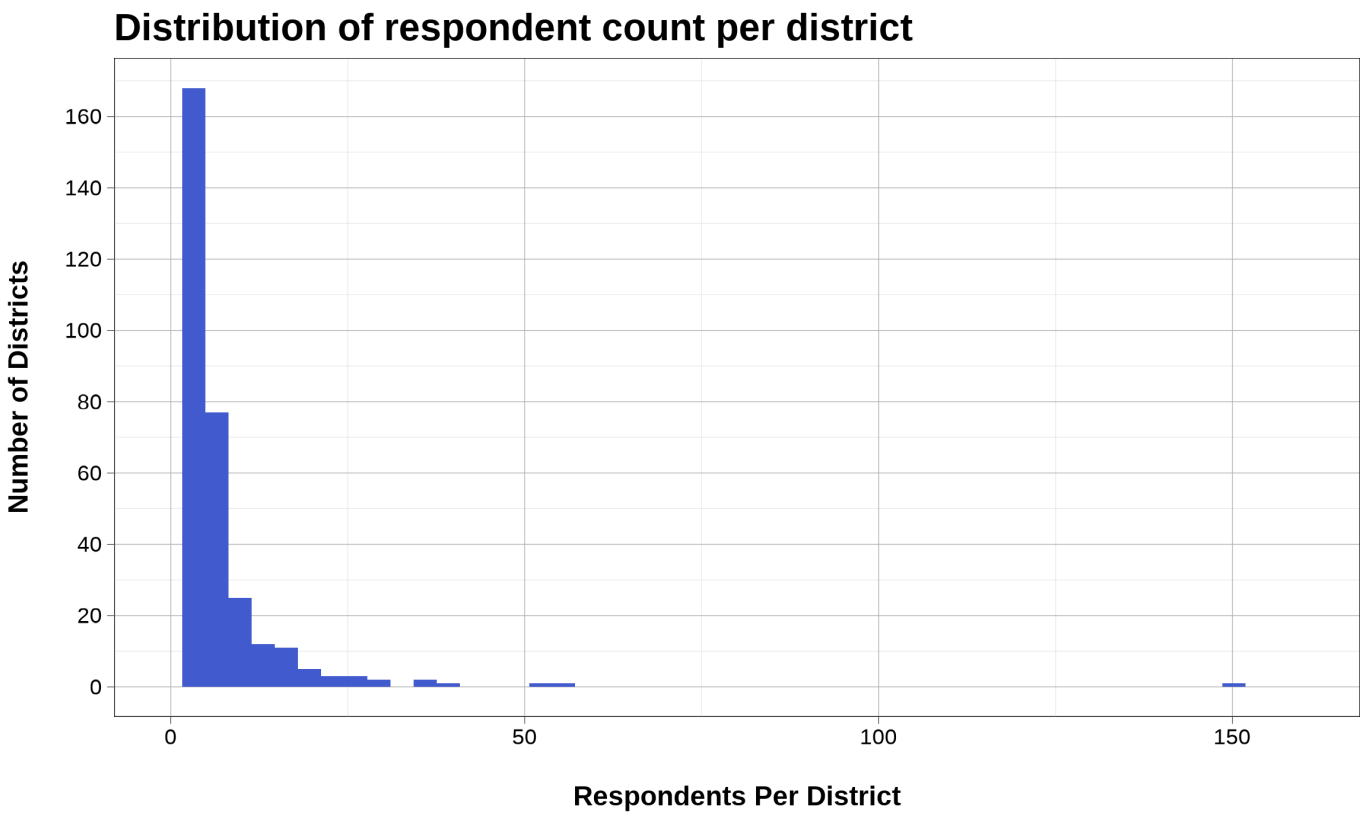


Figure 6: The number of survey respondents per district.

Tables

This section contains a number of tables that provide descriptive insights into the data, and information on the models we run for our analysis.

Balance Tables

Table 1 shows the balance of the predictor variables across the four treatment groups in the experiment. Most of the variables in our models are indicator variables, and so the numbers shown in the columns correspond to the number of respondents who chose a particular response for a particular question. For example, the number of people who respond that they identify as either Male or Female.

The value in the parentheses indicates the percentage of responses that fall into each of the four treatment categories. In general, we expect this value to fall close to 25% for each row.

Last, the final column shows the total number of responses for each category/row.

We do not conduct a formal balance test, but this table helps us to ensure that the randomization procedure worked as intended. In general, we see most response-treatment groups falling at around the 25% mark, which is what we should expect if individuals were randomly assigned to one of the four treatment categories. We see more substantial deviations where the total number of observations for a given response is low. For example, with only 40 total respondents indicating that their primary income source was in the agricultural sector, small differences in the number of people who fall into each treatment group have a larger effect on the percentage value.

The final row shows the mean value and standard deviation (in parentheses) for the ideology score, which is the only ordered integer response variable we included in the survey. Since we mean-center this measure, each category should have a mean of approximately 0 and a standard deviation of 0.5.

Table 1: Balance table for predictors used in primary models.

	Treatment Group				
Predictor Level	**Control**	**Security**	**Economic**	**Security and Economic**	**All Groups**
Gender					
Male	273 (25.4%)	270 (25.1%)	267 (24.8%)	265 (24.7%)	1075
Female	284 (24.1%)	302 (25.7%)	288 (24.5%)	303 (25.7%)	1177
None of the above	0 (0%)	1 (50%)	1 (50%)	0 (0%)	2

	Treatment Group				
Predictor Level	**Control**	**Security**	**Economic**	**Security and Economic**	**All Groups**
Minority					
No	456 (25.3%)	455 (25.2%)	449 (24.9%)	442 (24.5%)	1802
Yes	84 (22.5%)	94 (25.2%)	92 (24.7%)	103 (27.6%)	373
Decline to answer	17 (21.5%)	24 (30.4%)	15 (19%)	23 (29.1%)	79
Education					
Decline to answer	1 (20%)	1 (20%)	1 (20%)	2 (40%)	5
Higher Education (Bachelor/Engineer)	73 (23.2%)	74 (23.5%)	83 (26.3%)	85 (27%)	315
Higher Education (Master's degree or higher)	148 (24.7%)	161 (26.9%)	148 (24.7%)	142 (23.7%)	599
Primary Education	24 (34.8%)	19 (27.5%)	12 (17.4%)	14 (20.3%)	69
Secondary Education	238 (25%)	240 (25.2%)	240 (25.2%)	234 (24.6%)	952
Vocational School	73 (23.2%)	78 (24.8%)	72 (22.9%)	91 (29%)	314
Age					
18 to 24 years	58 (28.6%)	50 (24.6%)	41 (20.2%)	54 (26.6%)	203
25 to 34 years	114 (26.6%)	109 (25.5%)	108 (25.2%)	97 (22.7%)	428
35 to 44 years	112 (23.7%)	136 (28.8%)	110 (23.3%)	115 (24.3%)	473
45 to 54 years	91 (23.6%)	85 (22.1%)	104 (27%)	105 (27.3%)	385
55 to 64 years	115 (23.3%)	133 (27%)	120 (24.3%)	125 (25.4%)	493
Age 65 or older	67 (24.6%)	60 (22.1%)	73 (26.8%)	72 (26.5%)	272
Income					
0 – 43 339	109 (25.6%)	98 (23%)	111 (26.1%)	108 (25.4%)	426
43 340 – 57 187	85 (22.3%)	112 (29.4%)	82 (21.5%)	102 (26.8%)	381
57 188 – 74 062	113 (25.1%)	115 (25.6%)	104 (23.1%)	118 (26.2%)	450
74 063 – 93 937	105 (23.4%)	120 (26.7%)	118 (26.3%)	106 (23.6%)	449
93 938 +	114 (25.3%)	110 (24.4%)	120 (26.7%)	106 (23.6%)	450
Decline to answer	31 (31.6%)	18 (18.4%)	21 (21.4%)	28 (28.6%)	98
Income Source					
Agriculture	8 (20%)	15 (37.5%)	6 (15%)	11 (27.5%)	40
Full-time or contract work in the government or public sector	57 (28.9%)	49 (24.9%)	46 (23.4%)	45 (22.8%)	197
Full-time or contract work in the private sector	304 (25.2%)	300 (24.8%)	301 (24.9%)	303 (25.1%)	1208
Other sources	56 (24.1%)	65 (28%)	54 (23.3%)	57 (24.6%)	232
Pension or retirement	103 (22.5%)	113 (24.7%)	121 (26.5%)	120 (26.3%)	457
Self-employed (non-agricultural)	29 (24.2%)	31 (25.8%)	28 (23.3%)	32 (26.7%)	120
Ideology					
Ideology	-0.024 (0.488)	0.02 (0.499)	0.006 (0.503)	-0.003 (0.51)	0 (0.5)

Model Tables

This section contains the tables for the models we run in our analysis. All of the models were run using `brms` package version 2.21.0 [Bürkner (2017); Bürkner (2018); Stan2023].

1. Table 2 shows the results of a multinomial logit model where we regress the outcome variable on the treatment group variable.
2. Table 3 shows the results of our primary multinomial multilevel logit model. This model regresses the outcome response onto the treatment variable and several other predictor variables. Varying intercepts by province.
3. Table 4 shows the results of our a multinomial multilevel logit model that regresses the outcome response onto the treatment variable and several other predictor variables. Varying intercepts by province and district.

4. Table 5 shows the results of a model where we use the full six category response variable rather than the four category response used in our primary models.
5. Table 6 shows the results of a model that replicates our primary multilevel model, but allows the effects of the treatment variable to vary across province.
6. Table 7 changes the basic model specification slightly and uses the treatment group as the grouping term for the varying intercepts. We also include a variable indicating whether the respondent reported having personal contact with a U.S. service member, and we allow this effect to vary across treatment groups.
7. Table 8 builds upon our primary model in Table 3 by adding a variable indicating whether the respondent reported having personal contact with a U.S. service member, and an interaction term between the contact variable and the treatment. We also include varying intercepts on province.
8. Table 9 replicates the models from Table 8 but includes varying intercepts on both province and district.
9. Table 10 shows the results of a multilevel ordered logit model. Here we take the original six category response variable, drop the "Don't know/Decline" Responses, and treat the remaining responses as ordered from "Strongly Oppose" to "Strongly Support".

Table 2: Multinomial logistic regressions with treatment effects and outcome response. Models only include the treatment received by the respondent and their response.

	Distance: 100k			Distance: 5k		
	DKDA	**Oppose**	**Support**	**DKDA**	**Oppose**	**Support**
Treatment						
Economic	5.851	0.202	0.243	0.467	0.004	0.063
	[2.680, 11.158]	[−0.301, 0.706]	[−0.091, 0.578]	[−0.186, 1.150]	[−0.373, 0.369]	[−0.250, 0.373]
Security	5.300	0.486	−0.035	−0.053	0.356	0.017
	[2.102, 10.600]	[0.032, 0.951]	[−0.361, 0.284]	[−0.793, 0.676]	[−0.009, 0.713]	[−0.299, 0.328]
Security and Economic	5.618	0.269	0.010	−0.163	0.107	0.049
	[2.459, 10.901]	[−0.212, 0.758]	[−0.319, 0.339]	[−0.917, 0.576]	[−0.263, 0.475]	[−0.262, 0.360]
Intercept	−6.898	−0.585	1.536	−1.796	0.109	1.078
	[−12.193, −3.786]	[−0.941, −0.240]	[1.313, 1.773]	[−2.328, −1.311]	[−0.146, 0.377]	[0.864, 1.298]
N	2239			2254		
N.Groups	0			0		

Bivariate

Table 3: Multilevel multinomial logistic regressions with respondents grouped by province. These model the response as a function of the treatment variables and several predictor variables, with varying intercepts by province.

	Distance: 100k			Distance: 5k		
	DKDA	**Oppose**	**Support**	**DKDA**	**Oppose**	**Support**
Treatment						
Economic	4.792	0.254	0.204	0.795	0.063	0.046
	[2.888, 7.351]	[−0.256, 0.760]	[−0.149, 0.558]	[0.088, 1.515]	[−0.320, 0.443]	[−0.280, 0.369]
Security	3.948	0.584	−0.062	0.140	0.433	0.019
	[2.017, 6.494]	[0.110, 1.053]	[−0.388, 0.277]	[−0.634, 0.915]	[0.070, 0.801]	[−0.304, 0.343]
Security and Economic	4.359	0.325	0.002	−0.080	0.170	0.085
	[2.457, 6.914]	[−0.162, 0.815]	[−0.337, 0.338]	[−0.894, 0.723]	[−0.207, 0.547]	[−0.240, 0.410]
Age						
25-34	−1.799	−0.077	−0.113	−1.394	−0.312	−0.058
	[−2.346, −1.248]	[−0.404, 0.256]	[−0.375, 0.148]	[−1.928, −0.854]	[−0.605, −0.020]	[−0.315, 0.211]
35-44	−1.988	−0.310	0.039	−1.496	−0.617	0.045
	[−2.555, −1.435]	[−0.641, 0.019]	[−0.225, 0.304]	[−2.051, −0.949]	[−0.906, −0.330]	[−0.217, 0.310]
45-54	−1.864	−0.348	0.084	−1.464	−0.694	0.151
	[−2.473, −1.268]	[−0.699, 0.004]	[−0.198, 0.364]	[−2.047, −0.878]	[−1.006, −0.384]	[−0.127, 0.428]
55-64	−1.785	−0.441	0.462	−1.549	−0.925	0.413
	[−2.480, −1.096]	[−0.846, −0.040]	[0.150, 0.771]	[−2.205, −0.895]	[−1.266, −0.583]	[0.115, 0.716]
65+	−2.525	0.194	0.655	−2.230	−0.496	0.564
	[−3.693, −1.367]	[−0.568, 0.943]	[0.135, 1.171]	[−3.291, −1.154]	[−1.093, 0.092]	[0.062, 1.070]
Income						

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
Second Quantile	−0.905	0.022	−0.103	−0.914	−0.038	−0.106
	[−1.434, −0.374]	[−0.302, 0.342]	[−0.355, 0.146]	[−1.419, −0.410]	[−0.319, 0.244]	[−0.353, 0.143]
Third Quantile	−0.562	0.122	−0.060	−0.709	0.076	−0.030
	[−1.074, −0.047]	[−0.195, 0.440]	[−0.309, 0.194]	[−1.206, −0.210]	[−0.200, 0.353]	[−0.271, 0.212]
Fourth Quantile	−0.910	0.012	0.050	−0.949	−0.024	−0.041
	[−1.494, −0.328]	[−0.334, 0.354]	[−0.211, 0.312]	[−1.505, −0.402]	[−0.317, 0.274]	[−0.299, 0.218]
Fifth Quantile	−0.757	0.111	0.178	−0.778	0.035	0.137
	[−1.434, −0.084]	[−0.276, 0.506]	[−0.116, 0.475]	[−1.429, −0.133]	[−0.294, 0.358]	[−0.148, 0.422]
Income Decline	−0.317	0.636	−0.124	0.302	0.238	−0.318
	[−1.583, 0.892]	[−0.189, 1.455]	[−0.755, 0.539]	[−0.660, 1.245]	[−0.410, 0.893]	[−0.934, 0.303]
Income Source						
Public sector contract work	1.335	0.137	0.643	−0.237	0.094	0.870
	[−1.122, 4.249]	[−1.099, 1.422]	[−0.311, 1.546]	[−1.944, 1.612]	[−0.885, 1.074]	[−0.057, 1.780]
Private sector contract work	1.406	0.105	0.629	−0.214	0.261	1.020
	[−0.822, 4.256]	[−1.005, 1.258]	[−0.234, 1.434]	[−1.693, 1.468]	[−0.631, 1.146]	[0.154, 1.864]
Pension or Retirement	2.590	−0.179	0.573	1.198	0.209	1.134
	[0.178, 5.569]	[−1.449, 1.148]	[−0.377, 1.470]	[−0.425, 2.980]	[−0.805, 1.228]	[0.196, 2.064]
Self-employed (non-agricultural)	−0.049	−0.320	0.390	−1.259	0.213	1.104
	[−3.478, 3.383]	[−1.648, 1.035]	[−0.583, 1.332]	[−4.175, 1.228]	[−0.832, 1.274]	[0.121, 2.074]
Other sources	1.887	0.090	0.574	−0.151	−0.153	0.429
	[−0.377, 4.761]	[−1.083, 1.308]	[−0.337, 1.441]	[−1.678, 1.553]	[−1.092, 0.774]	[−0.494, 1.324]
Education						
Bachelor's degree or Engineer	0.767	0.474	1.933	3.473	0.157	5.177
	[−2.595, 4.253]	[−2.510, 3.915]	[−0.983, 5.347]	[−1.098, 11.490]	[−2.067, 2.515]	[−0.157, 15.042]
Master's degree or higher	0.833	0.253	1.647	3.001	0.371	5.408
	[−2.492, 4.354]	[−2.715, 3.672]	[−1.290, 5.022]	[−1.593, 11.073]	[−1.839, 2.710]	[0.068, 15.253]
Primary Education	1.975	0.078	2.134	5.457	1.176	6.356
	[−1.477, 5.517]	[−3.134, 3.639]	[−0.888, 5.591]	[0.876, 13.530]	[−1.198, 3.678]	[0.920, 16.198]
Secondary Education	0.345	0.305	1.588	3.281	0.458	5.311
	[−2.926, 3.776]	[−2.650, 3.697]	[−1.339, 4.941]	[−1.201, 11.283]	[−1.737, 2.782]	[−0.015, 15.176]
Vocational School	0.921	0.284	1.335	3.684	0.365	5.071
	[−2.358, 4.357]	[−2.686, 3.706]	[−1.601, 4.710]	[−0.791, 11.703]	[−1.837, 2.701]	[−0.233, 14.901]
Ideology						
Ideology	−0.298	−0.372	0.597	−0.320	−0.302	0.567
	[−0.541, −0.057]	[−0.498, −0.246]	[0.491, 0.703]	[−0.566, −0.074]	[−0.421, −0.184]	[0.460, 0.674]
Minority						
Minority: Yes	0.188	0.058	−0.213	−0.039	−0.070	−0.214
	[−0.214, 0.595]	[−0.157, 0.273]	[−0.380, −0.043]	[−0.436, 0.351]	[−0.262, 0.123]	[−0.381, −0.045]
Minority: Decline	2.044	−0.221	−0.450	1.106	−0.583	−0.594
	[1.311, 2.765]	[−0.877, 0.424]	[−0.947, 0.052]	[0.396, 1.794]	[−1.150, −0.024]	[−1.095, −0.093]
Gender						
Female	0.605	−0.111	−0.402	0.660	0.013	−0.394
	[0.361, 0.849]	[−0.243, 0.021]	[−0.506, −0.298]	[0.423, 0.897]	[−0.105, 0.131]	[−0.496, −0.294]
None of the Above	−12.237	−0.774	−23.846	−12.495	−0.590	−23.047

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
	[−37.690, 1.661]	[−4.638, 3.041]	[−48.109, −3.720]	[−37.985, 1.731]	[−4.563, 3.202]	[−47.732, −2.780]
Intercept						
Intercept	−6.835	−0.850	−0.530	−4.417	−0.009	−5.081
	[−11.745, −2.335]	[−4.447, 2.349]	[−3.986, 2.540]	[−12.570, 0.413]	[−2.508, 2.368]	[−14.905, 0.304]
N	2239			2254		
N.Groups	16			16		
Groups	province			province		

Base Model

Table 4: Multilevel multinomial logistic regressions with respondents grouped by province and district. These model the response as a function of the treatment variables and several predictor variables, with varying intercepts by province and by district.

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
Treatment						
Economic	5.037	0.255	0.212	0.905	0.047	0.038
	[3.065, 7.616]	[−0.268, 0.774]	[−0.144, 0.565]	[0.152, 1.681]	[−0.336, 0.430]	[−0.287, 0.369]
Security	4.039	0.587	−0.065	0.153	0.429	0.012
	[2.081, 6.574]	[0.100, 1.063]	[−0.405, 0.277]	[−0.660, 0.965]	[0.060, 0.802]	[−0.313, 0.337]
Security and Economic	4.569	0.332	0.006	−0.023	0.186	0.092
	[2.630, 7.109]	[−0.159, 0.831]	[−0.338, 0.346]	[−0.846, 0.804]	[−0.190, 0.565]	[−0.230, 0.421]
Age						
25-34	−1.931	−0.066	−0.104	−1.497	−0.298	−0.053
	[−2.518, −1.351]	[−0.391, 0.258]	[−0.367, 0.159]	[−2.058, −0.935]	[−0.599, 0.002]	[−0.320, 0.213]
35-44	−2.134	−0.299	0.048	−1.625	−0.602	0.053
	[−2.730, −1.540]	[−0.624, 0.033]	[−0.217, 0.312]	[−2.201, −1.055]	[−0.901, −0.311]	[−0.215, 0.319]
45-54	−2.003	−0.340	0.096	−1.573	−0.683	0.158
	[−2.644, −1.379]	[−0.690, 0.008]	[−0.186, 0.376]	[−2.187, −0.970]	[−0.999, −0.369]	[−0.123, 0.441]
55-64	−1.948	−0.426	0.472	−1.675	−0.909	0.420
	[−2.692, −1.220]	[−0.824, −0.016]	[0.166, 0.785]	[−2.368, −0.989]	[−1.257, −0.560]	[0.116, 0.726]
65+	−2.744	0.217	0.668	−2.361	−0.481	0.571
	[−3.979, −1.498]	[−0.540, 0.977]	[0.137, 1.194]	[−3.493, −1.240]	[−1.087, 0.128]	[0.062, 1.074]
Income						
Second Quantile	−0.877	0.021	−0.096	−0.928	−0.028	−0.101
	[−1.412, −0.330]	[−0.307, 0.352]	[−0.346, 0.156]	[−1.445, −0.408]	[−0.308, 0.255]	[−0.351, 0.149]
Third Quantile	−0.530	0.121	−0.057	−0.712	0.087	−0.024
	[−1.065, 0.000]	[−0.194, 0.444]	[−0.307, 0.192]	[−1.216, −0.210]	[−0.193, 0.366]	[−0.267, 0.219]
Fourth Quantile	−0.848	0.008	0.057	−0.927	−0.017	−0.034
	[−1.436, −0.256]	[−0.340, 0.360]	[−0.211, 0.327]	[−1.503, −0.357]	[−0.313, 0.280]	[−0.294, 0.224]
Fifth Quantile	−0.688	0.109	0.186	−0.753	0.036	0.142
	[−1.381, 0.004]	[−0.279, 0.499]	[−0.110, 0.480]	[−1.419, −0.072]	[−0.288, 0.361]	[−0.144, 0.426]
Income Decline	−0.134	0.647	−0.107	0.391	0.260	−0.307
	[−1.456, 1.150]	[−0.183, 1.491]	[−0.748, 0.569]	[−0.629, 1.387]	[−0.405, 0.928]	[−0.925, 0.326]
Income Source						
Public sector contract work	1.285	0.127	0.645	−0.395	0.105	0.855
	[−1.308, 4.365]	[−1.118, 1.427]	[−0.308, 1.562]	[−2.208, 1.562]	[−0.915, 1.114]	[−0.079, 1.776]
Private sector contract work	1.205	0.101	0.633	−0.451	0.272	1.005
	[−1.199, 4.170]	[−1.011, 1.271]	[−0.249, 1.446]	[−2.034, 1.330]	[−0.657, 1.186]	[0.136, 1.867]

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
Pension or Retirement	2.484	−0.200	0.578	1.014	0.214	1.125
	[−0.065, 5.559]	[−1.499, 1.126]	[−0.389, 1.507]	[−0.702, 2.902]	[−0.830, 1.243]	[0.196, 2.068]
Self-employed (non-agricultural)	−0.359	−0.350	0.376	−1.442	0.239	1.099
	[−3.890, 3.151]	[−1.665, 1.004]	[−0.614, 1.326]	[−4.449, 1.091]	[−0.856, 1.322]	[0.103, 2.100]
Other sources	1.715	0.082	0.580	−0.349	−0.138	0.424
	[−0.712, 4.694]	[−1.105, 1.305]	[−0.358, 1.461]	[−1.953, 1.459]	[−1.123, 0.841]	[−0.493, 1.334]
Education						
Bachelor's degree or Engineer	0.571	0.485	1.928	3.797	0.063	5.016
	[−3.097, 4.342]	[−2.531, 3.976]	[−0.951, 5.229]	[−1.151, 12.212]	[−2.202, 2.424]	[−0.182, 14.701]
Master's degree or higher	0.551	0.261	1.630	3.286	0.282	5.247
	[−3.126, 4.323]	[−2.726, 3.758]	[−1.226, 4.864]	[−1.688, 11.707]	[−1.969, 2.642]	[0.047, 14.902]
Primary Education	2.030	0.064	2.154	5.849	1.099	6.217
	[−1.758, 5.939]	[−3.137, 3.734]	[−0.764, 5.517]	[0.828, 14.299]	[−1.309, 3.622]	[0.895, 15.911]
Secondary Education	0.039	0.311	1.577	3.541	0.366	5.153
	[−3.546, 3.762]	[−2.671, 3.793]	[−1.284, 4.826]	[−1.400, 11.966]	[−1.862, 2.719]	[−0.019, 14.791]
Vocational School	0.744	0.293	1.336	4.052	0.252	4.908
	[−2.836, 4.423]	[−2.708, 3.747]	[−1.538, 4.618]	[−0.831, 12.499]	[−2.001, 2.615]	[−0.298, 14.578]
Ideology						
Ideology	−0.314	−0.373	0.600	−0.328	−0.303	0.570
	[−0.565, −0.063]	[−0.499, −0.249]	[0.495, 0.706]	[−0.572, −0.084]	[−0.419, −0.185]	[0.466, 0.674]
Minority						
Minority: Yes	0.188	0.059	−0.214	−0.037	−0.068	−0.215
	[−0.220, 0.595]	[−0.157, 0.272]	[−0.384, −0.044]	[−0.439, 0.359]	[−0.264, 0.127]	[−0.382, −0.048]
Minority: Decline	2.292	−0.234	−0.479	1.306	−0.618	−0.610
	[1.499, 3.103]	[−0.909, 0.414]	[−0.980, 0.030]	[0.538, 2.066]	[−1.190, −0.052]	[−1.110, −0.109]
Gender						
Female	0.597	−0.110	−0.400	0.666	0.011	−0.394
	[0.348, 0.842]	[−0.244, 0.022]	[−0.504, −0.295]	[0.429, 0.905]	[−0.107, 0.128]	[−0.495, −0.294]
None of the Above	−12.133	−0.821	−23.909	−12.448	−0.534	−22.982
	[−38.650, 2.220]	[−4.802, 3.075]	[−48.643, −3.721]	[−38.251, 1.763]	[−4.339, 3.167]	[−48.142, −2.411]
Intercept						
Intercept	−7.043	−0.895	−0.532	−4.863	0.026	−4.910
	[−12.244, −2.297]	[−4.560, 2.318]	[−3.871, 2.418]	[−13.382, 0.380]	[−2.504, 2.432]	[−14.558, 0.375]
N	2239			2254		
N.Groups	16			16		
Groups	province, province:district			province, province:district		

District Model

Table 5: Multilevel multinomial logistic regressions with respondents grouped by province. These model the response as a function of the treatment variables and several predictor variables, with varying intercepts by province. Here we use the original six response categories rather than the four aggregated categories from the main model.

	Distance: 100k					Distance: 5k			
	Stronglysupport	Somewhatsupport	Somewhatoppose	Stronglyoppose	DKDA	Stronglysupport	Somewhatsupport	Somewhatoppose	Stro
Treatment									
Economic	0.162	0.239	−0.013	0.439	5.533	−0.004	0.049	0.115	

	Distance: 100k					Distance: 5k			
	Stronglysupport	Somewhatsupport	Somewhatoppose	Stronglyoppose	DKDA	Stronglysupport	Somewhatsupport	Somewhatoppose	Stro
	[−0.228, 0.552]	[−0.139, 0.620]	[−0.668, 0.637]	[−0.240, 1.118]	[2.733, 9.945]	[−0.385, 0.372]	[−0.308, 0.405]	[−0.340, 0.568]	[−0.
Security	0.094	−0.186	0.369	0.753	4.796	0.138	−0.073	0.426	
	[−0.284, 0.472]	[−0.560, 0.193]	[−0.216, 0.963]	[0.123, 1.395]	[1.971, 9.200]	[−0.233, 0.509]	[−0.443, 0.298]	[−0.012, 0.870]	[−0.
Security and Economic	0.113	−0.075	0.047	0.560	5.253	0.225	−0.047	0.192	
	[−0.257, 0.481]	[−0.441, 0.294]	[−0.567, 0.653]	[−0.078, 1.228]	[2.454, 9.665]	[−0.141, 0.586]	[−0.407, 0.312]	[−0.254, 0.641]	[−0.
Age									
25-34	0.174	0.038	0.081	0.990	0.086	0.326	0.190	−0.071	
	[−0.339, 0.691]	[−0.430, 0.513]	[−0.661, 0.836]	[0.072, 1.995]	[−1.011, 1.240]	[−0.299, 0.954]	[−0.317, 0.697]	[−0.605, 0.463]	[−0.
35-44	0.649	0.167	0.019	0.828	0.251	0.877	−0.090	−0.432	
	[0.130, 1.170]	[−0.317, 0.648]	[−0.754, 0.806]	[−0.100, 1.846]	[−0.861, 1.417]	[0.302, 1.471]	[−0.596, 0.417]	[−0.973, 0.108]	[−0.
45-54	0.829	0.335	0.274	1.451	0.667	1.362	0.579	−0.105	
	[0.278, 1.391]	[−0.192, 0.865]	[−0.559, 1.133]	[0.500, 2.489]	[−0.503, 1.873]	[0.747, 1.996]	[0.024, 1.127]	[−0.717, 0.503]	[−0.
55-64	1.280	0.516	−0.266	0.928	1.354	1.414	0.369	−1.212	
	[0.715, 1.840]	[−0.029, 1.059]	[−1.207, 0.675]	[−0.101, 2.028]	[0.211, 2.551]	[0.812, 2.035]	[−0.172, 0.907]	[−1.896, −0.552]	[−0.
65+	1.669	1.011	1.304	1.548	0.188	1.637	0.936	−0.241	
	[0.866, 2.481]	[0.197, 1.831]	[0.042, 2.576]	[0.162, 2.964]	[−1.556, 1.883]	[0.842, 2.451]	[0.184, 1.695]	[−1.185, 0.688]	[−0.
Income									
Second Quantile	−0.255	0.149	0.373	0.121	−0.056	−0.106	0.179	0.291	
	[−0.694, 0.190]	[−0.282, 0.583]	[−0.366, 1.124]	[−0.555, 0.803]	[−0.933, 0.817]	[−0.555, 0.347]	[−0.260, 0.620]	[−0.230, 0.815]	[−0.
Third Quantile	−0.209	0.013	0.508	−0.265	−0.207	−0.029	0.149	0.405	
	[−0.637, 0.221]	[−0.414, 0.440]	[−0.196, 1.222]	[−0.981, 0.452]	[−1.088, 0.659]	[−0.459, 0.401]	[−0.274, 0.579]	[−0.089, 0.901]	[−0.
Fourth Quantile	0.354	0.350	0.468	0.066	0.041	0.095	0.216	0.170	
	[−0.100, 0.808]	[−0.101, 0.808]	[−0.303, 1.256]	[−0.667, 0.795]	[−0.907, 0.972]	[−0.346, 0.537]	[−0.221, 0.645]	[−0.358, 0.695]	[−0.
Fifth Quantile	0.461	0.432	0.445	0.117	−0.094	0.244	0.318	0.180	
	[−0.015, 0.951]	[−0.045, 0.921]	[−0.391, 1.271]	[−0.661, 0.891]	[−1.151, 0.924]	[−0.210, 0.696]	[−0.135, 0.763]	[−0.380, 0.734]	[−0.
Income Decline	−0.342	0.050	0.968	0.267	−0.171	−0.549	−0.080	0.250	
	[−1.066, 0.391]	[−0.636, 0.765]	[−0.067, 1.987]	[−0.822, 1.328]	[−1.480, 1.067]	[−1.327, 0.212]	[−0.792, 0.622]	[−0.567, 1.037]	[−0.
Income Source									
Public sector contract work	0.801	0.443	0.236	0.307	1.282	0.536	1.582	−0.137	
	[−0.243, 1.833]	[−0.615, 1.501]	[−1.308, 1.970]	[−1.333, 2.165]	[−1.181, 4.623]	[−0.473, 1.560]	[0.250, 3.133]	[−1.232, 0.993]	[−0.
Private sector	0.628	0.561	0.058	0.452	1.304	0.561	1.825	0.010	

	Distance: 100k					Distance: 5k			
	Stronglysupport	Somewhatsupport	Somewhatoppose	Stronglyoppose	DKDA	Stronglysupport	Somewhatsupport	Somewhatoppose	Stro
contract work									
	[−0.333, 1.574]	[−0.394, 1.526]	[−1.312, 1.675]	[−0.996, 2.180]	[−0.928, 4.554]	[−0.371, 1.529]	[0.556, 3.345]	[−0.979, 1.044]	[−0.
Pension or Retirement	0.686	0.312	−0.360	0.184	1.851	0.873	1.800	0.137	
	[−0.350, 1.720]	[−0.751, 1.368]	[−2.019, 1.452]	[−1.451, 2.073]	[−0.510, 5.175]	[−0.145, 1.916]	[0.448, 3.369]	[−1.014, 1.338]	[−0.
Self-employed (non-agricultural)	0.386	0.216	−0.399	−0.051	−0.251	0.628	1.882	0.089	
	[−0.689, 1.469]	[−0.862, 1.311]	[−2.118, 1.435]	[−1.783, 1.866]	[−3.937, 3.532]	[−0.461, 1.725]	[0.488, 3.503]	[−1.112, 1.306]	[−0.
Other sources	0.591	0.528	0.270	0.154	1.775	0.176	1.085	−0.359	
	[−0.417, 1.604]	[−0.482, 1.540]	[−1.204, 1.941]	[−1.435, 1.988]	[−0.513, 5.085]	[−0.824, 1.198]	[−0.245, 2.645]	[−1.407, 0.727]	[−0.
Education									
Bachelor's degree or Engineer	34.514	1.485	−0.178	32.862	−0.194	33.575	33.906	−1.225	
	[2.163, 96.421]	[−1.326, 4.981]	[−3.134, 3.373]	[0.765, 94.330]	[−3.373, 3.556]	[1.220, 93.729]	[1.643, 93.683]	[−3.458, 1.108]	[1.6
Master's degree or higher	34.169	1.218	−0.025	32.308	−0.229	33.773	34.159	−0.629	
	[1.735, 96.102]	[−1.587, 4.745]	[−2.956, 3.483]	[0.174, 93.758]	[−3.407, 3.499]	[1.473, 93.976]	[1.935, 94.030]	[−2.842, 1.707]	[1.5
Primary Education	34.796	1.473	−1.747	32.717	1.163	34.911	34.850	0.294	
	[2.440, 96.774]	[−1.421, 5.048]	[−5.858, 2.372]	[0.588, 93.926]	[−2.129, 4.952]	[2.592, 95.253]	[2.525, 94.744]	[−2.055, 2.776]	[1.8
Secondary Education	34.046	1.233	−0.254	32.655	−0.674	33.645	34.090	−0.538	
	[1.637, 95.907]	[−1.556, 4.725]	[−3.178, 3.244]	[0.578, 94.085]	[−3.789, 3.017]	[1.349, 93.862]	[1.848, 93.928]	[−2.730, 1.773]	[1.6
Vocational School	33.965	0.797	−0.190	32.453	−0.014	33.381	33.864	−0.606	
	[1.583, 95.901]	[−1.999, 4.279]	[−3.103, 3.350]	[0.392, 93.930]	[−3.118, 3.667]	[1.034, 93.593]	[1.629, 93.740]	[−2.801, 1.721]	[1.4
Ideology									
Ideology	0.463	0.154	0.053	0.011	0.208	0.502	0.139	−0.092	
	[0.186, 0.742]	[−0.128, 0.438]	[−0.400, 0.512]	[−0.447, 0.464]	[−0.368, 0.789]	[0.234, 0.773]	[−0.130, 0.409]	[−0.424, 0.246]	[−0.
Minority									
Minority: Yes	−0.179	−0.096	0.011	−0.314	0.750	−0.125	−0.194	−0.312	
	[−0.539, 0.184]	[−0.454, 0.262]	[−0.563, 0.571]	[−0.940, 0.290]	[0.049, 1.424]	[−0.491, 0.240]	[−0.546, 0.163]	[−0.737, 0.103]	[−0.
Minority: Decline	−0.681	−0.547	−0.131	−0.543	1.660	−1.024	−1.059	−1.250	
	[−1.436, 0.076]	[−1.261, 0.173]	[−1.208, 0.850]	[−1.822, 0.594]	[0.680, 2.633]	[−1.825, −0.267]	[−1.840, −0.313]	[−2.186, −0.405]	[−1.
Gender									
Female	−1.166	−0.466	0.055	−0.642	0.549	−1.029	−0.561	0.236	
	[−1.458, −0.880]	[−0.759, −0.174]	[−0.425, 0.545]	[−1.096, −0.187]	[−0.101, 1.233]	[−1.304, −0.755]	[−0.833, −0.288]	[−0.109, 0.582]	[−0.

	Distance: 100k					Distance: 5k			
	Stronglysupport	Somewhatsupport	Somewhatoppose	Stronglyoppose	DKDA	Stronglysupport	Somewhatsupport	Somewhatoppose	Stro
None of the Above	−53.790	−54.520	−52.756	1.117	−50.275	−52.378	−53.059	−52.376	
	[−150.865, −2.564]	[−151.062, −2.971]	[−147.885, −1.620]	[−2.816, 5.118]	[−145.183, 0.752]	[−149.992, −1.122]	[−150.906, −1.201]	[−148.738, −1.331]	[−2.
Intercept									
Intercept	−33.975	−0.990	−1.635	−35.000	−8.978	−34.363	−35.398	0.090	
	[−95.861, −1.541]	[−4.641, 2.016]	[−5.478, 1.709]	[−96.394, −2.719]	[−15.214, −3.894]	[−94.537, −1.962]	[−95.304, −3.039]	[−2.501, 2.559]	[
N	2239					2254			
N.Groups	16					16			
Groups	province					province			

Full Response Variable

Table 6: Multilevel multinomial logistic regressions with respondents grouped by province. These model the response as a function of the treatment variables and several predictor variables, with varying intercepts by province. We also allow the effect of the treatment variables to vary by province.

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
Treatment						
Economic	4.736	0.214	0.199	0.725	0.077	0.024
	[2.740, 7.307]	[−0.422, 0.828]	[−0.215, 0.617]	[−0.130, 1.523]	[−0.326, 0.494]	[−0.334, 0.379]
Security	3.792	0.579	−0.064	−0.034	0.468	0.024
	[1.721, 6.404]	[−0.067, 1.215]	[−0.417, 0.294]	[−1.091, 0.866]	[0.027, 0.924]	[−0.319, 0.362]
Security and Economic	4.306	0.299	0.010	−0.245	0.152	0.092
	[2.347, 6.862]	[−0.229, 0.821]	[−0.341, 0.361]	[−1.303, 0.671]	[−0.259, 0.554]	[−0.242, 0.429]
Age						
25-34	−1.849	−0.068	−0.118	−1.426	−0.310	−0.056
	[−2.409, −1.288]	[−0.395, 0.263]	[−0.377, 0.146]	[−1.971, −0.882]	[−0.591, −0.021]	[−0.320, 0.202]
35-44	−2.032	−0.306	0.038	−1.527	−0.617	0.049
	[−2.593, −1.461]	[−0.632, 0.019]	[−0.224, 0.297]	[−2.076, −0.981]	[−0.902, −0.325]	[−0.217, 0.311]
45-54	−1.892	−0.345	0.082	−1.486	−0.696	0.153
	[−2.497, −1.291]	[−0.694, 0.009]	[−0.198, 0.359]	[−2.074, −0.901]	[−1.009, −0.392]	[−0.125, 0.430]
55-64	−1.821	−0.423	0.458	−1.589	−0.922	0.416
	[−2.512, −1.125]	[−0.828, −0.020]	[0.154, 0.761]	[−2.257, −0.932]	[−1.267, −0.582]	[0.115, 0.714]
65+	−2.566	0.230	0.651	−2.283	−0.500	0.566
	[−3.751, −1.370]	[−0.522, 0.981]	[0.131, 1.167]	[−3.351, −1.226]	[−1.102, 0.094]	[0.065, 1.061]
Income						
Second Quantile	−0.935	0.014	−0.103	−0.938	−0.037	−0.103
	[−1.473, −0.408]	[−0.311, 0.338]	[−0.357, 0.148]	[−1.447, −0.429]	[−0.319, 0.245]	[−0.350, 0.142]
Third Quantile	−0.588	0.119	−0.064	−0.722	0.080	−0.030
	[−1.103, −0.074]	[−0.200, 0.437]	[−0.316, 0.186]	[−1.216, −0.225]	[−0.198, 0.356]	[−0.273, 0.212]
Fourth Quantile	−0.939	0.004	0.049	−0.962	−0.022	−0.039
	[−1.510, −0.350]	[−0.339, 0.348]	[−0.217, 0.309]	[−1.504, −0.412]	[−0.317, 0.270]	[−0.294, 0.214]
Fifth Quantile	−0.796	0.104	0.174	−0.800	0.040	0.137
	[−1.473, −0.120]	[−0.281, 0.496]	[−0.128, 0.470]	[−1.441, −0.154]	[−0.286, 0.366]	[−0.147, 0.421]
Income Decline	−0.399	0.646	−0.143	0.290	0.252	−0.319
	[−1.700, 0.808]	[−0.191, 1.481]	[−0.775, 0.533]	[−0.698, 1.238]	[−0.410, 0.920]	[−0.934, 0.305]
Income Source						
Public sector contract work	1.344	0.166	0.659	−0.279	0.111	0.882

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
	[−1.154, 4.367]	[−1.071, 1.463]	[−0.277, 1.568]	[−2.040, 1.608]	[−0.885, 1.085]	[−0.042, 1.783]
Private sector contract work	1.441	0.162	0.640	−0.268	0.288	1.028
	[−0.804, 4.353]	[−0.958, 1.339]	[−0.222, 1.452]	[−1.767, 1.463]	[−0.607, 1.184]	[0.170, 1.879]
Pension or Retirement	2.604	−0.170	0.594	1.164	0.229	1.151
	[0.190, 5.608]	[−1.461, 1.154]	[−0.344, 1.496]	[−0.490, 3.027]	[−0.789, 1.236]	[0.203, 2.090]
Self-employed (non-agricultural)	0.002	−0.279	0.404	−1.345	0.252	1.117
	[−3.411, 3.433]	[−1.620, 1.084]	[−0.560, 1.332]	[−4.400, 1.196]	[−0.813, 1.308]	[0.136, 2.082]
Other sources	1.904	0.141	0.590	−0.223	−0.133	0.443
	[−0.393, 4.785]	[−1.063, 1.372]	[−0.334, 1.467]	[−1.763, 1.527]	[−1.085, 0.802]	[−0.463, 1.343]
Education						
Bachelor's degree or Engineer	0.656	0.410	1.968	3.450	0.083	5.146
	[−2.699, 4.096]	[−2.541, 3.764]	[−0.890, 5.286]	[−1.110, 11.262]	[−2.129, 2.423]	[−0.169, 15.078]
Master's degree or higher	0.693	0.173	1.679	2.980	0.299	5.379
	[−2.629, 4.116]	[−2.778, 3.517]	[−1.168, 4.977]	[−1.606, 10.786]	[−1.906, 2.608]	[0.060, 15.268]
Primary Education	1.869	−0.090	2.168	5.494	1.084	6.319
	[−1.602, 5.372]	[−3.253, 3.440]	[−0.779, 5.545]	[0.854, 13.273]	[−1.289, 3.553]	[0.936, 16.219]
Secondary Education	0.189	0.215	1.624	3.256	0.381	5.284
	[−3.068, 3.575]	[−2.713, 3.526]	[−1.217, 4.929]	[−1.206, 11.072]	[−1.807, 2.666]	[−0.015, 15.166]
Vocational School	0.769	0.212	1.360	3.672	0.294	5.043
	[−2.523, 4.137]	[−2.738, 3.525]	[−1.507, 4.662]	[−0.805, 11.486]	[−1.893, 2.613]	[−0.265, 14.929]
Ideology						
Ideology	−0.301	−0.375	0.600	−0.324	−0.304	0.569
	[−0.543, −0.060]	[−0.503, −0.248]	[0.494, 0.704]	[−0.567, −0.083]	[−0.423, −0.185]	[0.467, 0.674]
Minority						
Minority: Yes	0.188	0.073	−0.217	−0.042	−0.067	−0.213
	[−0.216, 0.597]	[−0.144, 0.294]	[−0.385, −0.048]	[−0.434, 0.350]	[−0.263, 0.128]	[−0.381, −0.048]
Minority: Decline	2.093	−0.213	−0.461	1.137	−0.602	−0.595
	[1.340, 2.844]	[−0.893, 0.454]	[−0.963, 0.054]	[0.421, 1.830]	[−1.160, −0.053]	[−1.101, −0.085]
Gender						
Female	0.604	−0.112	−0.402	0.660	0.014	−0.395
	[0.361, 0.850]	[−0.243, 0.020]	[−0.505, −0.300]	[0.423, 0.896]	[−0.104, 0.133]	[−0.496, −0.293]
None of the Above	−11.941	−0.906	−23.822	−12.601	−0.628	−23.180
	[−37.504, 2.020]	[−4.808, 2.977]	[−47.890, −3.890]	[−39.417, 1.740]	[−4.451, 3.056]	[−47.735, −2.540]
Intercept						
Intercept	−6.720	−0.832	−0.570	−4.332	0.027	−5.064
	[−11.737, −2.220]	[−4.352, 2.332]	[−3.945, 2.422]	[−12.206, 0.498]	[−2.433, 2.372]	[−14.963, 0.319]
N	2239			2254		
N.Groups	16			16		
Groups	province			province		

Group Effects

Table 7: Multilevel multinomial logistic regressions with respondents grouped by treatment groups These model the response as a function of several predictor variables, with varying intercepts by province. We also allow the effect of contact to vary by treatment group.

