

THE 1988 NATIONAL ELECTION STUDY

TECHNICAL DOCUMENTATION

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CONDITIONS OF RELEASE

All research based upon these data must include an acknowledgement such as the following:

"Data from the 1988 Canadian National Election Study, which was funded by the Social Sciences and Humanities Research Council of Canada (Grant #411-88-0030). The data were collected by the Institute for Social Research, York University for Richard Johnston, André Blais, Henry E. Brady and Jean Crête. The investigators, SSHRCC and the Institute for Social Research bear no responsibility for the analyses and interpretations presented here."

In order to provide the Social Sciences and Humanities Research Council of Canada with information regarding use of these data, researchers are requested to forward a copy of any publications or scholarly papers to the Director, Institute for Social Research, York University, 4700 Keele Street, North York, Ontario M3J 1P3.

Data acquired from the Institute for Social Research may not be redisseminated outside the recipient institution.

Further information about the implementation of the 1988 Canadian National Election Study at the Institute for Social Research, York University can be obtained by contacting David Bates (Sampling), John Tibert (CATI), Tammy Chi (data collection), Anne Oram (data dissemination) and David Northrup (project management).

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STUDY DESCRIPTION

1.1 Introduction

The 1988 Canadian National Election Survey was completed at the Institute for Social Research at York University. The survey included three waves:

- 1, a Campaign Period Survey with a representative sample of 3,609 Canadians;
- 2, a Post Election Survey with 2,922 of the Campaign Period Survey respondents; and
- 3, a Mailback Survey with 2,115 of the Post Election Survey respondents.

All interviewing was completed in English or French from ISR's centralized telephone facilities using Computer Assisted Telephone Interviewing (CATI) techniques. The Institute uses software from the Computer-Assisted Survey Methods Program at the University of California, Berkeley.

1.2 The Campaign Period Survey

Random digit dialing procedures were utilized to select the telephone numbers included in the Campaign Period Survey (CPS) sample. The sample was released as a rolling cross section. Each day of the campaign a sample of telephone numbers, representative of the Canadian population, was released. On average 77 interviews were completed per day in the 47 days prior to the November 21st election for a total of 3,609 interviews.

The questionnaire averaged 38 minutes and included items on election interest and media, voting intentions and party identification, personal, provincial and national economic conditions, ratings of leaders, parties and candidates, government performance, policy and campaign issues, candidate and constituency identification, and a battery of socio-demographic items.¹

Experiments in question wording were incorporated into the CPS. The survey instrument included different versions of questions about Free Trade, Meech Lake, abortion, the government's intention to purchase nuclear powered submarines, etc. The extent of CATI manipulations included in the questionnaire are documented in section 4.2 below.

¹ The questionnaires (in English and French) are available in both CATI format and in a modified format. The CATI format makes it easier to determine the exact scope of experiments included in the CPS. The modified version of the survey is designed to facilitate a general understanding of the questionnaire format to the non-CATI user. Both English and French versions of the questionnaire are available from ISR. Contact the data archive at ISR for additional information.

CATI was also used to incorporate a number of question order experiments in the CPS. For example, respondents were asked the "vote intention" items either very early on in the interview, before items on "party identification" or near the end of the interview prior to the sociodemographic items. Randomization of order was also used in the rating of leaders, parties, and candidates and for other questions.

1.3 The Post Election Survey

All respondents to the CPS were called again after the election and 2,922 of them completed the Post Election Survey (PES). Two thirds of the PES interviews were completed within 30 days of the election. The Christmas season made it necessary to complete the final third of the interviews in January, 1989.

The PES questionnaire averaged 27 minutes in length. Some of the items asked in the CPS were asked again in the PES. Most of the items on election interest and media, party identification, ratings of leaders, parties and candidates, constituency identification, and some of the items on policy and campaign issues were asked a second time on the PES. The PES also included items on voting behaviour, campaign activities, groups in Canadian society and a special battery on free trade.

1.4 The Mailback Survey

At the end of the PES respondents were asked to participate in a mail survey. Approximately 80 percent of the respondents to the PES provided an address and almost 75 percent of these respondents returned a completed questionnaires for a final sample of 2,115.

As a general rule, questionnaires were sent to respondents within a week of their completion of the PES. The mail survey included 97 items. Issues explored included: fiscal priorities, the economy, policy issues, changes to Canadian society, political efficacy, societal goals, capitalist values, rights and liberties, and conceptions of community.

A small proportion of the mail questionnaires returned were deemed to have been completed by someone other than the respondent to the CPS on the basis of respondent variation in reporting gender and age. A variable has been added to the data set to identify these returns (see section 2.8 below).

2. SAMPLE DESIGN

2.1 Introduction

The sample for the study was designed to represent the adult population (18 years of age or older) who reside in one of the ten Canadian provinces and who are Canadian citizens, speak one of the official languages (English or French), and reside in private homes (residents of old age homes, group homes, educational and penal institutions were excluded). Because the mode of data collection for the survey was telephone, the 1.8 percent of Canadian households without a telephone are eliminated from the sample population (Statistics Canada: Catalogue 56-203, Ottawa, 1985).

2.2 Selection of Households

A two stage probability selection process was utilized to select respondents for the survey. The first stage is the random selection of households by randomly selecting residential telephone numbers. A complete listing of all residential telephone numbers in Canada is the appropriate sampling frame for the survey. Unfortunately such a listing does not exist.

Telephone books are not an acceptable surrogate. Unlisted numbers (not published in the telephone book by the owner's choice) and numbers for people who have recently moved are not included. People who do not have their name in the telephone book are not a random subset of the population (Tremblay, 1982). Sampling from telephone books would systematically exclude these people from the sample.

Use of random digit dialing (RDD) for selecting telephone numbers gives all households, not just those listed in telephone directories, an equal and known probability of selection. All telephone numbers in Canada consist of a three digit area code, a three digit central office code (the first three digits of the seven digit telephone number), and a suffix (the last four digits of a telephone number). It is possible to determine area codes, central office codes and suffixes that are in use by referring to telephone and city directories. With this knowledge, it is possible to construct a listing of all possible numbers in Canada. A computer is then used to generate a random sample of telephone numbers from this listing.

Because this sample will include numbers that are nonresidential or not in service and because an interview will not be completed in every household that is selected for the study (some households will refuse to be interviewed and some households will not contain an eligible respondent) the sample selected must be in excess of the desired number of completions. Based on information from Statistics Canada and previous work completed at ISR a projection of the required sample size can be calculated.

Given the target number of 3,600 completed interviews it was necessary to draw a sample of approximately 12,300 telephone numbers. This number was calculated as follows: $12,300 \times .50$ [proportion of numbers predicted to be eligible households] $\times .59$ [proportion of households willing to participate] = 3,628.

2.3 Selection of Respondent

The second stage of sample selection was random selection of an adult household member as the respondent. This stage of sample selection was completed by selecting the household member, 18 years of age or older, who had the most recent birthday and was a Canadian citizen. (A discussion of the use of the most recent birthday method of selecting respondents can be found in O'Rourke and Blair, 1983.)

2.4 Provincial Sample Distribution and the Language Over Sample

The initial sample design called for 3,500 completed interviews.² Minimal sample sizes were established for each province (100 for the Atlantic Provinces, 200 for Manitoba and Saskatchewan, 400 for the other Western Provinces and 800 for Ontario and Quebec).

To facilitate analysis of French speakers in New Brunswick and Ontario, and English speakers in Quebec, the sample design included a "language over sample" of 300 completions evenly divided among the three provinces. In New Brunswick and Ontario interviewers called the additional sample numbers, and requested in French, that the household participate in the study. Interviews were conducted only in households with French speakers. In Quebec the over sample interviews were conducted only with English speakers.

Unlike the sample for the "main" study, the "over" sample telephone numbers were not randomly generated from all possible numbers. Exchanges in New Brunswick and Ontario that were known to have higher proportions of French speakers (north and eastern New Brunswick and north and eastern Ontario) and exchanges in Quebec known to have higher proportions of English speakers (mainly the west end of Montreal) were the only exchanges used to generate the over sample.

The distribution of the sample among the Canadian provinces, taking into account the allocation of the additional 300 "over" sample interviews is presented in Table 2.1.

² Once the study had started there was a change in the design of the rolling cross section. In the original sample design new sample was not to be released during the last two days of the campaign. This design was changed and, as a result, the total number of completed interviews required was increased by 100 to 3,600.

