

APPENDIX - full results and robustness

Socio-economic impacts of the Inuvik-Tuktoyaktuk Highway: a synthetic control analysis of new all-season road development in Arctic Canada*

Sara Wray Enns

July 4, 2025

Abstract

From 1974 to 2017, a winter ice road was the only ground transportation from Tuktoyaktuk, Northwest Territories, to Inuvik, the regional centre and subsequently the rest of Canada. On November 15, 2017, the Inuvik-Tuktoyaktuk Highway (ITH) opened, allowing people to travel to the community year-round (Government of the Northwest Territories, 2010). I use a synthetic control analysis to study the impact of the causal effect of the opening of the ITH on crime, income, employment and population. I find non-positive results for income and employment outcomes and mixed results for crime outcomes. Data is obtained from the Canadian Census, the Northwest Territories Community Survey, Canadian Vital Statistics and the T4 Family file – made available through the Northwest Territories Bureau of Statistics.

Keywords: Infrastructure, road development, socio-economic outcomes, employment, infrastructure and income, economics of crime, demographic changes

JEL Codes: J15, J21, K14, O18, P25, R23

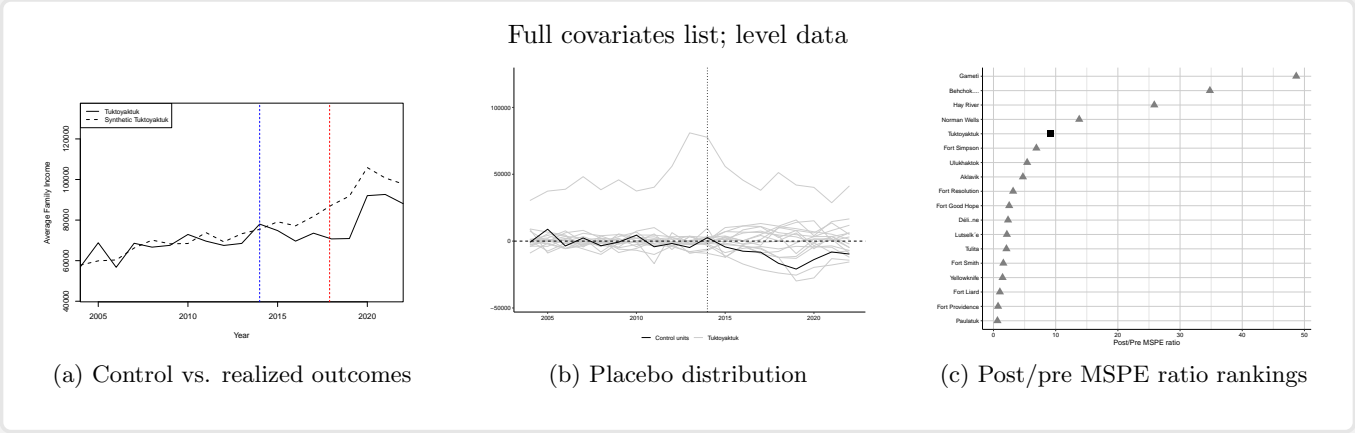
*I thank my supervisor team Donn Feir, Rob Gillezeau and Maggie E.C. Jones

AVERAGE FAMILY INCOME

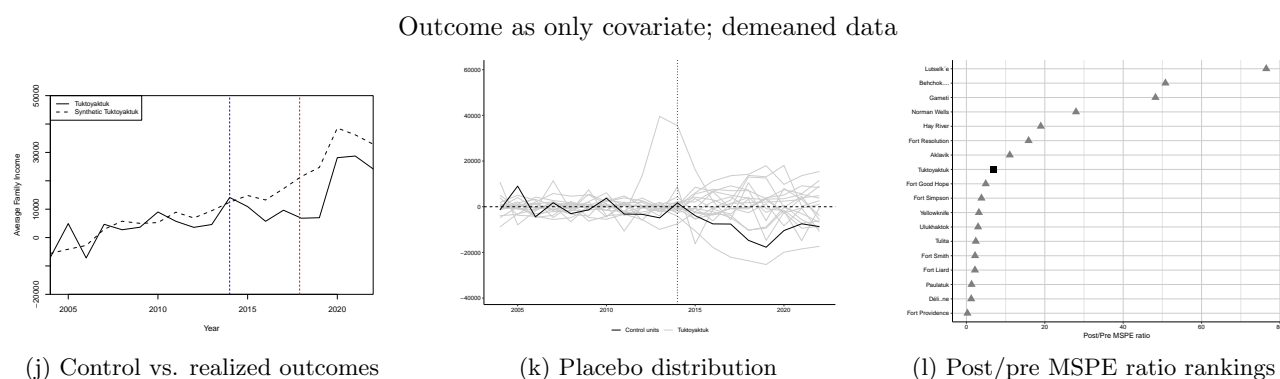
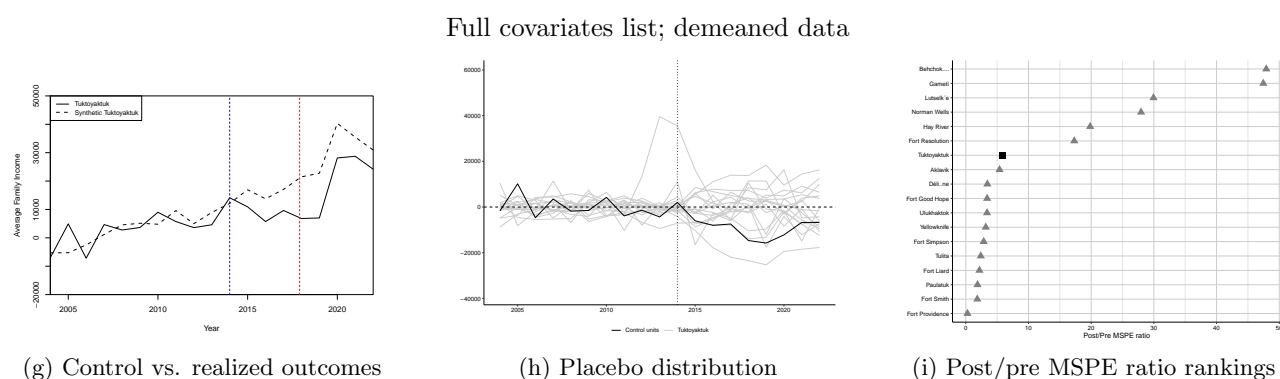
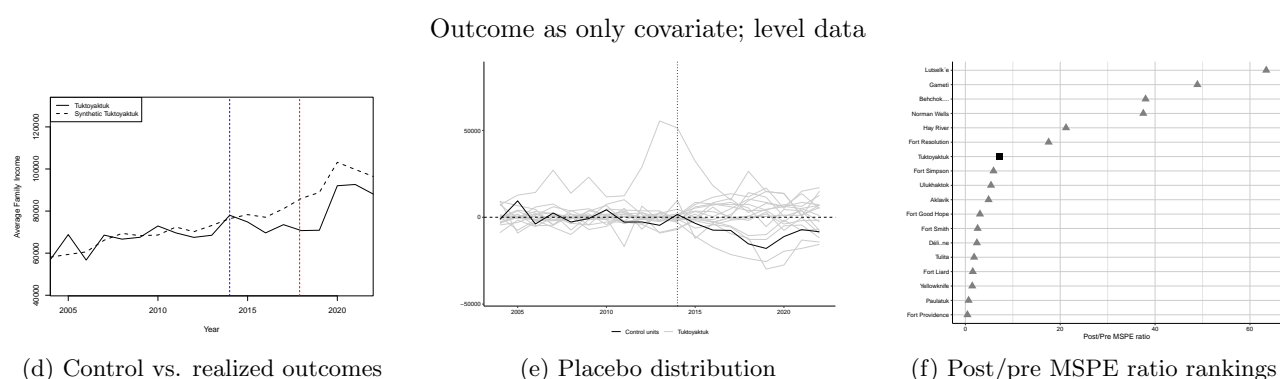
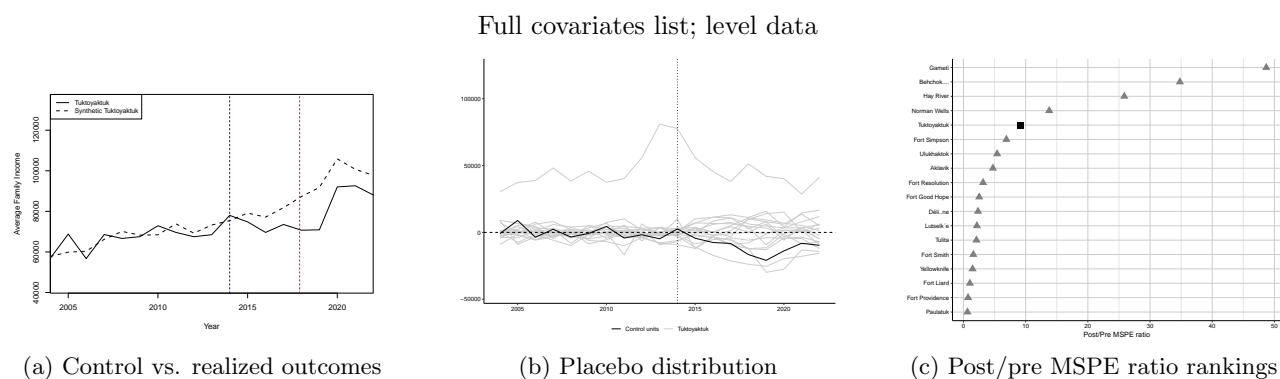
Figure 1: Average family income results for Tuktoyaktuk

PREFERRED SPECIFICATION

2014 treatment; Other NWT communities as donor pool

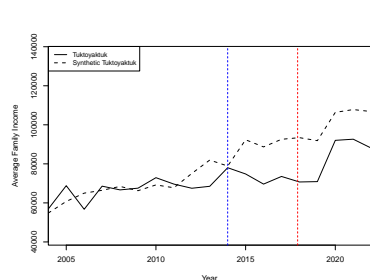


2014 treatment: Other NWT communities as donor pool



NOTES: Average family income is based on a family size of two adults and two children or SOMETHING SOMETHING, and is taken as the community average. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

2014 treatment; Mackenzie valley ice road communities as donor pool



(c) Post/pre MSPE ratio rankings

The graph displays the average family income for Takapuna and its synthetic counterpart from 2005 to 2020. The Y-axis represents the average family income, ranging from 40,000 to 140,000. The X-axis represents the year, from 2005 to 2020. The solid black line represents Takapuna, and the dashed black line represents Synthetic Takapuna. Vertical dashed lines indicate the start of the COVID-19 pandemic (blue, 2020) and the end of the study (red, 2021).

Year	Takapuna (Average Family Income)	Synthetic Takapuna (Average Family Income)
2005	55,000	50,000
2006	65,000	55,000
2007	50,000	60,000
2008	60,000	60,000
2009	60,000	60,000
2010	60,000	60,000
2011	65,000	65,000
2012	65,000	65,000
2013	65,000	65,000
2014	65,000	65,000
2015	75,000	85,000
2016	75,000	85,000
2017	70,000	85,000
2018	70,000	85,000
2019	70,000	85,000
2020	90,000	100,000
2021	90,000	100,000

The graph displays the daily death toll from COVID-19 in the United States. The y-axis is labeled 'Number of deaths' and ranges from 0 to 150,000 in increments of 50,000. The x-axis shows the years 2020, 2021, and 2022. A vertical dashed line is positioned at the beginning of 2021. The data shows a sharp increase in deaths starting in early 2021, peaking at nearly 130,000 in late March, and then gradually declining to around 80,000 by late 2021. In 2022, the death toll fluctuates between approximately 60,000 and 100,000.

University	Years since founding	Number of top 10 rankings
Tulagaylak	100	10
Fort Good Hope	35	7
Delaware	25	6
Norman Wells	20	5
Tufts	10	4
Cornell	5	3

(f) Post/pre MSPE ratio rankings

The graph displays the Average Family Income for Tatoyataak (solid line) and Synthetic Tatoyataak (dashed line) from 2005 to 2020. The Y-axis represents Average Family Income, ranging from -20,000 to 50,000. The X-axis represents the year. Vertical dashed lines indicate the years 2014 (blue) and 2018 (red). Tatoyataak shows a significant increase in income starting around 2014, peaking around 2019, while Synthetic Tatoyataak remains relatively stable.

Company	Years since founding	Employees
Tuleya	50	100
Norman Wells	35	80
Dell	25	60
Fort Good Hope	20	50
Tulea	10	30
Camell	5	10

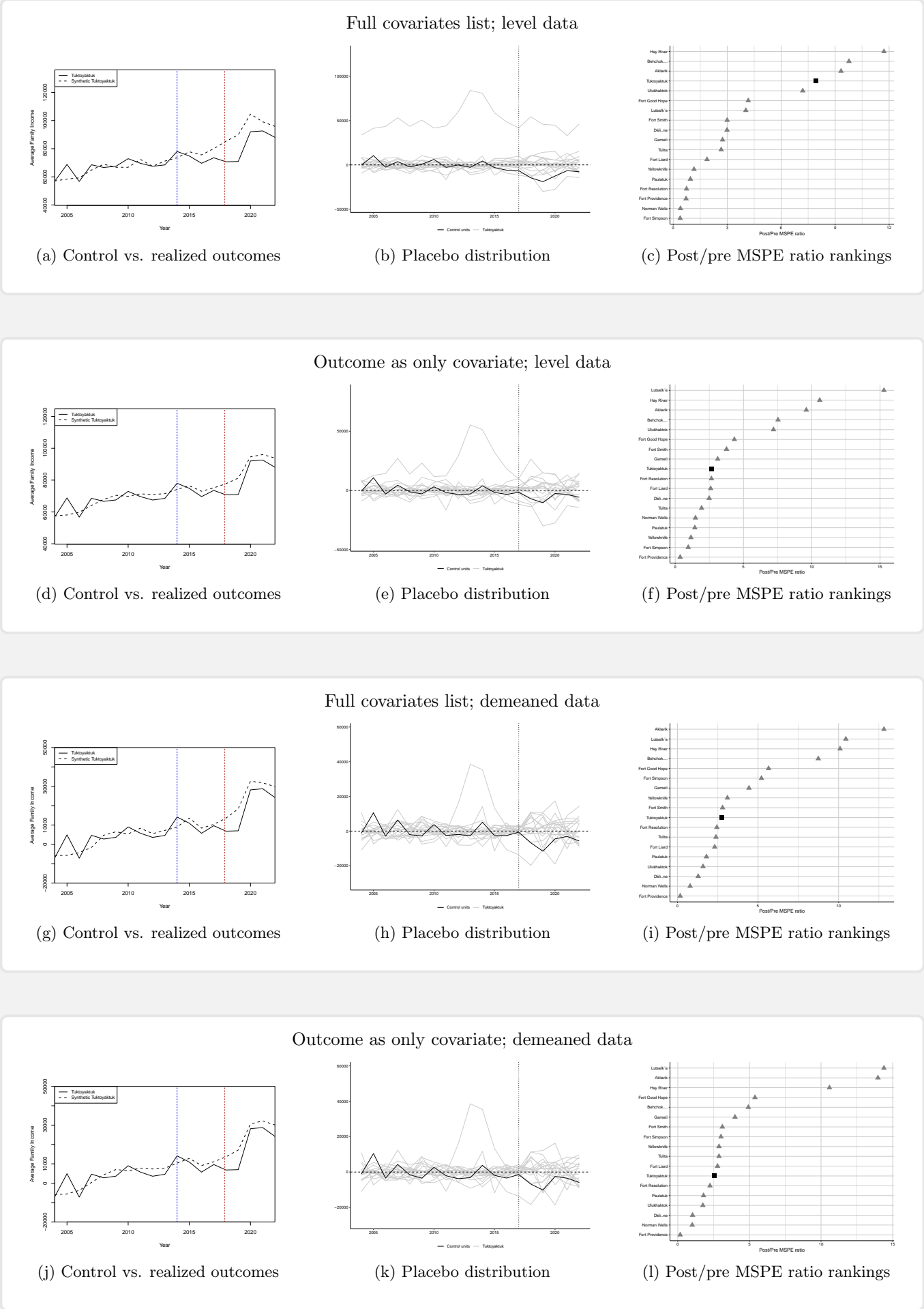
(i) Post/pre MSPE ratio rankings

Settlement	Years since founding	Number of sites
Tutuila	100	10
Norman Walls	28	8
Dili, ov	22	6
Fort Good Hope	20	5
Tula	10	3
Ganer	5	2

(1) Post/pre MSPE ratio rankings

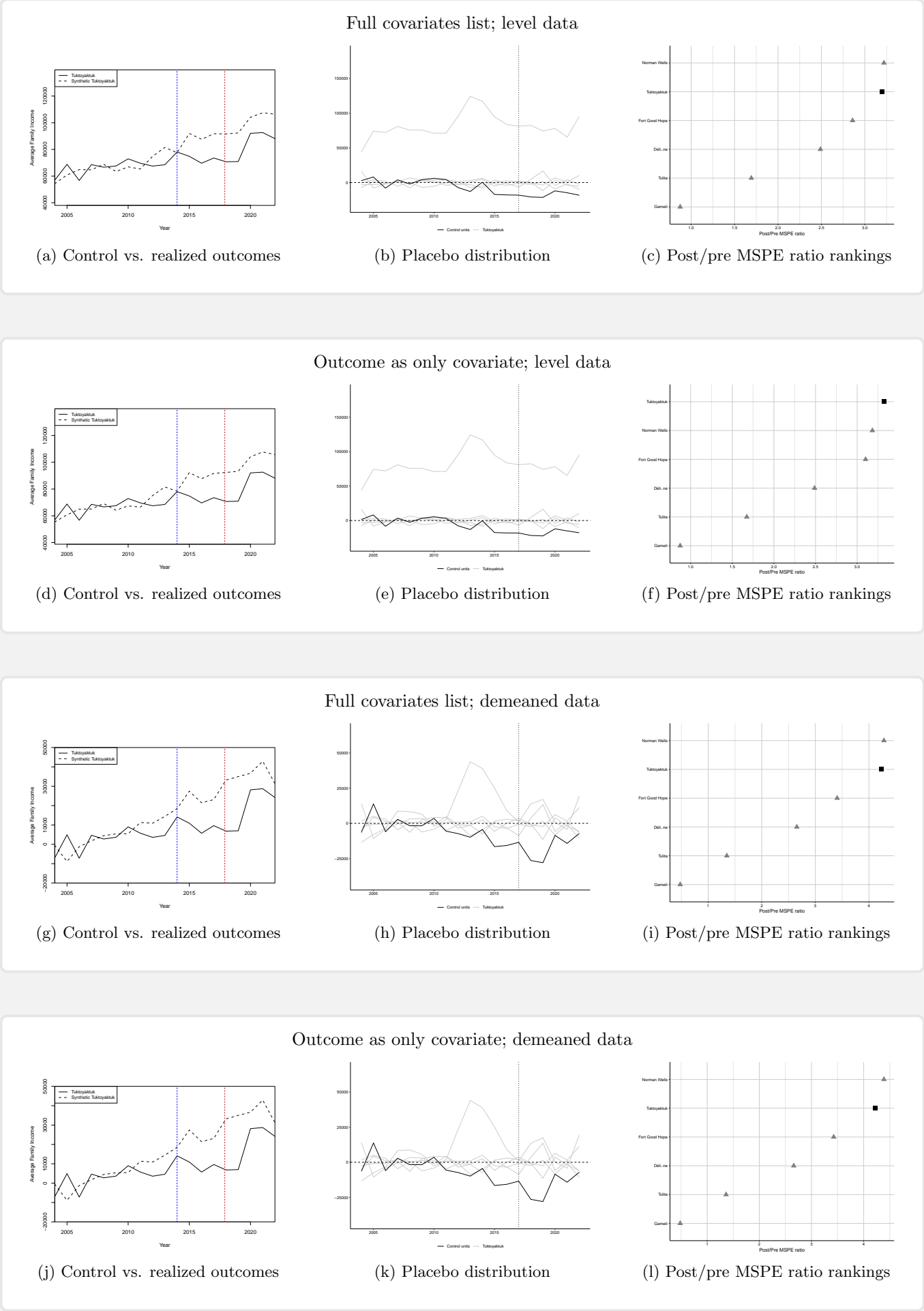
4

Figure 4: Average family income synthetic control results for Tuktoyaktuk
2017 treatment; Other NWT communities as donor pool



NOTES: Average family income is based on a family size of two adults and two children or SOMETHING SOMETHING, and is taken as the community average. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 5: Average family income synthetic control results for Tuktoyaktuk
 2017 treatment; Mackenzie valley ice road communities as donor pool



NOTES: Average family income is based on a family size of two adults and two children or SOMETHING SOMETHING, and is taken as the community average. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

AVERAGE FAMILY INCOME: SINGLE PARENT HOUSEHOLDS

Figure 6: Average family income - single parent households results for Tuktoyaktuk

