

Online Appendix: The Effect of Terrorism on Employment and Consumer Sentiment: Evidence from Successful and Failed Terror Attacks*

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November 22, 2017

Abstract

This paper examines the economic consequences of terror attacks by exploiting the inherent randomness in the success or failure of terror attacks. The findings suggest that successful attacks, in comparison to failed attacks, reduce the number of jobs and total earnings in targeted counties by approximately 2% in the years following the attack. Analyzing the channels, I find that successful attacks affect, in particular, specific industries such as housing. Last, I show that successful attacks receive more media coverage and increase levels of consumer pessimism in terms of business conditions and buying conditions.

KEYWORDS: Crime, Terrorism, Employment, Uncertainty, Media, Consumer Sentiment.

JEL CODES: D74, C13, P16.

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Appendix: NOT FOR PUBLICATION

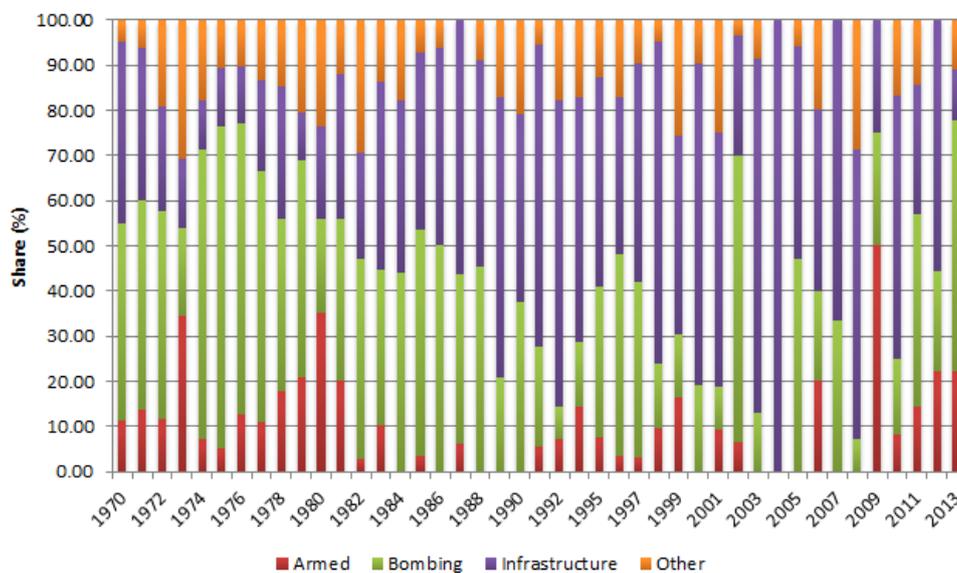


Figure 1: Share of terror attacks involving the following general methods of attack: armed assault, bombing/explosion, facility/infrastructure and other. Attack types classified as “Other” include assassination, hijacking, barricade hostage, kidnapping and unarmed assault.



Figure 2: Share of terror attacks targeting the following victims: business, government, abortion clinics or employees, private citizens and property and other. Targets classified as “Other” include airports, educational and religious institutions, transportation, media, military, NGO, police, telecommunication, tourists and attacks carried out against foreign missions, maritime facilities, non-state militias, violent political parties, utilities and food or water supply.

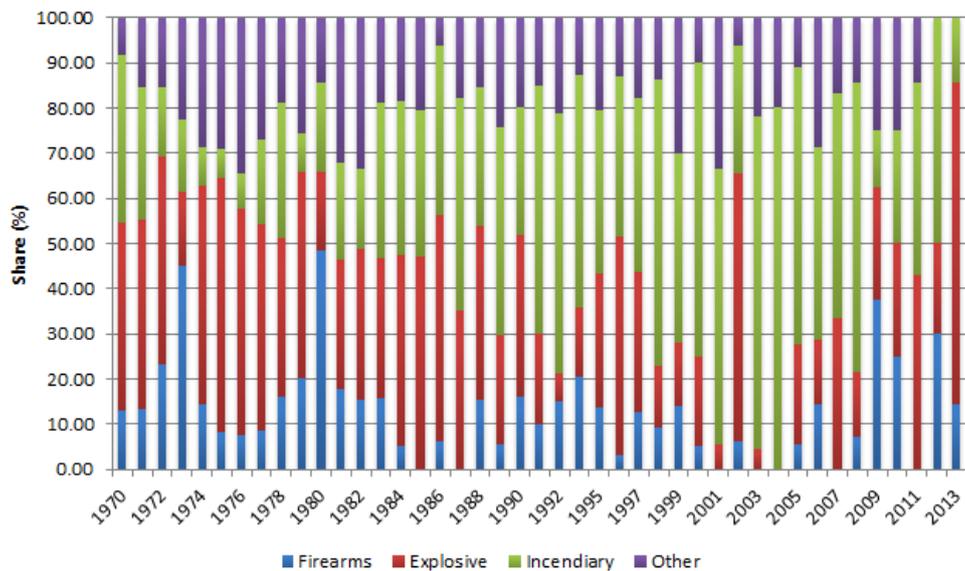


Figure 3: Share of terror attacks by the general type of weapon used: firearms, explosives, bombs or dynamite, incendiary and other. Weapons classified as “Other” are either (1) weapons that have been identified but does not fit into one of the categories or (2) weapons that could not have been identified.