TABLE 2.1 PROVINCIAL DISTRIBUTION OF COMPLETED INTERVIEWS
IN ORIGINAL SAMPLE DESIGN

Province	Number	Percent
Newfoundland	100	2.9
P.E.I.	100	2.9
Nova Scotia	100	2.9
New Brunswick	200	5.7
Quebec	900	25.7
Ontario	900	25.7
Manitoba	200	5.7
Saskatchewan	200	5.7
Alberta	400	11.7
British Columbia	400	11.7
TOTAL	3,500	100.0

2.5 Daily Sample Distribution: The "Rolling Cross Section"

Interviewing a cross section of Canadians each day made it possible to determine how attitudes about leaders, parties and candidates changed during this time period and to determine the impact of campaign events on the election.³

The sample generated for the CPS was divided randomly into 47 equal "replicates", representing the 47 days, during which the survey was conducted. At the beginning of each day the new replicate for that day was released. Each replicate remained active for 9 to 12 days except those released in the last nine days of the campaign (i.e., the replicate released three days before the last day of the campaign could only be called on those three days). Calling sample numbers over a 9 to 12 day period insured that some of the interviews completed each day were with "hard to reach" respondents. Research has shown that "hard to reach" respondents, those interviewed only after several telephone calls have been made, may be different than "easy to reach" respondents (Sebold, 1988; Wilcox, 1977; Hawkins, 1975; and Dunkelberg and Day, 1973).

Decisions on the length of time each replicate remained active for data

³ The first sample release was on the fourth day of the campaign, October 4th. No sample was released and no interviewing was completed on Thanksgiving Day, October 10th.

collection were made on an ongoing basis throughout the study. In general, replicates estimated to generate more than 77 completions (based on the results at the end of each day) remained active for less than 12 days and replicates estimated to generate fewer than 77 completions remained active for the entire 12 day period.

Adjustments to the length of time that replicates remained active were determined in conjunction with the number of telephone numbers in each replicate. Within each replicate the sample was further subdivided into 30 "sample codes". Each sample code, like each replicate, was a random sample of all possible telephone numbers in Canada. Once the data collection was completed for the first few replicates, adjustments were made in the number of sample codes released within each replicate. The decision on the number of sample codes released in a replicate was always made before the replicate was released.

The "replicate" and "sample code" for each completion is part of the data record.

2.6 Weighting Description for Campaign Period Survey

Weights, designed to adjust for unequal probabilities of selection within households, the language over sample and the disproportionate sample allocation among the provinces, have been attached to the data set.

The probability of an adult member of the household being selected for an interview varies inversely with the number of people living in that household (in a single adult household there is a 100 percent chance of selection and in a three adult household there is only a 33 percent chance of selection). As a result, it is possible that the data are biased as one person households are over represented in the sample. To compensate for the unequal probabilities of selection, one adult households are given a weight of one, two adult households are given a weight of two, three adult households a weight of three etc. There are seven weights attached to this data set (WT1, WT2, etc.). **ALL** of these weights include a correction factor for uneven probability of respondent selection. Of course, the option of using weights is left to the discretion of the user. A brief summary of each weight follows.

WT1: National Weight Including Over Sample, adjusts for unequal probability of selection at the household level, includes over sample completions and corrects for disproportionate distribution among the Provinces

WT2: Province Weight Including Over Sample, adjusts for unequal probability of selection at the household level, includes over sample completions

WT3: Atlantic Weight Including Over Sample, adjusts for unequal probability of selection at the household level, includes only completions from the Atlantic Provinces

WT4: Prairie Weight, adjusts for unequal probability of selection at the household level, includes only completions from the Prairie Provinces,

WT5: National Weight, adjusts for unequal probability of selection at the household level and corrects for disproportionate distribution among the Provinces

WT6: Province Weight adjusts for unequal probability of selection at the household level

WT7: Atlantic Weight, adjusts for unequal probability of selection at the household level, includes only completions from the Atlantic Provinces

All of the weights include an adjustment and, as a result, the number of cases in the dataset remains constant (3,609) even when different weights are utilized.

The disproportionate allocation of the sample among the provinces is adjusted for in WT1 and WT5. When WT1 or WT5 are invoked the user will produce a data set where the distribution of cases among the provinces approximates the national population distribution. Either WT1 or WT5 should be used when national estimates are desired. The data set created with WT1 includes the over sample completions and that created with WT5 excludes these completions.

Using WT2 and WT6 produces a dataset with a sample distribution among the provinces that does not correct for the disproportionate number of completion in the smaller provinces. Either WT2 or WT6 should be used when provincial comparisons are required. WT2 includes the language oversample, WT6 does not.

WT4 should be used when the user is investigating response from the Prairie Provinces and WT7 when the Atlantic Provinces are the area of investigation.

2.7 Post Election and Mail Survey Samples

At the end of the CPS the interviewer thanked the respondent for their time and said they hoped to have the chance to talk again after the election. After the interviewer hung up the telephone CATI presented them with a screen showing the respondent's name (or sometimes an initial or other identifier), gender and date of birth. The interviewer transcribed this information to the "cover sheet" (side one listed a record of all call attempts on the CPS and side two listed the same for the PES). This information was used by interviewers to insure they reached the correct person when they called to complete the PES.

The cover sheets for the 3,609 completions were randomized so there was no relationship between the completion date of the CPS and the first call attempt to complete the PES. Over 80 percent (2,922) of the respondents to the CPS completed the PES.

At the end of the post election interview respondents were asked to participate in a mail survey. Ninety percent of the respondents who completed the PES provided a mailing address. These 2,635 people (.90 x 2,922) were the sample for the mail survey.

2.8 Linking Respondents to the Three Surveys

Although efforts were made to insure that the same person completed all three survey waves, an inspection of the data suggests this was not always the case. The possibility of getting data from the wrong person was highest in the mail survey. Although the mail questionnaire was addressed to the respondent, there was of course no guarantee that he or she would be the person who completed the questionnaire. More surprisingly, but less frequently, there is evidence to suggest that a different person was interviewed in the second telephone survey. This possibility results from interviewer error (the interviewer did not insist on interviewing the correct person, the father and son had the same name and the interviewer forgot to check the year of birth, etc.) or from respondent error (the respondent insisted that it was their spouse who completed the CPS, the person who answers the telephone wants to "have their turn" and insist that they are the correct respondent, etc.).

Items common to all survey waves were used to create a variable that identifies situations where the data from all three surveys seems to have been obtained from two different respondents. Gender and year of birth were included in all three waves of the study. If the gender variable was not the same for all three surveys, or if age varied by more than two years the case was identified as being a "not a good link" case. The variable "LINK" has five values:

- 1, campaign completion only,
- 2, only campaign and post election completed: GOOD link,
- 3, only campaign and post election completed: NOT a good link,
- 4, campaign, post election and mail completed: GOOD link,
- 5, campaign, post election and mail completed: NOT a good link.⁴

Values "3" and "5" accounted for 2.7 percent of the 3,609 cases. More conservative or liberal interpretations of the linkage can be completed by the user. The responses to the two items used in each wave of the survey to create the link variable are included in the data set (N1, RSEX, XN1, XRSEX, YRBIRTH and ZRSEX). Users who plan to conduct analysis that includes information from more than one survey should consider deleting the "not a good link" cases (values 3 and 5 of the variable "LINK") before they conduct their analysis.

⁴ The value labels included in the data set are more abbreviated.

3 DATA COLLECTION PROCEDURES AND RESPONSE RATES

3.1 Introduction

A brief description of the data collection procedures is outlined in this section of the technical documentation. Response rates for each of the three survey components and the prescreening of the sample are also reviewed.

3.2 Data Collection Procedures: Campaign Period Survey

To reduce the amount of unproductive calling required once data collection started, the sample was prescreened. As the start of the campaign could not be predicted, prescreening was completed in July, 1988, approximately two months before the election was called. Over 3,710 nonresidential numbers and not in service numbers were eliminated during the prescreening (from a total sample of 16,002 telephone numbers).

Typically, in surveys conducted at ISR, telephone numbers remain active for at least a three week (21 day) period. However, the logistics of maintaining the rolling cross section made it difficult to have numbers active for more than 12 days. In order to maximize the number of completions from each replicate the call schedule was designed to allow for 15 calls when a replicate was available for the maximum 12 day period. The call schedule for numbers that were never answered was as follows: for the first three days a minimum of two calls were made per day and at least half of the calls were made during evening hours; for days four to twelve at least one call was made per day and the time of the call was rotated to include morning, afternoon and evening time slots. Of course, once contact was made with a household subsequent calls were adjusted on the basis of information obtained in the contact.

The mean number of calls required to obtain a completion was 3.4. About three quarters of the completions required fewer than five call attempts and 28 percent of the completions required only one call (Table 3.1). In the most extreme case 24 calls were made to complete the interview. The number of call attempts, the number of times the telephone was answered and other variables that describe the data collection process are included as part of the data set (see section 4.2 below).

In Quebec, and for the French language over sample in Ontario and New Brunswick, the initial call was always made by a French speaking interviewer. English speaking interviewers made the first call attempt for the rest of the country. Whenever a household or respondent indicated they wished to be interviewed in the other language an interviewer with the appropriate language skills called back. Typically, the second interviewer would call back during the same interviewing shift.

TABLE 3.1 NUMBER OF CALL ATTEMPTS FOR COMPLETED INTERVIEWS:
CAMPAIGN AND POST ELECTION SURVEYS

Number of Call Attempts	Campaign Period Survey ¹ (Percent Distribution)	Post Election Survey
One	28	27
Two	24	21
Three	16	14
Four	10	9
Five or six	11	12
Seven to nine	6	10
Ten to nineteen	4	6
Twenty to twenty-five	1	1

¹ The prescreening call is not included in the number of call attempts.

