

Chapter 1

The Salvadoran Human Rights Commission: Data Processing, Data Representation, and Generating Analytical Reports

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Introduction

In this paper, I describe the work I did as while working for the Salvadoran Human Rights Commission (*Comisión de Derechos Humanos de El Salvador*, CDHES).¹ Between 1979 and 1991, the CDHES took more than 9,000 interviews that were recorded in written form as testimonies. We planned to begin work in May 1992, in conjunction with other organizations which, like the CDHES, were part of the Coalition of Non-governmental Human Rights Groups (*Coordinadora de Organismos de Derechos Humanos*). The organizations included among others, Legal Aid (*Socorro Judicial*), the Human Rights Institute of the University of Central America, and the Human Rights Office of the Lutheran Church. For a variety of reasons, among which were political issues and the perceived lack of adequate data, all except the CDHES withdrew from the group in June 1992.

This was one of the earliest large-scale human rights information systems projects. By and large, the other projects discussed in this handbook, which came later, had fewer of the problems experienced in this project. However, this project is important to gaining an understanding of the issues involved in planning and implementing large-scale data projects for human rights violations.

Even today, there are many organizations which do not have database and analytical expertise and which may be working through similar problems. They may find the discussion in this paper helpful in their current work.

The goal of this project was to target individual perpetrator responsibility. Only a modest fraction – about 125 – of the total of 9,000 testimonies were entered into the full data base and used to provide reports targeting individual perpetrator accountability. Note that the fully processed testimonies were thoroughly documented and were the most important cases identifying individual accountability. These cases were presented in their entirety to the truth commission by the CDHES.

Because it proved impossible to follow the planned process and enter very many cases into the full system, we developed a parallel process into which we entered the entire set of CDHES testimonies. This second process formed the basis for the analysis that gave this project its impact.

Data Processing, Part 1

I was not involved with the data collection. As mentioned above, the CDHES had collected over 9,000 testimonies and it was our task to carry the project forward from data processing (coding) through data representation, and to end with the generation of analytical reports. I initially read several hundred testimonies in preparation for this phase of the project. At that time, it appeared that it would be possible to code the cases quickly enough and with a reasonable level of data processing effort.

Database and Reporting, Part 1

I wrote a database program to meet the project needs. By July 1992, the completed FoxPro database² and user interface was operational. There were two major problems: (1) the output capabilities of FoxPro were quite limited, and (2) data entry was slow.

I solved the first problem of providing output by brute force, manually creating the output routines and managing all the fields with variable quantities of information. We printed to a Hewlett-

¹ This was before I worked at AAAS. In fact, I first met then-AAAS Senior Program Associate Dan Salcedo when he visited the CDHES in September 1992.

² The database was written in the fourth normal form, which enabled a number of powerful search methods. See (Ball et al. 1994). Note that several earlier databases were implemented in El Salvador

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Packard laser printer which required us to write inline escape sequences to define font selection, bold, italics, etc.

The second problem, slowness of entry, was not so easily resolved and was linked to the data processing. When data processors were set to the task of coding the testimonies it was apparent that we had greatly underestimated the time needed for data processors to extract the relevant data elements from the testimonies (victim identifications, perpetrator identifications, violation types, locations, etc.) and subsequently to enter the data.

A typical output from the automated report process is shown in Appendix 1.³ This case, number 85 from the set of 110 cases presented to the Truth Commission for El Salvador in October 1992, is identified by the date of the complaint and the date of the event. The complexity of preparing this report is concealed by the apparent simplicity of its presentation. Although it appears to be a document that a user could type while reviewing the data manually it is, in fact, structured output generated by a database. Since each case has a different number of victims, violations, etc., a complex process is needed to generate this report. Among the tasks that a database can do for an organization, this kind of reporting can be very helpful to synthesize repetitive, detailed information in easy-to-digest reports. The final presentation to the Truth Commission included about 600 pages of text generated in this manner.

In case 85, shown in Appendix 1, the three victims are named in the "VICTIMS" section. Note that there might be any number of victims, from one to several hundred. In the next block ("AGE," "SEX," and "OCCUPATION", personal data about each victim is reported.

The "TYPES OF VIOLATION" section lists all violations that were reported as being committed against each victim. Each victim could have suffered one or several violations, and different victims might suffer different combinations of violations. The violation type is listed, followed by the identification of the perpetrator(s) alleged to have committed it. Torture was listed separately by type of torture and notes about each torture act were reported.