PREFERRED SPECIFICATION

2014 treatment; Other NWT communities as donor pool

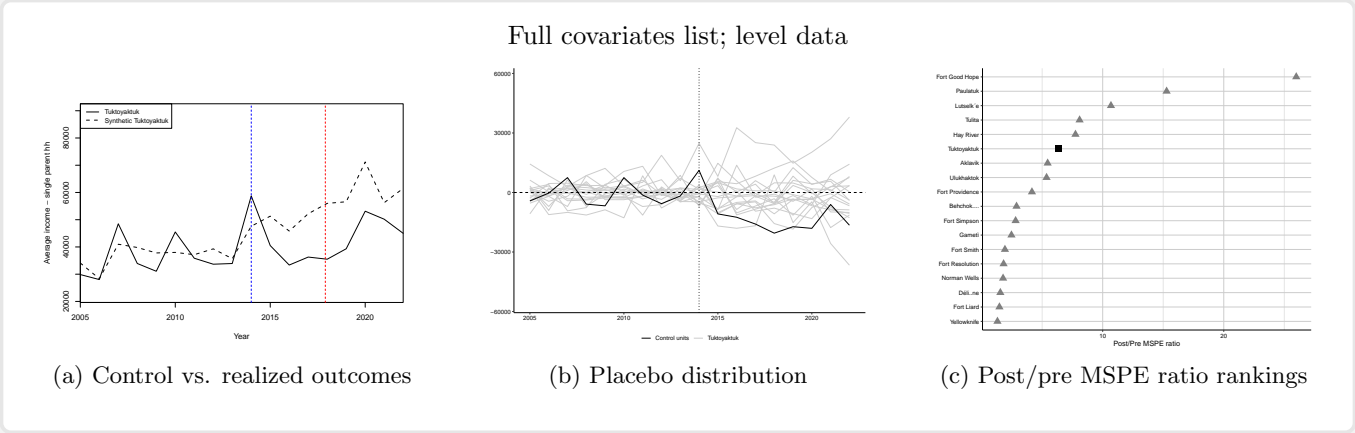
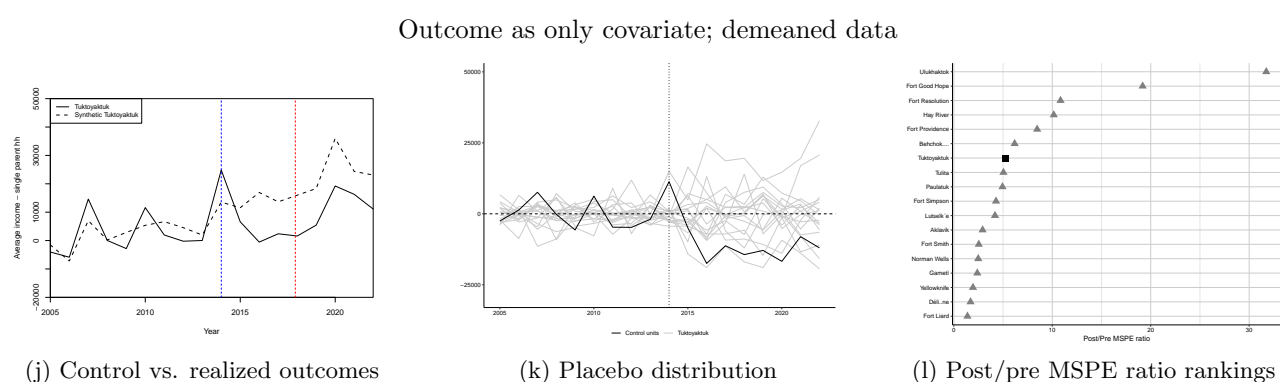
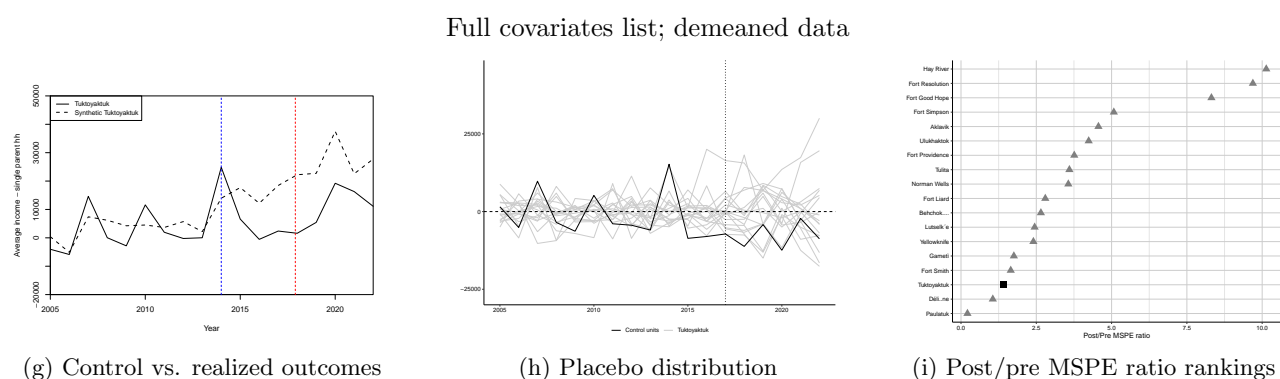
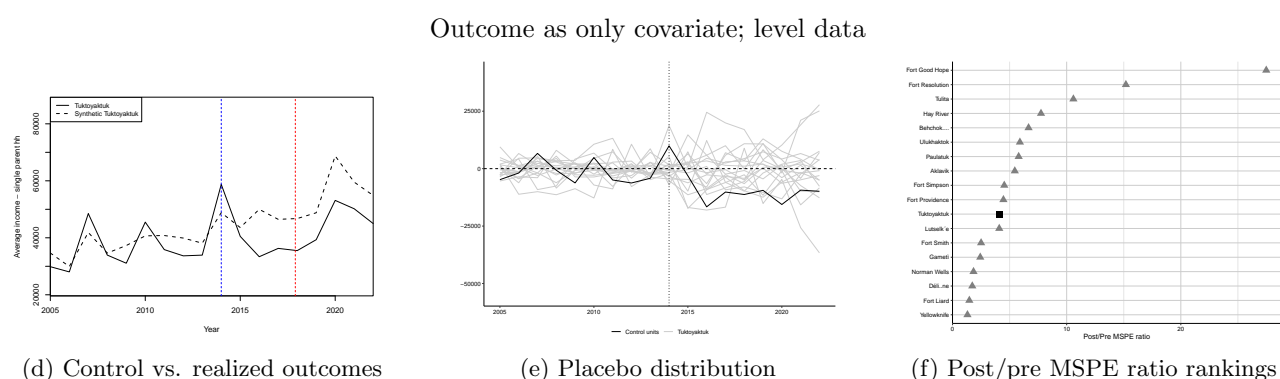
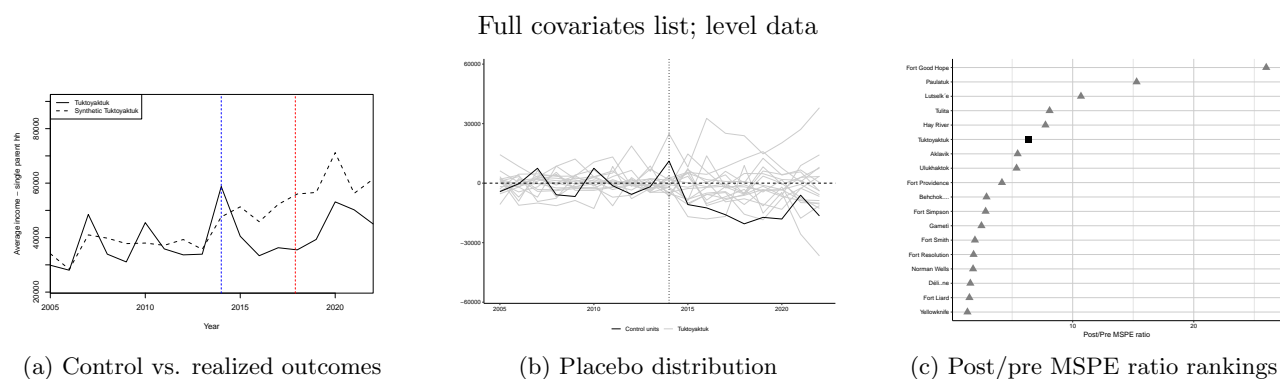
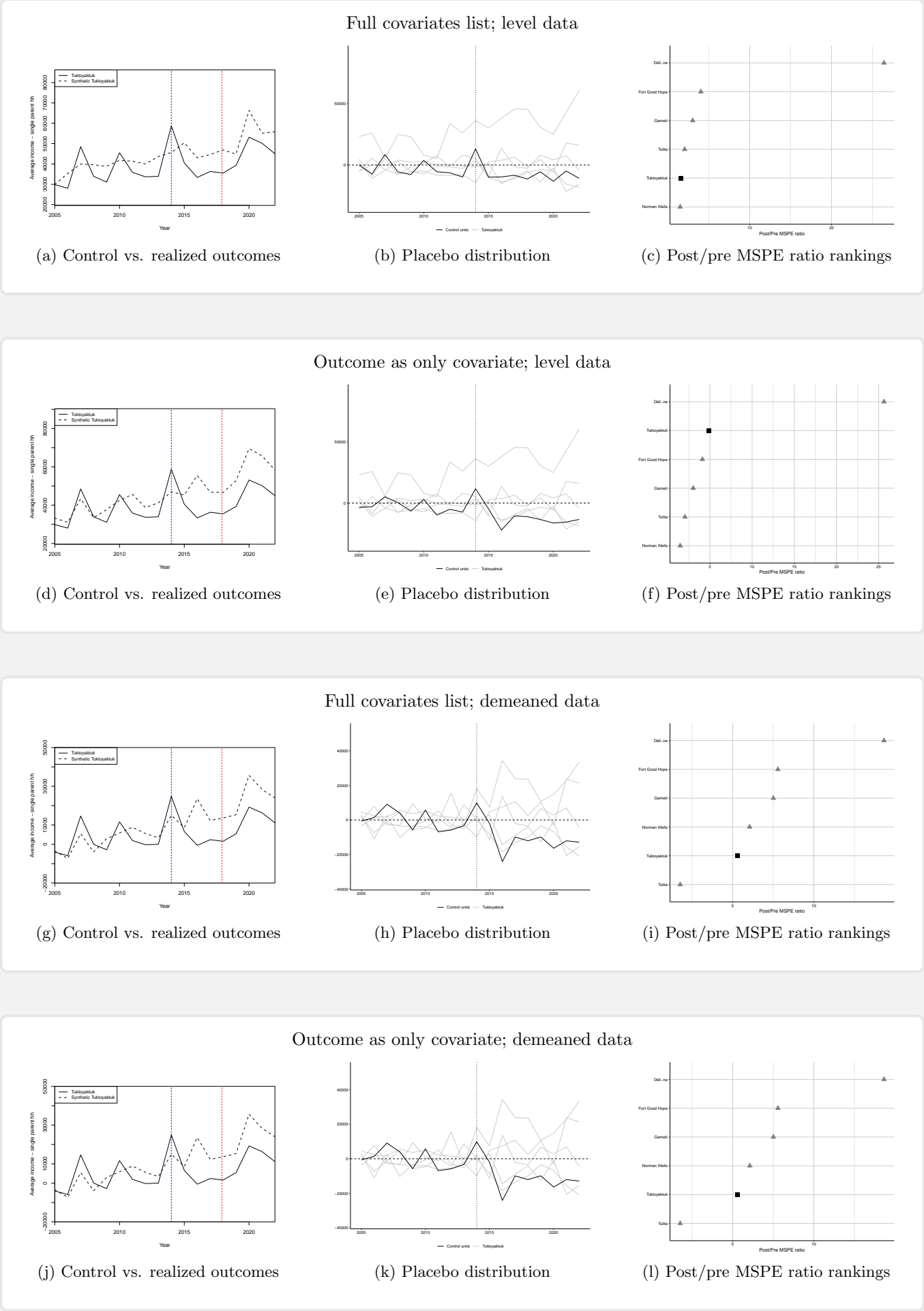


Figure 7: Single parent household's average family income synthetic control results for Tuktoyaktuk
2014 treatment; Other NWT communities as donor pool



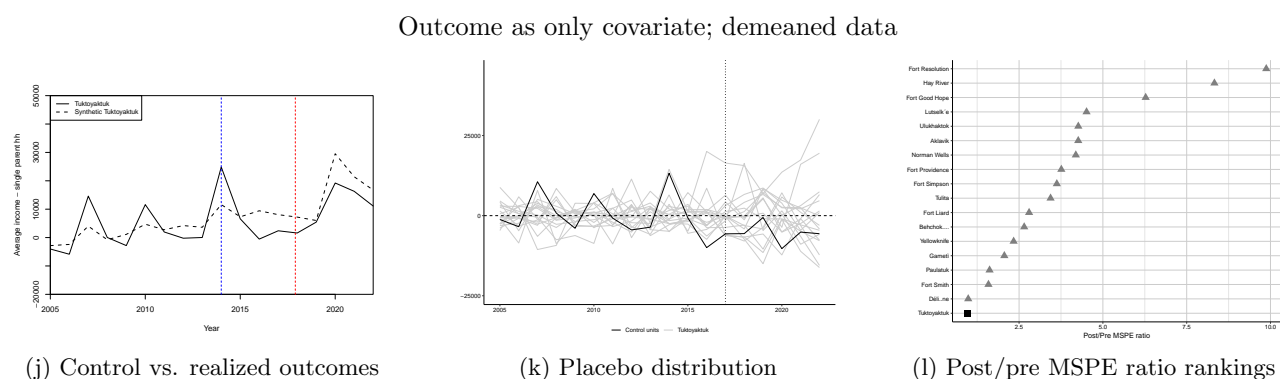
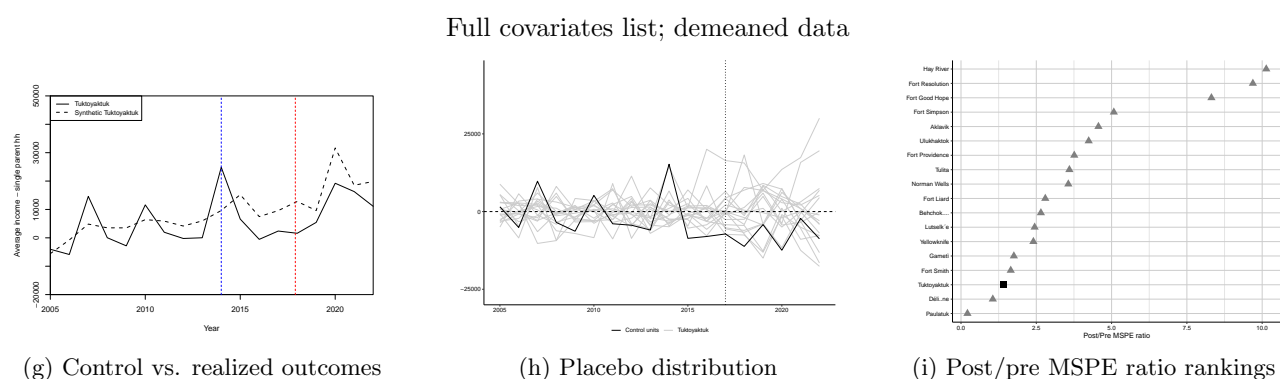
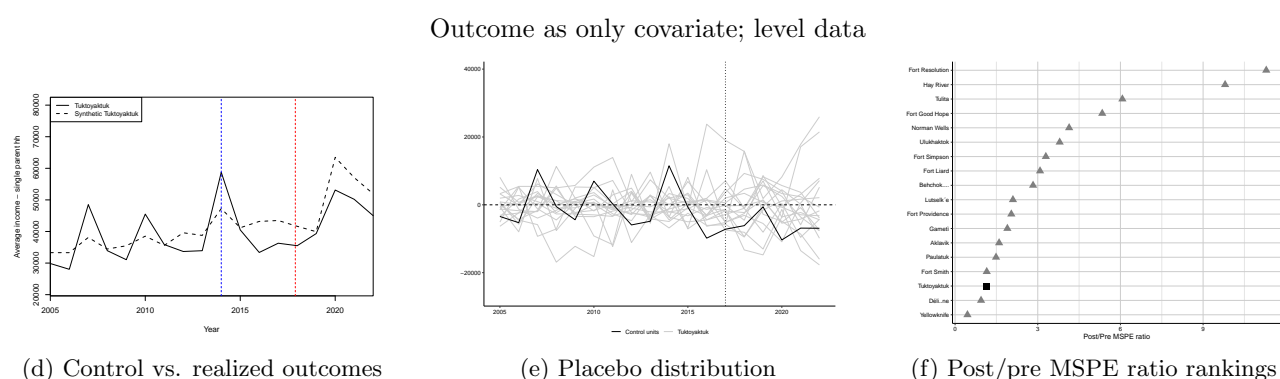
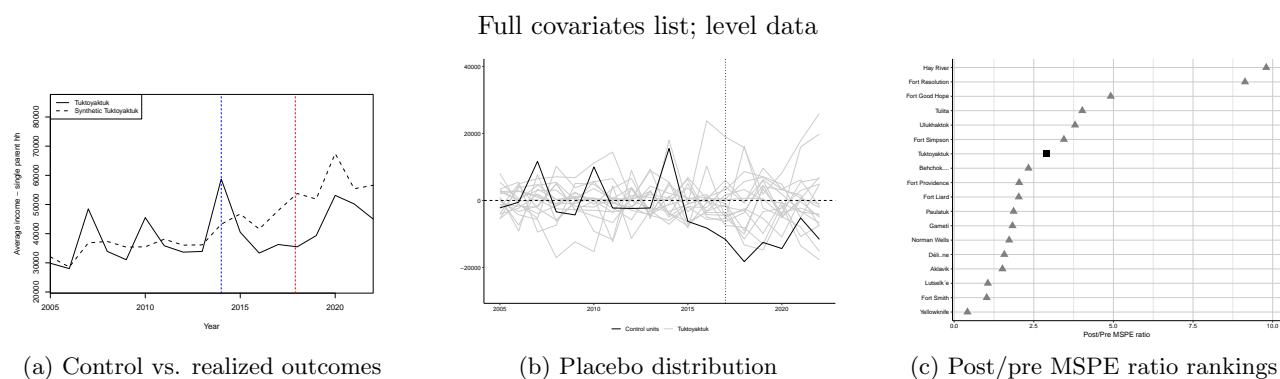
NOTES: Average family income for single parent households. A household is defined as SOMETHING SOMETHING. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 8: Single parent household's average family income synthetic control results for Tuktoyaktuk
2014 treatment; Mackenzie valley ice road communities as donor pool



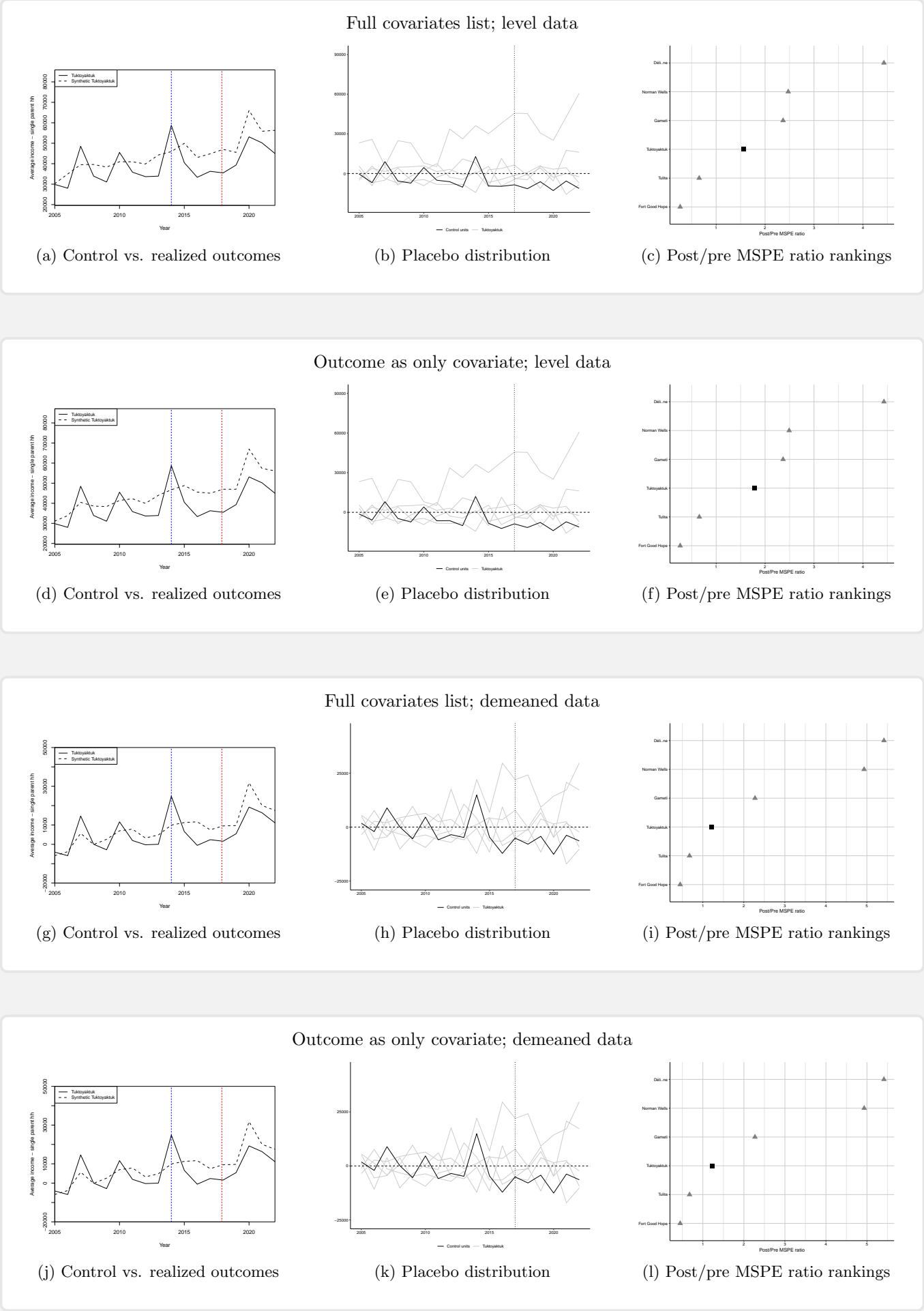
NOTES: Average family income for single parent households. A household is defined as SOMETHING SOMETHING.The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

Figure 9: Single parent household's average family income synthetic control results for Tuktoyaktuk
2017 treatment; Other NWT communities as donor pool



NOTES: Average family income for single parent households. A household is defined as SOMETHING SOMETHING. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 10: Single parent household's average family income synthetic control results for Tuktoyaktuk
2017 treatment; Mackenzie valley ice road communities as donor pool



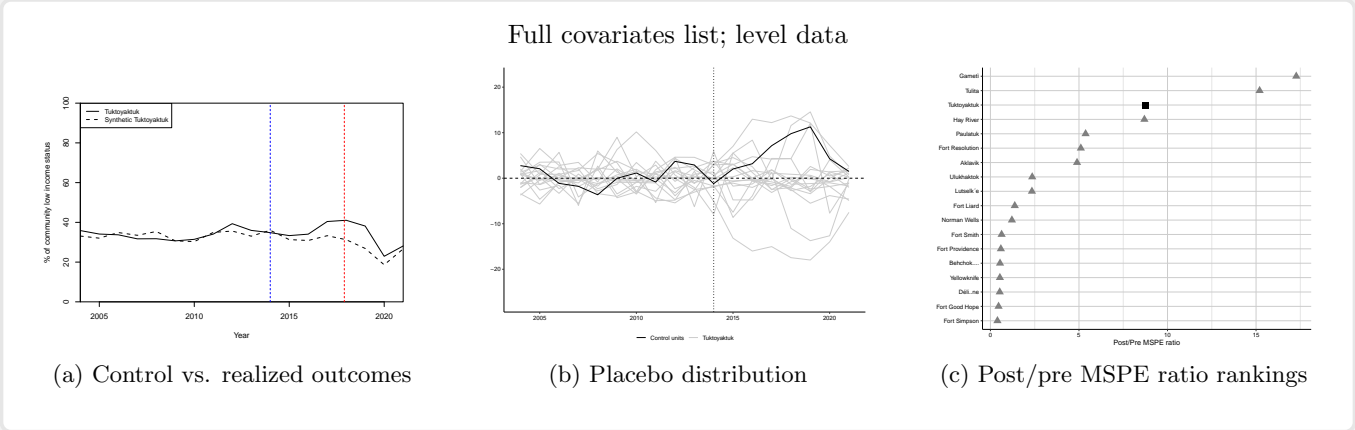
NOTES: Average family income for single parent households. A household is defined as SOMETHING SOMETHING.The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

LOW INCOME STATUS

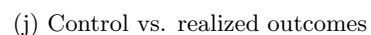
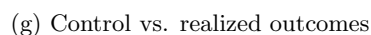
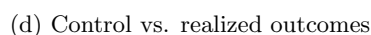
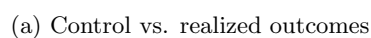
Figure 11: Percent of individuals who have low income status results for Tuktoyaktuk

PREFERRED SPECIFICATION

2014 treatment; Other NWT communities as donor pool

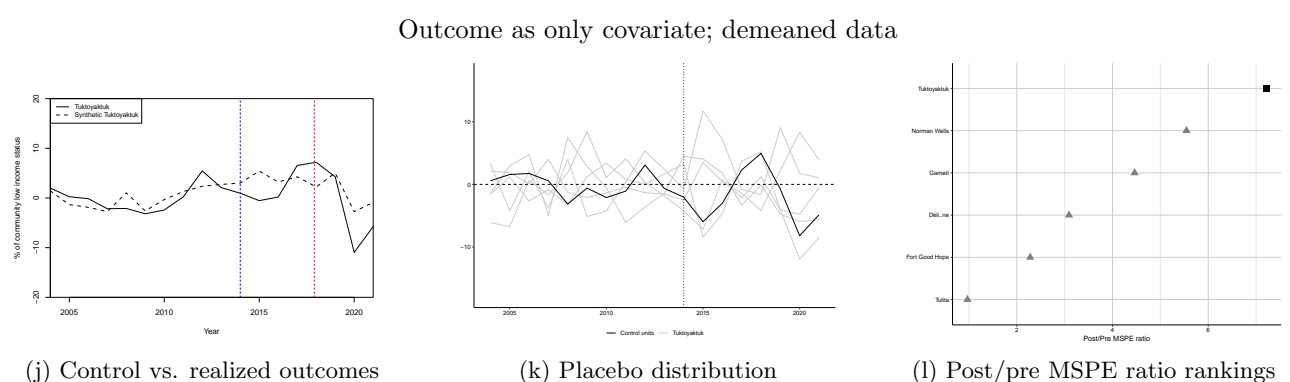
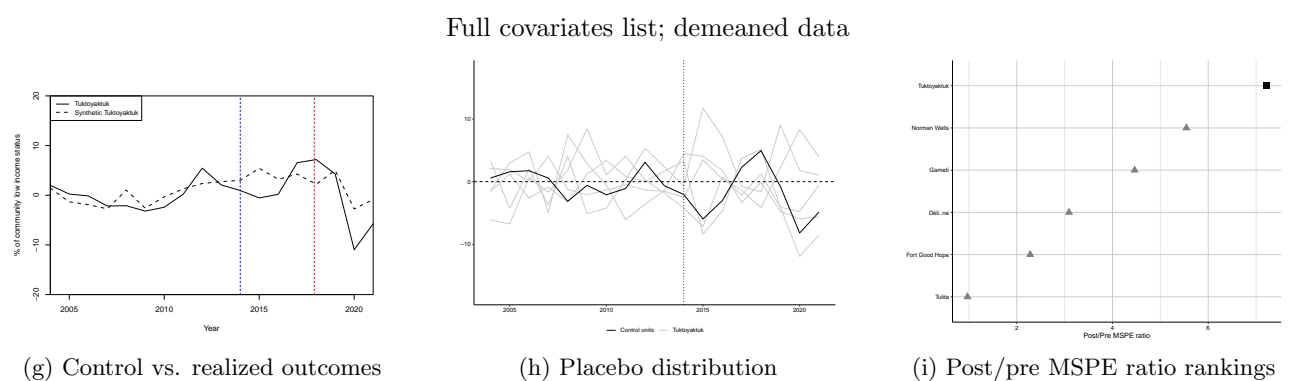
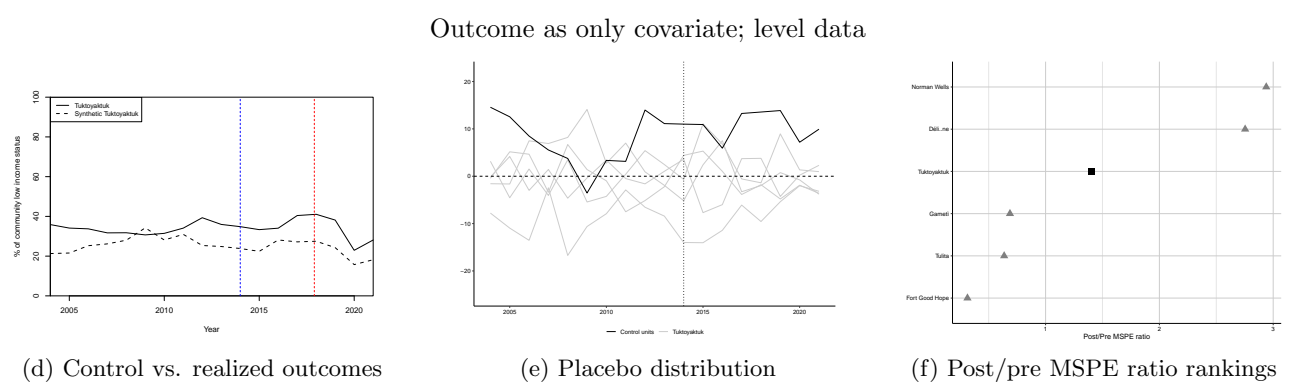
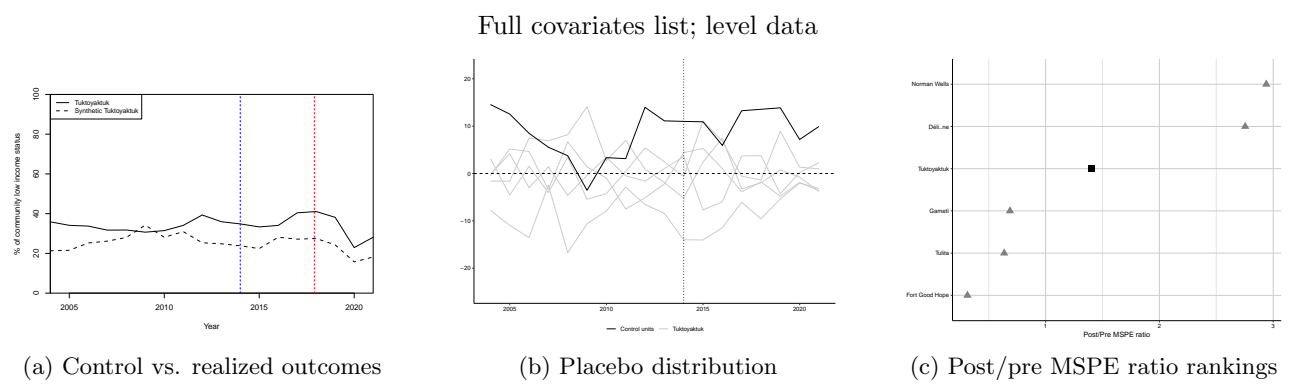