3.3 Response Rates: Campaign Period Survey

There are numerous ways to calculate response rates in survey research (Groves, 1989; Groves and Lynberg, 1988; Wiseman and Billington, 1984; Frey, 1983; and Dillman, 1978). The method used in this project was conservative: most other ways of calculating response rate would produce higher rates. The final response rate for the CPS was 57 percent. Table 3.2 shows sample disposition at the end of the campaign period survey and Table 3.3 shows national and provincial response rates.

The proportion of "callbacks" and "never answered" are both one to two percent higher than is typical in studies conducted at ISR. This results from the limitations imposed by using the rolling cross section sampling strategy, a strategy that curtailed the length of time a number was in the field. A longer field period would reduce the number of these results and increased the response rate by a percent or two.

The response rate was defined as the number of completed interviews divided by the estimated number of eligible households times 100 percent. Of the 12,352 telephone numbers included in the sample 6,027 were eligible households (Table 3.2). Not eligible households (respondent was unable to speak either English or French, was not healthy enough to complete the interview, nonresidential and not in service numbers, etc.) accounted for 5,730 of the telephone numbers. It was not possible to determine the eligibility status for 595 of the sample telephone numbers. For response rate calculations, it was assumed that the proportion of these 595 numbers which were household numbers was the same as it was in the rest of sample.

TABLE 3.2 FINAL SAMPLE DISPOSITION: CAMPAIGN PERIOD SURVEY

Result	Number	Percent
Eligible		
Completions	3609	29.2
Refusals*	1876	15.2
Callbacks	542	4.4
Subtotal Eligible	6,027	48.8
Not Eligible		
Ill/Aged	162	1.3
Language Problem	127	1.0
Absent for Duration of Study	70	.6
Not a Canadian Citizen	161	1.3
No One Over 18 in Household	162	1.3
Non Residential Number	1,604	13.0
Not In Service Number	3,444	27.9
Subtotal Not Eligible	5,730	46.4
Eligibility Not Determined		
Telephone Never Answered or Always Busy	595	4.8
TOTAL	12,352	100.0

* Respondent was not available and interviewer was instructed or arranged to call back at a better time. Often more than one callback was arranged. No interview was completed before the 12 day data collection period was over.

The household eligibility rate was .51 (eligibles [6,027]/eligibles [6,027] + not eligibles [5,730] = .51). The estimated total number of eligibles was then computed as 6,332 (6,027 + [.51 x 595] = 6.332). Dividing the number of completions (3,609) by the estimated number of eligibles (6,332) gives a final response rate of 57 percent.⁵

⁵ Of course, it is impossible to know what proportion of the "eligibility not determined" numbers should be included in the denominator for the response rate calculations. The response rate, when

Variation in response rates between provinces was pronounced but not unexpected (Table 3.3). Geographical variation in response rates is typical of studies conducted at ISR. Considerable variation in response rates has been found for provincial telephone surveys (Bates, 1984), national telephone surveys (Tibert, et al, 1986; and Bryant, Gold, Northrup and Stevenson, 1989), and national mail surveys (Northrup, 1985). Geographical variation in response rates has also been noted by American survey researchers (Dunkleberg and Day, 1973; Fitzgerald and Fuller, 1982; and Steeh, 1979). Most authors have noted that response rates are lower in larger urban areas. Not surprisingly, the response rate for the CPS was highest in the Atlantic Provinces and Saskatchewan, the provinces with the smallest proportions of their population residing in major urban centres; and lowest in Ontario and Quebec, the provinces with the largest proportion of their population residing in major urban centres.

TABLE 3.3 NATIONAL AND PROVINCIAL RESPONSE RATES: CAMPAIGN PERIOD SURVEY

Province	Completions	Refusals	Response Rate
Newfoundland	113	20	70
Prince Edward Island	127	44	66
Nova Scotia	109	31	71
New Brunswick	213	66	66
Quebec	835	612	49
Ontario	968	522	55
Manitoba	179	95	59
Saskatchewan	193	69	64
Alberta	446	194	63
British Columbia	426	233	58
CANADA	3,609	1,876	57

The number of completed interviews and the response rate for each of the 47 replicates is presented in Table 3.4. The mean number of completions for each replicate was 76.8 and the standard deviation was 11.4. There was considerably less variation in the response rate (mean = 57 and standard deviation = 6.1). The amount of variation in the response rate among the 47 replicates indicates that about half the variation in the number of completions resulted from the characteristics of the replicate (number of days in data collection, number of sample codes released and proportion of numbers that were eligible households).

calculated as completions/eligible is (3,609/6,027) 60 percent.

Of course variation in the number of completions and response rates among the replicates is exaggerated by the shorter data collection time period for the replicates released in the last days of the campaign. Six of the thirteen replicates having more than a five percent difference from the final response rate were in the last seven replicates released. It is reasonable to conclude that variations in response among the replicates will have minimal impact on analysis of events over the course of the campaign.

More than half the interviews were completed on one of the first three call attempts and only a small number of completions required ten or more attempts (Table 3.1). The most calls made to complete a PES was 25. A minimum of 12 attempts, at various times of the day, evening and weekend, were made to each "ring no answer" in order to reduce the nonresponse from not at homes. Refusals were called a second time. A small number of first time refusers (44 or 1.5 percent) completed the survey on the second call.

3.4 Data Collection Procedures: Post Election Survey

Cover sheets for the 3,609 completions were randomly ordered at the conclusion of the CPS so attempts to obtain PES interviews were not related to the completion date of the CPS. Calling for the PES started on November 23rd, 1988, two days after the election and continued until December 22nd, 1988. Sixty eight percent of the 2,922 respondents who completed the PES were interviewed in the 30 days after the election. Calling resumed after the Christmas break on January 3, 1989 and was completed on January 26th, 1989.

3.5 Reinterview Rates: Post Election Survey

The final disposition of sample at the conclusion of the PES is presented in Table 3.5. Brief explanation of some of the result codes is in order. The "wrong number" result most likely represents incorrect interviewer dialings in the CPS. When called in the PES the "person" who answered the telephone (usually an operator, recorded messages indicating the number was not in service, or some other type of operator intercept) verified the interviewer reached the number they dialed, but clearly indicated that no one at that number was interviewed before the election.

The "not traceable" cases resulted from an interviewer reaching the correct number and finding the respondent (or the household) had moved, getting an operator intercept noting that the number had been changed to unlisted, or other results that made it impossible to contact the respondent.

The result "ill" indicated that the respondent was contacted but they, or more often another household member, reported that the respondent was either physically or mentally not capable of completing the interview. "Away" indicates that another household member indicated the respondent had moved to a second home for the winter months.

Very few refusals were obtained in the PES and, as a result, the reinterview rate for the PES was high (81 percent). Reinterview rate was defined as the number

of completed interviews divided by the number of respondents in the CPS times 100 percent.

TABLE 3.4 NUMBER OF COMPLETIONS AND RESPONSE RATE BY REPLICATE:
CAMPAIGN PERIOD SURVEY

Replicate	Eligible	Response Rate%	Replicate	Eligible	Response Rate %
1	82	57	25	80	55
2	85	54	26	69	57
3	83	61	27	73	60
4	91	61	28	73	57
5	74	56	29	76	57
6	88	58	30	91	60
7	88	61	31	88	63
8	82	56	32	84	60
9	83	59	33	80	54
10	87	62	34	78	58
11	75	51	35	75	54
12	89	64	36	73	56
13	77	60	37	90	64
14	71	58	38	82	59
15	83	60	39	67	52
16	72	59	40	69	55
17	70	60	41	66	50
18	92	67	42	78	58
19	80	63	43	67	51
20	93	65	44	55	45
21	77	58	45	57	44
22	85	65	46	45	41
23	72	54	47	40	37
24	74	60			
TOTAL				3609	57.0

TABLE 3.5 FINAL SAMPLE DISPOSITION: POST ELECTION SURVEY

Result	Number	Percent
Completion	2922	81.0
Refusals	321	8.9
Callback	167	4.6
Ill	16	.4
Away	14	.4
Deceased	5	.1
Not Traceable	60	1.7
Never Answered	39	1.1
Wrong Number	65	1.8
TOTAL	3609	100.0

There was less provincial variation in the response rate to the PES than there was in the CPS (Table 3.6). Also, the negative relationship between response rate and proportion of the population living in large urban centres is less well defined. Two of the least "urban" provinces have the lowest (Newfoundland) and highest response rates (PEI). Quebec continues to have the lowest rate but, it is much closer to the Ontario rate in the PES than in the CPS.