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
Contact						
Personal Contact: Yes	−3.302	−0.024	0.701	−3.763	−0.382	0.677
	[−11.204, 0.727]	[−1.550, 1.445]	[−0.290, 1.722]	[−12.206, 0.063]	[−1.357, 0.589]	[0.047, 1.323]
Personal Contact: Don't know/Decline	0.410	−0.882	−0.746	0.463	−1.038	−1.035
	[−3.028, 3.288]	[−4.668, 2.431]	[−2.839, 1.704]	[−1.298, 2.279]	[−5.261, 2.445]	[−2.558, 0.554]
Age						
25-34	−1.798	−0.064	−0.091	−1.425	−0.323	−0.027
	[−2.359, −1.242]	[−0.396, 0.267]	[−0.359, 0.178]	[−1.965, −0.896]	[−0.618, −0.029]	[−0.294, 0.239]
35-44	−1.977	−0.294	0.071	−1.538	−0.638	0.097
	[−2.533, −1.410]	[−0.626, 0.036]	[−0.195, 0.339]	[−2.080, −0.999]	[−0.932, −0.344]	[−0.171, 0.365]
45-54	−1.917	−0.336	0.099	−1.523	−0.705	0.189
	[−2.517, −1.310]	[−0.691, 0.016]	[−0.186, 0.377]	[−2.105, −0.944]	[−1.014, −0.397]	[−0.097, 0.471]
55-64	−1.833	−0.432	0.480	−1.597	−0.950	0.458
	[−2.535, −1.123]	[−0.836, −0.033]	[0.171, 0.789]	[−2.258, −0.944]	[−1.299, −0.603]	[0.149, 0.760]
65+	−2.543	0.221	0.669	−2.233	−0.510	0.597
	[−3.736, −1.320]	[−0.519, 0.962]	[0.146, 1.188]	[−3.305, −1.169]	[−1.123, 0.078]	[0.074, 1.098]
Income						
Second Quantile	−0.887	0.027	−0.116	−0.903	−0.033	−0.104
	[−1.418, −0.358]	[−0.295, 0.351]	[−0.368, 0.133]	[−1.406, −0.399]	[−0.314, 0.247]	[−0.350, 0.141]
Third Quantile	−0.511	0.127	−0.054	−0.695	0.071	−0.004
	[−1.031, 0.010]	[−0.194, 0.453]	[−0.303, 0.196]	[−1.187, −0.201]	[−0.209, 0.342]	[−0.248, 0.238]
Fourth Quantile	−0.878	0.022	0.051	−0.931	−0.022	−0.026
	[−1.457, −0.296]	[−0.316, 0.365]	[−0.213, 0.319]	[−1.495, −0.368]	[−0.319, 0.270]	[−0.286, 0.229]
Fifth Quantile	−0.705	0.132	0.203	−0.761	0.041	0.170
	[−1.371, −0.038]	[−0.254, 0.521]	[−0.096, 0.500]	[−1.401, −0.119]	[−0.289, 0.371]	[−0.115, 0.453]
Income Decline	−0.337	0.595	−0.066	0.304	0.225	−0.214
	[−1.609, 0.885]	[−0.228, 1.409]	[−0.713, 0.607]	[−0.661, 1.244]	[−0.436, 0.897]	[−0.840, 0.423]
Income Source						
Public sector contract work	1.621	0.131	0.682	−0.277	−0.054	0.877
	[−0.842, 4.607]	[−1.111, 1.437]	[−0.301, 1.617]	[−2.042, 1.590]	[−1.054, 0.944]	[−0.068, 1.819]
Private sector contract work	1.581	0.100	0.642	−0.251	0.152	1.021
	[−0.643, 4.422]	[−1.019, 1.287]	[−0.255, 1.486]	[−1.765, 1.455]	[−0.764, 1.060]	[0.146, 1.887]
Pension or Retirement	2.748	−0.194	0.625	1.089	0.083	1.185
	[0.371, 5.727]	[−1.462, 1.133]	[−0.341, 1.562]	[−0.576, 2.895]	[−0.956, 1.109]	[0.227, 2.136]
Self-employed (non-agricultural)	0.197	−0.269	0.441	−1.292	0.158	1.134
	[−3.294, 3.629]	[−1.599, 1.088]	[−0.559, 1.436]	[−4.343, 1.264]	[−0.907, 1.232]	[0.126, 2.136]
Other sources	1.959	0.122	0.628	−0.286	−0.232	0.465
	[−0.291, 4.840]	[−1.059, 1.373]	[−0.318, 1.554]	[−1.850, 1.422]	[−1.200, 0.718]	[−0.464, 1.389]
Education						
Bachelor's degree or Engineer	0.823	0.495	1.816	3.939	0.072	4.956
	[−2.529, 4.314]	[−2.437, 3.930]	[−1.053, 5.171]	[−0.680, 11.736]	[−2.141, 2.377]	[−0.392, 14.850]
Master's degree or higher	0.945	0.309	1.554	3.490	0.297	5.209
	[−2.344, 4.416]	[−2.630, 3.728]	[−1.321, 4.880]	[−1.154, 11.337]	[−1.896, 2.632]	[−0.147, 15.089]

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
Primary Education	2.089	0.340	2.233	5.828	1.139	6.252
	[−1.377, 5.662]	[−2.781, 3.956]	[−0.744, 5.675]	[1.143, 13.742]	[−1.231, 3.600]	[0.785, 16.163]
Secondary Education	0.552	0.397	1.525	3.815	0.386	5.119
	[−2.667, 3.978]	[−2.522, 3.771]	[−1.343, 4.855]	[−0.736, 11.655]	[−1.809, 2.676]	[−0.226, 14.987]
Vocational School	1.020	0.390	1.258	4.154	0.317	4.874
	[−2.245, 4.442]	[−2.543, 3.781]	[−1.611, 4.571]	[−0.367, 12.016]	[−1.885, 2.631]	[−0.473, 14.772]
Ideology						
Ideology	−0.295	−0.369	0.594	−0.319	−0.297	0.564
	[−0.544, −0.050]	[−0.496, −0.243]	[0.487, 0.702]	[−0.562, −0.075]	[−0.416, −0.178]	[0.460, 0.667]
Minority						
Minority: Yes	0.179	0.050	−0.228	−0.051	−0.053	−0.238
	[−0.228, 0.581]	[−0.166, 0.266]	[−0.396, −0.056]	[−0.455, 0.344]	[−0.251, 0.143]	[−0.406, −0.069]
Minority: Decline	2.028	−0.213	−0.470	1.018	−0.530	−0.618
	[1.308, 2.750]	[−0.879, 0.427]	[−0.966, 0.037]	[0.322, 1.715]	[−1.102, 0.031]	[−1.124, −0.112]
Gender						
Female	0.599	−0.102	−0.392	0.660	0.012	−0.380
	[0.354, 0.841]	[−0.235, 0.030]	[−0.496, −0.288]	[0.424, 0.896]	[−0.102, 0.130]	[−0.481, −0.280]
None of the Above	−11.892	0.051	−23.998	−12.464	−0.022	−23.226
	[−37.919, 1.907]	[−3.953, 3.917]	[−48.802, −3.576]	[−39.008, 1.352]	[−3.984, 3.779]	[−47.577, −2.376]
Intercept						
Intercept	−3.215	−0.643	−0.529	−4.451	0.405	−4.984
	[−8.444, 1.936]	[−4.285, 2.505]	[−3.983, 2.456]	[−12.461, 0.549]	[−2.081, 2.857]	[−14.835, 0.445]
N	2239			2254		
N.Groups	0			0		
Groups	treatment_group			treatment_group		

Personal Contact with Treatment Groupings

Table 8: Multilevel multinomial logistic regressions with respondents grouped by province. These model the response as a function of the treatment variables and several predictor variables, with varying intercepts by province. Here we interact the contact variable with the treatment variable to see if the effect of the treatment is conditioned by reported personal contact.

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
Treatment						
Economic	5.408	−0.003	0.157	0.855	−0.117	−0.023
	[3.011, 8.801]	[−0.550, 0.549]	[−0.218, 0.531]	[0.106, 1.627]	[−0.524, 0.293]	[−0.360, 0.323]
Security	4.482	0.566	−0.044	0.245	0.486	0.052
	[2.085, 7.877]	[0.064, 1.068]	[−0.410, 0.325]	[−0.609, 1.105]	[0.093, 0.886]	[−0.307, 0.413]
Security and Economic	4.710	0.077	−0.145	−0.167	0.098	0.013
	[2.347, 8.127]	[−0.445, 0.594]	[−0.500, 0.218]	[−1.056, 0.714]	[−0.296, 0.496]	[−0.337, 0.362]
Contact						
Personal Contact: Yes	−1.471	−0.560	1.123	−0.414	−0.002	0.939
	[−14.974, 6.155]	[−2.470, 1.099]	[0.195, 2.230]	[−3.692, 1.841]	[−0.988, 1.016]	[0.176, 1.787]
Personal Contact: Don't know/Decline	−5.892	−9.251	−3.117	−0.992	−39.485	−2.526
	[−24.390, 3.132]	[−25.754, −1.783]	[−5.068, −1.592]	[−3.132, 0.829]	[−69.607, −10.939]	[−4.423, −1.002]
Interactions						
Security X Personal Contact	0.120	−0.955	−1.065	−58.163	−1.347	−0.778

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
	[−8.558, 13.954]	[−3.261, 1.397]	[−2.381, 0.149]	[−87.122, −30.444]	[−2.805, 0.069]	[−1.869, 0.270]
Economic X Personal Contact	−17.392	1.122	−0.530	−28.454	0.366	0.058
	[−42.759, 3.250]	[−1.005, 3.424]	[−1.937, 0.884]	[−56.755, −4.297]	[−1.093, 1.835]	[−1.129, 1.282]
Security and Economic X Personal Contact	−6.221	1.685	0.354	−13.801	−0.506	−0.114
	[−22.339, 9.281]	[−0.418, 3.995]	[−1.135, 1.877]	[−36.455, −0.065]	[−1.934, 0.911]	[−1.219, 0.997]
Security X Personal Contact: Don't know/Decline	5.238	7.828	2.440	1.901	38.198	2.107
	[−4.272, 23.859]	[−0.199, 24.364]	[0.417, 4.800]	[−0.788, 4.725]	[9.650, 68.331]	[−0.034, 4.488]
Economic X Personal Contact: Don't know/Decline	6.212	11.072	3.120	1.603	41.746	2.242
	[−3.986, 25.061]	[2.855, 27.718]	[0.447, 6.457]	[−2.832, 5.779]	[12.930, 71.996]	[−0.881, 5.756]
Security and Economic X Personal Contact: Don't know/Decline	15.208	15.726	10.296	2.957	40.090	2.313
	[1.952, 37.907]	[3.238, 37.154]	[2.878, 26.031]	[0.025, 6.094]	[11.412, 70.286]	[−0.137, 5.021]
Age						
25-34	−1.819	−0.037	−0.052	−1.340	−0.334	−0.016
	[−2.388, −1.243]	[−0.371, 0.299]	[−0.326, 0.221]	[−1.910, −0.776]	[−0.628, −0.036]	[−0.287, 0.260]
35-44	−2.066	−0.299	0.105	−1.124	−0.681	0.110
	[−2.662, −1.476]	[−0.641, 0.039]	[−0.167, 0.380]	[−1.734, −0.509]	[−0.985, −0.385]	[−0.164, 0.387]
45-54	−2.047	−0.344	0.117	−0.926	−0.726	0.211
	[−2.690, −1.411]	[−0.707, 0.021]	[−0.171, 0.409]	[−1.610, −0.250]	[−1.046, −0.411]	[−0.073, 0.494]
55-64	−2.023	−0.501	0.455	−1.441	−1.123	0.426
	[−2.746, −1.294]	[−0.919, −0.091]	[0.139, 0.770]	[−2.138, −0.749]	[−1.500, −0.747]	[0.120, 0.736]
65+	−2.626	0.162	0.669	−2.175	−0.657	0.562
	[−3.813, −1.400]	[−0.592, 0.923]	[0.148, 1.190]	[−3.261, −1.091]	[−1.274, −0.042]	[0.062, 1.062]
Income						
Second Quantile	−0.983	−0.034	−0.147	−1.393	−0.225	−0.178
	[−1.549, −0.425]	[−0.366, 0.296]	[−0.403, 0.106]	[−1.995, −0.797]	[−0.531, 0.083]	[−0.427, 0.073]
Third Quantile	−0.457	0.130	−0.041	−0.835	−0.038	−0.047
	[−1.012, 0.098]	[−0.192, 0.459]	[−0.290, 0.207]	[−1.385, −0.291]	[−0.320, 0.246]	[−0.290, 0.200]
Fourth Quantile	−1.067	0.002	0.030	−1.046	−0.162	−0.076
	[−1.682, −0.463]	[−0.343, 0.347]	[−0.235, 0.293]	[−1.613, −0.471]	[−0.472, 0.149]	[−0.335, 0.181]
Fifth Quantile	−0.980	0.112	0.161	−1.102	−0.051	0.131
	[−1.707, −0.250]	[−0.283, 0.508]	[−0.137, 0.462]	[−1.813, −0.401]	[−0.384, 0.285]	[−0.160, 0.420]
Income Decline	−0.367	0.674	−0.073	0.202	0.271	−0.212
	[−1.690, 0.898]	[−0.165, 1.513]	[−0.728, 0.620]	[−0.784, 1.147]	[−0.407, 0.957]	[−0.855, 0.438]
Income Source						
Public sector contract work	1.528	0.037	0.627	−0.316	−0.092	0.821
	[−0.995, 4.523]	[−1.257, 1.362]	[−0.359, 1.568]	[−2.072, 1.558]	[−1.128, 0.912]	[−0.137, 1.763]
Private sector contract work	1.473	0.019	0.592	−0.359	0.108	0.967
	[−0.772, 4.341]	[−1.139, 1.242]	[−0.327, 1.443]	[−1.912, 1.353]	[−0.838, 1.031]	[0.061, 1.857]
Pension or Retirement	2.703	−0.252	0.585	0.957	0.054	1.142
	[0.295, 5.665]	[−1.589, 1.126]	[−0.419, 1.541]	[−0.730, 2.811]	[−0.996, 1.096]	[0.169, 2.107]

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
Self-employed (non-agricultural)	0.068	−0.304	0.420	−1.302	0.162	1.118
	[−3.497, 3.537]	[−1.665, 1.075]	[−0.607, 1.406]	[−4.271, 1.192]	[−0.938, 1.273]	[0.092, 2.135]
Other sources	1.943	0.061	0.591	−0.359	−0.266	0.415
	[−0.345, 4.822]	[−1.173, 1.326]	[−0.377, 1.518]	[−1.933, 1.385]	[−1.254, 0.718]	[−0.540, 1.346]
Education						
Bachelor's degree or Engineer	0.699	0.249	1.727	4.381	−0.057	4.965
	[−2.670, 4.242]	[−2.787, 3.735]	[−1.180, 5.086]	[−0.735, 13.390]	[−2.322, 2.311]	[−0.337, 15.052]
Master's degree or higher	0.877	0.068	1.466	3.945	0.178	5.218
	[−2.499, 4.385]	[−2.955, 3.532]	[−1.426, 4.782]	[−1.222, 12.932]	[−2.079, 2.541]	[−0.102, 15.251]
Primary Education	2.009	0.106	2.187	6.452	1.128	6.348
	[−1.451, 5.635]	[−3.116, 3.782]	[−0.800, 5.576]	[1.312, 15.445]	[−1.296, 3.676]	[0.964, 16.496]
Secondary Education	0.445	0.151	1.451	4.260	0.295	5.151
	[−2.860, 3.896]	[−2.862, 3.584]	[−1.443, 4.784]	[−0.804, 13.211]	[−1.943, 2.641]	[−0.144, 15.205]
Vocational School	0.894	0.139	1.176	4.536	0.191	4.883
	[−2.426, 4.334]	[−2.833, 3.596]	[−1.686, 4.501]	[−0.546, 13.453]	[−2.069, 2.552]	[−0.415, 14.963]
Ideology						
Ideology	−0.280	−0.373	0.597	0.006	−0.265	0.580
	[−0.534, −0.027]	[−0.501, −0.244]	[0.488, 0.703]	[−0.287, 0.301]	[−0.386, −0.144]	[0.477, 0.685]
Minority						
Minority: Yes	0.344	0.038	−0.239	−0.328	−0.050	−0.254
	[−0.088, 0.782]	[−0.181, 0.255]	[−0.411, −0.067]	[−0.819, 0.157]	[−0.249, 0.149]	[−0.422, −0.084]
Minority: Decline	2.065	−0.269	−0.498	0.884	−0.816	−0.735
	[1.311, 2.808]	[−0.965, 0.407]	[−1.014, 0.016]	[0.165, 1.590]	[−1.429, −0.218]	[−1.245, −0.221]
Gender						
Female	0.648	−0.065	−0.374	0.794	0.088	−0.367
	[0.360, 0.936]	[−0.199, 0.070]	[−0.481, −0.269]	[0.496, 1.098]	[−0.040, 0.218]	[−0.468, −0.265]
None of the Above	−11.613	−0.162	−23.513	−13.216	−0.132	−23.528
	[−37.096, 2.346]	[−4.241, 3.906]	[−48.566, −3.129]	[−39.510, 1.305]	[−4.065, 3.587]	[−48.506, −2.588]
Intercept						
Intercept	−7.408	−0.474	−0.390	−5.221	0.546	−4.920
	[−12.805, −2.546]	[−4.107, 2.745]	[−3.830, 2.622]	[−14.337, 0.147]	[−1.962, 2.972]	[−14.981, 0.462]
N	2239			2254		
N.Groups	16			16		
Groups	province			province		

Contact and Treatment Interaction

Table 9: Multilevel multinomial logistic regressions with respondents grouped by province and district. These model the response as a function of the treatment variables and several predictor variables, with varying intercepts by province and by district. Here we interact the contact variable with the treatment variable to see if the effect of the treatment is conditioned by reported personal contact.

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
Treatment						
Economic	5.408	−0.003	0.157	0.855	−0.117	−0.023
	[3.011, 8.801]	[−0.550, 0.549]	[−0.218, 0.531]	[0.106, 1.627]	[−0.524, 0.293]	[−0.360, 0.323]
Security	4.482	0.566	−0.044	0.245	0.486	0.052
	[2.085, 7.877]	[0.064, 1.068]	[−0.410, 0.325]	[−0.609, 1.105]	[0.093, 0.886]	[−0.307, 0.413]

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
Security and Economic	4.710	0.077	−0.145	−0.167	0.098	0.013
	[2.347, 8.127]	[−0.445, 0.594]	[−0.500, 0.218]	[−1.056, 0.714]	[−0.296, 0.496]	[−0.337, 0.362]
Contact						
Personal Contact: Yes	−1.471	−0.560	1.123	−0.414	−0.002	0.939
	[−14.974, 6.155]	[−2.470, 1.099]	[0.195, 2.230]	[−3.692, 1.841]	[−0.988, 1.016]	[0.176, 1.787]
Personal Contact: Don't know/Decline	−5.892	−9.251	−3.117	−0.992	−39.485	−2.526
	[−24.390, 3.132]	[−25.754, −1.783]	[−5.068, −1.592]	[−3.132, 0.829]	[−69.607, −10.939]	[−4.423, −1.002]
Interactions						
Security X Personal Contact	0.120	−0.955	−1.065	−58.163	−1.347	−0.778
	[−8.558, 13.954]	[−3.261, 1.397]	[−2.381, 0.149]	[−87.122, −30.444]	[−2.805, 0.069]	[−1.869, 0.270]
Economic X Personal Contact	−17.392	1.122	−0.530	−28.454	0.366	0.058
	[−42.759, 3.250]	[−1.005, 3.424]	[−1.937, 0.884]	[−56.755, −4.297]	[−1.093, 1.835]	[−1.129, 1.282]
Security and Economic X Personal Contact	−6.221	1.685	0.354	−13.801	−0.506	−0.114
	[−22.339, 9.281]	[−0.418, 3.995]	[−1.135, 1.877]	[−36.455, −0.065]	[−1.934, 0.911]	[−1.219, 0.997]
Security X Personal Contact: Don't know/Decline	5.238	7.828	2.440	1.901	38.198	2.107
	[−4.272, 23.859]	[−0.199, 24.364]	[0.417, 4.800]	[−0.788, 4.725]	[9.650, 68.331]	[−0.034, 4.488]
Economic X Personal Contact: Don't know/Decline	6.212	11.072	3.120	1.603	41.746	2.242
	[−3.986, 25.061]	[2.855, 27.718]	[0.447, 6.457]	[−2.832, 5.779]	[12.930, 71.996]	[−0.881, 5.756]
Security and Economic X Personal Contact: Don't know/Decline	15.208	15.726	10.296	2.957	40.090	2.313
	[1.952, 37.907]	[3.238, 37.154]	[2.878, 26.031]	[0.025, 6.094]	[11.412, 70.286]	[−0.137, 5.021]
Age						
25-34	−1.819	−0.037	−0.052	−1.340	−0.334	−0.016
	[−2.388, −1.243]	[−0.371, 0.299]	[−0.326, 0.221]	[−1.910, −0.776]	[−0.628, −0.036]	[−0.287, 0.260]
35-44	−2.066	−0.299	0.105	−1.124	−0.681	0.110
	[−2.662, −1.476]	[−0.641, 0.039]	[−0.167, 0.380]	[−1.734, −0.509]	[−0.985, −0.385]	[−0.164, 0.387]
45-54	−2.047	−0.344	0.117	−0.926	−0.726	0.211
	[−2.690, −1.411]	[−0.707, 0.021]	[−0.171, 0.409]	[−1.610, −0.250]	[−1.046, −0.411]	[−0.073, 0.494]
55-64	−2.023	−0.501	0.455	−1.441	−1.123	0.426
	[−2.746, −1.294]	[−0.919, −0.091]	[0.139, 0.770]	[−2.138, −0.749]	[−1.500, −0.747]	[0.120, 0.736]
65+	−2.626	0.162	0.669	−2.175	−0.657	0.562
	[−3.813, −1.400]	[−0.592, 0.923]	[0.148, 1.190]	[−3.261, −1.091]	[−1.274, −0.042]	[0.062, 1.062]
Income						
Second Quantile	−0.983	−0.034	−0.147	−1.393	−0.225	−0.178
	[−1.549, −0.425]	[−0.366, 0.296]	[−0.403, 0.106]	[−1.995, −0.797]	[−0.531, 0.083]	[−0.427, 0.073]
Third Quantile	−0.457	0.130	−0.041	−0.835	−0.038	−0.047
	[−1.012, 0.098]	[−0.192, 0.459]	[−0.290, 0.207]	[−1.385, −0.291]	[−0.320, 0.246]	[−0.290, 0.200]
Fourth Quantile	−1.067	0.002	0.030	−1.046	−0.162	−0.076
	[−1.682, −0.463]	[−0.343, 0.347]	[−0.235, 0.293]	[−1.613, −0.471]	[−0.472, 0.149]	[−0.335, 0.181]
Fifth Quantile	−0.980	0.112	0.161	−1.102	−0.051	0.131

	Distance: 100k			Distance: 5k		
	DKDA	Oppose	Support	DKDA	Oppose	Support
	[−1.707, −0.250]	[−0.283, 0.508]	[−0.137, 0.462]	[−1.813, −0.401]	[−0.384, 0.285]	[−0.160, 0.420]
Income Decline	−0.367	0.674	−0.073	0.202	0.271	−0.212
	[−1.690, 0.898]	[−0.165, 1.513]	[−0.728, 0.620]	[−0.784, 1.147]	[−0.407, 0.957]	[−0.855, 0.438]
Income Source						
Public sector contract work	1.528	0.037	0.627	−0.316	−0.092	0.821
	[−0.995, 4.523]	[−1.257, 1.362]	[−0.359, 1.568]	[−2.072, 1.558]	[−1.128, 0.912]	[−0.137, 1.763]
Private sector contract work	1.473	0.019	0.592	−0.359	0.108	0.967
	[−0.772, 4.341]	[−1.139, 1.242]	[−0.327, 1.443]	[−1.912, 1.353]	[−0.838, 1.031]	[0.061, 1.857]
Pension or Retirement	2.703	−0.252	0.585	0.957	0.054	1.142
	[0.295, 5.665]	[−1.589, 1.126]	[−0.419, 1.541]	[−0.730, 2.811]	[−0.996, 1.096]	[0.169, 2.107]
Self-employed (non-agricultural)	0.068	−0.304	0.420	−1.302	0.162	1.118
	[−3.497, 3.537]	[−1.665, 1.075]	[−0.607, 1.406]	[−4.271, 1.192]	[−0.938, 1.273]	[0.092, 2.135]
Other sources	1.943	0.061	0.591	−0.359	−0.266	0.415
	[−0.345, 4.822]	[−1.173, 1.326]	[−0.377, 1.518]	[−1.933, 1.385]	[−1.254, 0.718]	[−0.540, 1.346]
Education						
Bachelor's degree or Engineer	0.699	0.249	1.727	4.381	−0.057	4.965
	[−2.670, 4.242]	[−2.787, 3.735]	[−1.180, 5.086]	[−0.735, 13.390]	[−2.322, 2.311]	[−0.337, 15.052]
Master's degree or higher	0.877	0.068	1.466	3.945	0.178	5.218
	[−2.499, 4.385]	[−2.955, 3.532]	[−1.426, 4.782]	[−1.222, 12.932]	[−2.079, 2.541]	[−0.102, 15.251]
Primary Education	2.009	0.106	2.187	6.452	1.128	6.348
	[−1.451, 5.635]	[−3.116, 3.782]	[−0.800, 5.576]	[1.312, 15.445]	[−1.296, 3.676]	[0.964, 16.496]
Secondary Education	0.445	0.151	1.451	4.260	0.295	5.151
	[−2.860, 3.896]	[−2.862, 3.584]	[−1.443, 4.784]	[−0.804, 13.211]	[−1.943, 2.641]	[−0.144, 15.205]
Vocational School	0.894	0.139	1.176	4.536	0.191	4.883
	[−2.426, 4.334]	[−2.833, 3.596]	[−1.686, 4.501]	[−0.546, 13.453]	[−2.069, 2.552]	[−0.415, 14.963]
Ideology						
Ideology	−0.280	−0.373	0.597	0.006	−0.265	0.580
	[−0.534, −0.027]	[−0.501, −0.244]	[0.488, 0.703]	[−0.287, 0.301]	[−0.386, −0.144]	[0.477, 0.685]
Minority						
Minority: Yes	0.344	0.038	−0.239	−0.328	−0.050	−0.254
	[−0.088, 0.782]	[−0.181, 0.255]	[−0.411, −0.067]	[−0.819, 0.157]	[−0.249, 0.149]	[−0.422, −0.084]
Minority: Decline	2.065	−0.269	−0.498	0.884	−0.816	−0.735
	[1.311, 2.808]	[−0.965, 0.407]	[−1.014, 0.016]	[0.165, 1.590]	[−1.429, −0.218]	[−1.245, −0.221]
Gender						
Female	0.648	−0.065	−0.374	0.794	0.088	−0.367
	[0.360, 0.936]	[−0.199, 0.070]	[−0.481, −0.269]	[0.496, 1.098]	[−0.040, 0.218]	[−0.468, −0.265]
None of the Above	−11.613	−0.162	−23.513	−13.216	−0.132	−23.528
	[−37.096, 2.346]	[−4.241, 3.906]	[−48.566, −3.129]	[−39.510, 1.305]	[−4.065, 3.587]	[−48.506, −2.588]
Intercept						
Intercept	−7.408	−0.474	−0.390	−5.221	0.546	−4.920
	[−12.805, −2.546]	[−4.107, 2.745]	[−3.830, 2.622]	[−14.337, 0.147]	[−1.962, 2.972]	[−14.981, 0.462]
N	2239			2254		
N.Groups	16			16		
Groups	province			province		

Table 10: Multilevel ordered logistic regressions with respondents grouped by province These model the response as a function of the treatment variables and several predictor variables, with varying intercepts by province.

	100 km	5 km
Treatment		
Economic	−0.013	−0.057
	[−0.195, 0.168]	[−0.233, 0.122]
Security	−0.087	−0.218
	[−0.266, 0.093]	[−0.395, −0.042]
Security and Economic	−0.014	0.018
	[−0.195, 0.169]	[−0.156, 0.195]
Age		
25-34	−0.085	0.118
	[−0.337, 0.165]	[−0.124, 0.363]
35-44	0.297	0.639
	[0.043, 0.547]	[0.395, 0.884]
45-54	0.232	0.689
	[−0.035, 0.498]	[0.426, 0.951]
55-64	0.724	1.121
	[0.456, 0.994]	[0.861, 1.376]
65+	0.594	0.937
	[0.233, 0.957]	[0.591, 1.285]
Income		
Second Quantile	−0.288	−0.184
	[−0.508, −0.068]	[−0.398, 0.030]
Third Quantile	−0.186	−0.097
	[−0.400, 0.024]	[−0.304, 0.112]
Fourth Quantile	0.156	−0.007
	[−0.059, 0.371]	[−0.219, 0.204]
Fifth Quantile	0.228	0.180
	[0.003, 0.455]	[−0.039, 0.399]
Income Decline	−0.446	−0.474
	[−0.802, −0.094]	[−0.816, −0.134]
Income Source		
Public sector contract work	0.533	0.398
	[−0.016, 1.070]	[−0.141, 0.922]
Private sector contract work	0.399	0.320
	[−0.111, 0.909]	[−0.182, 0.810]
Pension or Retirement	0.595	0.598
	[0.052, 1.145]	[0.062, 1.126]
Self-employed (non-agricultural)	0.376	0.418
	[−0.189, 0.950]	[−0.152, 0.972]
Other sources	0.378	0.228
	[−0.155, 0.908]	[−0.294, 0.747]
Education		
Bachelor's degree or Engineer	0.745	0.221
	[−0.594, 2.084]	[−0.987, 1.424]
Master's degree or higher	0.602	0.275
	[−0.729, 1.935]	[−0.933, 1.477]
Primary Education	1.053	0.677
	[−0.327, 2.447]	[−0.590, 1.908]

	100 km	5 km
Secondary Education	0.483	0.146
	[−0.838, 1.810]	[−1.045, 1.352]
Vocational School	0.504	0.048
	[−0.834, 1.837]	[−1.154, 1.248]
Ideology		
Ideology	0.327	0.319
	[0.194, 0.460]	[0.189, 0.448]
Minority		
Minority: Yes	−0.070	0.075
	[−0.251, 0.110]	[−0.102, 0.250]
Minority: Decline	−0.374	−0.182
	[−0.743, 0.003]	[−0.539, 0.170]
Gender		
Female	−0.720	−0.768
	[−0.857, −0.584]	[−0.901, −0.636]
None of the Above	−2.734	−1.547
	[−5.533, −0.414]	[−4.289, 0.687]
Intercept		
Num.Obs.	2172	2178
R2	0.102	0.136
R2 Marg.	0.101	0.135
ELPD	−2816.7	−3228.4
ELPD s.e.	33.9	24.4
LOOIC	5633.5	6456.7
LOOIC s.e.	67.8	48.9
WAIC	5631.2	6454.4
N	2172	2178
N.Groups	16	16
Groups	province	province
sd.Province.	0.05	0.064

Ordered multilevel logit models

Results Figures

This section displays several figures derived from the models above. These figures are intended to help communicate the results of our analysis in a more substantively meaningful and accessible way. In general, given our use of multilevel multinomial logit models, we display results on a probability scale rather than discussing results in terms of odds ratios. Some of this content may be redundant to content in the primary manuscript. All of the figures shown here were generated using the `{tidybayes}` package (Kay n.d.).

Effect of Distance on Expressed Attitudes

Here we present a series of figures that contrast the posterior distribution samples from the two models predicting responses to the question regarding support for the construction of a new U.S. military facility in Poland. As we discuss in the manuscript, each survey participant is presented with one of four short vignettes and then asked about their level of support for the construction of a new U.S. military facility—first at a proposed distance of 100km and then a distance of 5km.

For each model we draw 500 sample values from the posterior distribution to generate a set of predicted probability values for the four possible outcomes responses/choices (i.e. Neutral, Oppose, Support, and Don't know/Decline). To generate these values we set all of the predictor variables to their modal or mean values. We allow the treatment variables and grouping categories to take on the values observed in the data—for example, the first set of models includes four treatment categories and varying intercepts on the province grouping term, and so we end up with 64 (4 treatment groups $\times$ 16 provinces) groups of predicted probabilities corresponding to the 16 provinces in the data. For each individual distance-treatment grouping, we allow the province to vary when generating our predicted probabilities, meaning our posterior samples are actually vectors with 8,000 rows (500 samples $\times$ 16 provinces). When we calculate the contrasts we calculate the within-group (e.g. province) differences in the predicted probability values.

Equation 1 shows how we calculate the distance effect. $\mathbb{E}[Y_{t,r,p,i,5km}]$ is the expected value of Y for treatment group t, for response r, in province p, for draw/row i for the 5 km model. Similarly, $\mathbb{E}[Y_{t,r,p,i,100km}]$ is the expected value of Y for treatment group t, for response$r$, in province p, for draw/row i for the 100 km model.

$$\text{Distance Effect} = (\mathbb{E}[Y_{t,r,p,i,5km}] - \mathbb{E}[Y_{t,r,p,i,100km}]) \quad (1)$$

Once we have these predicted values for each of the two models, we then compare the posterior samples by subtracting the 100k posterior values from the 5k posterior values. Accordingly, positive values indicate that support is higher when the proposed distance is smaller, while smaller values indicate that support is stronger where the proposed distance is greater. For example, if the median posterior value for the "Support" outcome response is 0.80 for the 5km model and 0.60 for the 100k model, the resulting contrast value would be 0.20, which would tell us that the median predicted level for the support response is 20 percentage points higher for the 5k model.

We present a series of figures depicting these contrasts below. The dotplots depict the distribution of the posterior contrasts, with blue indicating observed values fall above 0 and red indicating that the observed values fall below 0. We also plot point intervals showing the median posterior contrast value, surrounded by 50% and 89% credible intervals. The dashed line represents 0. Finally, in each panel we also show the $Pr(Direction)$ statistic—the probability that the median value falls above/below 0. This takes on a value in the range of $[0.5, 1.0]$.

A Note on Treatment Effects

In the manuscript we focus primarily on generating contrasts based around average and modal. observations, though we do allow the grouping terms to vary to incorporate regional and geographic uncertainty and variation. We do not display the average treatment effect (ATE) contrasts here. Given our use of a multilevel categorical model containing several factor/categorical predictor variables we quickly run up against computing and memory constraints. Even subsetting the posterior draws to isolate particular response categories and treatment combinations (or distance combinations) can still generate massive vectors and requires over 100GB of memory. When we increase the grouping terms to the 300+ districts and 16 provinces this becomes impossible to compute. Accordingly, we stick with presenting contrasts based on groupings that are very common in the data.

Province-Level Models

In this section we present a series of figures plotting the posterior contrasts for each of the treatment group categories. Higher/more positive values indicate a higher probability of the given response in the 5 km model and lower/more negative probability values indicate a higher probability of a given response in the 100 km model.[1]

In general we observe similar patterns across all four panels, so rather than repeat ourselves we provide a general summary of the findings. Across all four panels we see that there is a slightly higher probability of a respondent responding with "Neutral" when the proposed distance is closer as compared to farther away. The posterior sample median generally ranges from approximately 0.02 to 0.09. Similarly, the $Pr(Direction)$ statistic ranges from approximately 0.72 to 0.94, indicating fairly strong probabilities of observing a positive effect here.

Though neutrality is also important, the remaining panels for Support and Opposition to the proposed U.S. military facility are perhaps more intuitively impactful. We see that across all four treatment groupings, respondents are less likely to support a new U.S. military facility when the proposed distance is closer (i.e. 5 km) than further away (i.e. 100 km). The probability of the observed difference is high, with all four groupings seeing 98–99% of the posterior contrasts falling below 0. Furthermore, the magnitude of the median contrast is fairly large, with differences in the predicted probability values falling between approximately 0.12 and 0.15 across the treatment groups.

Similarly, we observe fairly strong evidence that respondents are more likely to **oppose** a new U.S. military facility when the proposed distance is closer. We find $Pr(Direction)$ statistics of approximately 0.98 or greater across all four groups, with median contrasts between approximately 0.10 and 0.12 in all groups.

These results are broadly consistent with a "NIMBYism" theme—people in Poland generally like U.S. military personnel and appear supportive of the security ties between the U.S. and Poland, but are less likely to support a new U.S. military facility if that facility is going to be located close by.

