ONLINE APPENDIX FOR "INSURGENT COMPENSATION: EVIDENCE FROM IRAQ."

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This online appendix provides additional context for "Insurgent Compensation: Evidence from Iraq." All data are from al-Qa'ida in Iraq (AQI), a leading terrorist or insurgent group during the war in Iraq, and one that is still active. Figures A1 and A2 provide screenshots of income and expense spreadsheets. Figure A3 shows the distribution of AQI's regular salary and ad hoc payments to 451 members, largely from Ninewa governorate in northwest Iraq. Figure A4 shows total compensation by governorate for three governorates. Figure A5 shows the distribution of total compensation by fighter status (active versus detained, wounded, or killed) and payment type in the three governorates combined. Figure A6 shows the distribution of payments by subunit. Figure A7 shows the distribution of payments by district-year. Districts are the largest subdivisions of governorates. Figure A8 shows the correlation between total compensation and marital status within subunits. Table A1 provides descriptive statistics for all variables used in the analysis. Table A2 provides regression coefficients for the relationship between compensation and violence. Unless otherwise specified, the unit of currency throughout is the Iraqi dinar (IQD).

FIGURE A1. AQI EXPENSE SPREADSHEET FROM MOSUL, NINEWA GOVERNORATE, NOVEMBER 2007.

	A	B	C	D	E	F	G	H	I	M
1		الادخالات								
2			حاله	عدد	عدد	مبلغ	مبلغ	تاريخ	رقم	النتيجه النهائيه
3	الشركه	الاسم	زوج	فال	ساء	الايجار	الكفاله	الادراج	الهاتف	القرار\ المقرر
4	المحطه	ابو داؤد	م	6			160	في 25/8		
5	معلوماتيه	عبدالاله	م		1		110	في 1/9		
6	معلوماتيه	صلاح	م				100	في 28/8		
7	معلوماتيه	ابوندم	م	4		50	140	في 28/8		
8	استشاريه	عبدالرحمان	م				75	في 4/9		اخال بامر القضي 3/9
9	استشاريه	ابو سالم	م	1			110	في 4/9		اخال بامر القضي 3/9
10	جعفر	ابو مرعي/ق	م				100	في 5/8		
11	جعفر	دكتور فراس/س	ب				100	في 5/8		
12	جعفر	فيثر					100	في 5/8		
13	مصطفى	فارس محمد	م		3	125	130	في 15/8		بامر فؤاد
14	مصطفى	عبدالله محمد	ب				75	في 15/8		بامر فؤاد
15	حازم	غانم هاتف؟	م	5			150	في 25/8		بامر فؤاد
16	حازم	علاء هاتف ؟	ب			100	75	في 25/8		بامر فؤاد
17	حازم	سرمد هاتف؟	ب				75	في 25/8		بامر فؤاد
18	بكر	بلال	م			250	100	في 22/8	8E+09	
19	بكر	جلال	م	1		250	110	في 22/8		
20	الفاروق	ابو نور	م	8			180	في 4/9		بامر حارث+استاذ
21	ابو زينب	رضوان	م				100	في 6/9	8E+09	بامر فؤاد
22	ابو زينب	ابو حسين	ب			150	75	في 6/9	8E+09	بامر فؤاد
23	ابو زينب	ابو بيداء	ب				75	في 25/8		بامر فؤاد
24	ابو زينب	هاشم	م			150	100	في 25/8		بامر فؤاد
25	فياض	خطاب/س		3		175	130	في 25/8		
26	عمار	ابو مثنى	م	3			130	في 15/8		
27	عمار	حجي صالح	م	7	معيل		200	في 25/8	بامر عامر	بامر استاذ عامر استاذ عامر
28	ابو حسن	محمد حسن	ب				75	في 5/8		
29	ابو حسن	احمد فرج	ب				75	في 5/8		
30	ابو حسن	رمضان جمعه	ب				75	في 5/8		
31	ابو حسن	رجب بشار	ب				75	في 5/8		
32	ابو حسن	عدي فاروق	ب				75	في 5/8		
33	ابو حسن	عزالدين غانم					75	5/8		

FIGURE A2. AQI INCOME SPREADSHEET FROM MOSUL, NOVEMBER 2007.