The amount of variation among the number of completed interviews among the replicates is also less in the PES compared to the CPS (Table 3.7). This decrease in variation can be seen by comparing the means and standard deviations. The mean number of completions in the CPS is 76.8 and the standard deviation is 11.7 while the comparable figures for the PES are 62.2 and 9.2. (The decrease in the standard deviation between the PES and CPS exceeds the decrease in the mean number of completions.) Importantly, variation in the proportion of CPS respondents completing the PES (the response rate: 81 percent) is less than the variation in the number of completions among the replicates in both the CPS and PES. The standard deviation for this proportion is 5.4 (compared to 9.2 for PES and 13.7 for CPS). These figures indicate that variation in response rate over time is not likely to be a significant factor in explaining temporal variations in the data during the campaign.

TABLE 3.6 NATIONAL AND PROVINCIAL REINTERVIEW RATES: POST ELECTION SURVEY

Province	Completions	Refusals	Response Rate
Newfoundland	90	9	80
Prince Edward Island	109	12	87
Nova Scotia	90	9	86
New Brunswick	172	22	83
Quebec	637	97	80
Ontario	783	84	83
Manitoba	145	14	82
Saskatchewan	162	15	84
Alberta	379	28	87
British Columbia	355	31	84
CANADA	2,922	321	83

3.6 Data Collection Procedures: Mailback Survey

After the interviewer thanked the respondent for completing the post election survey they asked respondents to participate in a mail survey. Ninety percent of the 2,922 respondents to the PES provided a name and mailing address. (In a small number of cases the respondent provided only initials, or asked that the questionnaire be sent to their workplace.) These 2,635 people (.90 x 2,922) were the sample for the mail survey.

In an effort to maximize response to the mail survey, questionnaires were sent out on a weekly basis during the conduct of the PES. Sending out the mailback survey once all of the post election interviews were completed (up to two months after the first respondents completed the PES) probably would have decreased the respondents' perceived salience of the mail survey and depressed the mailback reinterview rate. A reminder card was sent one week after the questionnaire. A second questionnaire was sent approximately three weeks after the reminder card and this questionnaire was followed by a telephone reminder.

TABLE 3.7 NUMBER OF COMPLETIONS BY REPLICATE

<u>Replicate</u>	<u>Campaign Period</u>	<u>Post Election</u>	<u>Proportion of CPS Respondents Completing Post Election Study</u>
1	82	65	.79
2	85	75	.88
3	83	67	.81
4	91	65	.71
5	74	59	.80
6	88	70	.80
7	88	67	.76
8	82	67	.82
9	83	66	.80
10	87	73	.84
11	75	59	.79
12	89	65	.73
13	77	63	.82
14	71	56	.79
15	83	67	.81
16	72	52	.72
17	70	52	.74
18	92	68	.74
19	80	66	.82
20	93	76	.82
21	77	67	.87
22	85	71	.84
23	72	56	.78
24	74	60	.81
25	80	62	.77
26	69	55	.80
27	73	60	.82
28	73	57	.78
29	76	69	.91
30	91	75	.82
31	88	78	.89
32	84	65	.77
33	80	66	.82
34	78	62	.79
35	75	57	.76
36	73	62	.85
37	90	79	.88
38	82	66	.80
39	67	59	.88
40	69	50	.72
41	66	50	.76
42	78	67	.86
43	67	57	.85
44	55	49	.89
45	57	48	.84
46	45	44	.98
47	40	33	.82
TOTAL	3,609	2,922	.81

3.7 Mailback Reinterview Rate

The mailback reinterview rate was 80 percent, 2,115 of the 2,635 respondents who provided an address returned a questionnaire.

The provincial pattern of response noted for the CPS and the PES is also present for the mail survey. Table 3.8 depicts the percentage distribution of completions for each survey wave.

3.8 Cumulative Response Rate for All Survey Waves

When conducting analysis that includes data from the PES survey and the mailback survey, it is important to note that overall response rate is the product of the response rate to the CPS (57) times the response rate to the PES (83) times the response rate to the mailback survey (80) or 39 percent.

Researchers have noted that attrition from panel studies is not random (Waterton and Lievesley, 1986; Powers and Blytena, 1972; Parnes, 1972; and Streib, 1966). However, methods of compensation for missing observations are available (Kalton, 1986).

TABLE 3.8 PROVINCIAL DISTRIBUTION OF COMPLETED INTERVIEWS AS PRESENTED IN SAMPLE DESIGN AND BY SURVEY WAVE

Province	<u>Original Sample Design</u>		<u>Campaign Period</u>		<u>Post Election</u>		<u>Mailback</u>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Nfld.	100	2.9	113	3.1	90	3.1	68	3.2
P.E.I.	100	2.9	127	3.5	109	3.7	85	4.0
N.S.	100	2.9	100	3.0	90	3.1	66	3.1
N.B.	200	5.7	213	5.9	172	5.9	134	6.3
Quebec	900	25.7	835	23.1	637	21.8	452	21.4
Ontario	900	25.7	968	26.8	783	26.8	565	26.7
Manitoba	200	5.7	179	5.0	145	5.0	98	4.6
Sask.	200	5.7	193	5.3	162	5.5	119	5.6
Alberta	400	11.4	446	12.4	379	13.0	272	12.9
B.C.	400	11.4	426	11.8	355	12.1	256	12.1
TOTAL	3,500	100.00	3,609	100.00	2,422	100.00	2,115	100.00

4 DATA PROCESSING NOTES

4.1 Introduction

This section of the technical documentation provides a variable description list as well as a map of variables as they appear on the raw data and SPSS^x system file. Comment on the CATI experiments and the occupation coding is also provided. Note that the variable names in the SPSS^x program code are in upper case, though in the original CATI instrument, the item numbers/names are in lower case. The PES variable names are prefixed with an "X" and the mailback with a `2'.

4.2 CATI Experiments Utilizing Random Numbers

CATI facilities were used to vary item wording and order in both the CPS and the PES. An example of a wording experiment is instructive. There were four versions of the Meech Lake Accord item (L4A - L4D) in the CPS. The first version of the item is presented below.

Now I would like to ask you about the Meech Lake Accord, reached last year between the federal and provincial governments.

Do you support or oppose it?

The second version of the item, after the opening comment but before the question, included the following stimulus: "Under this accord, Quebec is recognized as a distinct society". The third included: "Under this accord, the government of Quebec has agreed to accept the new Constitution of Canada, as the other provinces did in 1981. The fourth included: "Under this accord the powers of the provincial government are strengthened in various ways".

The responses for the item, which were the same in all four versions, were "support", "neither support or oppose", "oppose", "don't know", and "refused".

Which version of the item the respondent was given depended on the value of random number 4 (identified in the data set as (RN4)). In the example above RN4 had a value of "0", "1", "2", or "3". During the conduct of the interview CATI would, on the basis of the value of RN4, present the interviewer with the appropriate version of the Meech Lake Accord item (e.g., if RN4 was 1 then the interviewer read the "distinct society" version of the item to the respondent). The values for each random number, associated with each of the CATI experiments, were assigned to each telephone number in the sample before the interviewing commenced. (Because not all telephone numbers in the sample resulted in a completed interview the proportions of the sample receiving each version of the item may not be identical.)

Examination of the frequency distribution for items containing experiments should be informed by the distribution for each version of the item. The variable label for each item containing wording experiments includes the random number.

Tabulation of the item by the random number (a cross- tabulation) will detail the marginal distribution to each version of the experimental item.

Items employing the use of random numbers include:

L2	Free Trade Agreement With U.S.*RN1'
L2A1	How Feel>Canada Lose Control Economy*RN2'
L2A2	How Feel> Hard Maintain Social Pgms*RN2'
L2A3	How Feel> Cdns Lose Jobs<Industries>*RN2'
L2B1	How Feel> Defend Against US Protection*RN3'
L2B2	How Feel> Lower Cost of Goods Needed*RN3'
L4A	Support Meech Lake Accord or Oppose*RN4'
L4B	Meech Lake> Quebec Distinct Society*RN4'
L4C	Meech Lake> Quebec Accept Constitution*RN4'
L4D	Meech Lake> Prov Powers Strengthened*RN4'
L6A	Opinion>3 Positions on Abortion*RN14,RN5'
L6B	Opinion>3 Positions on Abortion*RN14,RN5'
L8	Official Languages Act>Extend Serv.*RN12'
L9	Nuclear Submarines for the Navy*RN6'
XF4A	Opinion> 3 Positions on Abortion*XRN14'
XF4B	Opinion> 3 Positions on Abortion*XRN14'

Question order randomization was included in the CPS and the PES. For example, the questions on vote intention were asked either very early in the survey or near the end just before the sociodemographic items were asked. As with the wording experiments, a random number is associated with the experimentation. Order randomization in the CPS was repeated in the PES.

