

Killings and Refugee Flow in Kosovo March - June 1999

A Report to the International Criminal
Tribunal for the Former Yugoslavia

C O R R I G E N D U M

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1. Introduction

On 3 January 2002 we presented a technical experts' report to the ICTY entitled "Patterns in Killings and Migration in Kosovo March–June 1999." The material was introduced as Exhibit 67 in *Prosecutor v. Slobodan Milošević* (IT-02-54) and in testimony by Dr. Patrick Ball on 13–14 March 2002.

Since Dr. Ball's testimony in March, we have reviewed our data and methods in preparation for disclosing them publicly. Several minor corrections to the material have come to our attention in the course of the review. This corrigendum describes the minor corrections made to the data and the impact on the statistical findings. Before going into detail, we should note that none of the corrections we introduced has any impact on the substance of our conclusions.

In addition to the re-analyses provided here, we are disclosing the data we used to conduct these analyses. There are two parts to the data. First, on 4 November 2002, we will deliver to the Office of the Prosecutor (OTP) a complete set of the border records that we copied in Morina, Albania, and that constituted the main component of our analysis of migration patterns. Second, at the same time, we will deliver to OTP a number of electronic datasets (with accompanying documentation) which contain the data used to produce our statistical results. In order to protect the confidentiality of the thousands of victims and witnesses who gave information to the various projects that collected the data used in this study, the statistical disclosure does not include any personal identifying information about the victims or the interviewees. However, the statistical information in these files is sufficient to test our methods and scientific assumptions.

2. The Corrections

Each of the individual corrections described below was small, and as we discussed earlier, their combined impact was negligible.

- Additional data were added about NATO airstrikes that occurred in early May through early June, 1999.
- Pursuant to Rule 70 of the ICTY Rules of Procedure and Evidence, we were asked by the OTP to drop 17 records from the data they provided to us about activity by the KLA because the information came from confidential sources. Only three of these records had information relevant to our analysis.
- In the original report, the estimates for two-day periods were selected from the model pool not by the adjusted Pearson chi-square statistic, but simply by the raw chi-square statistic. We recalculated the estimates using the adjusted Pearson chi-square statistic.

3. Results of Applying the Corrections

The results of the corrections are shown in the attached figures. Each of the figures corresponds to a figure in the original report. There is one change worth noting: in Figure 13, the statistical analysis of the relationship between KLA and NATO activity versus the patterns of killing and migration, the corrected NATO

data have a modest but significant relationship with killings over time and over both time and region.

In the original analysis, there was no significant statistical relationship between NATO patterns and killing or migration. Interestingly, in the corrected data, NATO airstrikes are *negatively* associated with killing. Everything else being equal, each additional NATO airstrike in a given region on a given two-day period is associated on average with 7.8 fewer killings during that two-day period and 14.2 fewer killings in the same region in the subsequent two-day period. Overall, at times and places where there were more killings, there tended to be fewer airstrikes; conversely, at times and places where there were more NATO airstrikes, there tended to be fewer killings of Kosovar Albanians.

We interpret these results as coincidental. As seen in the various graphs, most of the migration and killing occurred in Phase 1 (late March-early April), with additional peaks in mid-April in the northern and eastern regions of Kosovo. There were relatively fewer NATO airstrikes during the early period than later (from late April through early June) when the weather improved. Thus as killings declined, the number of airstrikes was increasing. We explicitly do not interpret this finding to imply that NATO's airstrikes caused the reduction in killings. However, this finding does strengthen our original conclusion, in which we rejected the hypothesis that NATO's attacks could have caused the killing of ethnic Albanians.

4. Conclusion

As already mentioned, none of the corrections alters our conclusions from the 3 January 2002 report. Although the estimates of a few parameters change, the changes are too small to affect the substance of our findings. In fact, it is difficult to distinguish visually between these figures and those provided in the original report. We are continuing to explore these data using more complex methods, and at a later date we will present further analyses in a technical paper for a scientific audience.