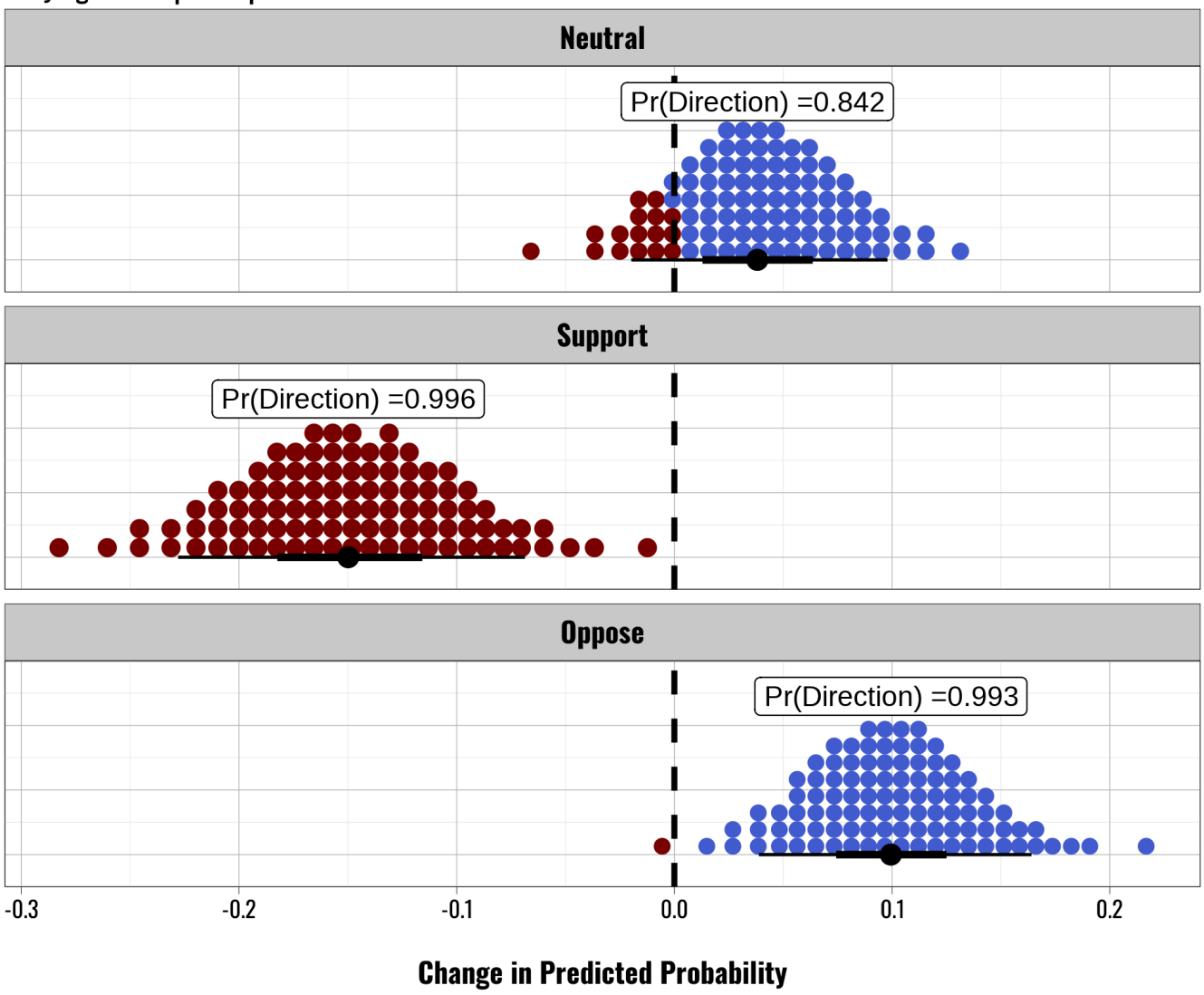


Figure 7: Contrasts between distance for control group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

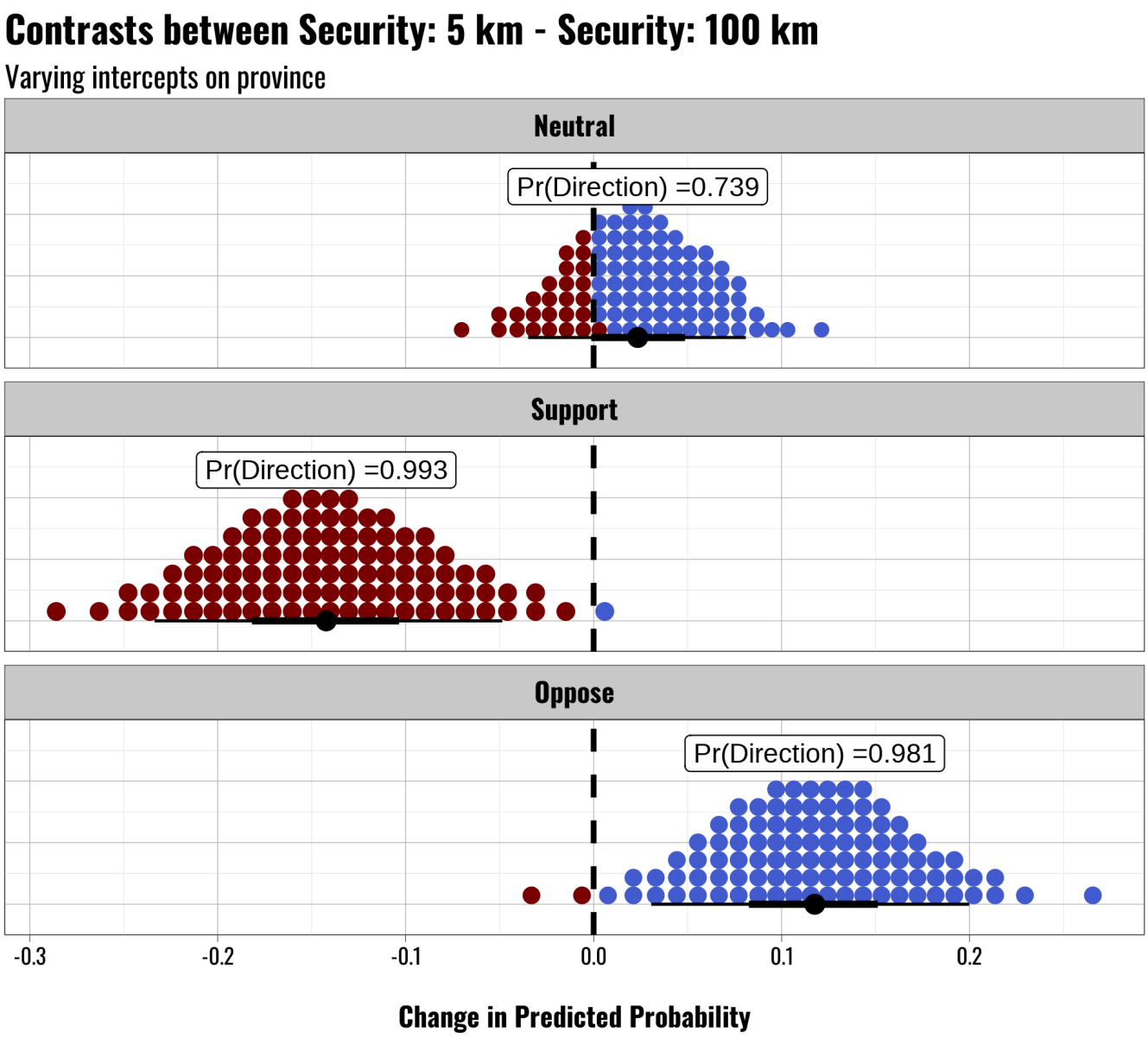


Figure 8: Contrasts between distance for security treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

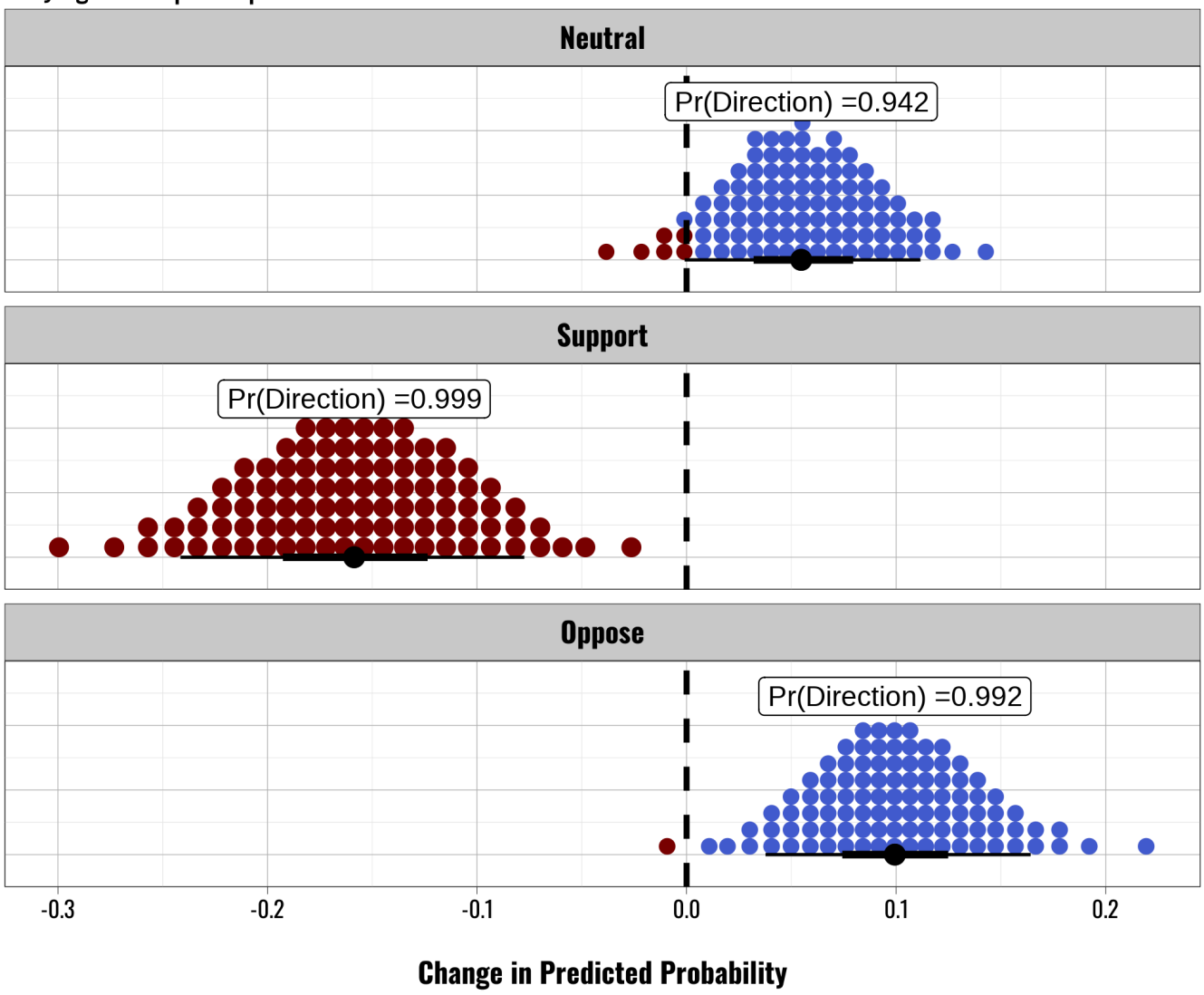


Figure 9: Contrasts between distance for economic treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

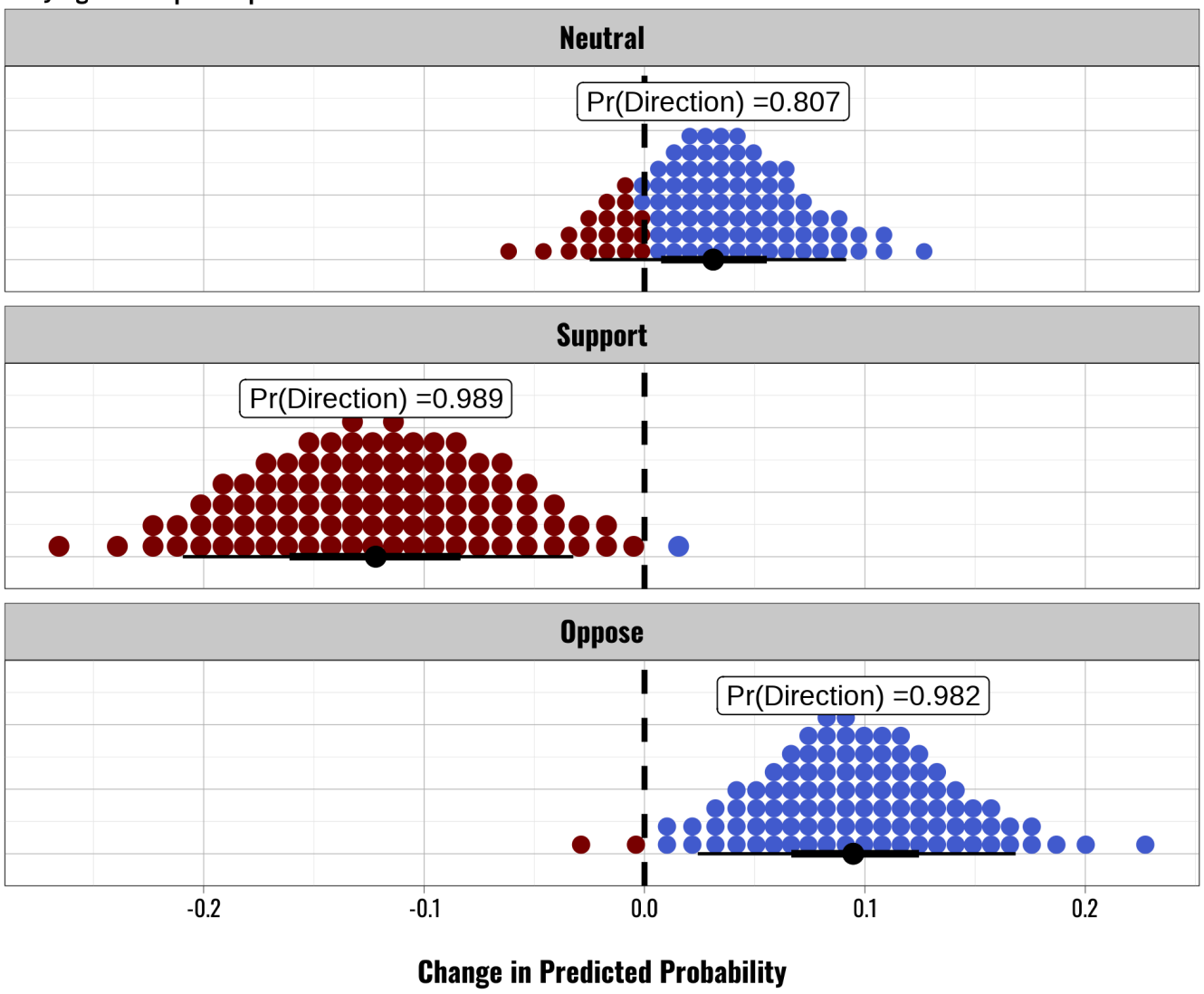


Figure 10: Contrasts between distance for combined security and economic treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

District-Level Models

The following figures show the contrasts in predicted probabilities for the 5 km and 100 km distance questions, within treatment groups. The results presented in this section are from models that treat respondents as nested within districts, which are themselves nested within provinces. Accordingly, the models generating these figures include varying intercept terms for both province and district.

As in the previous section, we again find results largely consistent with a "NIMBY" framework. Respondents are generally less supportive of a U.S. military facility when the proposed distance for the facility's location is 5km away as compared to 100 km away. This pattern holds across all four treatment groups, with $Pr(Direction)$ values around 0.98 or higher and median posterior contrasts in the 0.10 to 0.15 range in the "Support" and "Oppose" response groupings.

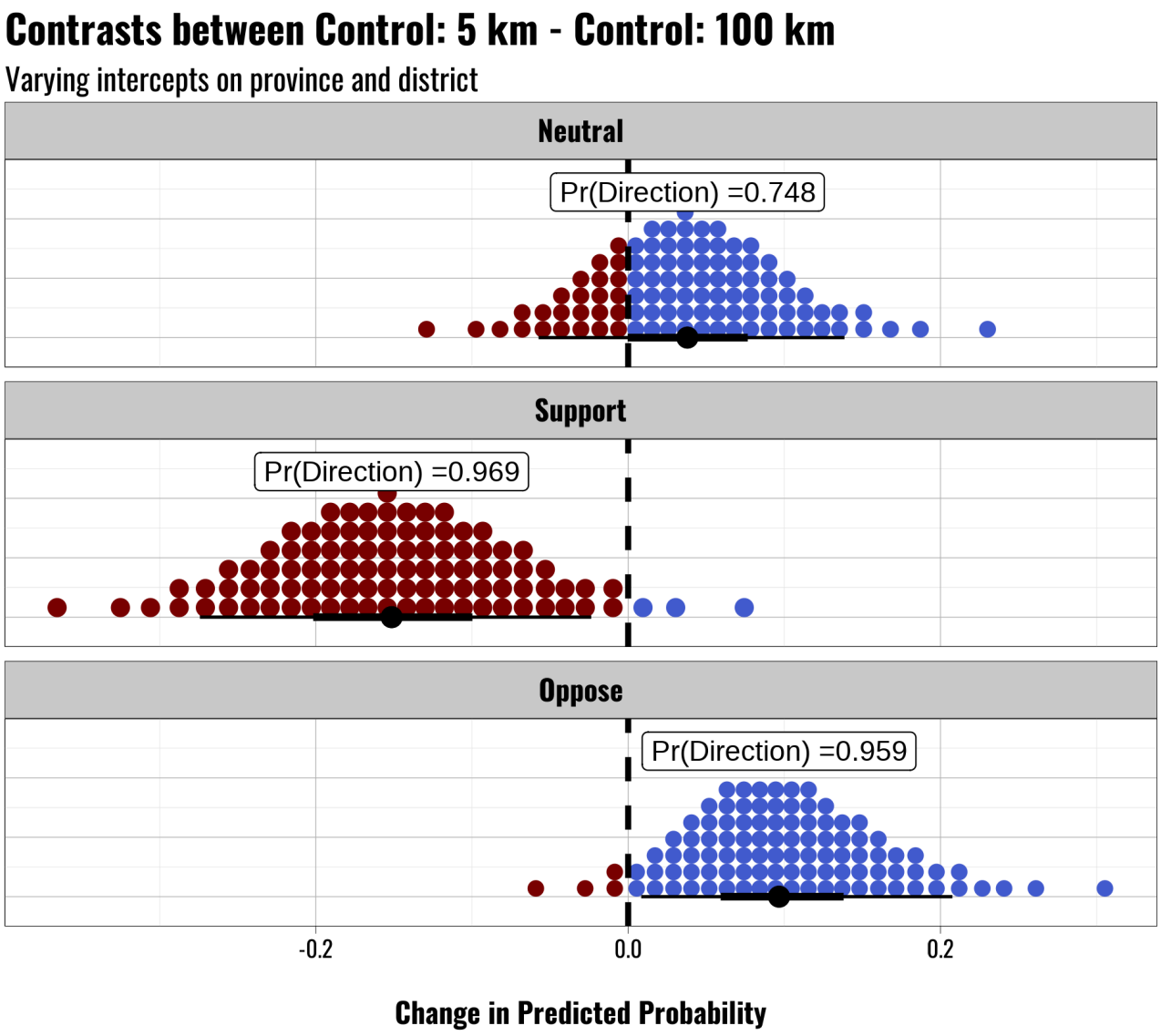


Figure 11: Contrasts between distance for control group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

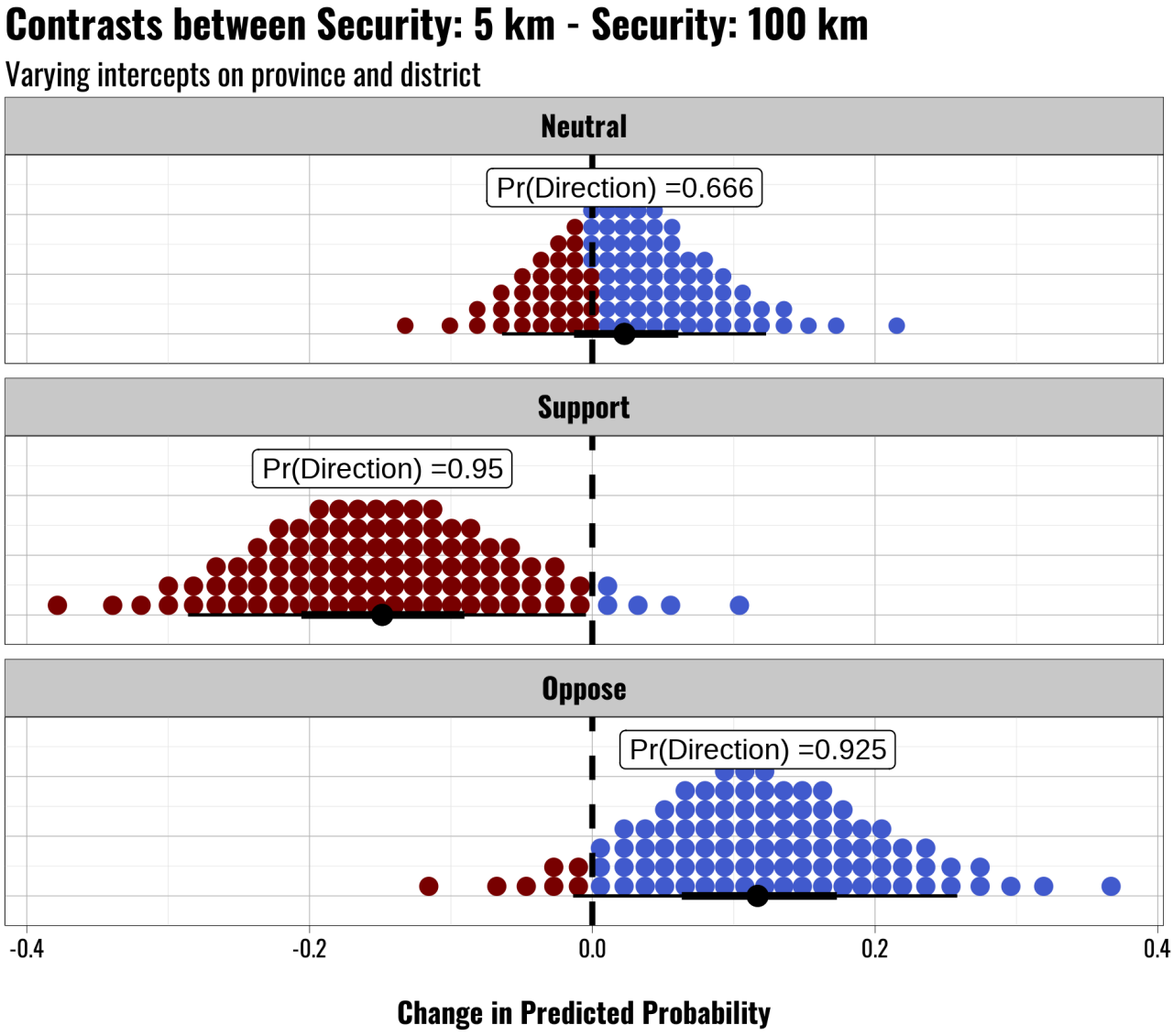


Figure 12: Contrasts between distance for security treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

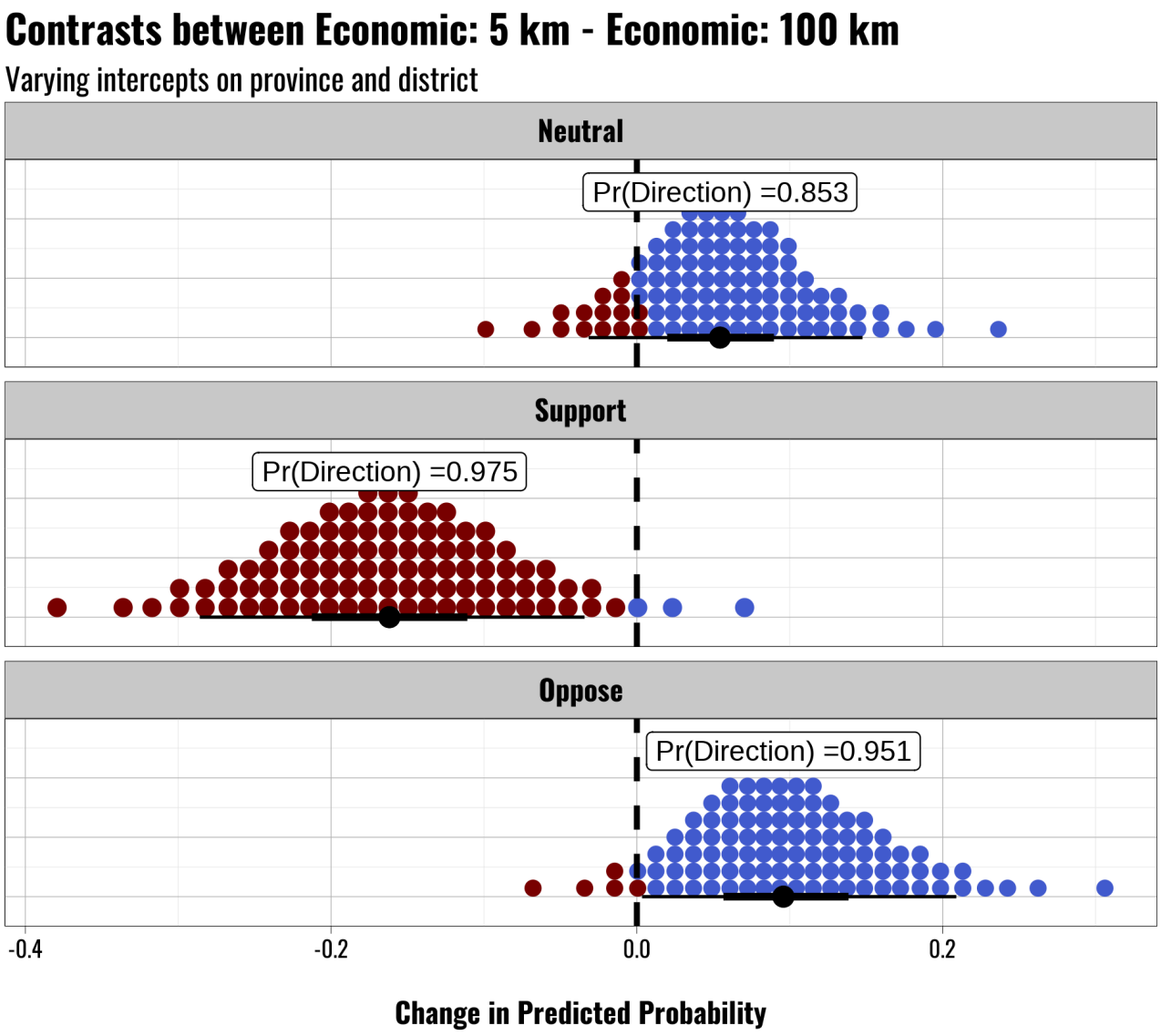


Figure 13: Contrasts between distance for economic treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

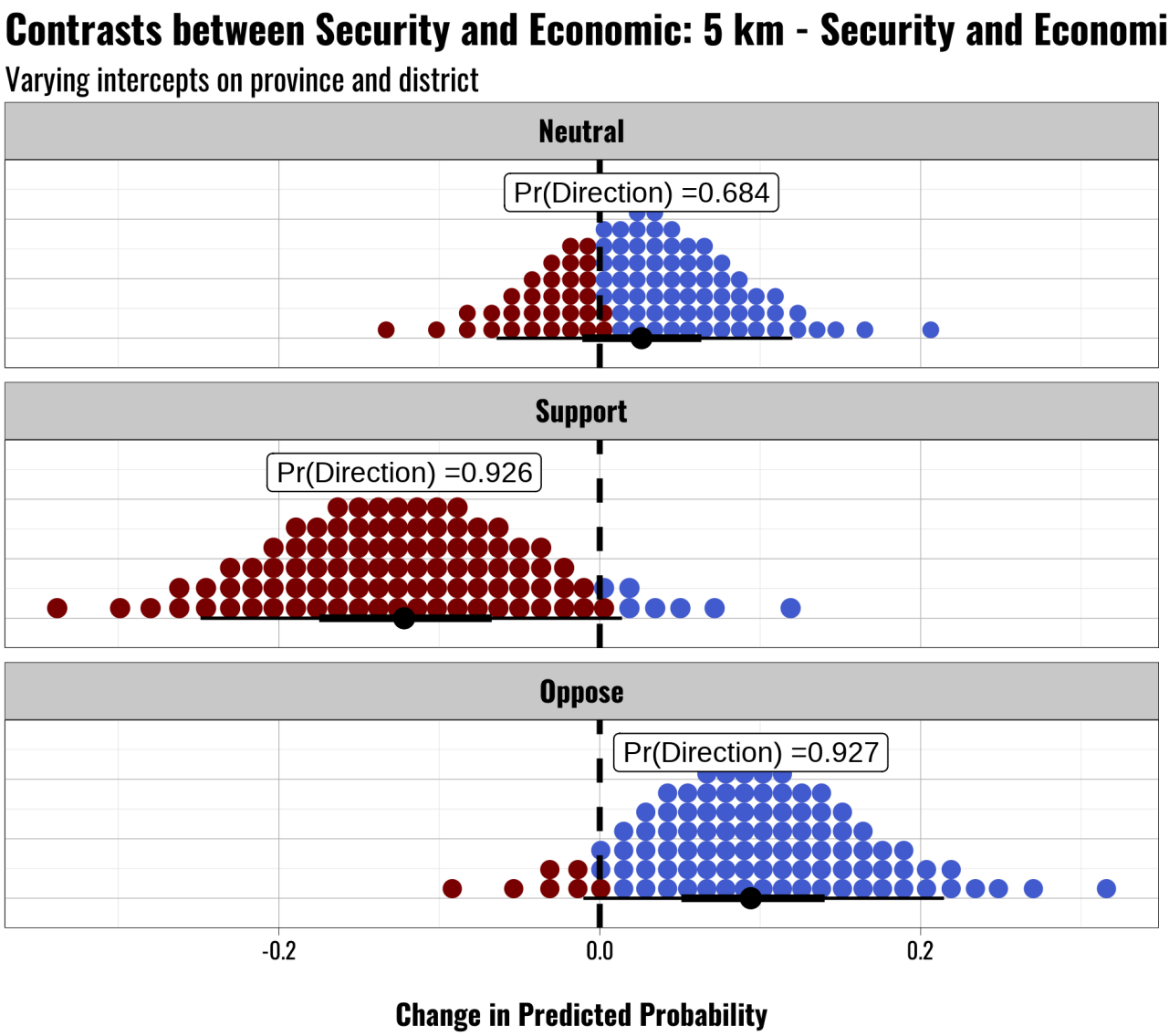


Figure 14: Contrasts between distance for combined security and economic treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

Moderating Effect of Contact

In this section we present a series of figures that build on those in the previous section. Above we explore the contrasts in posterior distributions between the 100km and 5 km models. Here we follow a similar procedure, presenting the contrasts in distance effects between those who report. having contact with U.S. military personnel and those who do not report and interpersonal contact with U.S. military personnel. Equation 2 shows how we calculate these contrasts. In general, this is similar to what we do above to generate the contrasts for distance, but here we are actually generating contrasts between two contrasts. This is essentially a differences-in-differences.

As we describe above, we first take 500 draws/samples from the posterior distribution for each comparison grouping. For example, we obtain 500 draws for one "group" when we take draws from the 100 km distance model and set contact to "Yes", response = "Support", treatment group to "Control", and province to "Śląskie". We would generate another sample by changing contact to "No" and keeping the rest of the settings the same. Because we take posterior draws for every province, we actually end up with 8,000 posterior draws (500 draws $\times$ 16 provinces).

Second, after generating the posterior samples for each grouping we then calculate the contrast values. Each grouping thus leaves us with a vector of posterior draws with 8,000 rows. We then subtract these rows from one another to obtain our contrasts.

$\mathbb{E}[Y_{t,r,p,i,5km}]$ is the expected value of Y for treatment group t, for response r, in province p, for draw/row i for the 5 km model. Similarly, $\mathbb{E}[Y_{t,r,p,i,100km}]$ is the expected value of Y for treatment group t, for response$r$, in province p, for draw/row i for the 100 km model. The superscript takes on a value of 0 for no reported contact and 1 for reported contact. The result is a comparison of how large an effect distance has on the expected outcome between the two contact categories.

$$\text{Contact Effect} = (\mathbb{E}[Y^0_{t,r,p,i,5km}] - \mathbb{E}[Y^0_{t,r,p,i,100km}]) - (\mathbb{E}[Y^1_{t,r,p,i,5km}] - \mathbb{E}[Y^1_{t,r,p,i,100km}]) \quad (2)$$

In general, we find some evidence that those who report personal contact with U.S. military personnel see a kind of "offset" effect, where contact appears to negate the effect of distance to some extent.

Province-Level Contact Models

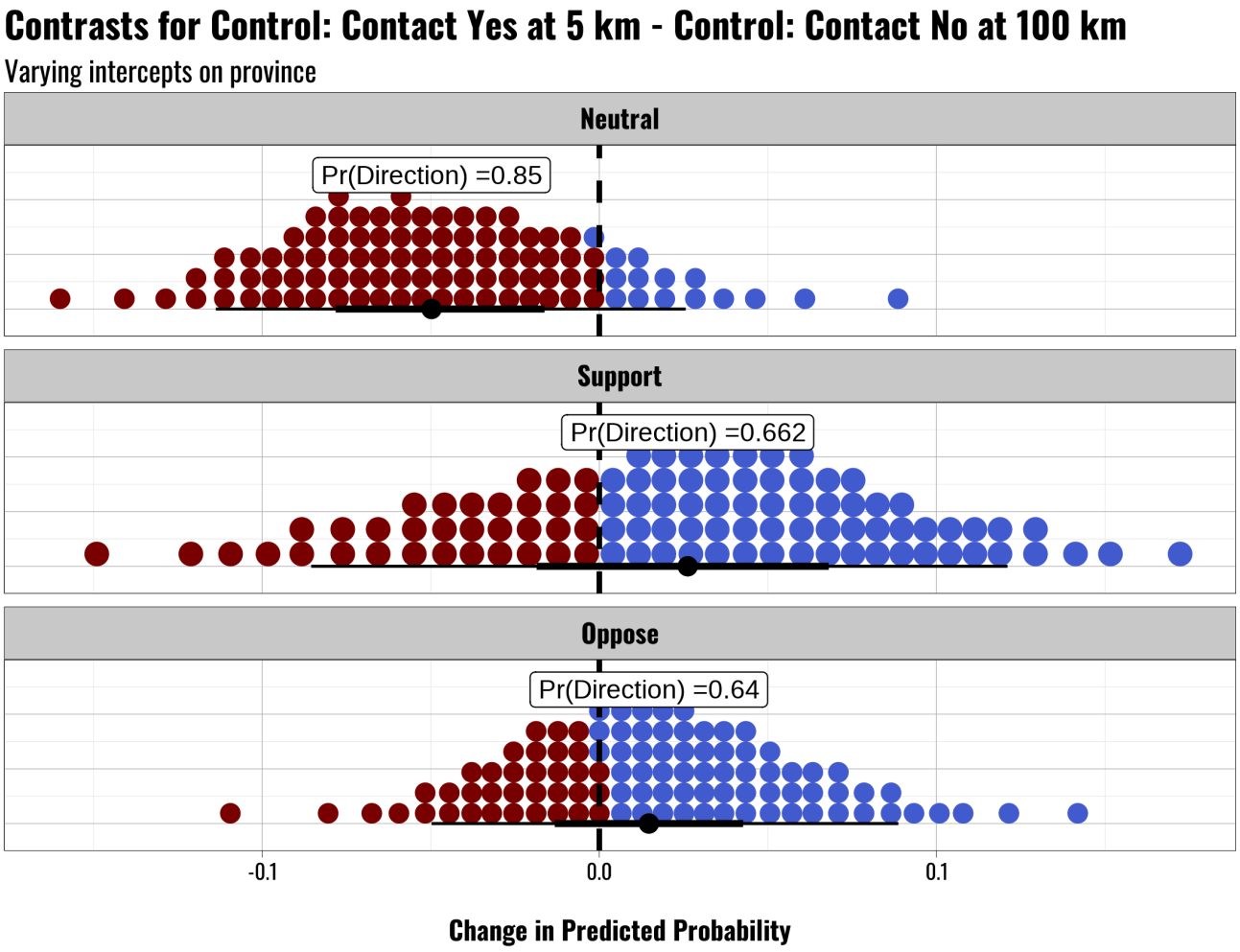


Figure 15: Contrasts between contact groups and distance for control group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

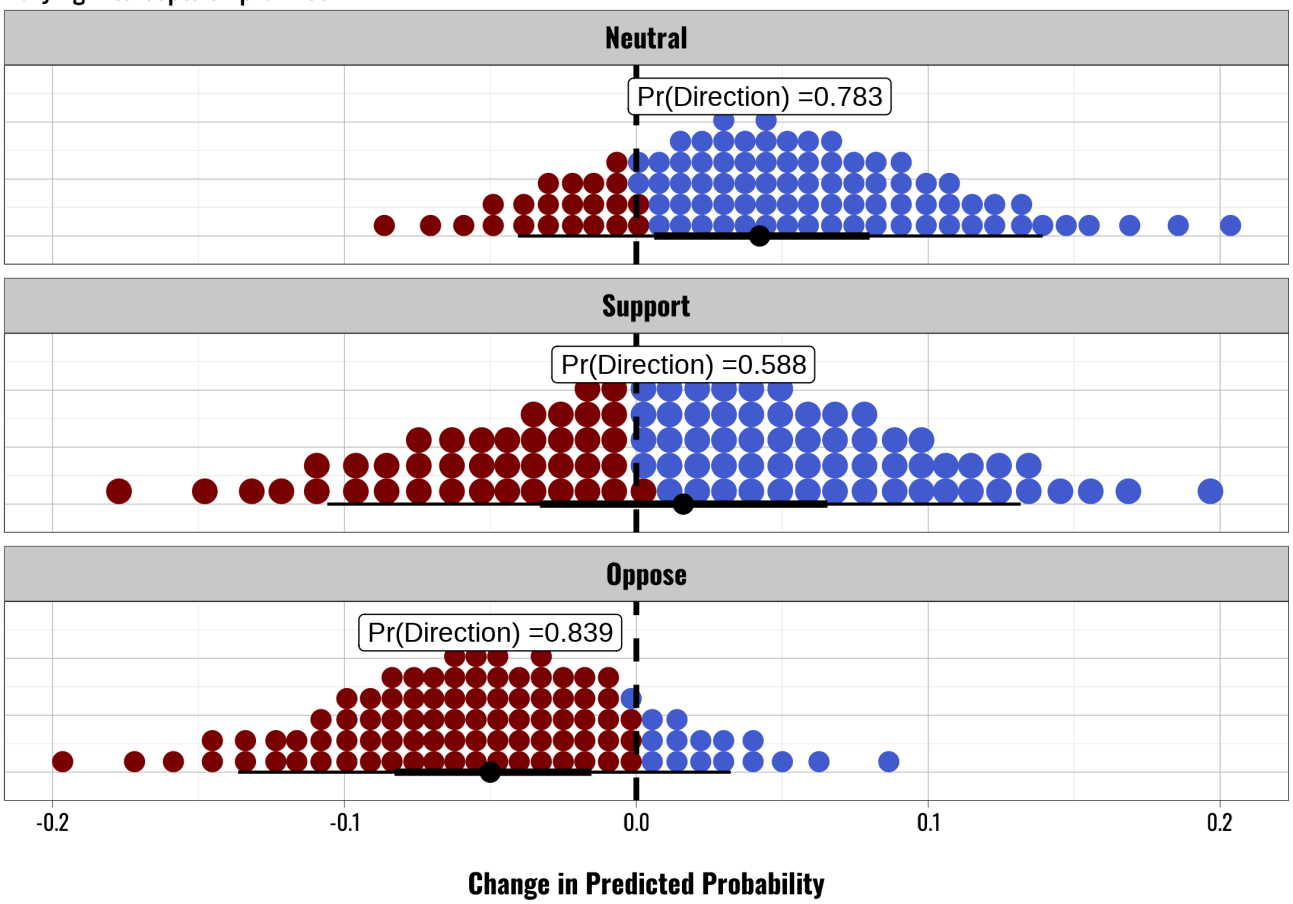


Figure 16: Contrasts between contact groups and distance for security treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

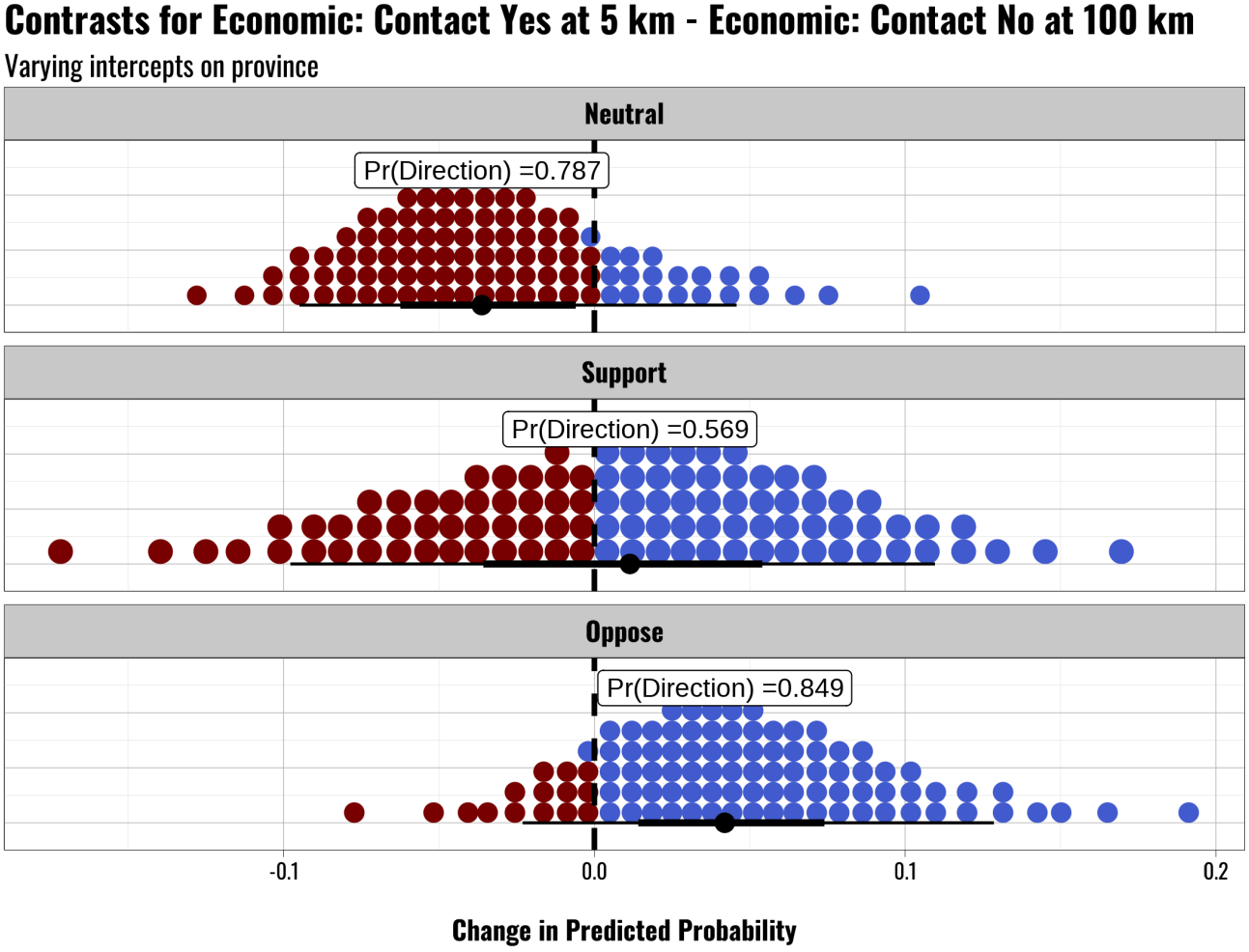


Figure 17: Contrasts between contact groups and distance for economic treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

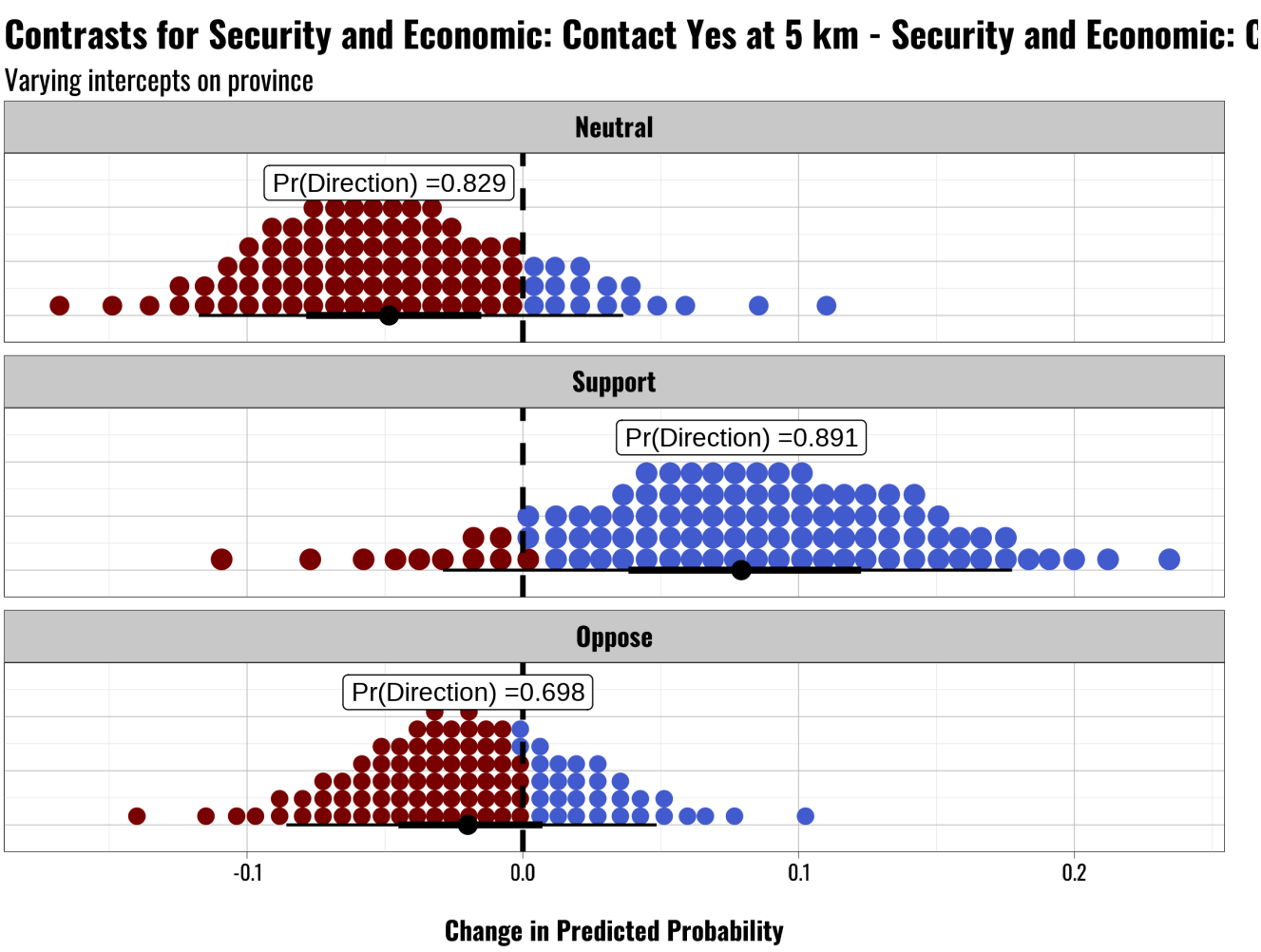


Figure 18: Contrasts between contact groups and distance for combined security and economic treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