2014 treatment: Other NWT communities as donor pool



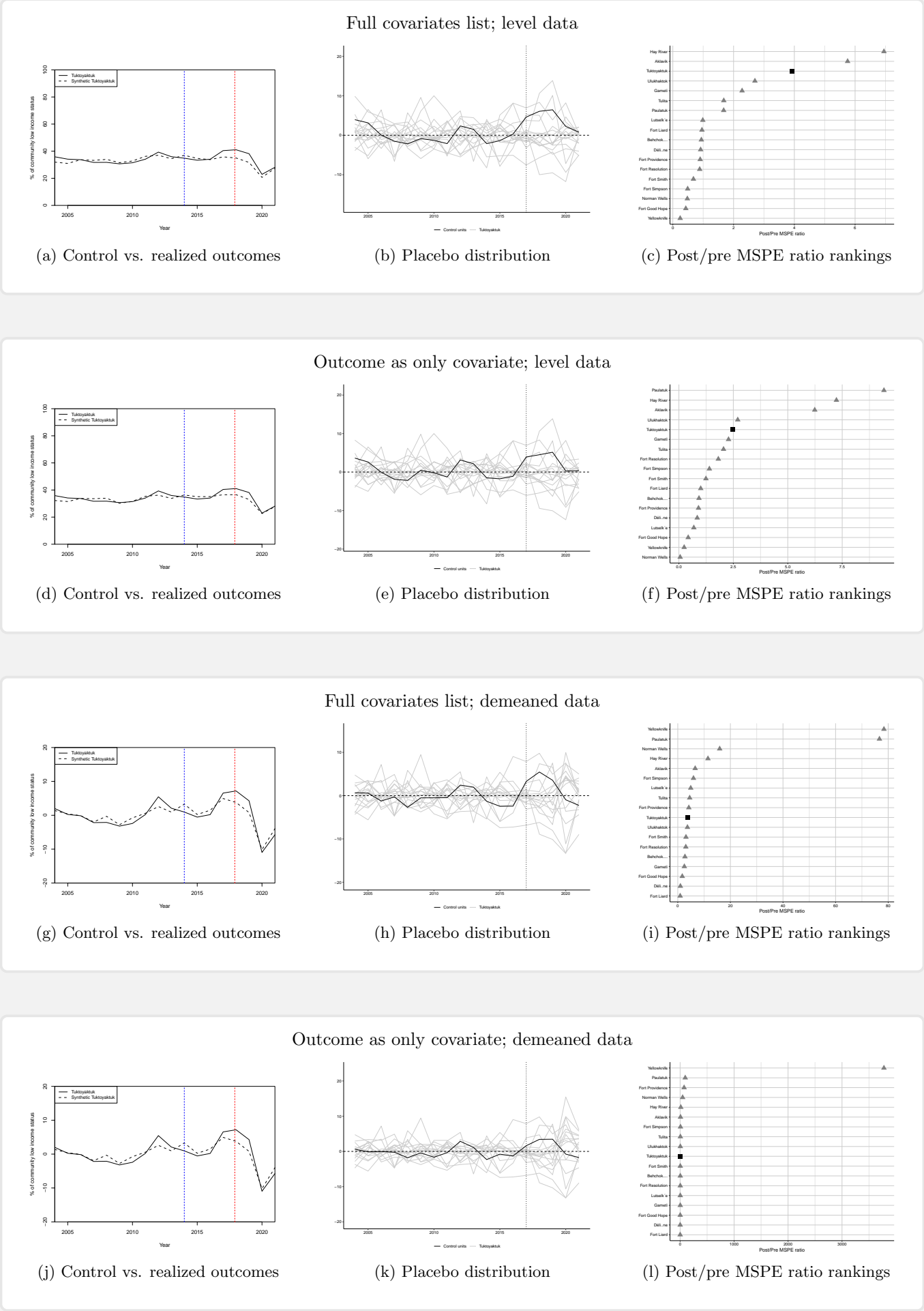
13

Figure 13: Low income status synthetic control results for Tuktoyaktuk
2014 treatment; Mackenzie valley ice road communities as donor pool



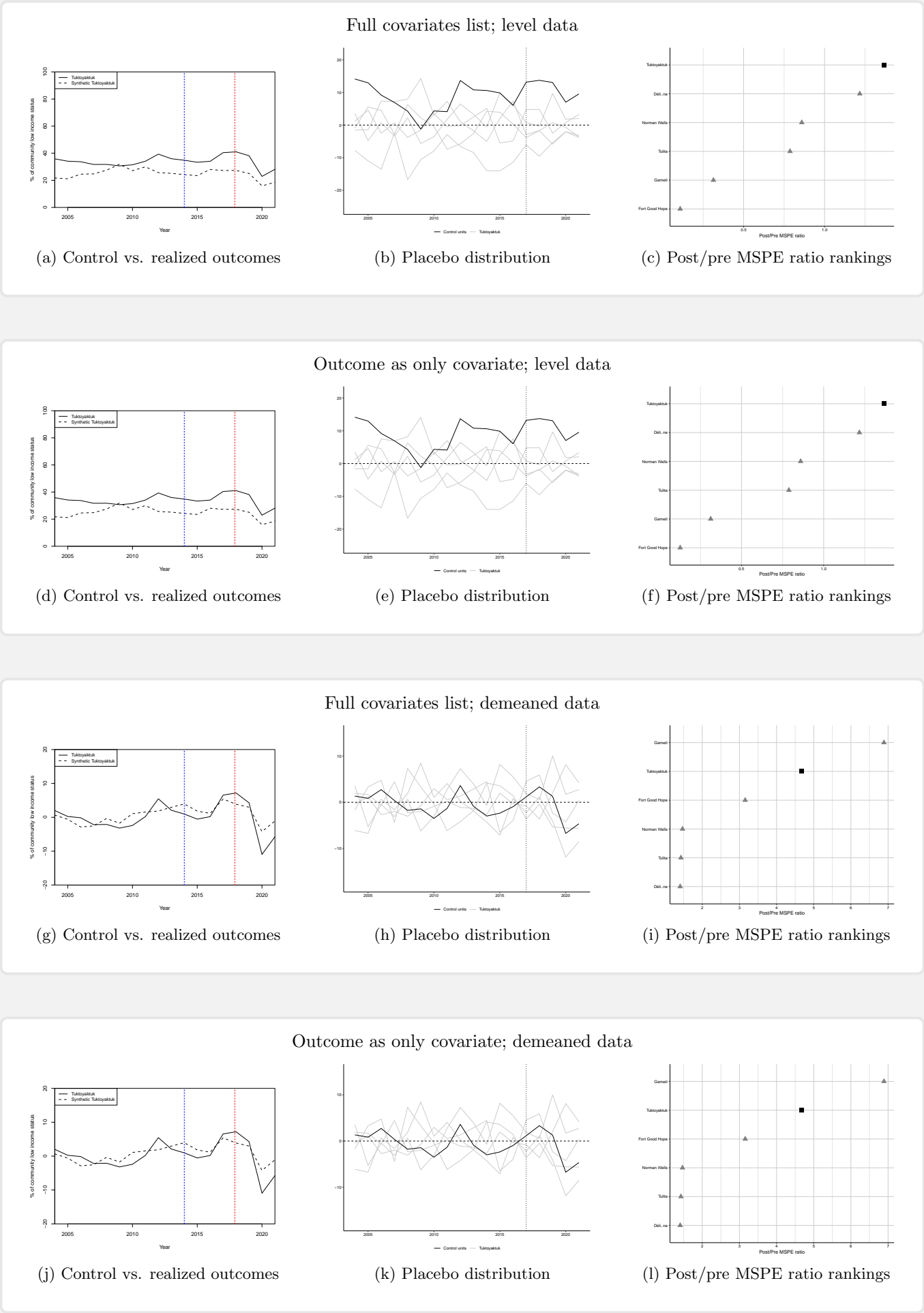
NOTES: Low income status is the proportion of the community that earns 50% of the median Canadian income. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

Figure 14: Low income status synthetic control results for Tuktoyaktuk
2017 treatment; Other NWT communities as donor pool



NOTES: Low income status is the proportion of the community that earns 50% of the median Canadian income. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 15: Low income status synthetic control results for Tuktoyaktuk
2017 treatment; Mackenzie valley ice road communities as donor pool



NOTES: Low income status is the proportion of the community that earns 50% of the median Canadian income. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

PERCENT OF FAMILIES MAKING LESS THAN \$ 30 000 A YEAR

Figure 16: Percent of families making less than \$ 30 000 a year synthetic control results for Tuktoyaktuk

PREFERRED SPECIFICATION

2014 treatment; Other NWT communities as donor pool

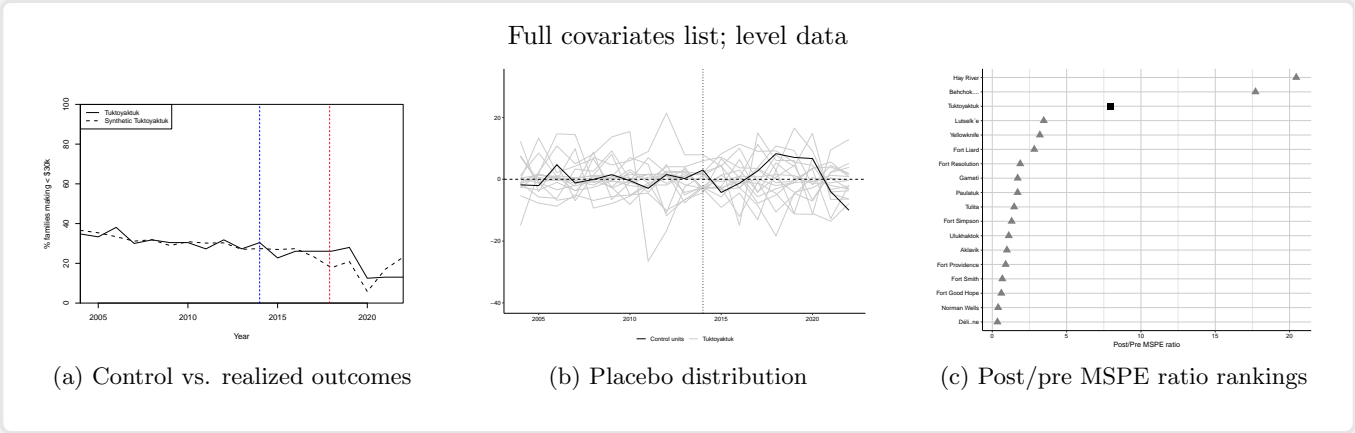
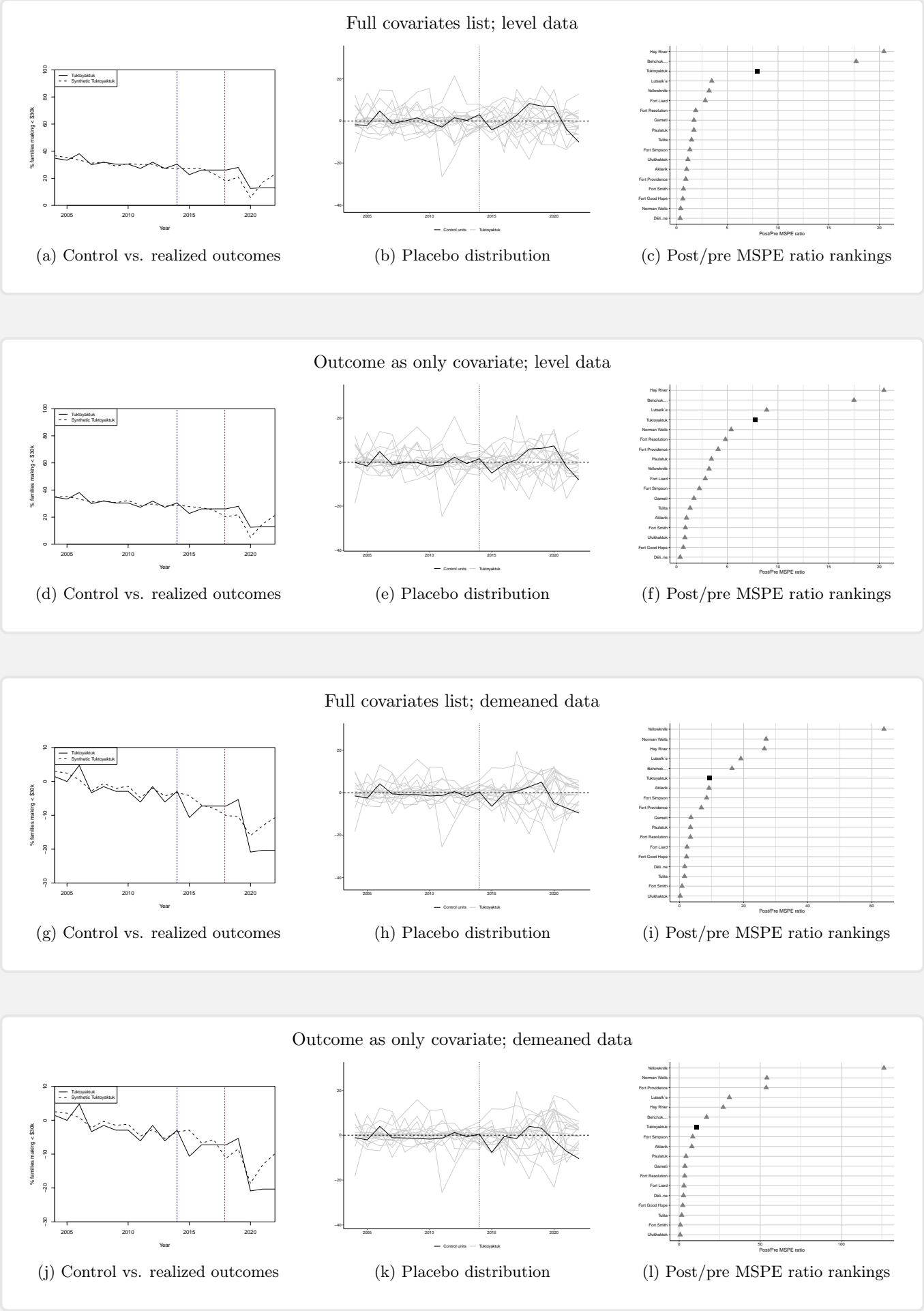
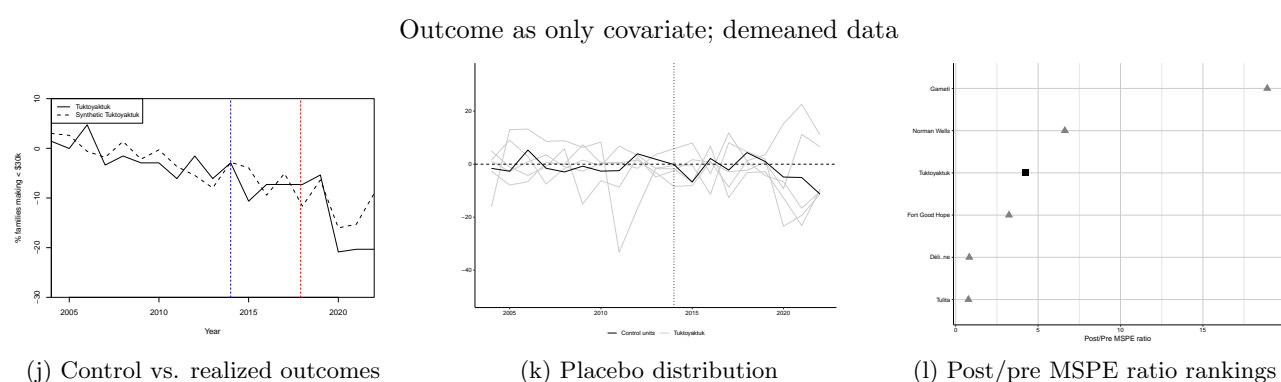
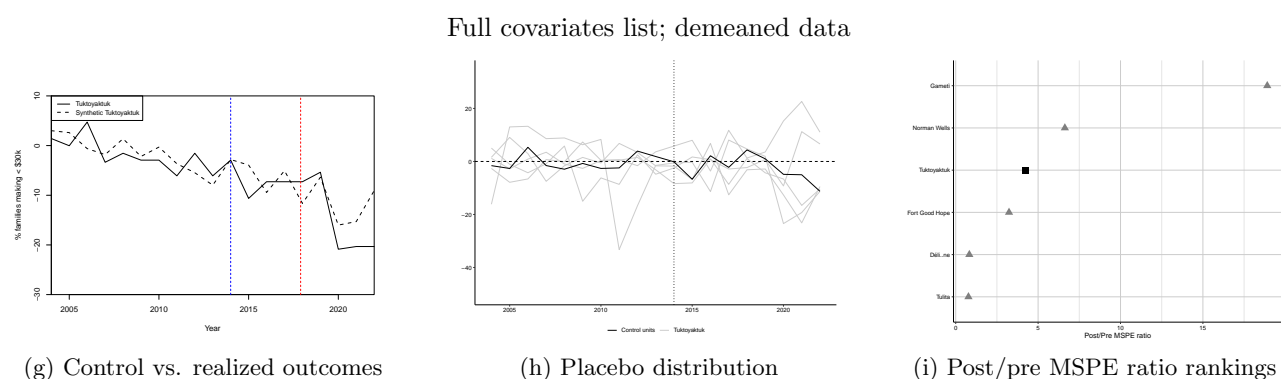
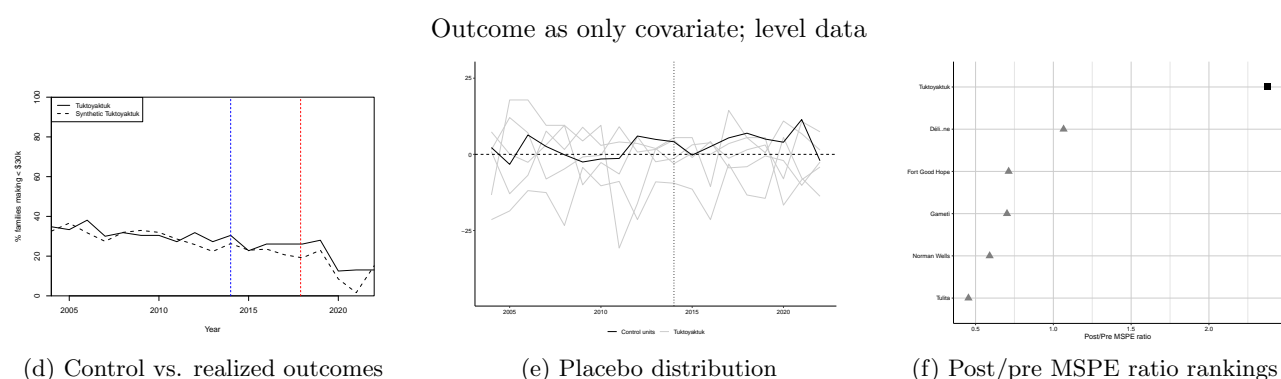
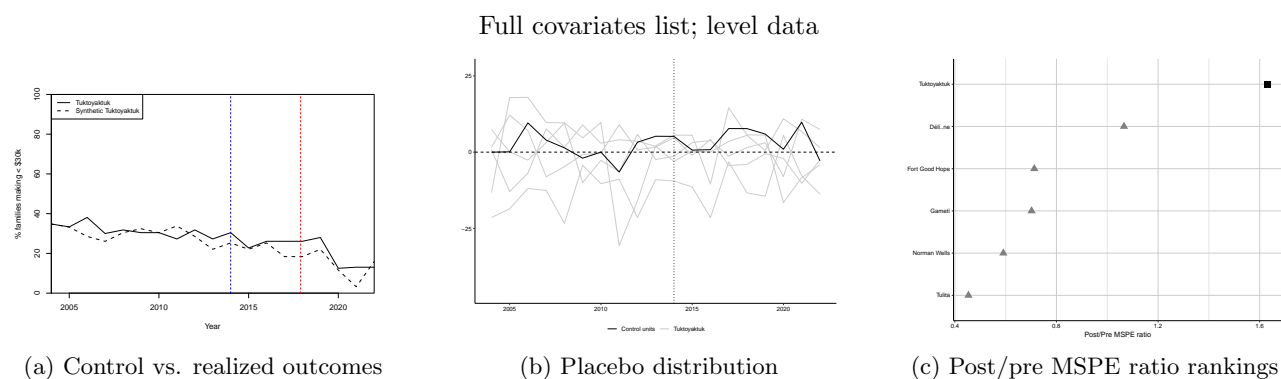


Figure 17: Percent of families making less than \$ 30 000 k a year synthetic control results for Tuktoyaktuk
2014 treatment; Other NWT communities as donor pool



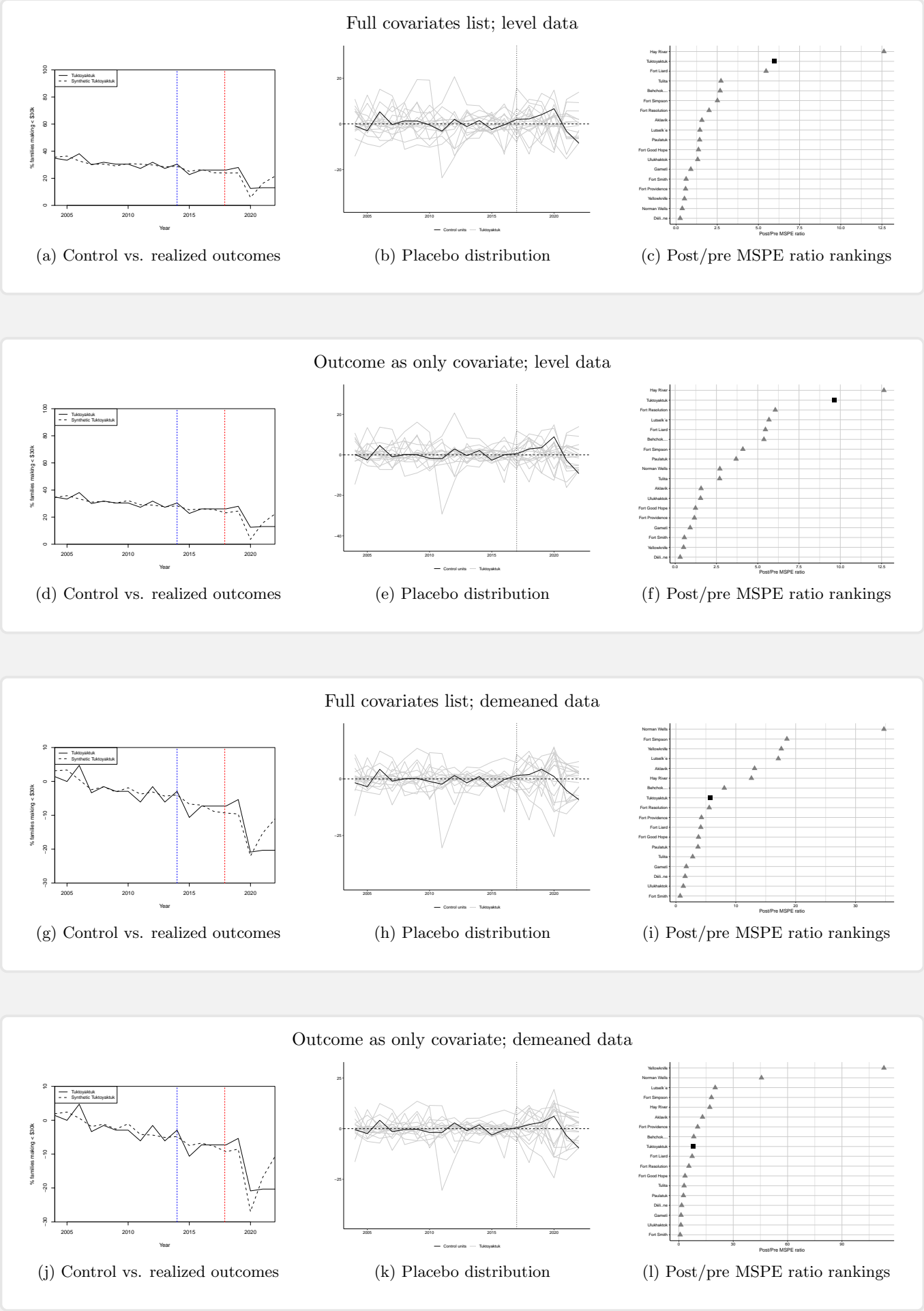
NOTES: A family is an economic family as defined by Statistics Canada - a group of two or more people living in the same dwelling who are related by blood, marriage, a common-law partnership, adoption or a foster relationship. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 18: Percent of families making less than \$ 30 000 a year synthetic control results for Tuktoyaktuk
2014 treatment; Mackenzie valley ice road communities as donor pool