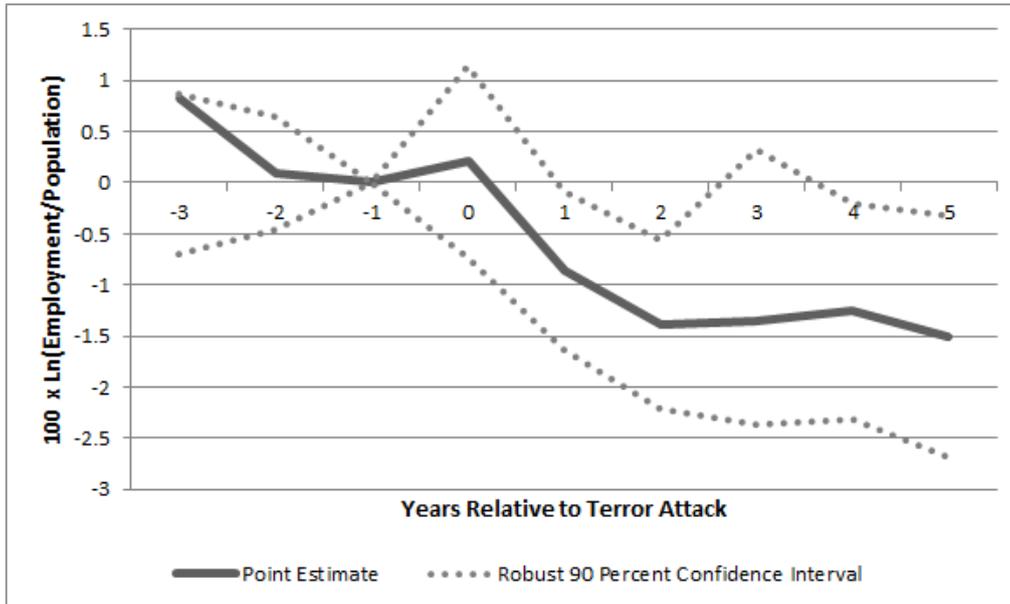


Figure 4: This figure plots estimated natural log jobs-to-population ratios in counties targeted by successful terror attack(s) at yearly intervals in the three years prior through the six years following the attack. See Section 5 and Table 5 for more details. County and year fixed effects are included in the model. The controls include month-by-year dummies, census division-by-year dummies, attack type and weapon fixed effects, a dummy that is equal to one if the target is non-American, a dummy that is equal to one if the attack is logistically international and a variable that is equal to the number of successful terror attacks.

Table 1: Descriptive Statistics: Omitting Catastrophic Terror Attacks

Attack Type	Observation	Percentage	Attack Success	If Attack Successful (mean)		
				Injured	Killed	Damage
Assassination	76	7.5%	76.3%	0.71	1.19	140,332
Armed Assault	122	12.3%	96.7%	2.84	1.26	444,385
Bombing	440	43.5%	81.6%	2.55	0.28	630,109
Infrastructure	474	46.8%	93.9%	0.87	0.14	849,112
Unarmed	32	3.3%	53.1%	50.31	0.12	128,728
Other & Unknown	34	3.6%	94.1%	1.26	0.75	431,685

Target	Observations	Percentage	Attack Success	If Attack Successful (mean)		
				Injured	Killed	Damage
Business	269	26.7%	90.7%	4.94	0.30	1,241,421
Government	172	17.3%	80.2%	6.91	0.23	564,201
Abortion Related	179	17.7%	88.8%	0.15	0.05	183,748
Airport	36	3.9%	88.9%	7.53	0.94	517,239
Educational Inst	99	9.8%	80.8%	1.78	0.25	1,047,362
Private Property	196	19.5%	85.7%	3.56	0.68	1,180,162
Religious Inst	63	6.2%	90.5%	0.79	0.61	496,292
Other & Unknown	277	27.5%	90.3%	5.15	0.47	417,488

Weapon	Observations	Percentage	Attack Success	If Attack Successful (mean)		
				Injured	Killed	Damage
Firearms	171	16.9%	91.8%	2.21	1.17	407,840
Explosives	445	44.0%	81.3%	2.55	0.31	645,868
Incendiary	454	45.1%	93.4%	0.64	0.12	879,277
Melee	29	3.2%	96.6%	2.25	0.96	375,227
Sabotage	29	2.9%	96.6%	3.89	0.11	337,632
Other & Unknown	181	18.2%	77.3%	7.58	0.56	818,940
Lone Wolf	551	54.6%	84.0%	1.23	0.24	675,955
Multiple Attacks	300	29.7%	95.0%	5.39	0.44	811,582
Target Non-US	84	8.3%	88.1%	3.40	0.79	250,277
Logistic Int'l	56	5.5%	80.4%	3.02	0.58	128,933
Total Observations	1,009		85.6%	2.36	0.29	757,979

Notes: There are a total of 1,009 county-year observations. Sept. 11, 2001 and the Oklahoma City bombing are excluded. In this table, the variable "Multiple Attacks" equals one if there is more than one terror attack in a given county-year cell. "Lone Wolf" equals one if the attack is committed either by a lone wolf terrorist or by few individuals not related to a terrorist group. For some terror attacks, multiple weapons were used. Moreover, up to three attack types and target information can be recorded by incident. Weapons classified as "Others & Unknown" are either (1) weapons that have been identified but does not fit into one of the categories or (2) weapons that could not have been identified. Targets classified as "Others & Unknown" include media, military, NGO, police, telecommunication, tourists, transportation and attacks carried out against foreign missions, maritime facilities, non-state militias, violent political parties, utilities and food or water supply. Note that an unarmed assault is an attack whose primary objective is to cause physical harm or death directly. Unarmed assaults include chemical, biological and radiological weapons but exclude explosive, firearm and incendiary. Attacks classified as infrastructure refers to an act whose primary objective is to cause damage to a non-human target (building, monument, train or pipeline). The attack-type "Hijacking" is included in the category "Other & Unknown". The last three columns restrict the sample to successful terror attacks. Property damages are in constant 2005 U.S. dollar.

Table 2: Failed Terror Attacks and Employment and Wages: 1970-2013

	100 × ln(Jobs/Population)			100 × ln(Total Earnings/Population)		
	(1)	(2)	(3)	(4)	(5)	(6)
Fail (3 years before)	0.299 (0.604)	0.194 (0.554)	-0.273 (0.994)	2.147 (1.046)	1.944 (0.967)	2.150 (1.825)
Fail (2 years before)	0.441 (0.418)	0.372 (0.377)	-0.067 (0.692)	1.203 (0.720)	0.962 (0.682)	0.997 (1.142)
Fail (1 year before)	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
Fail	-0.213 (0.508)	-0.367 (0.511)	-0.567 (0.614)	-0.143 (0.695)	-0.230 (0.688)	-0.270 (0.917)
Fail (1 year after)	-0.124 (0.729)	-0.405 (0.714)	-0.303 (1.001)	-0.760 (1.055)	-0.861 (1.016)	0.655 (1.424)
Fail (2 years after)	-0.105 (0.949)	-0.333 (0.879)	0.222 (1.101)	-1.067 (1.523)	-1.151 (1.355)	0.903 (1.805)
Fail (3 years after)	-0.155 (1.144)	-0.513 (1.006)	0.201 (1.162)	-2.376 (1.863)	-2.602 (1.587)	-0.683 (2.015)
Fail (4 years after)	-0.107 (1.332)	-0.413 (1.173)	-0.189 (1.457)	-2.843 (2.303)	-2.948 (1.976)	-1.243 (2.610)
Fail (5 years after)	-0.162 (1.431)	-0.422 (1.250)	1.128 (1.415)	-3.843 (2.546)	-3.801 (2.131)	0.444 (2.671)
Year, Month & County FE	✓	✓	✓	✓	✓	✓
<i>Month × Year</i>			✓			✓
Type Attack FE		✓	✓		✓	✓
Weapon FE		✓	✓		✓	✓
R-squared	0.984	0.984	0.986	0.984	0.985	0.87
Observations	1,121	1,121	1,121	1,121	1,121	1,121

