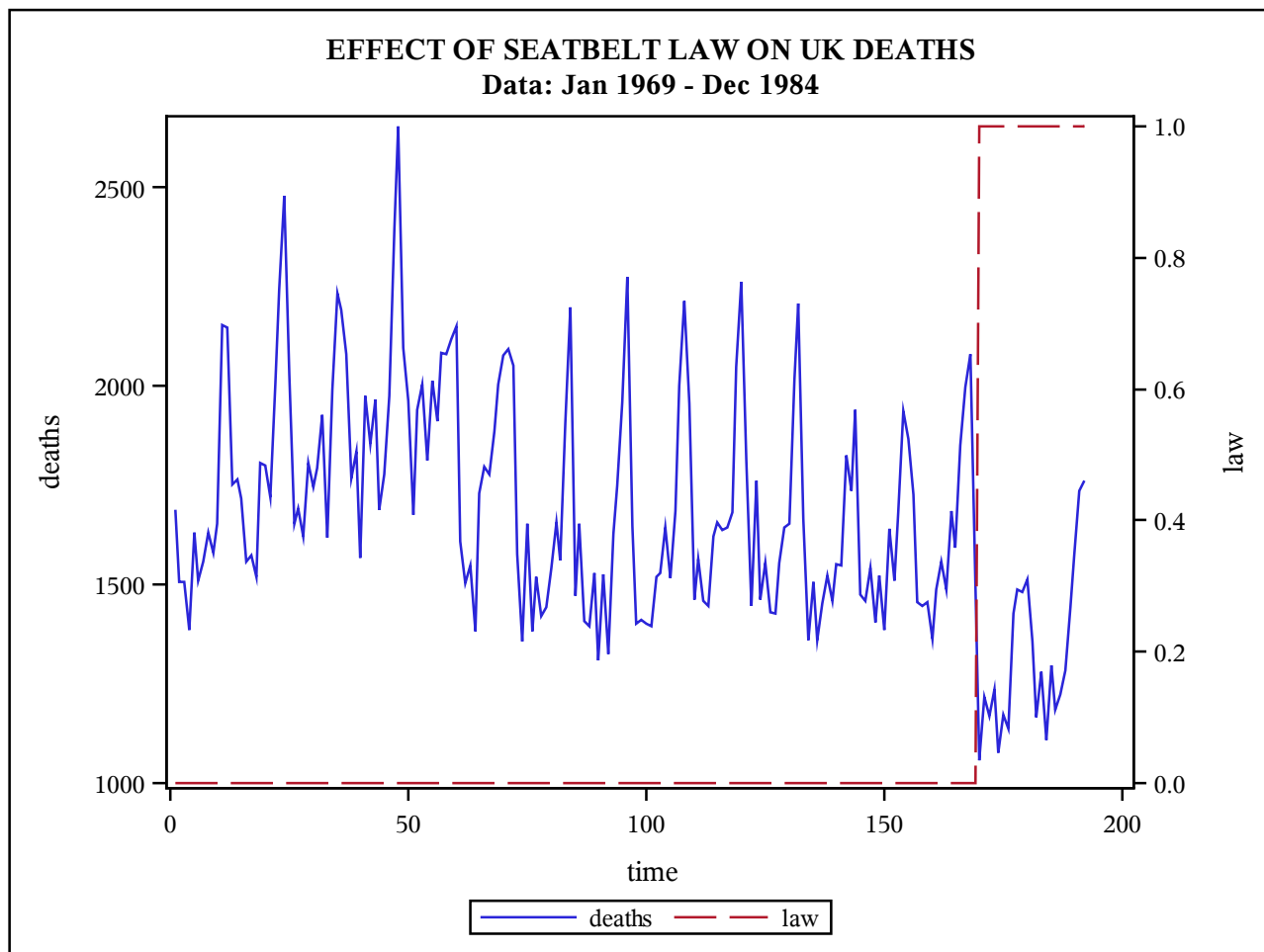


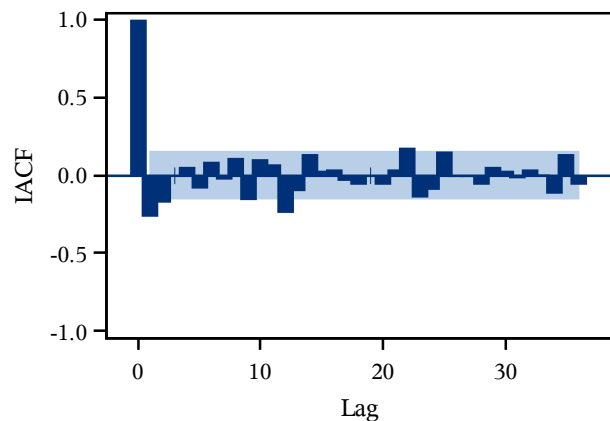
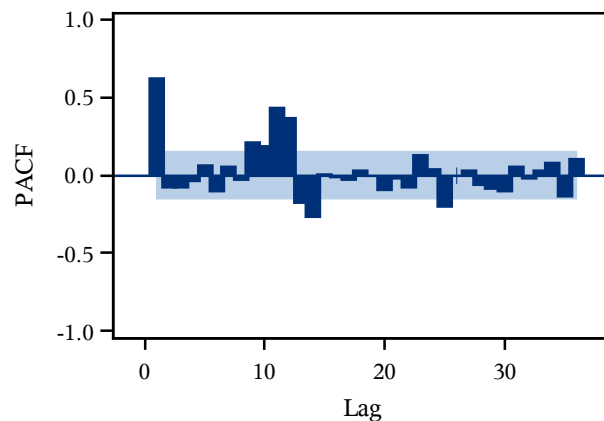
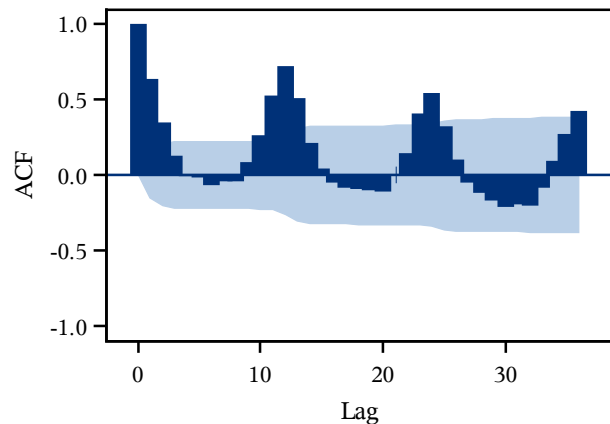
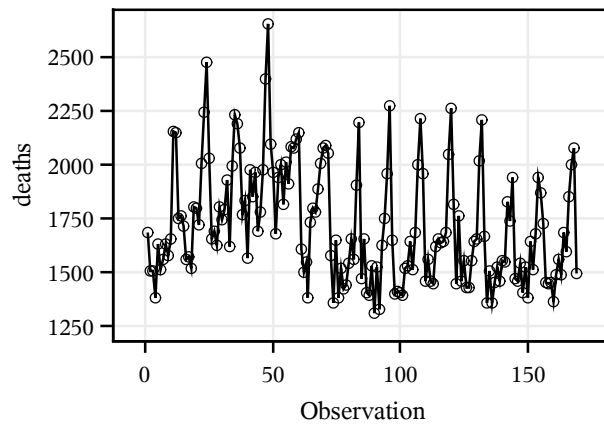