3
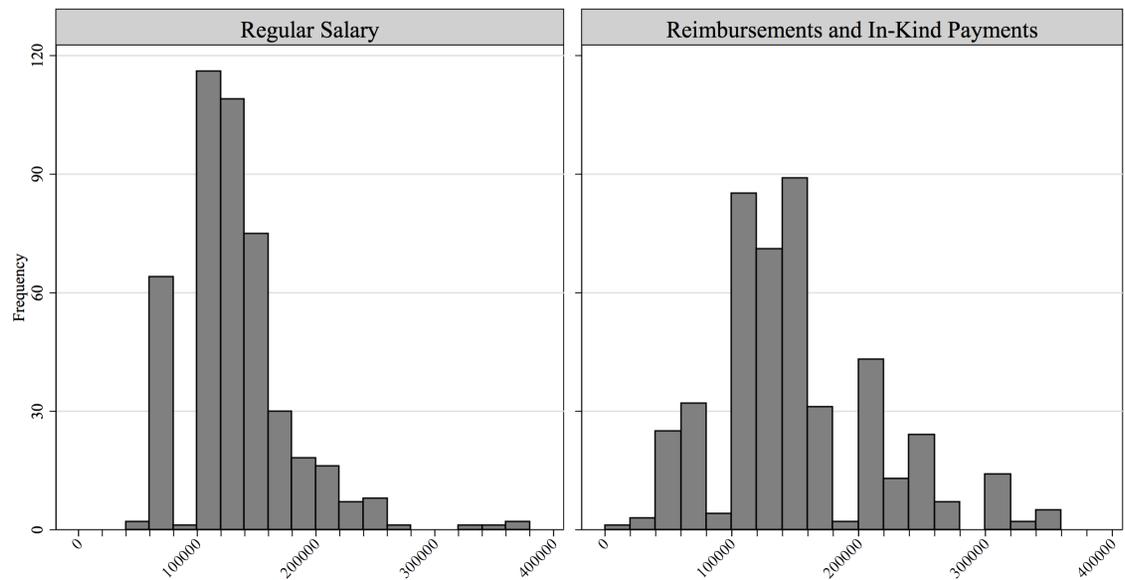
Compensation for 451 payments where regulary salary and other compensation are unambiguously separated.

