

Input Data Set	
Name	WORK.PREPROCESSEDDATA
Time ID Variable	Date_of_death

Imputed: Gender=Female

Estimation Span Summary									
Variable	Type	First Obs	Last Obs	NObs	NMiss	Min	Max	Mean	Standard Deviation
count	Dependent	JAN2000	SEP2019	237	0	1.00000	12.00000	4.55274	2.75603

Forecast Span Summary									
Variable	Type	First Obs	Last Obs	NObs	NMiss	Min	Max	Mean	Standard Deviation
count	Dependent	JAN2000	SEP2019	237	0	1.00000	12.00000	4.55274	2.75603

Preliminary Estimates of the Free Parameters		
Component	Parameter	Estimate
Irregular	Error Variance	6.05094
Level	Error Variance	2.26910
Season	Error Variance	6.80790

Likelihood Based Fit Statistics	
Statistic	Value
Full Log Likelihood	-554
Diffuse Part of Log Likelihood	-2.485
Non-Missing Observations Used	237
Estimated Parameters	3
Initialized Diffuse State Elements	12
Normalized Residual Sum of Squares	225
AIC (smaller is better)	1114
BIC (smaller is better)	1124.3
AICC (smaller is better)	1114.2
HQIC (smaller is better)	1118.2
CAIC (smaller is better)	1127.3

Likelihood Optimization Algorithm Converged in 13 Iterations.

Final Estimates of the Free Parameters					
Component	Parameter	Estimate	Approx Std Error	t Value	Approx Pr > t
Irregular	Error Variance	6.42721	0.62425	10.30	<.0001
Level	Error Variance	0.02079	0.01724	1.21	0.2279
Season	Error Variance	0.00000179	0.0006364	0.00	0.9978

Fit Statistics Based on Residuals	
Mean Squared Error	8.06520
Root Mean Squared Error	2.83993
Number of non-missing residuals used for computing the fit statistics = 225	

Fit Statistics Based on Residuals	
Mean Absolute Percentage Error	69.12461
Maximum Percent Error	85.19251
R-Square	-0.07412
Adjusted R-Square	-0.08380
Random Walk R-Square	0.43058
Amemiya's Adjusted R-Square	-0.10315
Number of non-missing residuals used for computing the fit statistics = 225	