NOTES: A family is an economic family as defined by Statistics Canada - a group of two or more people living in the same dwelling who are related by blood, marriage, a common-law partnership, adoption or a foster relationship. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

Figure 19: Families making less than \$ 30 000 a year synthetic control results for Tuktoyaktuk
2017 treatment; Other NWT communities as donor pool



Full covariates list; demeaned data

(g) Control vs. realized outcomes

Full covariates list; demeaned data

(h) Placebo distribution

Full covariates list; demeaned data

(i) Post/pre MSPE ratio rankings

Outcome as only covariate; demeaned data

(j) Control vs. realized outcomes

Outcome as only covariate; demeaned data

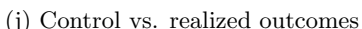
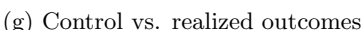
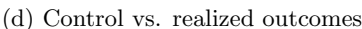
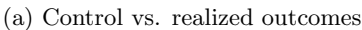
(k) Placebo distribution

Outcome as only covariate; demeaned data

(l) Post/pre MSPE ratio rankings

NOTES: A family is an economic family as defined by Statistics Canada - a group of two or more people living in the same dwelling who are related by blood, marriage, a common-law partnership, adoption or a foster relationship. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

2017 treatment: Mackenzie valley ice road communities as donor pool



NOTES: A family is an economic family as defined by Statistics Canada - a group of two or more people living in the same dwelling who are related by blood, marriage, a common-law partnership, adoption or a foster relationship. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

PERCENT OF FAMILIES MAKING MORE THAN \$ 75 000 A YEAR

Figure 21: Percent of families making more than \$ 75 000 a year synthetic control results for Tuktoyaktuk

PREFERRED SPECIFICATION

2014 treatment; Other NWT communities as donor pool

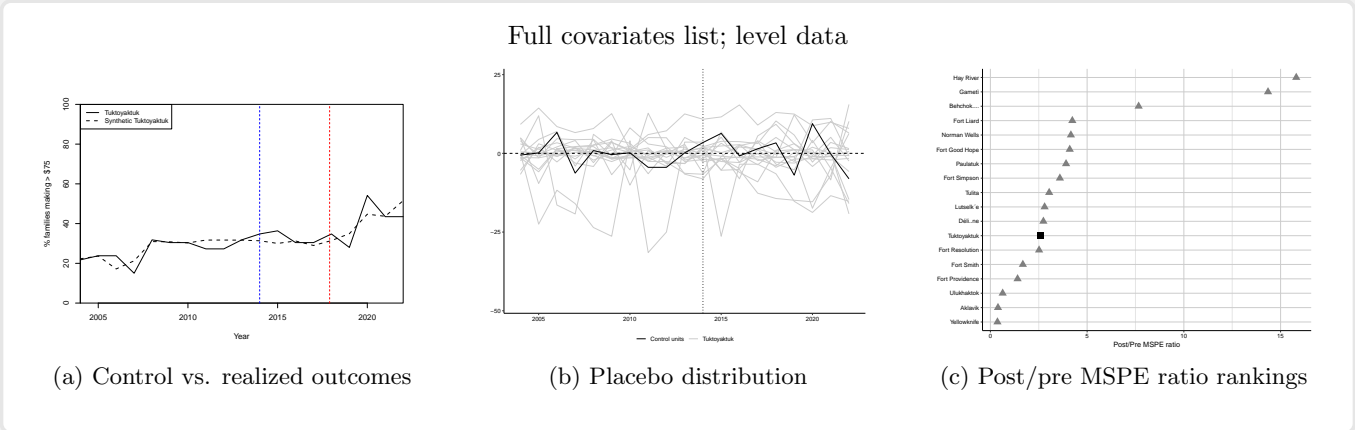
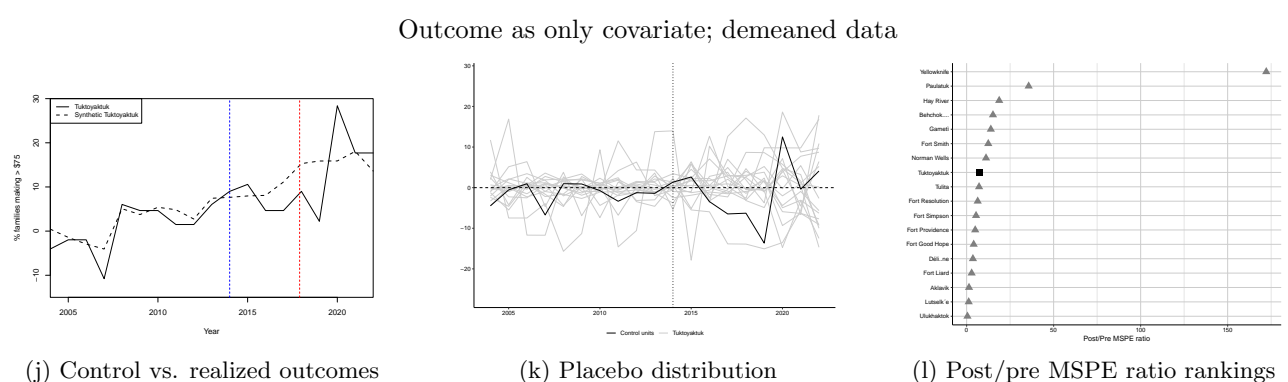
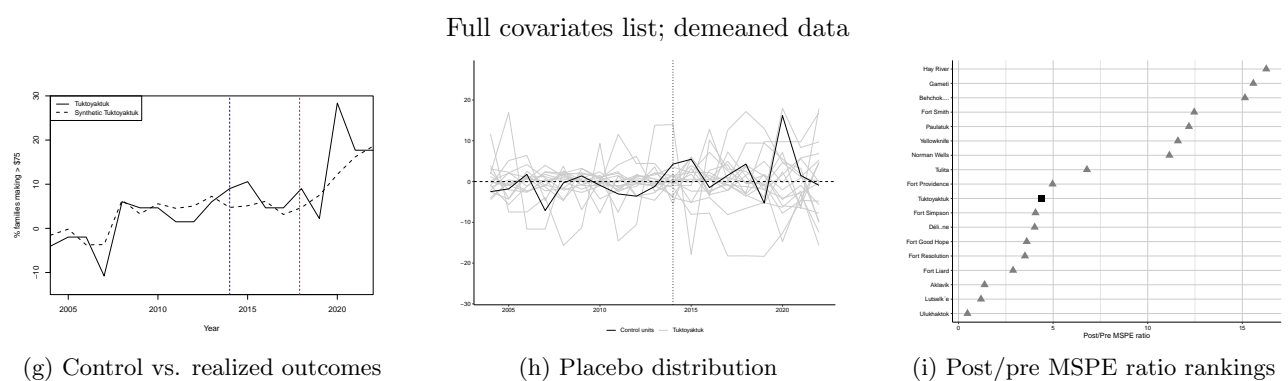
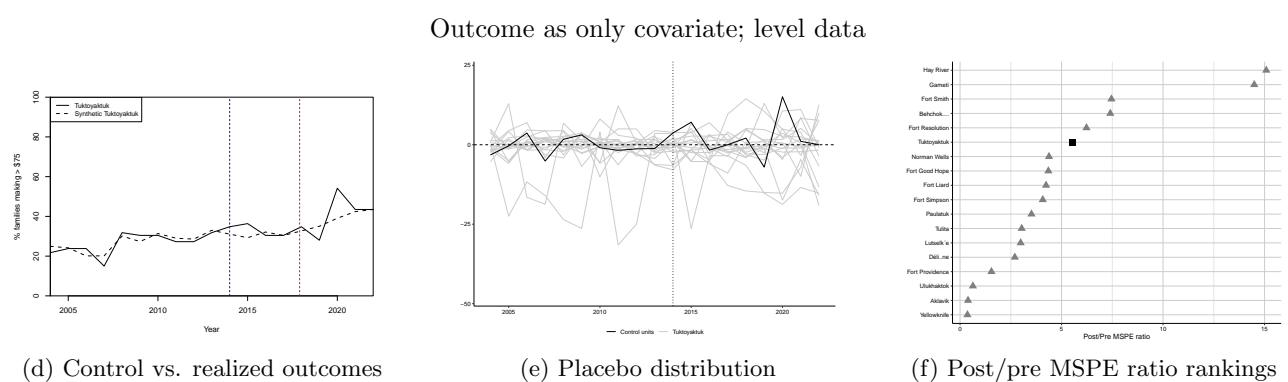
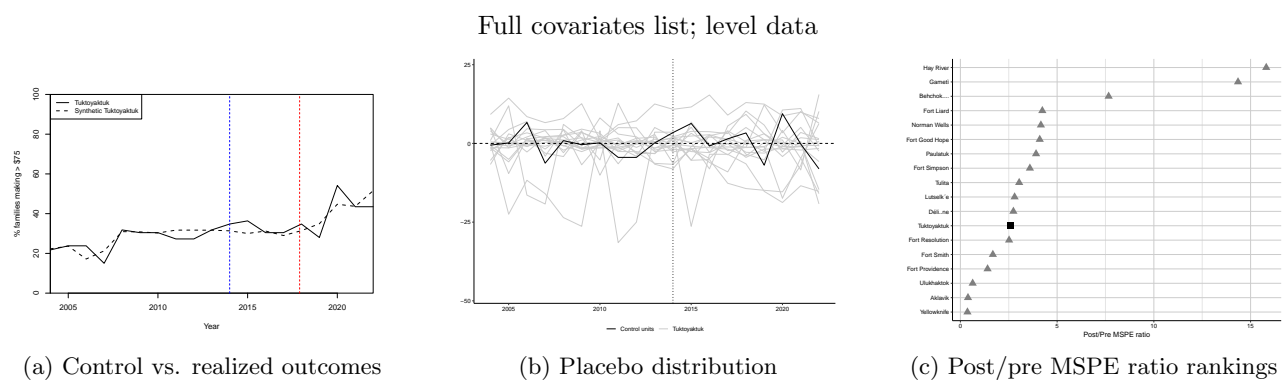
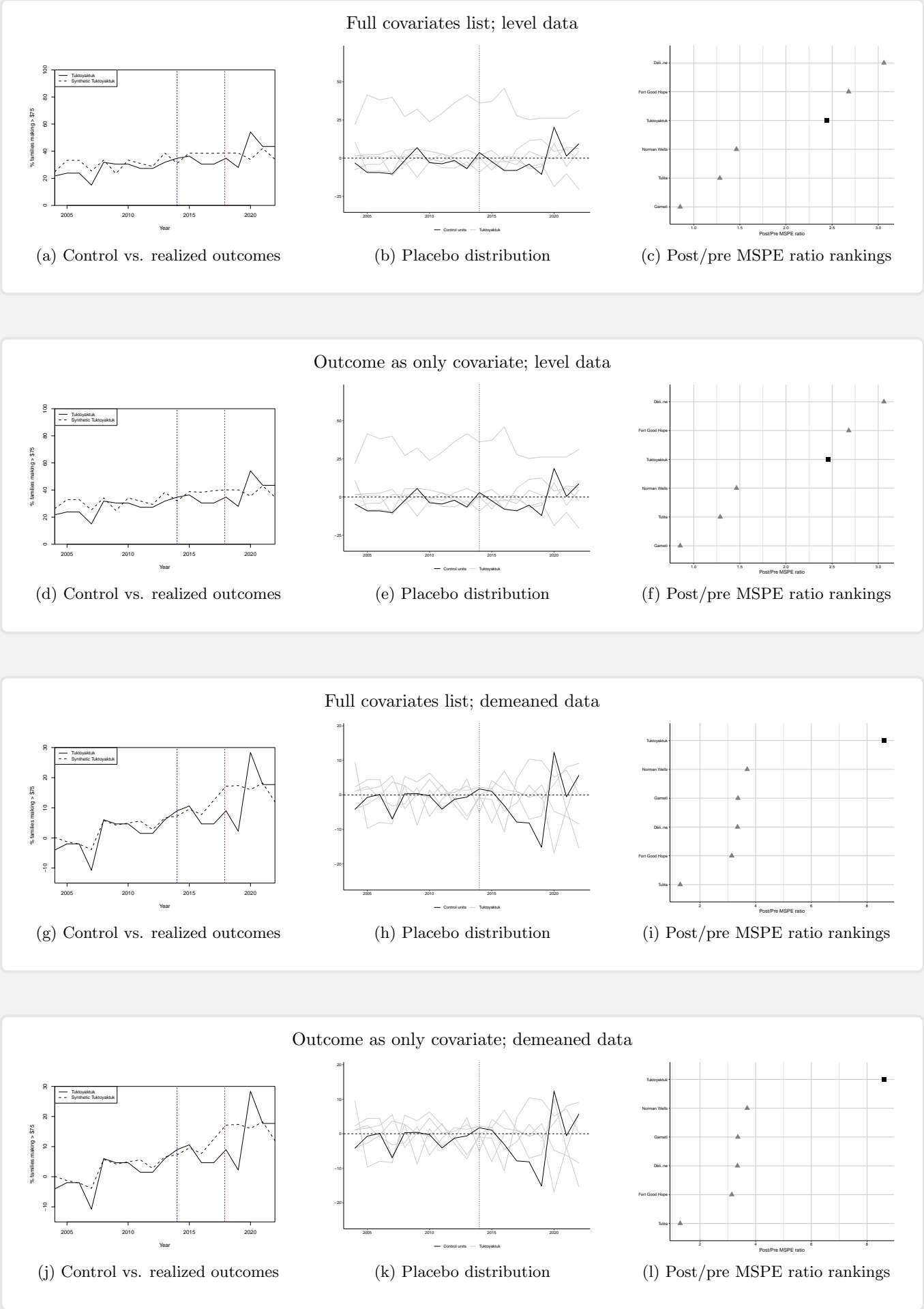


Figure 22: Percent of families making more than \$ 75 000 a year synthetic control results for Tuktoyaktuk
2014 treatment; Other NWT communities as donor pool



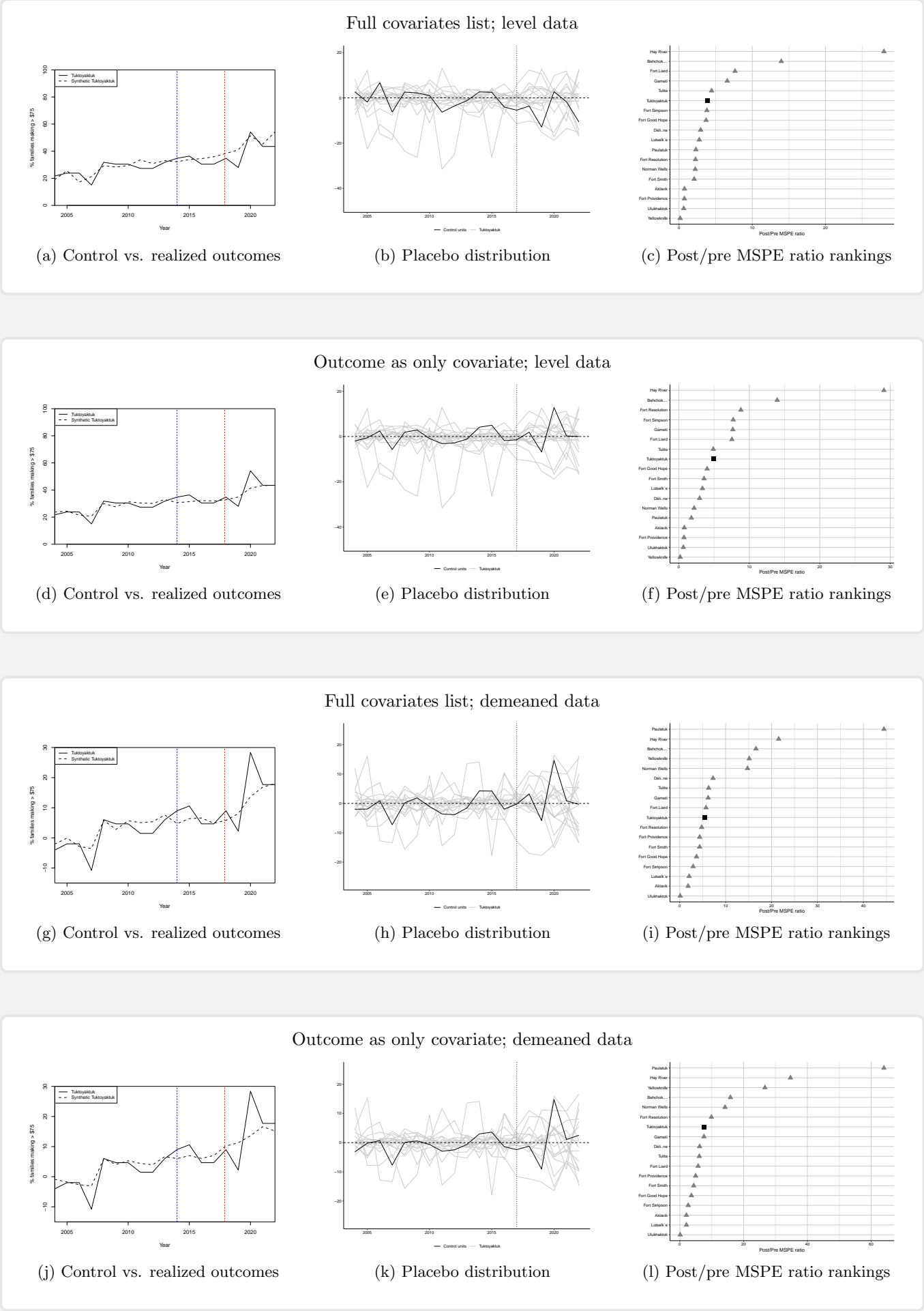
NOTES: A family is an economic family as defined by Statistics Canada - a group of two or more people living in the same dwelling who are related by blood, marriage, a common-law partnership, adoption or a foster relationship. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 23: Percent of families making more than \$ 75 000 a year synthetic control results for Tuktoyaktuk
2014 treatment; Mackenzie valley ice road communities as donor pool



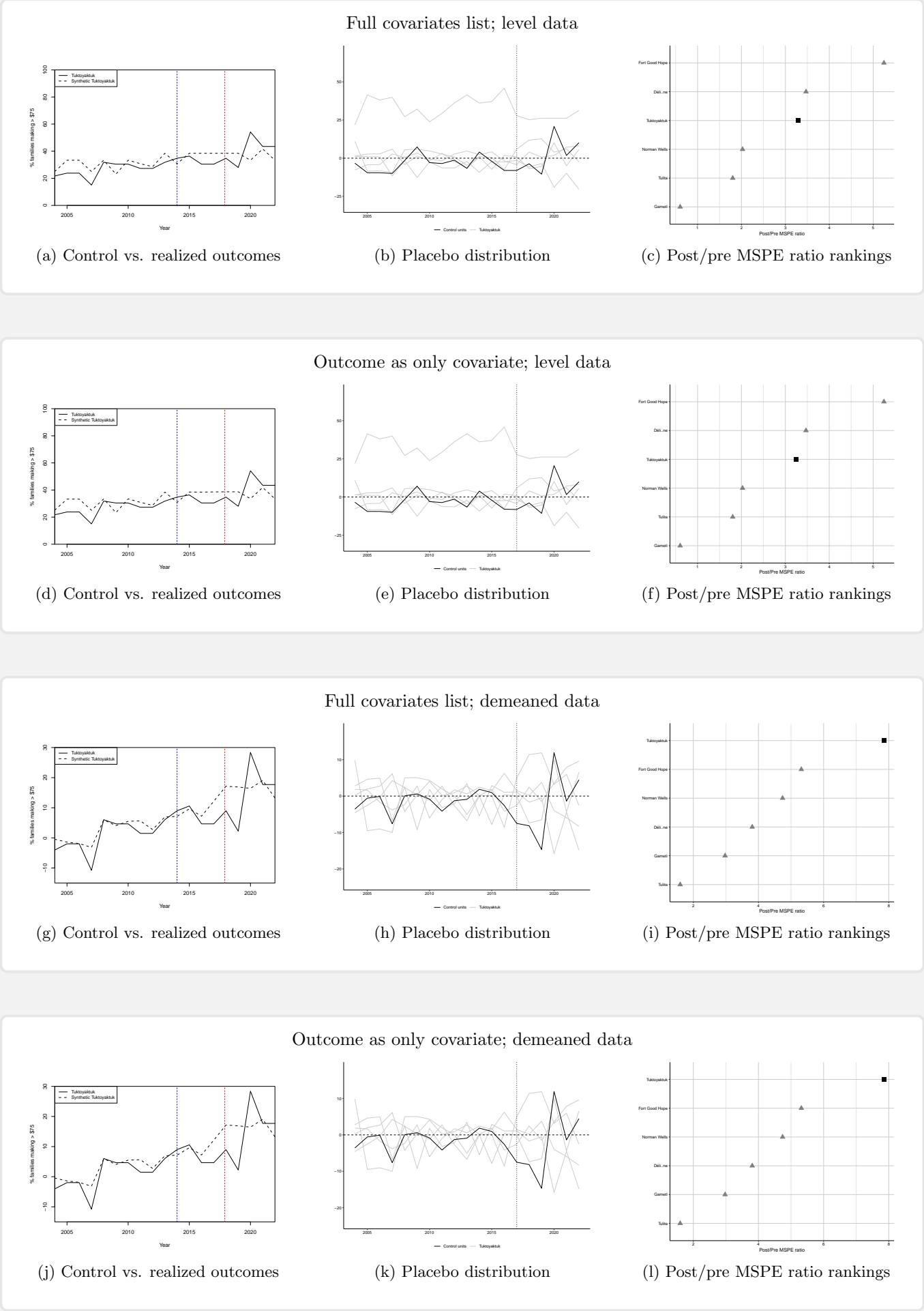
NOTES: A family is an economic family as defined by Statistics Canada - a group of two or more people living in the same dwelling who are related by blood, marriage, a common-law partnership, adoption or a foster relationship. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

Figure 24: Percent of families making more than \$ 75 000 a year synthetic control results for Tuktoyaktuk
2017 treatment; Other NWT communities as donor pool



NOTES: A family is an economic family as defined by Statistics Canada - a group of two or more people living in the same dwelling who are related by blood, marriage, a common-law partnership, adoption or a foster relationship. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 25: Percent of families making more than \$ 75 000 a year synthetic control results for Tuktoyaktuk 2017 treatment; Mackenzie valley ice road communities as donor pool



Full covariates list; demeaned data

(g) Control vs. realized outcomes

Full covariates list; demeaned data

(h) Placebo distribution

Full covariates list; demeaned data

(i) Post/pre MSPE ratio rankings

Outcome as only covariate; demeaned data

(j) Control vs. realized outcomes

Outcome as only covariate; demeaned data

(k) Placebo distribution

Outcome as only covariate; demeaned data

(l) Post/pre MSPE ratio rankings

NOTES: A family is an economic family as defined by Statistics Canada - a group of two or more people living in the same dwelling who are related by blood, marriage, a common-law partnership, adoption or a foster relationship. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