FIGURE A3. REGULAR SALARY VERSUS AD HOC PAYMENTS IN 2006 AND 2007

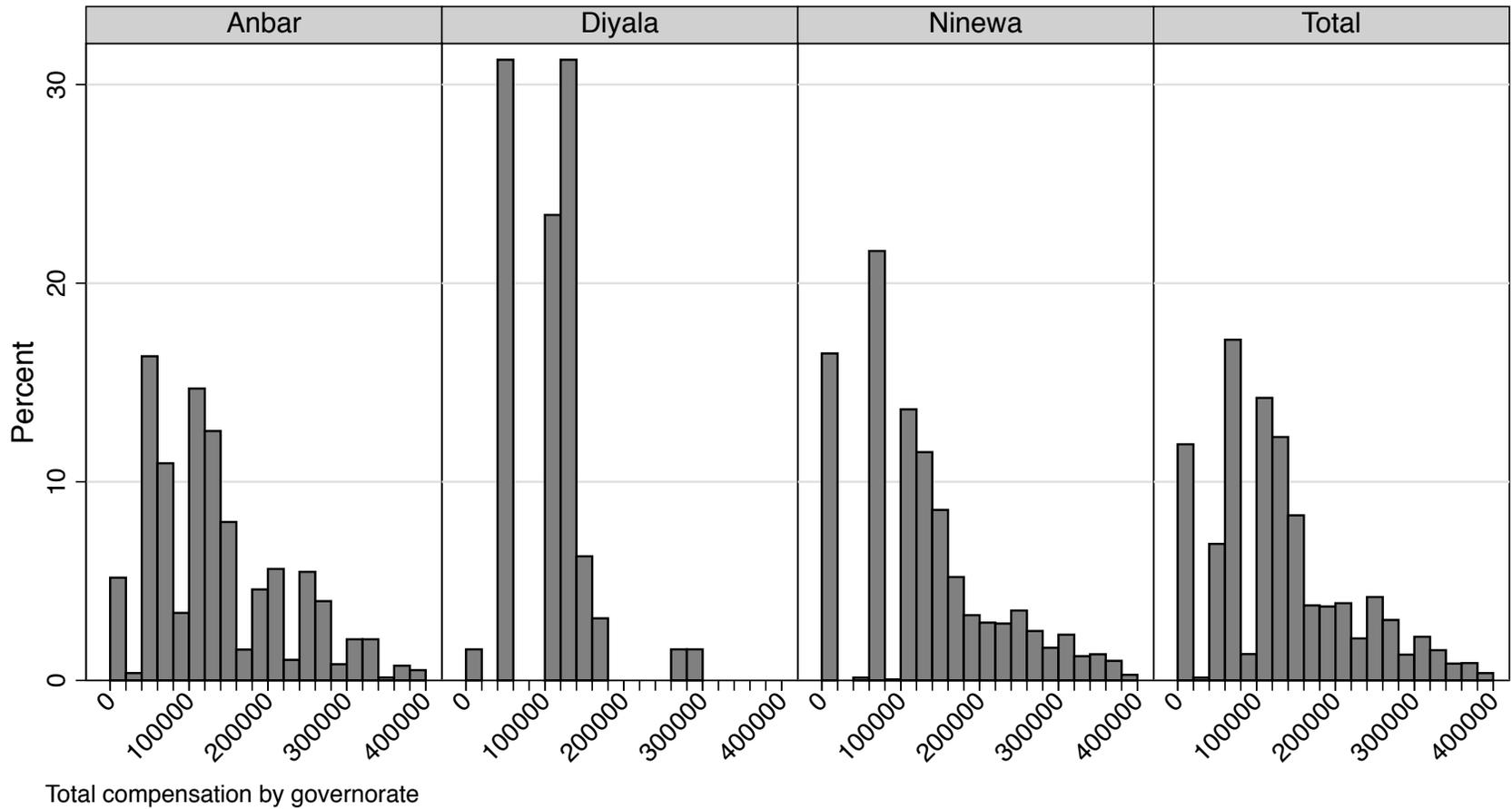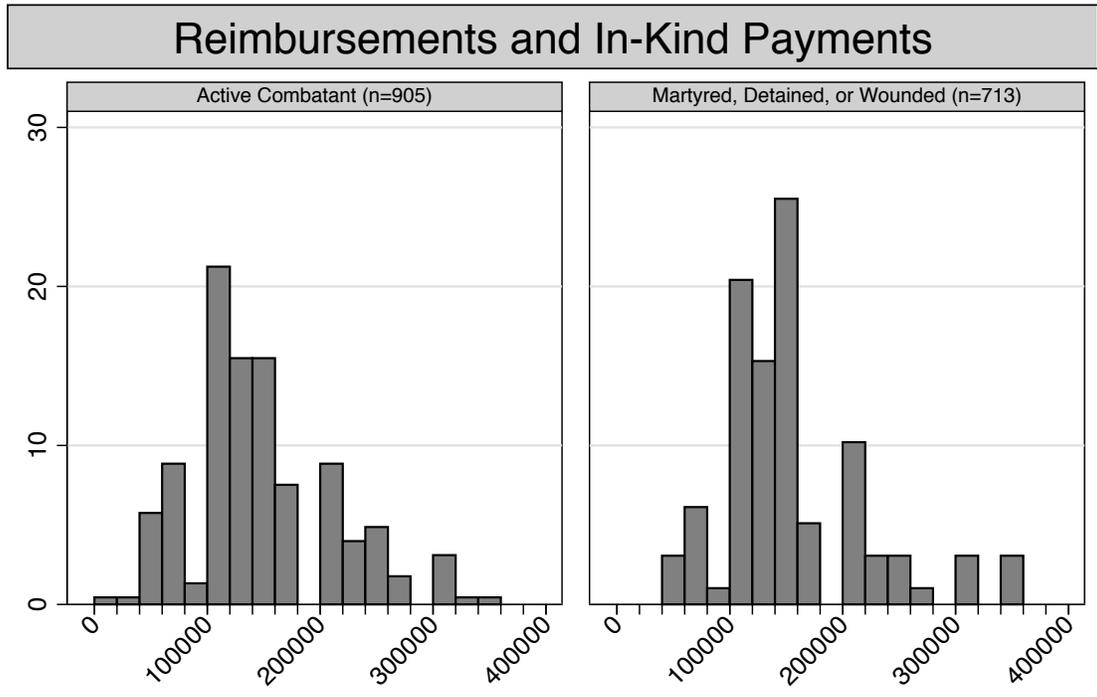