Order randomization experiments include:

Campaign Period Survey

section b	vote intentions	RN7
D2A-D2J	leader, party and candidate ratings	RN8
D3A-D5B	impression of party leaders	RN9
D6A-D7C	impressions of candidates	RN11
section f	strategic contingencies	RN10
16A-16B	abortion	RN14

Post Election Survey

E2A-E2I	leader, party and candidate ratings	XRN8
F4A-F4B	abortion	XRN14
G1A-G3D	impression of party leaders	XRN9
I1A-I3C	impressions of candidates	XRN11
L1A-L2E	free trade	XRN7
L8A-L10A	party leaders promised to spend	XRN9

4.3 Variable Description List

The variable name is capitalized and to the left in the following list. The items used in the three surveys are listed in the following sequence. Items that describe the respondent, regardless of the survey wave they were collected in, are listed first. Information collected in the telephone surveys follows. These items are grouped in general categories which are ordered alphabetically. Finally, items included in the mailback survey are listed in the order in which they appear in the questionnaire.

4.31 Sampling and Study Procedures and Information Describing the Respondent

Sampling and study procedures for CPS

IDNUM	Respondent Identification Number
PROVINCE	Province of Interview
REPLICAT	Sample Replicate Code
SAMPLE	Sample Code
OVER	Over Sample
AREACODE	Telephone Area Code
INTDATE	Date of Interview <MMDDYY>
INTNUM	Interviewer's Number
ATTEMPTS	Total Call Attempts
REFUSALS	Number of Refusals Before Completion
CONTACTS	Total Times Respondent Contacted
ANSWERS	Number of Times Telephone Answered
INTIME	Length of Interview <Minutes>
RESULT	Result Code
INTLANG	Language of Interview

Sampling and study procedures for PES

XPROV	Province of Interview
XREPLIC	Sample Replicate Code
XSAMPLE	Sample Code
XOVER	Over Sample
XAREACOD	Telephone Area Code
XINTDATE	Date of Interview <MMDDYY>
XINTNUM	Interviewer's Number
XATTEMPT	Total Call Attempts
XREFUSAL	Number of Refusals Before Completion
XCONTACT	Total times Respondent Contacted
XANSWER	Number of Times Telephone Answered
XINTIME	Length of Interview <Minutes>
XRESULT	Result Code
XINTLANG	Language of Interview

Sampling and study procedures for Mailback Survey

MAILID Mail Identification Number
ZINTLANG Language of Interview <Questionnaire>

Sampling and study procedures: created variables to describe the data

INTYPE Type of Interview
LINK Telephone/Mailback Link Indicator
FRANCO Francophone Respondent
WT1 National Weight - Includes Over Sample
WT2 Province Weight - Includes Over Sample
WT3 Atlantic Weight - Includes Over Sample
WT4 Prairie Weight - Includes Over Sample
WT5 National Weight - Excludes Over Sample
WT6 Province Weight - Excludes Over Sample
WT7 Atlantic Weight - Excludes Over Sample

Personal information concerning respondent in CPS

RSEX Respondent's Gender
N1 Year of Birth
N2 Marital Status
N11 Religious Affiliation
N11A Church or Denomination
N12 How Often Attend Place of Worship
N13 Country of Birth
N14 Year Come to Live in Canada
N15 Ethnic or Cultural Group
N16 Language First Learned & Still Understand
N18 Also Carry on a Conversation in French

Personal information concerning respondent in PES

XRSEX Respondent's Gender
XN1 Year of Birth
XN2 Country of Birth

Personal information concerning respondent in Mailback Survey

ZRSEX Respondent's Gender
YRBIRTH Respondent's Year of Birth

Residence Information in CPS

NADULTS Number of Adults <Cdn Citizens> in Hhld
N17 Language Usually Speak at Home
N20 # of Children Under 18 Live in Home

Education/occupation/income for CPS

N3	Highest Level of Education Completed
N4	Any Schooling Obtain in Religious School
N5	Employment Status
N6	Occupation-Stats Canada Code
N7	Self-Employed or Work for Someone Else
N8	Work for Private Firm or Government
N8A	Work for Federal/Provincial/Local Gov't
N9	Belong to Labour Union
N10	Out of Work/Laid Off During Last Year
N19	Total Family Income <Category>
BLISH81	Occupation> Blishen 1981 SES
PINPOR81	Occupation> Pineo-Porter 1981 Category

4.32 Items Collected in the Telephone Surveys

Campaign activities in CPS

K1	Contacted By Local Candidates/P.Workers
K1A	Which Party Candidate From-1st Mention
K1B	Which Party Candidate From-2nd Mention
K1C	Which Party Candidate From-3rd Mention
K2	Contacted in Other Way By The Parties
K2A	Contacted in Other Way-1st Mention
K2B	Contacted in Other Way-2nd Mention
K2C	Contacted in Other Way-3rd Mention
M1	Past Week>Discussed Politics With Others
M2	Past Week> Helped a Party's Campaign

Campaign activities in PES

XC1	During Campaign> Discuss Politics>Others
XC2	During Campaign> Help a Party
XC2A	During Campaign> Party Helped
XC3	During Campaign> Contacted by Candidates
XC3A	During Campaign> Party Contacted By
XC4	During Campaign> Pamphlet Left in Mail
XC4A	During Campaign> Party Left Pamphlet
XC5	See Last TV Debate Among Party Leaders
XC5A	Leader Performed the Best in Debate
XC5B	Leader Performed the Worst in Debate
XC6	Past Year> Asked to Give Money to Party
XC6A	Past Year> Which Party Asked for Money
XC7	Did Give Money to a Candidate or Party
XC7A	Which Candidate or Party Give Money To

Candidate traits in PES

XI1A	PC Candidate> Make Good Cabinet Minister
XI1B	PC Candidate> A Real Conservative
XI1C	PC Candidate>Look After Interests-Riding
XI2A	LIB Candidate>Make Good Cabinet Minister
XI2B	LIB Candidate> A Real Liberal
XI2C	LIB Candidate>Look After Interest-Riding
XI3A	NDP Candidate>Make Good Cabinet Minister
XI3B	NDP Candidate> A Real New Democrat
XI3C	NDP Candidate>Look After Interest-Riding

Constituency verification in PES

XM1	Name of Riding in Which Respondent Lives
XM2	Remember Name> PC Candidate in Riding
XM3	Remember Name> Lib Candidate in Riding
XM4	Remember Name> NDP Candidate in Riding

Federal party identification in CPS

I1	Federal Party Identification
I2	How Strongly Federal Party Identification
I3	A Little Closer to One Federal Party
I4	Which Federal Party Closer To

Federal party identification in PES

XL4	Federal Party Identification
XL5	How Strongly Federal Party Identification
XL6	A Little Closer to One Federal Party
XL7	Which Federal Party Closer To

Government performance in CPS

J1	PC Gov't More Honest Than Prior Liberal
J1AB	Much/Somewhat More/Less Honest
J2	PC Gov't Done Promote Que Than Liberal
J2A	Increase of Effort Promote Que Interests
J2B	Decrease of Effort Promote Que Interests
J3	PC Gov't Done Promote West Than Liberal
J3A	Increase Effort Promote West Interests
J3B	Decrease Effort Promote West Interests
J4	Rate PC Gov't Protection of Environment

Group identification in PES

XH1	Rating> How Feel About Farmers
XH2	Rating> How Feel About the Poor
XH3	Rating> How Feel About English Canadians
XH4	Rating> How Feel About Small Business
XH5	Rating> How Feel About Ethnic Minorities
XH6	Rating> How Feel About Labour Unions
XH7	Rating> How Feel About Native Peoples
XH8	Rating> How Feel About the Elderly
XH9	Rating> How Feel About Feminist Groups
XH10	Rating> How Feel About French Canadians
XH11	Rating> How Feel About Americans

Group mobilization in PES

XJ1A	Ever Been Active in a Union
XJ1B	Contacted by Union re Supporting a Party
XJ1C	Contacted by Union> Support Which Party
XJ2A	Belong to an Ethnic or Cultural Organizn
XJ2B	Actively Involved in Ethnic/Cultural Org
XJ2C	Contacted by E/C re Supporting a Party
XJ2D	Contacted by E/C> Support Which Party
XJ3A	Belong to Service Club/Trade Association
XJ3B	Actively Involved in Service Club, etc.
XJ3C	Contacted by Club re Supporting a Party
XJ3D	Contacted by Club> Support Which Party
XJ4A	Belong to "Concerned" Org.<Environment>
XJ4B	Actively Involved in "Concerned" Org.
XJ4C	Contacted by Org. re Supporting a Party
XJ4D	Contacted by Org.> Support Which Party
XJ5A	Hear Anyone From Church Talk of Issues
XJ5B	Was Talk at Church About Free Trade
XJ5C	Was Talk at Church About Abortion
XJ6A	Work For Company Held Info re F.Trade
XJ6B	People in Charge of Meeting For/Against
XJ7A	Member of a Federal Political Party
XJ7B	Which Federal Party Are You a Member Of

Group responsibility in PES

XK1	Government Should Do For> Farmers
XK2	Government Should Do For> the Poor
XK3	Government Should Do For> English Cdns
XK4	Government Should Do For> Small Business
XK5	Government Should Do For>Ethnic Minority
XK6	Government Should Do For> Single-Parent
XK7	Government Should Do For> Native Peoples
XK8	Government Should Do For> the Elderly

