

Appendix for Inlaws, Outlaws, and State-Formation in Nineteenth Century Oklahoma

January 20, 2020

Analysis of Distribution of Marshal's Force

Data and Alternative Specifications

The analysis presented in Figure 1 in the text of the paper is reproduced in model 7 in Table A (summary statistics of the data used are presented in Table B). These models present simple OLS regressions of the number of USDMs per 10,00 residents across the 48 states and territories of the United States in 1897. The results strongly indicate that higher levels of racial diversity are associated with more USDMs per capita, as are lower overall rates of African-American rates of membership in overall population (see Figure A).¹ These findings are robust across a variety of model specifications and confirm the intuitions of the paper's argument.

At the same time, although it lends itself to clear and straightforward interpretation, there are several potential problems with this simple mod-

1. Racial diversity is the classic Blau heterogeneity index: for a group i where p_i a proportion of the group, fractionalization is $1 - \sum_{i=1}^n p_i^2$. This roughly measures the probability that two actors drawn randomly would come from different groups.

eling strategy. Most significant is the problem of influential observations – territories like Oklahoma and Arizona had unusually large numbers of deputy marshals and, given the very small size of the cross-sectional data, have disproportionate effects on the modeling estimates (Figure B presents a standard influence plot, indicating which observations have high y-hat leverage (based on the x-axis) and are outliers in terms of residual deviation; as is clear, in addition to Oklahoma and Arizona, which have both high levels of leverage and deviate from the standard distribution of residuals, Idaho is an outlier. This means that the estimates in model 7 reflect the extreme observations of these cases – indeed, deleting cases with high scores on Cook’s distance measures substantially changes the modeling estimates, and many of the effects identified as theoretically meaningful (including Racial Diversity and Proportion Black) fail to reach significance.

Moreover, largely due to its small size and the skewness of its distributions, this data does not adequately meet the assumptions of OLS modeling. Post-estimation analysis of the fully specified model indicates that the residuals do not exhibit equal variance (heteroskedasticity) and that there are some mild concerns with multicollinearity among the independent variables.²

2. Model 7 fails both standard Breusch-Pagan tests as well as visual inspection of residuals. Variance inflation factor analysis also indicates that several key variables – including Proportion Black (VIF - 6.89) and Racial Diversity (VIF - 4.86) – exhibit multicollinearity.

Table A: Exploring USDM Presence (OLS Estimates)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
(Intercept)	0.01 (0.10)	0.54* (0.21)	0.06 (0.12)	0.09 (0.13)	-0.08 (0.14)	-0.07 (0.12)	0.66* (0.22)
Racial Diversity	3.70* (0.67)	3.89* (0.62)	3.59* (0.69)	2.41* (0.68)	3.36* (0.73)	3.42* (0.71)	2.83* (0.62)
Proportion Black	-3.18* (0.74)	-4.51* (0.83)	-3.15* (0.74)	-1.86* (0.77)	-2.82* (0.84)	-2.15* (0.94)	-2.10* (0.82)
Ethnic Diversity		-1.65* (0.58)					-1.85* (0.64)
Manufacturing Capital			-0.00 (0.00)				0.00 (0.00)
Proportion Urban				-0.58 (0.47)			-0.77 (0.59)
Territorial Status (1890)				0.74* (0.24)			0.60* (0.22)
Railway per Population					0.00 (0.00)		-0.00 (0.00)
Railway Robberies (1890-1900)					0.01 (0.01)		0.01 (0.01)
West						0.25 (0.19)	0.24 (0.21)
South						-0.23 (0.29)	-0.61* (0.25)
N	48	48	48	48	48	48	48
R ²	0.41	0.50	0.41	0.55	0.44	0.45	0.73
adj. R ²	0.38	0.47	0.37	0.51	0.39	0.40	0.65
Resid. sd	0.51	0.47	0.51	0.45	0.50	0.50	0.38

Standard errors in parentheses

* indicates significance at $p < 0.05$

Data from US Census (1890) and Wilson (2015).

Table B: Summary Statistics

	n	Min	Max	Med	Mean	sd
Deputies per 10,000 Residents	48	0	3.93	0.10	0.31	0.64
Number of Deputies	48	0	206	9.50	23.33	37.72
Racial Diversity	48	0	0.60	0.07	0.18	0.20
Proportion Black	48	0	0.60	0.02	0.12	0.18
Ethnic Diversity	48	0	0.74	0.28	0.25	0.17
Manufacturing Capital	48	616,629	1,130,161,195	45,024,286.50	135,353,868.13	235,632,004
Proportion Urban	48	0	0.53	0.10	0.15	0.16
Railway per Population	48	6.15	202.11	27.48	46.02	44.18
Railway Robberies (1890-1900)	48	0	45	3	7.21	9.92
Territorial Status (1890)	6					
West	16					
South	15					

Figure A: Marginal Effects (OLS)

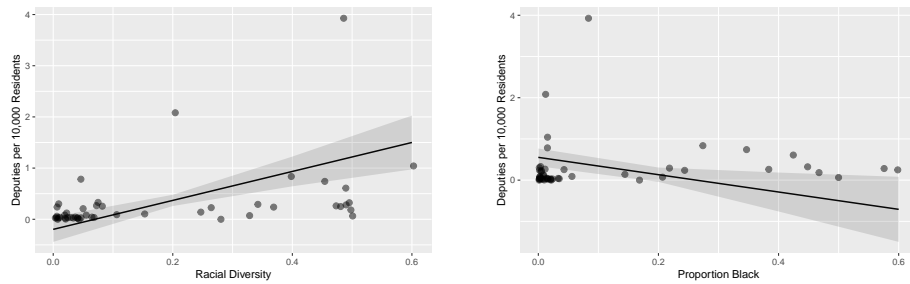


Figure B: Identifying Influential Observations (OLS)