The ARIMA Procedure

Name of Variable = deaths	
Mean of Working Series	1717.751
Standard Deviation	266.1012
Number of Observations	169

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	93.69	6	<.0001	0.633	0.347	0.130	-0.003	-0.014	-0.071
12	254.24	12	<.0001	-0.043	-0.042	0.088	0.265	0.530	0.716
18	314.42	18	<.0001	0.508	0.216	0.042	-0.050	-0.083	-0.092
24	414.51	24	<.0001	-0.104	-0.106	-0.002	0.144	0.411	0.541
30	456.14	30	<.0001	0.327	0.098	-0.053	-0.119	-0.168	-0.208
36	530.37	36	<.0001	-0.193	-0.198	-0.081	0.091	0.270	0.425

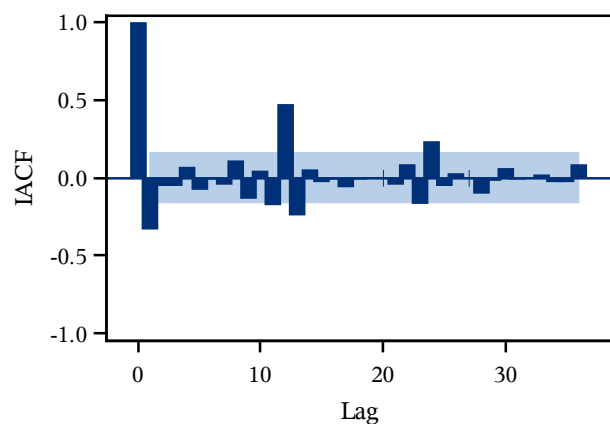
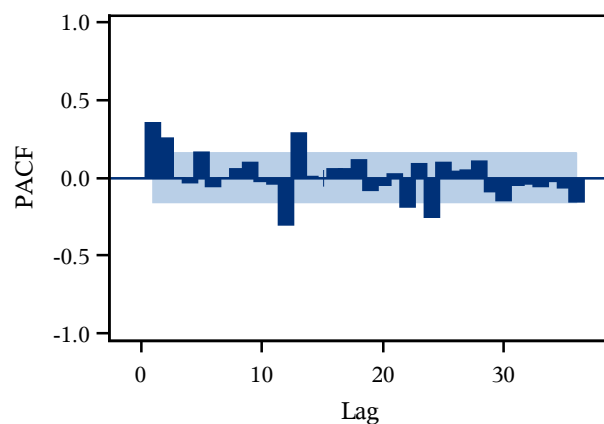
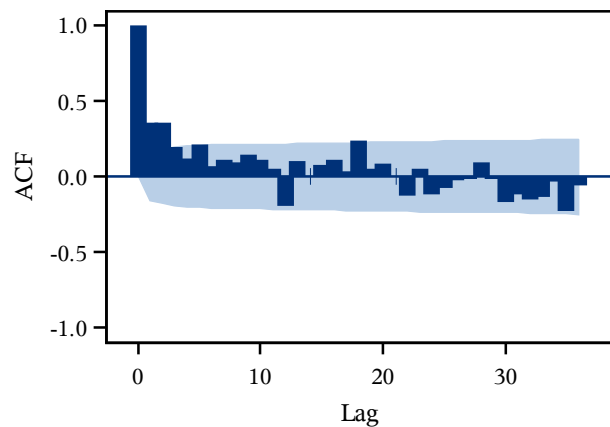
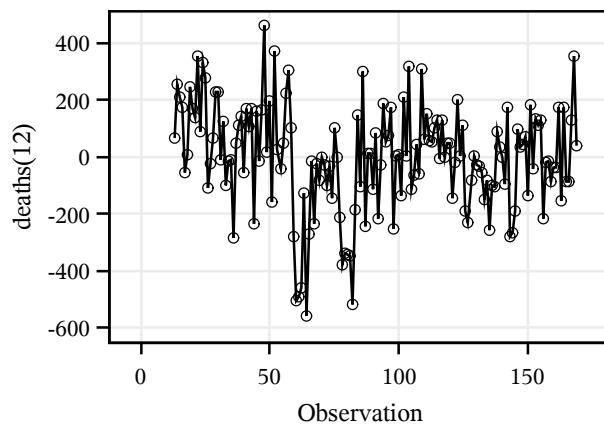
Trend and Correlation Analysis for deaths



The ARIMA Procedure

Name of Variable = deaths	
Period(s) of Differencing	12
Mean of Working Series	-2.88535
Standard Deviation	185.7316
Number of Observations	157
Observation(s) eliminated by differencing	12

Autocorrelation Check for White Noise									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	57.67	6	<.0001	0.357	0.357	0.193	0.118	0.216	0.070
12	73.65	12	<.0001	0.110	0.098	0.147	0.110	0.050	-0.191
18	88.84	18	<.0001	0.099	-0.002	0.079	0.112	0.035	0.235
24	96.86	24	<.0001	0.055	0.083	0.001	-0.127	0.054	-0.120
30	105.44	30	<.0001	-0.076	-0.022	-0.017	0.098	-0.019	-0.166
36	127.78	36	<.0001	-0.119	-0.150	-0.130	-0.033	-0.228	-0.062

Trend and Correlation Analysis for deaths(12)