District-Level Contact Models

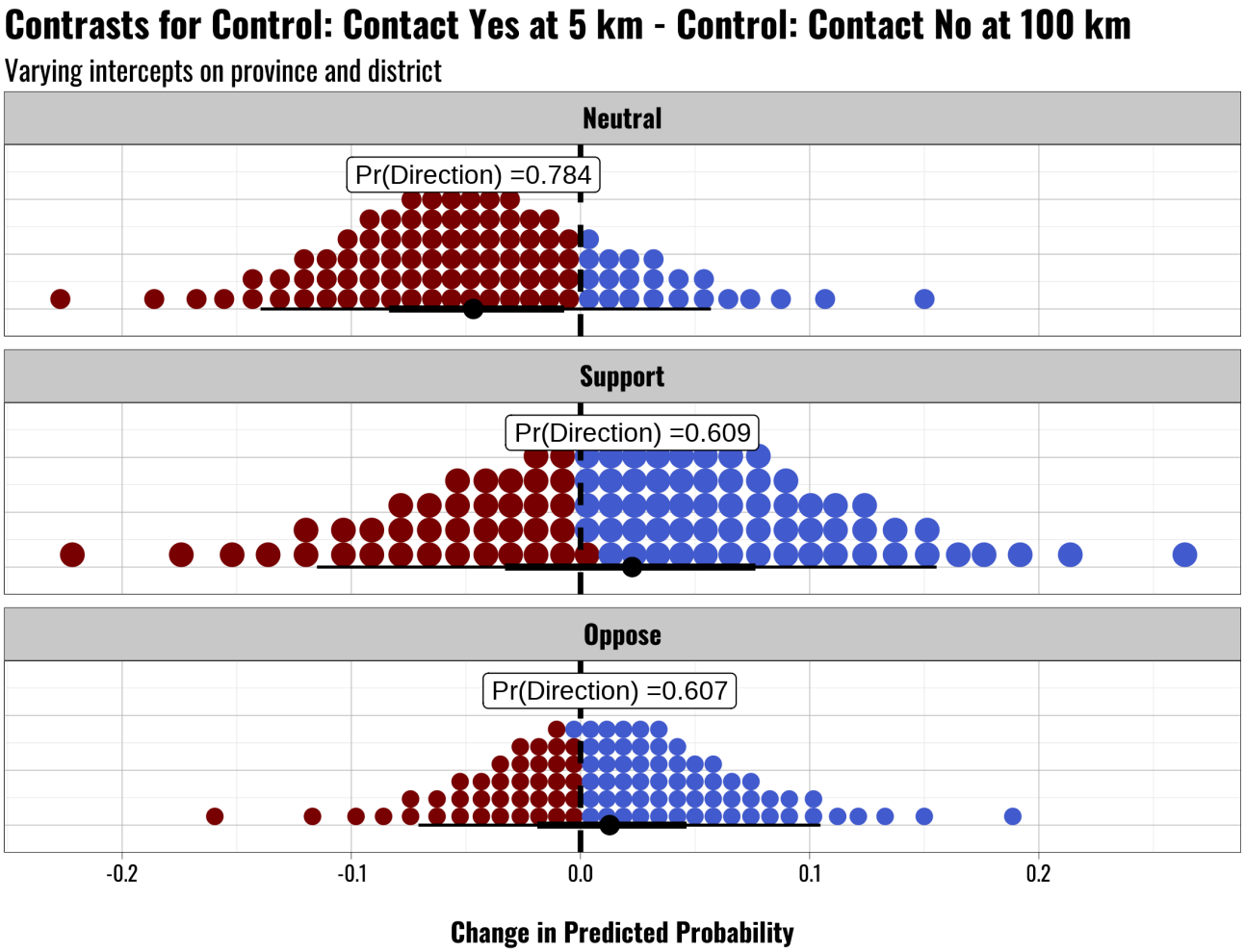


Figure 19: Contrasts between contact groups and distance for control group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

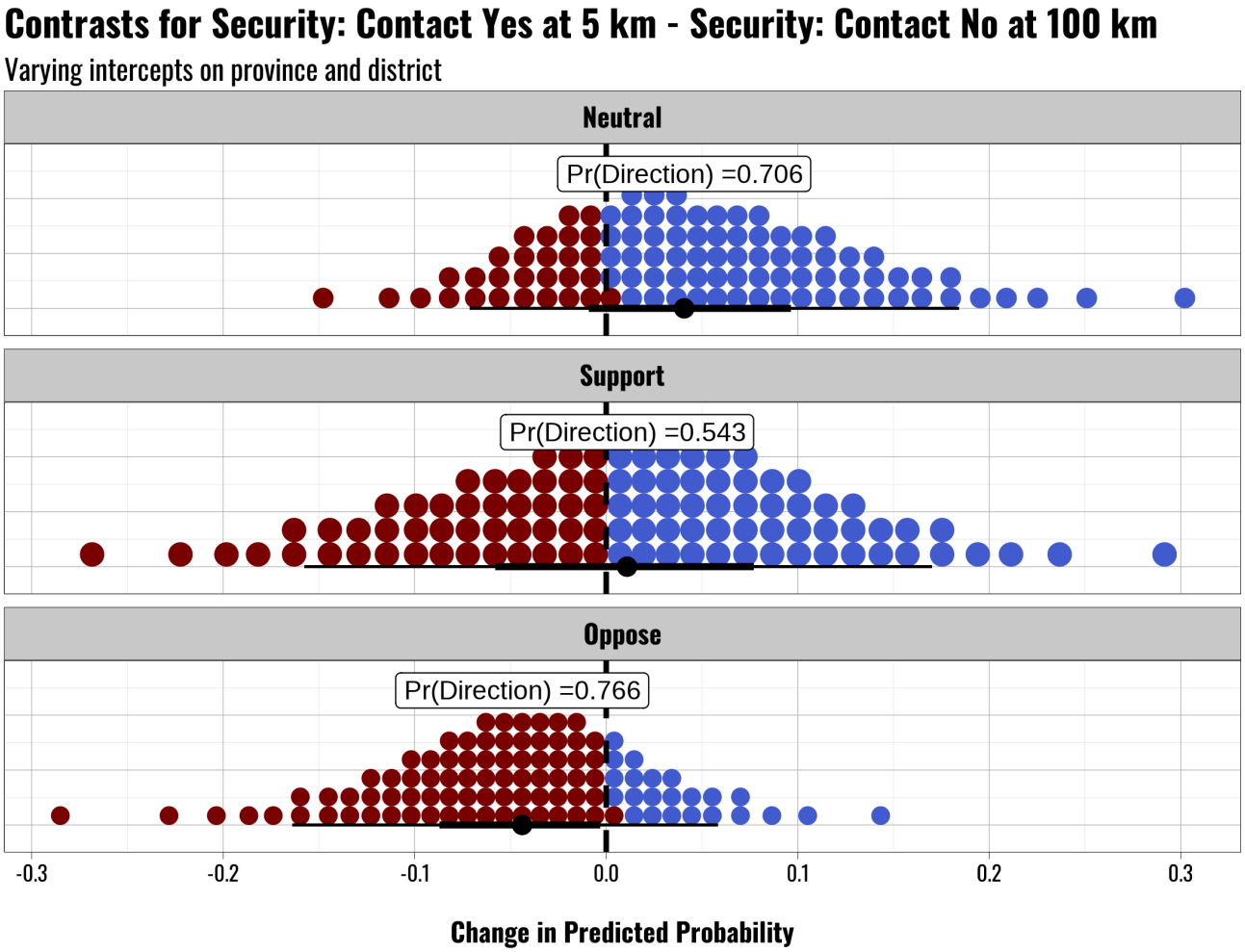


Figure 20: Contrasts between contact groups and distance for security treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

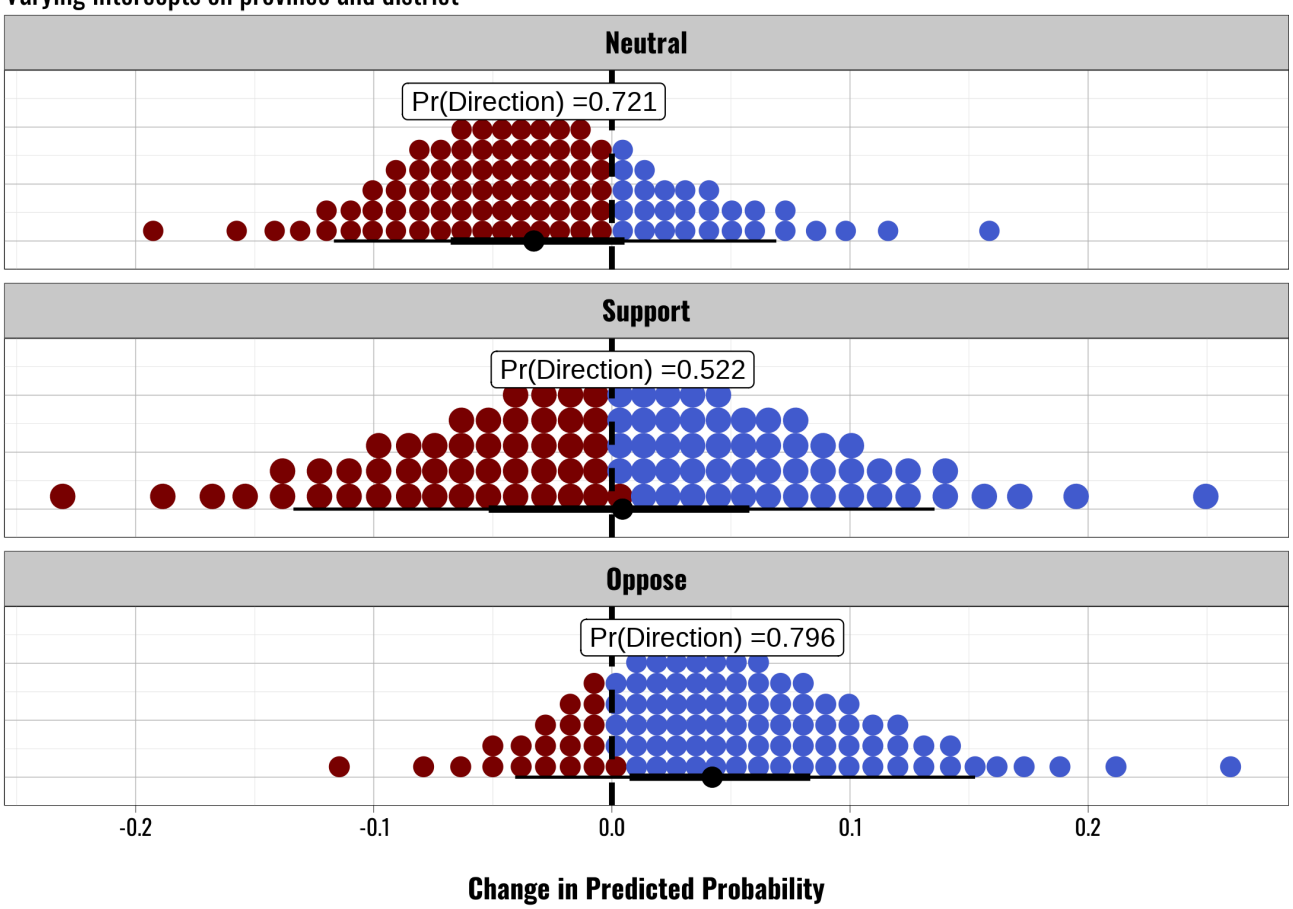


Figure 21: Contrasts between contact groups and distance for economic treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

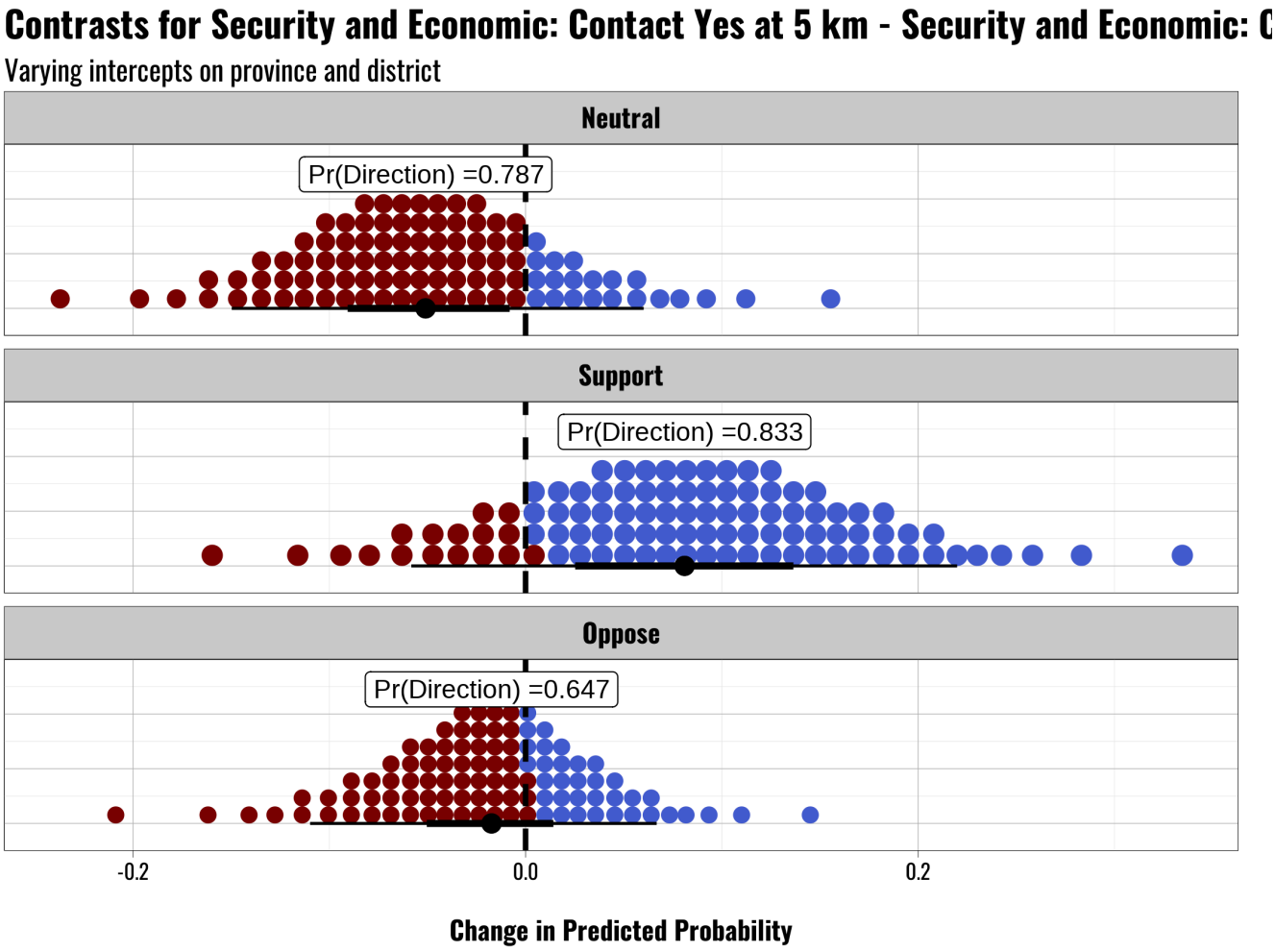


Figure 22: Contrasts between contact groups and distance for combined security and economic treatment group. 50% and 89% credible intervals shown around point estimate. Dots represent distribution quantiles from posterior sample draws. Dot coloring indicates portion of posterior samples that fall above or below 0. Pr(Direction) value indicates the probability or proportion of the posterior samples that fall above or below 0 on the same side as the median of the posterior.

Model Prior Information

The table below shows a table containing the priors used in our primary models. These prior values are based on the results of Michael A. Allen et al. (2020) and Michael A. Allen et al. (2022).

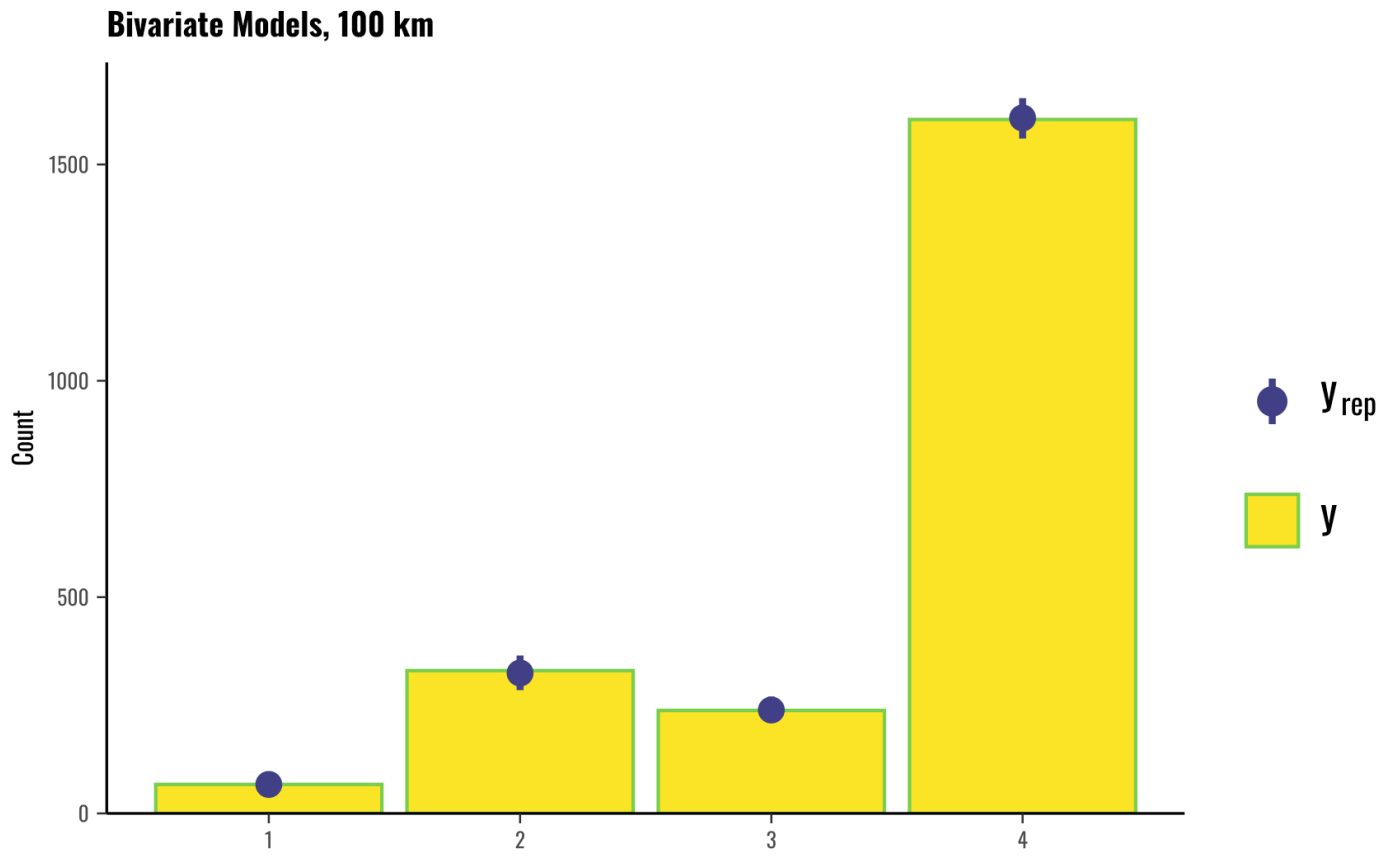
prior	class	coef	group	resp	dpar	nlpar	lb	ub	source
normal(-0.115527096293431, 0.0746898478582107)	b	age25to34years			muDKDA				
normal(-0.264364428977438, 0.0771474348140498)	b	age35to44years			muDKDA				
normal(-0.310635679875, 0.0793458132450198)	b	age45to54years			muDKDA				
normal(-0.591063110375, 0.0864210948577346)	b	age55to64years			muDKDA				
normal(-0.7819750300625, 0.102111459152194)	b	ageAge65orolder			muDKDA				
normal(-0.21036039525875, 0.066430239496218)	b	ideology_z			muDKDA				
normal(-0.177445331620506, 0.0846542891265356)	b	income43340–57187			muDKDA				
normal(-0.0688202351897994, 0.0810164555012274)	b	income57188–74062			muDKDA				

prior	class	coef	group	resp	dpar	nlpar	lb	ub	source
normal(-0.33135462308625,	b	income74063–93937			muDKDA				

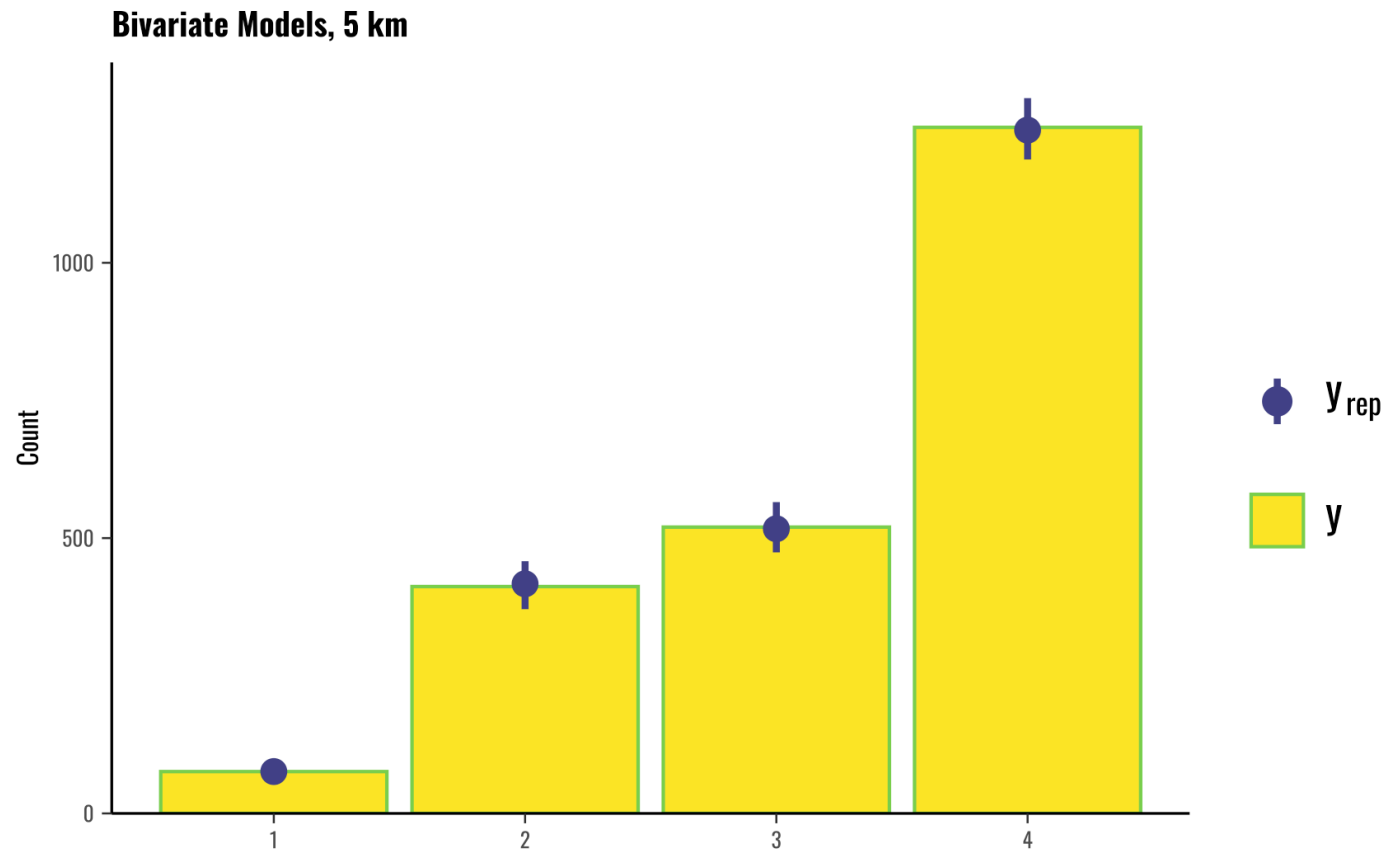
Model Diagnostics

The following section contains model diagnostic plots for all of the models included in our analysis, as well as supplementary analyses.

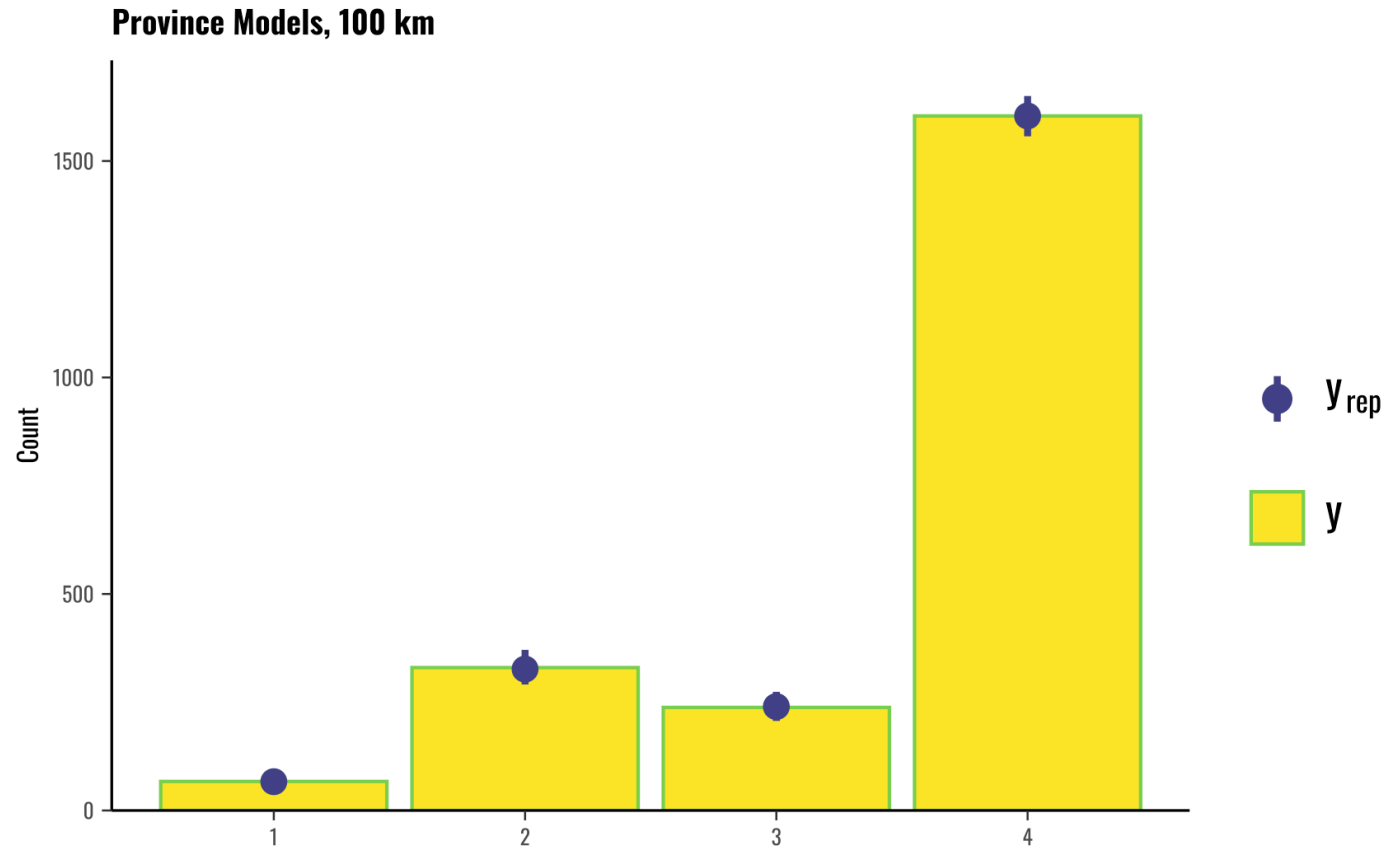
Posterior Predictive Checks



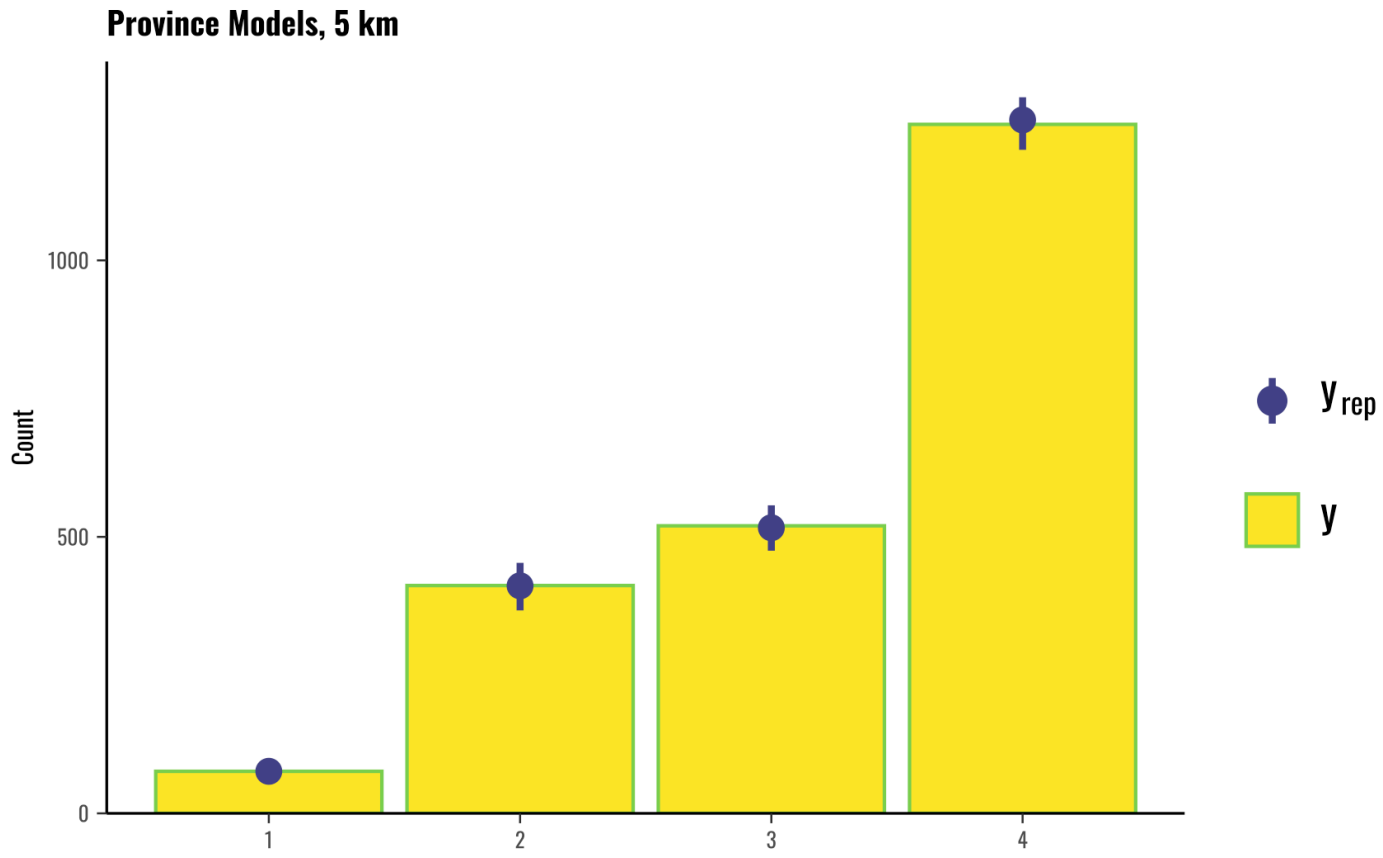
Posterior predictive check for bivariate models, outcome question: 100 km distance.



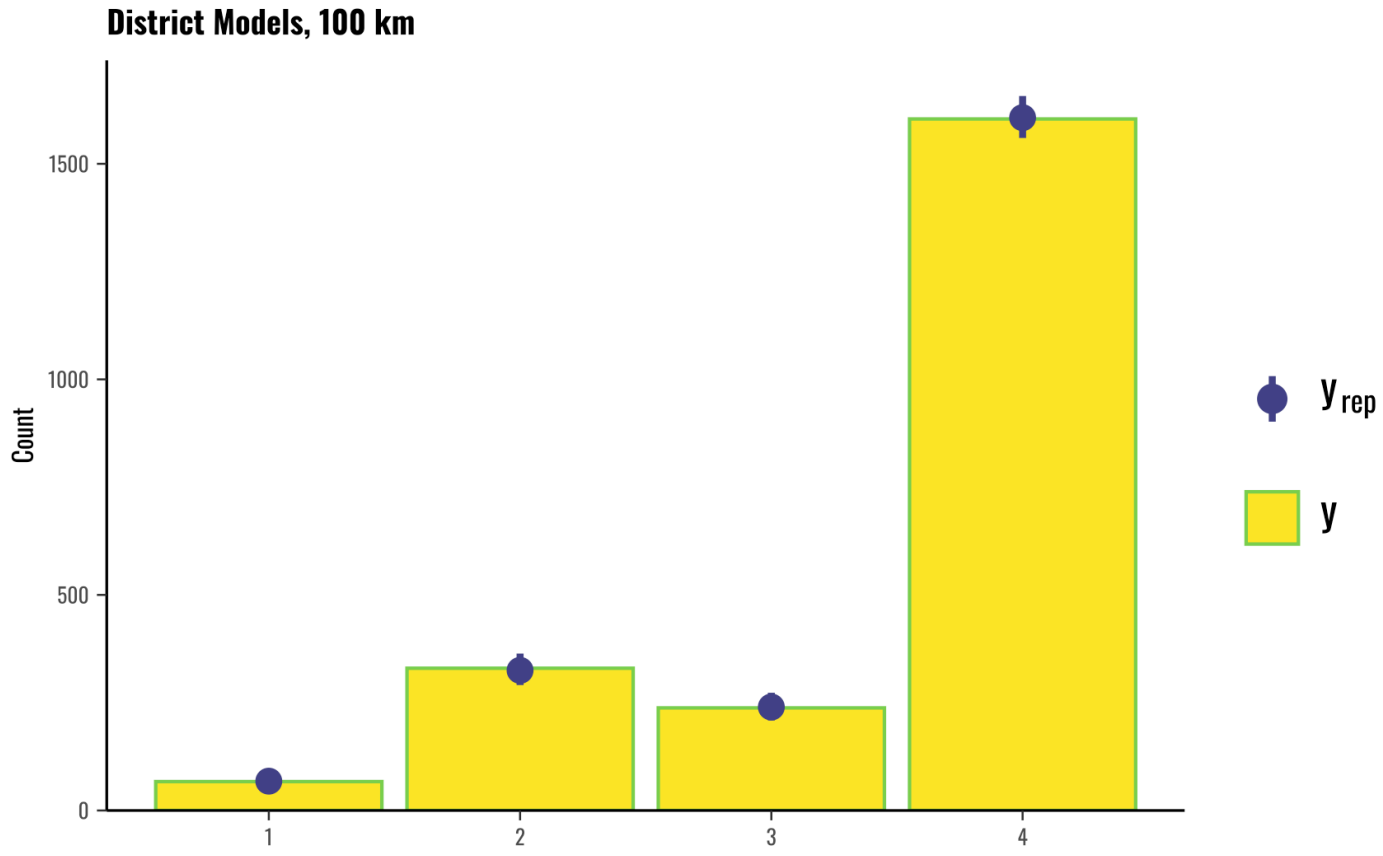
Posterior predictive check for bivariate models, outcome question: 5 km distance.



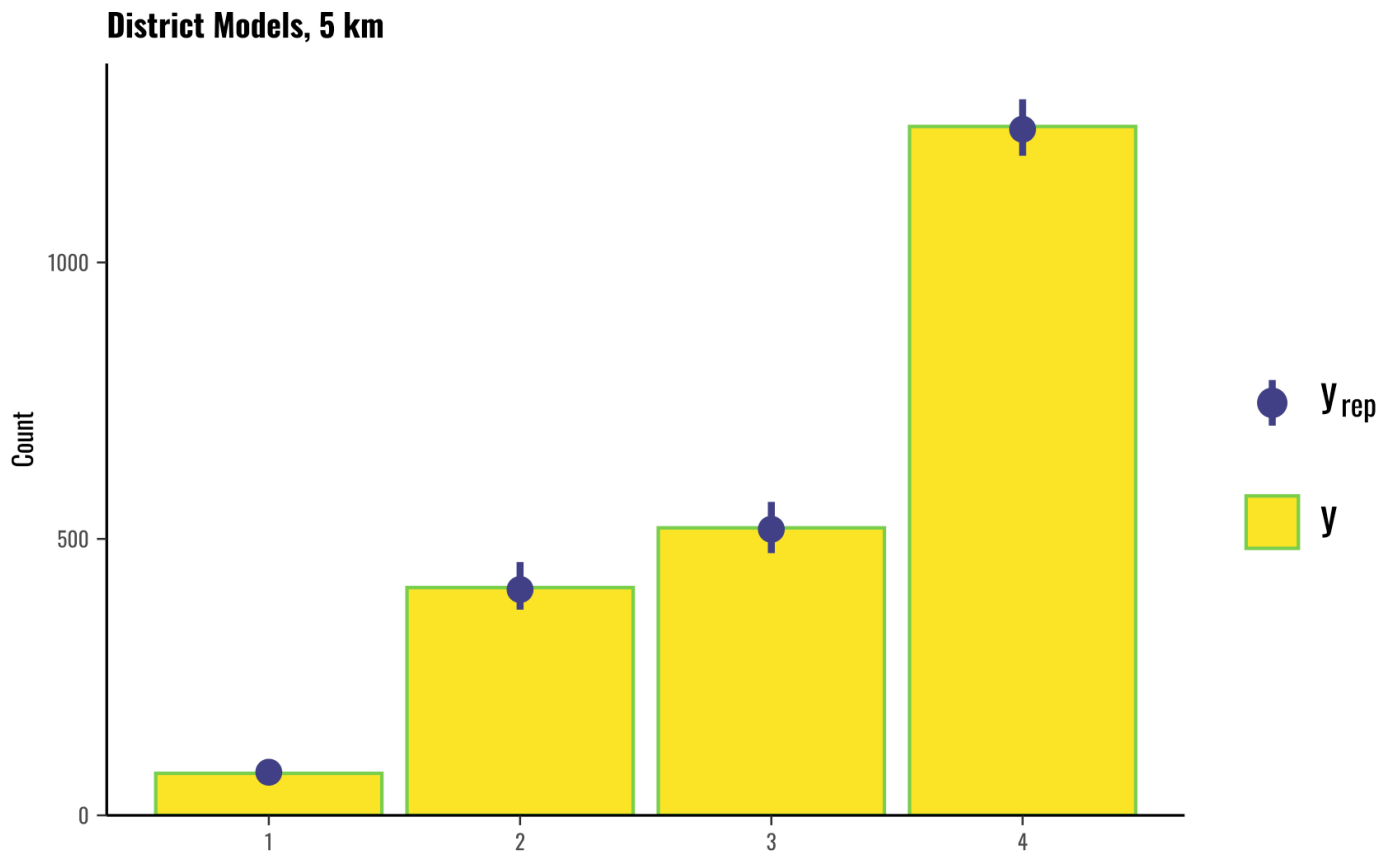
Posterior predictive check for province models, outcome question: 100 km distance.



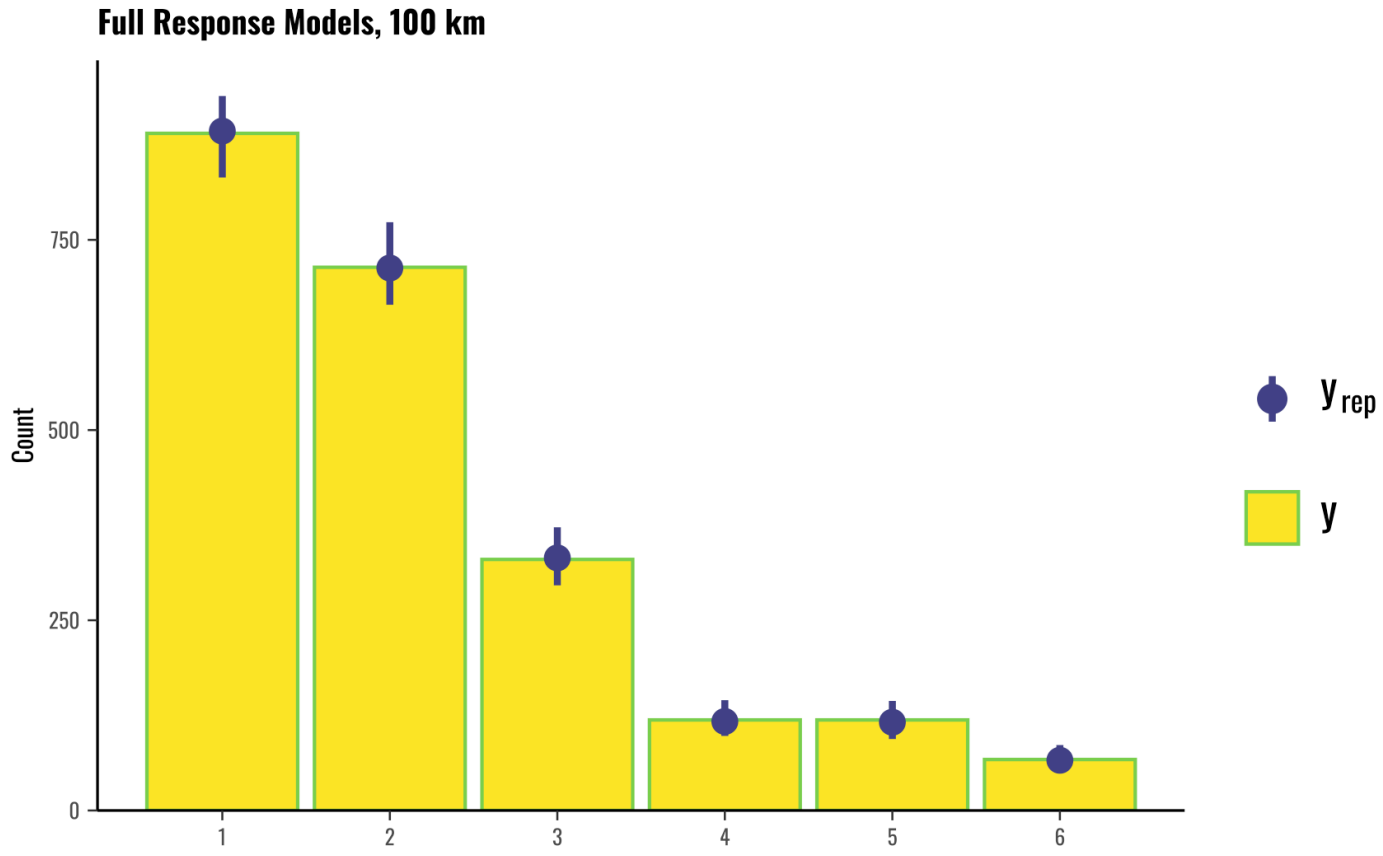
Posterior predictive check for province models, outcome question: 5 km distance.