The database provided links to the officials alleged to have had command responsibility for the units that committed the violations. These individuals are listed in the "PERPETRATOR" section. Note that the number of perpetrators can vary according to the number of units alleged to have participated in the event.

Lawyers who worked on the case drafted a narrative describing each event. Their legal work is presented in the "LEGAL ACTIONS TAKEN" and "AVAILABLE DOCUMENTATION" sections. Those witnesses willing to be identified appear in the final section, "WITNESSES." The objective of the CDHES for this presentation was to show the Truth Commission that the Salvadoran judiciary had taken essentially no action despite nearly 15 years of continuous legal activities on the part of the human rights NGO community.

Coincident with this work, we had entered the entire command structure of the Salvadoran military and security forces into a database structure like that defined in Ball et al. (1994).

Data Processing and Database, Part 2

In late August 1992, the CDHES leadership informed me that they felt that the data processing and associated database entry was moving too slowly. This was a reasonable criticism. The data were being entered into my complex FoxPro database too slowly to get the work quickly enough to have a significant impact in assigning perpetrator responsibility. The resolution of this problem by the CDHES was to code cases and enter them into Word Perfect 5.1 tables. This gave them summary sheets that they could use for manual review but left no possibility for relating data elements or performing analyses using the capabilities of the computer. Appendix 2 shows a typical page resulting from this process. It is clear from this page that they were entering data into a Word Perfect table.

In early September 1992, CDHES staff members were reading the Word Perfect documents one line at a time, looking up the commander of the perpetrating unit in the military career structure database according to the unit alleged to have committed the violation and the date of the violation.

³ This presentation format has been used subsequently by other NGOs. In July 1997, the International Center for Human Rights Research (CIIDH) presented to the Commission for Historical Clarification (CEH) in Guatemala about 140 of their 17,000 cases, along with lists of the people the CIIDH had registered as killed or disappeared. The volume containing this information was more than 700 pages long.

The military career structure database showed which officers held which jobs in this unit at the time the violation was committed. Then they typed the commander's name into an eighth column of the table showing his command responsibility for this violation.

CDHES had tried to save time by avoiding entry into my FoxPro database and putting the data into the Word Perfect table. Now, they were paying the price for that decision and investing a large amount of time because they could not use a database program to perform this next phase of the process. The magnitude of the problem was roughly this: They were able to enter about 15 cases per hour. For the 7,000 cases we had identified as within the mandate of the various commissions who wanted the results, this amounted to about 470 hours; the estimated total effort amounted to almost ten person weeks with six 10 hour days.

At this rate, we would not complete the analysis in time to present the results to the *Comisión Ad-Hoc*. I realized that the Word Perfect tables could be parsed and wrote a program that read an ASCII-versions of the Word Perfect document. The program then broke the data down into fields and tables. This was not a simple process because there could be any number of values in each cell of the table, and the victim values had to be matched to changing date, violation, and perpetrator values by counting lines within each cell. This parsing program created as its output a database whose structure included three related tables (case, victim, and perpetrator). The victim table included a field for each of the 15 violation types we coded, and the value in each field indicated whether or not the victim suffered that violation. Table 1 shows the 15 violation types and their codes.

With this structure each victim can suffer each violation *type* only once in the context of each "incident," or time by place combination; with repeated incidents within a case, other violations against the same victim could be repeated. Note that this does not mean that each victim suffered only one violation in each case. Rather, for example, the victim could only be recorded as having suffered detention and torture in a given incident, rather than detention, torture, torture, and torture if there were three torture types employed.

This limitation is not realistic and may distort the data.⁴ However, it is much less severe than other distortions due to simplification, such as one victim-one violation, as discussed in Ball (1996). Quick checks of the testimonies showed that it was rare for witnesses to report more than a single instance of the same violation against the same victim (e.g., multiple illegal detention incidents). Appendix 3 shows the summary statistics drawn down from this database.