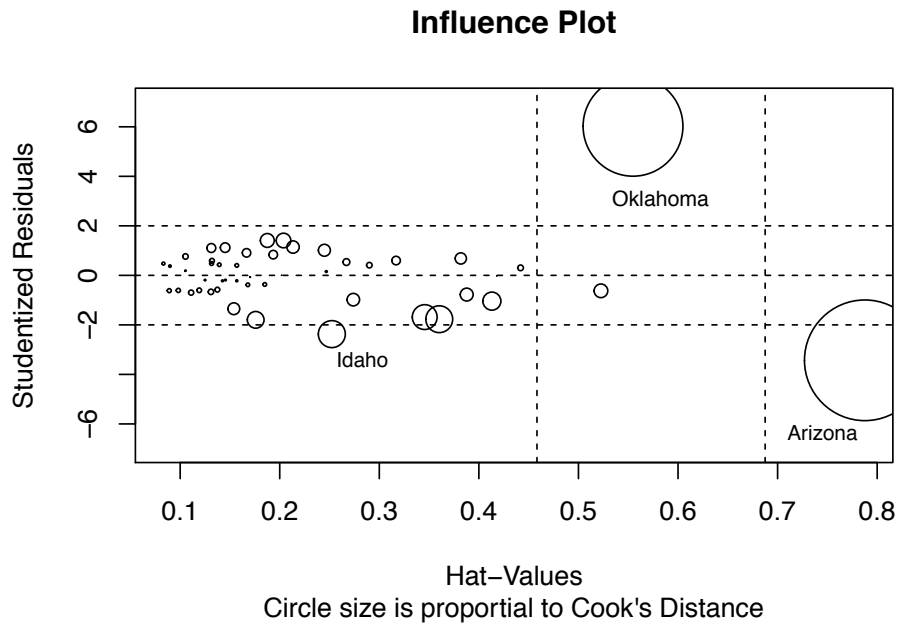
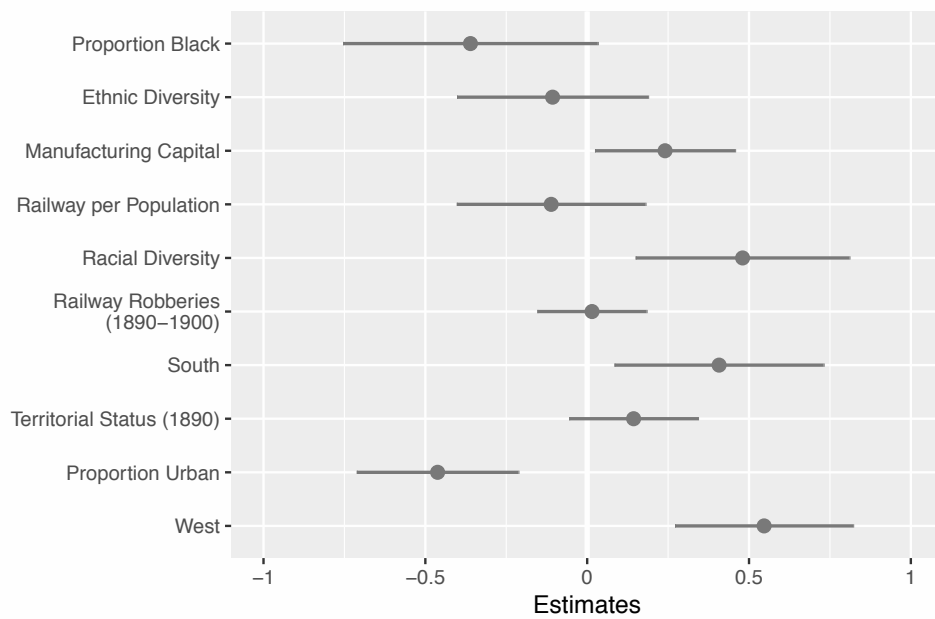


Figure C: Exploring USDM Presence (1897)*



*Fully specified Box Cox adjusted OLS model with standardized coefficients.

Table C: Exploring USDM Presence (Box Cox Adjusted OLS Estimates)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
(Intercept)	0.55* (0.03)	0.65* (0.07)	0.60* (0.04)	0.66* (0.04)	0.56* (0.04)	0.55* (0.03)	0.68* (0.05)
Racial Diversity	1.11* (0.22)	1.15* (0.22)	0.99* (0.22)	0.68* (0.20)	0.63* (0.19)	0.54* (0.16)	0.43* (0.15)
Proportion Black	-0.67* (0.24)	-0.92* (0.29)	-0.64* (0.23)	-0.35 (0.22)	-0.17 (0.21)	-0.37† (0.21)	-0.36† (0.20)
Ethnic Diversity		-0.30 (0.20)					-0.11 (0.15)
Manufacturing Capital			-0.00* (0.00)				0.00* (0.00)
Proportion Urban				-0.60* (0.13)			-0.52* (0.14)
Territorial Status (1890)				0.15* (0.07)			0.07 (0.05)
Railway per Population					0.00* (0.00)		-0.00 (0.00)
Railway Robberies (1890-1900)					0.00 (0.00)		0.00 (0.00)
West						0.22* (0.04)	0.20* (0.05)
South						0.19* (0.06)	0.15* (0.06)
<i>N</i>	48	48	48	48	48	48	48
<i>R</i> ²	0.41	0.44	0.47	0.67	0.51	0.64	0.78
adj. <i>R</i> ²	0.39	0.40	0.44	0.64	0.46	0.61	0.73
Resid. sd	0.17	0.16	0.16	0.13	0.13	0.11	0.09

Standard errors in parentheses

* indicates significance at $p < 0.05$; † indicates significance at $p < 0.10$.

Due to the small size of the dataset as well as the substantive importance of the outlier and high leverage observations, rather than drop the observations or pursue robust regression, I instead opted to pursue Box Cox transformation, which uses maximum likelihood estimates to identify a power transformation of the dependent variable (on a model specific basis) to stabilize variance. Box Cox transformations can help address problems of heteroskedasticity and outlier effects. Such transformation does come at a cost – they can only be applied to positive, non-zero data. Hence, I created a new dependent variable by adding .001 to Deputies per 10,000 residents in order to satisfy the non-zero criterion and re-estimated models 1-7 using the appropriate Box Cox transformation for each. The results are presented in Table C.

As is evident, for the most part, the Box Cox estimates confirm the analysis presented in the paper, although the confidence with which we can say higher levels of Proportion Black is associated with smaller deputy marshal forces has diminished somewhat (see Figure C). In addition, whereas being in the South had been associated with smaller ratios of USDMs per capita in the original estimates, the direction of this relationship changed to a positive one in the adjusted models. This is likely due to shifts in the relative weight of southern states in the modeling process due to the transformation of the dependent variable. Regardless, simply being in the South is less important in my analysis than is the racial demographics of the state or territory in question, and for these models Racial Diversity and Proportion Black both confirm the argument of the paper, accounting independently for region (see Figure D).

Figure D: Marginal Effects (Box Cox Adjusted OLS)