XK9 Government Should Do For> Women
XK10 Government Should Do For> French Cdns

Issues, interest and media in the CPS

A1 Interested in Federal Election Campaign
A2 # Days in Past Week Watch News on T.V.
A2A Main Source of News> CBC
A2B Attention Paid to Campaign News on T.V.
A3 See TV Commercials for a Political Party
A4 # Days in Past Week Read Daily Newspaper
A4A Daily Newspaper Read Most>Natnl Politics
A4B Attention Paid to Campaign News Articles
A5A Issues Party Leaders Talking About-1st
A5B Issues Party Leaders Talking About-2nd
A5C Issues Party Leaders Talking About-3rd
A5D Issues Party Leaders Talking About-4th
A6 See Last TV Debate Among Party Leaders
A6A Leader Performed the Best in Debate
A6B Leader Performed the Worst in Debate
A7 Pay Much Attention to Politics Generally

Issues, interest and media in the PES

XA1 Interested in Federal Election Campaign
XA2 Attention Paid to Campaign News on T.V.
XA3 Attention Paid to Campaign News Articles
XA4A Issues Party Leaders Talked About - 1st
XA4B Issues Party Leaders Talked About - 2nd
XA4C Issues Party Leaders Talked About - 3rd
XA4D Issues Party Leaders Talked About - 4th
XA5A Candidates/Parties Discuss> Free Trade
XA5B Which Party Discuss> Free Trade Agreement
XA6A Candidates/Parties Discuss> Meech Lake
XA6B Which Party Discuss> Meech Lake Accord
XA7A Candidates/Parties Discuss> Abortion
XA7B Which Party Discuss> Abortion
XA8A Candidates/Parties Discuss> F18 Contract
XA8B Which Party Discuss> F18 Canadair in Mtl
XA9A Candidates/Parties Discuss> Official Lang
XA9B Which Party Discuss> Official Lang Act

Leader, party, candidate evaluation in CPS

D1A Know How Much About> Brian Mulroney
D1B Know How Much About> John Turner
D1C Know How Much About> Ed Broadbent
D1D PC's Nominated a Candidate in Riding

D1DA Know How Much About> PC Candidate
D1E Lib.'s Nominated a Candidate in Riding
D1EA Know How Much About> Liberal Candidate
D1F NDP Nominated a Candidate in Riding
D1FA Know How Much About> NDP Candidate
D2A Rating> Brian Mulroney
D2B Rating> John Turner
D2C Rating> Ed Broadbent
D2D Rating> Conservative Party
D2E Rating> Liberal Party
D2F Rating> New Democratic Party
D2G Rating> Conservative Candidate
D2H Rating> Liberal Candidate
D2I Rating> NDP Candidate
D3A Impression> MULRONEY> Intelligent
D3B Impression> MULRONEY> Trustworthy
D3C Impression> MULRONEY> Man of Vision
D3D Impression> MULRONEY> Compassionate
D3E Impression> MULRONEY> Knowledgeable
D3F Impression> MULRONEY> Moral
D3G Impression> MULRONEY> Strong Leadership
D3H Impression> MULRONEY> Really Cares
D4A Impression> TURNER> Intelligent
D4B Impression> TURNER> Trustworthy
D4C Impression> TURNER> Man of Vision
D4D Impression> TURNER> Compassionate
D4E Impression> TURNER> Knowledgeable
D4F Impression> TURNER> Moral
D4G Impression> TURNER> Strong Leadership
D4H Impression> TURNER> Really Cares
D5A Impression> BROADBENT> Intelligent
D5B Impression> BROADBENT> Trustworthy
D5C Impression> BROADBENT> Man of Vision
D5D Impression> BROADBENT> Compassionate
D5E Impression> BROADBENT> Knowledgeable
D5F Impression> BROADBENT> Moral
D5G Impression> BROADBENT> Strong Leadership
D5H Impression> BROADBENT> Really Cares
D6A PC Candidate> Make Good Cabinet Minister
D6B PC Candidate> A Real Conservative
D6C PC Candidate>Look After Interests-Riding
D7A LIB Candidate>Make Good Cabinet Minister
D7B LIB Candidate> A Real Liberal
D7C LIB Candidate>Look After Interest-Riding
D8A NDP Candidate>Make Good Cabinet Minister
D8B NDP Candidate> A Real New Democrat
D8C NDP Candidate>Look After Interest-Riding
D9 Candidate Already Your MP
D9A Which Candidate Already Your MP
D10A Ever Attended Meeting Where MP Spoke
D10B Ever Received Something in Mail From MP

D10C	Ever Read About MP in Newspaper/Magazine
D10D	Ever Heard MP on the Radio
D10E	Ever Seen MP on TV
D10F	Ever Met MP Personally
D10G	Ever Talked to Member/Office of MP
D11A	Talked to M/O: to Express an Opinion
D11B	Talked to M/O: to Seek Information
D11C	Talked to M/O: Seek Help With Problem
D11D	Satisfaction With Response From M/O
D12	Name of Riding in Which Respondent Lives
D13	Remember Name> PC Candidate in Riding
D14	Remember Name> Lib Candidate in Riding
D15	Remember Name> NDP Candidate in Riding

Leader, party, candidate evaluation in PES

XE1A	Know How Much About> Brian Mulroney
XE1B	Know How Much About> John Turner
XE1C	Know How Much About> Ed Broadbent
XE1D	Know How Much About> PC Candidate
XE1E	Know How Much About> Liberal Candidate
XE1F	Know How Much About> NDP Candidate
XE2A	Rating> Brian Mulroney
XE2B	Rating> John Turner
XE2C	Rating> Ed Broadbent
XE2D	Rating> Conservative Party
XE2E	Rating> Liberal Party
XE2F	Rating> New Democratic Party
XE2G	Rating> Conservative Candidate
XE2H	Rating> Liberal Candidate
XE2I	Rating> NDP Candidate
XG1A	Impression> MULRONEY> Intelligent
XG1B	Impression> MULRONEY> Trustworthy
XG1C	Impression> MULRONEY> Strong Leadership
XG1D	Impression> MULRONEY> Really Cares
XG2A	Impression> TURNER> Intelligent
XG2B	Impression> TURNER> Trustworthy
XG2C	Impression> TURNER> Strong Leadership
XG2D	Impression> TURNER> Really Cares
XG3A	Impression> BROADBENT> Intelligent
XG3B	Impression> BROADBENT> Trustworthy
XG3C	Impression> BROADBENT> Strong Leadership
XG3D	Impression> BROADBENT> Really Cares
XL8A	Mulroney> Promise Spend More Cdn Afford
XL9A	Turner> Promise Spend More Cdn Afford
XL10A	Broadbent>Promise Spend More Cdn Afford

National economic conditions in CPS

G1	Past Year> Economy of the Country
G1AB	Much/Somewhat Better/Worse Economy
G2	Next 12 Months> Economy of the Country
G3	Fed Policies Influence Country's Econ
G3AB	Much/Somewhat Better/Worse Influence

Personal financial conditions in CPS

C1	Better/Worse Off Financially Than Yr Ago
C1AB	Much/Somewhat Better/Worse Than Yr Ago
C2	Better/Worse Off Financially Yr From Now
C2AB	Much/Somewhat Better/Worse Yr From Now
C3	Economic Policies of Fed Govt Made You:
C4	Tax System Changes Mean Income UP/DOWN

Provincial economic conditions in CPS

E1	Past Year>Economic Condition in Province
E1A	Economic Conditions> How Much Better
E1B	Economic Conditions> How Much Worse
E2	Federal Economic Policies Influence Prov
E2A	Fed. Economic Policies> How Much Better
E2B	Fed. Economic Policies> How Much Worse

Self/other placements in CPS

H1A	How Much Shld Be Done Promote French
H1B	Liberals> Think Be Done Promote French
H1C	PC> Think Should Be Done Promote French
H1D	NDP> Think Should Be Done Promote French
H1E	Mulroney> Think Be Done Promote French
H1F	Turner> Think Be Done to Promote French
H1G	Broadbent> Think Be Done Promote French
H2A	Think Canada Shld Have Closer Ties to US
H2B	Liberal Party> Canada Shld Be Closer- US
H2C	PC Party> Canada Should Be Closer to US
H2D	NDP> Canada Should Be Closer to the US
H2E	Mulroney> Canada Should Be Closer to US
H2F	Turner> Canada Should Be Closer to US
H2G	Broadbent> Canada Should Be Closer to US
H3	How Much Power Should Trade Unions Have
H4A	Had to Choose> Level of Taxes & Services
H4B	Liberal Party> Level of Taxes & Services
H4C	PC Party> Level of Taxes & Services
H4D	NDP> Level of Taxes & Services
H4E	Mulroney> Level of Taxes & Services

H4F	Turner> Level of Taxes & Services
H4G	Broadbent> Level of Taxes & Services
H5	Use Labels to Describe Politics
H5A	Where Place Self: Left/Centre/Right