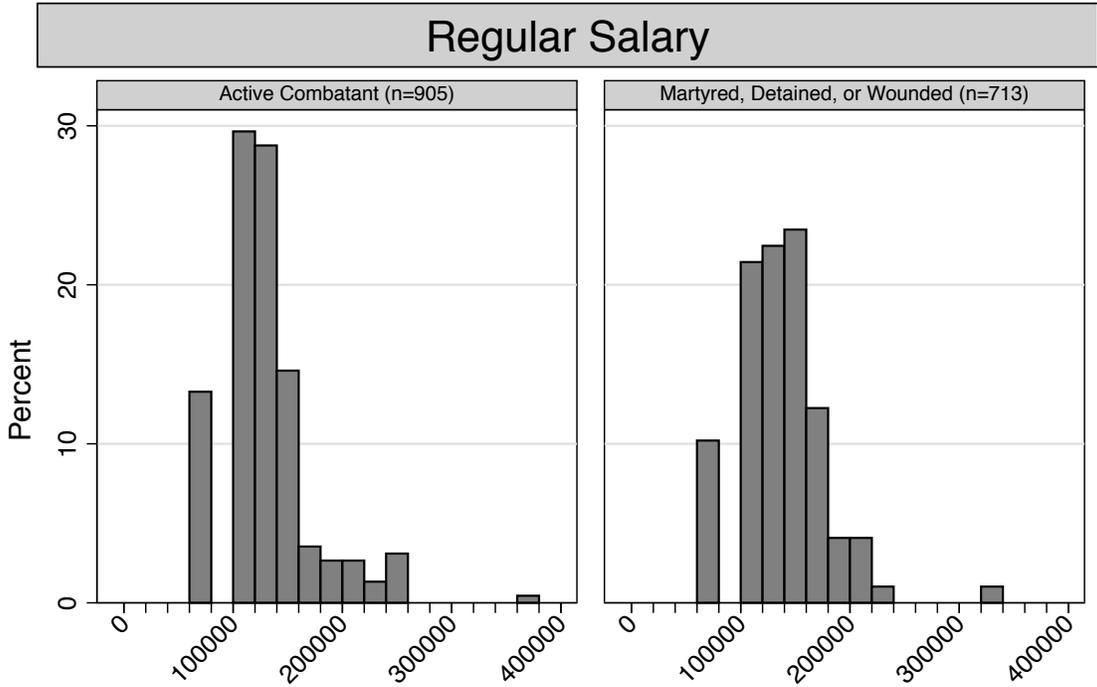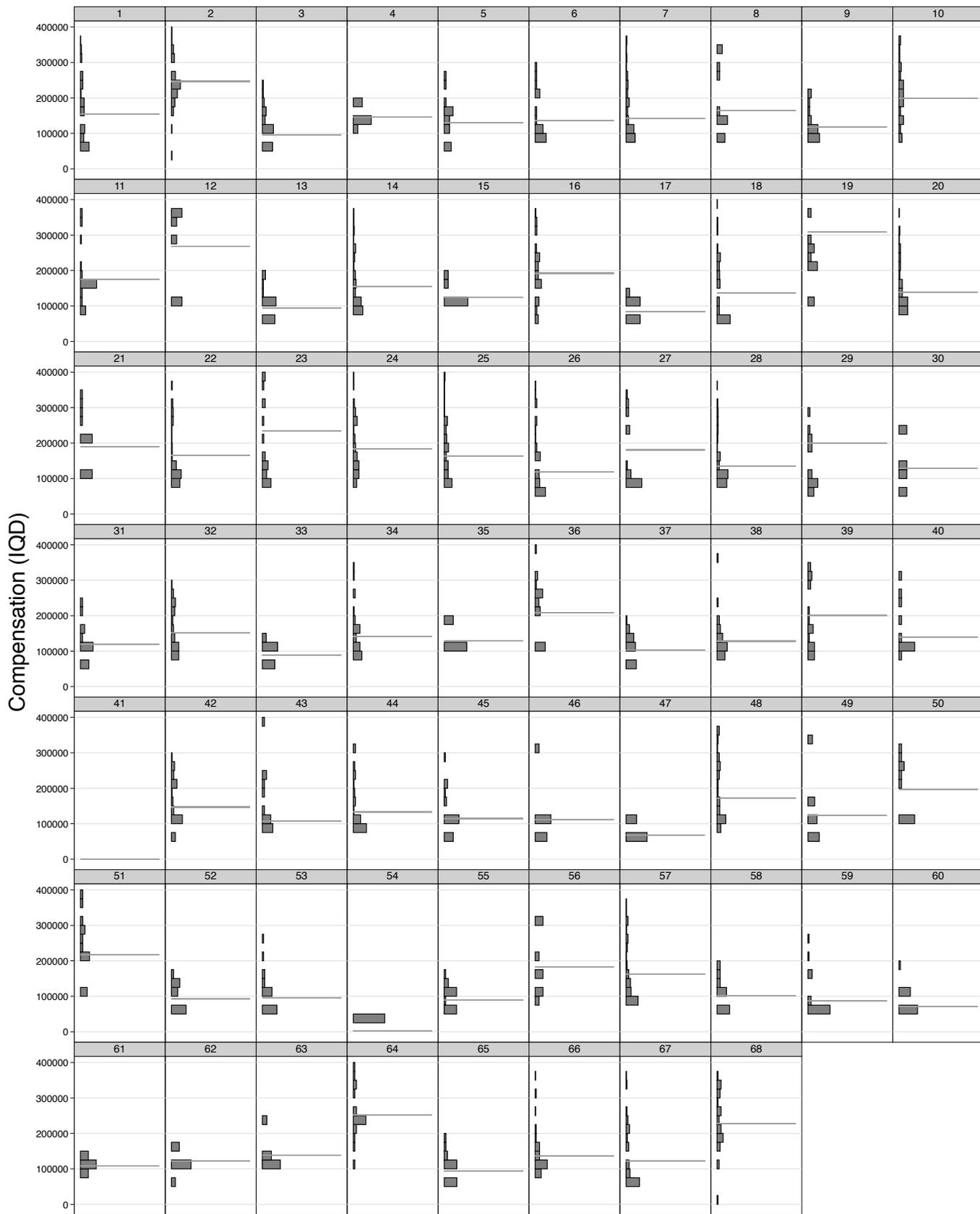FIGURE A4. DISTRIBUTION OF COMPENSATION BY GOVERNORATE