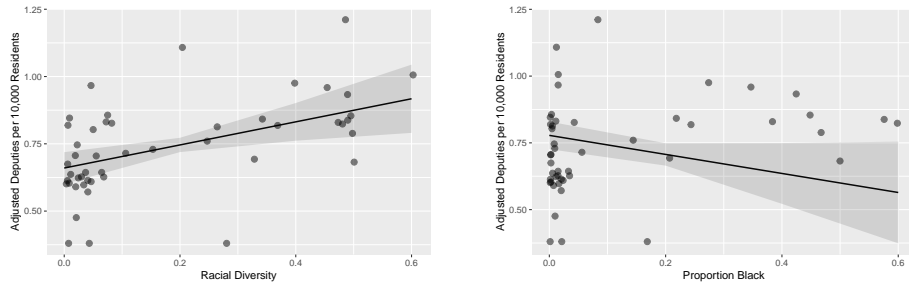
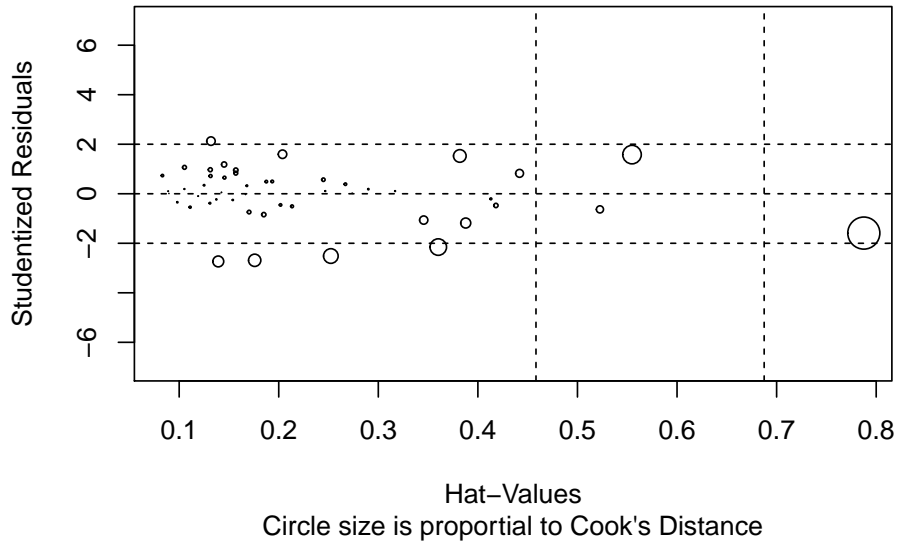


Figure E: Identifying Influential Observations (Box Cox Adjusted OLS)

Influence Plot



More importantly, the Box Cox transformation helped mitigate the problems of influential observations and heteroskedasticity. For instance, Figure E presents an influence plot for the fully specified model; the transformation considerably reduced the effect of outlier states on the model

estimates (both Oklahoma and Arizona had greatly reduced Cook's distance scores). Robust regression estimates of Box Cox transformed models confirm that these models are not sensitive to observation deletion. In addition, visual inspection of the residual plot for this model indicates a much more normal distribution of errors (this specification also passes the Breusch-Pagan test).

To address problems of multicollinearity, I also ran several reduced form models which eliminated all variance inflation factor scores above 2. These are summarized in Table D; again, Racial Diversity is positively and significantly correlated with USDM presence.

Table D: Exploring USDM Presence (Reduced Form OLS Estimates)

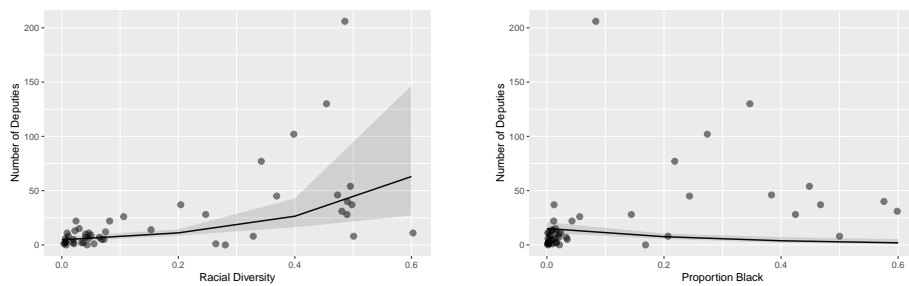
	Model 1 (OLS)	Model 2 (Box Cox OLS)
(Intercept)	0.28 (0.20)	0.66* (0.05)
Racial Diversity	1.80* (0.51)	0.25 [†] (0.13)
Manufacturing Capital	0.00 (0.00)	0.00 (0.00)
Proportion Urban	-1.21 (0.60)	-0.45* (0.15)
Territorial Status (1890)	0.83* (0.23)	0.16* (0.06)
Railway per Population	-0.00 (0.00)	0.00 (0.00)
Railway Robberies (1890-1900)	0.02* (0.01)	0.00 (0.00)
South	-0.64* (0.24)	0.07 (0.06)
<i>N</i>	48	48
<i>R</i> ²	0.63	0.67
adj. <i>R</i> ²	0.56	0.62
Resid. sd	0.43	0.11

Standard errors in parentheses

* indicates significance at $p < 0.05$; [†] indicates significance at $p < 0.10$

Another possible concern is that population rate data is left-censored, while OLS assumes continuous distributions. To address this concern, I also performed Tobit estimation on the fully specified model. I present these estimates in Table E. They largely confirm the analysis presented above.

Figure F: Marginal Effects (Quasipoisson)



Robustness Check

In addition to OLS estimates of the rate of deputies per 10,000 residents, I also calculated estimates for the absolute number of deputies as a robustness check. Due to overdispersion in traditional poisson estimates, I used quasipoisson techniques. The results are presented in Table F; these results largely confirm the findings above and demonstrate that the distribution of marshals in relative and absolute terms both reflect the racial demographics of states and territories (see Figure F). The primary difference in the findings is that absolute numbers of deputies are found in southern states, accounting for other effects (not surprising given that much liquor enforcement took place in the Mountain South). The quasipoisson regres-

Table E: Exploring USDM Presence (Left-Censored Tobit)

	Estimates
(Intercept 1)	0.64* (0.20)
(Intercept 2)	-1.09* (0.13)
Racial Diversity	2.82* (0.57)
Proportion Black	-2.17* (0.77)
Ethnic Diversity	-2.00* (0.61)
Manufacturing Capital	0.00 (0.00)
Proportion Urban	-0.10 (0.60)
Territorial Status (1890)	0.59* (0.20)
Railway per Population	-0.00 (0.00)
Railway Robberies (1890-1900)	0.00 (0.00)
West	0.33 (0.21)
South	-0.54* (0.24)
<i>N</i>	48
$\log L$	-16.72
R^2	0.72

Standard errors in parentheses

* indicates significance at $p < 0.05$

sions do suffer from some multicollinearity, but a reduced form analysis reveals that Racial Diversity remains significantly correlated with number of deputies.

Table F: Exploring Number of USDMs (Quasipoisson)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
(Intercept)	2.03* (0.28)	3.35* (0.31)	1.40* (0.41)	2.46* (0.36)	2.24* (0.29)	1.60* (0.47)	2.50* (0.45)
Racial Diversity	4.70* (0.82)	5.05* (0.74)	5.58* (0.95)	3.91* (1.20)	6.00* (0.95)	4.47* (1.01)	4.34* (1.01)
Proportion Black	-0.78 (0.78)	-3.92* (0.66)	-2.46* (0.97)	-0.55 (1.25)	-2.39* (1.01)	-2.57 (1.37)	-3.44* (1.01)
Ethnic Diversity		-5.12* (0.86)					-2.03 (1.11)
Population			0.00* (0.00)				0.00 (0.00)
Manufacturing Capital			-0.00* (0.00)				0.00 (0.00)
Proportion Urban				-2.41 (1.46)			-5.25* (1.43)
Territorial Status				0.02 (0.55)			-0.22 (0.52)
Railway per Population					-0.02* (0.01)		-0.02* (0.01)
Railway Robberies (1890-1900)					0.03* (0.01)		0.01 (0.01)
West						0.50 (0.60)	1.50* (0.49)
South						1.32* (0.62)	1.08* (0.45)
N	48	48	48	48	48	48	48

Standard errors in parentheses

* indicates significance at $p < 0.05$

Analysis of Newspaper Coverage Intensity and Ratio

I used two databases to identify newspaper coverage and to identify coverage ratios. These two databases (the Library of Congress's Chronicling America database and Newspapers.com) provide comprehensive and national searchable indices of newspaper articles for the periods in question. For the James Gang, I focused on the years 1870 through 1890; for the Dalton and Cook Gang, I focused on the years 1890 through 1910.