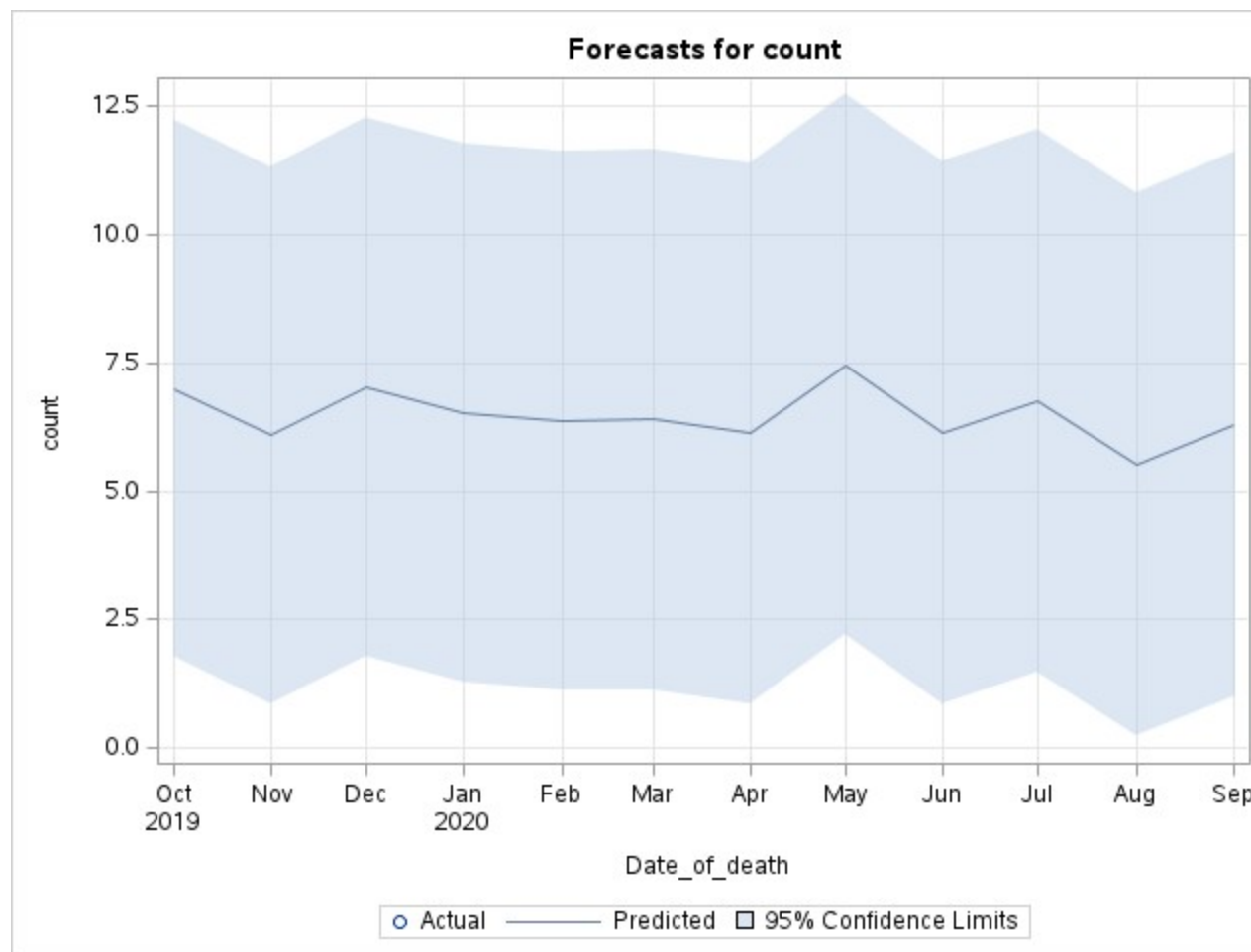
Significance Analysis of Components (Based on the Final State)			
Component	DF	Chi-Square	Pr > ChiSq
Irregular	1	0.16	0.6935
Level	1	117.82	<.0001
Season	11	9.04	0.6185

Trend Information (Based on the Final State)		
Name	Estimate	Standard Error
Level	6.479428774	0.5969254

Summary of Seasons			
Name	Type	Season Length	Error Variance
Season	DUMMY	12	0.00000179

Outlier Summary							
Obs	Date_of_death	Break Type	Estimate	Standard Error	Chi-Square	DF	Pr > ChiSq
23	NOV2001	Additive Outlier	9.47863	2.6419739	12.87	1	0.0003
27	MAR2002	Additive Outlier	9.08664	2.6362532	11.88	1	0.0006
82	OCT2006	Additive Outlier	8.20799	2.6379572	9.68	1	0.0019

Forecasts for Variable count					
Obs	Date_of_death	Forecast	Standard Error	95% Confidence Limits	
238	OCT2019	6.999419	2.67030	1.765720	12.233117
239	NOV2019	6.089466	2.67376	0.848994	11.329938
240	DEC2019	7.021741	2.67718	1.774563	12.268920
241	JAN2020	6.528969	2.67785	1.280484	11.777455
242	FEB2020	6.364569	2.68120	1.109507	11.619631
243	MAR2020	6.400197	2.68453	1.138621	11.661773
244	APR2020	6.135782	2.68782	0.867752	11.403811
245	MAY2020	7.471406	2.69108	2.196983	12.745828
246	JUN2020	6.156980	2.69431	0.876226	11.437733
247	JUL2020	6.742638	2.69751	1.455613	12.029664
248	AUG2020	5.528197	2.70068	0.234961	10.821434
249	SEP2020	6.313782	2.70382	1.014395	11.613169



Imputed: Gender=Male

Estimation Span Summary									
Variable	Type	First Obs	Last Obs	NObs	NMiss	Min	Max	Mean	Standard Deviation
count	Dependent	JAN2000	OCT2019	238	0	17.00000	132.00000	75.51261	21.78350