Note: Employment and earnings data from the County Business Patterns. This table shows estimates of equation (2). The sample is restricted to counties in which there is at least one failed terror attack. Only county-year observations up to five years after the attack and three years prior to the failed attack are included. Robust standard errors are in parentheses, adjusted for clustering by county. In columns 1–3, the dependent variable is the log of the county-year ratio of jobs-to-population. In columns 4–6, the dependent variable is the log of the county-year ratio of total real earnings-to-population. Columns 1–6 include a variable that is equal to the number of successful terror attacks. In columns 2–3 and 5–6, the controls include a dummy that is equal to one if the target is non-American and a dummy that is equal to one if the attack is logistically international. The time period is 1970–2013.

Table 3: Comparison of Successful and Failed Terror Attacks: Employment and Wages

	100 × ln(Jobs/Population)			100 × ln(Total Earnings/Population)		
	(1)	(2)	(3)	(4)	(5)	(6)
Successful (3 years before)	-0.738 (1.985)	-2.006 (1.967)	-2.164 (2.006)	0.276 (2.780)	-0.928 (2.917)	-0.949 (3.067)
Successful (2 years before)	-0.724 (2.117)	-2.064 (2.079)	-1.918 (2.117)	0.847 (3.083)	-0.346 (3.219)	0.196 (3.268)
Successful (1 year before)	-0.981 (2.178)	-2.278 (2.150)	-2.139 (2.252)	0.390 (3.209)	-0.725 (3.332)	-0.357 (3.345)
Successful	-1.602 (2.279)	-2.887 (2.182)	-3.449 (2.119)	-2.287 (3.199)	-3.353 (3.310)	-3.821 (3.267)
Successful (1 year after)	-2.182 (2.118)	-3.437 (2.004)	-3.404 (1.927)	-2.173 (2.975)	-3.266 (2.045)	-3.103 (3.042)
Successful (2 years after)	-2.376 (2.100)	-3.639 (1.957)	-3.680 (1.867)	-2.829 (2.974)	-3.982 (2.996)	-4.048 (2.882)
Successful (3 years after)	-2.893 (2.084)	-4.128 (1.951)	-4.088 (1.838)	-3.555 (2.761)	-4.581 (2.823)	-3.751 (2.776)
Successful (4 years after)	-2.607 (2.003)	-3.867 (1.880)	-4.348 (1.847)	-3.941 (2.674)	-4.863 (2.769)	-4.427 (2.950)
Successful (5 years after)	-2.837 (1.878)	-3.987 (1.811)	-4.064 (1.830)	-3.589 (2.470)	-4.417 (2.587)	-3.870 (2.607)
Year, Month & County FE	✓	✓	✓	✓	✓	✓
<i>Month × Year</i>			✓			✓
Type Attack FE		✓	✓		✓	✓
Weapon FE		✓	✓		✓	✓
R-squared	0.963	0.964	0.965	0.961	0.962	0.963
Observations	5,400	5,400	5,400	5,400	5,400	5,400

Note: Employment and earnings data from the County Business Patterns. This table shows estimates of equation (4). Only county-year observations up to five years after the attack and three years prior to the failed attack are included. Robust standard errors are in parentheses, adjusted for clustering by county. In columns 1–3, the dependent variable is the log of the county-year ratio of jobs-to-population. In columns 4–6, the dependent variable is the log of the county-year ratio of total real earnings-to-population. Columns 1–6 include a variable that is equal to the number of successful terror attacks. In columns 2–3 and 5–6, the controls include a dummy that is equal to one if the target is non-American and a dummy that is equal to one if the attack is logistically international. The time period is 1970–2013.

Table 4: Comparison of Successful and Failed Terror Attacks: Spillovers

	100 × ln(Jobs/Pop)			100 × ln(Total Earnings)		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Neighboring counties instead of targeted counties.</i>						
Successful	-1.426 (0.717)	-1.317 (0.682)	-0.898 (0.753)	-1.850 (1.017)	-1.552 (0.969)	-0.664 (1.084)
Post Attack	1.270 (0.649)	1.140 (0.614)	0.995 (0.653)	1.963 (0.943)	1.609 (0.881)	1.224 (0.941)
R-squared	0.913	0.913	0.918	0.915	0.915	0.920
<i>n</i>		19,306			19,306	
<i>Panel B: Non-targeted counties with an airport.</i>						
Successful	-0.910 (1.408)	-1.082 (1.260)	1.774 (1.901)	-2.069 (1.726)	-2.062 (1.701)	1.543 (2.592)
Post Attack	0.267 (1.319)	0.449 (1.199)	-1.223 (2.118)	0.701 (1.759)	0.653 (1.763)	-2.068 (2.711)
R-squared	0.931	0.931	0.937	0.939	0.940	0.946
<i>n</i>		1,751			1,751	
Year, Month & County FE	✓	✓	✓	✓	✓	✓
<i>Month</i> × <i>Year</i>			✓			✓
Type Attack FE		✓	✓		✓	✓
Weapon FE			✓			✓

Note: Employment and earnings data from the County Business Patterns. This table shows estimates of a difference-in-differences with respect to failed attacks (equation (3)). Each entry is from a separate OLS regression. Robust standard errors are in parentheses, adjusted for clustering by county. In columns 1–3, the dependent variable is the log of the county-year ratio of jobs-to-population. In columns 4–6, the dependent variable is the log of the total real earnings of the county. Panel A relies on neighboring counties instead of targeted counties. Panel B relies on non-targeted counties with an airport in the same state as targeted counties. Columns 1–6 include a variable that is equal to the number of terror attacks. In columns 2–3 and 5–6, the controls include a dummy that is equal to one if the target is non-American and a dummy that is equal to one if the attack is logistically international. The time period is 1970–2013.