The search strategy for identifying articles was fairly straightforward. James Gang articles were identified using the search terms "James Gang" OR "Younger Gang;" Dalton-Doolin Gang articles were identified using the search terms "Dalton Gang" OR "Doolin Gang;" Cook Gang articles were identified using the search terms "Cook Gang" NOT "Cook-Hall Gang" (the Cook-Hall gang was a group of mail robbers active in Pennsylvania during the early 1890s). This strategy was not perfect – undoubtedly there were many articles covering the Dalton or Doolin Gang which were not identified, while some small number of Cook Gang articles in fact covered other gangs with the same name – but because I don't believe these errors would have been systematic across regions, they should not affect the overall analysis.

Table G presents information about news coverage by state and territory for both Chronicling America and Newspapers.com.

Table G: Newspaper Coverage of Gangs by State/Territory

State/Territory	Number of Pages of News Coverage				Total Pages	
	James Gang (1870-1890)	Cook Gang (1890-1910)	Dalton-Doolin Gang (1890-1910)	1870-1890	1890-1910	
Alabama	258	128	215	63441	98134	
Alaska	0	0	0	0	17929	
Arizona	51	105	203	36789	194804	
Arkansas	65	118	100	13917	34612	
California	217	490	564	94893	379533	
Colorado	6	18	22	3577	49486	
Connecticut	65	76	56	33705	135190	
Delaware	64	102	93	67236	82431	
District of Columbia	213	134	162	117955	331834	
Florida	11	18	35	10740	124159	
Georgia	88	12	44	26355	14661	
Hawaii	10	23	30	40436	227098	
Idaho	19	49	69	33024	105735	
Illinois	587	355	405	157439	266434	
Indiana	321	463	540	86803	270239	
Iowa	155	302	379	38216	172152	
Kansas	4539	5426	13330	499572	1256323	
Kentucky	285	244	206	55051	274594	
Louisiana	280	89	150	149285	151710	
Maine	33	14	3	38843	18185	
Maryland	80	45	53	88639	148552	

Massachusetts	76	59	82	19468	29244
Michigan	178	157	174	62470	144949
Minnesota	383	240	274	99708	288116
Mississippi	166	69	132	71304	138535
Missouri	732	665	846	79640	312469
Montana	204	128	287	78755	195415
Nebraska	248	349	430	68509	270295
Nevada	67	24	42	91991	87732
New Hampshire	0	0	0	0	3,161
New Jersey	34	115	68	22005	105054
New Mexico	61	62	75	27075	175291
New York	461	666	694	254184	475589
North Carolina	119	169	226	106271	284321
North Dakota	117	81	125	28805	152692
Ohio	350	370	320	138495	224874
Oklahoma	21	289	355	4385	158268
Oregon	34	101	155	45642	208523
Pennsylvania	586	884	835	240656	556550
Rhode Island	2	4	0	1,655	2,336
South Carolina	73	57	55	74309	134851
South Dakota	140	130	220	55338	160275
Tennessee	347	61	94	139413	70127
Texas	229	419	487	117504	249041
Utah	149	234	234	55402	299620
Vermont	146	108	102	120732	206759
Virginia	70	89	79	95065	289700

Washington	32	50	62	36980	215978
West Virginia	135	40	57	77104	95632
Wisconsin	352	247	297	86525	144967
Wyoming	0	1	1	0	620

Topic Modeling with Latent Dirichlet Analysis

LDA is a generative probabilistic model used to classify and sort elements of a larger set according to underlying distributional similarity (Blei and Lafferty 2009). In the case of topic analysis, LDA is useful for identifying how particular words or phrases concatenate into k -number of topics across some set of documents. The model generates probabilities that a given word is associated with a particular topic (β) and an approximation of the proportion of words from a given document that are associated with a particular topic (γ).

For the purposes of this paper, I am most interested in detecting a.) whether or not the algorithm can correctly classify documents into topics and b.) what clusters of words constitute those topics. Together, these goals help me establish that newspapers generally used different language to cover different bandit gangs and that that language had substantively different meanings.

My basic strategy therefore was to collect newspaper articles covering different gangs from online newspaper databases and then to assess whether or not the topic models could discriminate amongst the articles I collected. To identify the articles, I selected three gangs (the James Gang, the Dalton Gang, the Cook Gang) and utilized the California Digital Newspaper Collection (CDNC) to identify every article I could find covering each gang (for the James Gang, I restricted my search from 1870 through 1890; for the Dalton and Cook gangs, I searched from 1890-1910).³ In all, I

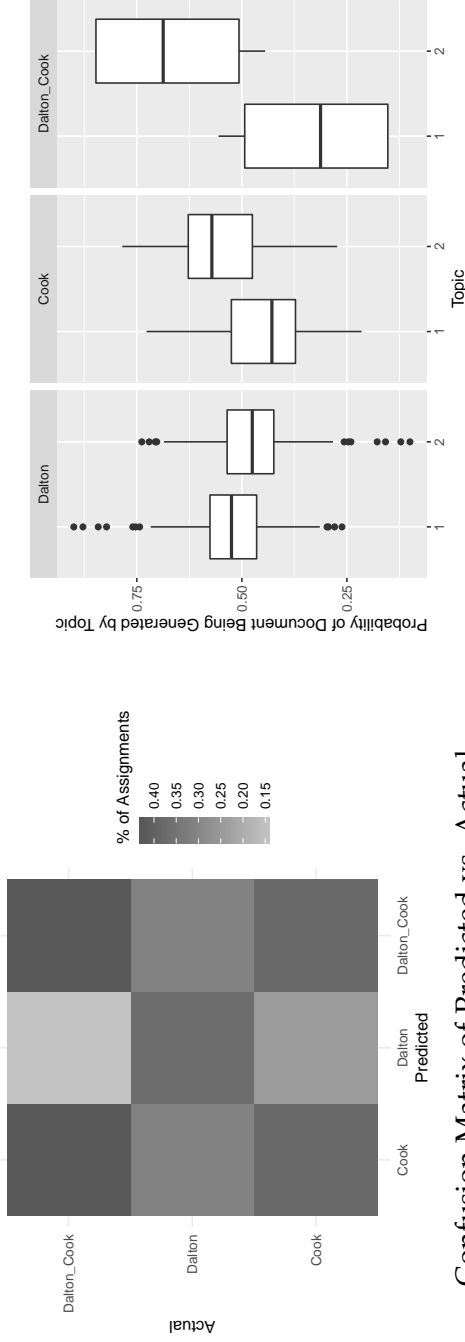
3. I used the following search term identifiers: "Dalton Gang"; "Doolin Gang"; "James

collected 53 articles covering the Cook Gang exclusively, 138 articles covering the Dalton Gang exclusively, 4 covering both the Dalton and Cook Gang, and 57 articles covering the James Gang exclusively.