Figure 2, page 6: Estimated total refugee migration and killings over time

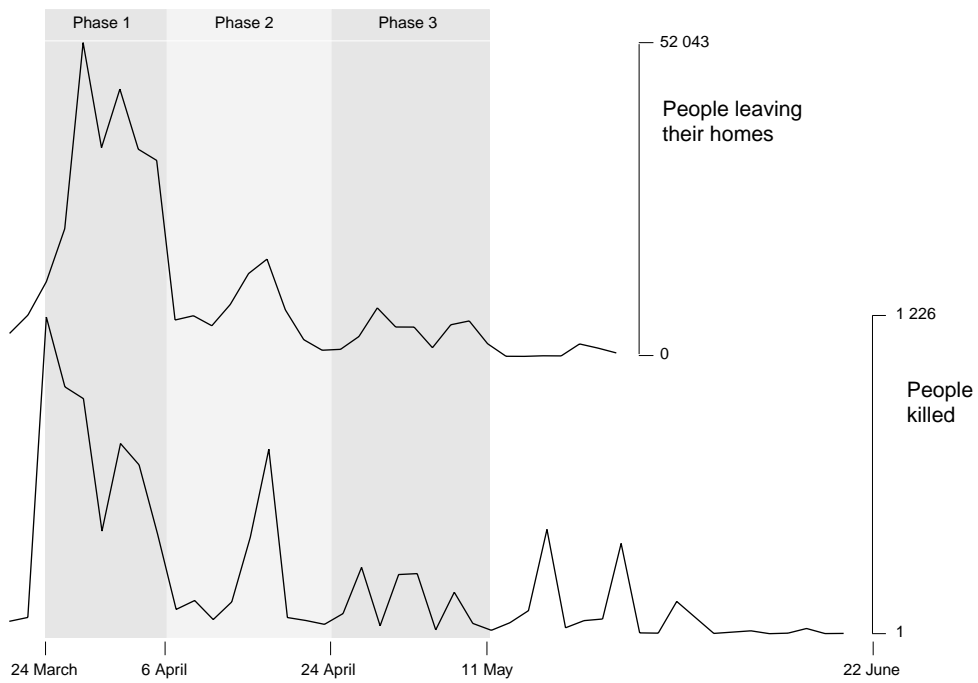


Figure 4, page 9: Estimated total refugee migration and killings over time, northern region

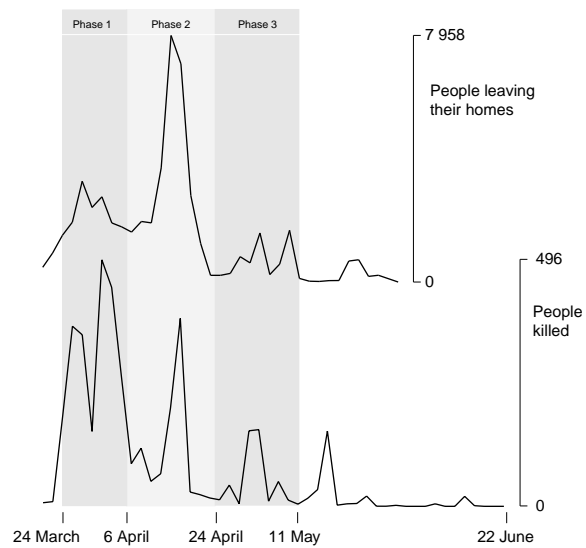


Figure 5, page 9: Estimated total refugee migration and killings over time, southern region

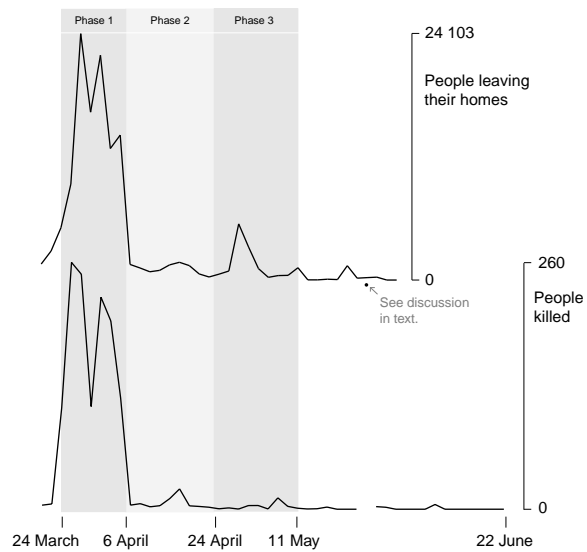


Figure 6, page 10: Estimated total refugee migration and killings over time, eastern region