The ARIMA Procedure

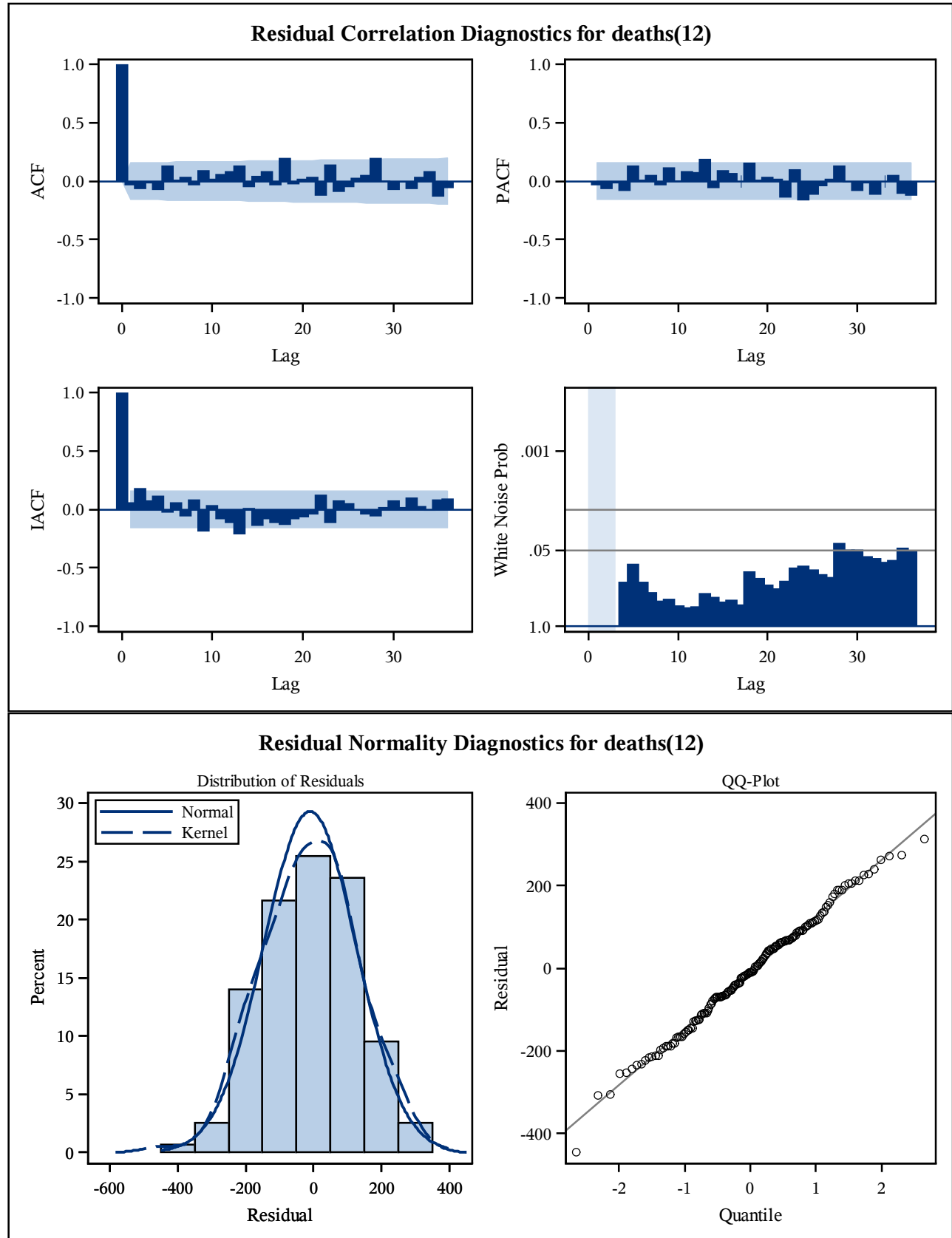
Maximum Likelihood Estimation					
Parameter	Estimate	Standard Error	t Value	Approx Pr > t	Lag
MA1,1	0.84658	0.08160	10.37	<.0001	12
AR1,1	0.43497	0.07403	5.88	<.0001	1
AR1,2	0.30463	0.07415	4.11	<.0001	2

Variance Estimate	18932.97
Std Error Estimate	137.5971
AIC	2010.331
SBC	2019.5
Number of Residuals	157

Correlations of Parameter Estimates			
Parameter	MA1,1	AR1,1	AR1,2
MA1,1	1.000	0.112	0.058
AR1,1	0.112	1.000	-0.612
AR1,2	0.058	-0.612	1.000

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	4.90	3	0.1794	-0.026	-0.058	-0.010	-0.070	0.143	0.022
12	9.48	9	0.3939	0.044	-0.031	0.098	0.027	0.071	0.093
18	23.29	15	0.0782	0.146	-0.045	0.048	0.092	-0.026	0.207
24	31.46	21	0.0663	-0.017	0.027	0.044	-0.113	0.148	-0.080
30	42.08	27	0.0323	-0.045	0.040	0.060	0.207	0.010	-0.070
36	48.64	33	0.0389	-0.002	-0.057	0.048	0.095	-0.124	-0.046

The ARIMA Procedure



The ARIMA Procedure

Model for variable deaths	
Period(s) of Differencing	12

No mean term in this model.

Autoregressive Factors	
Factor 1:	1 - 0.43497 B**(1) - 0.30463 B**(2)

Moving Average Factors	
Factor 1:	1 - 0.84658 B**(12)