The CDNC is useful for several reasons. First, it has among the best OCR scans of the original newspapers of any digital state repository, making transcription much easier. Second, it has a number of large city and smaller rural newspapers available for the period in question in its collection. Finally, California was situated near the median with regard to the intensity of coverage of Oklahoma bandit gangs (as presented in the main body of the paper). Although their state had been the scene of some of the suspected Dalton robberies, Californians were largely peripheral observers with regard to the activities taking place in Oklahoma and Missouri at the time and hence serve as a relatively good proxies for the nation as a whole. Indeed many of the articles collected were reprinted Associated Press or other national news bureau releases and would have appeared in national papers as well as those in California.

Gang"; "Younger Gang"; "Cook Gang".

Figure G: Classifying Newspaper Coverage of the Dalton and Cook Gang Model (1)



Confusion Matrix of Predicted vs. Actual Classifications

Gamma Probabilities

Table H: Summary Statistics (LDA Data and Models)

	Corpus*		Documents (Words)				Model				
	n (Documents)	n (Words)	Min	Max	Med	Mean	sd	Matrix Sparsity	k (Topics)	log L	df
Cook and Dalton Model (1)	195	4192	8	1166	78	147.2	207.3	98%	2	-202113	8384
Cook, Dalton and James Model (2)	252	4993	8	1681	71.5	143.7	220.9	98%	3	-250776	14979

*Stopwords removed and terms stemmed for ease of analysis.

Table I: Distribution of Articles Across Topics (Dalton and Cook Gang Model 1)*

Articles	Topic 1	Topic 2
	N	N
Cook Gang	18 (-1.93)	35 (+2.11)
Dalton Gang	86 (+1.19)	52 (-1.31)

chi-sq: 11.3; $p < 0.01$

z-scores in parentheses

*Only Dalton or Cook articles included

After collecting the articles, transcribing the text (which involved correcting the OCR version of the articles produced by the database), and eliminating duplicates (AP articles were frequently reprinted in different newspapers with different headlines), I tagged each articles with the name of the gang it covered to create baseline on which to compare the classifier Table H includes summary information of the corpus data as well as the models themselves. For the first part of the analysis, I compared the white Dalton outfit to the mixed-race Cook Gang. Figure G and Table I present evidence supporting the claim that the LDA classifier reflected the actual distribution of the articles (and hence the words they identified within those topics also pick up substantive differences between coverage). The confusion matrix in Figure G depicts the relative match between gamma scores for each document generated by the LDA model and the actual gang covered in the article in question; the boxplot, in turn, depicts the distribution of those topic gamma probabilities for each article by gang. Although the match is not perfect, Topic 1 is more clearly associated with

Dalton Gang articles, while Topic 2 is associated with Cook Gang articles and those articles covering both gangs (Dalton_Cook). As Table I indicates, the difference in this classification is significant at the 0.05 level.

A similar story holds for the second part of the analysis, which includes James Gang articles as well. For this, 3-topic model, the classification also partitioned the articles in a sensible way. Topic 1 was primarily associated with the Dalton Gang; Topic 2 was associated with the Cook Gang (as well as the articles covering both the Cook and Dalton Gangs) and the James Gang was associated with Topic 3. Visual inspection of the diagonal in the confusion matrix in Figure H indicates that the assignments accurately represent article content (an insight supported by the significant differences identified in the contingency table in Table J and the box plot in Figure H). Thus, the cluster of other terms associated with each topic as presented in the paper should also be tracking differences in actual coverage.

Figure H: Classifying Newspaper Coverage of the Dalton, Cook and James Gang Model (2)

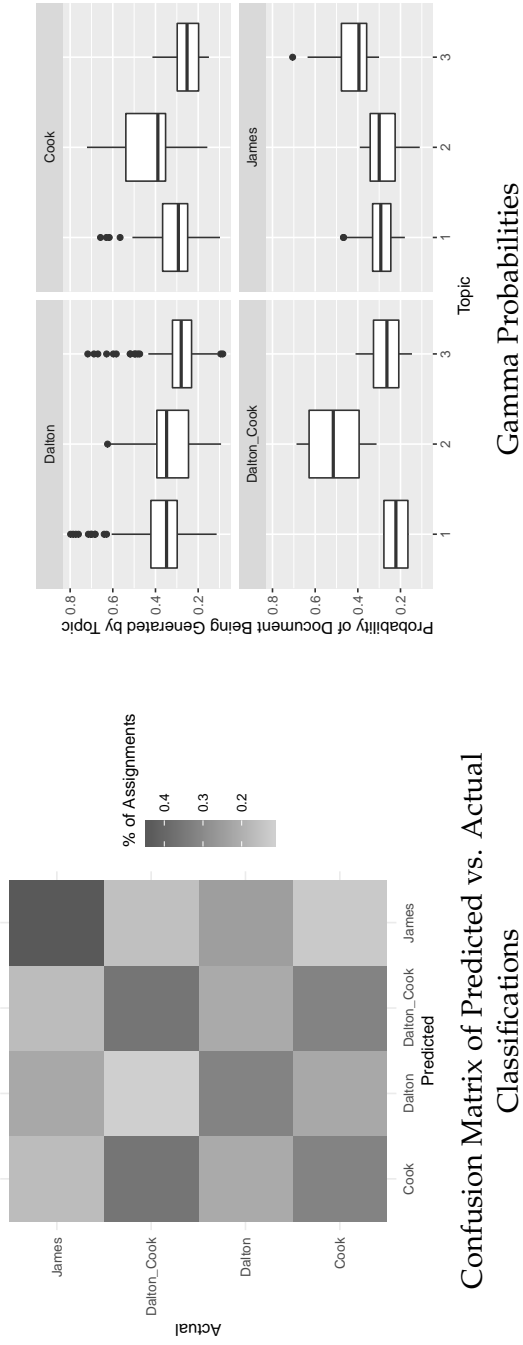


Table J: Distribution of Articles Across Topics (Dalton, Cook and James Gang Model 2)*

Articles	Topic 1 N	Topic 2 N	Topic 3 N
Cook Gang	15 (-0.74)	34 (+3.04)	4 (-2.76)
Dalton Gang	62 (+2.14)	54 (+0.16)	22 (-2.57)
James Gang	8 (-2.61)	7 (-3.17)	42 (6.67)

chi-sq: 90.04; $p < 0.01$

z-scores in parentheses

*Only Dalton, Cook, or James articles included

Gang Membership and Posse Data

Finally, I present several tables outlining the data on posse membership and gang membership (as analyzed in the text). Table K presents a list of the dates and types of gang events detailed in the text, while Tables L and M present information about the race, affiliation and role of gang and posse members, respectively. In Table L, I have included a column indicating whether or not a gang member had a known kinship connection to other members.