Table 5: Comparison of Successful and Failed Terror Attacks: Establishments

	100 × ln(Establishments/Population)		
	(1)	(2)	(3)
<i>Panel A</i>			
Successful	-0.81 (0.72)	-0.96 (0.68)	-0.18 (0.71)
<hr/>			
	100 × ln(Small Establishments/Population)		
	(1)	(2)	(3)
<i>Panel B</i>			
Successful	-0.81 (0.72)	-0.96 (0.67)	-0.18 (0.71)
<hr/>			
	100 × ln(Medium-Sized Establishments/Population)		
	(1)	(2)	(3)
<i>Panel C</i>			
Successful	-2.11 (1.59)	-2.16 (1.55)	-3.15 (1.57)
<hr/>			
	100 × ln(Large Establishments/Population)		
	(1)	(2)	(3)
<i>Panel D</i>			
Successful	-0.96 (2.85)	-1.80 (2.83)	-1.30 (2.86)
<hr/>			
	100 × ln(Jobs/Establishments)		
	(1)	(2)	(3)
<i>Panel E</i>			
Successful	-0.51 (0.72)	-0.69 (0.73)	-1.24 (0.83)
Year, Month & County FE	✓	✓	✓
<i>Month</i> × <i>Year</i>			✓
<i>Division</i> × <i>Year</i>			✓
Type Attack FE		✓	✓
Weapon FE		✓	✓
Observations	4,084	4,084	4,084

Note: Establishments data from the County Business Patterns. This table shows estimates of a difference-in-differences with respect to failed attacks (equation (3)). Each entry is from a separate OLS regression. Robust standard errors are in parentheses, adjusted for clustering by county. In Panel A, the dependent variable is the log of the county-year ratio of establishments-to-population. In Panel B, the dependent variable is the log of the county-year ratio of small establishments-to-population. Small establishments are establishments with 1 to 99 employees. In Panel C, the dependent variable is the log of the county-year ratio of medium-sized establishments-to-population. Medium-sized establishments are establishments with 100 to 499 employees. In Panel D, the dependent variable is the log of the county-year ratio of large establishments-to-population. Large establishments are establishments with 500 employees or more. Columns 1–3 include a variable that is equal to the number of terror attacks. In columns 2–3, the controls include a dummy that is equal to one if the target is non-American and a dummy that is equal to one if the attack is logistically international. The time period is 1970–2013.

Table 6: Robustness Checks: Employment and Wages Using Data from Regional Economic Accounts

	100 × ln(Jobs/Population)			100 × ln(Average Earnings per Job)		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A</i>						
Successful	-1.27 (0.88)	-1.52 (0.81)	-1.58 (0.78)	-0.49 (0.61)	-0.57 (0.62)	-0.79 (0.53)
Post Attack	0.70 (0.77)	0.86 (0.71)	0.86 (0.71)	-0.15 (0.53)	-0.04 (0.54)	0.19 (0.50)
Year, Month & County FE	✓	✓	✓	✓	✓	✓
<i>Region × Year</i>			✓			✓
Type Attack FE		✓	✓		✓	✓
Weapon FE		✓	✓		✓	✓
R-squared	0.966	0.966	0.970	0.941	0.942	0.950
Observations	4,336	4,336	4,336	4,336	4,336	4,336

Note: Employment and earnings data from the regional economic accounts of the Bureau of Economic Analysis. This table shows estimates of a difference-in-differences with respect to failed attacks (equation (3)). Each entry is from a separate OLS regression. Robust standard errors are in parentheses, adjusted for clustering by county. In columns 1–3, the dependent variable is the log of the county-year ratio of jobs-to-population. In columns 4–6, the dependent variable is the log of the county real average wage per job. Columns 1–6 include a variable that is equal to the number of terror attacks. In columns 2–3 and 5–6, the controls include a dummy that is equal to one if the target is non-American and a dummy that is equal to one if the attack is logistically international. The time period is 1970–2013.

Table 7: Testing Sensitivity to Selection of Pre- and Post-Terror Attack Periods: Employment and Wages

		100 × ln(Jobs/Population)				
Post Period:	Yr 1 to Yr 3	Yr 1 to Yr 3	Yr 1 to Yr 4	Yr 1 to Yr 5	Yr 1 to Yr 6	
Pre Period:	Yr -5 to Yr 0	Yr -4 to Yr 0	Yr -3 to Yr 0	Yr -3 to Yr 0	Yr -3 to Yr 0	
	(1)	(2)	(3)	(4)	(5)	
<i>Panel A</i>						
Successful	-1.659 (0.843)	-1.645 (0.845)	-1.872 (0.834)	-1.894 (0.876)	-1.943 (0.918)	
Post Attack	0.608 (0.799)	0.505 (0.793)	0.674 (0.732)	0.512 (0.748)	0.388 (0.756)	
R-squared	0.971	0.971	0.970	0.969	0.968	
		100 × ln(Total Earnings/Population)				
	(1)	(2)	(3)	(4)	(5)	
<i>Panel B</i>						
Successful	-2.720 (1.155)	-2.634 (1.154)	-2.857 (1.110)	-2.660 (1.130)	-2.648 (1.183)	
Post Attack	1.155 (1.118)	1.076 (1.117)	1.101 (1.021)	0.570 (0.995)	0.286 (0.997)	
R-squared	0.969	0.970	0.969	0.968	0.967	
		100 × ln(Average Earnings per Job)				
	(1)	(2)	(3)	(4)	(5)	
<i>Panel C</i>						
Successful	-1.062 (0.734)	-0.990 (0.747)	-0.985 (0.718)	-0.765 (0.698)	-0.706 (0.706)	
Post Attack	0.547 (0.668)	0.571 (0.674)	0.427 (0.621)	0.058 (0.588)	-0.101 (0.577)	
R-squared	0.940	0.940	0.938	0.936	0.933	
Year & County FE	✓	✓	✓	✓	✓	
Month × Year	✓	✓	✓	✓	✓	
Division × Year	✓	✓	✓	✓	✓	
Type Attack FE	✓	✓	✓	✓	✓	
Weapon FE	✓	✓	✓	✓	✓	
Observations	5,078	4,780	4,916	5,213	5,652	

Note: Employment and earnings data from the County Business Patterns. This table shows estimates of a difference-in-differences with respect to failed attacks (equation (3)). Each entry is from a separate OLS regression. Robust standard errors are in parentheses, adjusted for clustering by county. The baseline for equation (3) includes the three years prior through the three years after the attack. Columns 1 and 2 add to the pre-terror window respectively the fourth and the fourth and fifth year before an attack. Columns 3, 4 and 5 add to the post-terror period respectively the fourth, the fourth and fifth and the fourth, fifth and sixth year after the attack. In Panel A, the dependent variable is the log of the county-year ratio of jobs-to-population. In Panel B, the dependent variable is the log of the county-year ratio of total real earnings-to-population. In Panel C, the dependent variable is the log of the county real average wage per job. The controls include a dummy that is equal to one if the target is non-American, a dummy that is equal to one if the attack is logistically international and a variable that is equal to the number of terror attacks. The time period is 1970–2013.