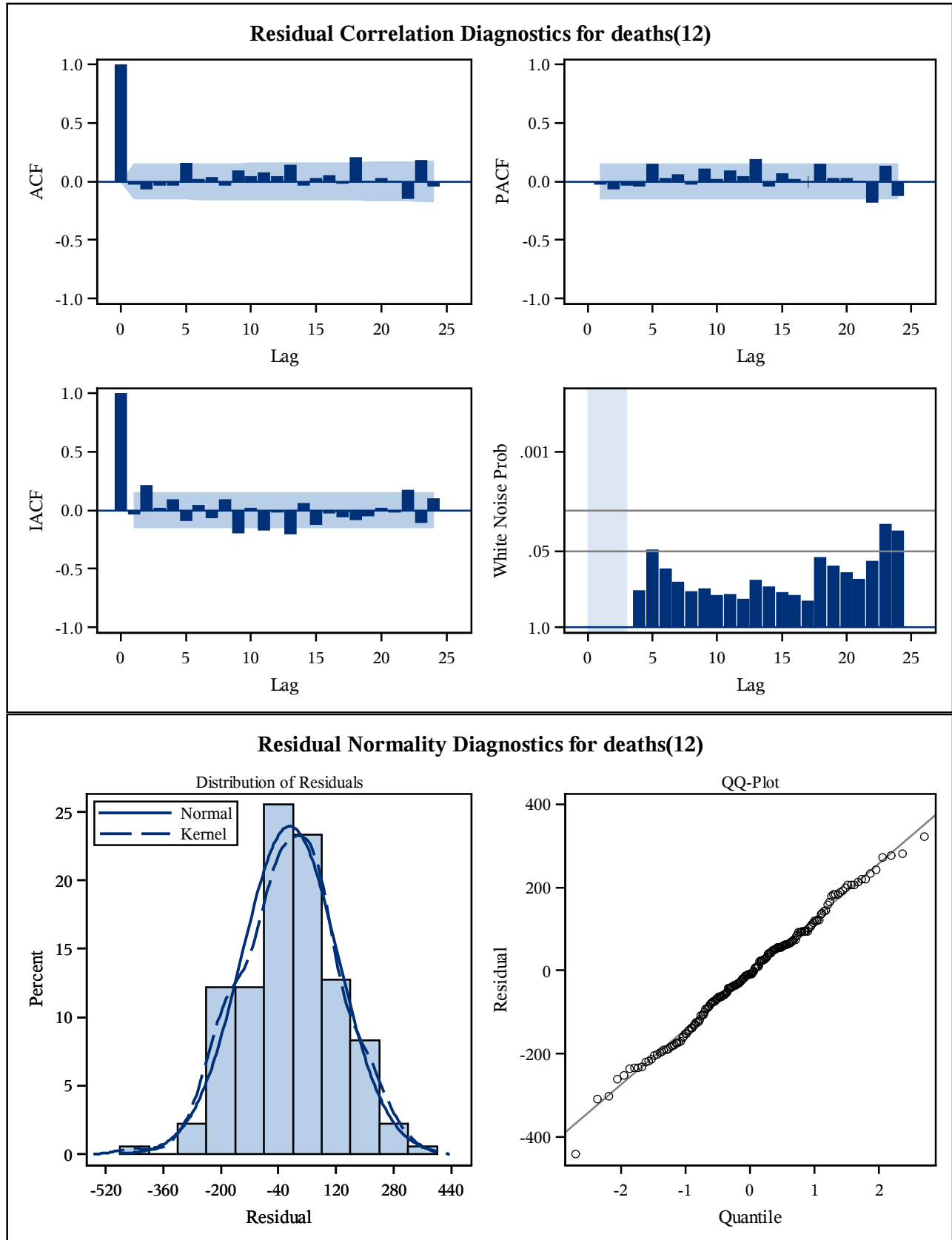
The ARIMA Procedure

Maximum Likelihood Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > t	Lag	Variable	Shift
MA1,1	0.80904	0.06479	12.49	<.0001	12	deaths	0
AR1,1	0.43367	0.07069	6.13	<.0001	1	deaths	0
AR1,2	0.27770	0.07052	3.94	<.0001	2	deaths	0
NUM1	-318.37859	80.46911	-3.96	<.0001	0	law	0

Variance Estimate	18124.39
Std Error Estimate	134.6269
AIC	2292.931
SBC	2305.703
Number of Residuals	180

Correlations of Parameter Estimates					
Variable Parameter		deaths MA1,1	deaths AR1,1	deaths AR1,2	law NUM1
deaths	MA1,1	1.000	0.125	-0.001	-0.155
deaths	AR1,1	0.125	1.000	-0.593	0.044
deaths	AR1,2	-0.001	-0.593	1.000	0.005
law	NUM1	-0.155	0.044	0.005	1.000

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	6.30	3	0.0979	-0.021	-0.062	-0.030	-0.032	0.163	0.030
12	11.01	9	0.2747	0.041	-0.032	0.095	0.047	0.088	0.053
18	25.73	15	0.0409	0.150	-0.028	0.039	0.060	-0.015	0.212
24	37.67	21	0.0141	0.014	0.035	0.009	-0.137	0.189	-0.034
30	46.20	27	0.0121	-0.064	0.016	0.051	0.175	-0.005	-0.046
36	49.78	33	0.0306	0.034	-0.060	0.002	0.059	-0.086	-0.018

The ARIMA Procedure

The ARIMA Procedure

Model for variable deaths	
Period(s) of Differencing	12

No mean term in this model.

Autoregressive Factors	
Factor 1:	$1 - 0.43367 B^{**}(1) - 0.2777 B^{**}(2)$

Moving Average Factors	
Factor 1:	$1 - 0.80904 B^{**}(12)$

Input Number 1	
Input Variable	law
Period(s) of Differencing	12
Overall Regression Factor	-318.379

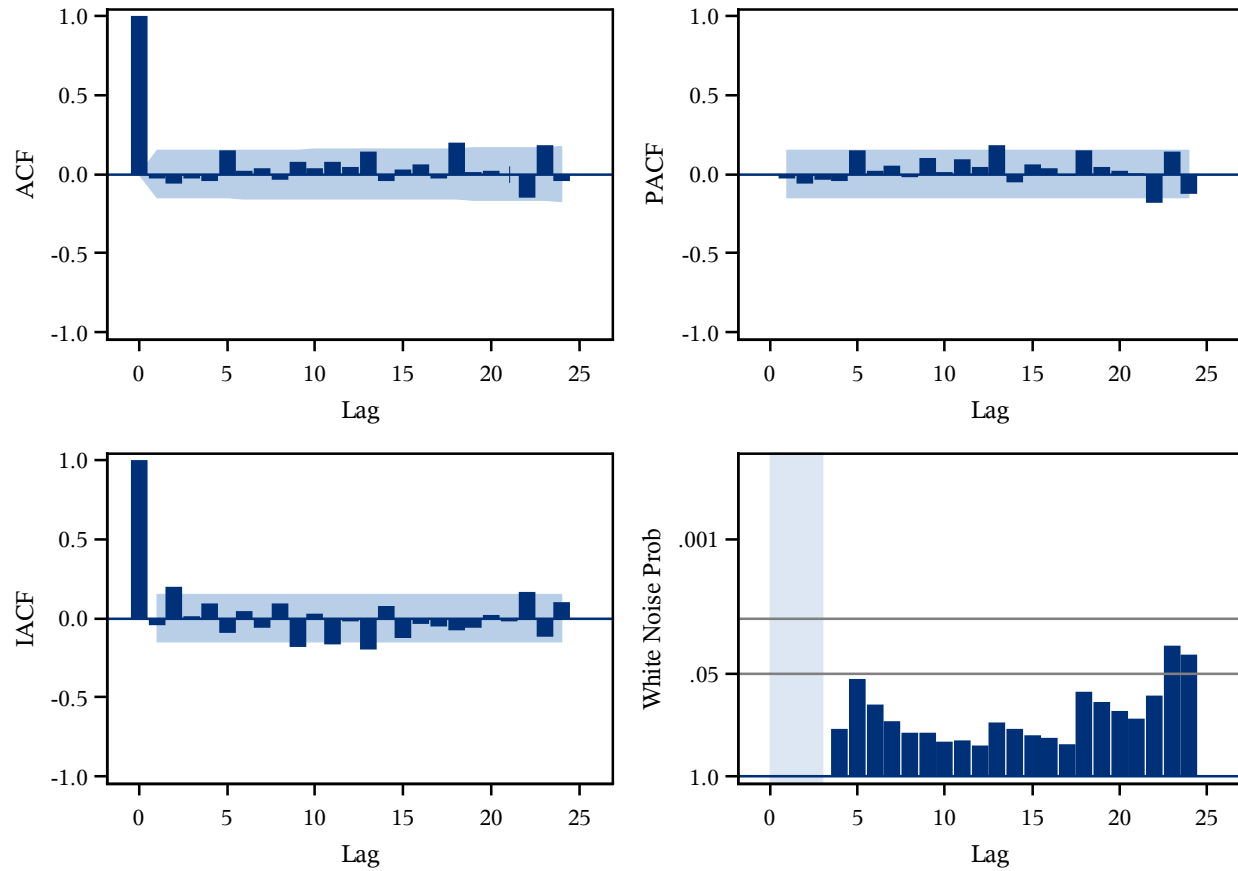
Maximum Likelihood Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > t	Lag	Variable	Shift
MA1,1	0.80072	0.06544	12.24	<.0001	12	deaths	0
AR1,1	0.42634	0.07159	5.95	<.0001	1	deaths	0
AR1,2	0.28528	0.07122	4.01	<.0001	2	deaths	0
NUM1	-390.09707	121.91880	-3.20	0.0014	0	law	0
NUM1,1	-97.94538	123.61060	-0.79	0.4281	1	law	0