Table K: Gang Events in Oklahoma (1890s)

Event Name	Type	Town	Date
Perry (Wharton) Robbery 1	Railroad Robbery	Perry	5/9/1891
Leliaetta Express Robbery	Railroad Robbery	Leliaetta	9/14/1891
Red Rock Robbery	Railroad Robbery	Red Rock	6/1/1892
Adair Robbery	Railroad Robbery	Adair	7/15/1892
Nowata Depot Robbery 1	Depot Robbery	Nowata	8/1/1892
Perry (Wharton) Robbery 2	Railroad Robbery	Perry	11/9/1892
Pryor Creek Robbery	Railroad Robbery	Pryor Creek	5/2/1893
Ponca City Robbery	Railroad Robbery	Ponca City	5/19/1893
Black Bear Creek Robbery	Railroad Robbery	Red Rock	6/29/1893
Hayden Store Robbery	Store Robbery	Hayden	12/30/1893
Woodward Depot Robbery	Depot Robbery	Woodward	3/13/1894
Pond Creek Robbery	Railroad Robbery	Pond Creek	4/9/1894
Red Fork Robbery	Railroad Robbery	Red Fork	7/18/1894
Chandler Bank Robbery	Bank Robbery	Chandler	7/30/1894
Coretta Siding Robbery	Railroad Robbery	Wagner	10/20/1894
Lenapah Store Robbery	Store Robbery	Lenapah	11/8/1894
Blackstone Switch Robbery	Railroad Robbery	Wybark	11/13/1894
Nowata Depot Robbery 2	Depot Robbery	Nowata	1/15/1895
Braggs Store Robbery	Store Robbery	Braggs	3/28/1895
Dover Robbery	Railroad Robbery	Dover	4/3/1895
Fairview Store Robbery	Store Robbery	Fairview	6/3/1895
Oxley Store Robbery	Store Robbery	Oxley	7/26/1895
Wewoka Store Robbery	Store Robbery	Wewoka	7/28/1895
Calvin Store Robbery	Store Robbery	Calvin	8/5/1895
Arbekochee Store Robbery	Store Robbery	Arbekochee	8/9/1895
Curtis Robbery	Railroad Robbery	Curtis	9/12/1895
Arapaho Store Robbery	Store Robbery	Arapaho	10/1/1895
Okeene Stage Robbery	Stage Robbery	Okeene	7/27/1896
Ringold Store Robbery	Store Robbery	Ringold	9/1/1896
Sac and Fox Agency Robbery	Store Robbery	Stroud	10/30/1896
Foyil Store Robbery	Store Robbery	Foyil	6/6/1897
Edmond Robbery	Railroad Robbery	Edmond	8/16/1897
Pocasset Robbery	Railroad Robbery	Pocasset	10/1/1897

Table L: Gang Members

Name	Race	Gang	Kinship Tie
"Buttermilk" John Mackey	Unknown	Christian Brothers Gang	
"Dynamite Jack" Turner	Unknown	Rogers Brothers Gang	
"Skeeter" Baldwin	White	Cook Gang	
Ad Berryhill	Native American	Cook Gang	X
Al Jennings	White	Jennings Gang	
Arthur Green	Unknown	Green Gang	
Belle Black	Unknown	Zip Wyatt Gang	
Ben Brown	African-American	Christian Brothers Gang	
Bill Christian	White	Christian Brothers Gang	X
Bill Cook	Native American	Cook Gang	X
Bill Dalton	White	Dalton Gang	X
Bill Doolin	White	Doolin-Dalton Gang (Wild Bunch)	
Bill Green	Unknown	Doolin-Dalton Gang (Wild Bunch)	
Bill Powers	White	Dalton Gang	
Bill Rhodes	Unknown	Young-Sylva Gang	
Bob Christian	White	Christian Brothers Gang	X
Bob Dalton	White	Dalton Gang	X
Bob Rogers	White	Rogers Brothers Gang	X
Bob Stiteler	White	Rogers Brothers Gang	
Bud Tyler	Unknown	Henry Starr Gang	
Buss Luckey	African-American	Nathaniel Reed Gang	

Charles Turner	Unknown	Cook Gang	
Charley Bryant	White	Cook Gang	
Charley Pierce	White	Dalton Gang	
		Dalton Gang	
Claude Nuckells	Unknown	Doolin-Dalton Gang (Wild Bunch)	
Crawford Goldsby	African-American	Christian Brothers Gang	
Curtis Dayson (Deason)	Unknown	Cook Gang	
Dan Clifton	White	Cook Gang	
		Jennings Gang	
		Doolin-Dalton Gang (Wild Bunch)	
Dick Broadwell	Unknown	Dalton Gang	
Doc Williams	Unknown	Christian Brothers Gang	
Ed Green	Unknown	Green Gang	
Ed Newcombe	Native American	Henry Starr Gang	
Ed Rogers	Unknown	Rogers Brothers Gang	X
Elmer "Kid" Lewis	White	George Weightman Gang	
Elmer Lucas	Unknown	Cook Gang	
Emmett Dalton	White	Dalton Gang	X
Ernest "Kid" Lewis	Unknown	King-Lewis Gang	
Felix Young	White	Young-Sylva Gang	
Flave Carver	Unknown	Christian Brothers Gang	
Flora Quick Mundis (Tom King)	Unknown	King-Lewis Gang	
Foster Holbrook	White	Christian Brothers Gang	
Frank Cheney	White	Henry Starr Gang	
Frank Jennings	White	Jennings Gang	X
Frank Lacy	Unknown	Young-Sylva Gang	

Frank Young	Unknown	Christian Brothers Gang	
George "Bitter Creek" Newcomb	White	Doolin-Dalton Gang (Wild Bunch)	
George Miller	White	Dalton Gang	
George Sanders	Native American	George Weightman Gang	
George Weightman	Unknown	Cook Gang	
Gratton Dalton	White	Doolin-Dalton Gang (Wild Bunch)	
Hank Watt	African-American	George Weightman Gang	X
Happy Jack Dilly	Unknown	Dalton Gang	
Henry Munson	Unknown	Henry Starr Gang	
Henry Starr	Native American	Henry Starr Gang	
Hill Loftis	White	Cook Gang	
Isaac "Ike" Black	White	Henry Starr Gang	
Jenny Freeman	Unknown	George Weightman Gang	
Jess Snyder	Unknown	Zip Wyatt Gang	
Jesse "Bud" Jackson	Unknown	Zip Wyatt Gang	
Jim Bourland	Unknown	Cook Gang	
Jim Cook	White	Henry Starr Gang	
Jim French	Native American	Young-Sylva Gang	X
Jim Fuller	Native American	Cook Gang	
Jim Rogers	Unknown	Young-Sylva Gang	
Jim Turner	White	Rogers Brothers Gang	X
Joe Beckham	Unknown	Cook Gang	
Joe Criner	White	George Weightman Gang	
John Champion	Native American	Christian Brothers Gang	
	Unknown	Christian Brothers Gang	