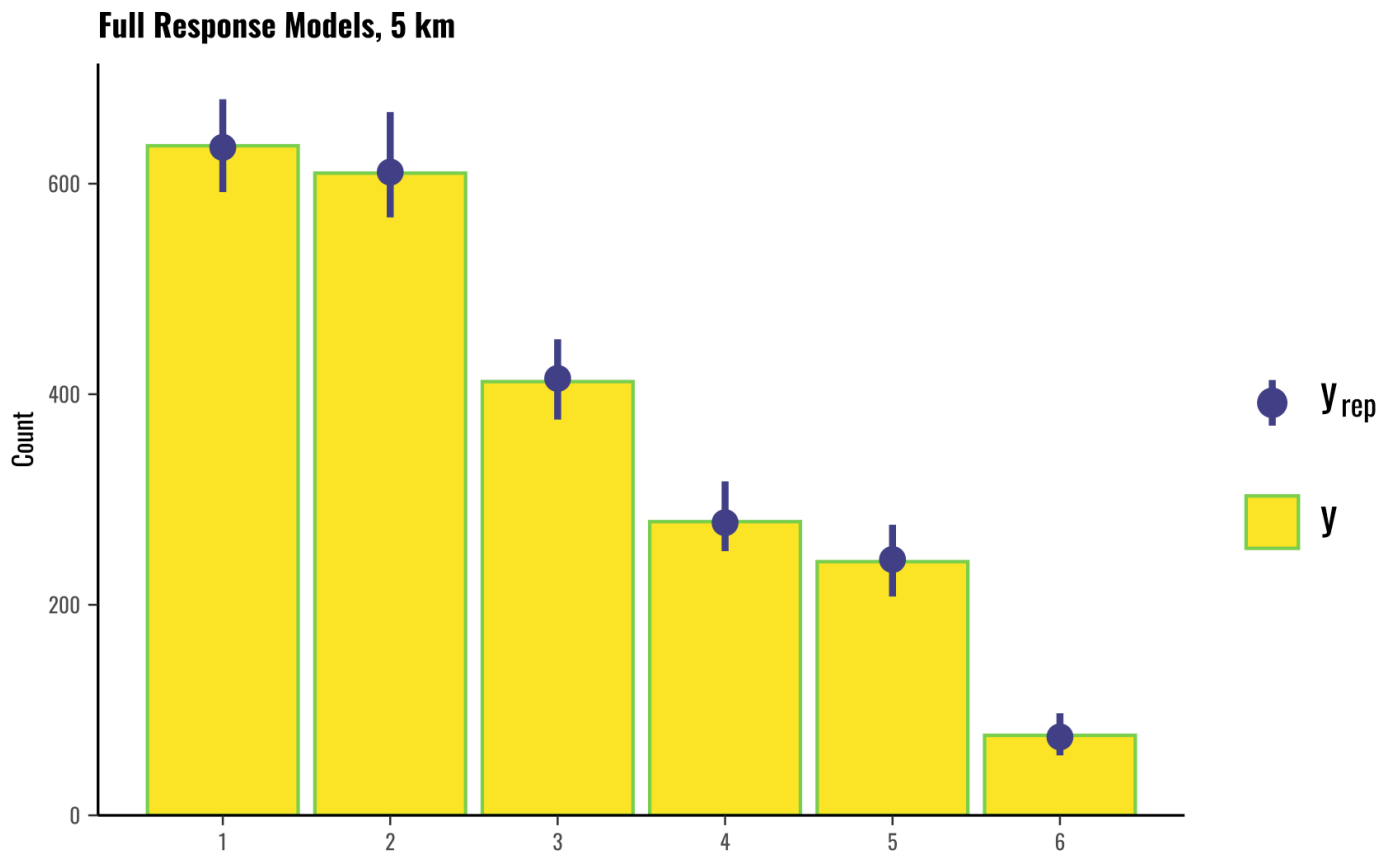
Posterior predictive check for district models, outcome question: 100 km distance.



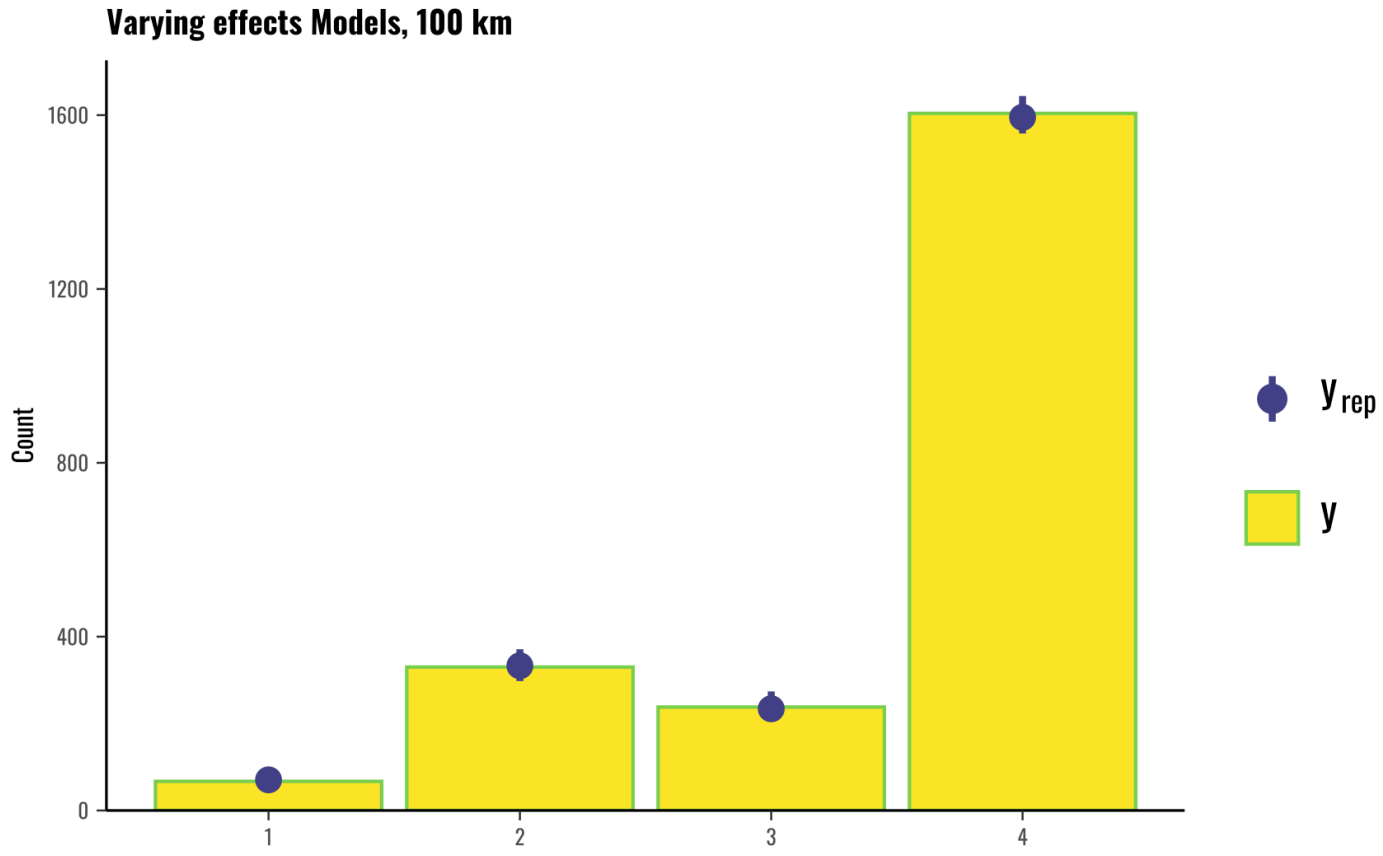
Posterior predictive check for district models, outcome question: 5 km distance.



Posterior predictive check for full response models, outcome question: 100 km distance.

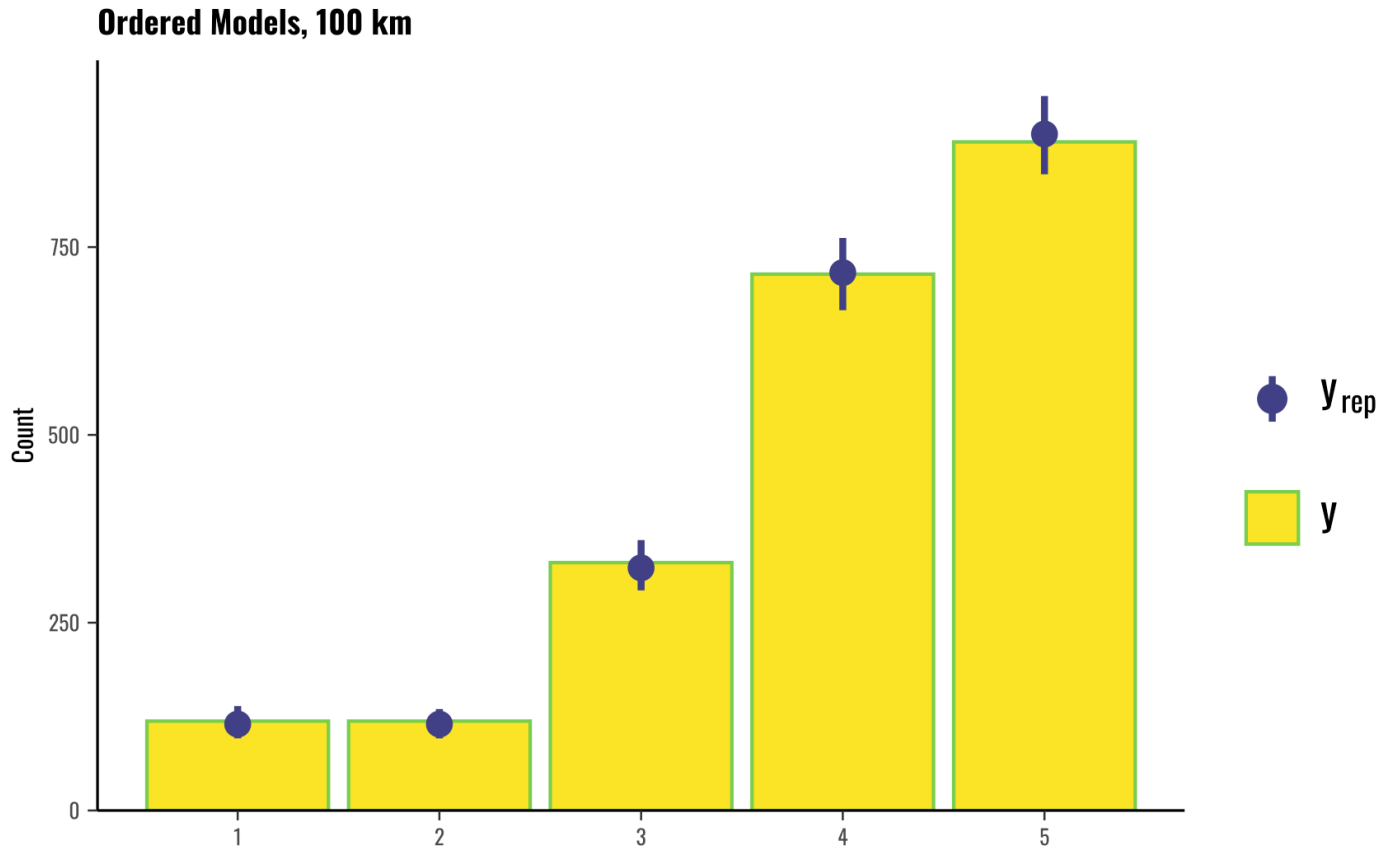


Posterior predictive check for full response models, outcome question: 5 km distance.

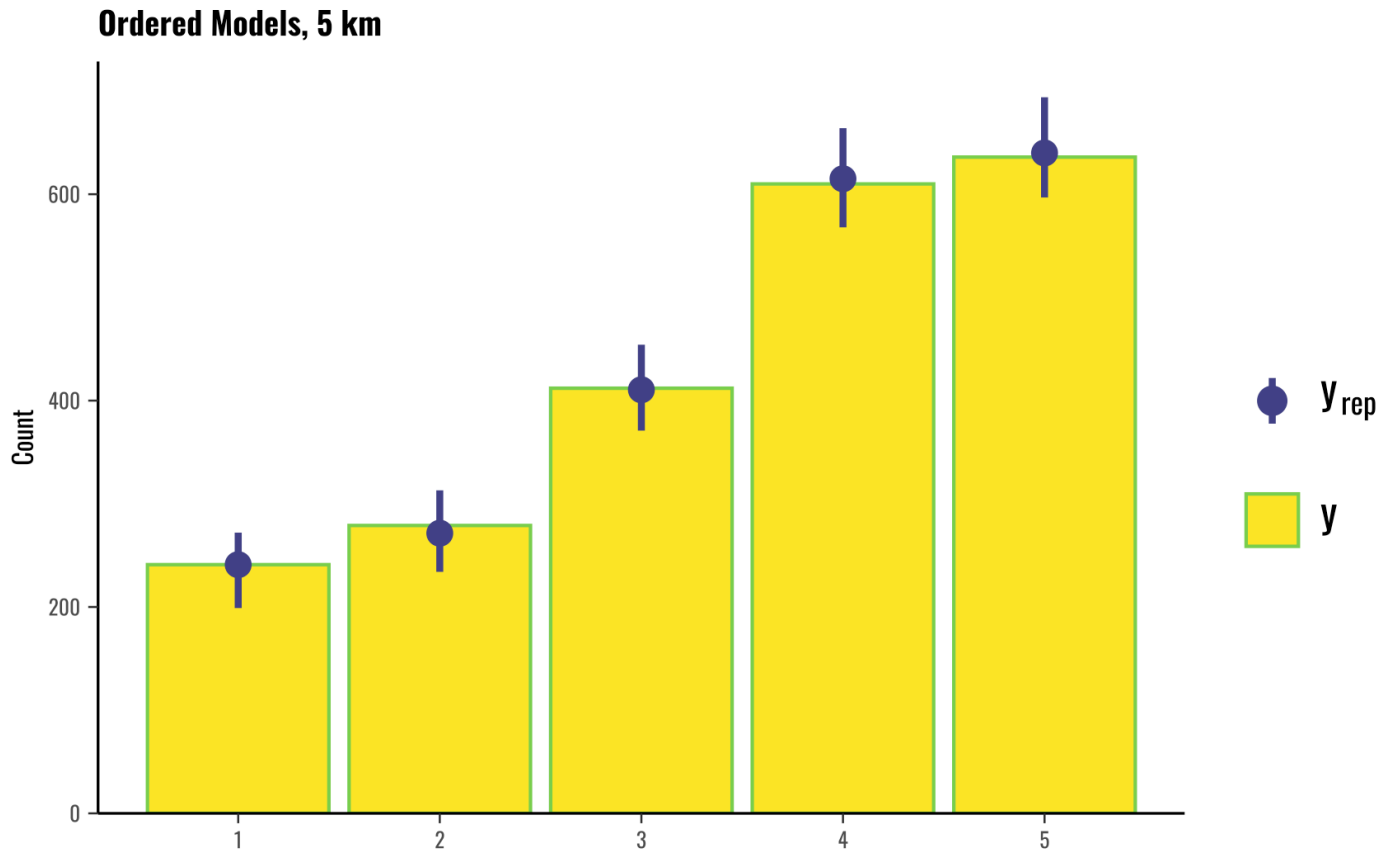


Posterior predictive check for varying effects models, outcome question: 100 km distance.

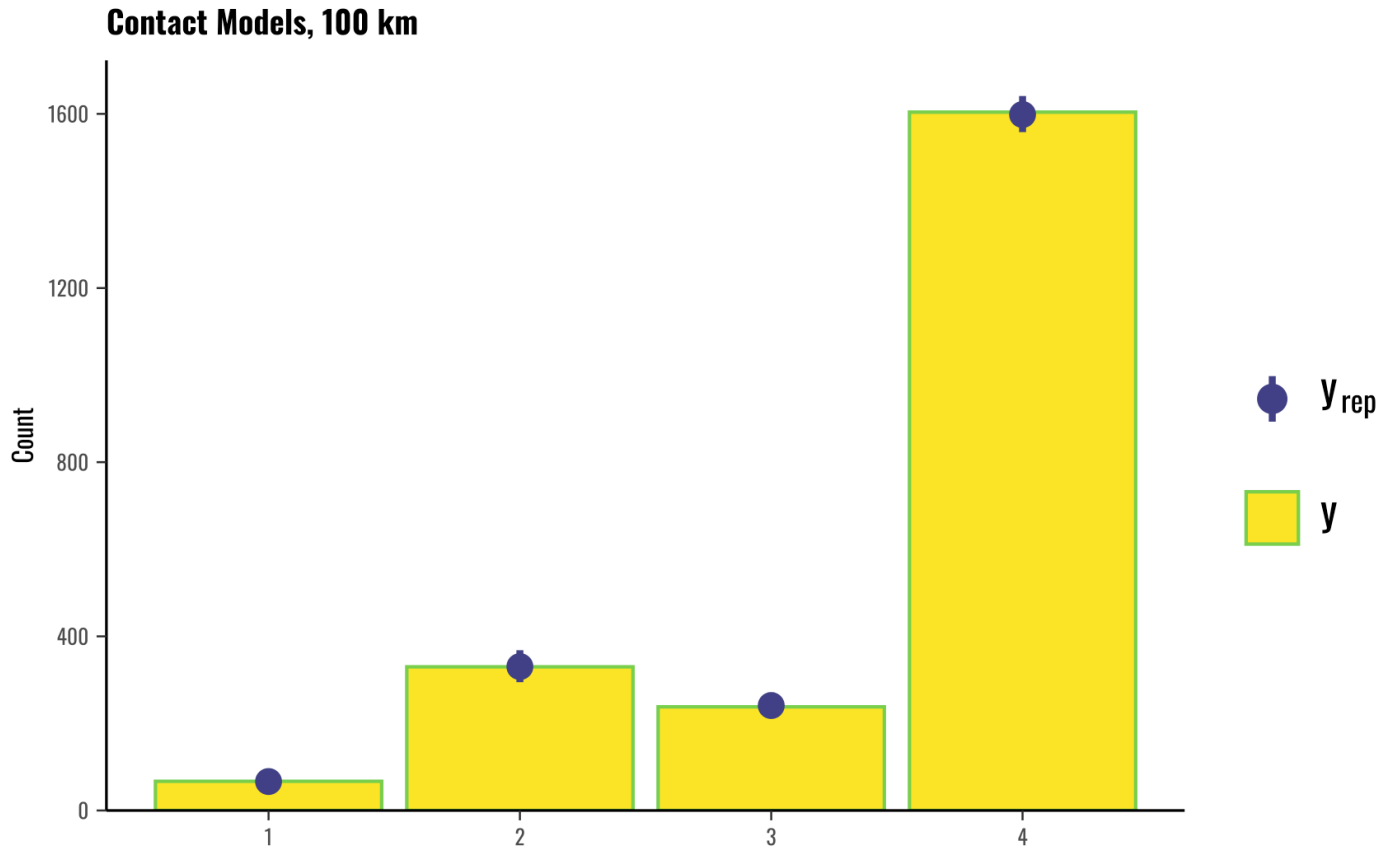
Posterior predictive check for varying effects models, outcome question: 5 km distance.



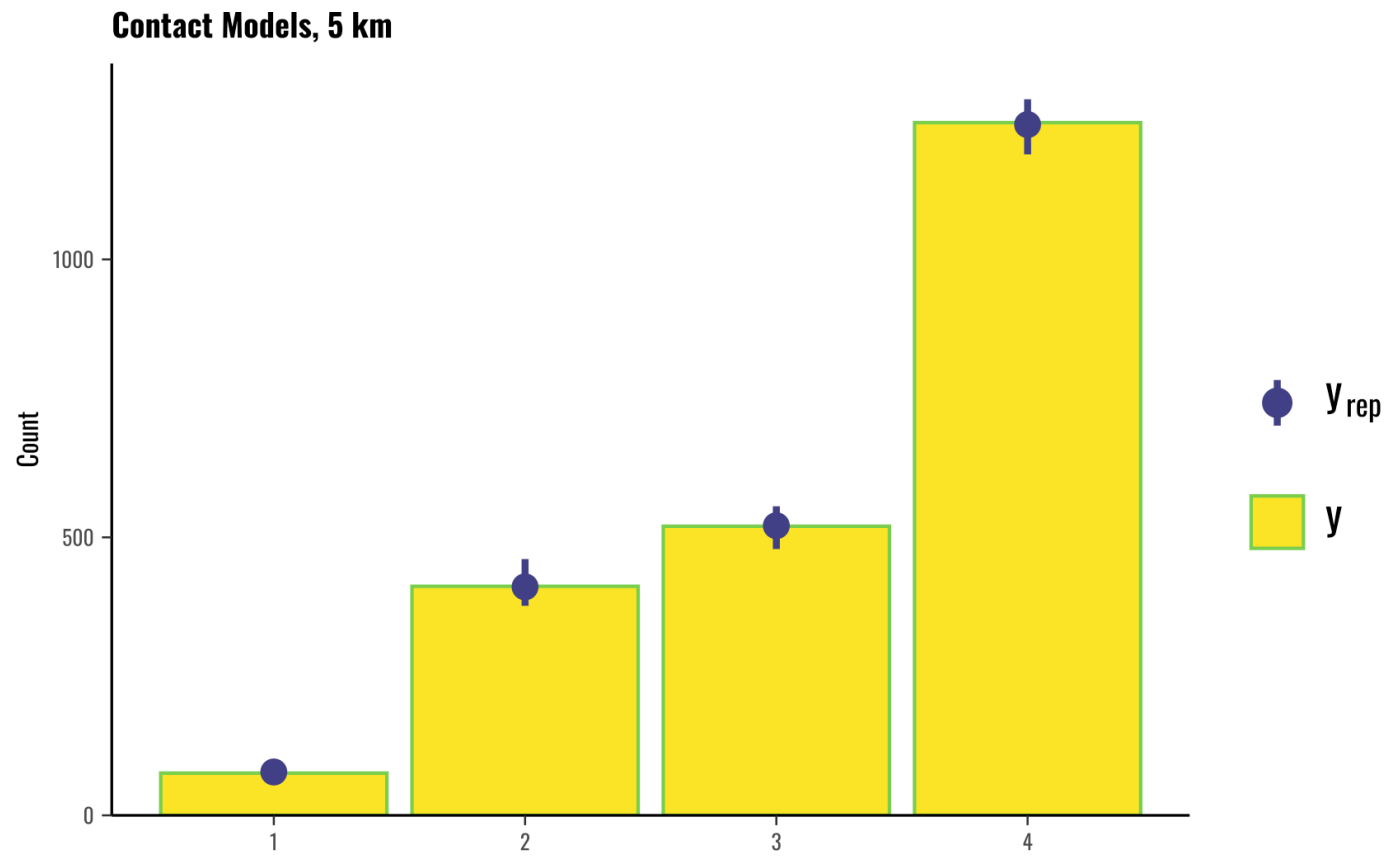
Posterior predictive check for ordered models, outcome question: 100 km distance.



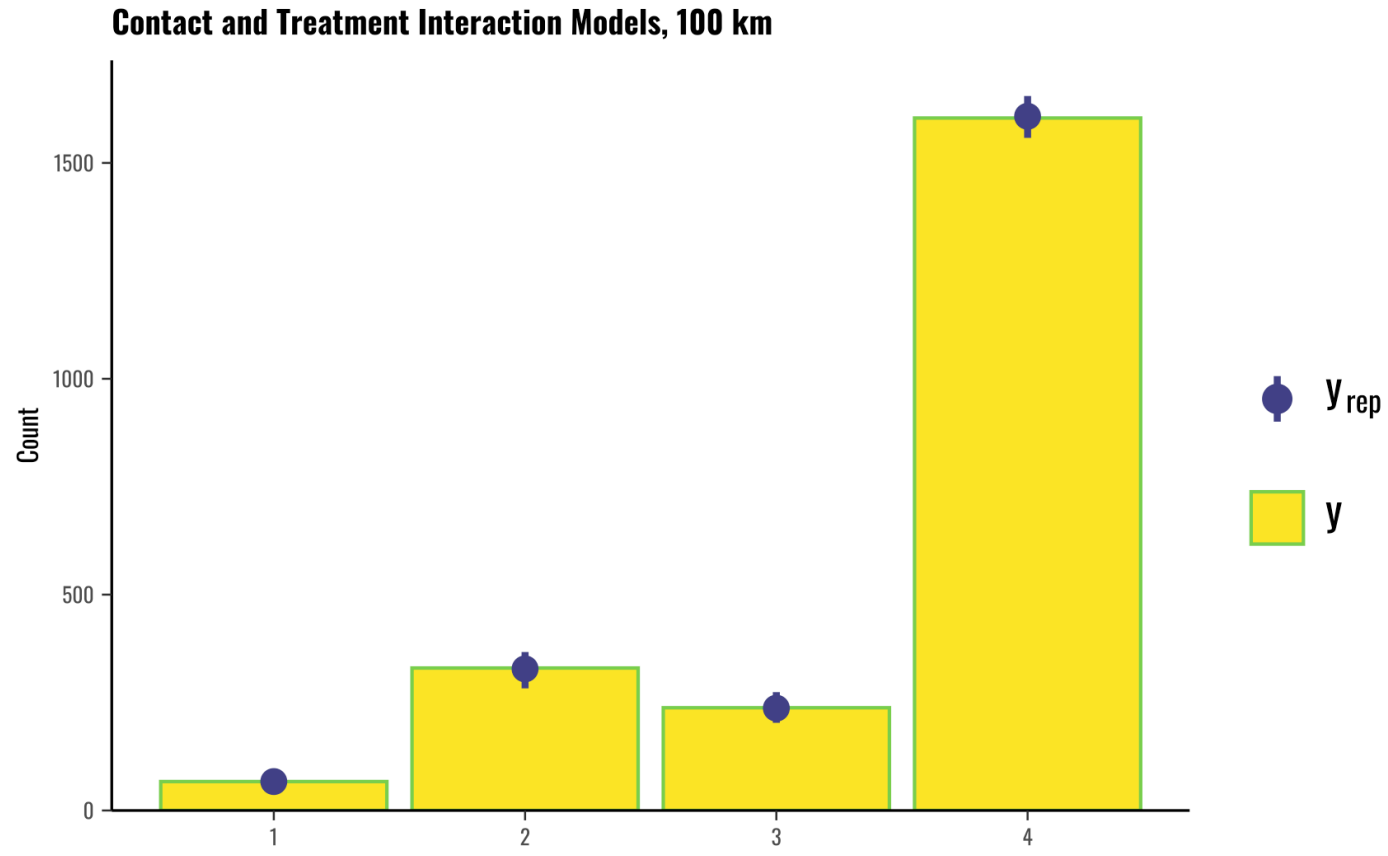
Posterior predictive check for ordered models, outcome question: 5 km distance.



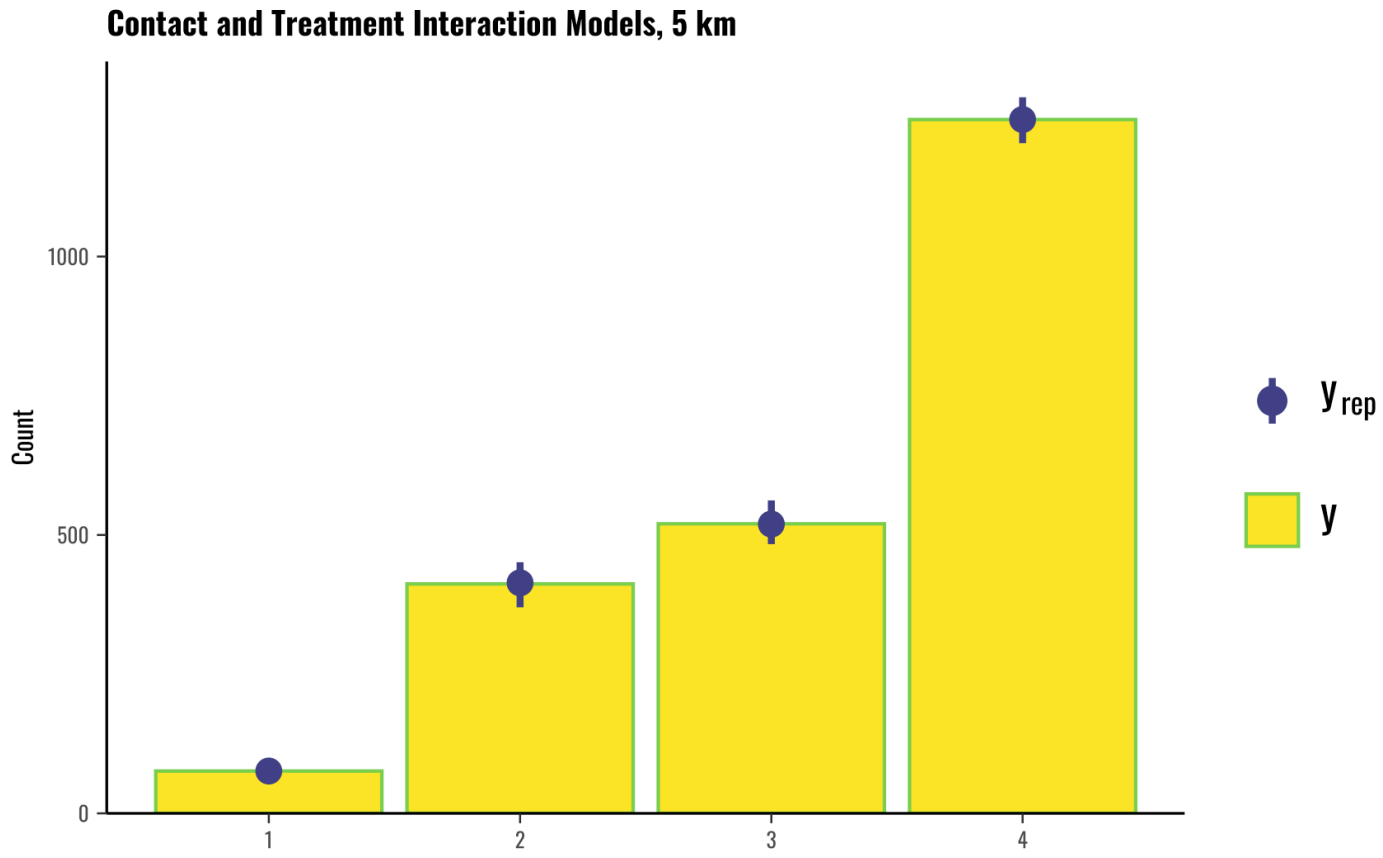
Posterior predictive check for contact models, outcome question: 100 km distance.



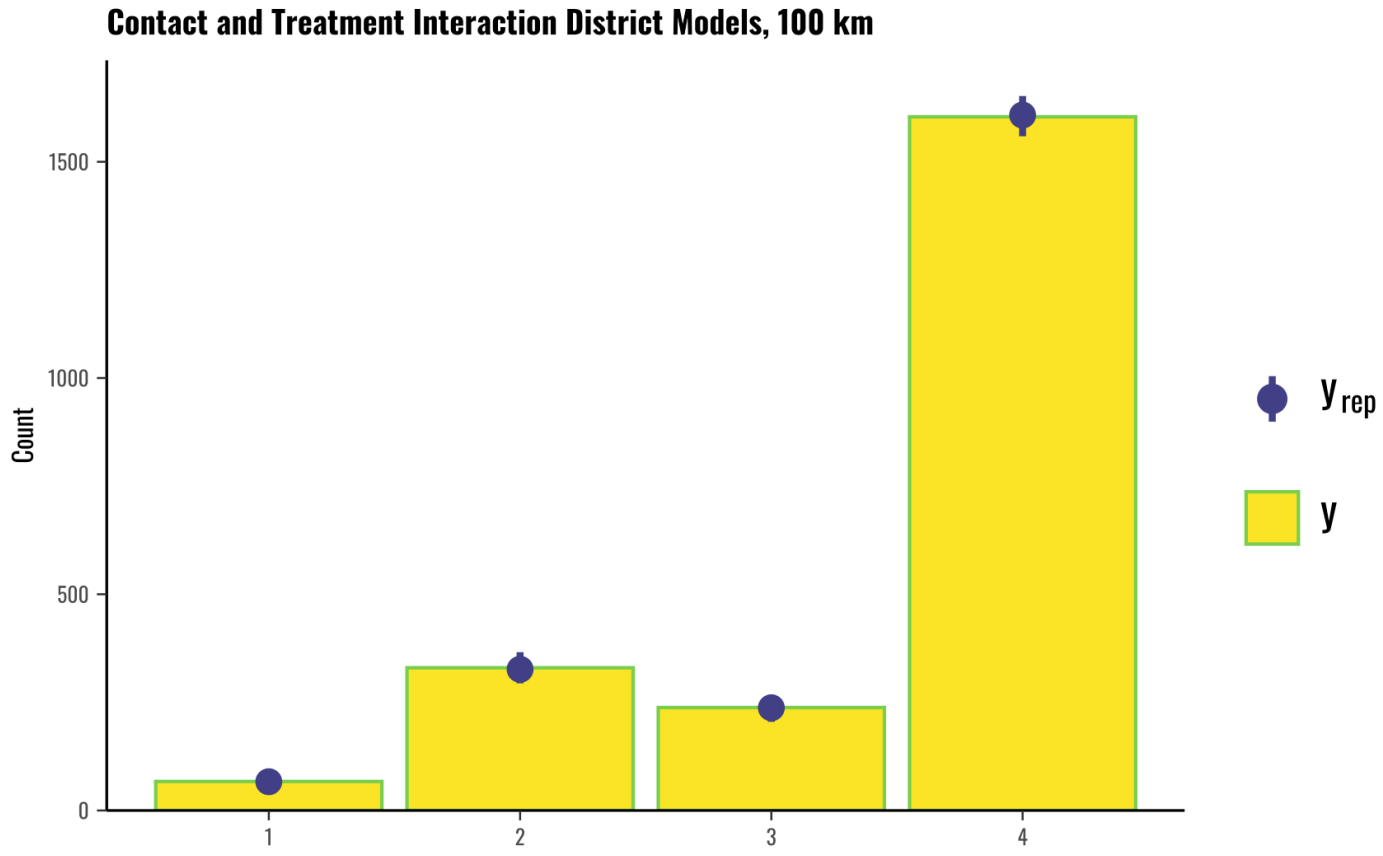
Posterior predictive check for contact models, outcome question: 5 km distance.



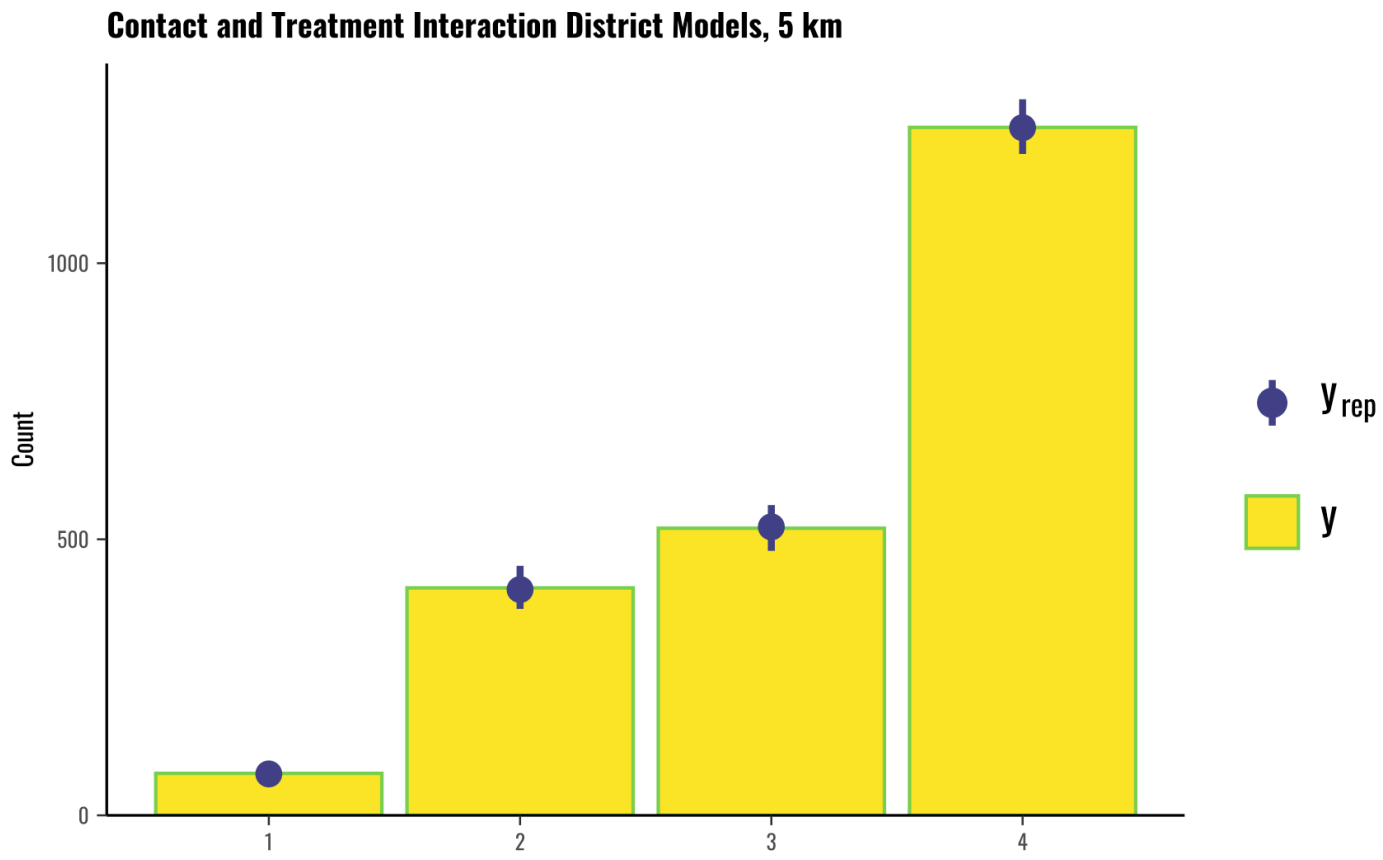
Posterior predictive check for contact and treatment interaction models, outcome question: 100 km distance.



Posterior predictive check for contact and treatment interaction models, outcome question: 5 km distance.

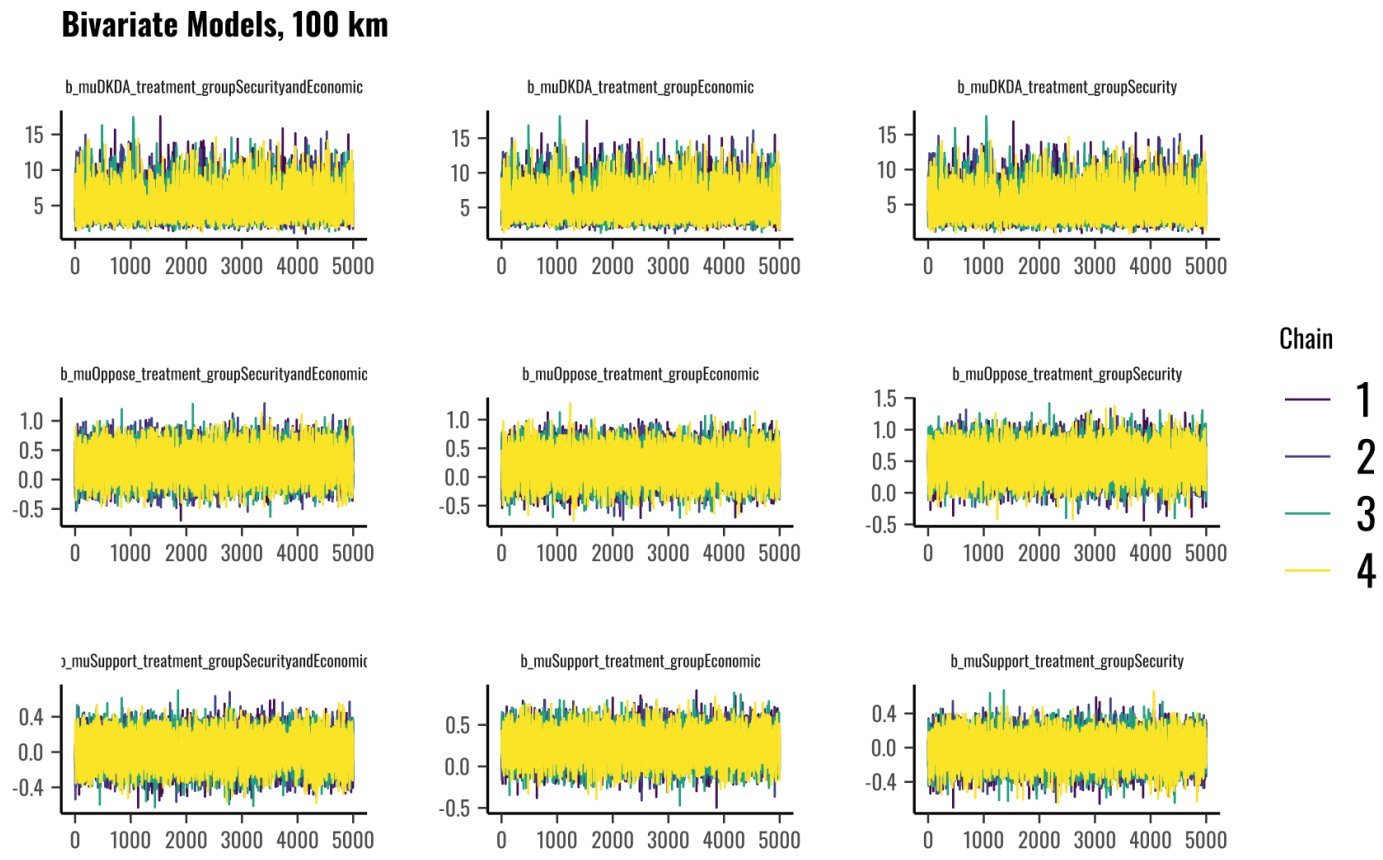


Posterior predictive check for contact models, outcome question: 100 km distance.