Strategic contingencies in CPS

F1A	PC Chances> Winning in Your Riding
F1B	Lib Chances> Winning in Your Riding
F1C	NDP Chances> Winning in Your Riding
F2A	PC Chances> Winning in Whole Country
F2B	Lib Chances> Winning in Whole Country
F2C	NDP Chances> Winning in Whole Country
F3	Past Week> Heard/Read Polls re Parties

Voting in CPS

B1	Expect to Vote in the Upcoming Election
B2	Party Think Will Vote For
B3	Not Made Up Mind> Party Leaning Toward
B4	Party Definitely Do Not Want To Vote For
B5	Final Choice, or May Still Change Mind
B6	Vote in Last Federal Election - 1984
B7	Party Voted For> Last Federal Election
B8	Vote in Last Provincial Election
B9	Party Voted For>Last Provincial Election
B10	Support or Oppose Quebec Independence

Voting in PES

XB1	Did You Vote in This Election
XB2	Party Voted For in This Election
XB2A	How Strong Preference for Party
XB2B	When Decide Going to Vote For Party
XB3A	If Had Voted, What Party Voted For
XB3B	How Strong Preference for Party
XB4	Election Day> Party Think Win in Riding
XB4A	Election Day> Party Think 2nd in Riding
XB5	Election Day> Party Think Win in Country
XB5A	Election Day> Party Think 2nd in Country

4.33 Items Included in Mailback Survey

QA1	Price Canadians Pay For Energy Shld Be:
QA2	Best Way to Prevent Energy Shortages Is:
QA3	Big Energy Projects<e.g.,Tar Sands> Are:
QA4	Fact Some Regions in Canada Are Poorer:

QA5 Farmers/Fishermen Not Make Living Shld:
 QA6 Native People Large Amt Self-Government:
 QA7 French-Canadians Outside Quebec:
 QA8 English-Canadians Who Move to Quebec:
 QA9 Business in Quebec Should <Lang Signs>:
 QA10 Adults Be Prevented Buying Pornographic:
 QA11 As General Rule, The Government Should:
 QA12 Only Hospital R.C., Required Do Abortion:
 QA13 Owner of Ethnic <Greek> Restaurant Hire:

QB1 Cut Deficit> Reduce Spending on Univ.
 QB2 Cut Deficit> Harder Get Unemployment Ins
 QB3 Cut Deficit> Allow Doctors Bill Directly
 QB4 Cut Deficit> Allow Hospitals Bill Direct
 QB5 Cut Deficit>Family Allow Low Income Only
 QB6 Cut Deficit> Reduce Welfare Payments
 QB7 Cut Deficit> CBC Accept More Advertising
 QB8 Cut Deficit> Reduce Amt Granted to CBC
 QB9 Cut Deficit> Reduce Spending on the Arts
 QB10 Cut Deficit> Sell CNR to Private Invest
 QB11 Cut Deficit> Sell Petro-Can to Private
 QB12 Cut Deficit> Reduce the Defence Budget
 QB13 Cut Deficit> Reduce Farmers' Subsidies
 QB14 Cut Deficit> Reduce Regional Sub-Indust
 QB15 Cut Deficit> Increase Sales Tax
 QB16 Cut Deficit> Increase Rate Personal Tax
 QB17 Cut Deficit> Increase Rate Corporate Tax

QC1 Comes to Making Decisions in Industry:
 QC2 The Profit System:
 QC3 System of Private Enterprise Abolished:
 QC4 Unskilled Worker Receive Wages That Are:
 QC5 Workers and Management:
 QC6 Getting Ahead in World Mostly Matter Of:
 QC7 A Person's Wage Should Depend On:
 QC8 People Fail At One Thing&Another Means:
 QC9 Most Business Executives:
 QC10 Strikes to Improve Wages/Working Cond:
 QC11 Businesses Allowed Make Much Money Can:
 QC12 Land&Natural Resources This Country Be:
 QC13 Government Regulation of Business:
 QC14 Working People In This Country Get:
 QC15 People Not Work Hard on Job Because:
 QC16 Taxes> Corporations and Wealthy People:
 QC17 Competition> School, Work or Business:

QD1 Bible Actual Word of God, Take Literally
 QD2 All Created Equal But Some Better Others
 QD3 Independent Canada Even If Lower Living
 QD4 Public Money Not Used Religious Schools
 QD5 Duty of the Strong to Protect the Weak

QD6 Canada Always Have Special With Britain
 QD7 Religious Schls Get Funds, Continue Get
 QD8 Socialism Be Better Than What Have Now

QE1 Everyone Be Better Off If More Women:
 QE2 People Always Trying to Reform Things:
 QE3 Sweeping Reforms in Complicated Society:
 QE4 Society Today, Too Much Emphasis Placed:
 QE5 Before All Else, Our Institutions Should:
 QE6 Which is Closer to Your Opinion:
 QE7 When You Get Right Down To It Canada Is:
 QE8 Society Today, Too Little Emphasis On:
 QE9 Ordinances>Equal Rights to Homosexuals:
 QE10 Your Own View> Decide What Published
 QE11 Woman Makes Less Than Man, Same Work:
 QE12 Holds Position of Great Responsibility:
 QE13 Prov Law Conflicts Charter, Final Say

QF1 Capital Punishment Never Justified
 QF2 New Immigrants Make Canada Better Place
 QF3 Not Want Join Union, Still Pay Dues
 QF4 Religion Is An Important Part of My Life
 QF5 Native People Be Completely Assimilated
 QF6 Canada Has Two Founding Peoples>BRIT/FR
 QF7 Public Money For Schl to Any Religious
 QF8 Canada Needs More US Investment
 QF9 Protect Env. More Imp Than Creating Jobs
 QF10 Canada Encourage Immigration> Like Us
 QF11 No Amt Money Get Me to Move to the USA

QG1 Do You Think That People Running Gov't:
 QG2 Think That People in the Government:
 QG3 Trust Gov't In Ottawa Do What Is Right:
 QG4 Do You Feel That People Running Gov't:

QH1 Goal> Maintain High Rate Economic Growth
 QH2 Goal> Country Has Strong Defence Forces
 QH3 Goal>People Have More Say-Work/Community
 QH4 Goal> Make Cities/Countryside Beautiful
 QH5 Goal> Maintaining Order in the Nation
 QH6 Goal> Give People More Say Gov Decisions
 QH7 Goal> Fighting Rising Prices
 QH8 Goal> Protecting Freedom of Speech
 QH9 Goal> Maintaining a Stable Economy
 QH10 Goal>Less Impersonal, More Humane Society
 QH11 Goal> The Fight Against Crime
 QH12 Goal>Society=Ideas Count More Than Money

4.4 Map of Variables

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4.5 Occupation Codebook "N6"

Each respondent in the Campaign Period of the National Election Survey was asked his or her main occupation (N6). The open-ended text was then coded into a 4-digit occupation category using the text "Standard Occupational Classification, 1980", Statistics Canada, 1981. If the respondent refused an answer to item "N5", current labour force status, the occupation code was left blank.

The codebook for the 1980 occupation classifications is contained in this section. Appended to each occupation is a socio-economic index score. These indices are commonly referred to as "Blishen Scores" and are based on the male labour force population who reported an occupation in the 1981 Canadian Census. The development of the scale is reported in Blishen, Carroll and Moore, (1987).

Another well-known socio-economic index was developed by Pineo Porter and McRoberts (1977) based on the 1971 Canadian Census. This index was updated in 1985 to reflect the 1981 Census and is reported in McMaster University (1985).

The data file contains two socio-economic indices. The Blishen Scores are contained in the variable "BLISH81" and are identical to those shown in the detailed codebook. The Pineo/Porter/McRoberts scores are contained in the variable "PINPOR81". The full set of SPSS* recode statements used to create these two indices is available from the Institute on request.