Now we faced the need for standardization of the non-standard spellings and other references to perpetrators. To resolve this problem, I made a list of all the non-standard perpetrator names from the original data and matched all names (by a combination of computer and manual methods) to a set of standard codes. I created tables that translated between all the possible non-standard spellings of the perpetrator names (e.g., "National Guard," "NG," "Guard," "Nat.Gua." and so forth) to a desired standard code (e.g., in this case, "NG"). With standard perpetrator codes applied to each violation, I could use the dates (which were also non-standard and had to be extensively edited) and the codes to match to the perpetrators' career histories.

Table 1. Violation types and codes.

Arbitrary execution	EA
Forcible disappearance	DF
Torture	Tt
Massacre	Mc
Illegal detention	DI
Sexual violation	VS
Threatening	Az
Persecution	Ps
<i>Allanamiento</i>	Am
Destruction or theft of property	Db
Displacement of population	Dp
Disappeared	Dd
Stabbing or wounding	Hd
Robbery	Ro
Other violations	Ot

⁴ Many other systems suffer from this oversimplification, notably that of the South African Truth and Reconciliation Commission (TRC), although the TRC data processors used narrative data recorded by the interviewers to recover from the error. See Chapter 4 for details

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The results of the parsing were 7,150 cases, including 9,346 corporate perpetrators involved in 11,940 incidents. More than 17,000 victims who suffered 29,000 violations were documented by these data.

Appendix 4 shows the results of the matching, titled “Responsible Military Individual.”⁵ It is unfortunate that the full set of testimonies was not fully captured in the format shown in Appendix 1 as a result of resource limitations. However, the political impact of the Indices of Individual Accountability and the more limited system was great. The overall lesson is that if the analytic and political objectives are clear, the systems designer should build a system that is just adequate for those objectives. More complexity can cause many problems while not adding much value from the additional capability.

Lessons Learned

Entity, Function	Lesson	Recommendation	Issues
Conversion of non-standard input to standard codes	Editing is never done; users are always working on data. If you change the original data, and users come up with a new version, all of the changes must be redone from start.	Use a two-way table to translate changes from the original data to a cleaned output. Do not make changes to original data. Learn how a) to parse raw text files into structured data, and b) to standardize uncontrolled entry into controlled structures	Table must be set up and used at the initiation of work on data, although it will be modified constantly throughout the project. Establishing the rule that all changes to source data come from users and automated processing must be robust enough to deal with uncontrolled entries.
Achievement of goals.	Scientifically optimal outcome may not be feasible with time and resources available.	Information system personnel must plan and re-plan as necessary to fit results to resources. In designing and implementing the database use the smallest possible components to accomplish the organization’s core goals.	Effective communication to mission leadership by information system personnel of resource-based limits on achievements. Good working relationships between parties. Ability and willingness of personnel to plan and design to meet constraints.
Functionality	Complex methods and procedures difficult to execute.	Simpler is better; less is often more.	Self-discipline, planning.
Replacement of manual methods by automated methods.	Manual procedures can fail late in project.	Be prepared for late-term rush projects to automate manual procedures.	Flexibility in response. High level of skill required of system and program designers.

⁵ The strategic aspects of this project are described in more detail in (Ball, 1996).

Appendix 1

Case Description Document

Date of complaint: 13/02/89

Date of Event: 12/02/89

Document no.: 85

VICTIMS: 1. COLINDRES PANAMEÑO, Manuel Antonio
2. GARCIA, Hernán
3. PINEDA ALVAREZ, Eduardo

AGE: 1. 18 years **SEX:** 1. Male
2. 38 years 2. Male
3. 40 years 3. Male

OCCUPATION: 1. Laborer
2. Unknown
3. Farmer

TYPES OF VIOLATIONS:

1. Illegal detention (DMIFA)
1. Illegal detention (DefCiv)
(Units not authorized to detain persons.)
1. Illegal detention (PMun)
Detained in the jail of *Santiago Nonualco y Zacatecoluca* without cause.
1. Torture (DMIFA)
1. Torture (DefCiv)
2. Illegal detention (DMIFA)
2. Illegal detention (DefCiv)
(Units not authorized to detain persons.)
2. Illegal detention (PMun)
Detained in the jails of Santiago Nonualco and Zacatecoluca without cause.
2. Torture (DMIFA)
2. Torture (DefCiv)
3. Illegal detention (DMIFA)
3. Illegal detention (DefCiv)
(Units not authorized to detain persons.)
3. Illegal detention (PMun)
Detained in the jail of Santiago Nonualco y Zacatecoluca without cause.
3. Torture (DMIFA)
3. Torture (DefCiv)