5

Compensation distribution for 1,618 payments where individual
is positively identified as either an active fighter or killed/detained.

FIGURE A5. DISTRIBUTION OF COMPENSATION BY STATUS AND PAYMENT TYPE FOR ANBAR, DIYALA, AND NINEWA COMBINED

Graphs by Subunit. Line at subunit mean compensation.

FIGURE A6. DISTRIBUTION OF COMPENSATION BY SUBUNIT

Sub-unit	Name	Governorate	Sub-unit	Name	Governorate
1		Anbar	35	Informants	Anbar
2	5th Bn Fighters - Ramadi	Anbar	36	Intelligence Company	Anbar
3	Abu Dagana	Anbar	37	Intelligence Platoon	Anbar
4	Abu-'Abd-al-Rahman	Ninewa	38	Ja'far	Ninewa
5	Abu-Azad platoon	Anbar	39	Khaldun	Ninewa
6	Abu-Dhar	Ninewa	40	Kuzunk	Ninewa
7	Abu-Hasan	Ninewa	41	Medical Platoon	Anbar
8	Abu-Khulud	Ninewa	42	Mortar Platoon	Anbar
9	Abu-Mahumd Transport Metal	Ninewa	43	Muhammad	Ninewa
10	Abu-Muthanna	Ninewa	44	Mustafa	Ninewa
11	Abu-Usamah	Ninewa	45	Platoon Bin Jabal - army	Anbar
12	Abu-Usamah spread	Ninewa	46	Platoon Mu'ath Bin Jabal 2 - Military	Anbar
13	Abu-Yasir military platoon	Anbar	47	Platoon-S-	Anbar
14	Abu-Zaynab	Ninewa	48	Salih	Ninewa
15	Adminstrators/[U/1-2] Platoon	Anbar	49	Sector Administrators	Anbar
16	Al Karablah	Anbar	50	Security Company	Anbar
17	Al Mustafa explosive Company	Anbar	51	Security Dept	Anbar
18	Al Ubaydi	Anbar	52	Security Platoon belongs to Abu Zaynab	Anbar
19	Al-Shari'in	Anbar	53	Sijjad squad	Anbar
20	Ammar	Ninewa	54	Single Platoon	Anbar
21	Amrayn al-Khitab Section	Anbar	55	Sniper Platoon	Anbar
22	Bakr	Ninewa	56	Station	Ninewa
23	Consultation	Ninewa	57	Taha	Ninewa
24	Fadil	Ninewa	58	The Platoon	Anbar
25	Fayyad	Ninewa	59	Ubayd 5th Bn	Anbar
26	Haditha	Anbar	60	Umar Ibin Al Khatab IED Platoon (Um Al'Idham)	Anbar
27	Hasan 'Ulum	Ninewa	61	Umar Jahfat	Ninewa
28	Hasim Abu-'Ali	Ninewa	62	Vehicles Platoon 5/4	Anbar
29	Hit	Anbar	63	Vehicles RepAlr Platoon	Anbar
30	Hostages and Martyr's Inventory	Anbar	64	Yahya	Anbar
31	Hostages and Martyrs Inventory	Anbar	65	[U/I-1] Battalion	Anbar
32	Husayn Kaf'Ayn	Ninewa	66	al-Faruq	Ninewa
33	IED's Platoon	Anbar	67	al-Ubaydi	Anbar
34	Ibrahim al Bakr	Ninewa	68	Abdallah Azzam Battalion	Anbar