Table 8: Robustness Checks for Total Employment: Omission of a Subset of Attacks

	100 × ln(Jobs/Population)			
	(1)	(2)	(3)	(4)
Successful	-2.07	-1.84	-1.80	-1.78
	(0.91)	(0.88)	(0.87)	(0.88)
<i>Year Omitted</i>	1970	1971	1972	1973
Successful	-1.90	-2.09	-2.01	-1.99
	(0.90)	(0.91)	(0.91)	(0.92)
<i>Year Omitted</i>	1974	1975	1976	1977
Successful	-2.10	-2.01	-2.12	-2.00
	(0.91)	(0.90)	(0.91)	(0.91)
<i>Year Omitted</i>	1978	1979	1980	1981
Successful	-2.03	-2.02	-2.09	-2.00
	(0.92)	(0.92)	(0.91)	(0.92)
<i>Year Omitted</i>	1982	1983	1984	1985
Successful	-1.97	-1.89	-1.89	-1.94
	(0.90)	(0.89)	(0.91)	(0.93)
<i>Year Omitted</i>	1986	1987	1988	1989
Successful	-1.91	-1.94	-1.91	-1.94
	(0.93)	(0.91)	(0.91)	(0.92)
<i>Year Omitted</i>	1990	1991	1992	1993
Successful	-2.04	-1.99	-1.97	-2.01
	(0.94)	(0.93)	(0.92)	(0.94)
<i>Year Omitted</i>	1994	1995	1996	1997
Successful	-1.90	-2.00	-1.88	-1.94
	(0.91)	(0.91)	(0.93)	(0.94)
<i>Year Omitted</i>	1998	1999	2000	2001
Successful	-2.08	-2.29	-2.14	-1.94
	(0.94)	(0.92)	(0.93)	(0.91)
<i>Year Omitted</i>	2002	2003	2004	2005
Successful	-1.87	-2.02	-2.01	-2.03
	(0.92)	(0.91)	(0.92)	(0.91)
<i>Year Omitted</i>	2006	2007	2008	2009
Successful	-2.05	-2.04	-1.92	-2.01
	(0.91)	(0.91)	(0.91)	(0.91)
<i>Year Omitted</i>	2010	2011	2012	2013
Year & County FE	✓	✓	✓	✓
<i>Month × Year</i>	✓	✓	✓	✓
Type Attack FE	✓	✓	✓	✓
Weapon FE	✓	✓	✓	✓

Note: Employment data from the County Business Patterns. This table shows estimates of a difference-in-differences with respect to failed attacks (equation (3)). Each entry is from a separate OLS regression. I omit one year for each entry. Robust standard errors are in parentheses, adjusted for clustering by county. The dependent variable is the log of the county-year ratio of jobs-to-population. The controls include a dummy that is equal to one if the target is non-American, a dummy that is equal to one if the attack is logistically international and a variable that is equal to the number of terror attacks.

Table 9: Robustness Checks for Total Earnings: Omission of a Subset of Attacks

	$100 \times \ln(\text{Total Earnings}/\text{Population})$			
	(1)	(2)	(3)	(4)
Successful	-2.87	-2.67	-2.60	-2.63
	(1.18)	(1.17)	(1.16)	(1.18)
<i>Year Omitted</i>	1970	1971	1972	1973
Successful	-2.77	-2.93	-2.77	-2.77
	(1.19)	(1.18)	(1.16)	(1.18)
<i>Year Omitted</i>	1974	1975	1976	1977
Successful	-2.89	-2.69	-2.86	-2.70
	(1.19)	(1.18)	(1.19)	(1.18)
<i>Year Omitted</i>	1978	1979	1980	1981
Successful	-2.79	-2.78	-2.83	-2.78
	(1.18)	(1.19)	(1.18)	(1.19)
<i>Year Omitted</i>	1982	1983	1984	1985
Successful	-2.72	-2.60	-2.73	-2.61
	(1.17)	(1.15)	(1.17)	(1.20)
<i>Year Omitted</i>	1986	1987	1988	1989
Successful	-2.64	-2.53	-2.67	-2.75
	(1.20)	(1.18)	(1.20)	(1.21)
<i>Year Omitted</i>	1990	1991	1992	1993
Successful	-2.92	-2.78	-2.73	-2.75
	(1.20)	(1.19)	(1.18)	(1.19)
<i>Year Omitted</i>	1994	1995	1996	1997
Successful	-2.72	-2.89	-2.59	-2.54
	(1.20)	(1.20)	(1.21)	(1.20)
<i>Year Omitted</i>	1998	1999	2000	2001
Successful	-3.02	-3.12	-3.06	-2.72
	(1.21)	(1.19)	(1.20)	(1.17)
<i>Year Omitted</i>	2002	2003	2004	2005
Successful	-2.46	-2.81	-2.72	-2.81
	(1.17)	(1.17)	(1.19)	(1.18)
<i>Year Omitted</i>	2006	2007	2008	2009
Successful	-2.81	-2.83	-2.53	-2.71
	(1.18)	(1.18)	(1.19)	(1.19)
<i>Year Omitted</i>	2010	2011	2012	2013
Year & County FE	✓	✓	✓	✓
<i>Month</i> × <i>Year</i>	✓	✓	✓	✓
Type Attack FE	✓	✓	✓	✓
Weapon FE	✓	✓	✓	✓

Note: Earnings data from the County Business Patterns. This table shows estimates of a difference-in-differences with respect to failed attacks (equation (3)). Each entry is from a separate OLS regression. I omit one year for each entry. Robust standard errors are in parentheses, adjusted for clustering by county. The dependent variable is the log of the county-year ratio of total real earnings-to-population. The controls include a dummy that is equal to one if the target is non-American, a dummy that is equal to one if the attack is logistically international and a variable that is equal to the number of terror attacks.