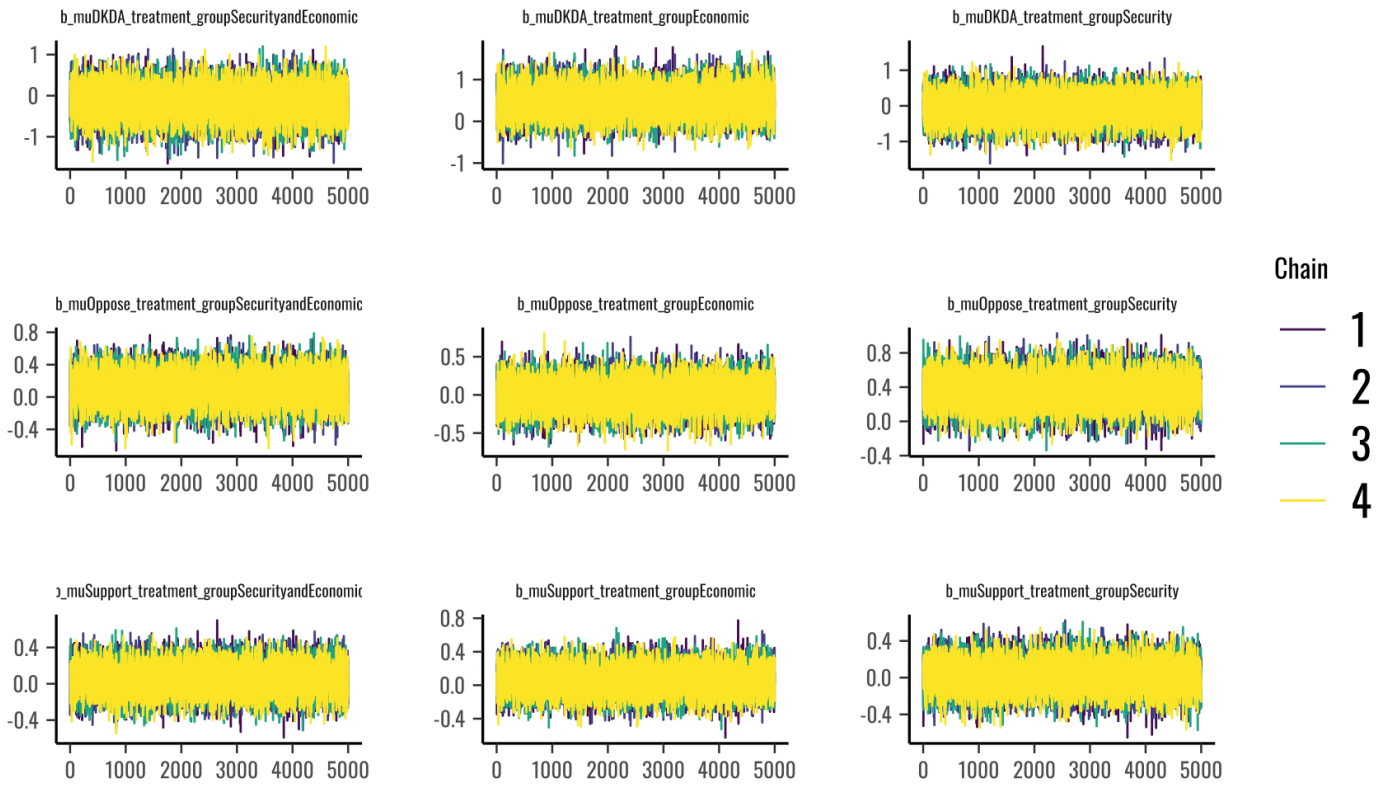
Posterior predictive check for contact models, outcome question: 5 km distance.

Traceplots



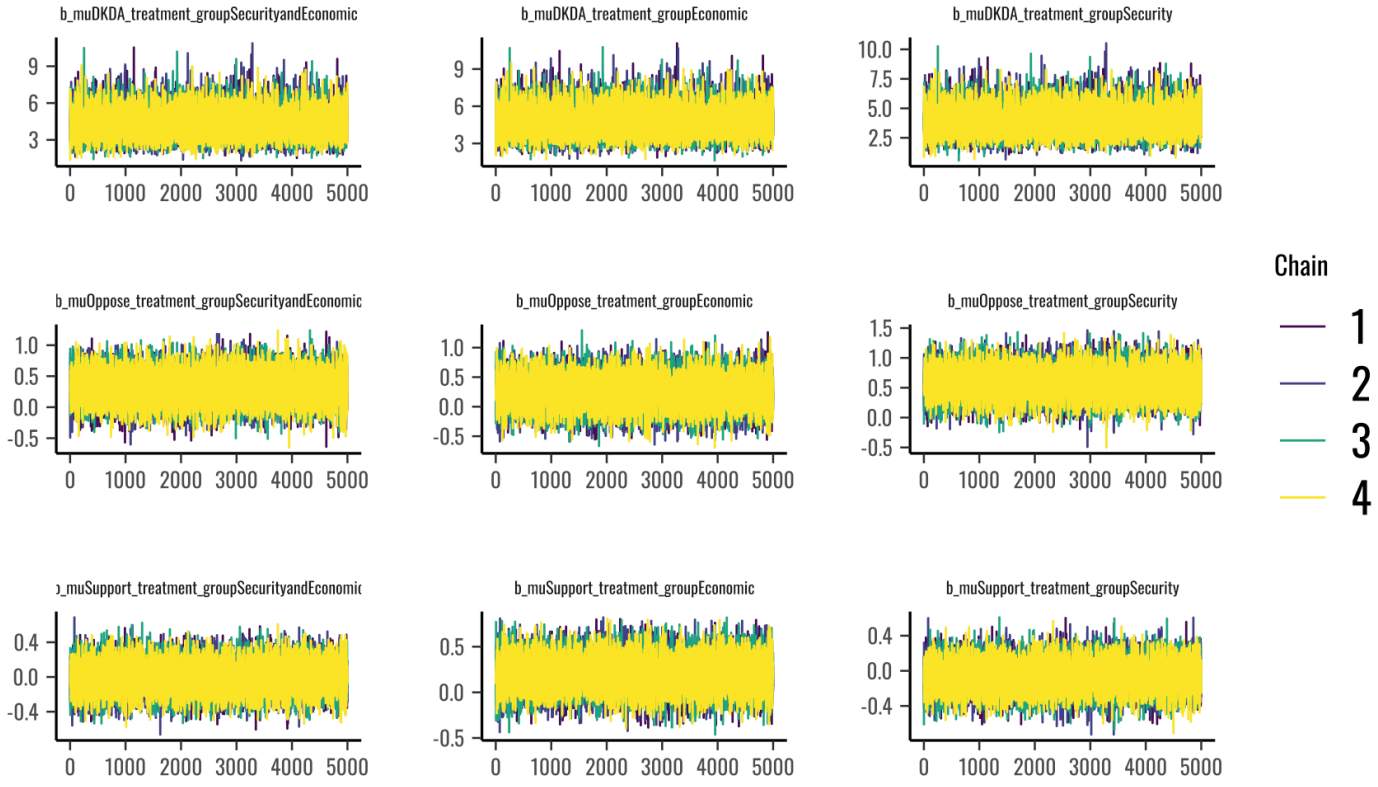
Traceplots for treatment variables from bivariate models, outcome question: 100 km distance.

Bivariate Models, 5 km



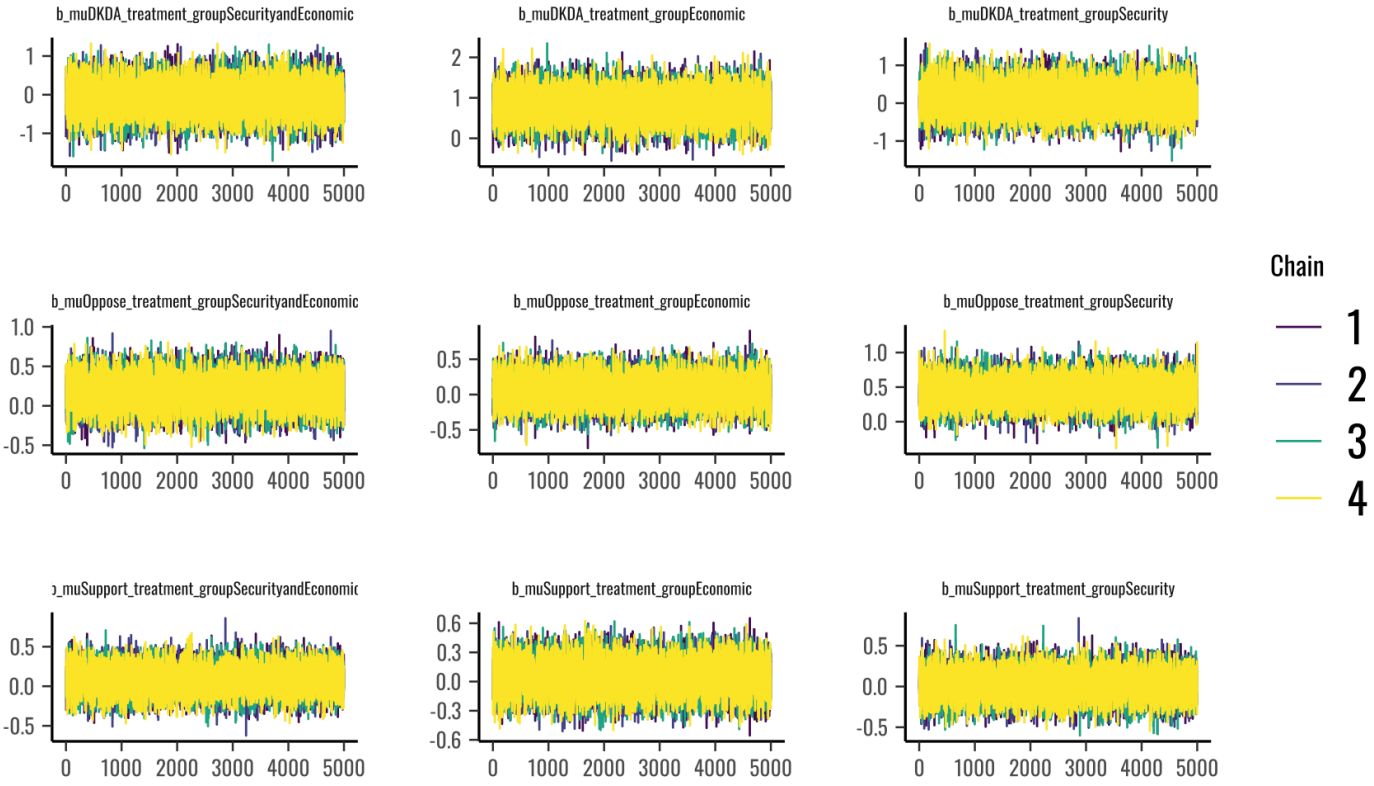
Traceplots for treatment variables from bivariate models, outcome question: 5 km distance.

Province Models, 100 km



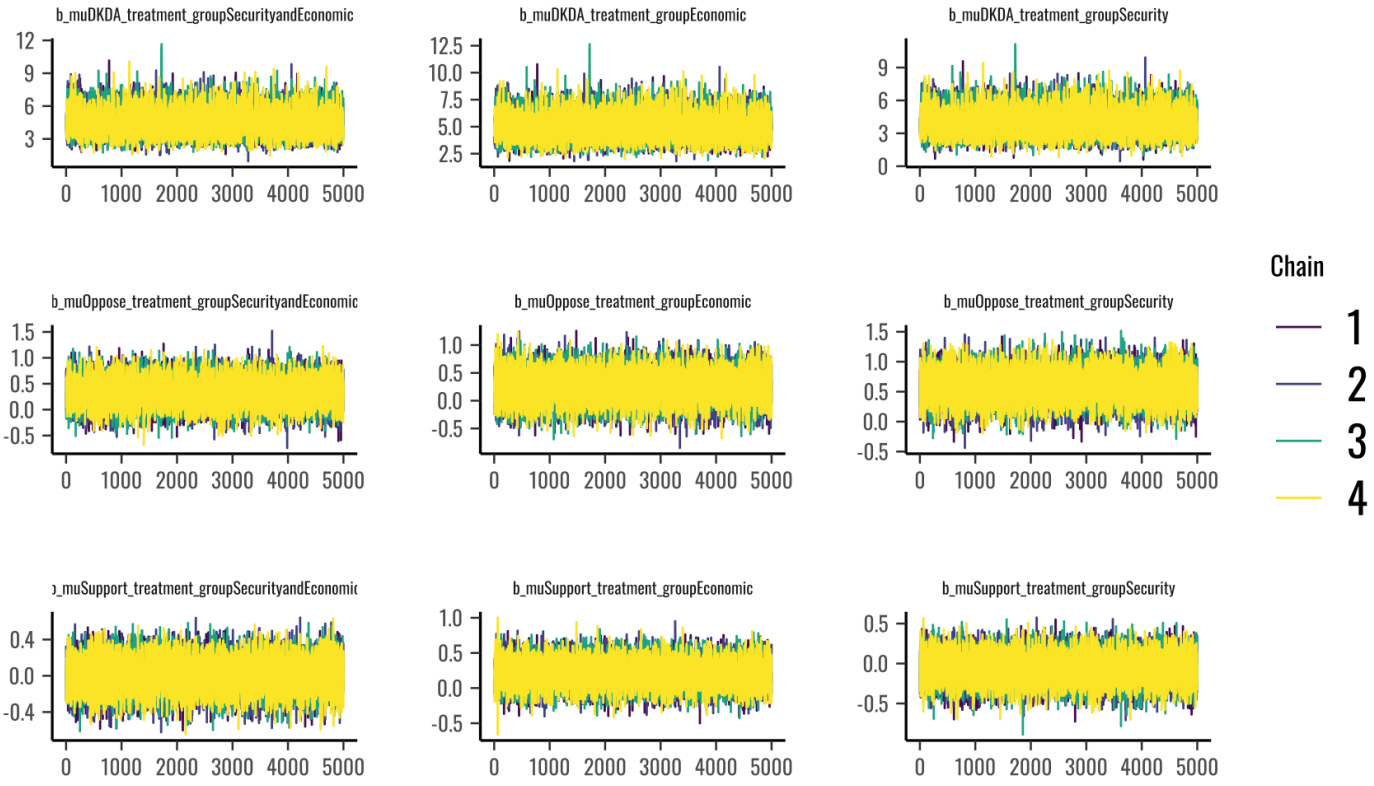
Traceplots for treatment variables from province models, outcome question: 100 km distance.

Province Models, 5 km



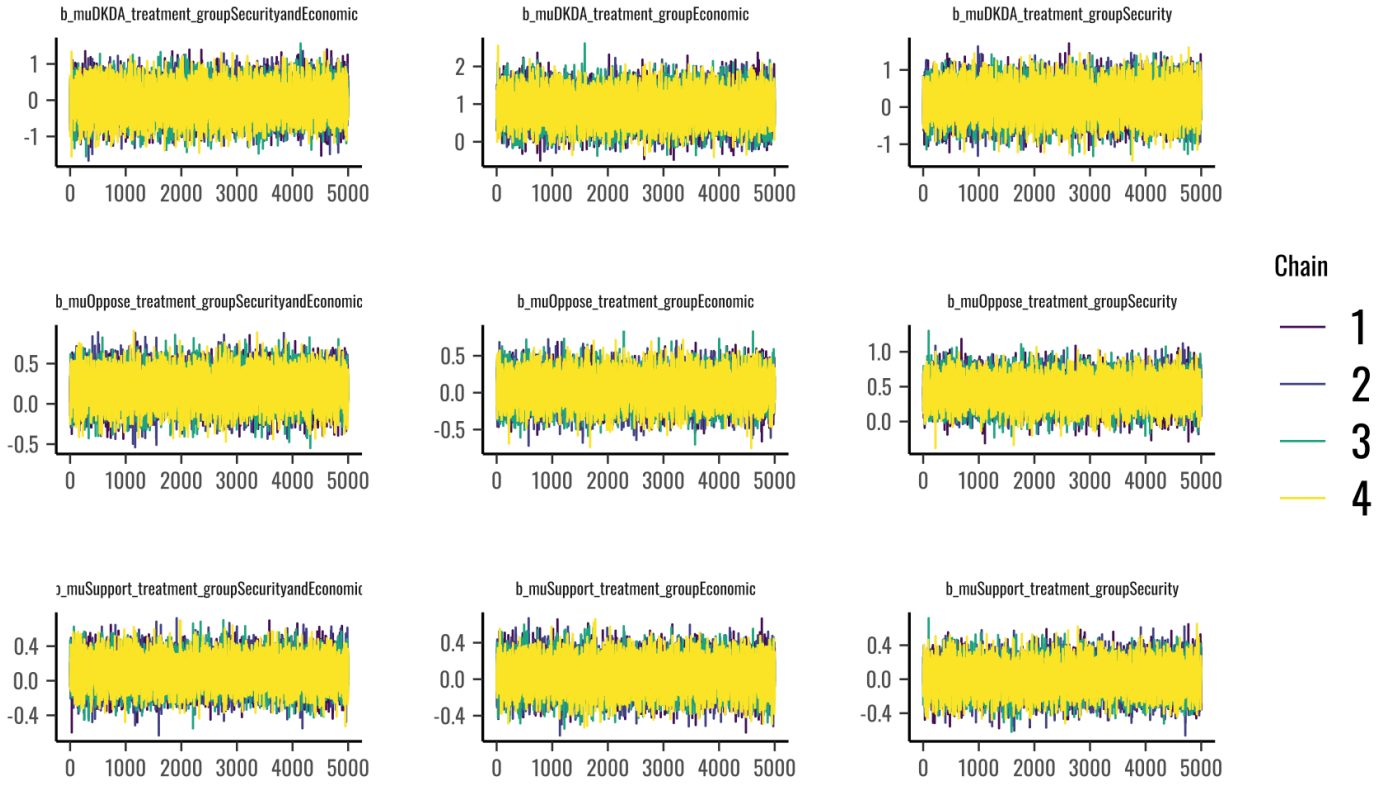
Traceplots for treatment variables from province models, outcome question: 5 km distance.

District Models, 100 km



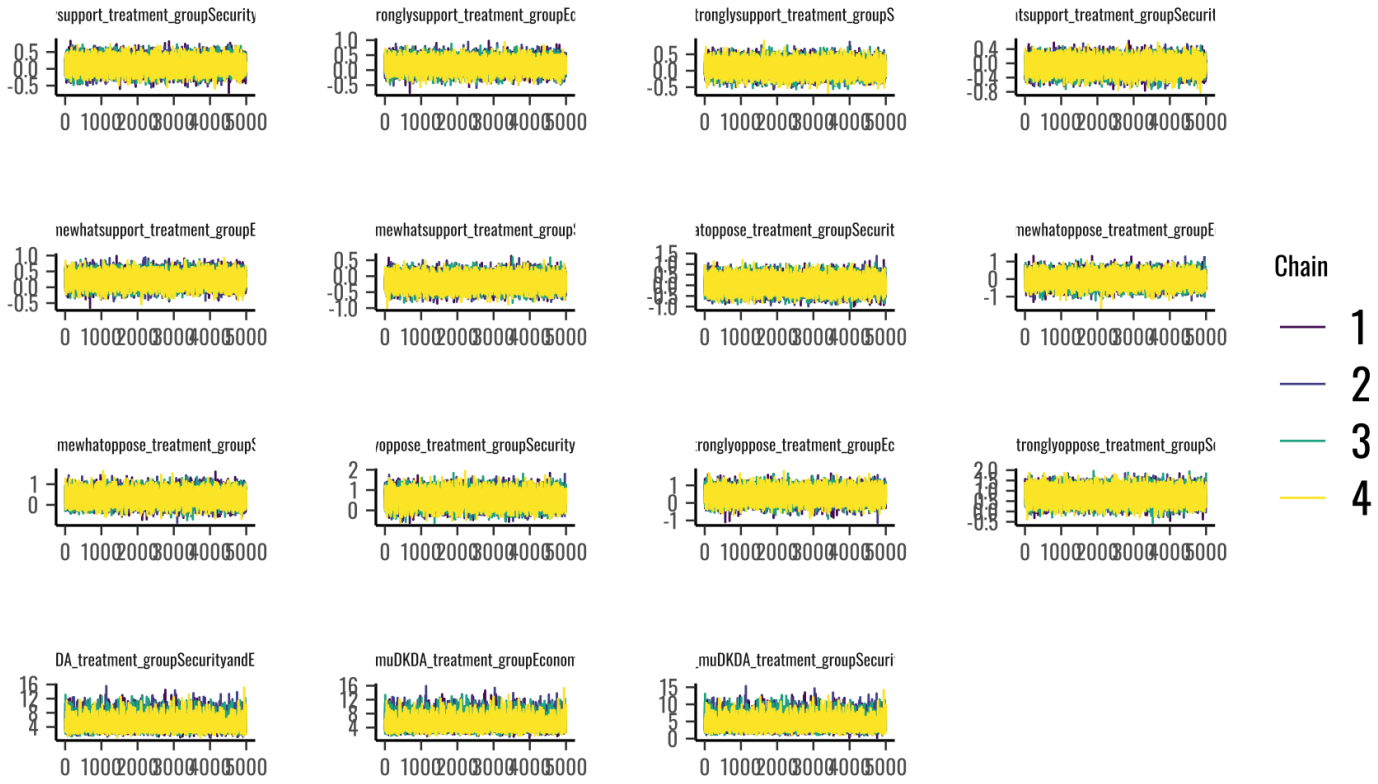
Traceplots for treatment variables from district models, outcome question: 100 km distance.

District Models, 5 km



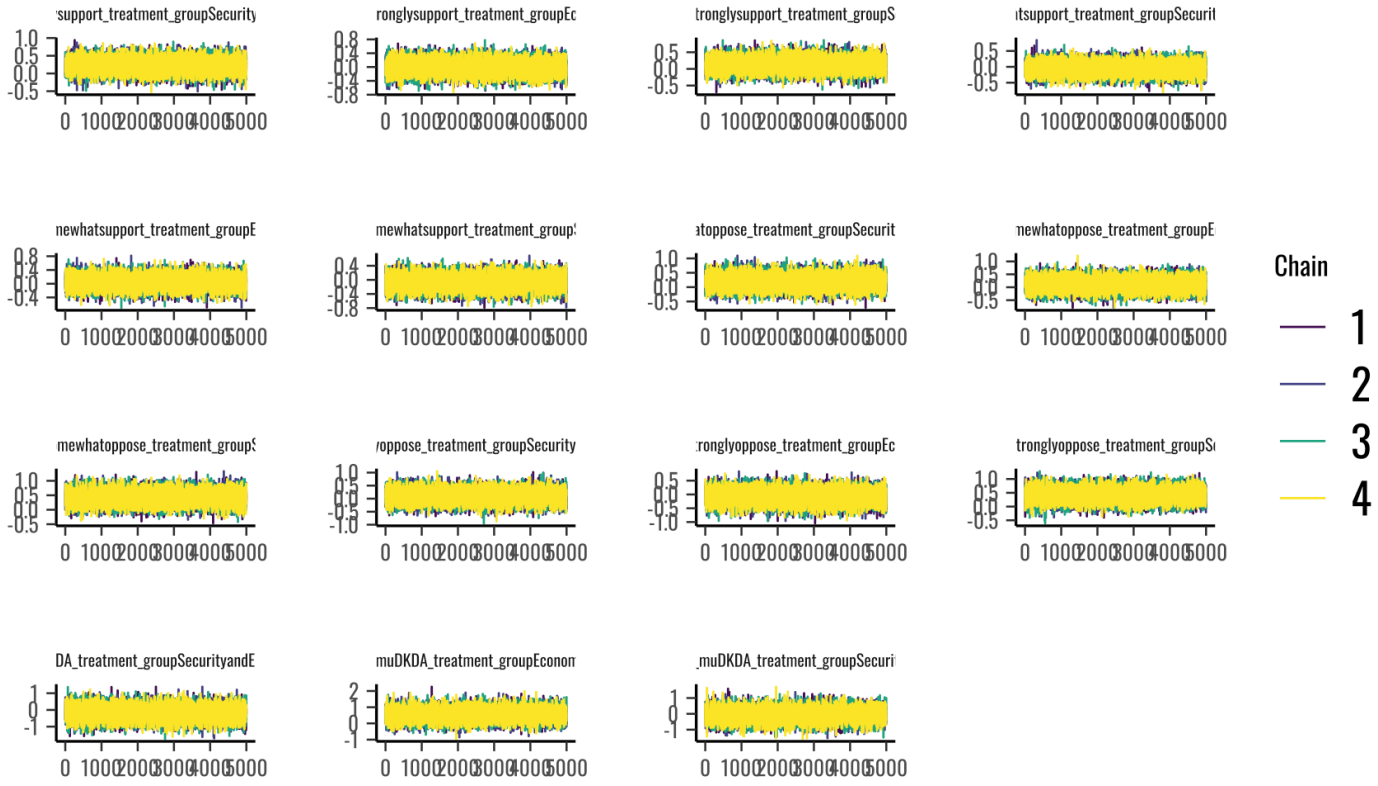
Traceplots for treatment variables from district models, outcome question: 5 km distance.

Full Response Models, 100 km



Traceplots for treatment variables from full response models, outcome question: 100 km distance.

Full Response Models, 5 km



Traceplots for treatment variables from full response models, outcome question: 5 km distance.

Varying effects Models, 100 km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Traceplots for treatment variables from varying effects models, outcome question: 100 km distance.

Varying effects Models, 5 km


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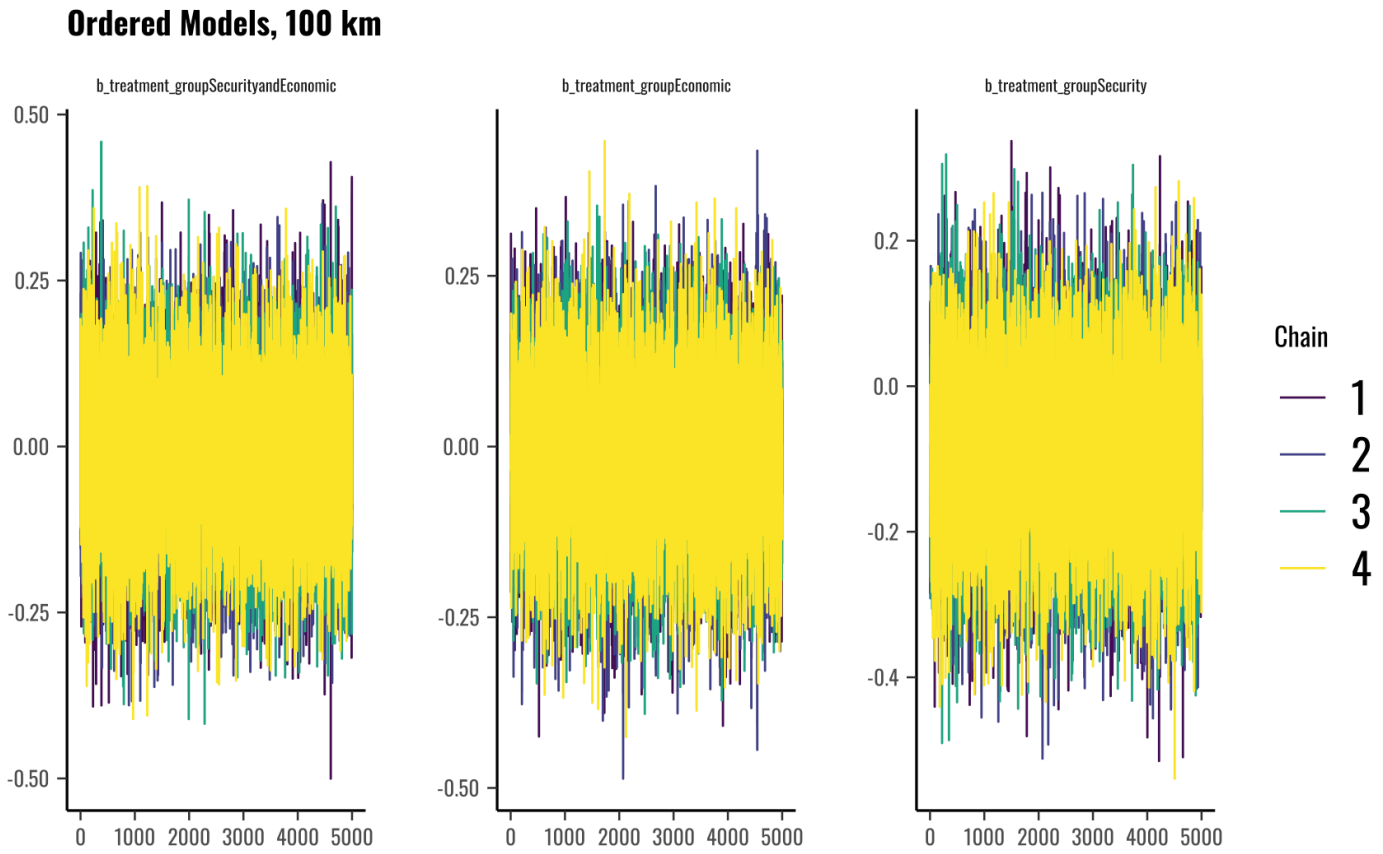
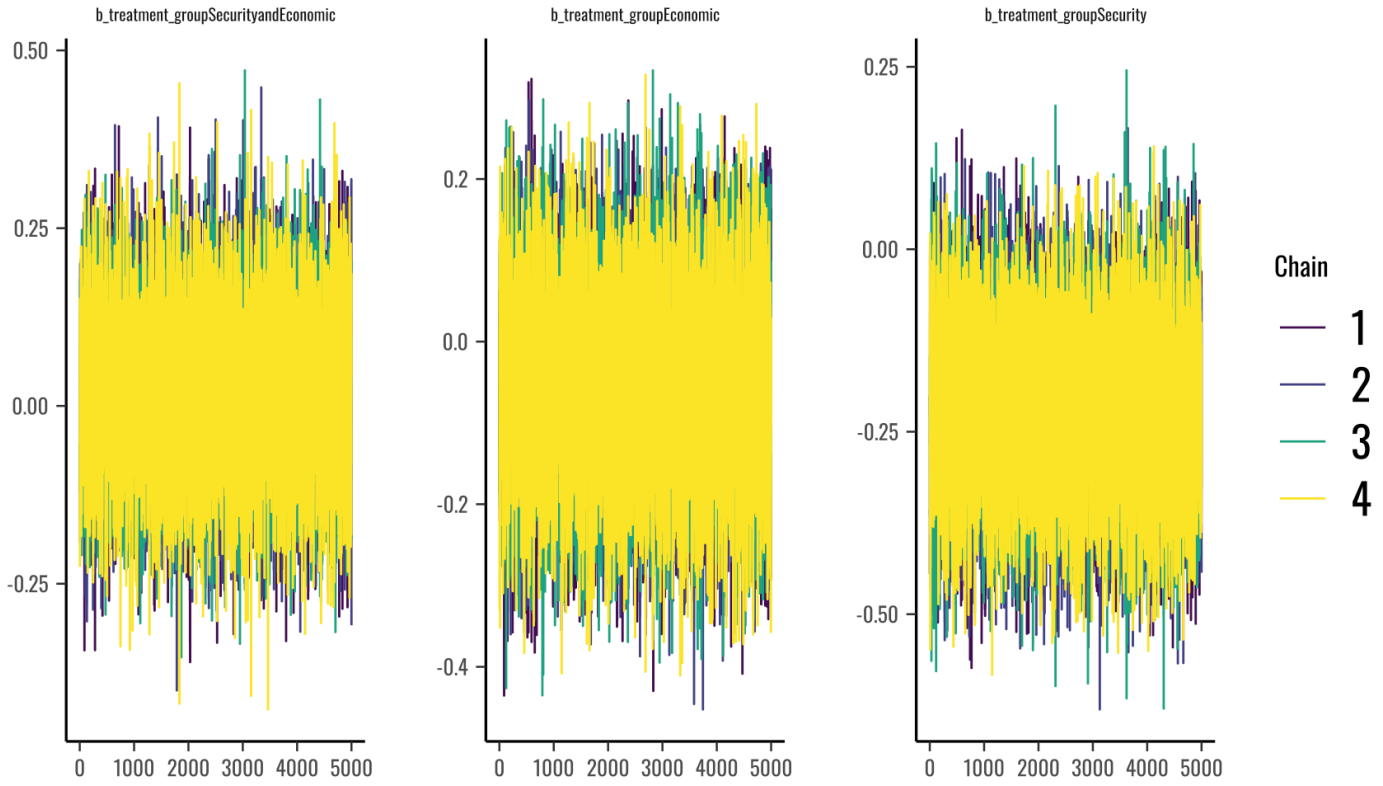
Traceplots for treatment variables from varying effects models, outcome question: 5 km distance.



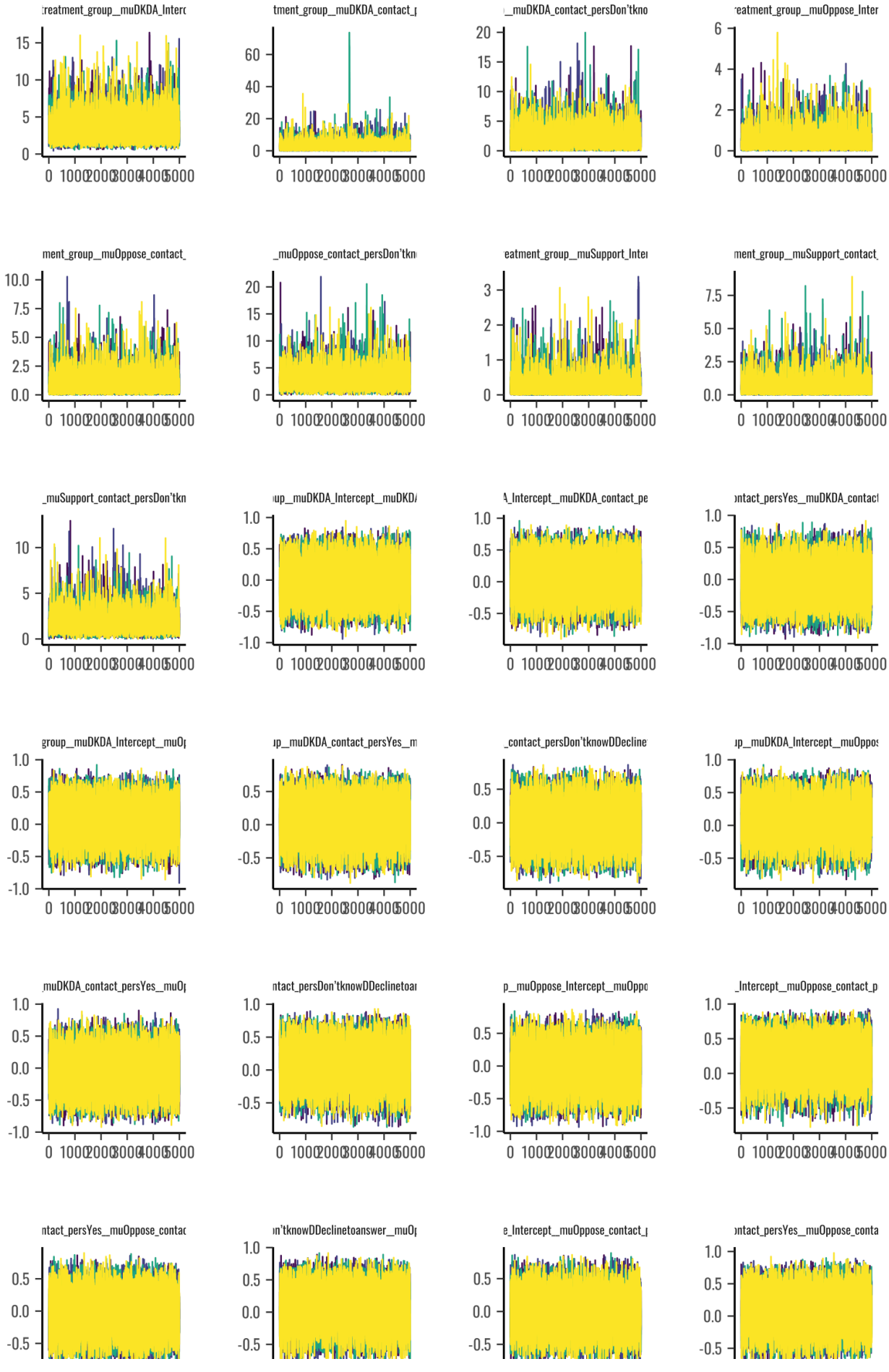
Traceplots for treatment variables from ordered models, outcome question: 100 km distance.

Ordered Models, 5 km



Traceplots for treatment variables from ordered models, outcome question: 5 km distance.

Contact Models, 100 km

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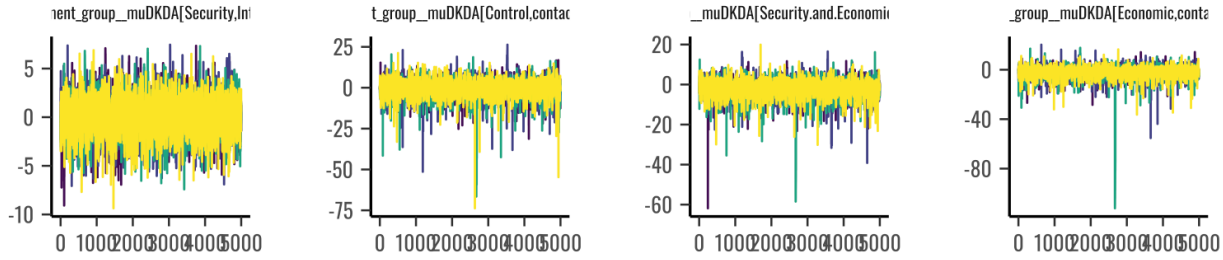
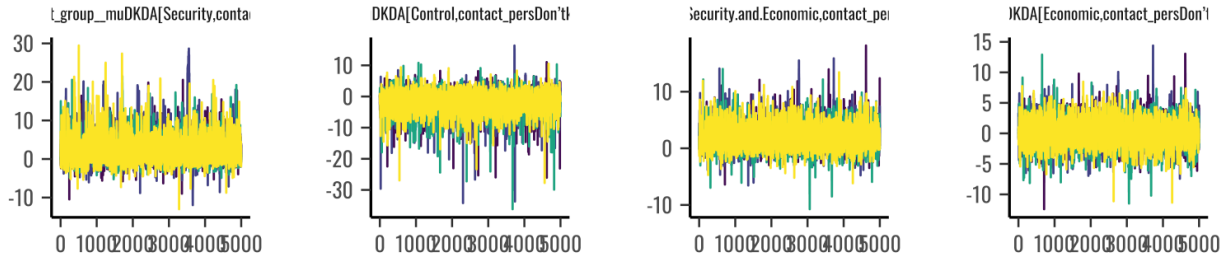
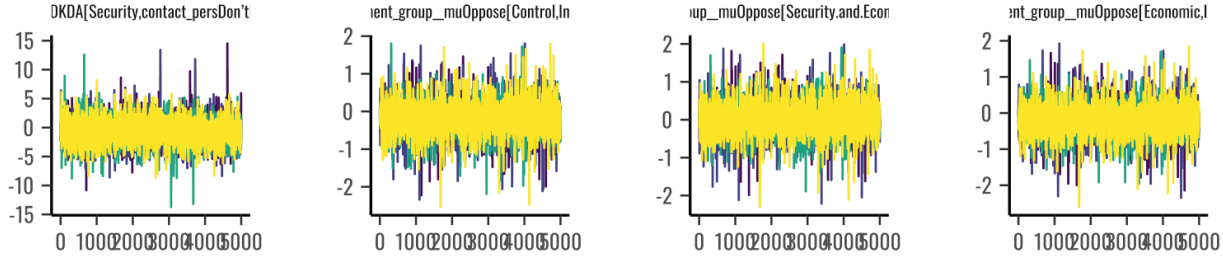
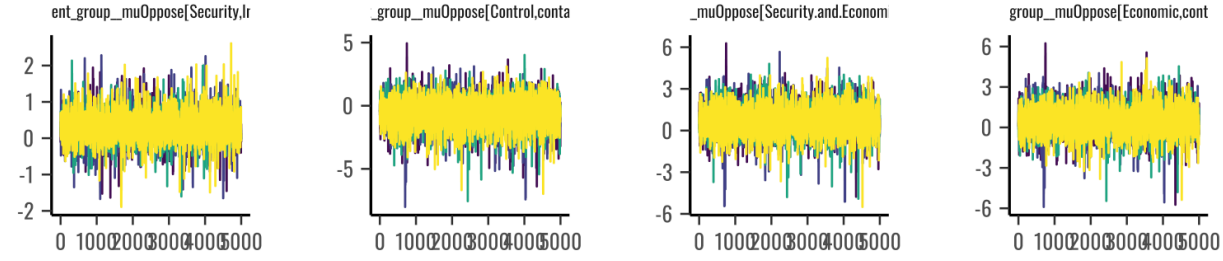
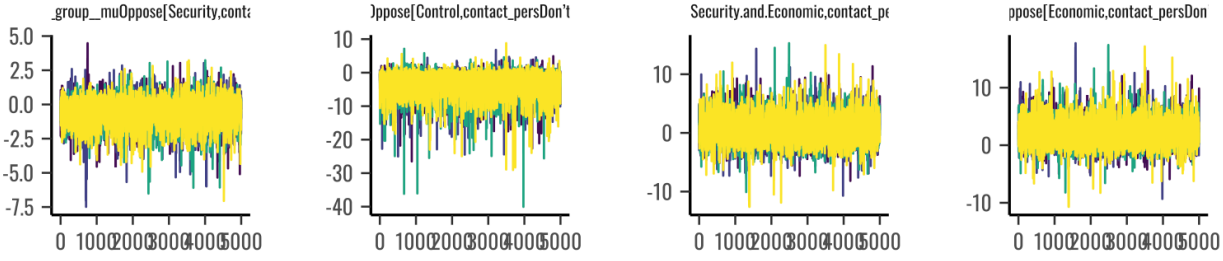
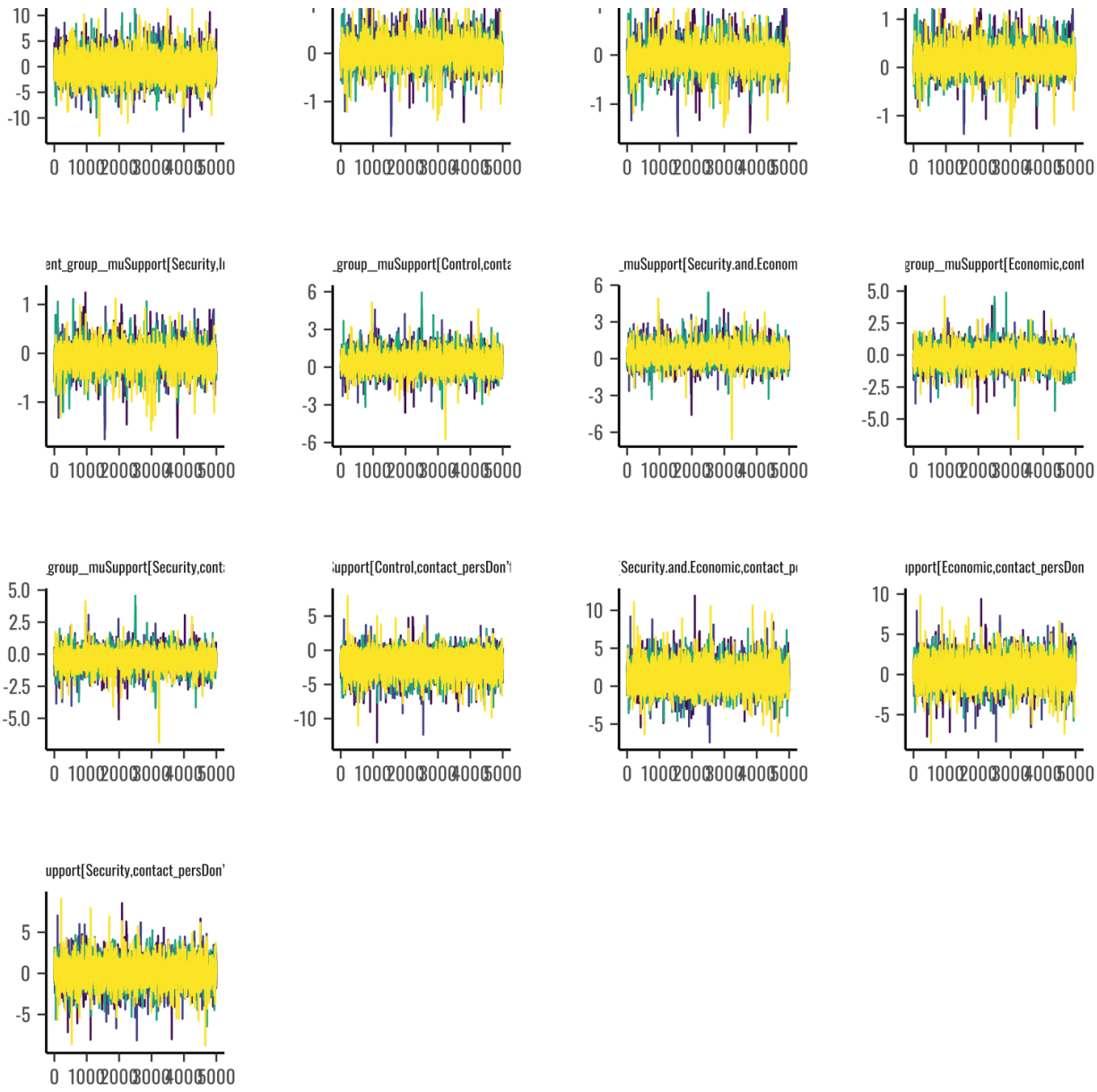