TORTURES:

1. Hung by the testicles (DefCiv)
In the commander's office of Santiago Nonualco, by members of the Civil Defense and of the DMIFA.
1. Pretend to kill by asphyxiation (DefCiv)
1. Stripped of clothes (DefCiv)
In the commander's office of Santiago Nonualco, by soldiers of the Civil Defense and of the DMIFA.
... [descriptions elided to save space]
2. The "airplane" (DMIFA)
Hung by the hands (behind the back), and beaten with a stick.
2. Tied up, with shackles on hands and/or feet. (DefCiv)
2. Tied up, with shackles on hands and/or feet. (DMIFA)
- ...
3. Beaten over whole body. (DMIFA)
- ...

CURRENT LEGAL STATUS:

1. Freed with no charges.
2. Freed with no charges.
3. Freed with no charges.

PERPETRATOR

INDIVIDUAL

Col. CANJURA ALVAYERO, Benjamín Eladio (Commander, DMIFA)

Col. GOMEZ, José Humberto (Director, National Guard)

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Col. HERNANDEZ CASTRO, José Dionisio (Assistant Director, National Guard)

...

ORGANIZATIONAL

DMIFA
National Guard
Municipal Police
Civil Defense

LOCATION OF THE EVENT:

Near the Chincuco bridge, Santiago Nonualco, Department de La Paz

NARRATIVE OF THE EVENT:

The three victims were captured by members of the Civil Defense working in conjunction with the DMIFA, who accused Eduardo of being a collaborator of the FMLN and Hernán and Manuel of being guerrillas. They took them to the local headquarters at Santiago Nonualco, where they were each brutally tortured for several hours. At 5 PM of the 13th of February, they were transferred to DMIFA jail at Zacatecoluca, where the torture was continued.

...

The commander of the DMIFA, in an official statement to the CDHES, confirmed that the capture of Manuel was carried out by personnel under his command. This case was presented to the CIDH⁶ along with dossier 15/89C CIDH, which deal with the murders of the parents and a brother of Manuel Antonio Colindres Panameño, only eleven days after he was freed.

LEGAL ACTIONS TAKEN:

Writ of <i>habeas corpus</i>	15/02/89
Before whom:	The Supreme Court
For whom:	PANAMEÑO DE COLINDRES, María Luisa
In reference to:	1

...

AVAILABLE DOCUMENTATION:

Photographs
Of victims 1 and 3.

Letters
To DMIFA 15/02/89
From DMIFA 20/02/89

Other
Videotape with the testimonies of victims 1 and 3. Demonstration of the stigmata of torture (25 minutes).

Copy of *habeas corpus* 15/02/89
Statement of COLINDRES PANAMEÑO, Manuel Antonio 20/02/89

WITNESSES:

COLINDRES PANAMEÑO, Manuel Antonio
COLINDRES VASQUEZ, Andrés
GARCIA, Hernán
PANAMEÑO DE COLINDRES, María Luisa
PINEDA ALVAREZ, Eduardo

SOURCE:

Human Rights Commission of El Salvador (CDHES), NGO

⁶ CIDH is the acronym for the Interamerican Commission for Human Rights (*Comision Interamericana para Derechos Humanos*) of the Organization of American States.

Appendix 2

Typical Military Case Reports
Human Rights Commission of El Salvador (CDEH)
1988 Cases

Col. 1 ¹ Disarmament No.	Col. 2 Victim Name	Col. 3 Event Date	Col. 4 Violation Type	Col. 5 Place	Col. 6 Perpetrating Unit	Col. 7 Comments
01088	FERRA, PALACIOS, Ramon Guerrero	25-02-88	6, 9	San Marcos, San Salvador	Death Squad	
02186	CHAVEZ DIAZ, Salvador HABIBULLA, FERRONDO LOPEZ CORTESANA, Aracelia CHAVEZ MERRICHANZ, Luis HERNANDEZ ARZONA, Abel Arias CHERSON, José Luis MARTINEZ, Luis	22-12-86 13-01-88	6 10	Coban, La Libertad	Death Squad	St. Cruz de Oriente announced that he was in the job of this Cavalry Regiment because at the time of the sounds of the shots there were military present from that military organization.

Aut no Death ...