Variance Estimate	18311.63
Std Error Estimate	135.3205
AIC	2282.649
SBC	2298.586
Number of Residuals	179

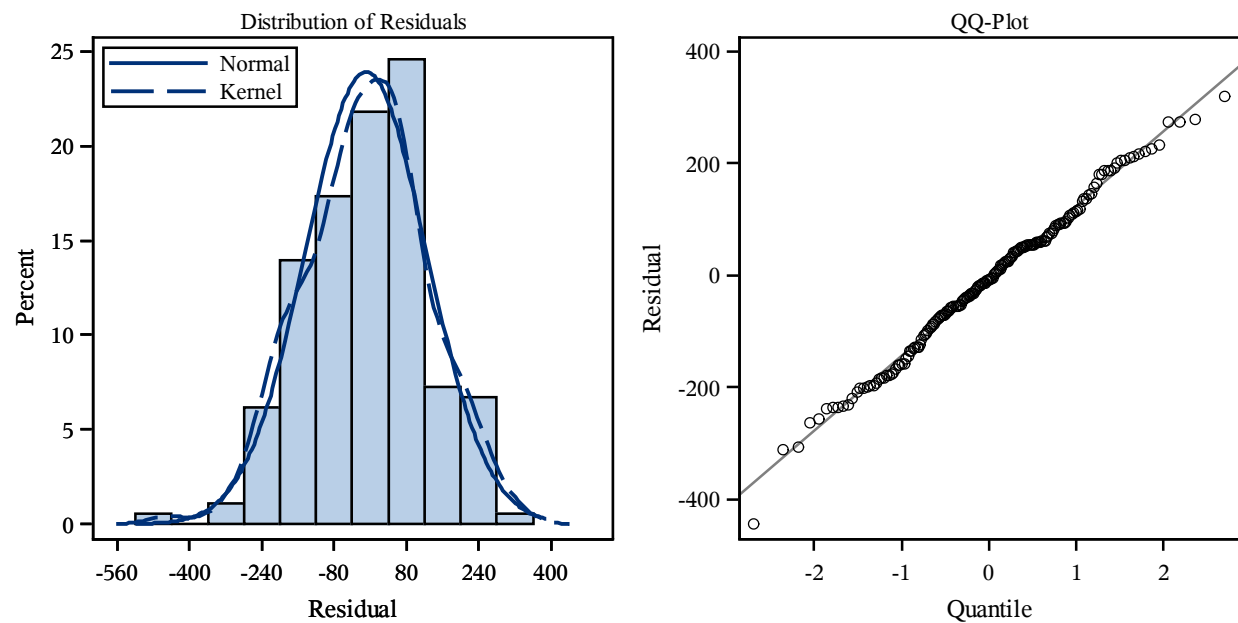
Correlations of Parameter Estimates						
Variable Parameter	deaths MA1,1	deaths AR1,1	deaths AR1,2	law NUM1	law NUM1,1	
deaths MA1,1	1.000	0.143	-0.018	-0.034	0.085	
deaths AR1,1	0.143	1.000	-0.595	0.100	0.089	
deaths AR1,2	-0.018	-0.595	1.000	-0.072	-0.113	
law NUM1	-0.034	0.100	-0.072	1.000	0.747	
law NUM1,1	0.085	0.089	-0.113	0.747	1.000	

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	5.80	3	0.1218	-0.022	-0.056	-0.024	-0.035	0.159	0.025
12	10.08	9	0.3437	0.041	-0.028	0.085	0.041	0.088	0.057
18	24.83	15	0.0523	0.150	-0.037	0.039	0.072	-0.017	0.208
24	36.91	21	0.0172	0.022	0.029	0.007	-0.136	0.193	-0.035
30	46.16	27	0.0122	-0.068	0.013	0.049	0.184	-0.003	-0.045

Residual Correlation Diagnostics for deaths(12)



Residual Normality Diagnostics for deaths(12)



Model for variable deaths	
Period(s) of Differencing	12

No mean term in this model.