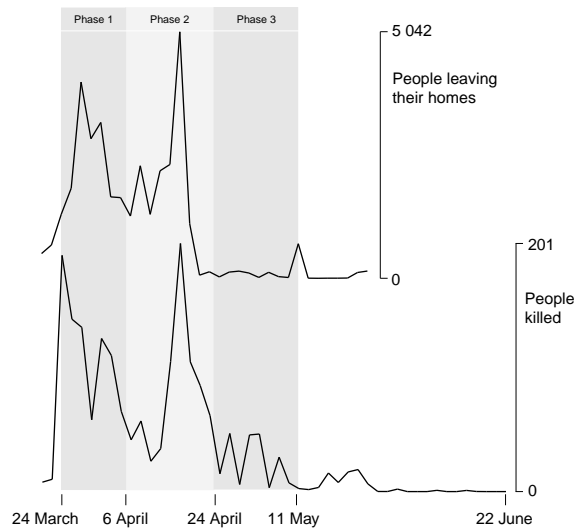


Figure 7, page 10: Estimated total refugee migration and killings over time, western region

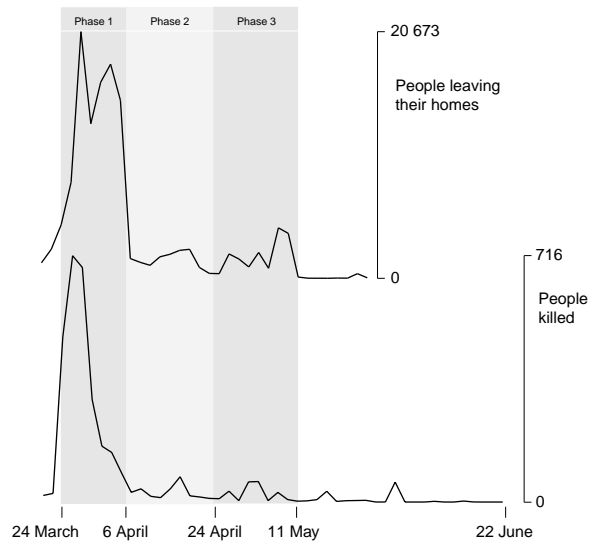


Figure 10, page 13: Estimated total killings and residuals over time

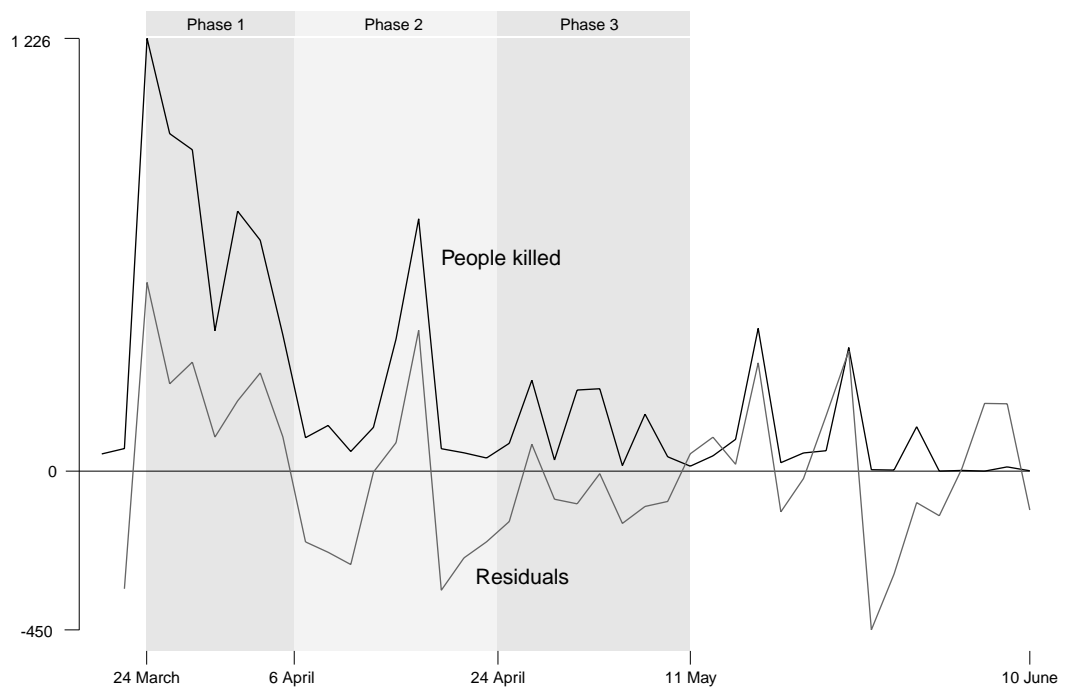


Figure 11, page 14: Estimated total refugee flow and residuals over time

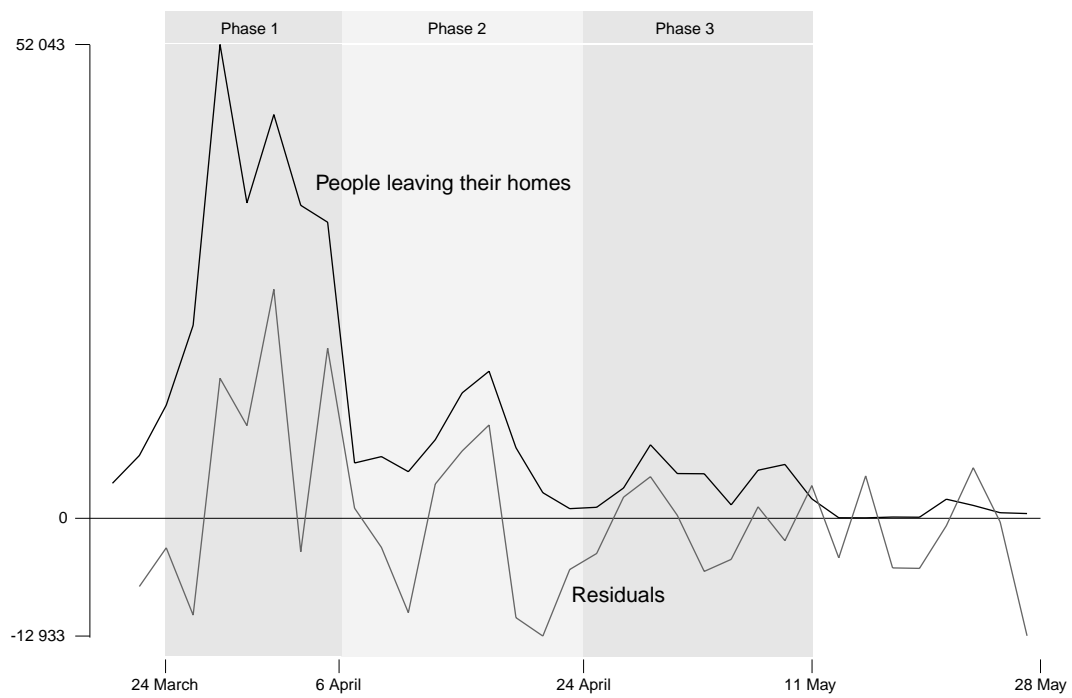


Figure 13, page 54: Comparison of estimates from different modeling procedures

Area	Piecewise Models			Overall Model
	Six Day Period Within Region	Two Day Period	Global	Direct GLM
Global	10 546	9 282	10 356	10 004
Region 1	3 925			2 748
Region 2	1 827			2 863
Region 3	1 606			1 393
Region 4	3 188			3 000
20 March - 25 March	1 048	1 338		1 538
26 March - 31 March	3 502	2 264		3 203
1 April - 6 April	2 426	1 776		1 557
7 April - 12 April	472	280		571
13 April - 18 April	1 144	1 213		1 411
19 April - 24 April	373	152		271
25 April - 30 April	175	368		322
1 May - 6 May	542	479		526
7 May - 12 May	157	216		238
13 May - 18 May	266	538		178
19 May - 24 May	64	133		61
25 May - 30 May	275	357		62
31 May - 5 June	62	128		23
6 June - 11 June	13	13		13
12 June - 17 June	25	25		25
18 June - 23 June	0	2		2