John Fessenden	Unknown	Christian Brothers Gang
John Reeves	Unknown	Christian Brothers Gang
Kid Wilson	Unknown	Henry Starr Gang
Kiowa Turner	Unknown	Rogers Brothers Gang
Lewis Davis	Native American	Buck Gang
Link Cumplin	Unknown	Henry Starr Gang
Lon Gordon	Native American	Cook Gang
Lucky Davis	African-American	Buck Gang
Maomi July	Native American	Buck Gang
Milo Creekmore	White	Henry Starr Gang
Morris O'Malley	White	Jennings Gang
Nate Sylva	White	Young-Sylva Gang
Nathaniel "Zip" Wyatt	White	Zip Wyatt Gang
Nathaniel Reed	White	Nathaniel Reed Gang
Oliver "Ol" Yantis	White	Doolin-Dalton Gang (Wild Bunch)
Pat O'Malley	White	Jennings Gang
Ralph Halleck	Unknown	Rogers Brothers Gang
Richard West	White	Doolin-Dalton Gang (Wild Bunch)
Roy Daugherty	White	Jennings Gang
Rufus Buck	Native American	Doolin-Dalton Gang (Wild Bunch)
Sam Baker	White	Buck Gang
Sam Bulter	Unknown	Jennings Gang
Sam McWilliams	White	Cook Gang
Sam Rogers	White	Cook Gang
Sam Sampson	Native American	Rogers Brothers Gang
		Buck Gang

Ted Edwards	Unknown	Christian Brothers Gang
Tom Harless	Unknown	Christian Brothers Gang
Tom Root	African-American	Nathaniel Reed Gang
West Love	Native American	Christian Brothers Gang
Will Smith	African-American	Nathaniel Reed Gang
William "Tulsa Jack" Blake	White	Doolin-Dalton Gang (Wild Bunch)
William F "Little Bill" Raidler	White	Doolin-Dalton Gang (Wild Bunch)
William Farris	White	Cook Gang
Willis Brown	White	Rogers Brothers Gang

Table M: Posse Members (Oklahoma Gang Events)

Name	Race	Role	Name of Event
? Allen	Unknown		Pond Creek Robbery
? Carnahan	Unknown		Lenapah Store Robbery
? Dick	Unknown		Nowata Depot Robbery 2
? Dickson	Unknown	Special Railroad Officer	Coretta Siding Robbery
? Fessler	Unknown	Special Railroad Officer	Pond Creek Robbery
? Helmick	Unknown	Special Railroad Officer	Coretta Siding Robbery
? Kleaver	Unknown	Express Messenger	Curtis Robbery
? Lytle	Unknown	Route Agent	Edmond Robbery
? Odell	Unknown		Woodward Depot Robbery
? Peck	Unknown		Coretta Siding Robbery
? Skengar	Unknown		Arbekochee Store Robbery
? Thralls	Unknown		Oxley Store Robbery
? Tobe	Unknown		Woodward Depot Robbery
? Wyne	Unknown		Lenapah Store Robbery
A J Poak	White	Deputy US Marshal	Oxley Store Robbery
Albert Thomas	White	Posse Member	Okeene Stage Robbery
Alf McCay	Native American	Indian Police	Adair Robbery
Amos Chapman	Native American	Scout	Woodward Depot Robbery
Ben Goode	Unknown	Posse Member	
Ben Vanderwork	White	Deputy US Marshal	Calvin Store Robbery
Ben Wolforth	White	Deputy Sheriff	Oxley Store Robbery
Bill Dunn	White	Posse Member	Curtis Robbery
			Okeene Stage Robbery

Bill Quillen	White	Deputy US Marshal	Arapaho Store Robbery
Bill Smith	Unknown		Lenapah Store Robbery
Bill Tilghman	White	Deputy US Marshal	Nowata Depot Robbery 2
Billy Fox	Unknown		Pocasset Robbery
Burrell Cox	White	Deputy US Marshal	Sac and Fox Agency Robbery
Charles Stowe	Unknown		Oxley Store Robbery
Charles M McClelland	White	Posse Member	Adair Robbery
Charles W Stockton	Unknown		Perry (Wharton) Robbery 1
Charley Copeland	White	Deputy US Marshal	Pocasset Robbery
Charlie La Flore	Native American	Indian Police	Ringold Store Robbery
Charlie Noble	White	Posse Member	Ponca City Robbery
Chris Madsen	White	Deputy US Marshal	Hayden Store Robbery
			Adair Robbery
			Okeene Stage Robbery
			Black Bear Creek Robbery
			Dover Robbery
			Perry (Wharton) Robbery 2
			Pond Creek Robbery
			Red Rock Robbery
			Fairview Store Robbery
Clay McGraft	Unknown	Deputy US Marshal	Nowata Depot Robbery 2
Clint Scales	African-American	Deputy US Marshal	Okeene Stage Robbery
Dal Dunn	White	Posse Member	Arbokochee Store Robbery
Dave Bruner	African-American		Braggs Store Robbery
Ed Barbee	Unknown	Town Marshal	Calvin Store Robbery
Ed Gardner	White	Deputy US Marshal	Perry (Wharton) Robbery 1
Ed Short	White	Deputy US Marshal	

Edmond Harry	Native American	Indian Police	Arbekochee Store Robbery
Elston C Whittlesey	White	Express Messenger	Red Rock Robbery
Eugene Hall	White	Deputy US Marshal	Curtis Robbery
Floyd Wilson	White	Deputy US Marshal	Woodward Depot Robbery
Frank Canton	White	Deputy US Marshal	Nowata Depot Robbery 1
Frank Cochran	Unknown	Deputy US Marshal	Dover Robbery
Frank Jones	Unknown	Deputy US Marshal	Pocasset Robbery
Frank Kress	White	Deputy US Marshal	Blackstone Switch Robbery
Frank M Lake	White	Sheriff	Perry (Wharton) Robbery 1
Fred Dodge	White	Deputy US Marshal	Red Rock Robbery
George Dunn	White	Deputy US Marshal	Dover Robbery
George Lawson	Unknown	Wells Fargo Detective	Adair Robbery
George Thornton	White	Posse Member	Perry (Wharton) Robbery 1
George Orin Severns	Unknown	Deputy US Marshal	Red Rock Robbery
Gideon S White	White	Deputy US Marshal	Okeene Stage Robbery
Gus Thompson	Unknown	Posse Member	Lenapah Store Robbery
Heck Bruner	White	Deputy US Marshal	Nowata Depot Robbery 2
			Perry (Wharton) Robbery 1
			Perry (Wharton) Robbery 1
			Red Rock Robbery
			Perry (Wharton) Robbery 2
			Pocasset Robbery
			Coretta Siding Robbery
			Hayden Store Robbery
			Lenapah Store Robbery

