

## Appendix A. Source-Receptor Coefficients

Notes: Standard errors in parentheses. This table presents results of state-by-state regressions of the annual 90<sup>th</sup> percentile ozone (ppb) in the receptor state on annual NO<sub>x</sub> emissions (1000 tons) from own and neighboring source states. The unit of observation is an ozone monitoring site in a given year. Controls also include population and income. Only coefficients that are significant at a 5% level are included in calculating the total net effect. Significance codes: \* 5% level, \*\* 1% level, \*\*\* 0.1% level.

NOx from:	total	O3 in:				
		AL	AZ	AR	CA	CO
AL	1.23	0.70 (0.76)				
AZ	1.07		0.02 (0.01) *			
AR	-3.03	-0.94 (1.58)		0.62 (0.11) ***		-3.02 (0.33) ***
CA	-0.11		0.00 (0.00)		0.00 (0.00)	-0.10 (0.01) ***
CO	-1.94					-2.80 (0.29) ***
CT	-1.41					
DE	2.58					
DC	17.04					
FL	1.07					
GA	2.67					
ID	-0.25					
IL	-0.10					
IN	-2.05					
IA	4.17					
KS	-0.04					
KY	0.13					
LA	-2.00	-0.75 (0.25) **		-0.67 (0.19) ***		
ME						
MD	0.46					
MA						
MI	-0.02					
MN						
MS	0.05	1.08 (1.13)				
MO						
MT	0.55					
NE	0.00					
NV	0.80		0.01 (0.00)			0.66 (0.08) ***
NH						
NJ	-0.44					
NM	2.08			-0.05 (0.11)		6.82 (0.72) ***
NY	0.14					
NC						
ND						
OH	0.33					
OK	2.24	-0.06 (0.99)		0.88 (0.26) ***		
OR	0.29					
PA	0.22					
RI						
SC						
SD						
TN						
TX	0.07			0.01 (0.02)		
UT	-0.04					
VT						
VA						
WA	0.04					
WV						
WI						
WY						

NOx from:	O3 in:				
	CT	DE	DC	FL	GA
AL			0.24 (0.06) ***		0.19 (0.31)
AZ					
AR					-0.26 (0.13) *
CA					
CO					
CT	0.55 (0.21) **				
DE	-0.83 (0.15) ***	3.58 (1.55) *			
DC	7.50 (0.98) ***	-8.47 (6.49)	4.87 (0.69) ***		
FL				0.21 (0.03) ***	0.20 (0.12)
GA		0.82 (0.31) **	0.37 (0.07) ***		-0.03 (0.06)
ID					
IL			0.00 (0.01)		
IN	-0.24 (0.04) ***	-0.99 (0.32) **	-0.32 (0.05) ***		
IA					
KS					
KY	0.02 (0.01) *	0.40 (0.14) **			
LA				0.16 (0.04) ***	-0.06 (0.26)
ME					
MD					
MA					
MI					
MN					
MS				-0.30 (0.05) ***	
MO					
MT					
NE					
NV					
NH					
NJ					
NM					
NY					
NC					
ND					
OH					
OK					
OR					
PA					
RI					
SC					
SD					
TN					
TX				0.00 (0.00)	
UT					
VT					
VA					
WA					
WV					
WI					
WY					

NOx from:	O3 in:				
	ID	IL	IN	IA	KS
AL			-1.13 (0.94)		
AZ	0.00 (0.00)		0.17 (0.25)		
AR		-0.11 (0.02) ***		-0.14 (0.02) ***	1.25 (0.19) ***
CA	-0.02 (0.01) ***				
CO				0.08 (0.03) **	1.49 (0.25) ***
CT					
DE					
DC					
FL			-0.65 (0.59)		
GA					
ID	-0.24 (0.02) ***				
IL		0.02 (0.01) *	0.19 (0.15)		
IN					
IA		0.85 (0.10) ***	3.48 (2.55)	1.01 (0.14) ***	
KS		-0.06 (0.01) ***		-0.09 (0.02) ***	-0.19 (0.03) ***
KY		-0.03 (0.01) **			
LA				-0.03 (0.02)	
ME					
MD					
MA					
MI					
MN					
MS					
MO					
MT					
NE					
NV	0.02 (0.12)				
NH					
NJ					
NM					-3.28 (0.53) ***
NY					
NC					
ND					
OH					
OK					0.41 (0.05) ***
OR	0.29 (0.06) ***				
PA					
RI					
SC					
SD					
TN					
TX					
UT					
VT					
VA					
WA					
WV					
WI					
WY					