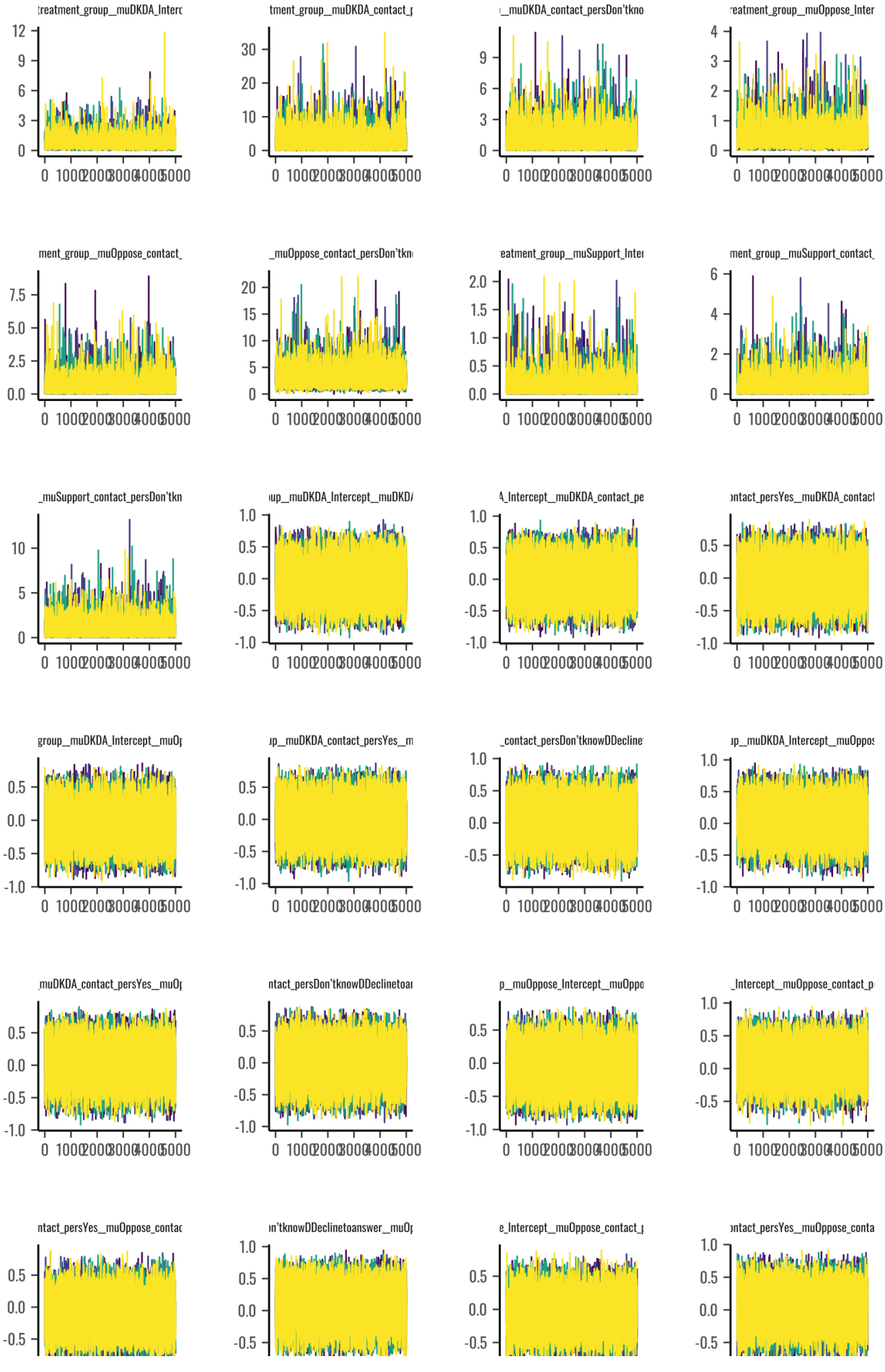


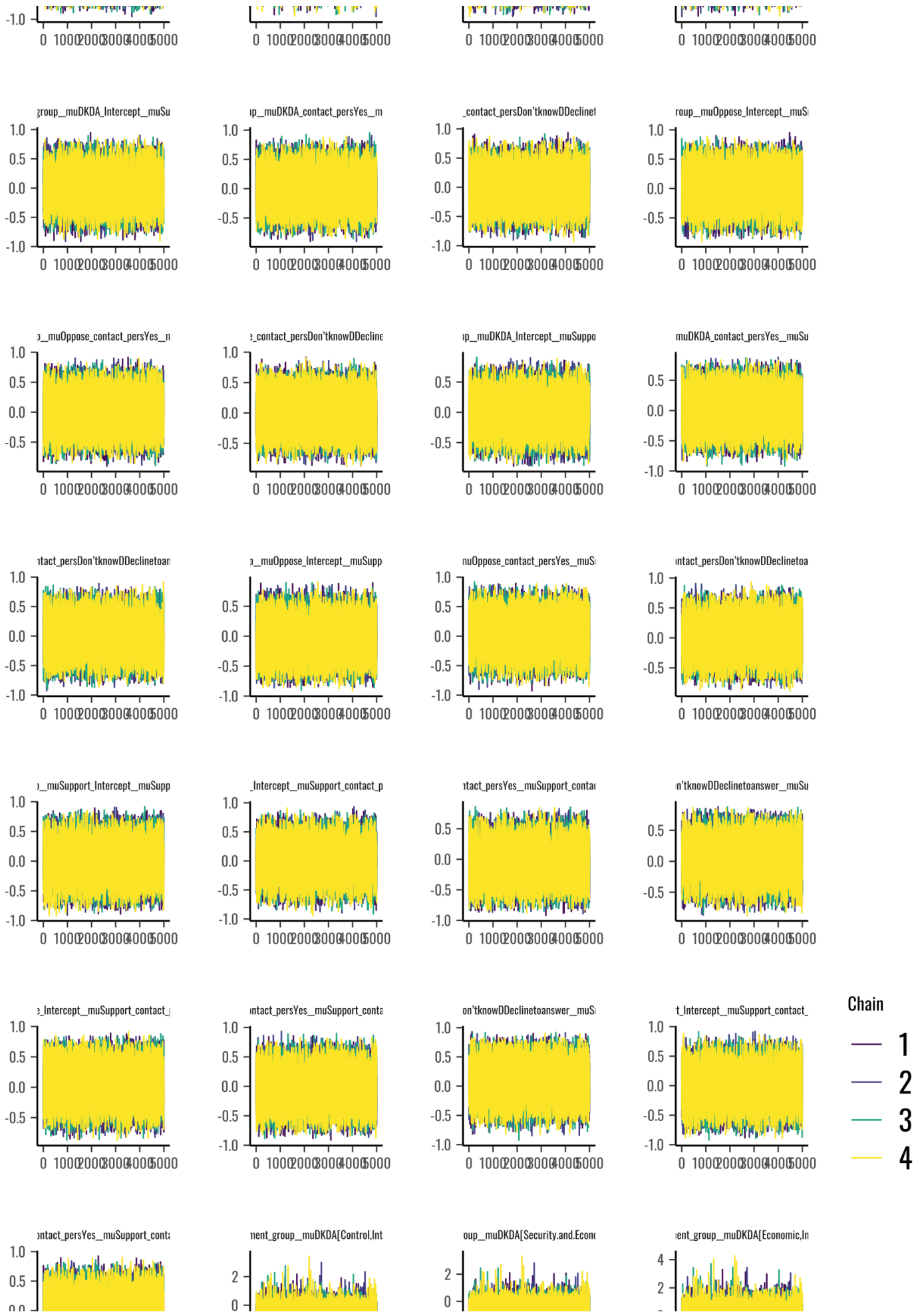




Traceplots for treatment variables from contact models, outcome question: 100 km distance.

Contact Models, 5 km

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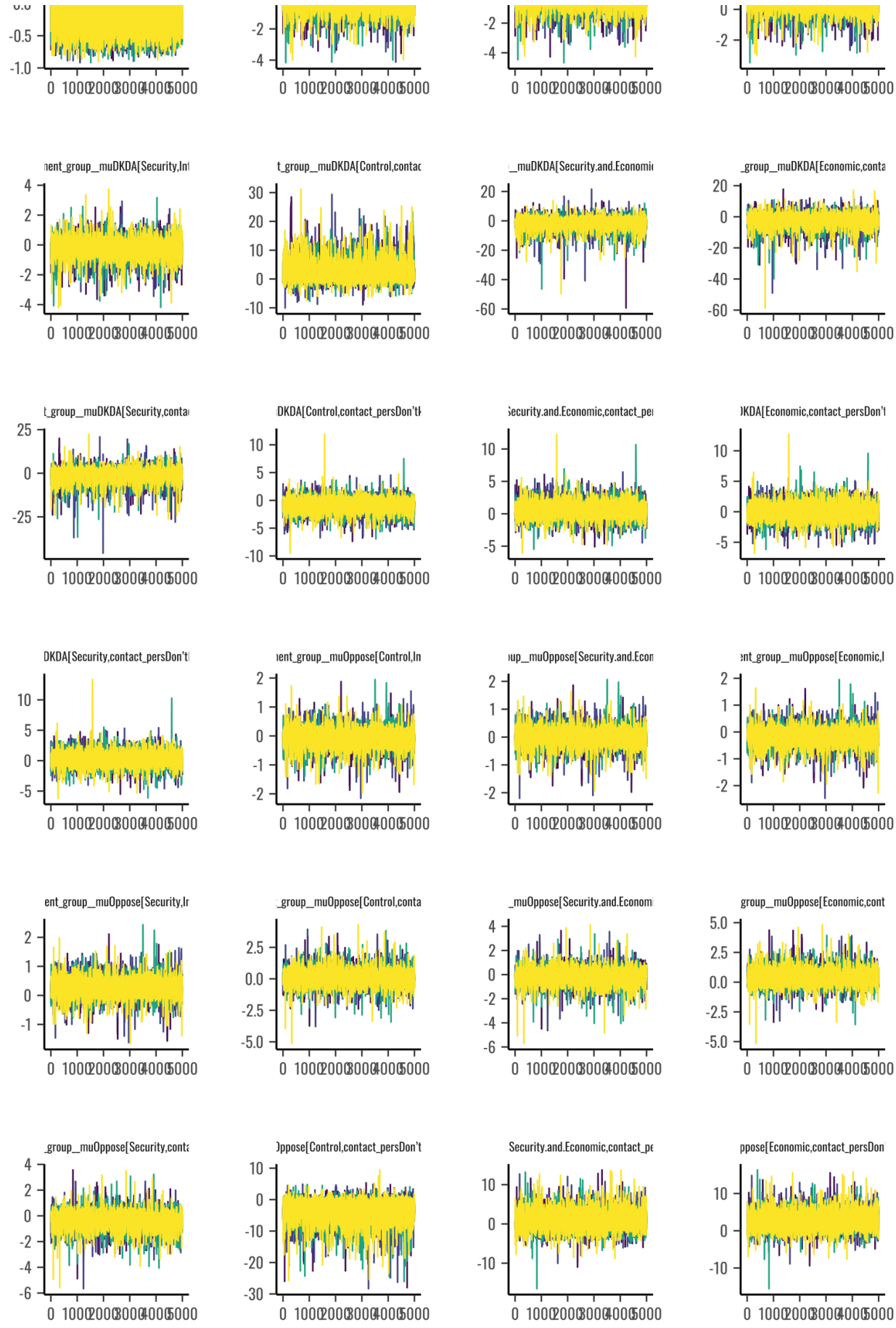
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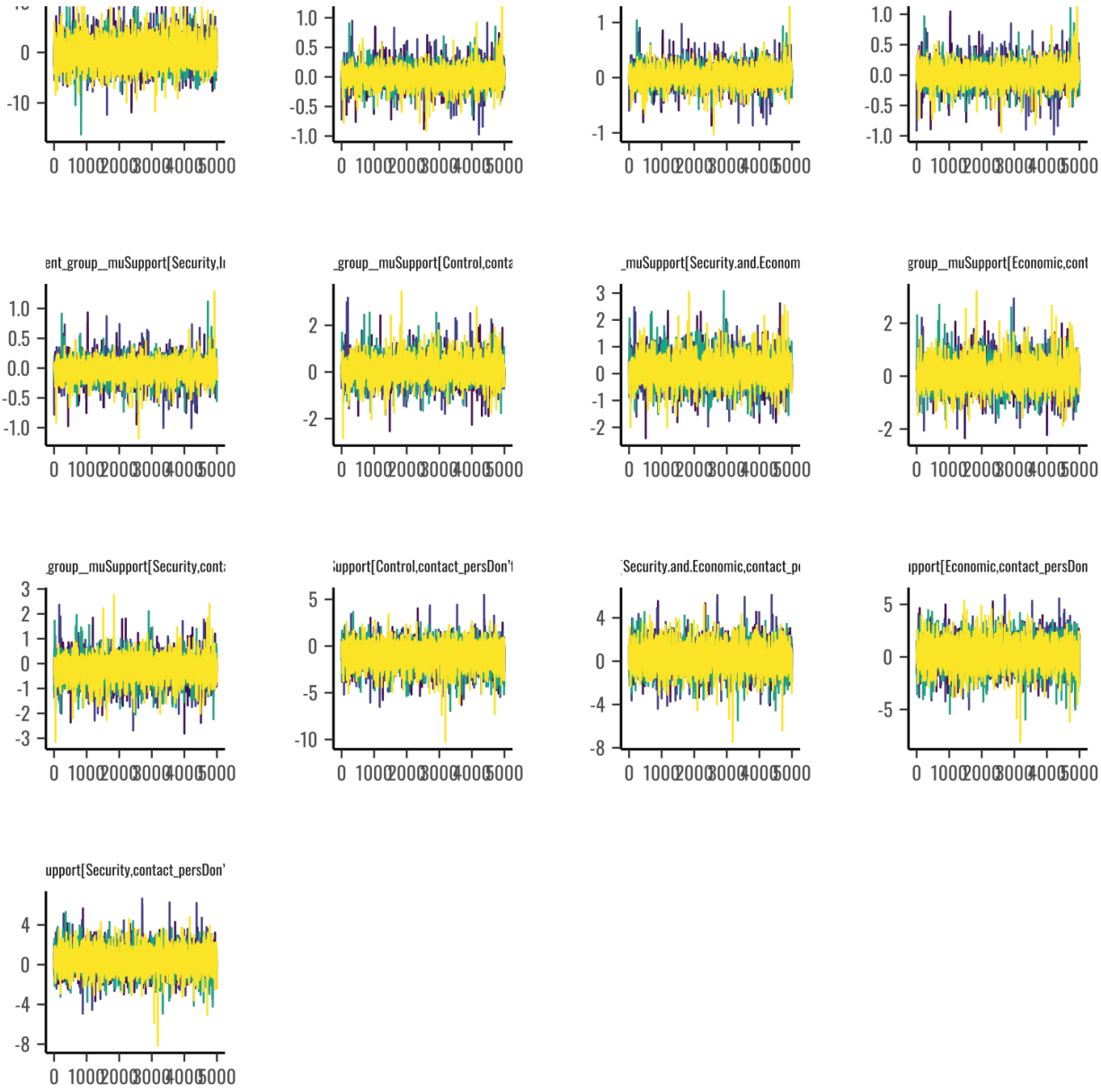


Traceplots for treatment variables from contact models, outcome question: 5 km distance.

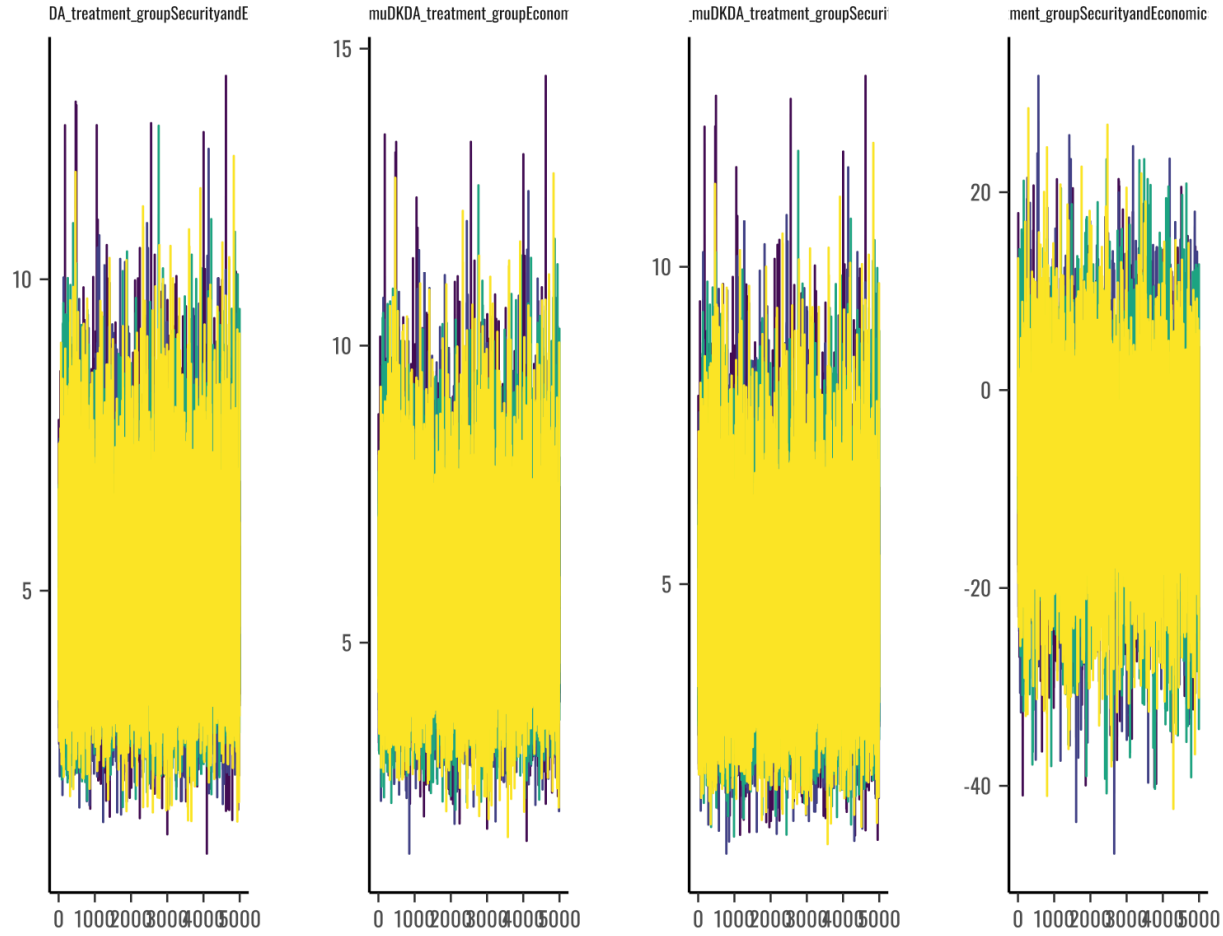
Contact and Treatment Interaction Models, 100 km

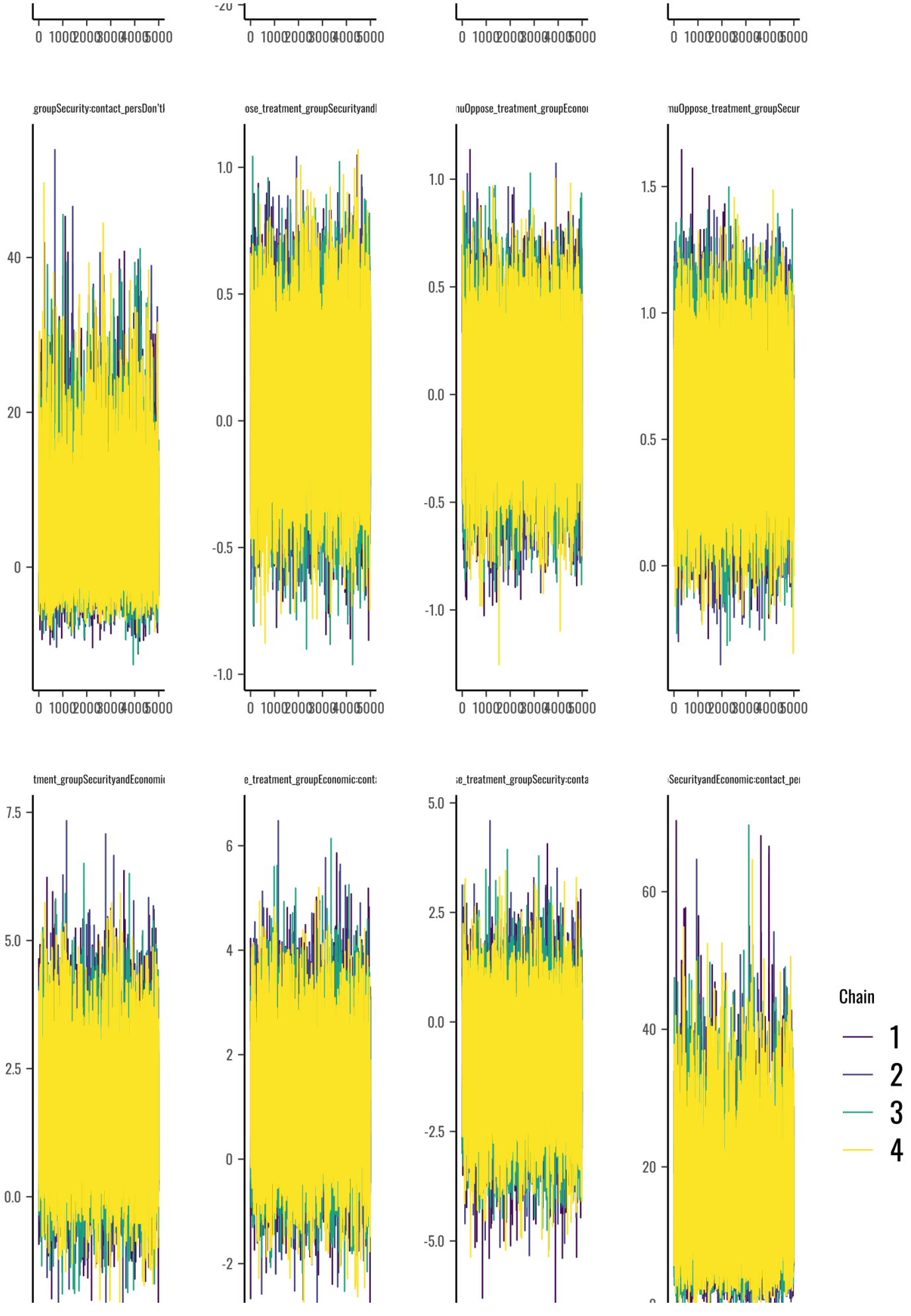
Traceplots for treatment variables from contact and treatment interaction models, outcome question: 100 km distance.

Contact and Treatment Interaction Models, 5 km

Traceplots for treatment variables from contact and treatment interaction models, outcome question: 5 km distance.

Contact and Treatment Interaction District Models, 100 km

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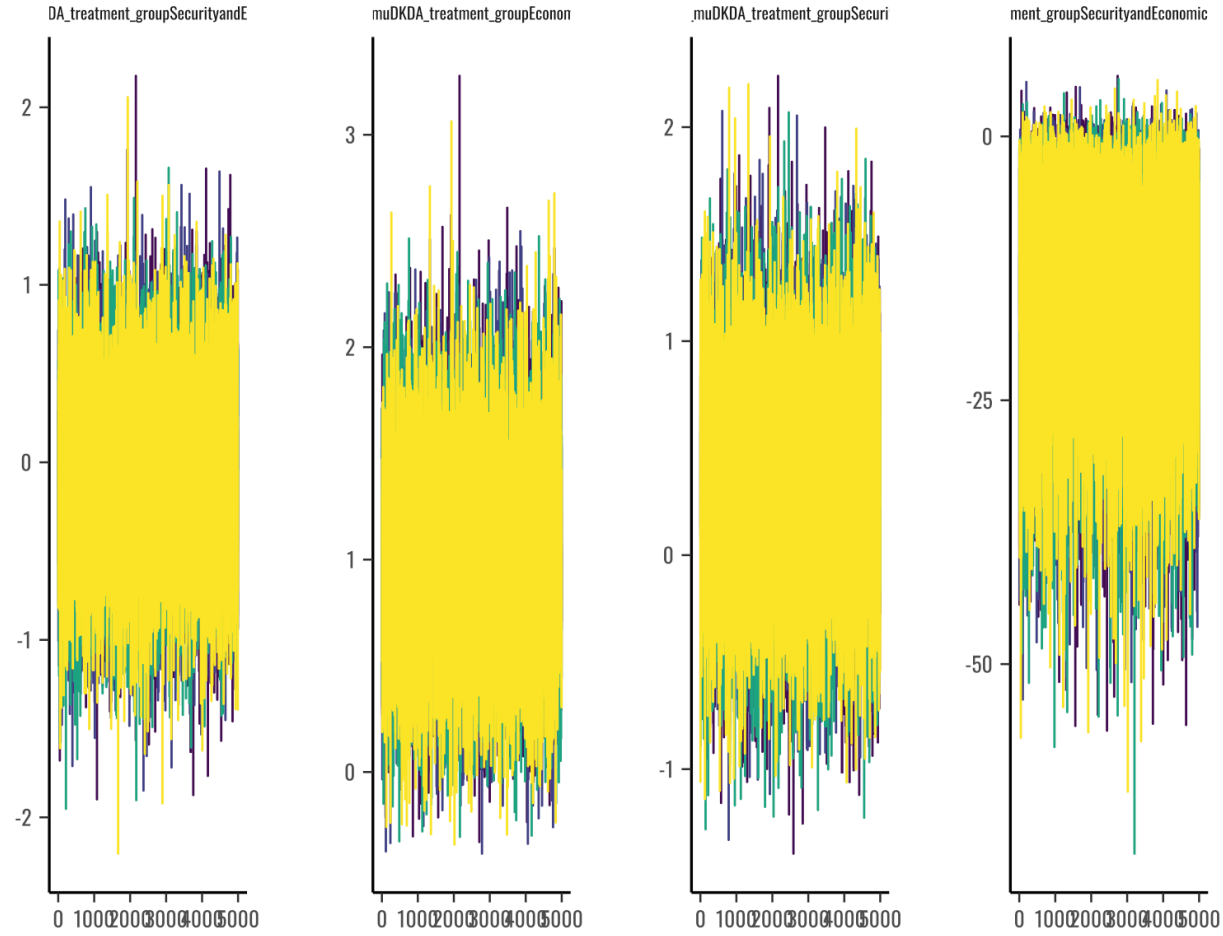
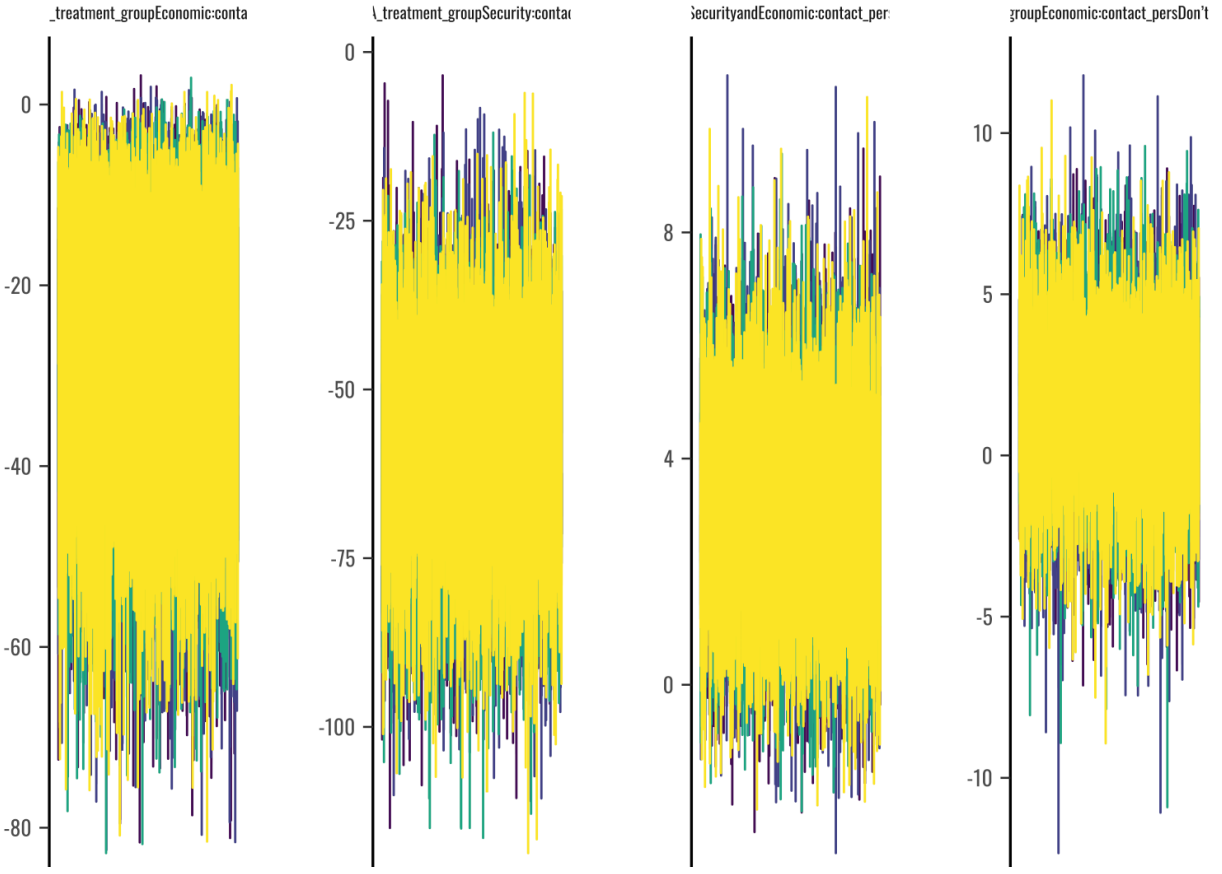
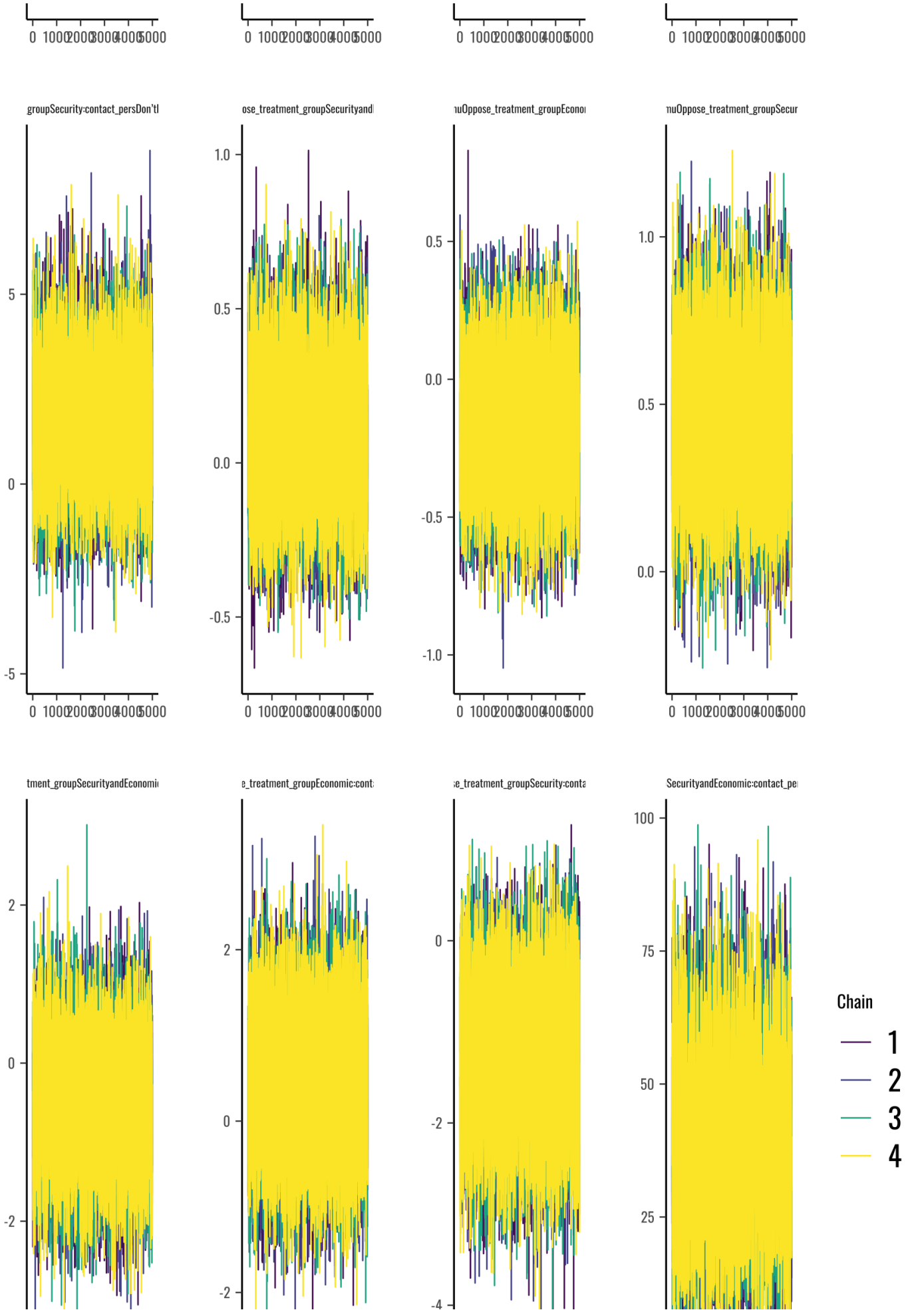
Contact and Treatment Interaction District Models, 5 km