SUBUNIT LABELS FOR FIGURE A6
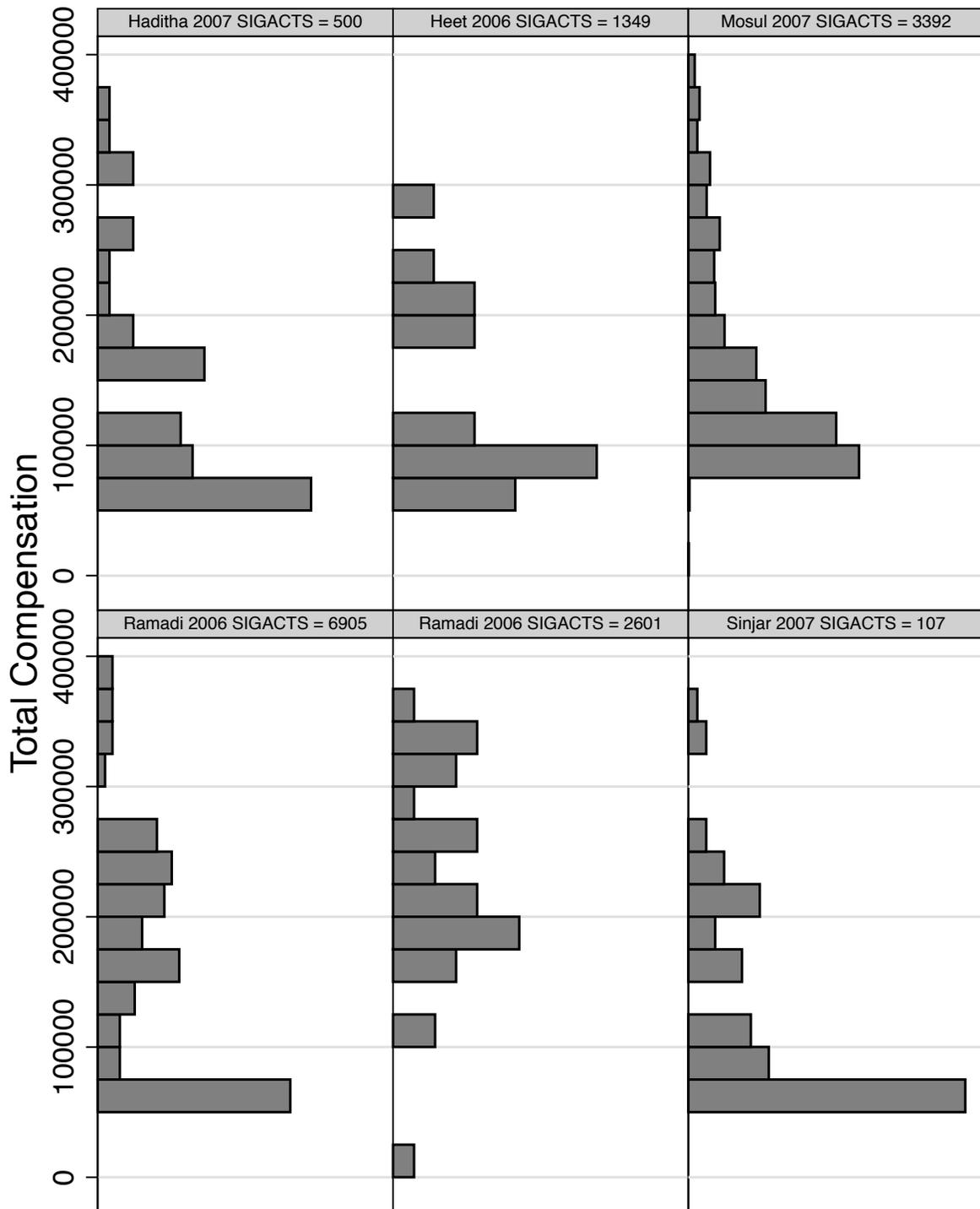
Graphs by district year. Compensation distribution for 2,009 payments where district year is identified.