Autoregressive Factors	
Factor 1:	$1 - 0.42634 B^{**}(1) - 0.28528 B^{**}(2)$

Moving Average Factors	
Factor 1:	$1 - 0.80072 B^{**}(12)$

Input Number 1	
Input Variable	law
Period(s) of Differencing	12

Numerator Factors	
Factor 1:	$-390.1 + 97.9454 B^{**}(1)$

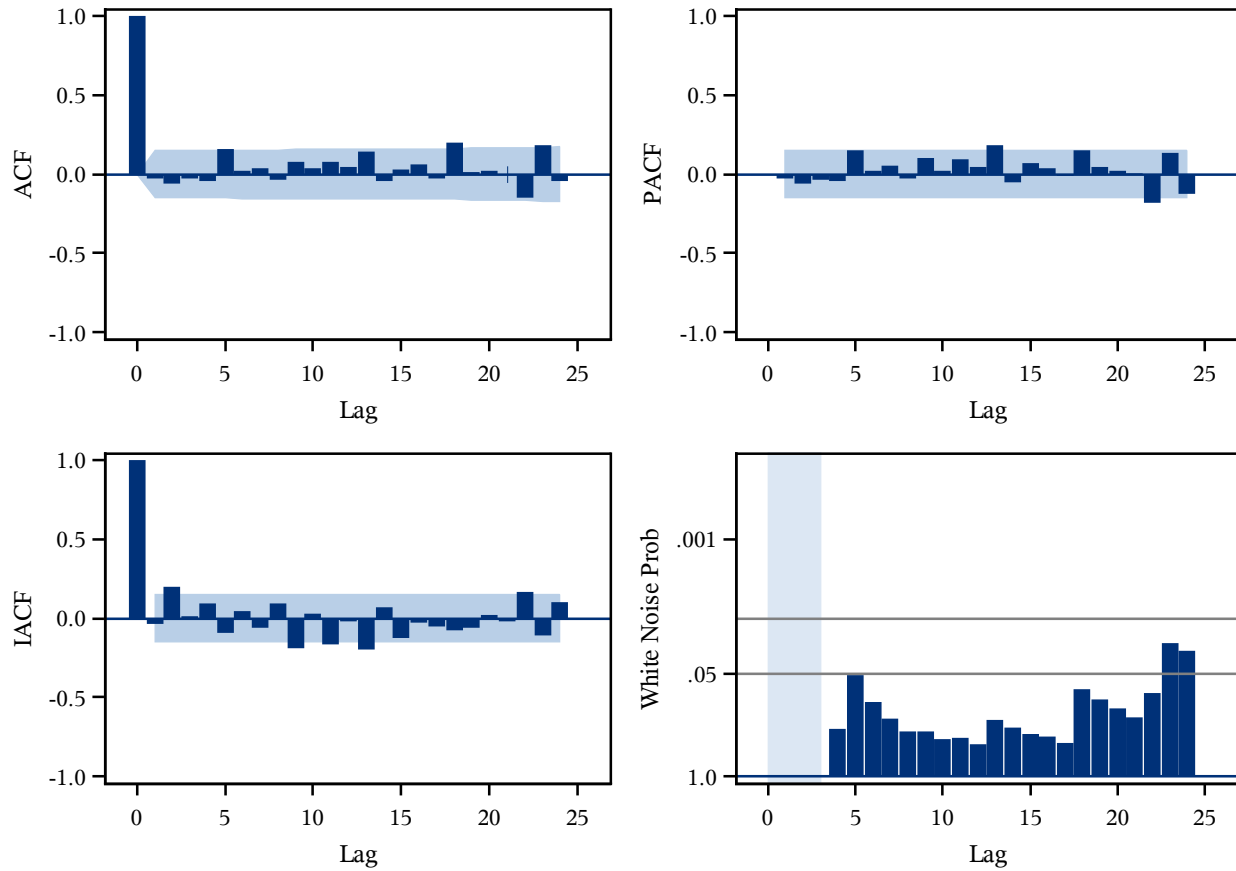
Maximum Likelihood Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > t	Lag	Variable	Shift
MA1,1	0.80358	0.06523	12.32	<.0001	12	deaths	0
AR1,1	0.42785	0.07152	5.98	<.0001	1	deaths	0
AR1,2	0.28335	0.07120	3.98	<.0001	2	deaths	0
NUM1	-372.11229	114.27777	-3.26	0.0011	0	law	0
DEN1,1	-0.22637	0.34419	-0.66	0.5107	1	law	0

Variance Estimate	18307.85
Std Error Estimate	135.3065
AIC	2282.765
SBC	2298.702
Number of Residuals	179

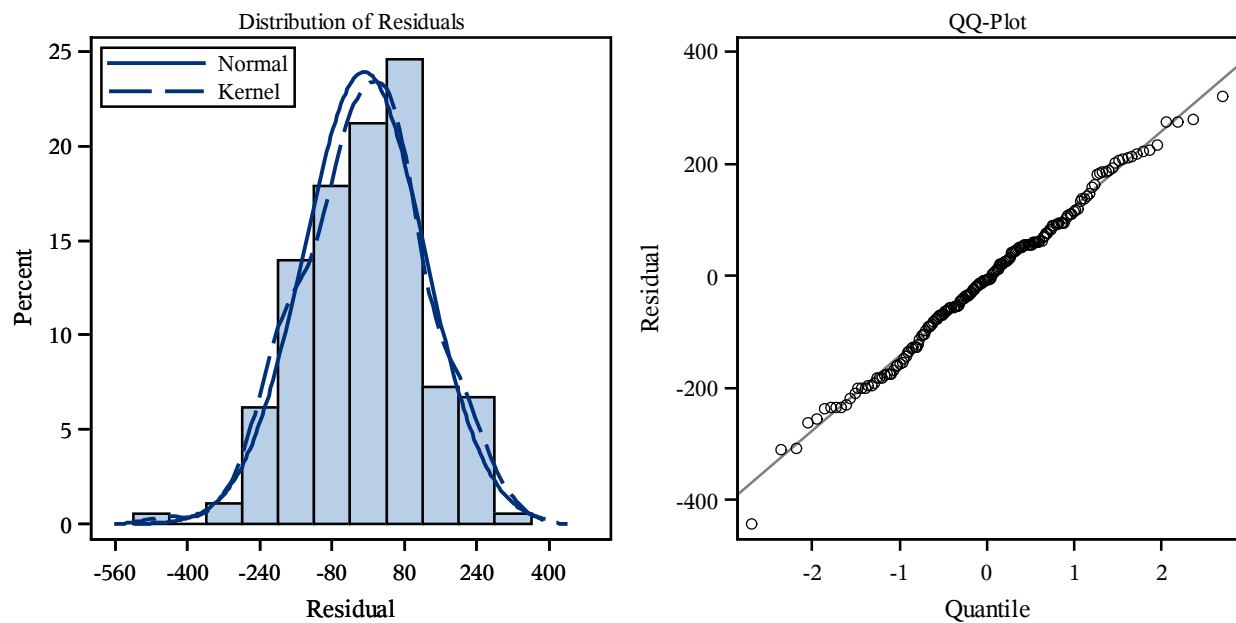
Correlations of Parameter Estimates						
Variable Parameter	deaths MA1,1	deaths AR1,1	deaths AR1,2	law NUM1	law DEN1,1	
deaths MA1,1	1.000	0.135	-0.010	-0.084	0.053	
deaths AR1,1	0.135	1.000	-0.595	0.091	0.074	
deaths AR1,2	-0.010	-0.595	1.000	-0.066	-0.110	
law NUM1	-0.084	0.091	-0.066	1.000	0.578	
law DEN1,1	0.053	0.074	-0.110	0.578	1.000	