Forecast Span Summary									
Variable	Type	First Obs	Last Obs	NObs	NMiss	Min	Max	Mean	Standard Deviation
count	Dependent	JAN2000	OCT2019	238	0	17.00000	132.00000	75.51261	21.78350

Preliminary Estimates of the Free Parameters		
Component	Parameter	Estimate
Irregular	Error Variance	378.02172
Level	Error Variance	141.75815
Season	Error Variance	99.51727

Likelihood Based Fit Statistics	
Statistic	Value
Full Log Likelihood	-888.9
Diffuse Part of Log Likelihood	-2.485
Non-Missing Observations Used	238
Estimated Parameters	3

Likelihood Based Fit Statistics	
Statistic	Value
Initialized Diffuse State Elements	12
Normalized Residual Sum of Squares	226
AIC (smaller is better)	1783.7
BIC (smaller is better)	1794
AICC (smaller is better)	1783.8
HQIC (smaller is better)	1787.9
CAIC (smaller is better)	1797

Likelihood Optimization Algorithm Converged in 5 Iterations.

Final Estimates of the Free Parameters					
Component	Parameter	Estimate	Approx Std Error	t Value	Approx Pr > t
Irregular	Error Variance	94.57026	12.52180	7.55	<.0001
Level	Error Variance	2.95699	1.26040	2.35	0.0190
Season	Error Variance	3.17804	2.28343	1.39	0.1640

Fit Statistics Based on Residuals	
Mean Squared Error	146.53193
Root Mean Squared Error	12.10504
Mean Absolute Percentage Error	13.36061
Maximum Percent Error	36.19397
R-Square	0.66636
Adjusted R-Square	0.66337
Random Walk R-Square	0.38766
Amemiya's Adjusted R-Square	0.65738
Number of non-missing residuals used for computing the fit statistics = 226	

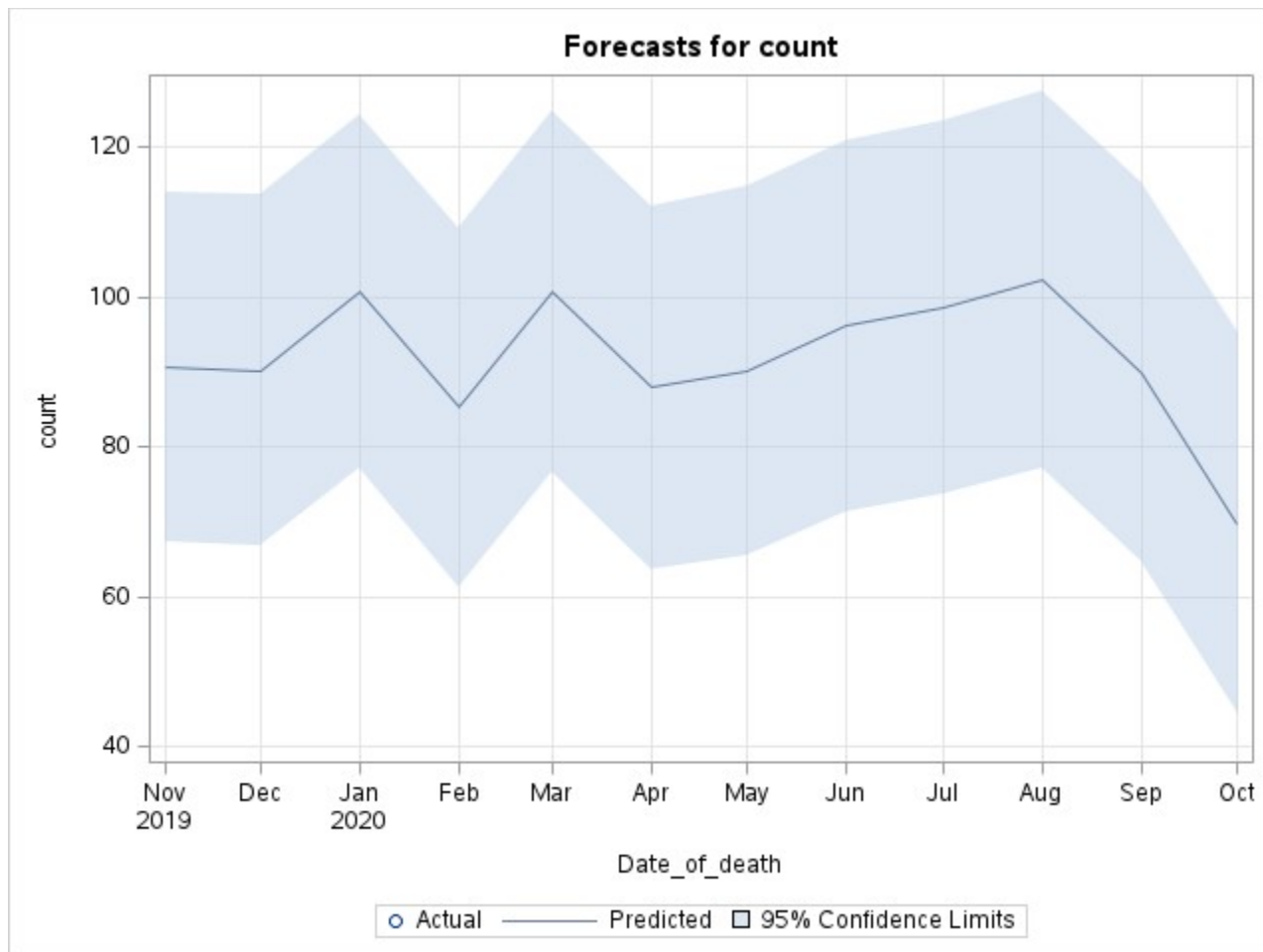
Significance Analysis of Components (Based on the Final State)			
Component	DF	Chi-Square	Pr > ChiSq
Irregular	1	88.06	<.0001
Level	1	536.18	<.0001
Season	11	49.24	<.0001