FIGURE A7. TOTAL COMPENSATION BY DISTRICT YEAR

9

Mean monthly compensation by subunit

Beta is 237788.63 SE is 45535.04

Percent married in subunit

Median monthly compensation by subunit

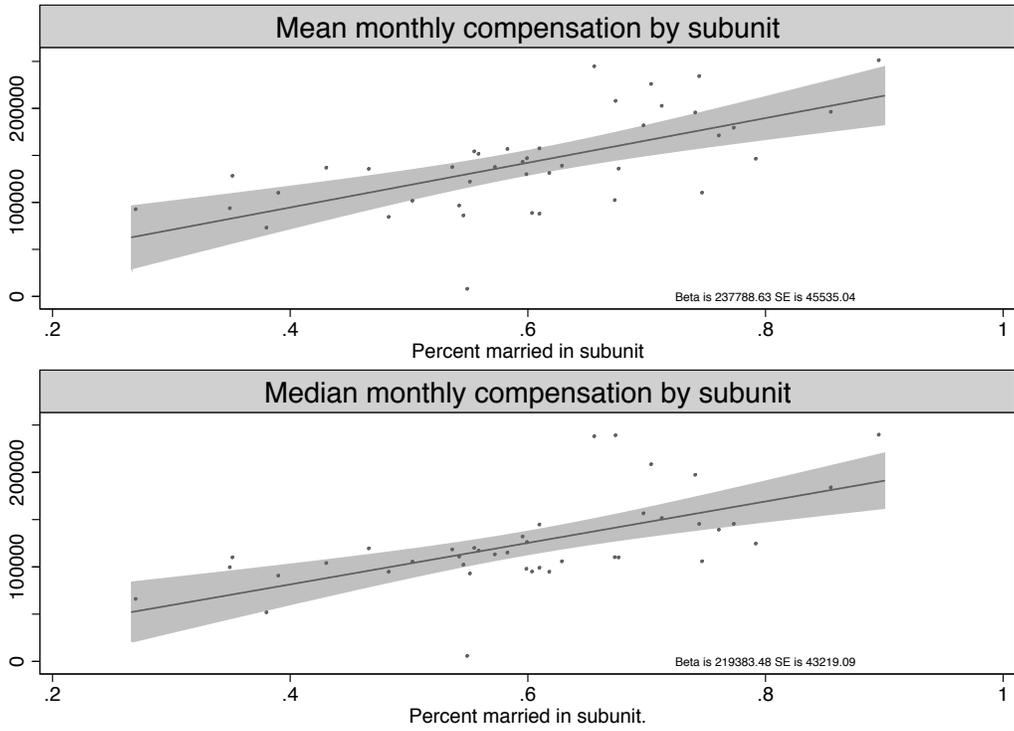Beta is 219383.48 SE is 43219.09

Percent married in subunit.

FIGURE A8. CORRELATION BETWEEN SUBUNIT COMPENSATION AND MARITAL STATUS

In Table A1 we provide descriptive statistics and in Table A2, we highlight the bivariate and conditional correlations between salary and attack levels by type, estimating a linear regression of the form in the fully conditional model:

$$(1)\ \ln(compensation) = \beta_0 + \beta_1(\#\ of\ Attacks) + \beta_2(married) + \gamma_1 * \mathbf{1}[Diyala] + \gamma_2 \mathbf{1}[Ninewa] + \tau * \mathbf{1}[2006] + \varepsilon$$