Autocorrelation Check of Residuals									
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations					
6	5.96	3	0.1134	-0.022	-0.056	-0.026	-0.034	0.161	0.025
12	10.33	9	0.3244	0.040	-0.029	0.088	0.043	0.088	0.056
18	25.13	15	0.0483	0.150	-0.034	0.040	0.068	-0.018	0.210
24	37.19	21	0.0160	0.021	0.028	0.008	-0.137	0.192	-0.035
30	46.24	27	0.0120	-0.066	0.014	0.050	0.182	-0.005	-0.044

Residual Correlation Diagnostics for deaths(12)



Residual Normality Diagnostics for deaths(12)



Model for variable deaths

Period(s) of Differencing	12
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No mean term in this model.

Autoregressive Factors	
Factor 1:	$1 - 0.42785 B^{**}(1) - 0.28335 B^{**}(2)$

Moving Average Factors	
Factor 1:	$1 - 0.80358 B^{**}(12)$

Input Number 1	
Input Variable	law
Period(s) of Differencing	12
Overall Regression Factor	-372.112

Denominator Factors	
Factor 1:	$1 + 0.22637 B^{**}(1)$

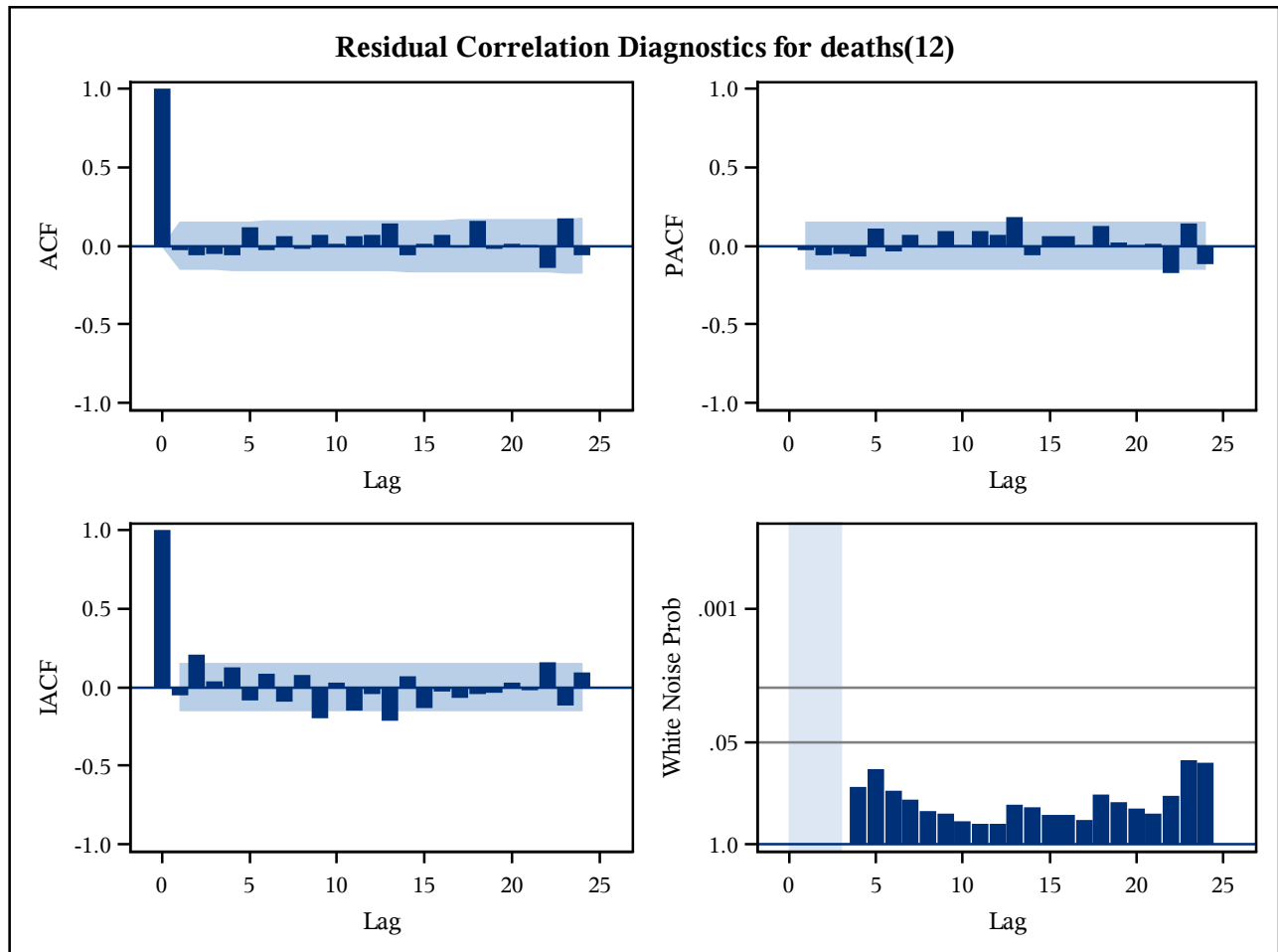
Maximum Likelihood Estimation							
Parameter	Estimate	Standard Error	t Value	Approx Pr > t	Lag	Variable	Shift
MA1,1	0.78673	0.06876	11.44	<.0001	12	deaths	0
AR1,1	0.42351	0.07430	5.70	<.0001	1	deaths	0
AR1,2	0.27900	0.07328	3.81	0.0001	2	deaths	0
NUM1	-371.65124	131.89458	-2.82	0.0048	0	law	0
NUM1,1	-91.81555	151.99961	-0.60	0.5458	1	law	0
NUM1,2	-59.77863	151.48543	-0.39	0.6931	2	law	0
NUM1,3	65.71902	152.59079	0.43	0.6667	3	law	0
NUM1,4	136.57666	152.30158	0.90	0.3699	4	law	0
NUM1,5	-35.23383	151.94316	-0.23	0.8166	5	law	0
NUM1,6	76.44725	151.58238	0.50	0.6140	6	law	0
NUM1,7	-176.11911	133.27369	-1.32	0.1863	7	law	0