Trend Information (Based on the Final State)		
Name	Estimate	Standard Error
Level	91.91978013	3.9696595

Summary of Seasons			
Name	Type	Season Length	Error Variance
Season	DUMMY	12	3.17804

Outlier Summary							
Obs	Date_of_death	Break Type	Estimate	Standard Error	Chi-Square	DF	Pr > ChiSq
238	OCT2019	Additive Outlier	-79.19677	11.916503	44.17	1	<.0001
151	JUL2012	Additive Outlier	36.36429	10.903637	11.12	1	0.0009
166	OCT2013	Additive Outlier	33.09247	10.913577	9.19	1	0.0024

Forecasts for Variable count					
Obs	Date_of_death	Forecast	Standard Error	95% Confidence Limits	
239	NOV2019	90.720188	11.91644	67.364402	114.075974
240	DEC2019	90.279693	11.95772	66.842986	113.716401
241	JAN2020	100.776033	12.06616	77.126803	124.425264
242	FEB2020	85.271607	12.18126	61.396784	109.146430
243	MAR2020	100.861976	12.29693	76.760443	124.963510
244	APR2020	87.916138	12.41141	63.590219	112.242057
245	MAY2020	90.170202	12.52404	65.623532	114.716871
246	JUN2020	96.227195	12.63431	71.464410	120.989979
247	JUL2020	98.646689	12.74127	73.674265	123.619112
248	AUG2020	102.403332	12.84244	77.232612	127.574053
249	SEP2020	90.021358	12.92938	64.680231	115.362486
250	OCT2020	69.742949	12.96145	44.338970	95.146929



Imputed: Gender=Transgender

Estimation Span Summary									
Variable	Type	First Obs	Last Obs	NObs	NMiss	Min	Max	Mean	Standard Deviation
count	Dependent	DEC2002	FEB2019	195	0	1.00000	1.00000	1.00000	0

Forecast Span Summary									
Variable	Type	First Obs	Last Obs	NObs	NMiss	Min	Max	Mean	Standard Deviation
count	Dependent	DEC2002	FEB2019	195	0	1.00000	1.00000	1.00000	0