Figure 19, page 58: Regression coefficients

Explanatory Variables	Response Variables			
	Killings over Time	Killings over Time and Region	Refugee Flow over Time	Refugee Flow over Time and Region
Region 2		-1.1 (21.2)		493.1 (638.5)
Region 3		** -71.1 (23.8)		* 2 563.7 (1 081.9)
Region 4		-17.2 (27.1)		851.5 (893.2)
KLA (kill)	7.8 (6.9)	9.3 (6.0)	-410.1 (380.2)	-88.8 (158.6)
KLA (battle)	31.1 (19.7)	10.4 (8.6)	842.4 (651.0)	255.6 (332.2)
Lag-KLA (kill)	3.7 (4.2)	6.7 (4.8)	549.7 (490.7)	393.4 (245.0)
Lag-KLA (battle)	3.2 (17.4)	-3.9 (12.9)	** 3 011.3 (878.7)	** 2 092.7 (714.3)
NATO	-6.4 (6.7)	* -7.8 (3.7)	12.1 (231.7)	69.9 (186.2)
Lag-NATO	* -18.4 (7.7)	** -14.2 (4.0)	-555.4 (296.1)	-362.4 (190.5)
Constant	** 290.4 (80.2)	** 102.2 (22.1)	6 125.7 (4 120.2)	581.5 (604.2)
R^2	0.47	0.29	0.58	0.34

Robust standard errors in parentheses
 *significant at 5%; **significant at 1%

Figure 20, page 59: Estimated total killings and residuals by region over time

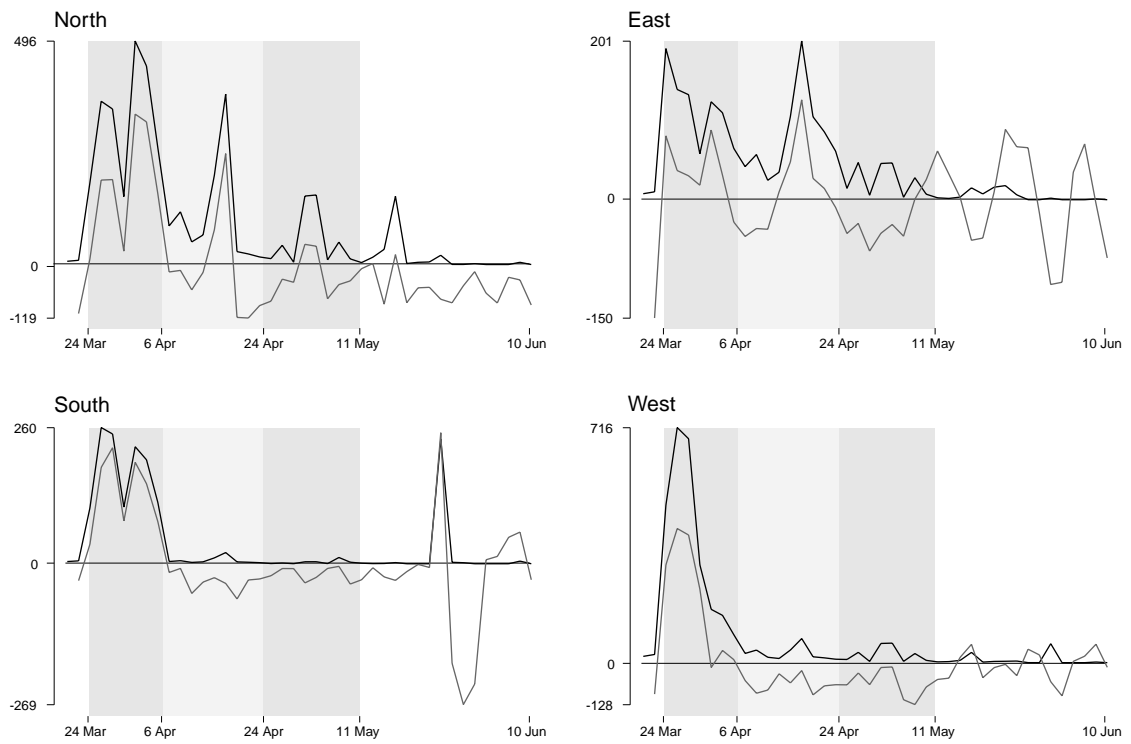


Figure 21, page 60: Estimated refugee flow and residuals by region over time