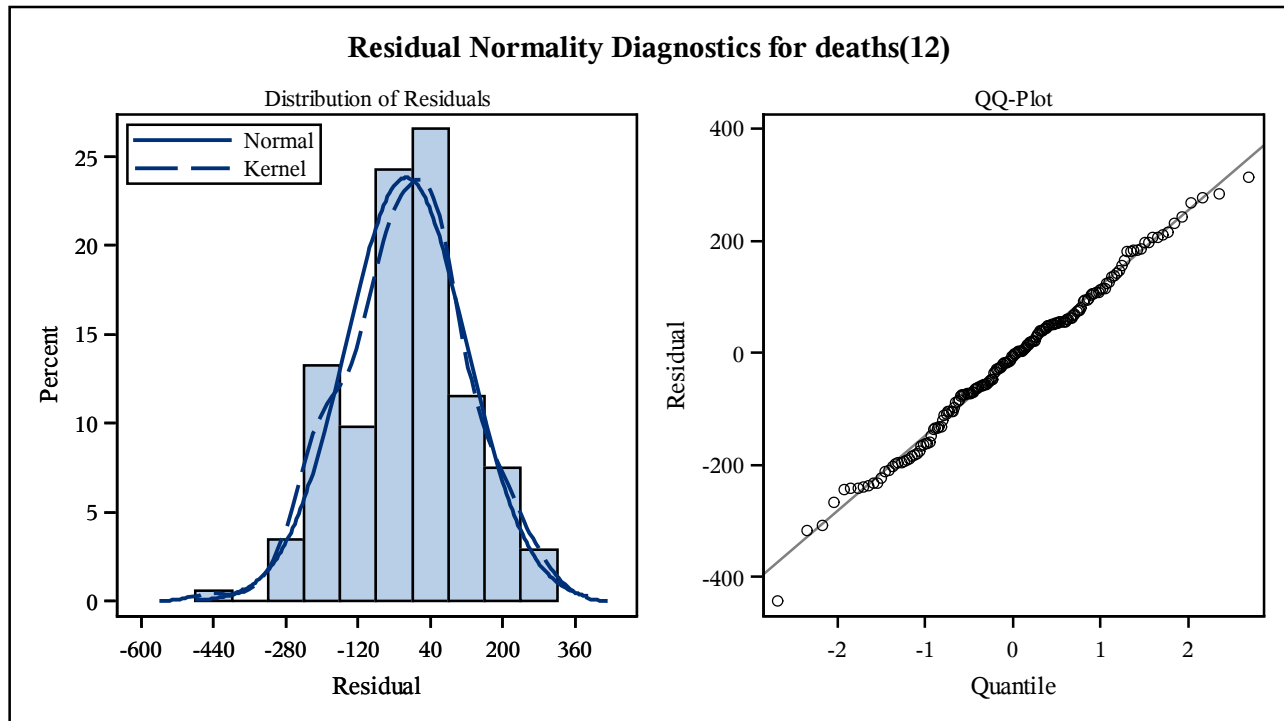
Variance Estimate	19246.44
Std Error Estimate	138.7315
AIC	2220.32
SBC	2255.006
Number of Residuals	173

Correlations of Parameter Estimates											
Variable Parameter	deaths MA1,1	deaths AR1,1	deaths AR1,2	law NUM1	law NUM1,1	law NUM1,2	law NUM1,3	law NUM1,4	law NUM1,5	law NUM1,6	law NUM1,7
deaths MA1,1	1.000	0.152	0.001	0.021	-0.001	0.053	0.064	-0.019	0.076	-0.033	0.030
deaths AR1,1	0.152	1.000	-0.583	0.106	0.071	-0.023	0.032	-0.006	0.020	-0.002	0.012
deaths AR1,2	0.001	-0.583	1.000	-0.079	-0.101	0.031	-0.028	0.006	-0.005	0.003	0.002
law NUM1	0.021	0.106	-0.079	1.000	0.504	-0.031	0.131	0.047	0.063	0.037	0.058
law NUM1,1	-0.001	0.071	-0.101	0.504	1.000	-0.450	0.089	-0.089	-0.016	-0.031	-0.035
law NUM1,2	0.053	-0.023	0.031	-0.031	-0.450	1.000	-0.448	0.083	-0.091	-0.018	-0.054
law NUM1,3	0.064	0.032	-0.028	0.131	0.089	-0.448	1.000	-0.445	0.090	-0.089	-0.039

Correlations of Parameter Estimates											
Variable Parameter	deaths MA1,1	deaths AR1,1	deaths AR1,2	law NUM1	law NUM1,1	law NUM1,2	law NUM1,3	law NUM1,4	law NUM1,5	law NUM1,6	law NUM1,7
law NUM1,4	-0.019	-0.006	0.006	0.047	-0.089	0.083	-0.445	1.000	-0.449	0.089	-0.119
law NUM1,5	0.076	0.020	-0.005	0.063	-0.016	-0.091	0.090	-0.449	1.000	-0.445	0.043
law NUM1,6	-0.033	-0.002	0.003	0.037	-0.031	-0.018	-0.089	0.089	-0.445	1.000	-0.480
law NUM1,7	0.030	0.012	0.002	0.058	-0.035	-0.054	-0.039	-0.119	0.043	-0.480	1.000

Autocorrelation Check of Residuals										
To Lag	Chi-Square	DF	Pr > ChiSq	Autocorrelations						
6	4.27	3	0.2339	-0.017	-0.045	-0.036	-0.046	0.133	-0.017	
12	9.01	9	0.4362	0.071	-0.007	0.082	0.025	0.076	0.086	
18	21.38	15	0.1251	0.155	-0.046	0.024	0.085	-0.002	0.174	
24	32.71	21	0.0495	-0.008	0.028	0.022	-0.128	0.191	-0.045	
30	43.31	27	0.0243	-0.040	-0.015	0.036	0.213	-0.014	-0.048	





Model for variable deaths	
Period(s) of Differencing	12

No mean term in this model.

Autoregressive Factors	
Factor 1:	$1 - 0.42351 B^{**}(1) - 0.279 B^{**}(2)$

Moving Average Factors	
Factor 1:	$1 - 0.78673 B^{**}(12)$

Input Number 1	
Input Variable	law
Period(s) of Differencing	12

Numerator Factors	
$-371.65 + 91.8155 B^{**}(1) + 59.7786 B^{**}(2) - 65.719 B^{**}(3) - 136.577 B^{**}(4) + 35.2338 B^{**}(5) - 76.4472 B^{**}(6) + 176.119 B^{**}(7)$	