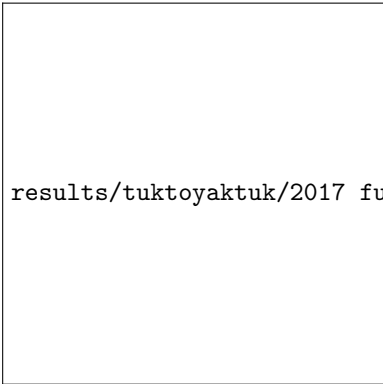
All crime

Figure 26: All crime results for Tuktoyaktuk

PREFERRED SPECIFICATION

2017 treatment; Other NWT communities as donor pool

Full covariates list; level data



(a) Control vs. realized outcomes



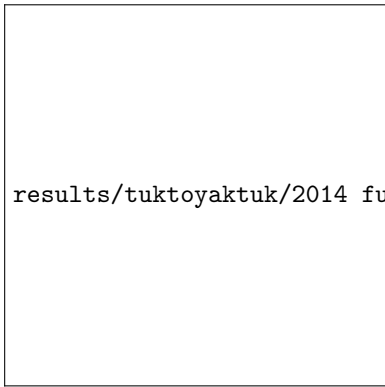
(b) Placebo distribution



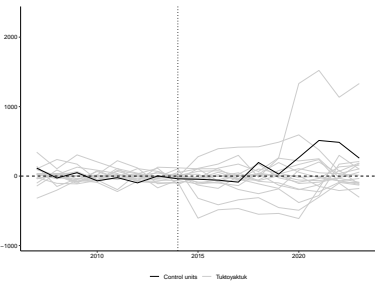
(c) Post/pre MSPE ratio rankings

Figure 27: All crime results for Tuktoyaktuk
2014 treatment; Other NWT communities as donor pool

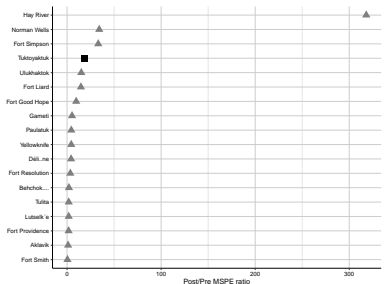
Full covariates list; level data



(a) Control vs. realized outcomes

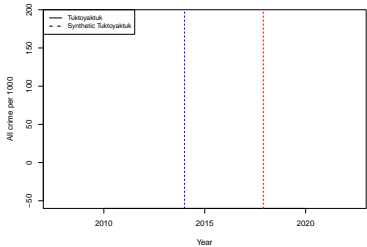


(b) Placebo distribution

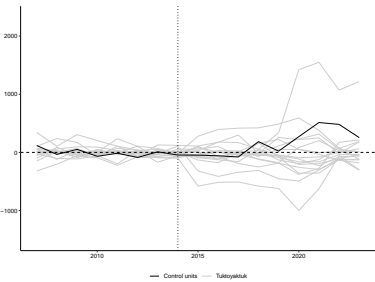


(c) Post/pre MSPE ratio rankings

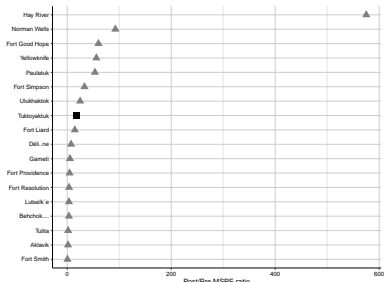
Outcome as only covariate; level data



(d) Control vs. realized outcomes

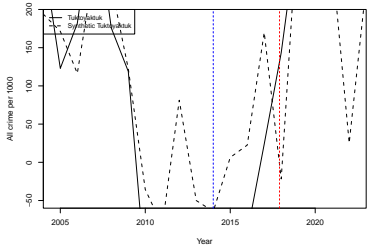


(e) Placebo distribution

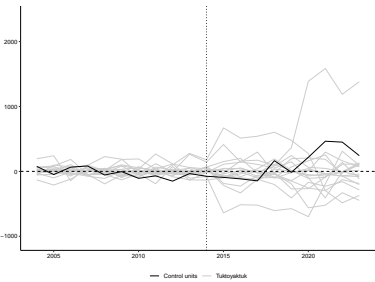


(f) Post/pre MSPE ratio rankings

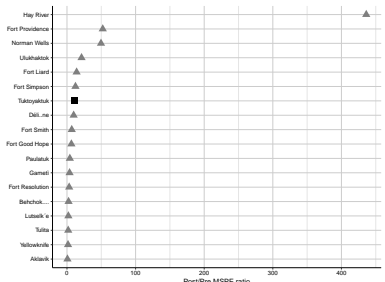
Full covariates list; demeaned data



(g) Control vs. realized outcomes

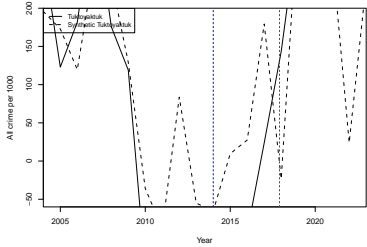


(h) Placebo distribution

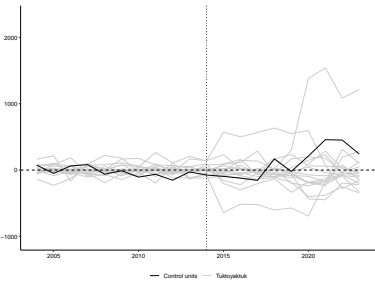


(i) Post/pre MSPE ratio rankings

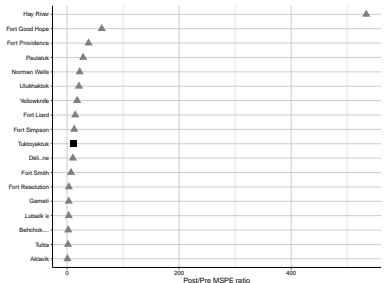
Outcome as only covariate; demeaned data



(j) Control vs. realized outcomes



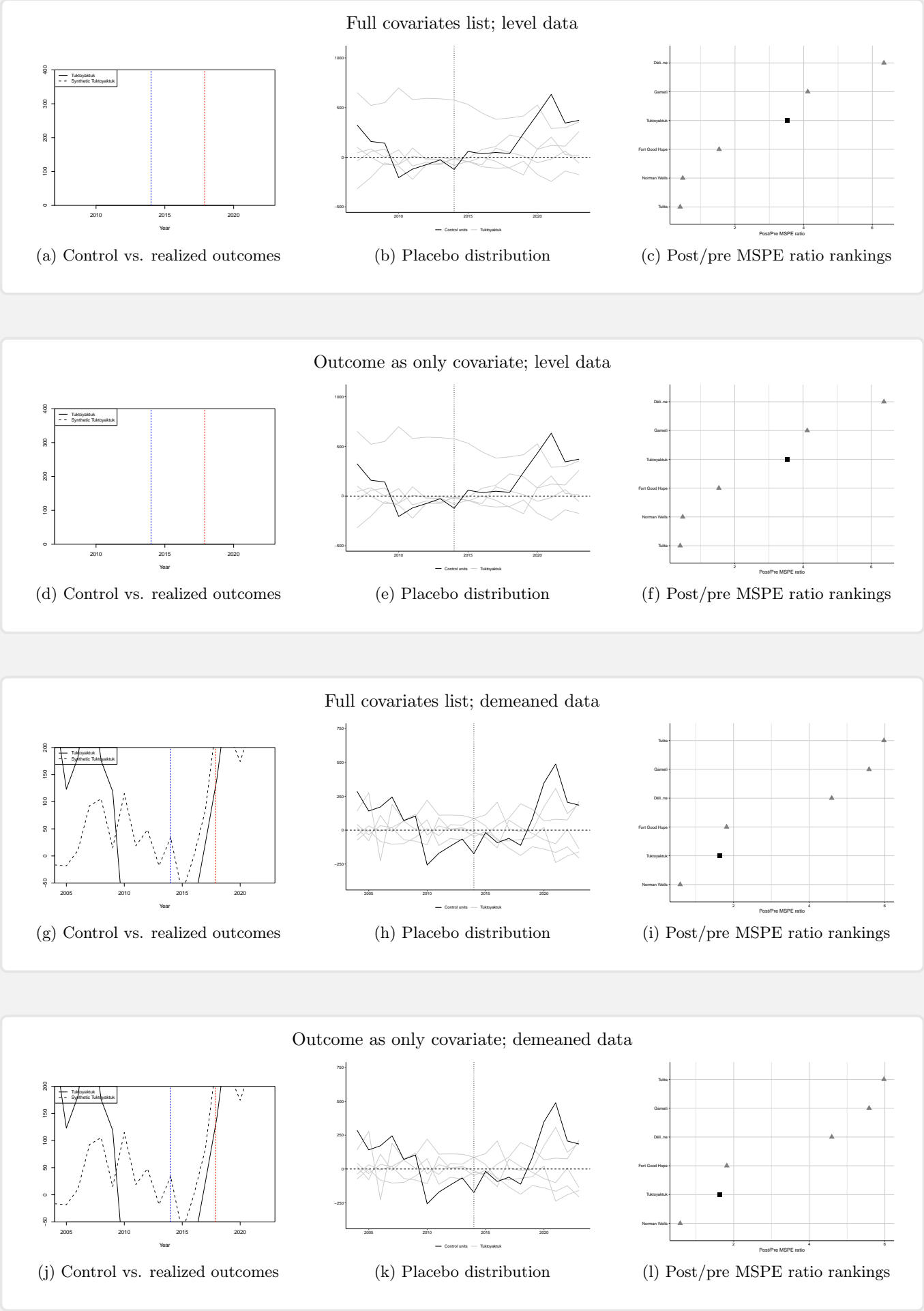
(k) Placebo distribution



(l) Post/pre MSPE ratio rankings

NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 28: All crime results results for Tuktoyaktuk
 2014 treatment; Mackenzie valley ice road communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

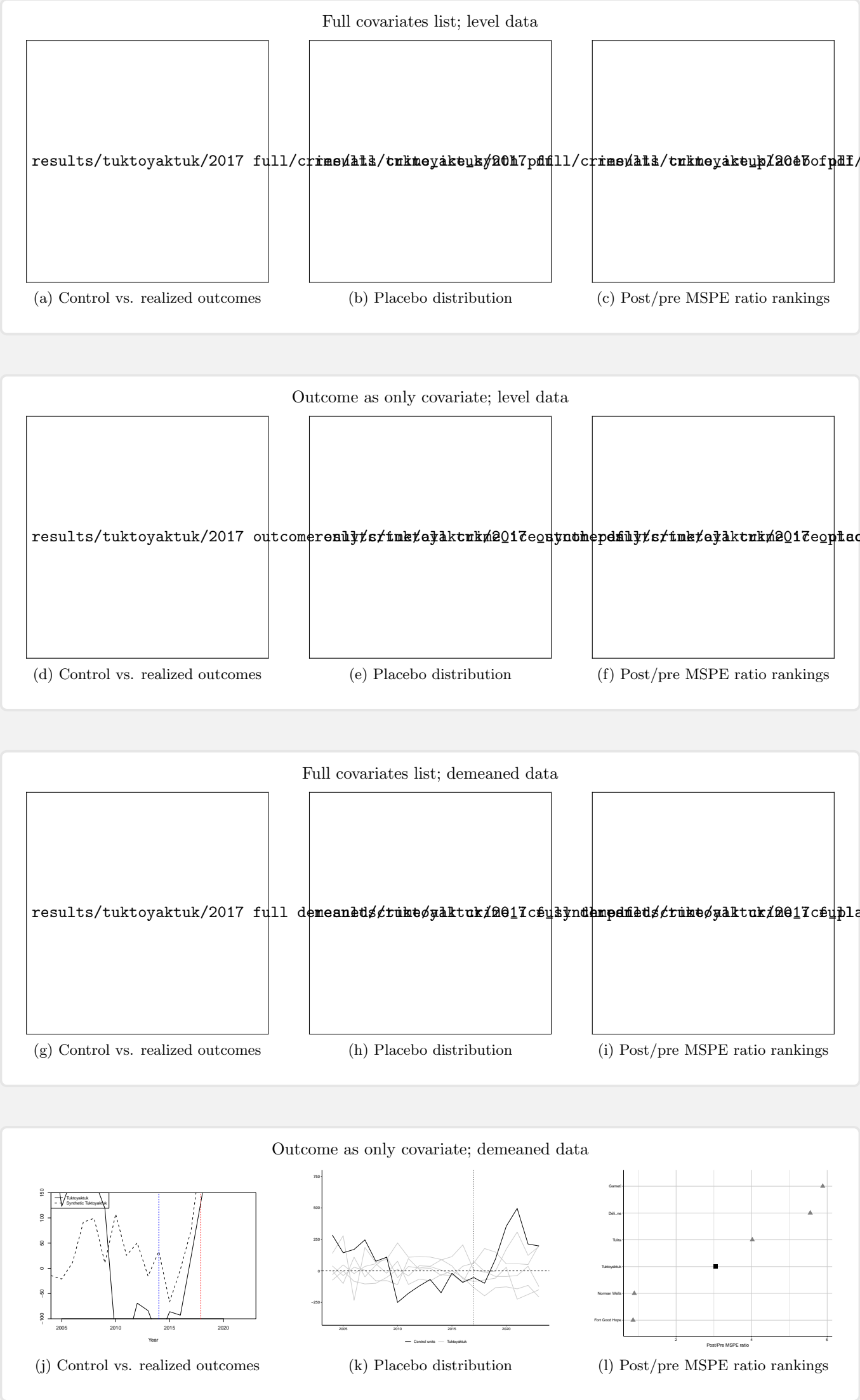
Figure 29: All crime synthetic control results for Tuktoyaktuk
2017 treatment; Other NWT communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

30

Figure 30: All crime results results for Tuktoyaktuk
2017 treatment; Mackenzie valley ice road communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

31

Traffic crime

Figure 31: Traffic crime results for Tuktoyaktuk

PREFERRED SPECIFICATION

2017 treatment; Other NWT communities as donor pool

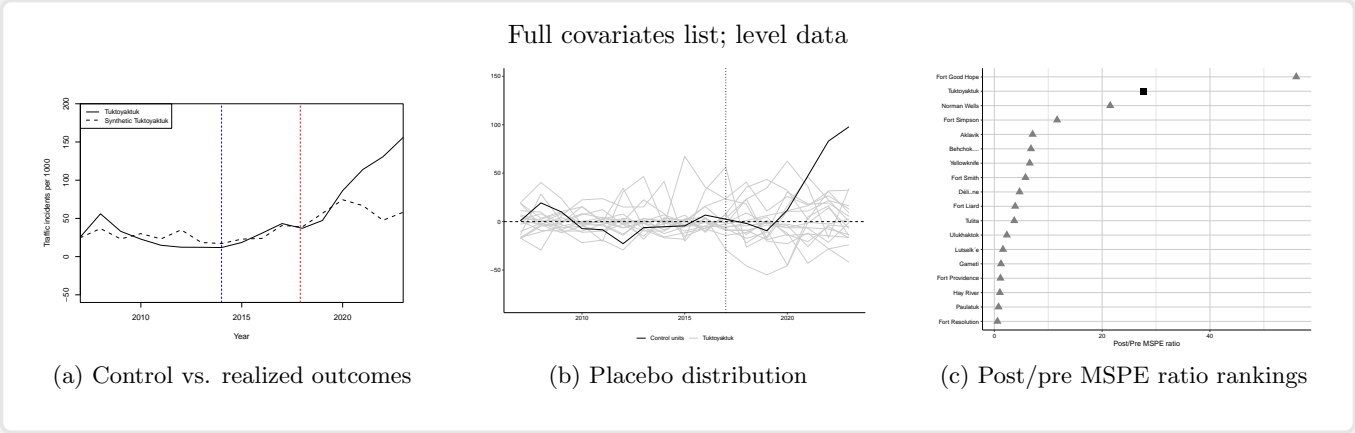
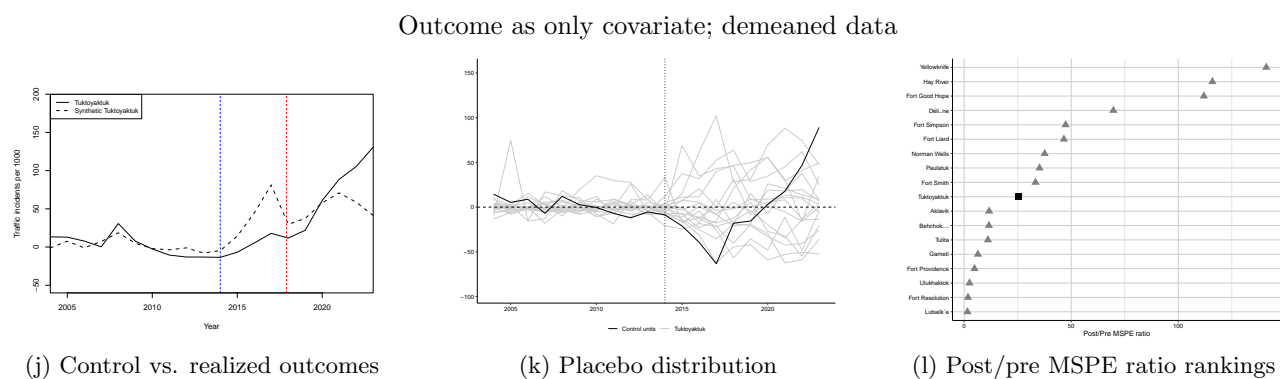
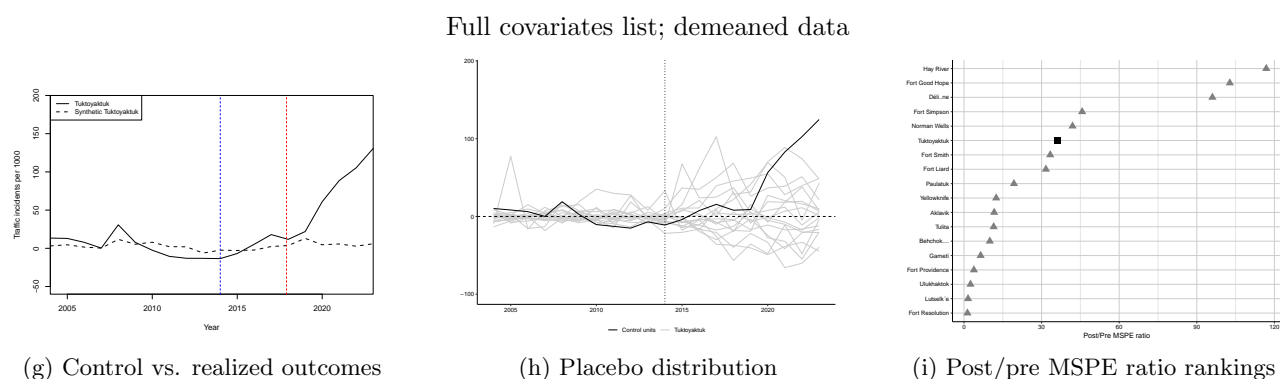
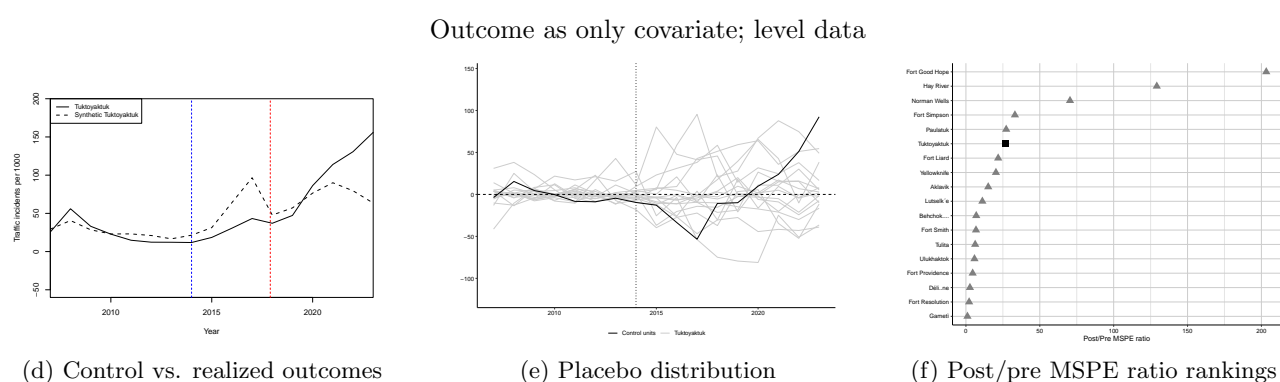
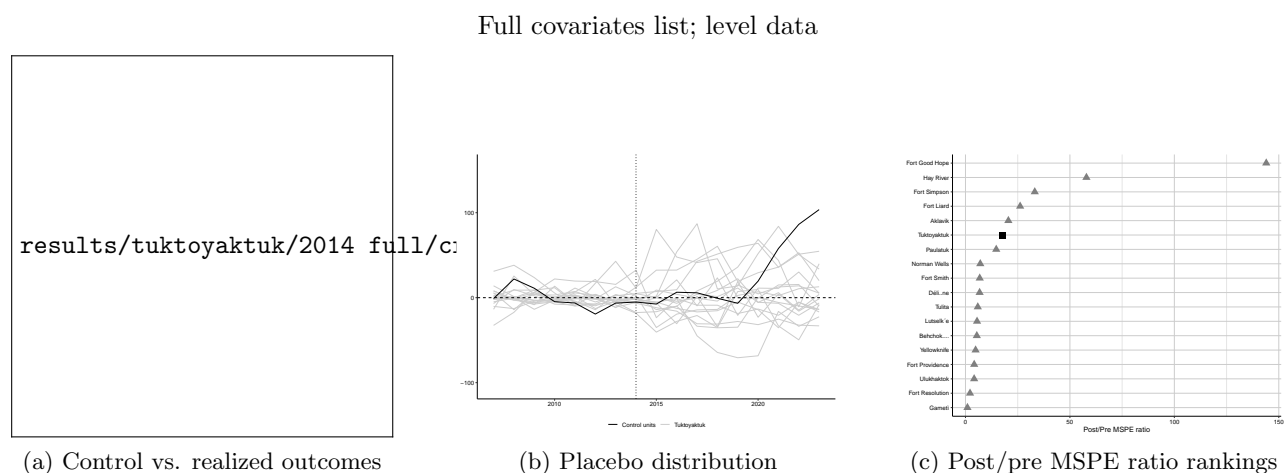
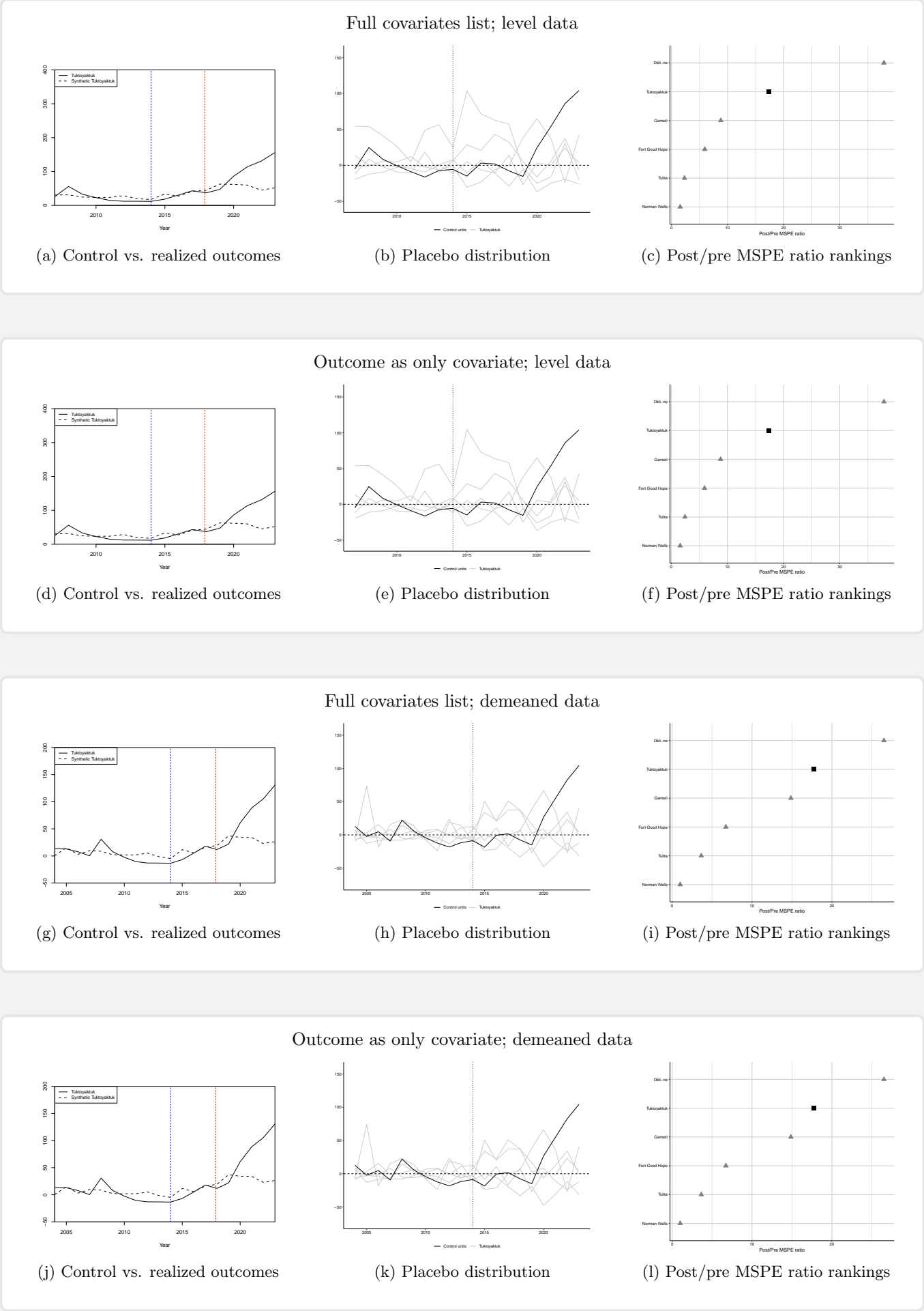