Table 10: Robustness Checks: Omission of Attacks with Ambiguous Locations and Catastrophic Attacks

		100 × ln(Jobs/Population)					
		Omit Ambiguous Locations			Omit Catastrophic Attacks		
		(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A</i>							
Successful		-2.300 (1.086)	-2.834 (1.058)	-2.484 (1.049)	-2.234 (0.966)	-2.295 (0.952)	-2.082 (0.898)
R-squared		0.966	0.967	0.971	0.965	0.966	0.970
		100 × ln(Total Earnings/Population)					
		Omit Ambiguous Locations			Omit Catastrophic Attacks		
		(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel B</i>							
Successful		-3.158 (1.316)	-4.143 (1.341)	-4.020 (1.364)	-2.291 (1.253)	-3.233 (1.256)	-3.157 (1.245)
R-squared		0.962	0.966	0.970	0.962	0.965	0.970
		100 × ln(Avg Earnings per Job)					
		Omit Ambiguous Locations			Omit Catastrophic Attacks		
		(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel C</i>							
Successful		-1.649 (0.728)	-1.309 (0.874)	-1.536 (0.861)	-1.301 (0.729)	-0.938 (0.901)	-1.074 (0.835)
R-squared		0.907	0.925	0.939	0.912	0.927	0.941
Year, Month & County FE		✓	✓	✓	✓	✓	✓
Month × Year			✓	✓		✓	✓
Division × Year				✓			✓
Type Attack FE			✓	✓		✓	✓
Weapon FE			✓	✓		✓	✓
Observations		4,030	4,030	4,030	4,346	4,346	4,346

Note: Employment and earnings data from the County Business Patterns. This table shows estimates of a difference-in-differences with respect to failed attacks (equation (3)). Each entry is from a separate OLS regression. Robust standard errors are in parentheses, adjusted for clustering by county. In Panel A, the dependent variable is the log of the county-year ratio of jobs-to-population. In Panel B, the dependent variable is the log of the county-year ratio of total real earnings-to-population. In Panel C, the dependent variable is the log of the county real average wage per job. In columns 1–3, I omit terror attacks with an ambiguous locations, i.e. mailed-based attacks, hijacking/hostage and attacks followed by a police chase. In columns 4–6, I omit terror attacks leading to over \$1 billion or 100 deaths. Columns 1–6 include a variable that is equal to the number of terror attacks. In columns 2–3 and 5–6, the controls include a dummy that is equal to one if the target is non-American and a dummy that is equal to one if the attack is logistically international. The time period is 1970–2013.

Table 11: Robustness Checks: Omission of Terrorist Groups

	$100 \times \ln(\text{Jobs/Population})$				
	Omit Environment Animal (1)	Omit Abortion (2)	Omit Islamic (3)	Omit Political (4)	Omit Hatred (5)
<i>Panel A</i>					
Successful	-1.850 (0.965)	-2.103 (1.068)	-2.625 (0.893)	-1.520 (1.331)	-1.689 (0.861)
R-squared	0.966	0.967	0.966	0.967	0.972
	$100 \times \ln(\text{Total Earnings/Population})$				
	Omit Environment Animal (1)	Omit Abortion (2)	Omit Islamic (3)	Omit Political (4)	Omit Hatred (5)
<i>Panel B</i>					
Successful	-1.339 (1.234)	-2.766 (1.428)	-3.471 (1.241)	-0.998 (1.692)	-2.939 (1.202)
R-squared	0.963	0.965	0.964	0.966	0.967
	$100 \times \ln(\text{Avg Earnings per Job})$				
	Omit Environment Animal (1)	Omit Abortion (2)	Omit Islamic (3)	Omit Political (4)	Omit Hatred (5)
<i>Panel C</i>					
Successful	0.511 (0.776)	-0.663 (0.925)	-0.845 (0.829)	0.522 (0.894)	-1.250 (0.766)
R-squared	0.916	0.921	0.922	0.941	0.933
Year, Month & County FE	✓	✓	✓	✓	✓
Type Attack FE	✓	✓	✓	✓	✓
Weapon FE	✓	✓	✓	✓	✓
Observations	3,646	3,430	4,318	2,104	3,350

Note: Employment and earnings data from the County Business Patterns. This table shows estimates of a difference-in-differences with respect to failed attacks (equation (3)). Each entry is from a separate OLS regression. Robust standard errors are in parentheses, adjusted for clustering by county. In Panel A, the dependent variable is the log of the county-year ratio of jobs-to-population. In Panel B, the dependent variable is the log of the county-year ratio of total real earnings-to-population. In Panel C, the dependent variable is the log of the county real average wage per job. In column 1, I omit terror attacks from environment and animal protection groups/individuals. In column 2, I exclude terror attacks targeting abortion clinics. Column 3 excludes terror attacks from Islamic groups/individuals. In column 4, I omit terror attacks with a political motive. In column 5, I omit terror attacks from hatred groups/individuals. The controls include a dummy that is equal to one if the target is non-American, a dummy that is equal to one if the attack is logistically international and a variable that is equal to the number of terror attacks. The time period is 1970–2013.

Table 12: Relationship Between Terrorism and Population: 1970-2013

	ln(Population)					
	(1)	(2)	(3)	(4)	(5)	(6)
Successful	0.012 (0.014)	0.013 (0.014)	0.008 (0.013)	0.008 (0.013)	0.006 (0.012)	0.005 (0.010)
Post Attack	-0.012 (0.013)	-0.013 (0.013)	-0.005 (0.012)	-0.006 (0.012)	-0.004 (0.011)	-0.004 (0.009)
Year & County FE	✓	✓	✓	✓	✓	✓
<i>Month</i> × <i>Year</i>					✓	✓
<i>Division</i> × <i>Year</i>						✓
Type Attack FE				✓	✓	✓
Weapon FE			✓	✓	✓	✓
Observations	4,635	4,635	4,635	4,635	4,635	4,635
R-squared	0.994	0.994	0.994	0.994	0.994	0.997

Note: This table shows estimates of a difference-in-differences with respect to failed attacks (equation (3)). Robust standard errors are in parentheses, adjusted for clustering by county. The dependent variable is the log of population. Columns 1–6 include a variable that is equal to the number of terror attacks. In columns 2–6, the controls include a dummy that is equal to one if the target is non-American and a dummy that is equal to one if the attack is logistically international. The time period is 1970–2013.