NOx from:	O3 in:				
	KY	LA	ME	MD	MA
AL	0.12 (0.05) *			1.26 (0.18) ***	
AZ					
AR	-0.23 (0.05) ***				
CA					
CO					
CT			1.03 (1.45)		-1.44 (0.38) ***
DE			-1.98 (1.66)		0.53 (0.25) *
DC			0.38 (0.26)		
FL	0.17 (0.02) ***				
GA	-0.04 (0.03)			1.48 (0.19) ***	
ID					
IL	0.00 (0.00)			-0.07 (0.01) ***	
IN				-0.63 (0.09) ***	0.28 (0.07) ***
IA					
KS					
KY				-0.21 (0.03) ***	-0.05 (0.01) ***
LA		0.02 (0.02)			
ME			-0.66 (0.45)		
MD					0.24 (0.03) ***
MA			-1.22 (1.10)		
MI					
MN					
MS					
MO					
MT					
NE					
NV					
NH					
NJ					
NM		-0.08 (0.02) ***			
NY					
NC					
ND					
OH					
OK					
OR					
PA					
RI					
SC					
SD					
TN					
TX		0.01 (0.01)			
UT					
VT					
VA					
WA					
WV					
WI					
WY					

NOx from:	O3 in:				
	MI	MN	MS	MO	MT
AL	-0.38 (0.04) ***				
AZ					0.12 (0.03) ***
AR		-0.13 (0.02) ***	0.56 (0.22) *	-0.26 (0.04) ***	
CA					0.01 (0.00) ***
CO		0.10 (0.04) **		-0.02 (0.02)	-0.12 (0.01) ***
CT					
DE					
DC					
FL					
GA					
ID					0.01 (0.01)
IL	-0.03 (0.01) ***				
IN	-0.08 (0.01) ***				
IA		0.96 (0.11) ***			
KS		-0.10 (0.02) ***		0.08 (0.03) **	
KY					
LA			-0.66 (0.21) **	-0.08 (0.03) **	
ME					
MD					
MA					
MI	-0.02 (0.01) *				
MN		-0.05 (0.05)			
MS			0.03 (0.06)	0.35 (0.05) ***	
MO					
MT					0.13 (0.03) ***
NE					
NV					
NH					
NJ					
NM					
NY					
NC					
ND					
OH	0.17 (0.02) ***				
OK			0.87 (0.27) **		
OR					
PA					
RI					
SC					
SD					
TN					
TX			0.01 (0.01)		
UT					
VT					
VA					
WA					
WV					
WI					
WY					

NOx from:	O3 in:					
	NE	NV	NH	NJ	NM	NY
AL						
AZ	0.22 (0.02) ***				0.13 (0.04) **	
AR						
CA		0.00 (0.00)			-0.01 (0.01)	
CO	0.01 (0.01)					
CT			-0.63 (0.36)			
DE			0.49 (0.12) ***	-2.34 (0.31) ***		0.66 (0.16) ***
DC				4.67 (0.77) ***		
FL						
GA						-0.05 (0.03)
ID	0.08 (0.02) ***					
IL						
IN						
IA						0.50 (0.09) ***
KS	-0.05 (0.04)					
KY						
LA						
ME						
MD			0.20 (0.14)			
MA			0.07 (0.24)			
MI			-0.04 (0.03)			
MN						
MS						
MO						
MT						
NE	-0.36 (0.09) ***					
NV		0.00 (0.02)			0.14 (0.03) ***	
NH						
NJ				-0.18 (0.06) **		-0.26 (0.06) ***
NM					-0.42 (0.03) ***	
NY						0.14 (0.03) ***
NC						
ND						
OH				0.01 (0.01)		
OK						
OR						
PA				0.23 (0.05) ***		
RI						
SC						
SD						
TN						
TX					0.03 (0.01) *	
UT						
VT						
VA						
WA						
WV						
WI						
WY						