Figure 32: Traffic crime results for Tuktoyaktuk
2014 treatment; Other NWT communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 33: Traffic crime results results for Tuktoyaktuk
 2014 treatment; Mackenzie valley ice road communities as donor pool



Full covariates list; demeaned data

(g) Control vs. realized outcomes

Placebo distribution

(h) Placebo distribution

Post/pre MSPE ratio rankings

(i) Post/pre MSPE ratio rankings

Outcome as only covariate; demeaned data

(j) Control vs. realized outcomes

Placebo distribution

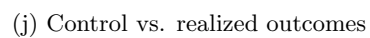
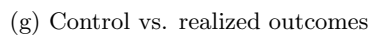
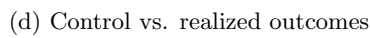
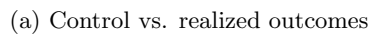
(k) Placebo distribution

Post/pre MSPE ratio rankings

(l) Post/pre MSPE ratio rankings

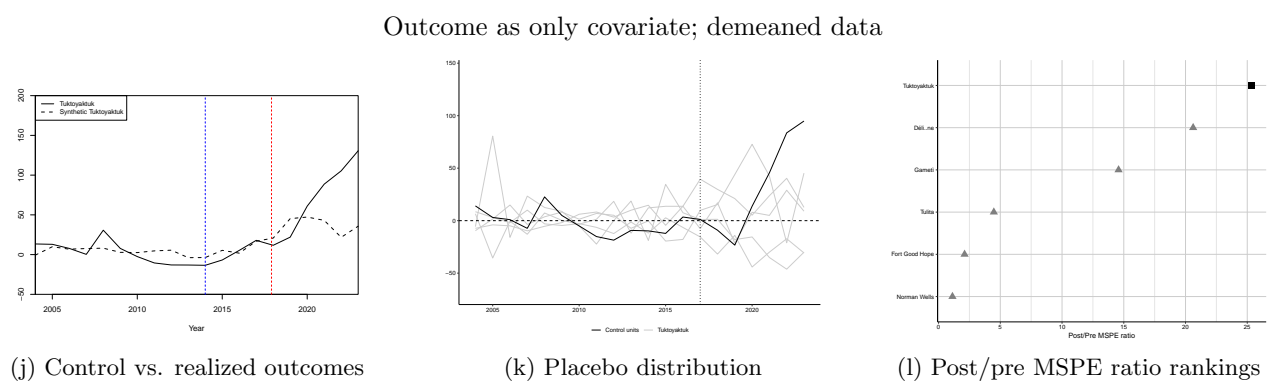
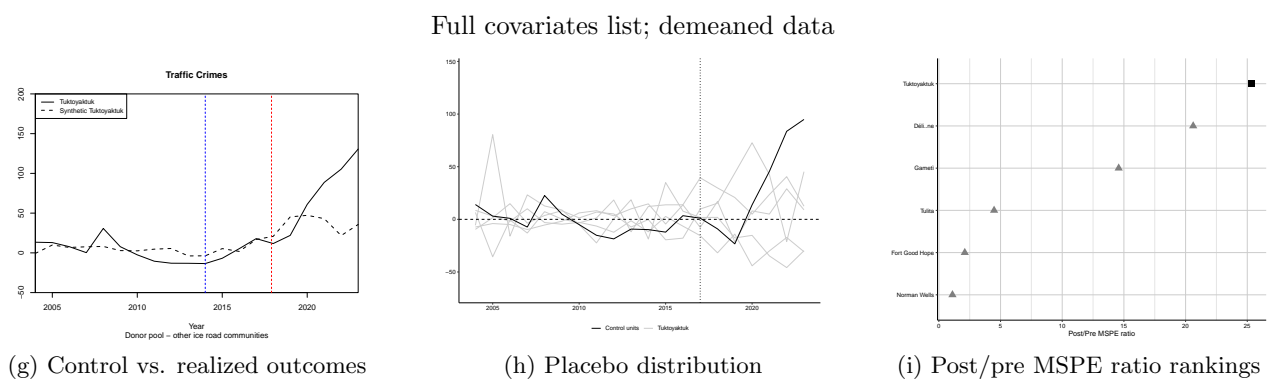
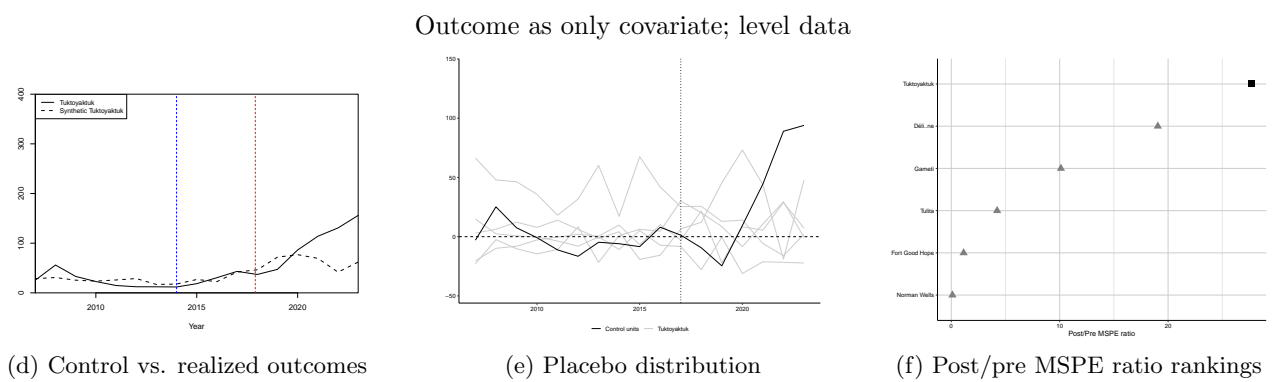
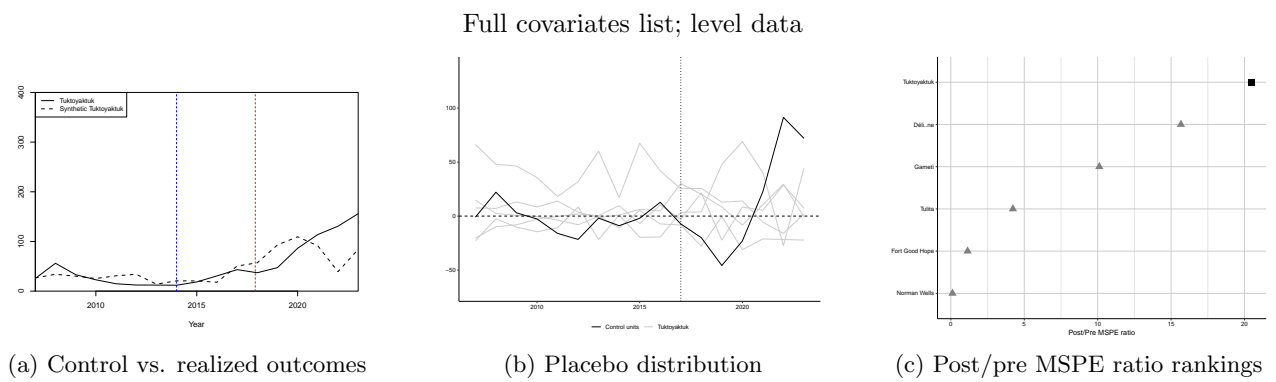
NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

2017 treatment; Other NWT communities as donor pool



35

Figure 35: Traffic crime results results for Tuktoyaktuk
2017 treatment; Mackenzie valley ice road communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

Violent crime

Figure 36: Violent crime results for Tuktoyaktuk

PREFERRED SPECIFICATION

2017 treatment; Other NWT communities as donor pool

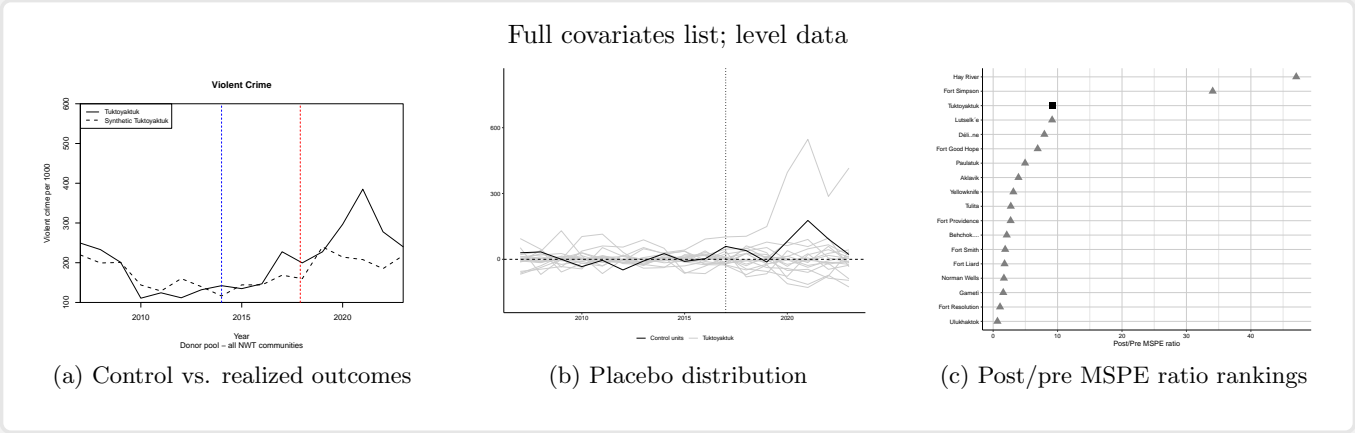
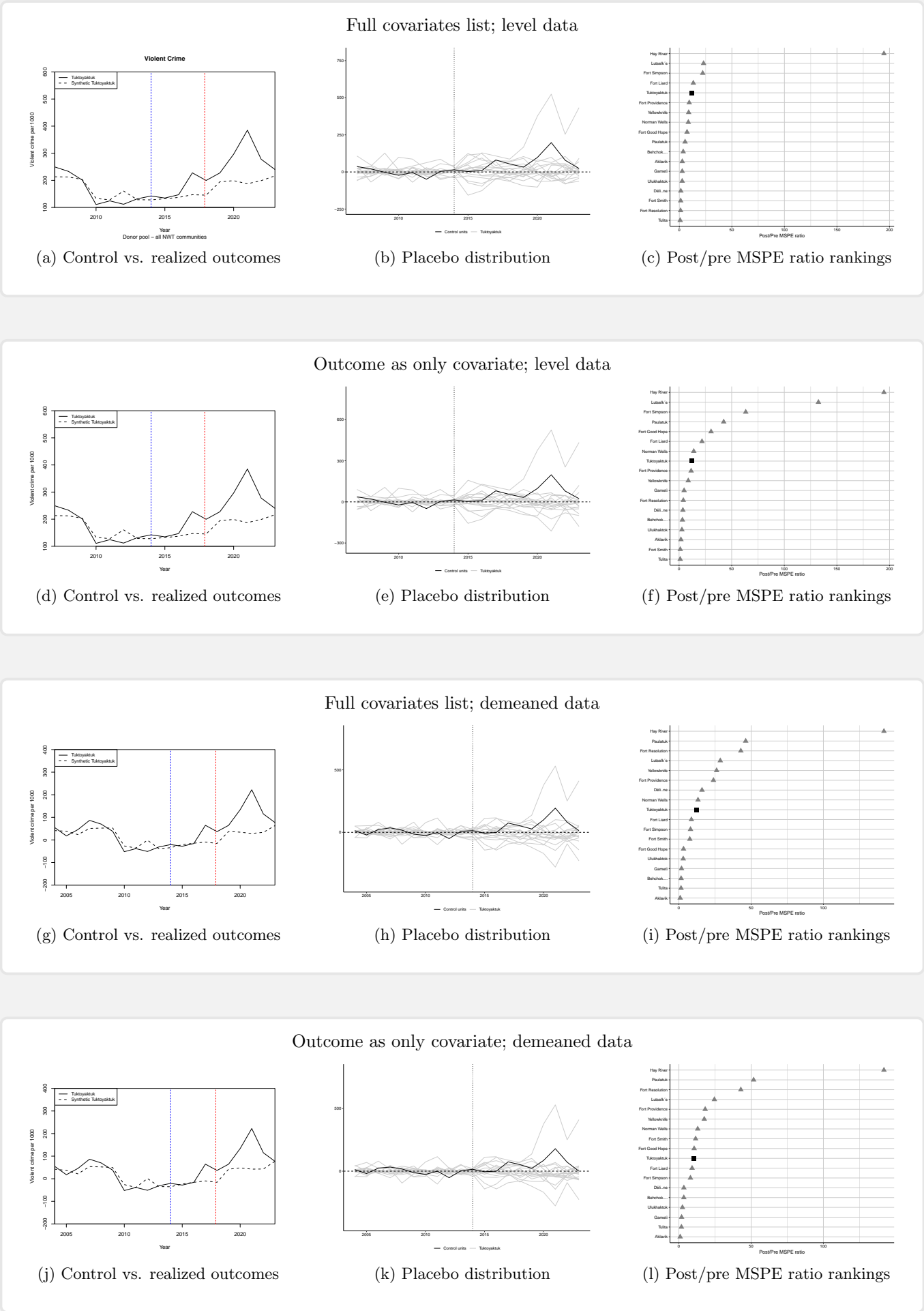
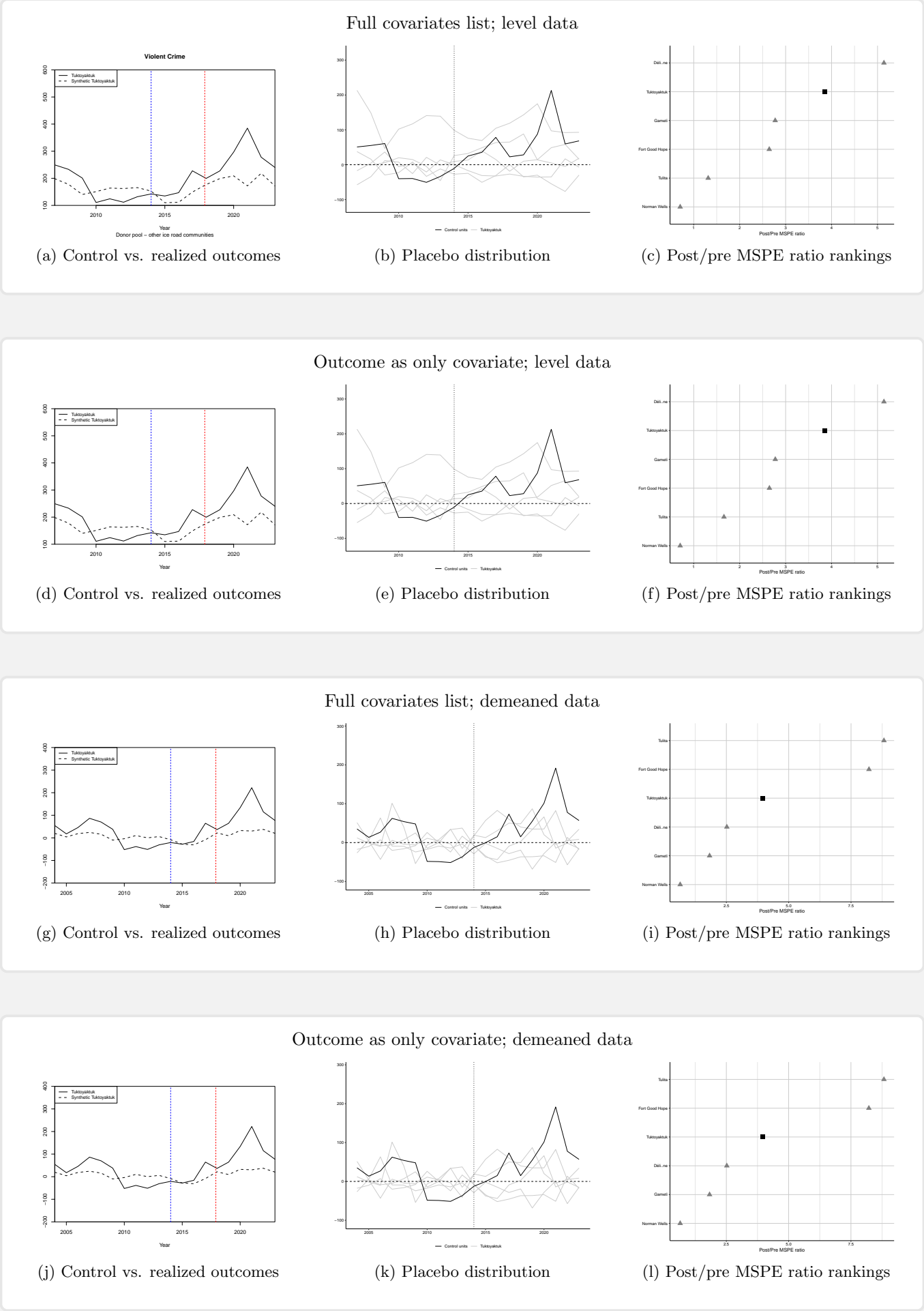


Figure 37: Violent crime results for Tuktoyaktuk
2014 treatment; Other NWT communities as donor pool

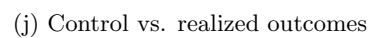
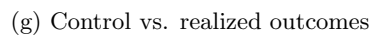
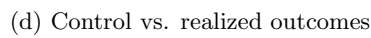
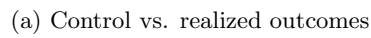


NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 38: Violent crime results results for Tuktoyaktuk
2014 treatment; Mackenzie valley ice road communities as donor pool

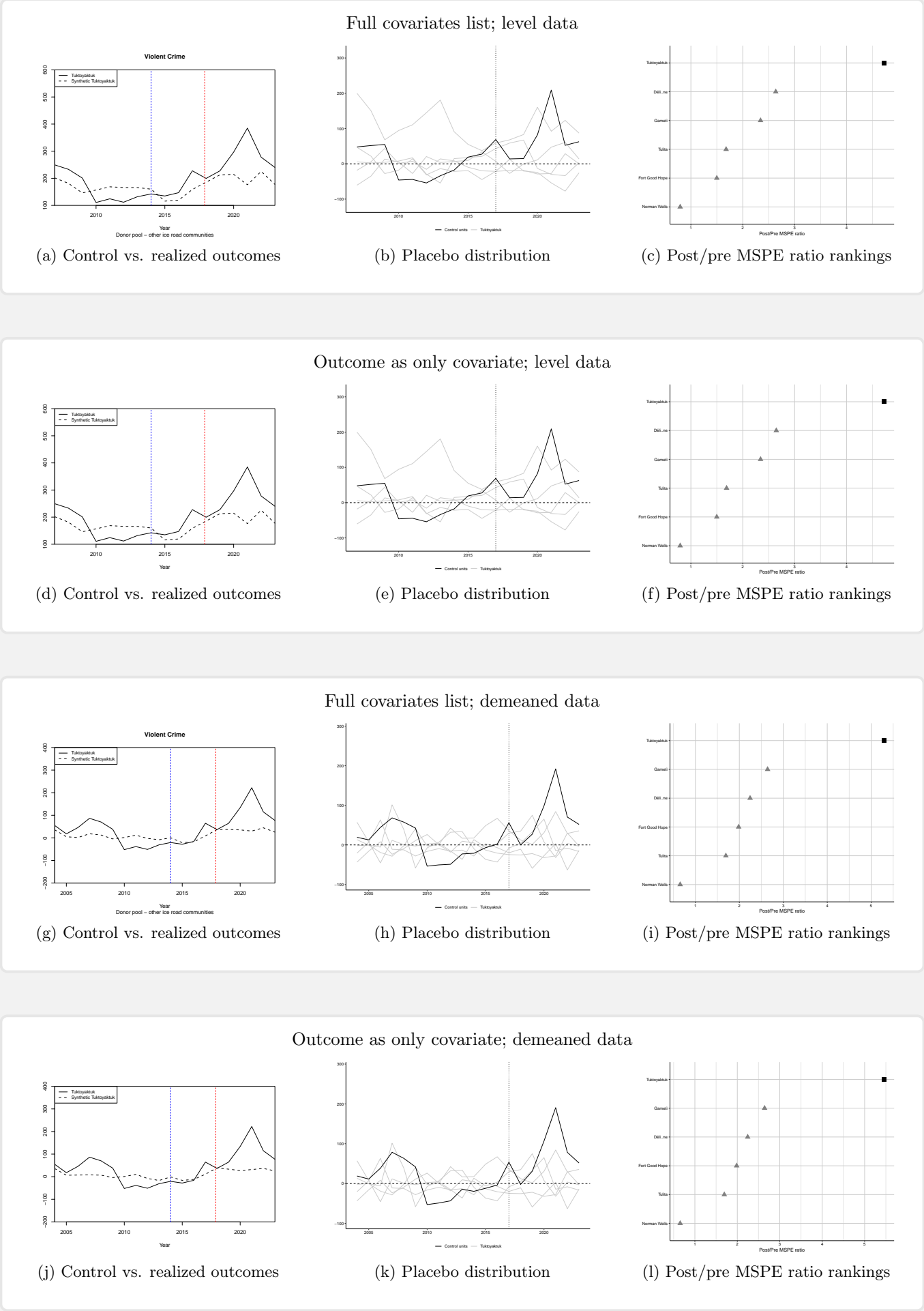


2017 treatment; Other NWT communities as donor pool



40

Figure 40: Violent crime results results for Tuktoyaktuk
 2017 treatment; Mackenzie valley ice road communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