The dependent variable is the natural log of total compensation, and the key coefficient of interest is β_1, which we interpret as the correlation between levels of attacks and total compensation. Controlling for marital status accounts for AQI's marginal payments to fighters with families. We refer to estimates including only these two coefficients as the unconditional estimates. To account for regional variation in the intensity of counterinsurgent efforts and the preferences of the population—which the model and results in Berman, Shapiro, and Felter (2011) suggest should jointly determine the risk level for insurgents—we add governorate and year fixed effects in separate regressions. We refer to these estimates as the conditional estimates. We estimate a semi-log elasticity, as is common in hedonic wage models, which allows us to interpret the coefficient β_1 as the effect of a level change in violence on the percentage change in the total wage. We estimate equation (1) for all combat attacks and then separately for direct fire, indirect fire, suicide, and improvised explosive device (IED) attacks. Direct fire attacks involve those using line-of-sight weaponry such as pistols, rifles, and rocket-propelled grenades. These expose the attacker to a direct risk of counterattack. Indirect fire attacks involve those using weaponry that fire on a ballistic trajectory, including rockets and mortars. These do not expose the attacker to direct risk of counterattack unless he is firing on a target that can respond immediately with return artillery fire. Suicide attacks involve a suicide bomber. IED attacks involve explosives that are emplaced some time prior to the target's arrival, such as a bomb placed in a trash pile. Some of these are command detonated by someone observing the target area, and others are remotely detonated or set off using automatic sensors or timers. They may or may not expose the attacker to direct risk of counterattack.

	Mean	SD	Min	Max	N
Salary (IQD)	121579.99	68845.15	20000.0	1500000	1769
Inkind Salary (IQD)	140534.85	72113.54	15000.0	650000	617
Salary	0.12	0.32	0.0	1	3799
Married	0.59	0.49	0.0	1	3800
Multiple Wives	0.22	0.41	0.0	1	3801
No Wives	0.30	0.46	0.0	1	3564
Risk Ratio	0.42	0.07	0.3	1	3565
Suicide Attacks	3.61	1.85	1.1	9	3566
IED Attacks	304.63	196.88	103.3	597	3567
Direct Fire Attacks	214.75	163.33	45.0	459	3568
Indirect Fire Attacks	6.45	3.26	0.3	24	3569
Suicide Attacks	3.61	1.85	1.1	9	3570

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
SIGACTS	-4.942**	-1.876						-73.11***					
	(2.431)	(2.025)						(14.61)					
Indirect Fire			-0.0129***						-0.130***				
			(0.00186)						(0.0260)				
Direct Fire				-5.93e-05						-0.00196***			
				(5.56e-05)						(0.000392)			
IED Attacks					-5.11e-05						-0.00178***		
					(4.59e-05)						(0.000356)		
Suicide Attacks						-0.0101**						0.161***	
						(0.00472)						(0.0322)	
Risk Ratio							-0.139						-4.059***
							(0.138)						(0.811)
Married		0.566***	0.567***	0.566***	0.566***	0.566***	0.566***	0.606***	0.606***	0.606***	0.606***	0.606***	0.606***
		(0.0160)	(0.0157)	(0.0160)	(0.0160)	(0.0160)	(0.0160)	(0.0145)	(0.0145)	(0.0145)	(0.0145)	(0.0145)	(0.0145)
Constant	11.65***	11.26***	11.33***	11.26***	11.27***	11.29***	11.31***	11.76***	12.48***	11.76***	11.92***	9.796***	13.01***
	(0.0128)	(0.0153)	(0.0174)	(0.0155)	(0.0166)	(0.0210)	(0.0557)	(0.0988)	(0.240)	(0.100)	(0.131)	(0.302)	(0.345)
Governorate FE?	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Year FE?	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738	2,738
R-squared	0.002	0.336	0.345	0.336	0.336	0.338	0.336	0.407	0.407	0.407	0.407	0.407	0.407

Notes: Dependent variable is ln(salary) with mean 11.7. SIGACTS is attacks per 100,000. Estimates based on ordinary least squares regression with robust standard errors in parentheses. Also included in both regressions but not reported is an indicator for marital status. The conditional regression (Models 8-13) also contains fixed effects for governorate (Diyala and Ninewa) and for year (2006). Risk ratio is the proportion of total attacks that are not indirect fire or IED attacks, which are the two types that can be conducted without exposing the attacker to immediate counterattack. *Source:* Author calculations. *** Significant at the 1 percent level. ** Significant at the 5 percent level. * Significant at the 10 percent level.

REFERENCE

Berman, Eli, Jacob N. Shapiro, and Joseph H. Felter. 2011. "Can Hearts and Minds be Bought? The Economics of Counterinsurgency in Iraq." *Journal of Political Economy,* 119: 766-819.