Table 13: Earnings Estimates By Industry: 1970-1997

		$100 \times \ln(\text{Total Earnings/Population})$					
<i>Panel A:</i>		Manufacturing		Const & Transpt		Wholesale	
		(1)	(2)	(3)	(4)	(5)	(6)
Successful		-4.54 (2.00)	-4.96 (1.98)	-4.71 (2.12)	-5.30 (2.10)	-5.94 (2.64)	-6.22 (2.62)
Post Attack		2.07 (2.04)	2.26 (2.01)	3.40 (2.11)	3.96 (2.08)	4.48 (2.56)	4.48 (2.62)
R-squared		0.949	0.950	0.929	0.929	0.943	0.947
<i>n</i>		3,093		3,107		3,094	
		$100 \times \ln(\text{Total Earnings/Population})$					
<i>Panel B:</i>		Retail Trade		Services		Finance & RE	
		(1)	(2)	(3)	(4)	(5)	(6)
Successful		-1.41 (1.32)	-1.39 (1.31)	-2.55 (1.73)	-2.50 (1.65)	-3.38 (3.05)	-3.42 (2.96)
Post Attack		0.71 (1.28)	0.70 (1.31)	1.84 (1.70)	1.77 (1.64)	1.84 (3.00)	1.69 (2.93)
R-squared		0.954	0.955	0.980	0.980	0.966	0.967
<i>n</i>		3,117		3,115		3,085	
Year, Month & County FE		✓	✓	✓	✓	✓	✓
Type Attack FE			✓		✓		✓
Weapon FE			✓		✓		✓

Note: Earnings data from the County Business Patterns. This table shows estimates of a difference-in-differences with respect to failed attacks (equation (3)). Each entry is from a separate OLS regression. Robust standard errors are in parentheses, adjusted for clustering by county. Panel A: In columns 1 and 2, the dependent variable is the log of the county-year ratio of total real earnings-to-population in manufacturing. In columns 3 and 4, the dependent variable is the log of the county-year ratio of total real earnings-to-population in construction, transportation, communications and utilities. In columns 5 and 6, the dependent variable is the log of the county-year ratio of total real earnings-to-population in wholesale trade. Panel B: In columns 1 and 2, the dependent variable is the log of the county-year ratio of total real earnings-to-population in retail trade. In columns 3 and 4, the dependent variable is the log of the county-year ratio of total real earnings-to-population in services. In columns 5 and 6, the dependent variable is the log of the county-year ratio of total real earnings-to-population in finance, insurance, and real estate. Columns 1–6 include a variable that is equal to the number of terror attacks. In columns 2, 4 and 6, the controls include a dummy that is equal to one if the target is non-American and a dummy that is equal to one if the attack is logistically international. The time period is 1970–1997.

Table 14: Are Successful Attacks More Predictive of Future Attacks than Failed Attacks?

	in $t + 1$?		Terror Attack(s) ... in $t + 3$?		in $t + 5$?	
	(1)	(2)	(3)	(4)	(5)	(6)
Success (β)	0.210 (0.028)	0.100 (0.017)	0.167 (0.030)	0.090 (0.018)	0.158 (0.025)	0.076 (0.014)
Failed (ρ)	0.204 (0.040)	0.098 (0.024)	0.172 (0.039)	0.063 (0.021)	0.157 (0.040)	0.053 (0.021)
Year & State FE		✓		✓		✓
$P(\beta \neq \rho)$	0.814	0.913	0.938	0.262	0.917	0.284
Observations	134,476	117,448	134,476	112,442	134,476	110,599
Pseudo R-Squared	0.095	0.219	0.072	0.204	0.065	0.203

Note: This table reports marginal effects from a probit regression. Each observation is a year-county cell with at least one terror attack. Robust standard errors are in parentheses, adjusted for clustering by county. In columns 1 and 2, the dependent variable is equal to one if there was at least one terror attack in county c in year $t + 1$ and zero otherwise. In columns 3 and 4, the dependent variable is equal to one if there is at least one terror attack in county c in year $t + 3$ and zero otherwise. In columns 5 and 6, the dependent variable is equal to one if there is at least one terror attack in county c in year $t + 5$ and zero otherwise. The variable “Success” is a dummy that is equal to one if the terror attack is successful in that county and year and zero otherwise. If there are many terror attacks, “Success” is equal to one if at least one of the attacks succeeded. The variable “Failed” is a dummy that is equal to one if the terror attack failed in that county and year and zero otherwise. If there are many terror attacks, “Failed” is equal to one if all the attacks failed. The time period is 1970–2013.

Table 15: Media and Terrorism: Descriptive Statistics

	Observations	News Stories		Min	Max
		Mean	Std. Dev.		
<i>Panel A</i>					
ABC	1,877	0.9	14.1	0	318
CBS	2,070	1.0	14.3	0	322
NBC	2,657	1.3	21.9	0	494
Total (All Networks)	6,604	1.1	17.1	0	494
	Observations	Total Duration		Min	Max
		Mean	Std. Dev.		
<i>Panel B</i>					
ABC	13,487	6.8	119.7	0	2,544
CBS	12,917	6.5	116.4	0	2,576
NBC	19,158	9.6	180.7	0	3,952
Total (All Networks)	45,561	7.6	142.0	0	3,952

Note: Data collected from the Vanderbilt Television News Archive. Panel A reports the number of news stories for terror attacks in the GTD for each network. Panel B reports the total duration of news stories for terror attacks in the GTD for each network. The time period is 1970–2013.