Property crime

Figure 41: Property crime results for Tuktoyaktuk

PREFERRED SPECIFICATION

2017 treatment; Other NWT communities as donor pool

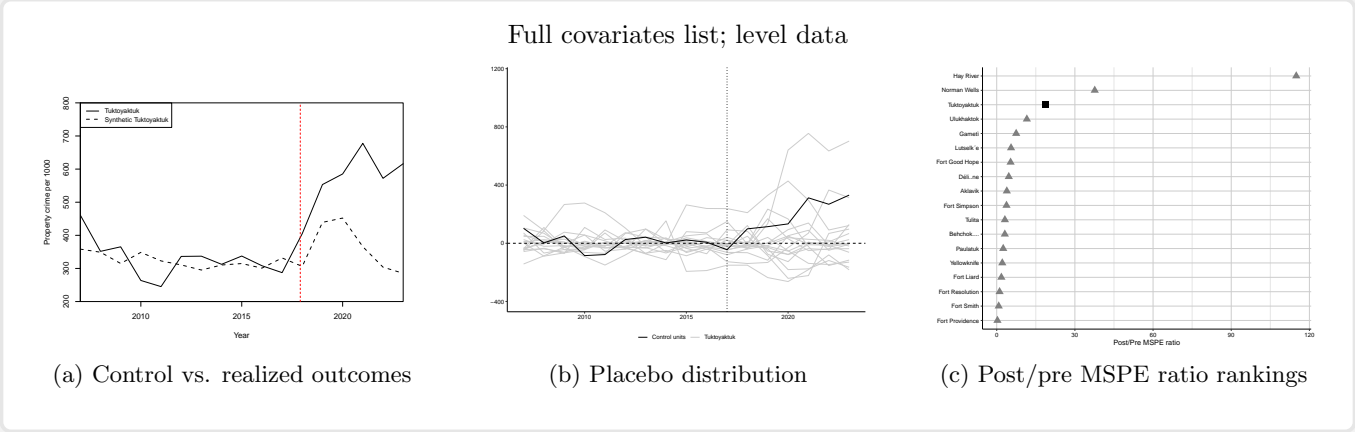
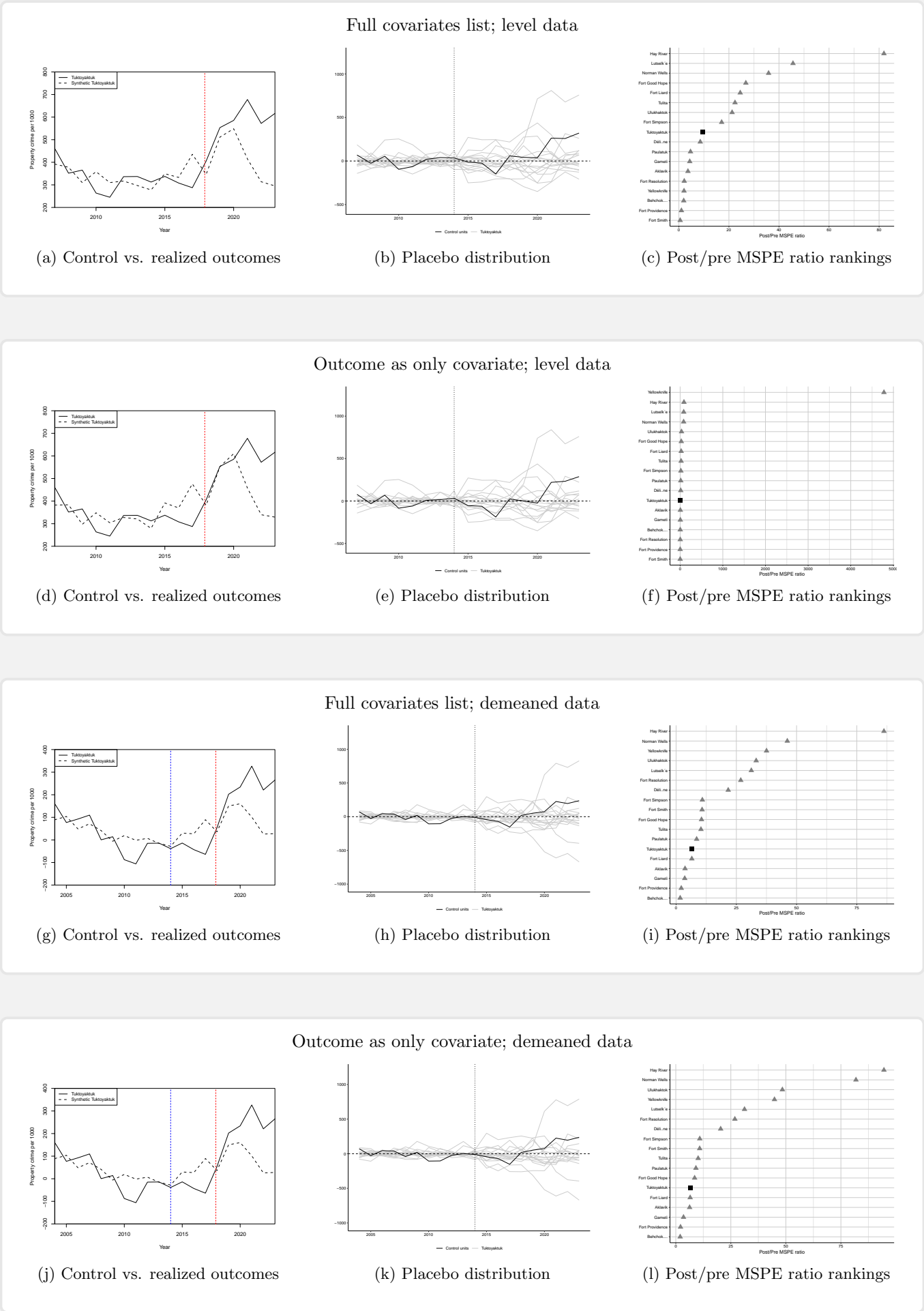
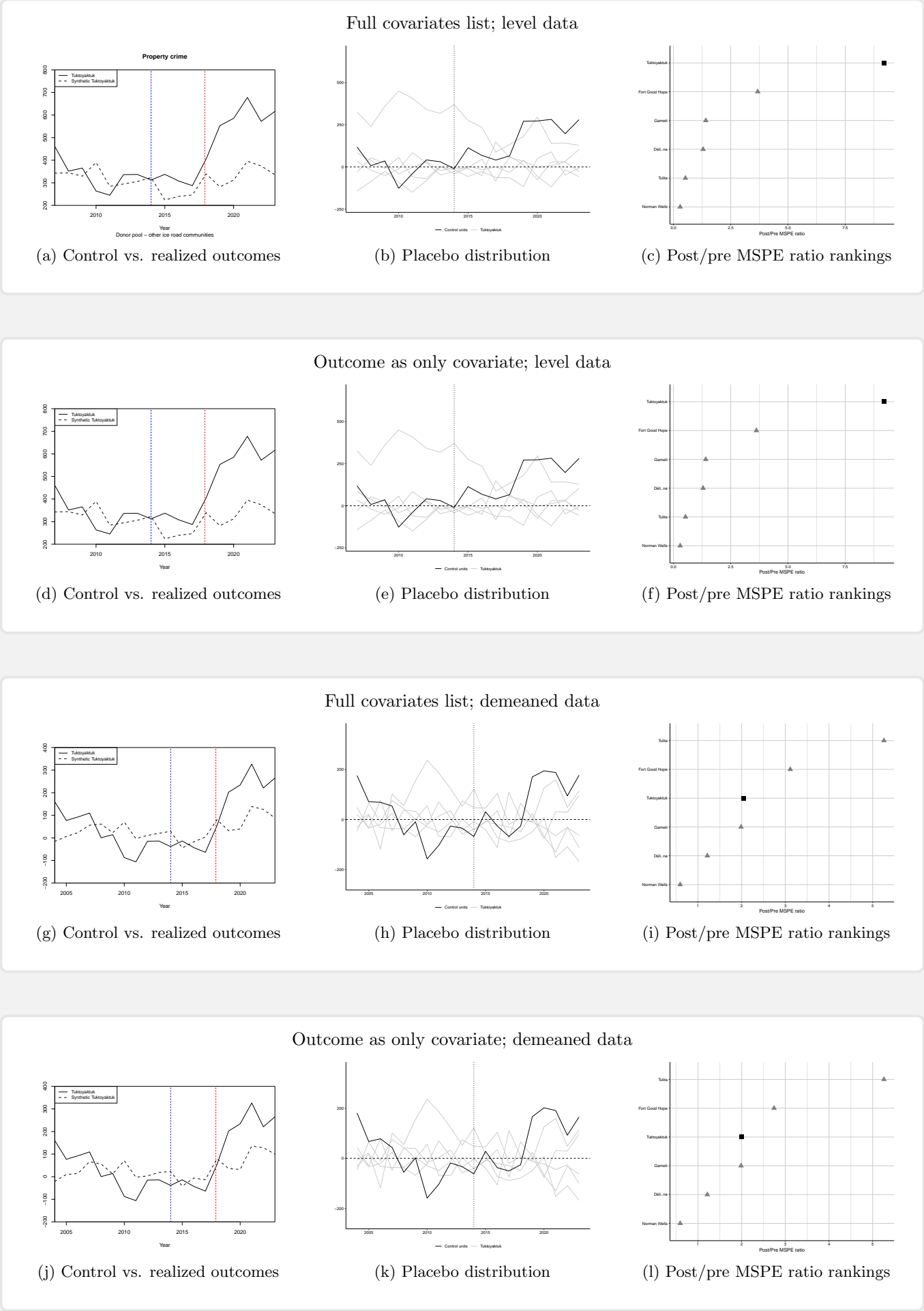


Figure 42: Property crime results for Tuktoyaktuk
2014 treatment; Other NWT communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 43: Property crime results results for Tuktoyaktuk
2014 treatment; Mackenzie valley ice road communities as donor pool



Full covariates list; demeaned data

(g) Control vs. realized outcomes

Placebo distribution

(h) Placebo distribution

Post/pre MSPE ratio rankings

(i) Post/pre MSPE ratio rankings

Outcome as only covariate; demeaned data

(j) Control vs. realized outcomes

Placebo distribution

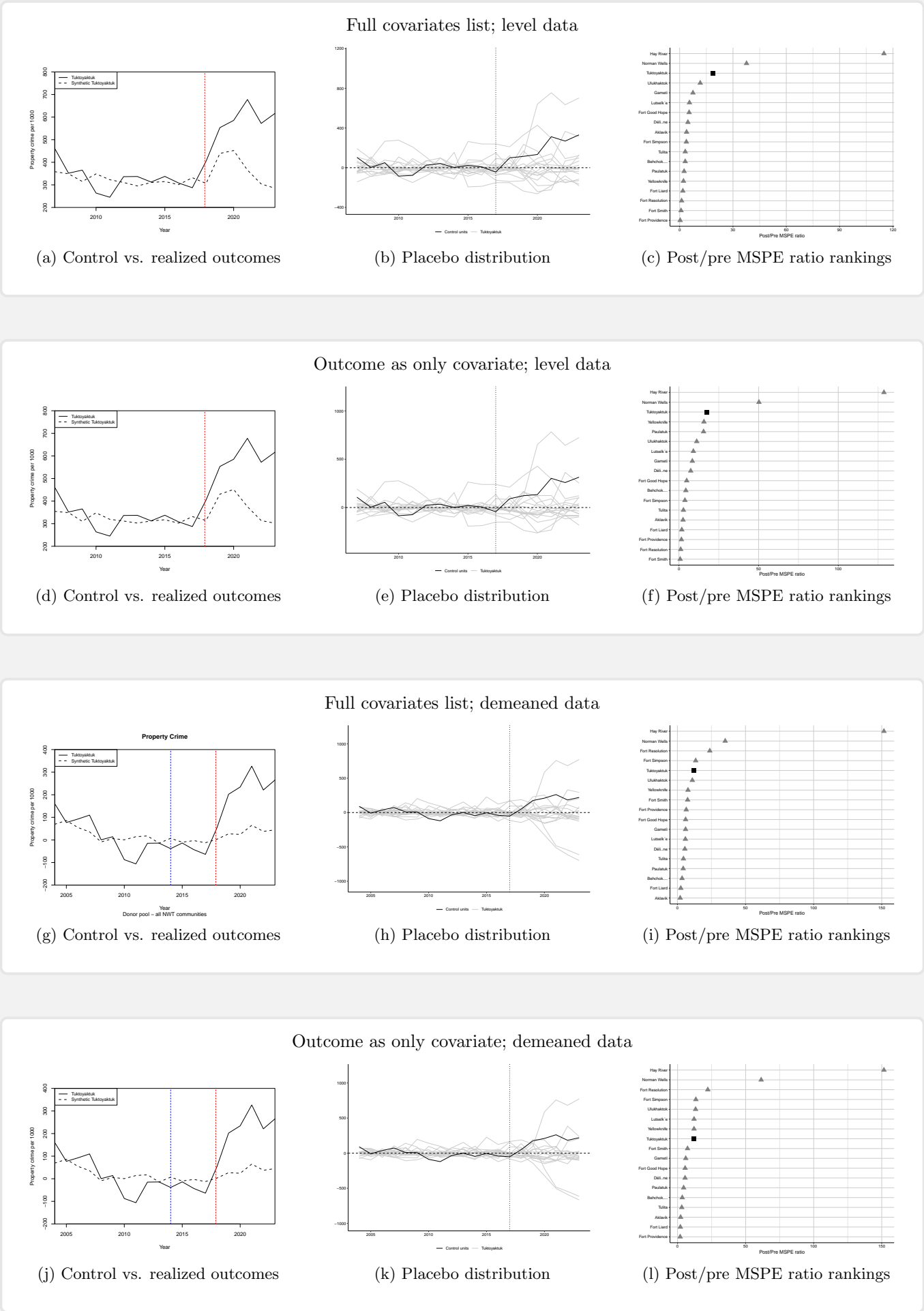
(k) Placebo distribution

Post/pre MSPE ratio rankings

(l) Post/pre MSPE ratio rankings

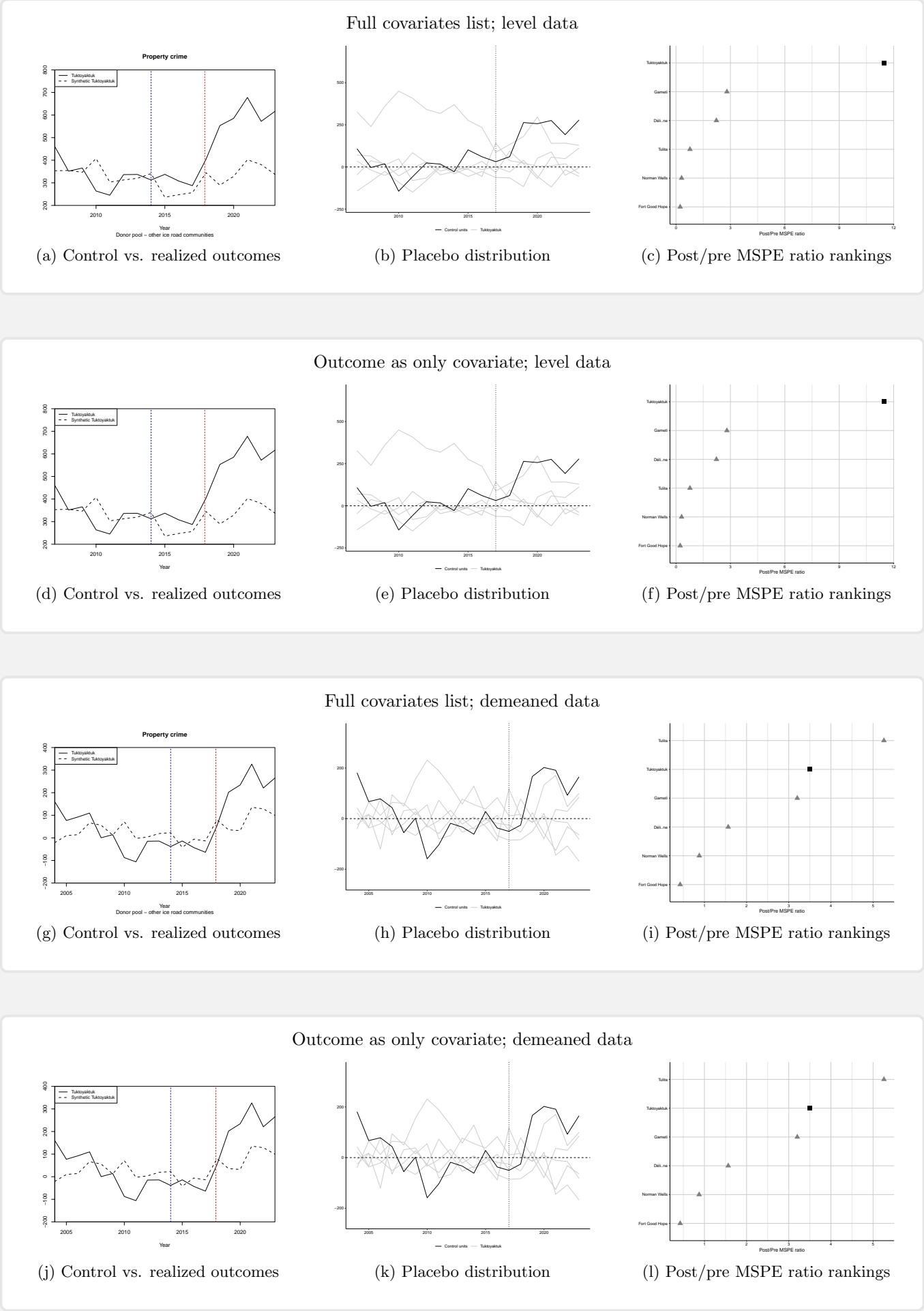
NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

Figure 44: Property crime synthetic control results for Tuktoyaktuk
2017 treatment; Other NWT communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 45: Property crime results results for Tuktoyaktuk
 2017 treatment; Mackenzie valley ice road communities as donor pool



Other federal statutes crime

Figure 46: federal federal satute violations results for Tuktoyaktuk

PREFERRED SPECIFICATION

2017 treatment; federal NWT communities as donor pool

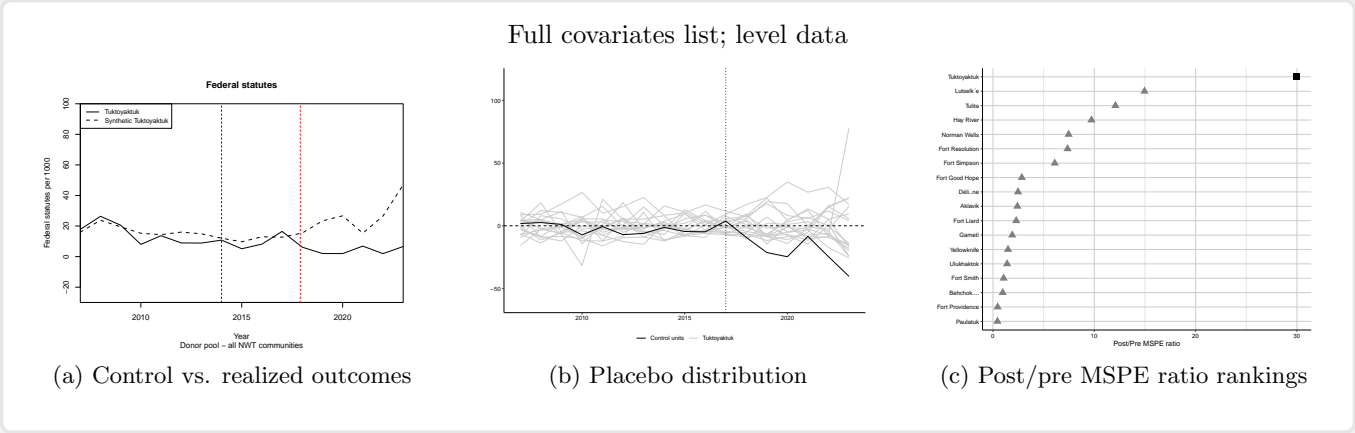
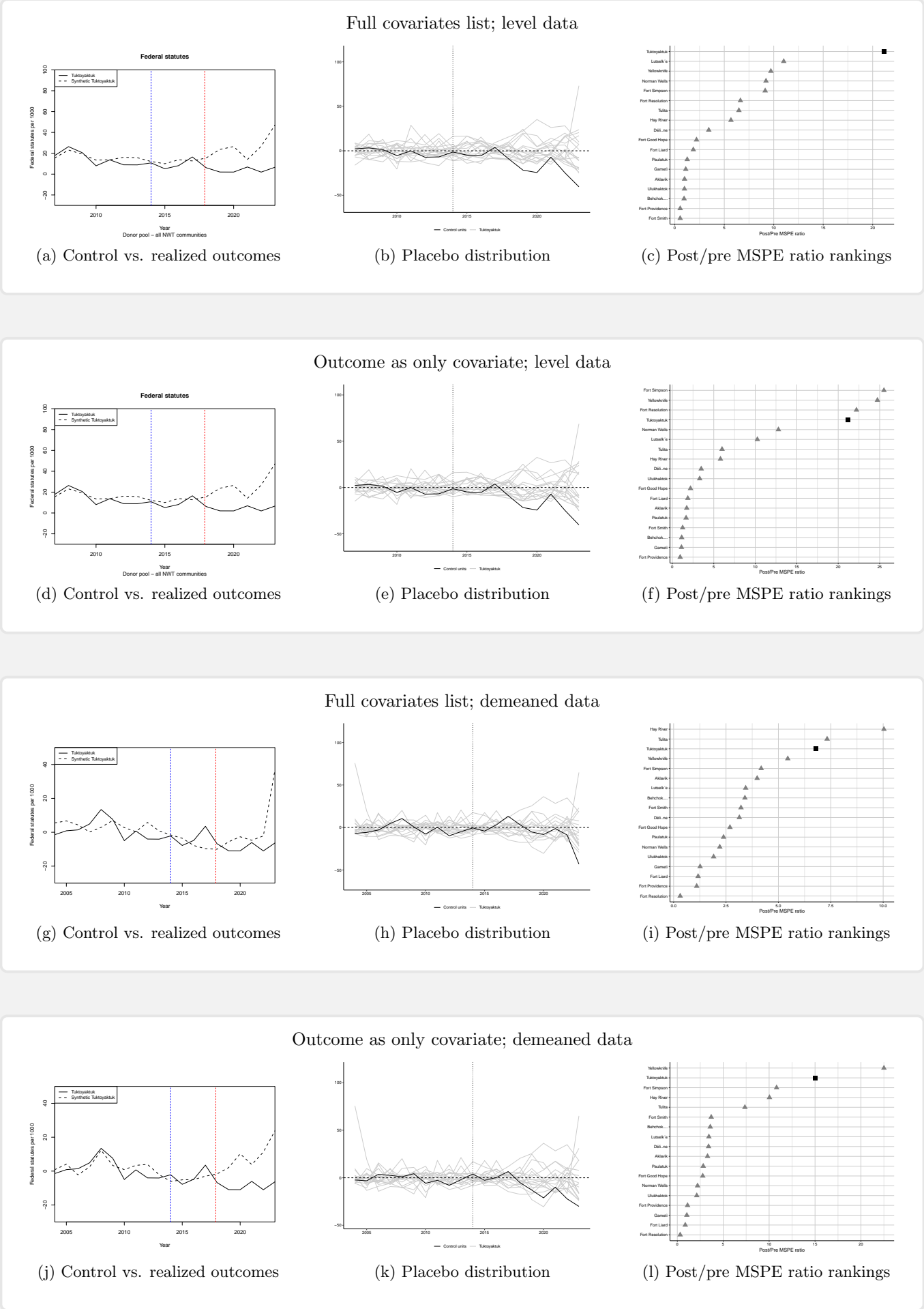
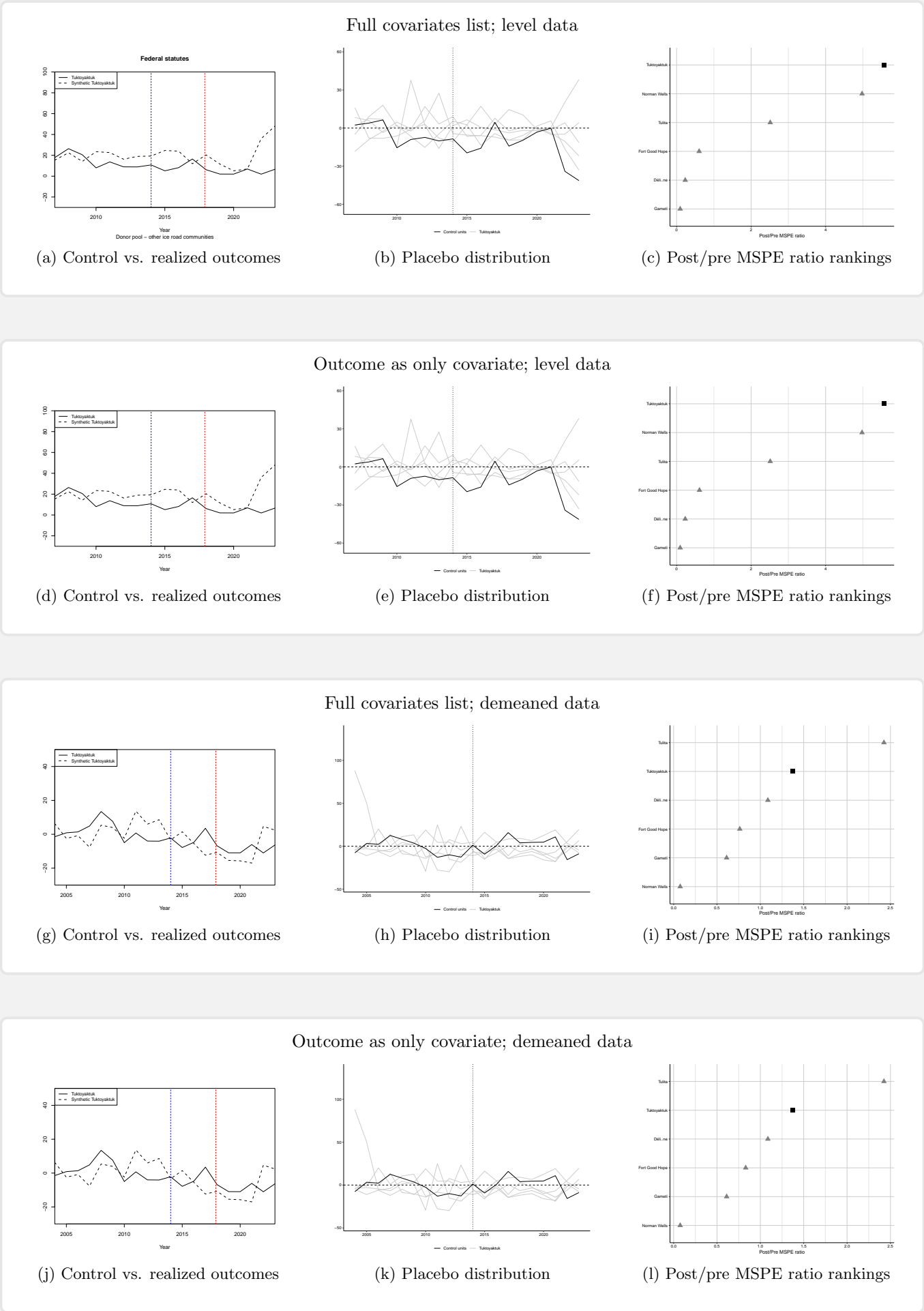


Figure 47: Other federal statutes crime results for Tuktoyaktuk
2014 treatment; Other NWT communities as donor pool