NOx from:	O3 in:				
	NC	ND	OH	OK	OR
AL	0.10 (0.03) **		0.14 (0.13)		
AZ				0.19 (0.02) ***	
AR	-0.24 (0.06) ***		-0.24 (0.07) ***		
CA					0.01 (0.01)
CO		-0.46 (0.07) ***			
CT					
DE					
DC					
FL	0.17 (0.02) ***		0.18 (0.04) ***		
GA	-0.05 (0.03)		-0.04 (0.03)		
ID		-0.12 (0.02) ***			
IL					
IN					
IA					
KS		0.23 (0.04) ***			
KY					
LA					
ME					
MD					
MA					
MI					
MN					
MS					
MO					
MT		0.28 (0.03) ***			
NE		0.36 (0.09) ***			
NV					0.11 (0.11)
NH					
NJ					
NM				-0.16 (0.02) ***	
NY					
NC	0.01 (0.02)				
ND					
OH			0.00 (0.00)		
OK				0.08 (0.03) *	
OR					-0.05 (0.05)
PA					
RI					
SC					
SD					
TN					
TX				-0.02 (0.01) *	
UT					
VT					
VA					
WA					
WV					
WI					
WY					



NOx from:	O3 in:					
	PA	RI	SC	SD	TN	TX
AL	-0.35 (0.04) ***		0.19 (0.31)		0.19 (0.31)	
AZ				0.11 (0.03) ***		
AR			-0.26 (0.13) *		-0.26 (0.13) *	0.26 (0.03) ***
CA						
CO				-0.23 (0.03) ***		
CT		-0.52 (0.10) ***				
DE		0.39 (0.04)				
DC		0.90 (3.01)				
FL			0.20 (0.12)		0.20 (0.12)	
GA			-0.03 (0.06)		-0.03 (0.06)	
ID				-0.02 (0.01) *		
IL	-0.04 (0.01) ***					
IN	-0.07 (0.02) ***					
IA						
KS				0.09 (0.02) ***		
KY						
LA			-0.06 (0.26)		-0.06 (0.26)	
ME						
MD		0.22 (0.09) *				
MA						
MI		-0.04 (0.03)				
MN						
MS						
MO						
MT				0.14 (0.03) ***		
NE						
NV						
NH						
NJ						
NM						-0.39 (0.04) ***
NY						
NC						
ND						
OH	0.16 (0.02) ***					
OK						
OR						
PA	-0.01 (0.00) *					
RI						
SC						
SD						
TN						
TX						0.06 (0.01) ***
UT						
VT						
VA						
WA						
WV						
WI						
WY						

NOx from:	O3 in:				
	UT	VT	VA	WA	WV
AL			0.12 (0.05) *		0.12 (0.05) *
AZ					
AR	0.06 (0.04)		-0.23 (0.05) ***		-0.23 (0.05) ***
CA	0.00 (0.00)			0.00 (0.01)	
CO					
CT		-0.63 (0.36)			
DE		0.49 (0.12) ***			
DC					
FL			0.17 (0.02) ***		0.17 (0.02) ***
GA			-0.04 (0.03)		-0.04 (0.03)
ID					
IL			0.00 (0.02)		0.00 (0.02)
IN					
IA					
KS					
KY					
LA					
ME					
MD		0.20 (0.14)			
MA		0.07 (0.02)			
MI		-0.04 (0.03)			
MN					
MS					
MO					
MT					
NE					
NV	0.02 (0.03)			0.08 (0.11)	
NH					
NJ					
NM					
NY					
NC					
ND					
OH					
OK					
OR				-0.04 (0.05)	
PA					
RI					
SC					
SD					
TN					
TX					
UT	-0.04 (0.02) *				
VT					
VA					
WA				0.04 (0.01) **	
WV					
WI					
WY					

NOx from:	O3 in:	
	WI	WY
AL		
AZ		0.28 (0.03) ***
AR	-0.11 (0.02) ***	
CA		0.00 (0.00)
CO		0.08 (0.05)
CT		
DE		
DC		
FL		
GA		
ID		0.05 (0.01) ***
IL	0.02 (0.01) *	
IN		
IA	0.85 (0.10) ***	
KS		
KY	-0.03 (0.01) **	
LA		
ME		
MD		
MA		
MI		
MN		
MS		
MO		
MT		
NE		
NV		
NH		
NJ		
NM		-0.41 (0.10) ***
NY		
NC		
ND		
OH		
OK		
OR		
PA		
RI		
SC		
SD		
TN		
TX		
UT		
VT		
VA		
WA		
WV		
WI		
WY		