¹ Columns containing 000 are appear in original document. They are given here for reference.

Appendix 3

Human Rights Commission of El Salvador (CDHES)
Summary of Presented Documents, by Type of Violation and Year of Event⁷

Year	EA	DF	Tt	Mc	DI	VS	Az	Ps	Am	Db	Dp	Dd	Hd	Ro	Ot	Vt	Pb	In	Cs
1973	3	1	5	1	5	0	3	3	2	0	0	0	0	0	2	5	0	1	1
1974	1	0	0	0	1	0	1	1	0	0	0	0	0	0	1	1	0	1	1
1975	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2	0	2	1
1977	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	2	0	2	2
1978	0	0	2	0	4	0	0	0	0	0	0	0	0	0	1	4	0	2	2
1979	20	13	13	1	21	0	2	1	1	1	0	1	1	1	13	29	0	14	13
1980	496	262	238	12	494	34	44	33	72	22	7	36	295	24	95	1237	15	388	370
1981	1610	327	328	18	692	23	87	21	173	77	5	50	10	58	81	2221	10	481	464
1982	419	471	297	9	1000	31	54	13	260	56	10	105	16	30	177	1488	18	722	681
1983	234	172	113	6	467	7	16	6	46	26	23	82	10	25	26	626	1	353	346
1984	96	154	188	15	566	9	31	10	76	14	4	115	13	9	80	835	2	557	541
1985	60	90	159	1	863	5	63	15	98	28	7	44	32	36	86	1012	13	668	650
1986	97	45	188	2	514	3	87	86	131	71	56	38	64	32	20	724	15	367	349
1987	73	55	204	3	410	12	165	63	90	41	12	15	43	20	96	558	10	293	260
1988	91	68	351	3	834	9	273	137	123	53	8	42	63	66	114	1203	44	611	500
1989	115	119	1003	3	1753	19	539	147	330	134	40	39	79	132	233	2209	45	1012	924
1990	86	90	378	2	770	15	320	122	178	55	15	40	66	55	103	1180	35	678	622
1991	46	24	340	0	959	8	571	135	148	159	25	36	98	105	257	1446	87	693	597
1992	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Unknown	11	4	16	0	27	0	19	13	5	2	5	0	4	5	9	55	4	40	34
Total	3460	1896	3825	76	9383	175	2275	806	1733	739	217	644	794	598	1394	14838	299	6886	6359

⁷ For meaning of violation type codes, see Table 1. The other codes are as follows: Vt, total number of victims; Pb, collective victims; In, total number of events; Cs, total number of cases. No data are given for 1976 since none was available.

Appendix 4

Human Rights Commission of El Salvador (CDHES)
Individuals with Alleged Command Responsibility, Typical entries

ACEVEDO, Mario Enrique

1982 1a. Infantry brigade, Executive

Document numbers:

487/82

EA	DF	Tt	Mc	DI	VS	Az	Ps	Am	Db	Dp	Dd	Hd	Ro	Ot	Cs	Vt	Pb
2	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	2	0

PINEDA VILLALTA, Humberto

1981 National Police, Personnel Chief

Document numbers:

100/81, 103/81, 105/81, 1079/81, ..., 76/81, 90/81, 97/81

EA	DF	Tt	Mc	DI	VS	Az	Ps	Am	Db	Dp	Dd	Hd	Ro	Ot	Cs	Vt	Pb
230	24	35	1	73	0	2	0	35	0	0	0	0	0	28	39	321	1

1978-1981 Navy, Commander

Document numbers:

325/80, 417/80, 264.1/1984, 271.a/1983, 67/85, 82/85

EA	DF	Tt	Mc	DI	VS	Az	Ps	Am	Db	Dp	Dd	Hd	Ro	Ot	Cs	Vt	Pb
0	2	1	0	8	0	1	0	2	0	0	0	0	0	1	6	8	0

1980-1984 Navy, Unknown

Document numbers:

117/82, 325/80, 417/80, 535/82

EA	DF	Tt	Mc	DI	VS	Az	Ps	Am	Db	Dp	Dd	Hd	Ro	Ot	Cs	Vt	Pb	
0	3	0	0	6	0	1	0	2	0	0	0	0	0	0	4	6	0	
total:		230	29	36	1	87	0	4	0	39	0	0	0	0	29	49	335	1

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