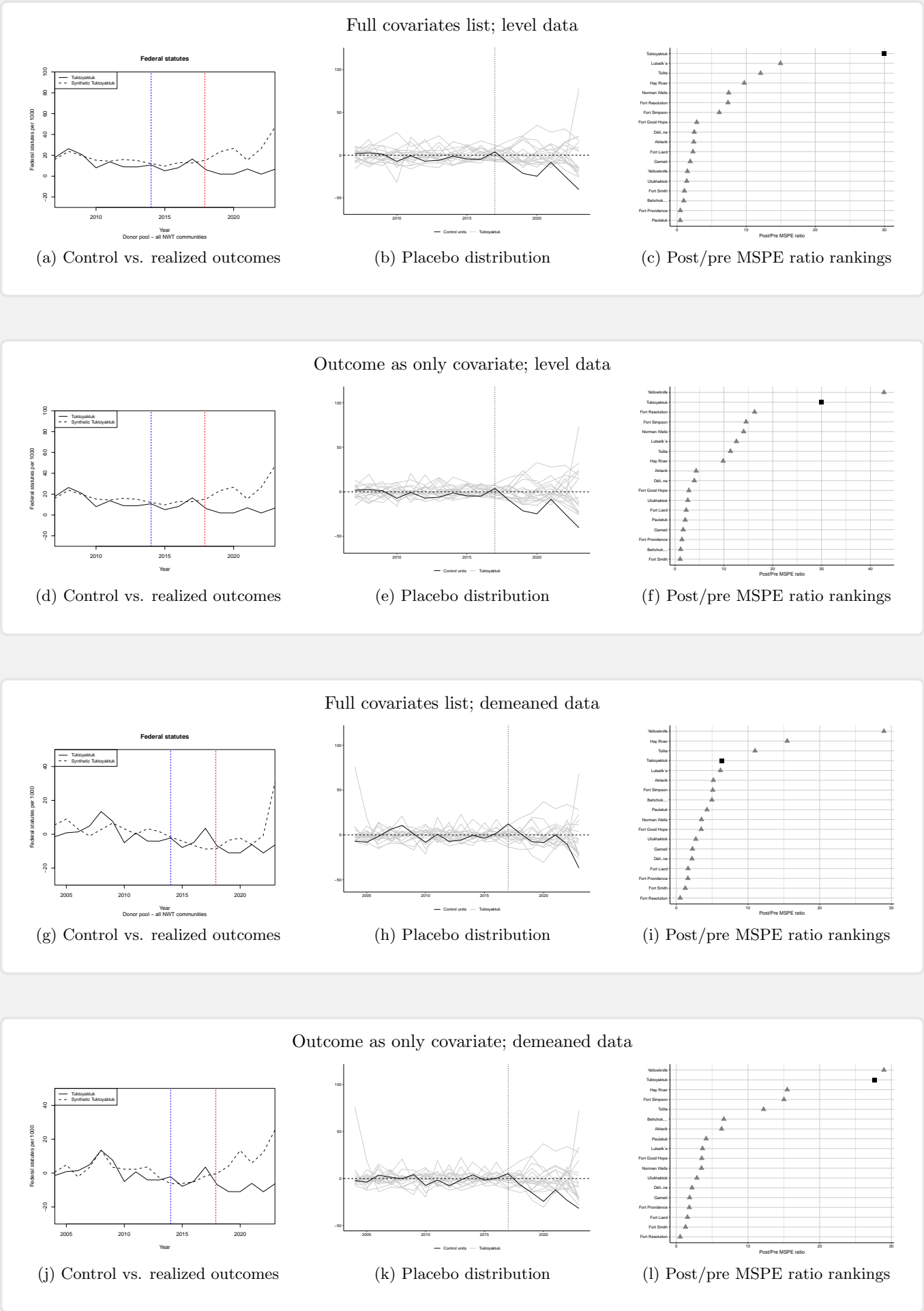
NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 48: Other federal statutes crime results results for Tuktoyaktuk
2014 treatment; Mackenzie valley ice road communities as donor pool



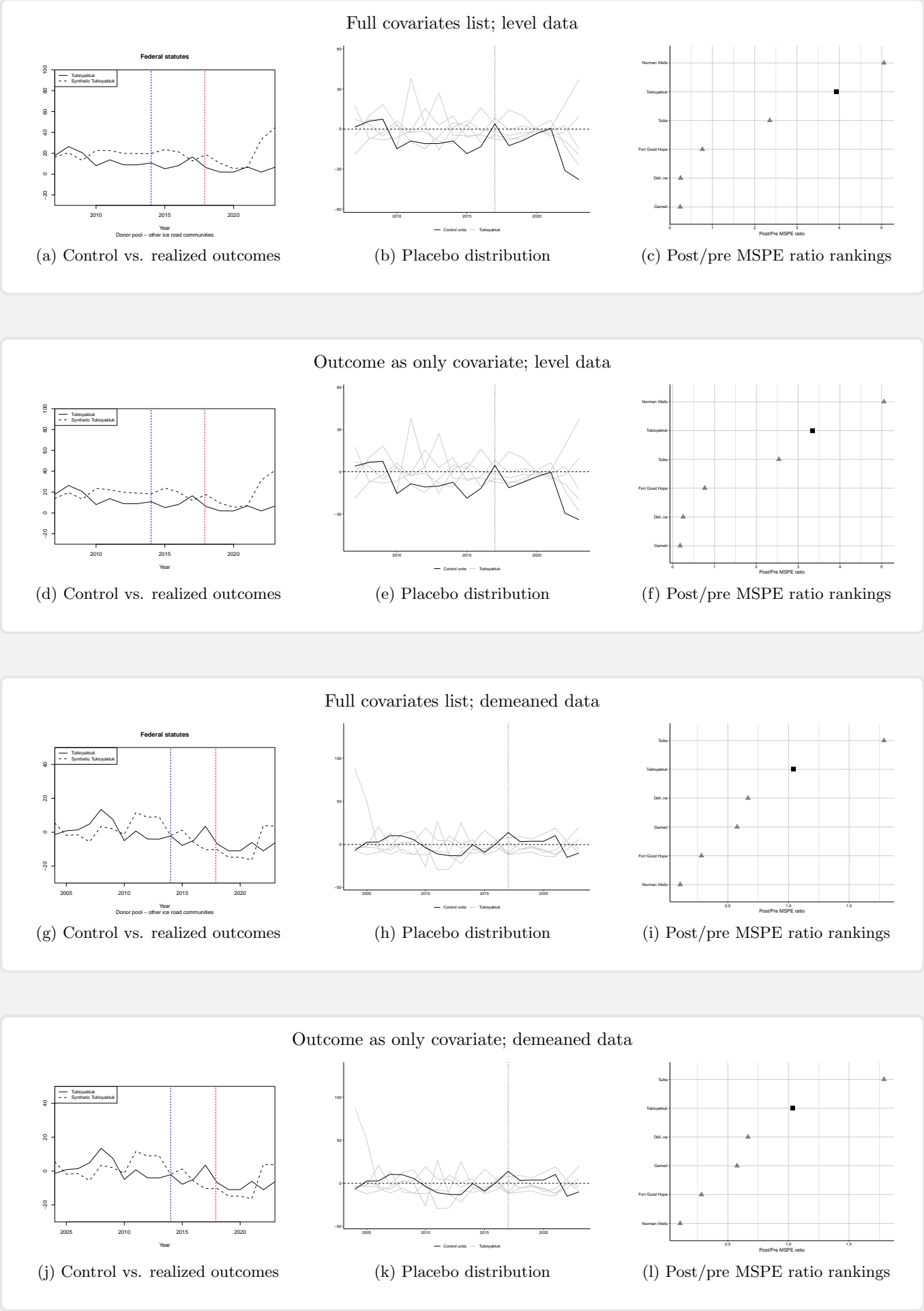
NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

Figure 49: Other federal statutes crime synthetic control results for Tuktoyaktuk
2017 treatment; Other NWT communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 50: Other federal statutes crime results results for Tuktoyaktuk
2017 treatment; Mackenzie valley ice road communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

Other criminal code violations

Figure 51: Other criminal code violations results for Tuktoyaktuk

PREFERRED SPECIFICATION

2017 treatment; Other NWT communities as donor pool

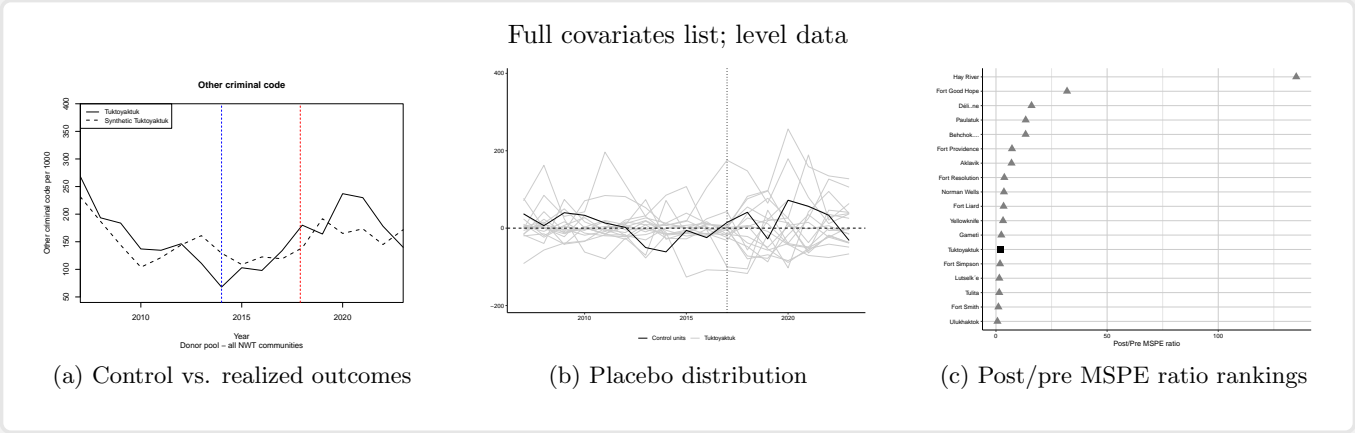
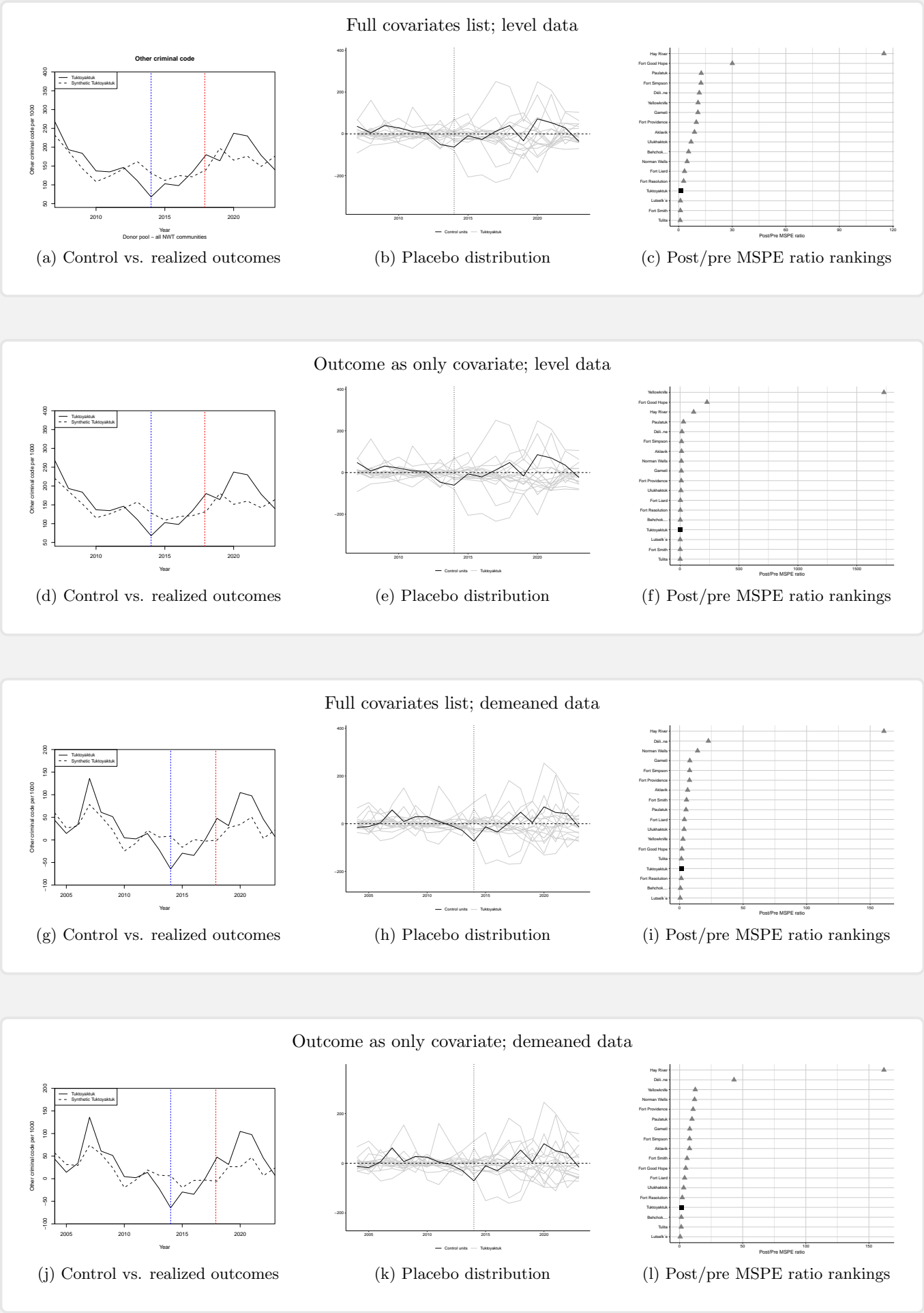
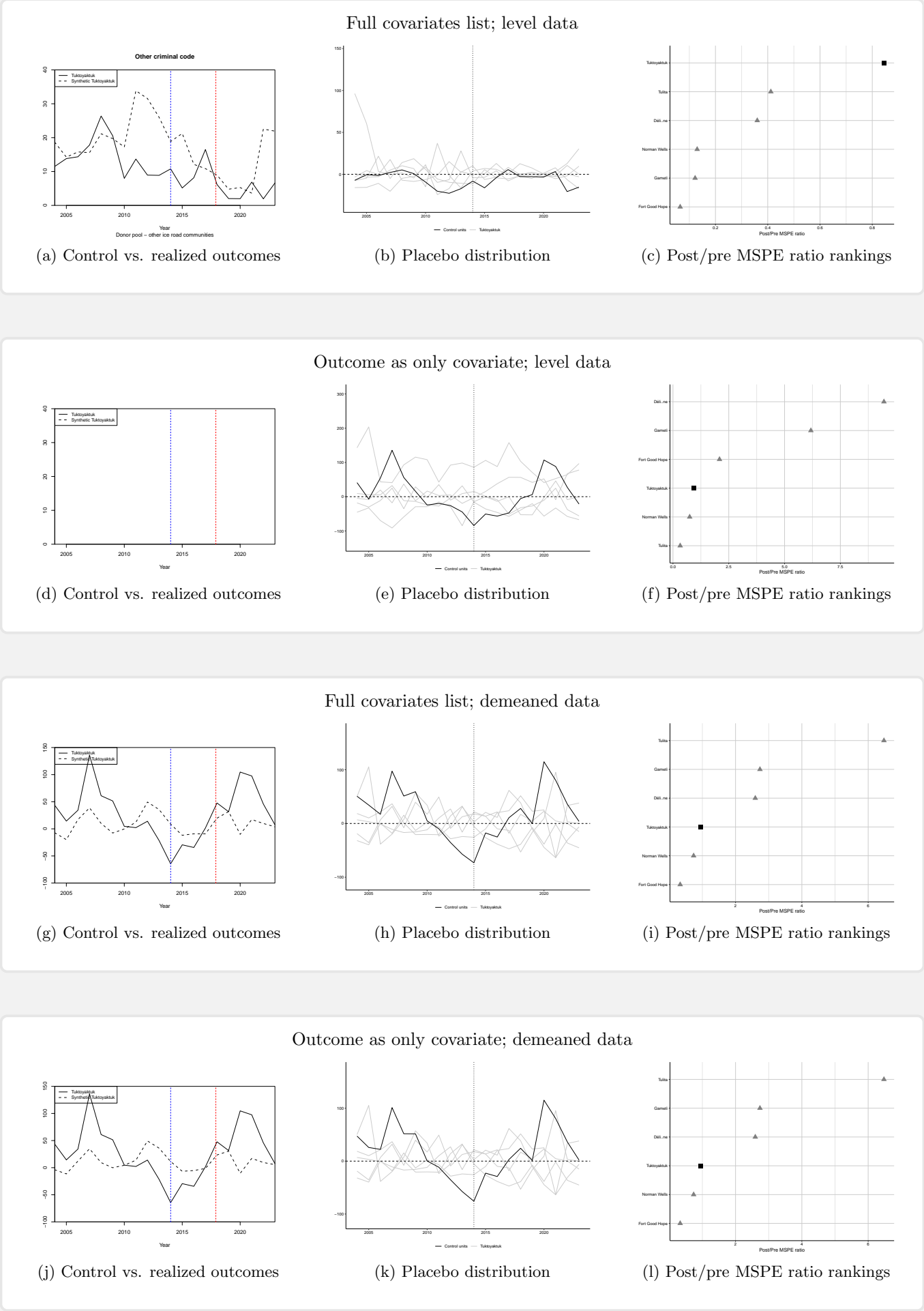


Figure 52: Other criminal code violations crime results for Tuktoyaktuk
2014 treatment; Other NWT communities as donor pool



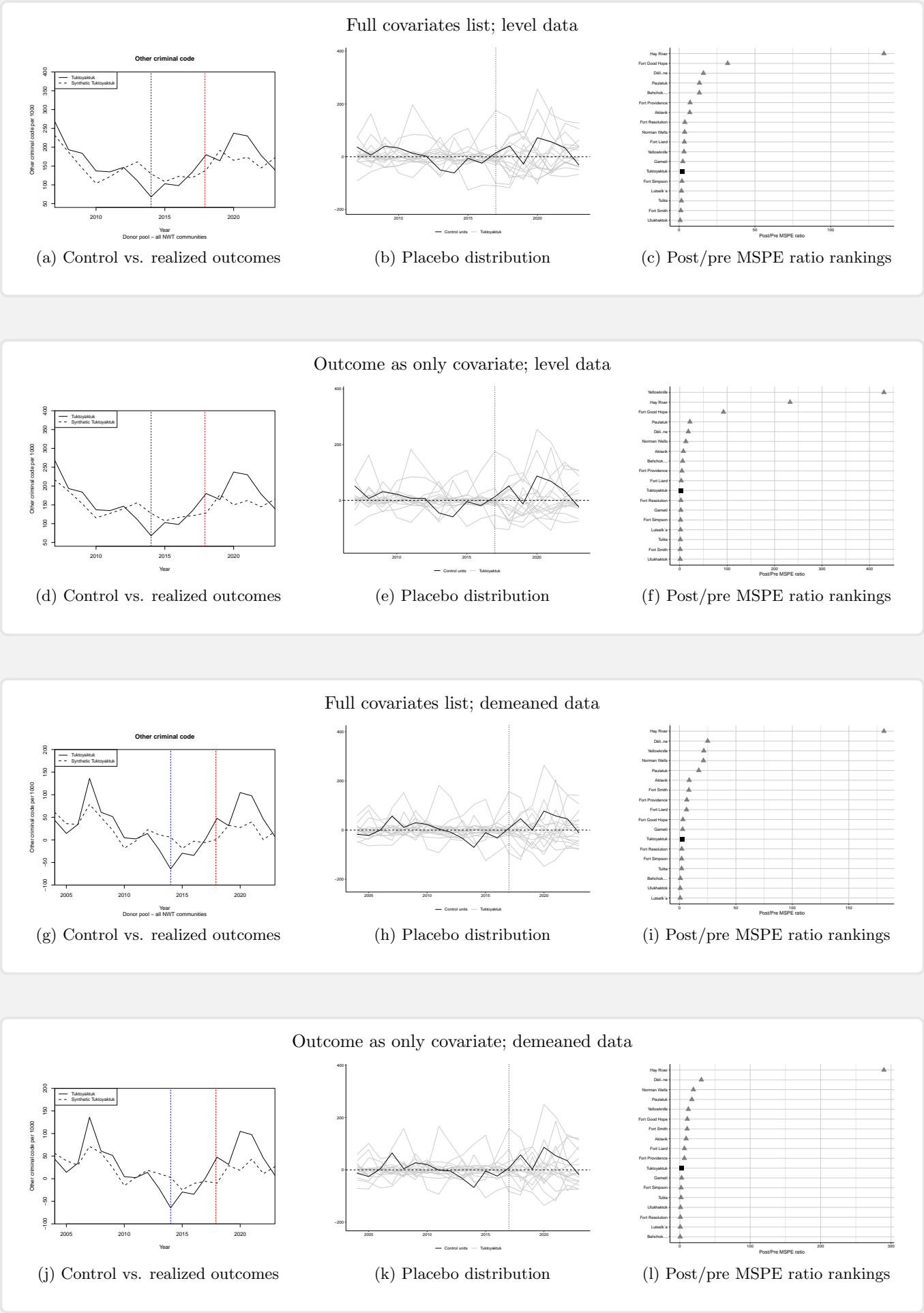
NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 53: Other criminal code violations results results for Tuktoyaktuk
2014 treatment; Mackenzie valley ice road communities as donor pool



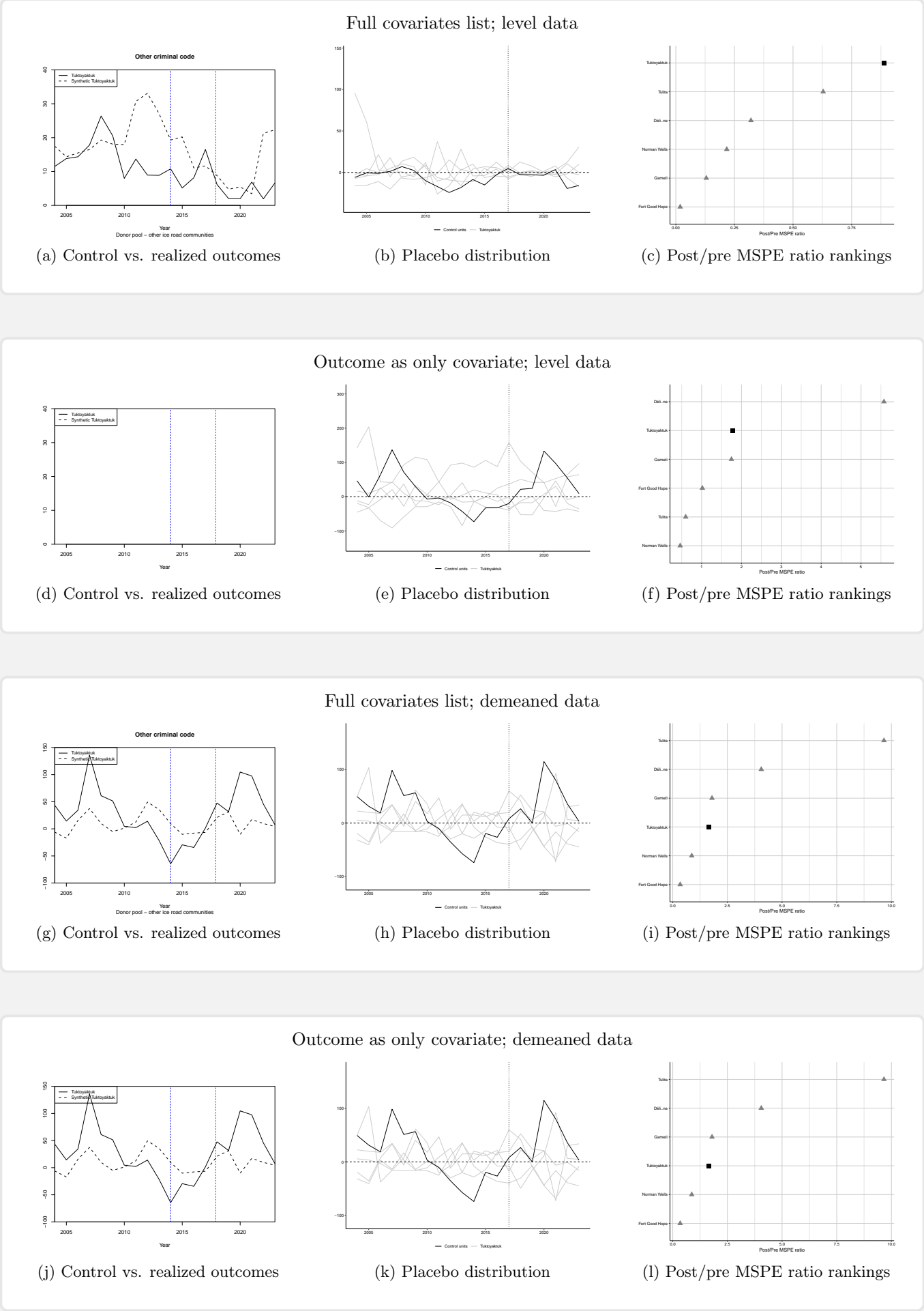
NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.

Figure 54: Other criminal code violations synthetic control results for Tuktoyaktuk
2017 treatment; Other NWT communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes every community in the Northwest Territories that has a consistent population above 100 people during the study period.

Figure 55: Other criminal code violations results results for Tuktoyaktuk
2017 treatment; Mackenzie valley ice road communities as donor pool



NOTES: Crime rates are police reported incidents per 1000 population. The synthetic control vs. realized outcomes graph shows a blue dotted line at 2014, the year construction started and a red line in November 2017, when the road opened. The control pool includes communities on the proposed Mackenzie valley highway that currently only have seasonal ice road overland access.