Table 16: Relationship Between Terrorism and Counts of Google Searches

	ln(Terror Searches)				
	(1)	(2)	(3)	(4)	(5)
Successful	0.531 (0.260)	0.542 (0.263)	0.611 (0.278)	0.715 (0.348)	0.706 (0.351)
ln(n) “City State Year”	0.219 (0.050)	0.216 (0.049)	0.209 (0.056)	0.234 (0.065)	0.186 (0.071)
Year & State FE	✓	✓	✓	✓	✓
<i>Region</i> × <i>Year</i>			✓		
<i>Division</i> × <i>Year</i>				✓	✓
Time-Invariant Controls					✓
Type Attack FE	✓	✓	✓	✓	✓
Weapon FE	✓	✓	✓	✓	✓
Target FE		✓	✓	✓	✓
Observations	338	338	338	338	338
R-squared	0.506	0.507	0.580	0.661	0.665

Note: This table shows estimates of equation (5). Robust standard errors are in parentheses, adjusted for clustering by county. The dependent variable is the log of counts of Google searches for the words “city”, “state”, “year” and “terrorism”. The variable “ln(n)” is the log of counts of Google searches for the words “city”, “state” and “year”. The variable “Successful” is a dummy that is equal to one if the terror attack is successful in that county and year and zero if the terror attack failed. If there are many terror attacks, “Successful” is equal to one if at least one of the attacks succeeded. The controls include a dummy that is equal to one if the target is non-American, a dummy that is equal to one if the attack is logistically international and a variable that is equal to the number of terror attacks. Time-invariant controls include dummies for coastal counties and being a state capital and a dummy for whether the county has an airport. The time period is 1994–2013, 2001 is excluded.

Table 17: Terrorism and Media Coverage Including Catastrophic Attacks: Controls

	Any Terror News Stories? Probit		ln(Terror News Stories) OLS		ln(Duration Terror News Stories) OLS	
	(1)	(2)	(3)	(4)	(5)	(6)
Fatalities	0.096 (0.041)		0.0014 (0.0004)		0.0017 (0.0004)	
Injured People		0.0007 (0.0003)		0.0040 (0.025)		0.0060 (0.0035)
Environment/Animal Motive	-0.119 (0.078)	-0.053 (0.032)	-0.349 (0.087)	-0.333 (0.085)	-0.484 (0.110)	-0.457 (0.107)
Abortion Motive	0.016 (0.088)	0.007 (0.046)	-0.070 (0.097)	-0.076 (0.097)	-0.149 (0.129)	-0.149 (0.130)
Islamic Motive	0.171 (0.150)	0.236 (0.134)	1.171 (0.409)	1.328 (0.402)	2.021 (0.617)	2.202 (0.568)
Hatred Motive	0.097 (0.079)	0.047 (0.042)	0.039 (0.167)	0.009 (0.069)	0.003 (0.093)	-0.037 (0.094)
Political Motive	-0.079 (0.065)	-0.049 (0.033)	0.010 (0.069)	-0.037 (0.067)	-0.015 (0.089)	-0.078 (0.087)
Other or Unknown Motive	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
ln(n) “City Year”	0.018 (0.012)	0.010 (0.006)	0.003 (0.014)	0.005 (0.013)	0.008 (0.018)	0.009 (0.017)
Year & State FE	✓	✓	✓	✓	✓	✓
Type Attack FE	✓	✓	✓	✓	✓	✓
Weapon FE	✓	✓	✓	✓	✓	✓
Observations	858	853	949	942	948	941
Pseudo R-squared	0.353	0.339				
R-squared			0.447	0.451	0.471	0.482

Note: Data collected from the Vanderbilt Television News Archive. Robust standard errors are in parentheses, adjusted for clustering by county. In columns 1 and 2, the dependent variable is a dummy for whether there was any media coverage. These columns report marginal effects from a probit regression. In columns 3 and 4, the dependent variable is the natural log of one plus the number of news stories plus one. In columns 5 and 6, the dependent variable is the natural log of one plus the total number of minutes of news stories. The variable “ln(n)” is the log of one plus the number of news stories for the words “city” and “year”. The controls include a dummy that is equal to one if the target is non-American, a dummy that is equal to one if the attack is logistically international and a variable that is equal to the number of terror attacks. The time period is 1970–2013.

Table 18: Terrorism and Media Coverage Excluding Catastrophic Attacks: Controls

	Any Terror News Stories? Probit		ln(Terror News Stories) OLS		ln(Duration Terror News Stories) OLS	
	(1)	(2)	(3)	(4)	(5)	(6)
Fatalities	0.046 (0.015)		0.199 (0.047)		0.292 (0.066)	
Injured People		0.0006 (0.0003)		0.0022 (0.0021)		0.0037 (0.0034)
Environment/Animal Motive	-0.052 (0.031)	-0.047 (0.032)	-0.293 (0.076)	-0.265 (0.076)	-0.426 (0.100)	-0.385 (0.103)
Abortion Motive	0.007 (0.043)	0.010 (0.045)	-0.038 (0.092)	-0.029 (0.096)	-0.112 (0.120)	-0.094 (0.128)
Islamic Motive	0.102 (0.107)	0.119 (0.116)	0.462 (0.217)	0.547 (0.218)	1.132 (0.398)	1.250 (0.394)
Hatred Motive	0.051 (0.042)	0.052 (0.043)	0.038 (0.061)	0.051 (0.063)	-0.001 (0.082)	0.018 (0.087)
Political Motive	-0.038 (0.032)	-0.047 (0.032)	-0.006 (0.067)	-0.027 (0.065)	-0.034 (0.083)	-0.062 (0.147)
Other or Unknown Motive	Omitted	Omitted	Omitted	Omitted	Omitted	Omitted
ln(n) “City Year”	0.009 (0.006)	0.009 (0.006)	0.005 (0.012)	0.010 (0.012)	0.008 (0.016)	0.015 (0.016)
Year & State FE	✓	✓	✓	✓	✓	✓
Type Attack FE	✓	✓	✓	✓	✓	✓
Weapon FE	✓	✓	✓	✓	✓	✓
Observations	848	843	944	937	943	936
Pseudo R-squared	0.342	0.333				
R-squared			0.451	0.419	0.473	0.438

Note: Data collected from the Vanderbilt Television News Archive. Robust standard errors are in parentheses, adjusted for clustering by county. In columns 1 and 2, the dependent variable is a dummy for whether there was any media coverage. These columns report marginal effects from a probit regression. In columns 3 and 4, the dependent variable is the natural log of one plus the number of news stories plus one. In columns 5 and 6, the dependent variable is the natural log of one plus the total number of minutes of news stories. The variable “ln(n)” is the log of one plus the number of news stories for the words “city” and “year”. The controls include a dummy that is equal to one if the target is non-American, a dummy that is equal to one if the attack is logistically international and a variable that is equal to the number of terror attacks. The time period is 1970–2013.