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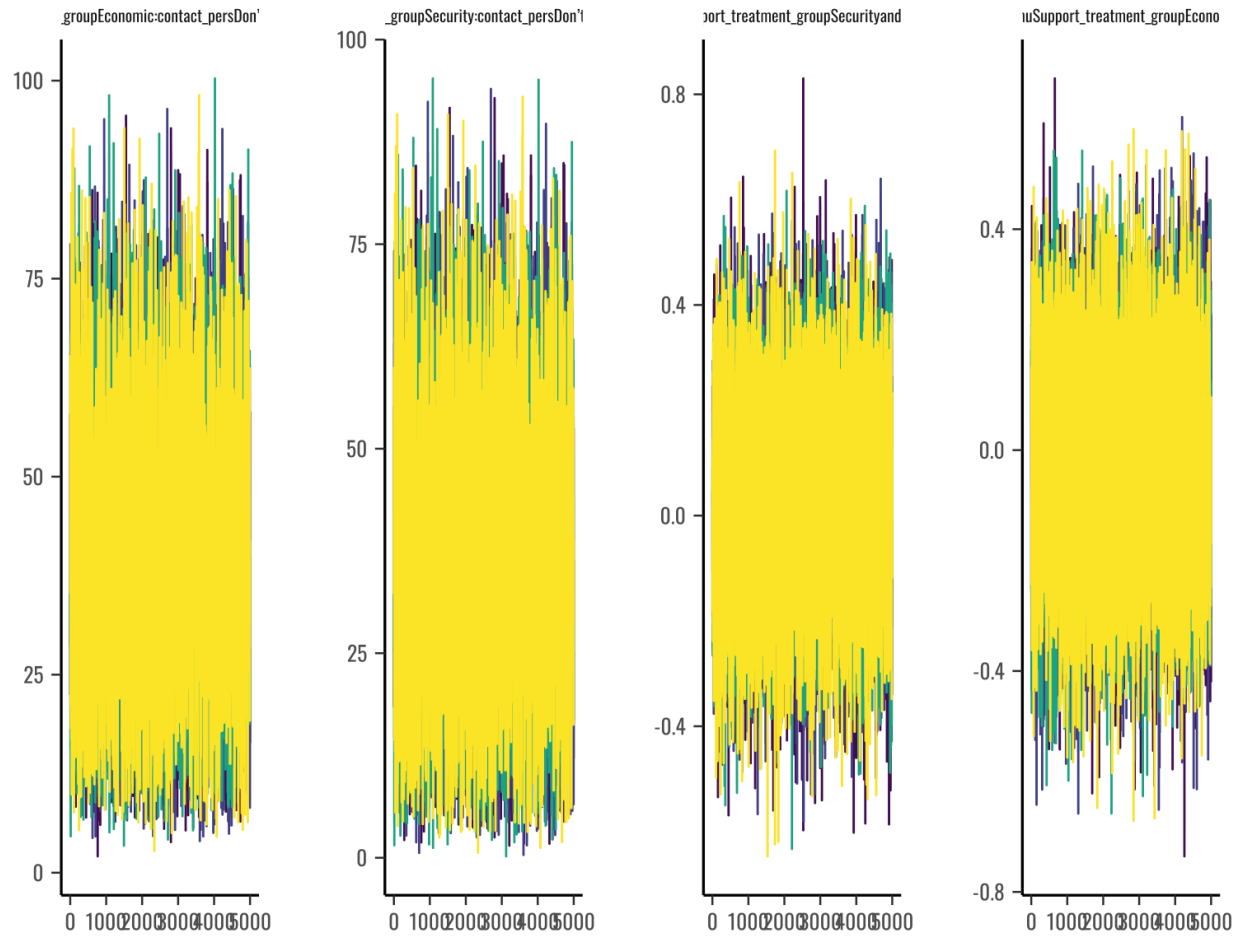
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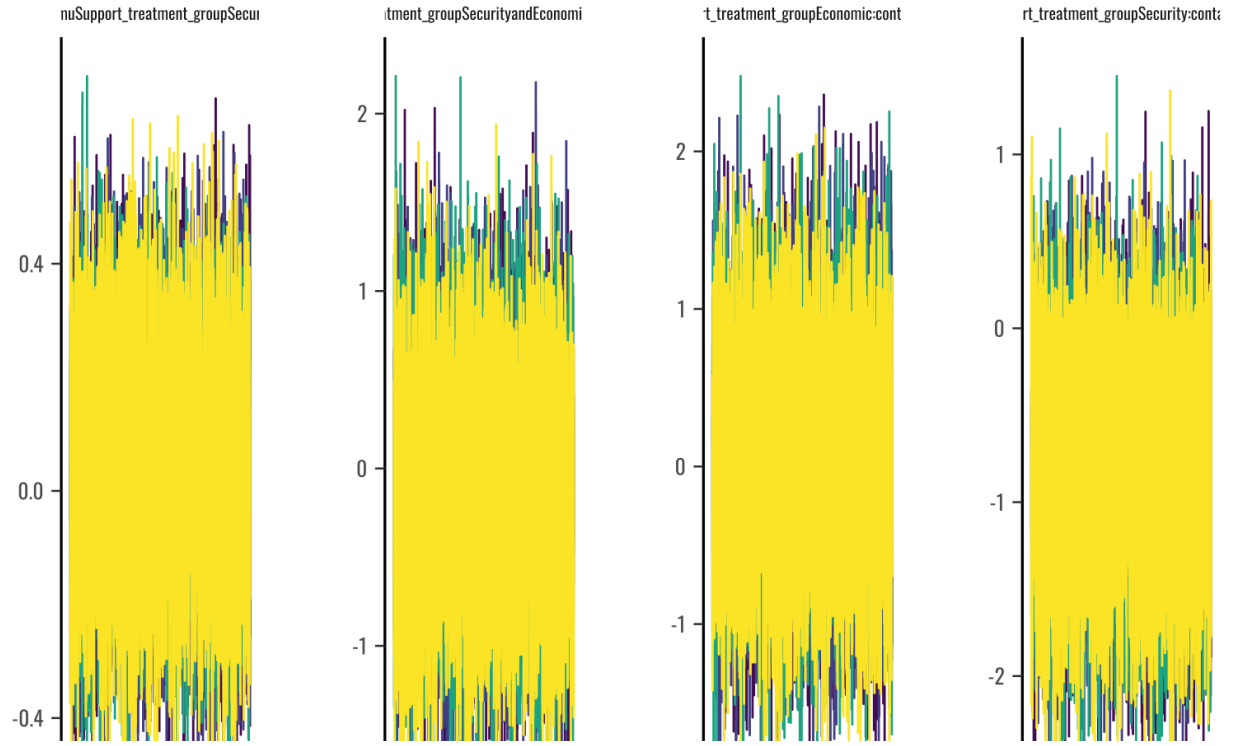
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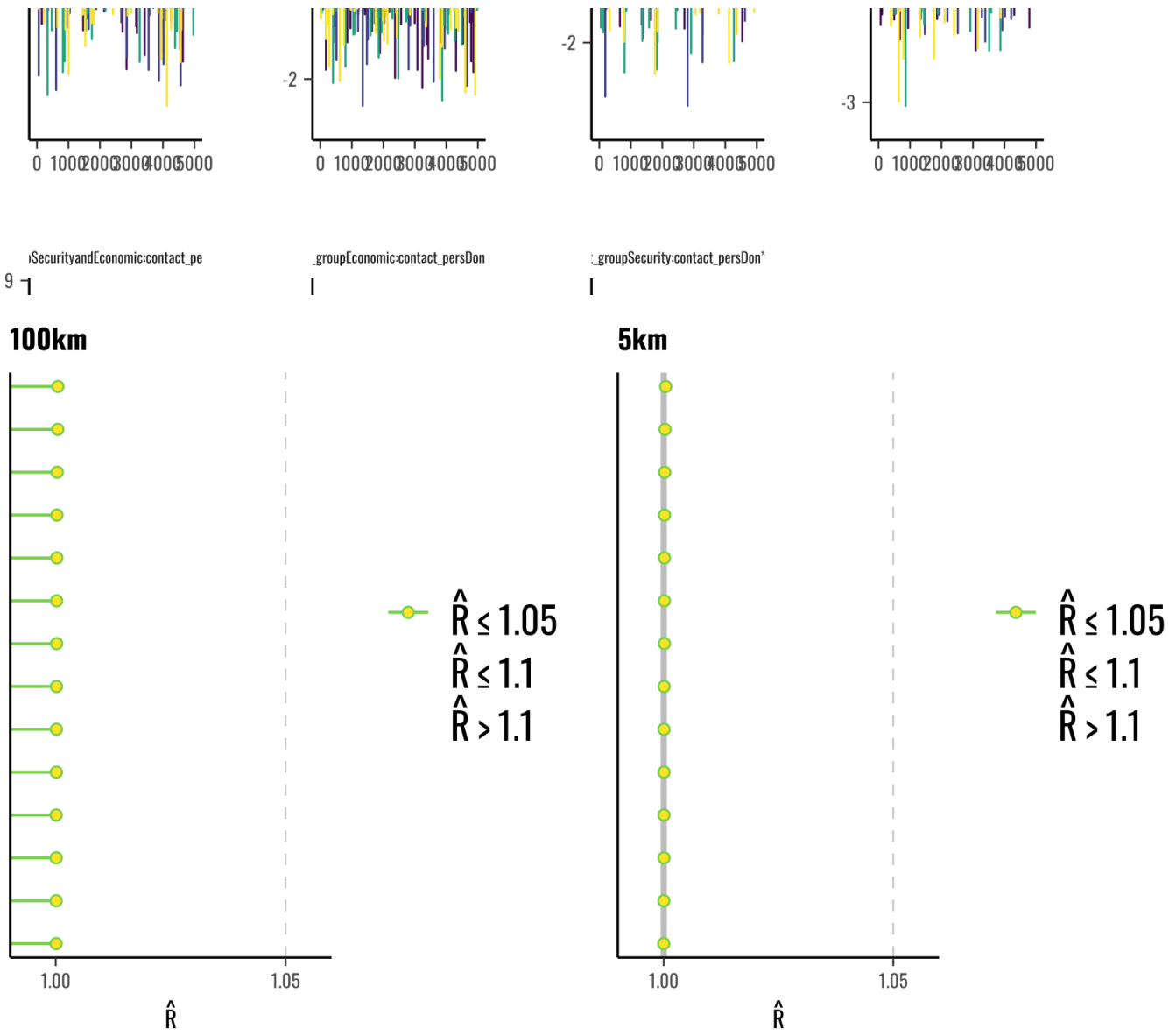
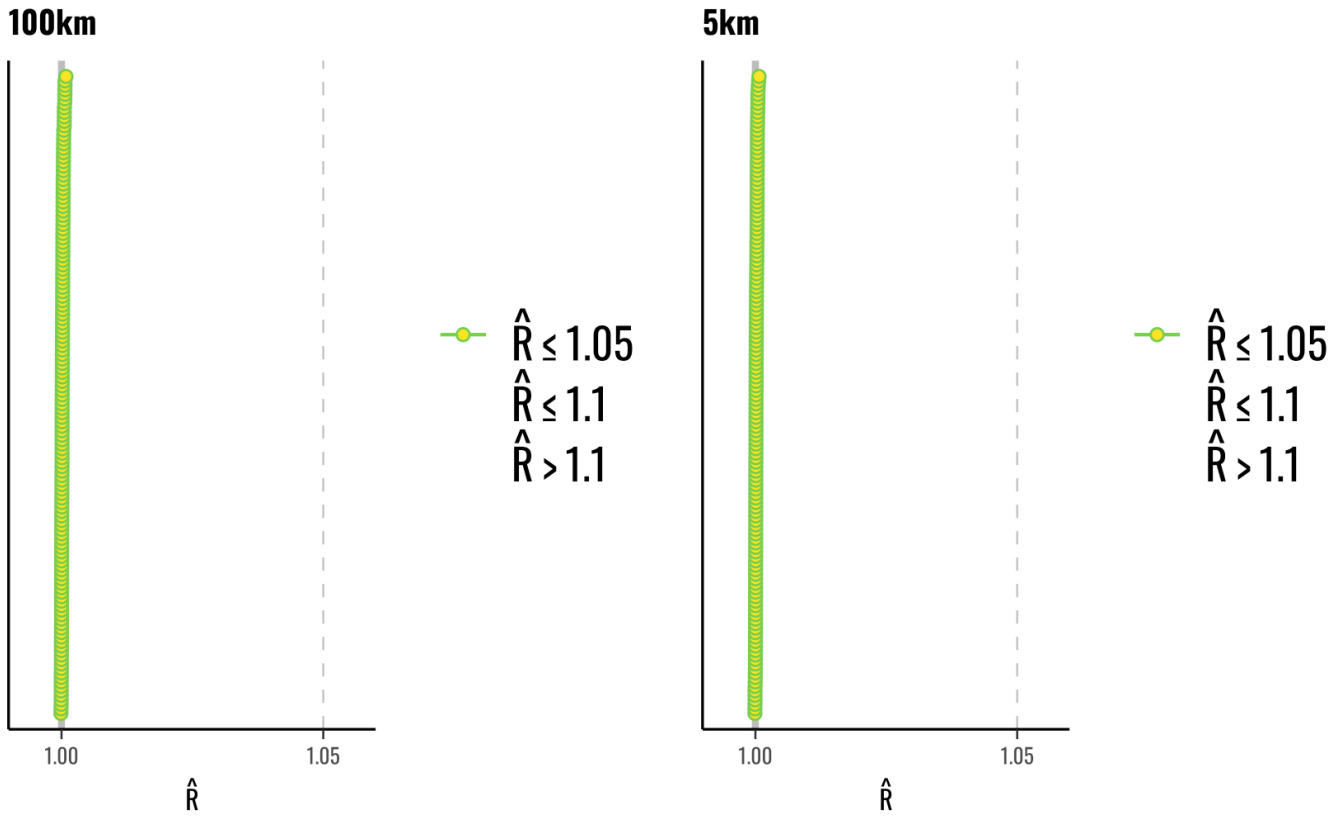
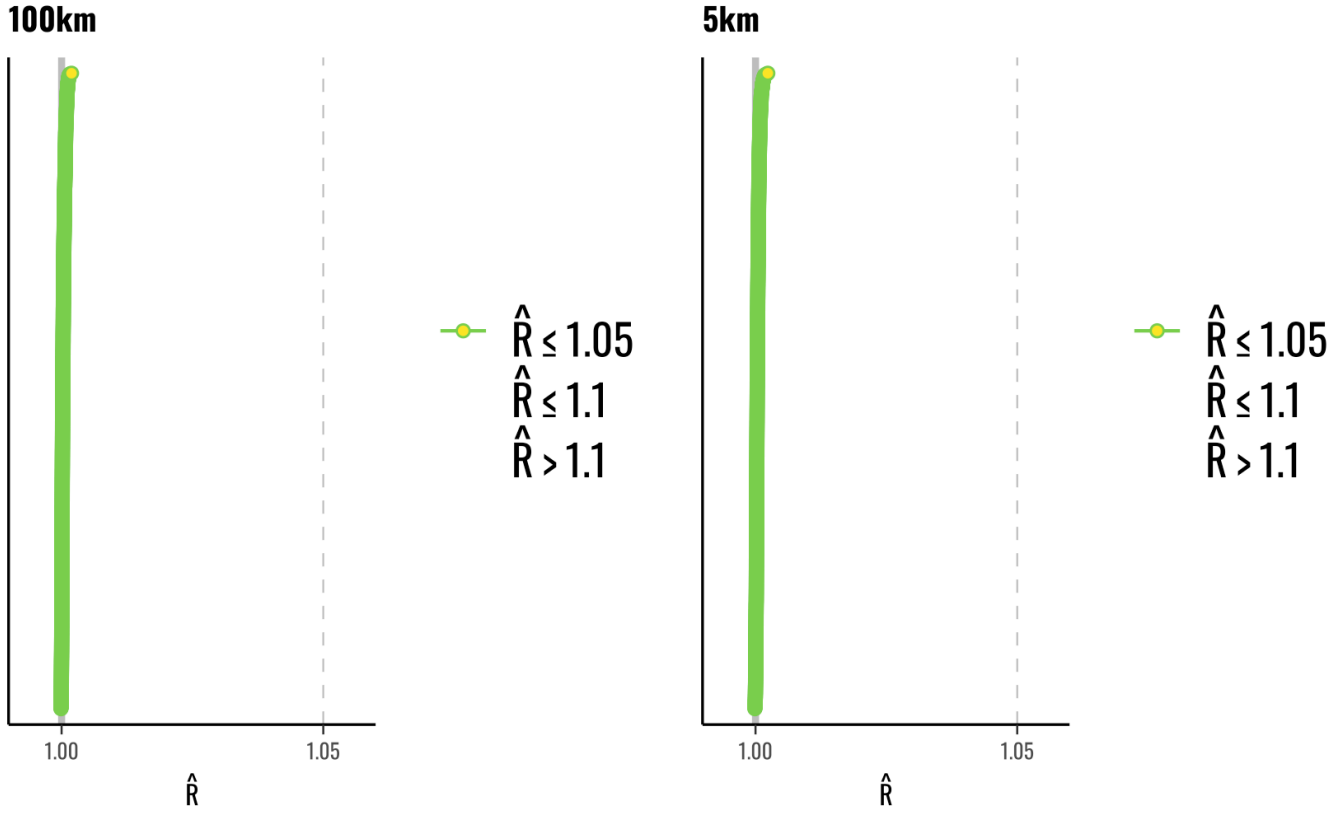


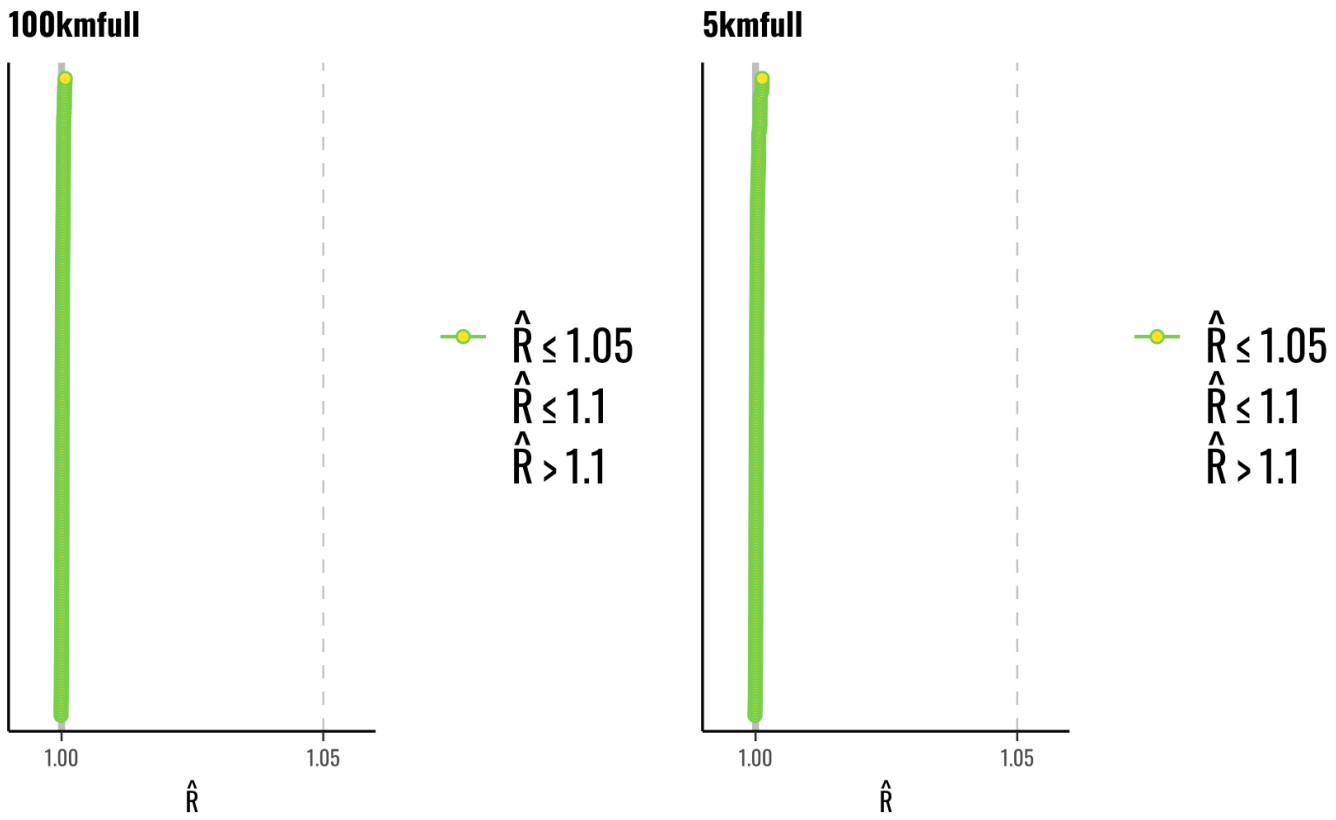
Rhat statistics for parameters from bivariate models.



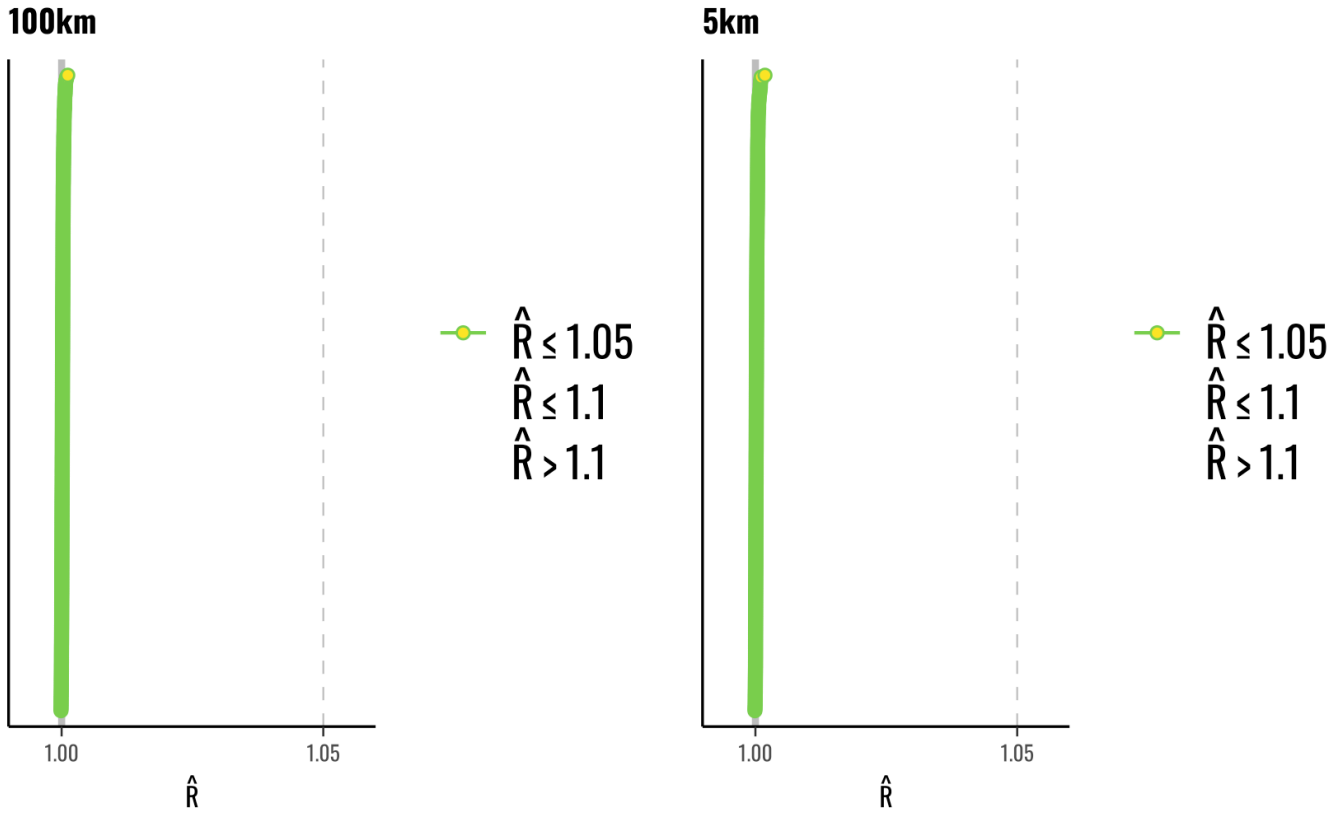
Rhat statistics for beta parameters from province models.



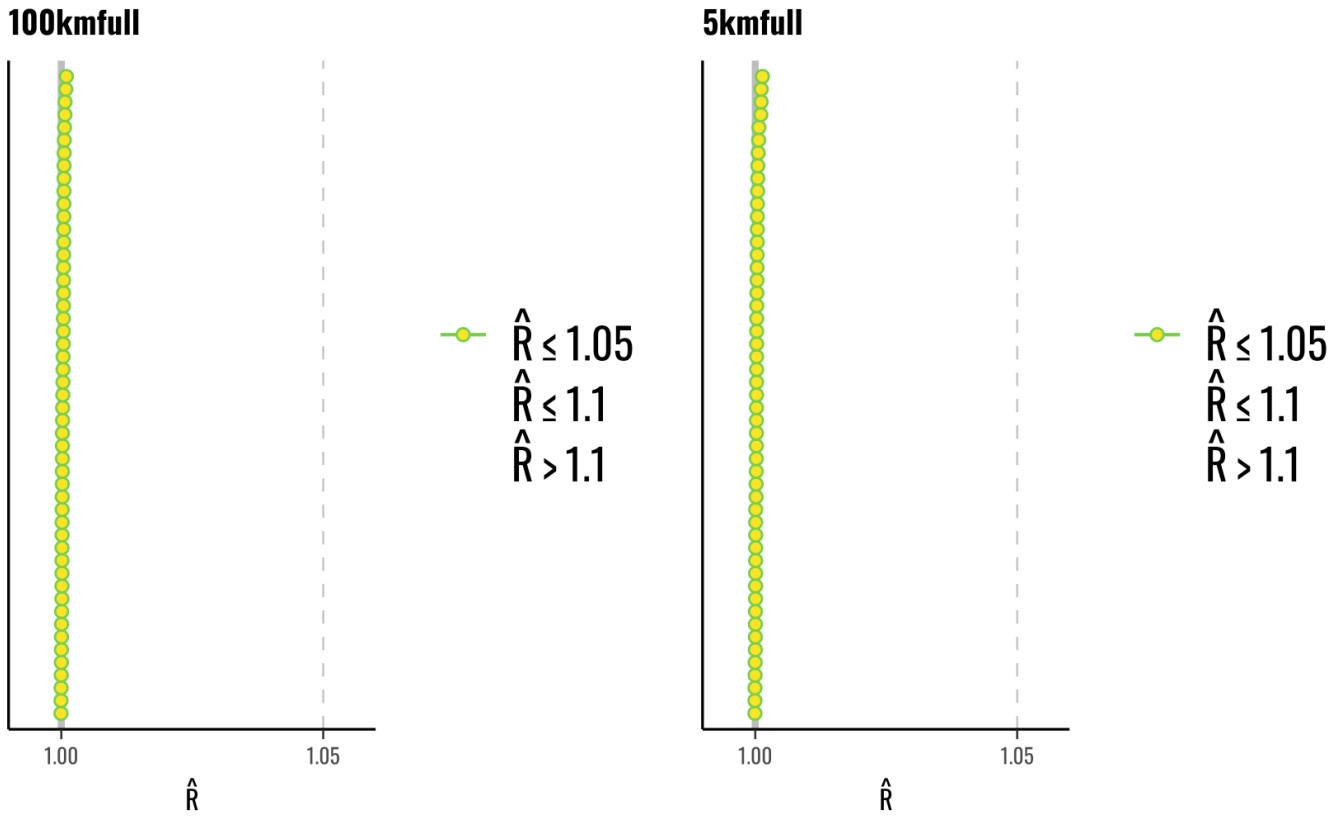
Rhat statistics for district models.



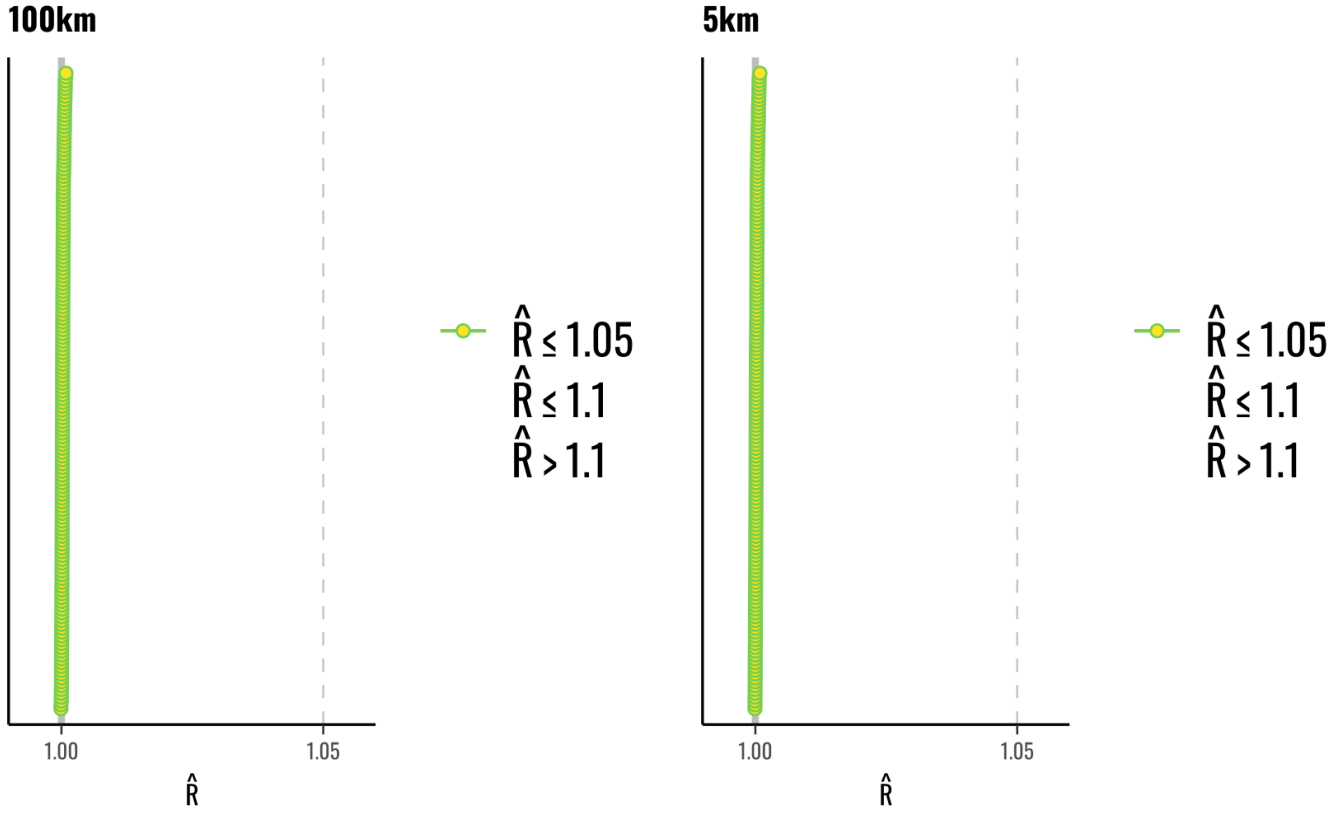
Rhat statistics for full response models.



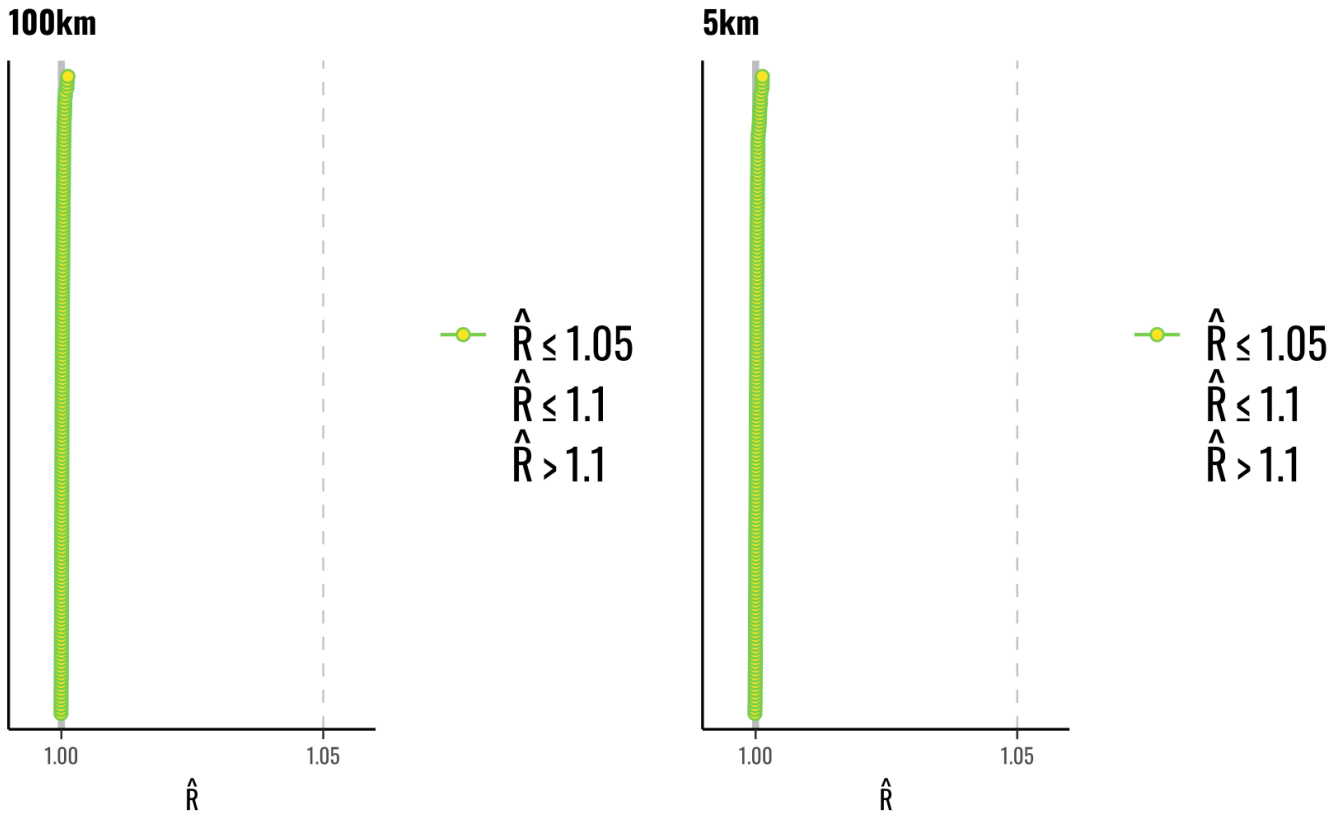
Rhat statistics for varying treatment effects models.



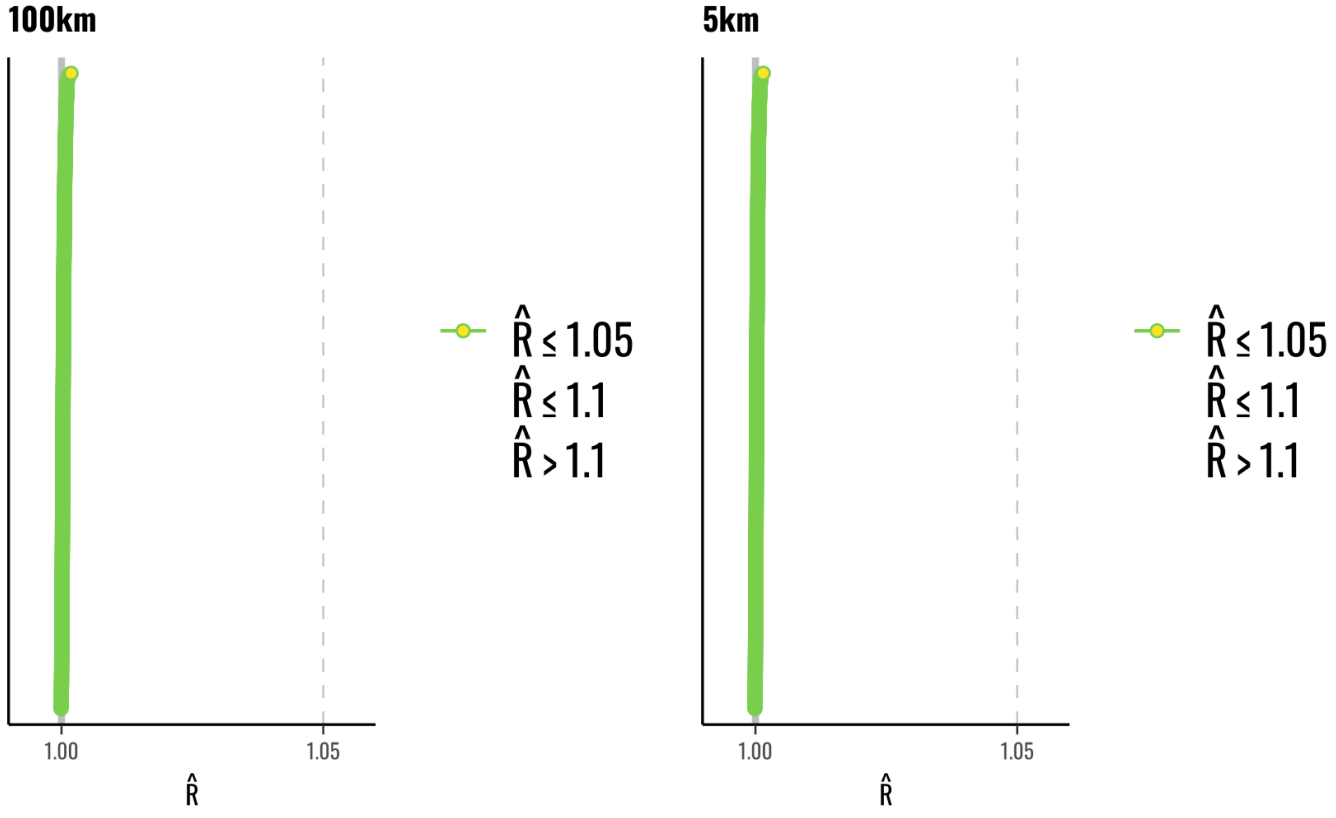
Rhat statistics ordered models.



Rhat statistics contact models.



Rhat statistics contact interaction models.



Rhat statistics contact interaction district models.

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Footnotes

1. Note that we omit the Don't know/Decline category because there are generally very few observations for this response group. For both the 100 km and 5 km questions we see only about 3% of respondents answer "Don't know/Decline to answer".↩

Outside Threats and Public Perceptions of the US Military in Poland

This is an update to the original registration

This update was made on Feb 24, 2023

Reason for update:
We updated the income quintiles for the survey in an effort to generate more accurate representative samples. Information for the updated quintiles came from the 2021 household survey from Statistics Poland, Social Surveys Department. https://stat.gov.pl/en/topics/living-conditions/living-conditions/household-budget-survey-in-2021,2,17.html

Study Information

Hypotheses

Hypothesis 1: Individuals primed with a Russia threat narrative will have a higher probability of supporting a new U.S. military presence in Poland than individuals who are not primed at all.

Hypothesis 2: Individuals primed with an economic benefits narrative will have a higher probability of supporting a new U.S. military presence in Poland than individuals who are not primed at all, but less likely to support it than individuals primed with the threat narrative.

Hypothesis 3: Individuals primed with both Russia threat and economic benefits narrative have the highest probability of expressing support for the U.S. military presence in Poland.

Hypothesis 4: Among individuals primed with a Russia threat narrative we expect a higher probability of expressing support for a new U.S. military facility in Poland when the proposed distance from the respondent is further away as compared to nearer.

Hypothesis 5: Among individuals primed with an economic benefit narrative we expect a higher probability of expressing support for a new U.S. military facility in Poland when the proposed distance from the respondent is closer as compared to further away.

Design Plan

Study type

Experiment - A researcher randomly assigns treatments to study subjects, this includes field or lab experiments. This is also known as an intervention experiment and includes randomized controlled trials.

Blinding

For studies that involve human subjects, they will not know the treatment group to which they have been assigned.

Is there any additional blinding in this study?

No response

Study design

Survey experiment featuring four groups (1 control and 3 treatment groups). Approximately 2,250 Polish adults are randomly assigned to one of the four control/treatment groups. Each respondent receives one treatment. Individual respondents are randomly

exposed to one of four possible vignettes discussing the possibility of a new US military facility opening in Poland. In the case of the treatment groups additional information is included. These vignettes include 1) a basic vignette discussing the possibility of new US military facilities in Poland, 2) One discussing the possibility of a new US military facility opening in Poland along with mention of Russian aggression in Ukraine, 3) One discussing the possibility of a new US military facility opening in Poland along with mention of possible economic benefits that result from U.S. military facilities, and 4) One discussing the possibility of a new US military facility opening in Poland along with mention of both Russian aggression in Ukraine and economic benefit prompts.

No files selected

Randomization

In addition to answering basic demographic questions and questions about foreign policy attitudes, respondents are randomly assigned to one of four blocks of questions in which they are asked about their views on new US military facilities opening in Poland (1 control group and 3 treatment groups). Each treatment block contains two questions preceded by vignettes designed to help us estimate the effects of information concerning Russian military aggression and/or possible economic benefits flowing from US military facilities. Respondents have an equal probabiliy of being assigned to each of the four groups (i.e. the probability that any one of the control/treatment groups will be assigned to a given respondent is 0.25 for all four groups). The randomization element is built into the Qualtrics survey design. The precise algorithm or mechanism has not been disclosed by Qualtrics.

Sampling Plan

Existing Data

Registration prior to creation of data

Explanation of existing data

No response

Data collection procedures

We have contracted with Qualtrics to collect survey data from approximately 2,250 adult Polish respondents. Participants must be at least 18 years of age. We also have rough quotas built into the survey to ensure that we receive approximately representative national samples based on age, income, and gender.

No files selected

Sample size

We expect approximately 2,250 Polish adults to be included in the final survey data. We also have questions built in to identify which of the 16 provinces and 380 districts respondents are from. This will allow us to treat respondents as nested within different administrative and geographics groupings for modeling purposes. Incomplete responses will be filtered out of the final data before delivery by Qualtrics.

Sample size rationale

The sample size was largely determined by the availability of funds.

Stopping rule

The survey will terminate when Qualtrics has at least 2,250 complete responses. Incomplete responses will be filtered out of the final data before delivery.

Variables

Manipulated variables

We include four treatment groups (1 control and 3 treatments) designed to assess the impact of information concerning 1) Russian military aggression in Ukraine and/or 2) the possible economic benefits of hosting a US military presence. The treatments are embedded in short vignettes that are presented to respodents, and then the respondents are asked to answer two followup questions. The vignettes are as follows:

Control (No threat or economic benefit)
In recent years there have been discussions between Polish and U.S. government officials about increasing the U.S. military presence in Poland. One of the options that has been discussed is that of opening up a new U.S. military base in Poland. This new base could

house several thousand U.S. service members, as well as a variety of military equipment such as helicopters, tanks, and other vehicles.

Treatment 1 (Russia threat AND Economic benefit)
Russia's 2014 annexation of Crimea and 2022 invasion of Ukraine represent the first major interstate war to occur in Europe in decades. The war has resulted in numerous casualties, including a large number of civilians killed and entire cities destroyed, and has displaced hundreds of thousands of people.
In recent years there have been discussions between Polish and U.S. government officials about increasing the U.S. military presence in Poland. One of the options that has been discussed is that of opening up a new U.S. military base in Poland. This new base could house several thousand U.S. service members, as well as a variety of military equipment such as helicopters, tanks, and other vehicles.
Some would argue that a new military base would bring economic benefits to the neighboring community through actions such as sourcing from local contractors, hiring local individuals to work on base, and having American service members patronize local businesses.

Treatment 2 (Russia threat ONLY)
Russia's 2014 annexation of Crimea and 2022 invasion of Ukraine represent the first major interstate war to occur in Europe in decades. The war has resulted in numerous casualties, including a large number of civilians killed and entire cities destroyed, and has displaced hundreds of thousands of people.
In recent years there have been discussions between Polish and U.S. government officials about increasing the U.S. military presence in Poland. One of the options that has been discussed is that of opening up a new U.S. military base in Poland. This new base could house several thousand U.S. service members, as well as a variety of military equipment such as helicopters, tanks, and other vehicles.

Treatment 3 (Economic benefit ONLY)
In recent years there have been discussions between Polish and U.S. government officials about increasing the U.S. military presence in Poland. One of the options that has been discussed is that of opening up a new U.S. military base in Poland. This new base could house several thousand U.S. service members, as well as a variety of military equipment such as helicopters and jeeps.
Some would argue that a new military base would bring economic benefits to the neighboring community through actions such as sourcing from local contractors, hiring local individuals to work on base, and having American service members patronize local businesses.

No files selected

Measured variables **Updated**

Outcome:

We have two outcome questions/variables. The final analysis will condense these questions down into four categories: 1) Support, 2) Neutral/Neither support nor oppose, 3) Oppose, and 4) Don't know/decline to answer.

1. How likely would you be to support this new military installation if it were to be located in a town that were 100 kilometers away from where you currently live?
Strongly support
Somewhat support
Neither support nor oppose
Somewhat oppose
Strongly oppose
Don’t know/decline to answer

2. How likely would you be to support this new military installation if it were to be located within 5 kilometers of where you currently live?
Strongly support
Somewhat support
Neither support nor oppose
Somewhat oppose
Strongly oppose
Don’t know/decline to answer

Predictor variables:

We will also adjust for several covariates that capture respondents' demographic and attitudinal characteristics.

1. What is your gender?
Male
Female
Non-binary
None of the above
Decline to answer

2. Do you identify as a racial, ethnic, or religious minority?
Yes
No
Decline to Answer

3. What is your highest education level?
Primary Education
Secondary Education
Vocational School
Higher Education (Bachelor/Engineer)
Higher Education (Master's degree or higher)

4. What is your age?
18 to 24 years
25 to 34 years
35 to 44 years
45 to 54 years
55 to 64 years
Age 65 or older
Decline to Answer

5. What is your total household income during the past 12 months (in Polish złoty) ?
0 – 43 339
43 340 – 57 187
57 188 – 74 062
74 063 – 93 937
93 938 +
Decline to Answer

6. Your primary income comes from:
Full-time or contract work in the private sector
Full-time or contract work in the government or public sector
Self-employed (non-agricultural)
Agriculture
Pension or retirement
Other sources

7. People often talk about political issues and views in terms of a "left" (liberal) and "right" (conservative) spectrum. Using the following scale, where would you place yourself in terms of political views?

LEFT RIGHT
1 2 3 4 5 6 7 8 9 10
Decline to answer

8. We also include grouping terms in our multilevel/hierarchical model for the reported voivodeship and powiat of residence for each respondent.

No files selected

Indices

The outcome responses will be collapsed into four variable groupings: 1) Support, 2) Neutral/Neither support nor oppose, 3) Oppose, and 4) Don't know/decline to answer. Responses of "Strongly support" and "Somewhat support" will be categorized as "Support".

Responses of "Neither support nor oppose" will be categorized as "Neutral". Responses of "Somewhat oppose" or "Srongly oppose" will be categorized as "Oppose". Responses of "Don't know/decline to answer" will be categorized as such.

No files selected

Analysis Plan

Statistical models

We will analyze the data using a Bayesian multilevel multinomial/categorical logit model. All of the variables are derived from the survey listed on the previous page.

Model specification details:

Outcome:

We use two separate outcome variables:

1. Support for a new US military installation 100km away. Variable is measured as four categories: 1) Support, 2) Neutral, 3) Oppose, 4) Don't know/decline to answer.

2. Support for a new US military installation 5km away. Variable is measured as four categories: 1) Support, 2) Neutral, 3) Oppose, 4) Don't know/decline to answer.

Predictor variables:

1. Treatment categories: 1) Control, 2) Security/threat prompt, 3) Economic prompt, 4) Both security/threat and economic prompt
2. Gender
3. Minority self-identification
4. Highest education level
5. Age
6. Total household income in last 12 months
7. Source of primary income
8. Left-right political orientation

The multilevel models allow us to group respondents by their reported province (voivodeship) and district (powiat) of residence. We will run models including varying intercepts for provinces alone, and also provinces with districts nested within provinces.

Priors:

As we are running Bayesian models we will set priors before running our models. These priors will be based upon our previously published work on the subject where possible. In the case of new variables and treatments that we have not included in previous research we will use regularizing priors centered around 0.

No files selected

Transformations

We use two separate outcome variables. The original outcome responses will be recoded so that "Very" and "Somewhat" responses are collapsed into more general categories. For example "Very supportive" and "Somewhat supportive" responses would be recoded as "Support" and similar for negative responses. The other two categories, "Neither support nor oppose" and "Don't know/decline to answer" will be left as is, though a different label like "Neutral" may be applied to the "Neither support nor oppose" response for the sake of making data processing and modeling easier.

1. Support for a new US military installation 100km away. Variable will be coded as four categories: 1) Support, 2) Neutral, 3) Oppose, 4) Don't know/decline to answer.

2. Support for a new US military installation 5km away. Variable will be coded as four categories: 1) Support, 2) Neutral, 3) Oppose, 4) Don't know/decline to answer.

The predictor variables are almost all categorical indicator variables with each level effectively becoming a binary indicator as a result of the way R treats factor variables and will not be transformed. The only exception is the ideology measure which we will transform by taking the observed value, subtracting the mean of that variable, and dividing by two standard deviations per Gelman (2008).

Inference criteria

We will report coefficient posteriors and specific descriptive statistics, such as the percentage of the posterior that falls above or below 0, as well as other relevant thresholds such as the values and distributions of other coefficients. We will also examine various information criteri, cross-validation metrics, and other model fit diagnostics to assess the relative fit and performance of the models we run. We will also consult Rhat values and other diagnostic criteria to assess model convergence. Last, we will also look at previous survey data that asks similar questions of Polish residents to assess how response levels may have changed since the Russian invasion of Ukraine in 2022.

Data exclusion

Qualtrics is monitoring the data as they come in to ensure that respondents are completing the survey questions and will only return complete survey responses. We will not see incomplete responses as we have opted to not retain those observations.

Missing data

If a respondent does not answer an outcome question or a predictor variable question they will be dropped automatically from the analysis when we run it.

Exploratory analysis

We expect that respondents' geographic location may have a conditioning effect on the effect of the various treatments. For example, respondents living close to the border with Ukraine may be more sensitive to prompts discussing Russian aggression than those living farther away. Alternatively, individuals living closer to the border with Germany, or in provinces that host US military personnel, may be more sensitive to prompts addressing potential economic benefits since they may be more exposed to US personnel and the positive and negative externalities resulting from that presence (economic or otherwise). While our budget is too small to collect larger samples from every province and district, we expect to have enough observations to conduct some preliminary analyses of this question. Our multilevel modeling approach also helps us to address this question by allowing us to let the treatment effects vary across provinces and/or districts.

Other

Other

The analysis conducted here is largely based on previous work conducted by members of this team. See Allen, Michael A., Michael E. Flynn, Carla Martinez Machain, and Andrew Stravers. 2022. Beyond the Wire: US Military Deployments and Host-Country Public Opinion. New York, NY: Oxford University Press.