Heck Thomas	White	Deputy US Marshal	Pryor Creek Robbery Adair Robbery Edmond Robbery Lenapah Store Robbery Okeene Stage Robbery Perry (Wharton) Robbery 1 Perry (Wharton) Robbery 2 Pocasset Robbery Ponca City Robbery Red Rock Robbery Sac and Fox Agency Robbery Nowata Depot Robbery 1
Henry C Dickey	Unknown	Railroad Police Deputy US Marshal	Braggs Store Robbery Oxley Store Robbery Nowata Depot Robbery 2 Perry (Wharton) Robbery 2 Dover Robbery
Hiram Stephens	Native American	Indian Deputy Sheriff	Pryor Creek Robbery
Horton L Miles	White	Posse Member	Perry (Wharton) Robbery 2
Ike Rogers	African-American	Deputy US Marshal	Dover Robbery
Isaac S Prather (Prater)	White	Deputy US Marshal	Perry (Wharton) Robbery 2
J C Wilkerson	Unknown	Deputy US Marshal	Dover Robbery
J H Clary	Unknown	Constable	Arapaho Store Robbery
J T Duckworth	Unknown	Express Messenger	Dover Robbery
J W Jones	Unknown	Sheriff	Woodward Depot Robbery
Jack Love	White	Deputy US Marshal	Oxley Store Robbery
Jack Ward	Unknown	Posse Member	

Jake Elliott	Unknown	Posse Member	Pocasset Robbery
Jake Harmon	Unknown	Express Agent	Pond Creek Robbery
James Ledbetter	White	Deputy US Marshal	Arbechochee Store Robbery
			Blackstone Switch Robbery
			Edmond Robbery
			Foyil Store Robbery
			Pocasset Robbery
			Ringold Store Robbery
			Red Fork Robbery
Jesse Allen	Native American	Deputy US Marshal	Lenapah Store Robbery
Jim Carson	Unknown		Calvin Store Robbery
Jim DeFord	Unknown	Deputy Sheriff	Braggs Store Robbery
Joe Casaver	White	Deputy US Marshal	Coretta Siding Robbery
			Fairview Store Robbery
Joe Runnels	White	Deputy US Marshal	Pocasset Robbery
Joe Thompson	Unknown	Deputy US Marshal	Arapaho Store Robbery
Joe Ventioner	White	Deputy US Marshal	Perry (Wharton) Robbery 1
Joe P Jennings	White	Deputy US Marshal	Red Fork Robbery
John Beard	Native American	Deputy US Marshal	Pond Creek Robbery
John Crosswright	Unknown	Express Messenger	Braggs Store Robbery
John Davis	Unknown		Okeene Stage Robbery
John Dunn	White	Posse Member	Okeene Stage Robbery
John Matthews	Native American	Posse Member	Pocasset Robbery
John McClanahan	White	Posse Member	Dover Robbery
John Phelps	White	Posse Member	Red Rock Robbery
John Swain	White	Deputy US Marshal	Red Rock Robbery
John A Riehl	White	Express Messenger	

John Forrest Pat Murphy	White	Deputy US Marshal	Pond Creek Robbery
John J Kinney	White	Railroad Detective	Adair Robbery
John W Hixon	White	Deputy US Marshal	Red Rock Robbery
Johnson Manning	Native American	Indian Deputy Sheriff	Briggs Store Robbery
Kirby Walker	White	Lieutenant US Army	Woodward Depot Robbery
Lon Lewis	White	Deputy US Marshal	Pocasset Robbery
Louis Eichhoff	White	Deputy US Marshal	Ringold Store Robbery
Louis N Williams	White	Posse Member	Pond Creek Robbery
Marion Hildreth	Unknown	Special Deputy Sheriff	Arapaho Store Robbery
		Deputy US Marshal	Fairview Store Robbery
Milton S Hutchison	White	Deputy US Marshal	Oxley Store Robbery
Newton La Flore (La Force)	White	Deputy US Marshal	Dover Robbery
Newton B Irwin	White	Deputy US Marshal	Blackstone Switch Robbery
Paden Tolbert	White	Deputy US Marshal	Arbekochee Store Robbery
			Arbekochee Store Robbery
			Blackstone Switch Robbery
			Foyil Store Robbery
			Pocasset Robbery
			Edmond Robbery
Patrick Nagle	White	US Marshal	Ponca City Robbery
Patrick Sylvester McGeeney	White	Deputy US Marshal	Red Rock Robbery
Ransom Payne	White	Deputy US Marshal	Oxley Store Robbery
Richard C Rhyme	White	Constable	Oxley Store Robbery
Robert Callison	White	Deputy US Marshal	Ringold Store Robbery
Robert S O'Bryan	White	Deputy US Marshal	Okeene Stage Robbery
Rufe Cannon	African-American	Deputy US Marshal	

S T Woods	Unknown	Posse Member	Perry (Wharton) Robbery 2
Sam Bartell	White	Deputy US Marshal	Oxley Store Robbery
			Perry (Wharton) Robbery 1
			Red Rock Robbery
Sam Haynes	Native American	Indian Police	Arbekochee Store Robbery
Sam Minor	Unknown	Deputy US Marshal	Calvin Store Robbery
Sandy Tobler	African-American		Arbekochee Store Robbery
Sid Johnson	Unknown	Deputy US Marshal	Adair Robbery
			Blackstone Switch Robbery
Smith Bushyhead	Native American	Posse Member	Ringold Store Robbery
Stephen R Lewis	White	Posse Member	Ringold Store Robbery
T L Shahan	Unknown	Constable	Arapaho Store Robbery
Talbot White	Native American	Posse Member	Adair Robbery
Thompson Pickett	Native American	Deputy US Marshal	Red Fork Robbery
Tom Grayson	African-American	Indian Police	Arbekochee Store Robbery
Tom Noble	White	Posse Member	Okeene Stage Robbery
Tom Noel/Noah	Unknown		Calvin Store Robbery
Tom Smith	Unknown		Oxley Store Robbery
W H May	Unknown	Express Messenger	Edmond Robbery
W J McKee	Unknown	Railroad Superintendent	Coretta Siding Robbery
Walter E Hocker	White	Deputy US Marshal	Calvin Store Robbery
William Banks	Unknown	Deputy US Marshal	Dover Robbery
William Holcomb	White	Deputy US Marshal	Arapaho Store Robbery
William C Grimes	White	US Marshal	Red Rock Robbery
William C Smith	Unknown		Hayden Store Robbery
William D Fossett	White	Deputy US Marshal	Pond Creek Robbery

William E "Billie" Moore	Unknown	Deputy US Marshal	Dover Robbery
Zeke Crittenden	White	Deputy US Marshal	Nowata Depot Robbery 2

References

- Blei, David M, and John D Lafferty. 2009. "Topic Models." In *Text Mining*, 101–124. Boca Raton, FL: Chapman Hall.
- Wilson, R Michael. 2015. *Train Robbery in North America*. Henderson, NV: CreateSpace.