Listing of Occupations by Occupational Classification Number, CCDO 1980 with accompanying Blishen Socio-Economic Index Score, 1981

Classification Number	Occupational Classification 1980	Socio-Economic Score Blishen 1981
1111	Members of legislative bodies	55.08
1113	Government administrators	66.84
1115	Post office management	38.19
1116	Inspectors and regulatory officers,government	56.42
1119	Officials and administrators unique to government:n.e.c.	59.94
1130	General managers and other senior officials	71.62
1131	Management:natural sciences and engineering	79.23
1132	Management:social sciences and related fields	62.53
1133	Administrators in teaching and related fields	78.34
1134	Administrators in medicine and health	68.89
1135	Financial management	60.65
1136	Personnel and industrial relations management	62.87
1137	Sales and advertising management	50.07
1141	Purchasing management	50.83

1142	Services management	40.99
1143	Production management	57.57
1145	Management:construction operations	55.91
1146	Farm management	32.06
1147	Management:transport and communications operations	61.01
1151	Other management:mines and oil wells	66.39
1152	Other management:durable goods manufacture	56.56
1153	Other management:non-durable goods manufacture	54.91
1154	Other management:construction	49.40
1155	Other management:transportation and communication	56.38
1156	Other management:trade	47.79
1157	Other management:service	52.49
1158	Other management:other industries	56.83
1171	Accountants,auditors and other financial officers	59.44
1173	Organization and methods analysts	65.98
1174	Personnel and related officers	57.19
1175	Purchasing officers+buyers,except wholesale+retail trade	52.23
1176	Inspectors and regulatory officers:n.e.c.	52.51
1179	Related to management and administration:n.e.c.	57.55
2111	Chemists	63.47
2112	Geologists	71.01
2113	Physicists	73.00
2114	Meteorologists	70.66
2117	Physical sciences:technologists and technicians	54.05
2119	Physical sciences:n.e.c.	41.81
2131	Agriculturists and related scientists	62.19
2133	Biologists and related scientists	65.63
2135	Life sciences:technologists and technicians	52.86
2139	Life sciences:n.e.c.	51.01
2141	Architects	68.12
2142	Chemical engineers	72.47
2143	Civil engineers	71.70
2144	Electrical engineers	70.48
2145	Industrial engineers	64.07
2146	Agricultural engineers	64.22
2147	Mechanical engineers	68.37
2151	Metallurgical engineers	71.05
2153	Mining engineers	72.80
2154	Petroleum engineers	74.67
2155	Aerospace engineers	65.79
2156	Nuclear engineers	75.44
2157	Community planners	65.11
2159	Professional engineers:n.e.c.	70.27
2160	Supervisors:other occup. in architecture and engineering	62.97
2161	Surveyors	46.22
2163	Draughting	53.83
2164	Architectural technologists and technicians	55.82
2165	Engineering technologists and technicians	56.57
2169	Other occupations in architecture and engineering:n.e.c.	35.47
2181	Mathematicians,statisticians and actuaries	61.91
2183	Systems analysts,computer programmers and related	60.73

2189	Mathematics,statistics,systems analysis + related:n.e.c.	48.24
2311	Economists	69.18
2313	Sociologists,anthropologists + related social scientists	63.09
2315	Psychologists	65.36
2319	Social sciences:n.e.c.	49.87
2331	Social workers	60.11
2333	Welfare and community services	36.89
2339	Social work and related fields:n.e.c.	44.39
2341	Judges and magistrates	93.27
2343	Lawyers and notaries	75.60
2349	In law and jurisprudence:n.e.c.	48.72
2350	Supervisors:library,museum and archival sciences	57.97
2351	Librarians,archivists and conservators	55.40
2353	Technicians in library,museum and archival sciences	51.11
2359	Library,museum and archival sciences:n.e.c.	37.70
2391	Educational and vocational counsellors	67.61
2399	Other social sciences and related fields:n.e.c.	51.54
2511	Ministers of religion	52.84
2513	Nuns and brothers	42.17
2519	Religion:n.e.c.	43.27
2711	University teachers	75.87
2719	University teaching and related:n.e.c.	46.83
2731	Elementary and kindergarten teachers	63.64
2733	Secondary school teachers	70.19
2739	Elementary and secondary school teaching+related:n.e.c.	43.38
2791	Community college and vocational school teachers	66.03
2792	Fine arts school teachers:n.e.c.	40.93
2793	Post-secondary school teachers:n.e.c.	67.05
2795	Teachers of exceptional students:n.e.c.	58.09
2797	Instructors and training officers:n.e.c.	49.94
2799	Other teaching and related:n.e.c.	53.23
3111	Physicians and surgeons	101.32
3113	Dentists	101.74
3115	Veterinarians	72.24
3117	Osteopaths and chiropractors	70.24
3119	Health diagnosing and treating:n.e.c.	57.21
3130	Supervisors:nursing,therapy and related assisting	63.51
3131	Nurses,registered,graduate and nurses-in-training	55.26
3132	Orderlies	38.68
3134	Registered nursing assistants	46.51
3135	Nursing attendants	33.60
3136	Audio and speech therapists	62.36
3137	Physiotherapists	56.56
3138	Occupational therapists	55.23
3139	Nursing,therapy and related assisting:n.e.c.	40.44
3151	Pharmacists	64.39
3152	Dietitians and nutritionists	59.31
3153	Optometrists	79.63
3154	Dispensing opticians	48.55
3155	Radiological technologists and technicians	56.78
3156	Medical laboratory technologists and technicians	55.79

3157	Denturists	59.02
3158	Dental hygienists and dental assistants	45.02
3161	Dental laboratory technicians	45.15
3162	Respiratory technicians	59.05
3169	Other in medicine and health:n.e.c.	39.86
3311	Painters,sculptors and related artists	36.88
3313	Product and interior designers	43.47
3314	Advertising and illustrating artists	47.23
3315	Photographers and cameramen	44.66
3319	Fine + commercial art,photography+related fields:n.e.c.	40.57
3330	Producers and directors,performing and audio-visual arts	57.04
3331	Conductors,composers and arrangers	42.01
3332	Musicians and singers	36.58
3333	Music and musical entertainment related:n.e.c.	32.35
3334	Dancers and choreographers	32.94
3335	Actors/actresses	42.94
3337	Radio and television announcers	46.43
3339	Performing and audio-visual arts:n.e.c.	37.54
3351	Writers and editors	54.58
3355	Translators and interpreters	57.30
3359	Writing:n.e.c.	50.15
3360	Supervisors:sports and recreation	38.48
3370	Coaches,trainers,instructors + managers:sport+recreation	36.71
3371	Referees and related officials	23.77
3373	Athletes	40.36
3375	Attendants:sport and recreation	24.93
3379	Sport and recreation:n.e.c.	25.74
4110	Supervisors:stenographic and typing	46.00
4111	Secretaries and stenographers	41.82
4113	Typists and clerk-typists	38.47
4130	Supervisors:bookkeeping,account-recording and related	45.39
4131	Bookkeepers and accounting clerks	40.28
4133	Cashiers and tellers	28.31
4135	Insurance,bank and other finance clerks	40.51
4137	Statistical clerks	41.79
4139	Bookkeeping,account-recording and related:n.e.c.	40.23
4140	Supervisors:office machine and e.d.p.equipment operators	51.16
4141	Office machine operators	37.39
4143	Electronic data-processing equipment operators	41.93
4150	Supervisors:material recording,scheduling + distributing	44.50
4151	Production clerks	43.11
4153	Shipping and receiving clerks	34.11
4155	Stock clerks and related	35.46
4157	Weighers	32.07
4159	Material recording,scheduling and distributing:n.e.c.	31.89
4160	Supervisors:library,file + correspondence clerks+related	50.57
4161	Library and file clerks	34.85
4169	Library,file and correspondence clerks + related:n.e.c.	43.50
4170	Supervisors:reception,info.,mail + message distribution	46.46
4171	Receptionists and information clerks	35.04
4172	Mail carriers	42.29

4173	Mail and postal clerks	38.15
4175	Telephone operators	33.25
4177	Messengers	28.82
4179	Reception,information,mail+message distribution:n.e.c.	34.90
4190	Supervisors:other clerical and related:n.e.c.	47.88
4191	Collectors	43.10
4192	Claim adjusters	41.70
4193	Travel clerks,ticket,station,and freight agents	44.92
4194	Hotel clerks	31.63
4195	Personnel clerks	45.22
4197	General office clerks	37.93
4199	Other clerical and related:n.e.c.	39.01
5130	Supervisors:sales:commodities	41.01
5131	Technical sales and related advisers	57.89
5133	Commercial travellers	50.52
5135	Sales clerks and salespersons:commodities:n.e.c.	30.93
5141	Street vendors and door-to-door sales	29.95
5143	Newspaper carriers and vendors	17.81
5145	Service station attendants	21.47
5149	Sales:commodities:n.e.c.	29.16
5170	Supervisors:sales:services	56.44
5171	Insurance sales	50.18
5172	Real estate sales	49.99
5173	Sales agents and traders:securities	58.62
5174	Advertising sales	47.26
5177	Business services sales	52.09
5179	Sales:services:n.e.c.	44.56
5190	Supervisors:other sales	44.32
5191	Buyers,wholesale and retail trade	46.08
5193	Route drivers	35.73
5199	Other sales:n.e.c.	32.84
6111	Fire-fighting	51.17
6112	Police officers and detectives,government	58.78
6113	Police agents and investigators,private	46.60
6115	Guards and related security	31.95
6116	Commissioned officers,armed forces	62.19
6117	Other ranks,armed forces	41.69
6119	Protection service:n.e.c.	33.20
6120	Supervisors:food + beverage preparation+related service	34.64
6121	Chefs and cooks	25.56
6123	Bartenders	29.24
6125	Food and beverage serving	23.31
6129	Food and beverage preparation and related service:n.e.c.	26.52
6130	Supervisors:in lodging and other accommodation	31.36
6133	Lodging cleaners,except private households	21.37
6135	Sleeping-car and baggage porters	27.46
6139	Lodging and other accommodation:n.e.c.	26.13
6141	Funeral directors,embalmers,and related	47.32
6142	Housekeepers,servants and related	22.08
6143	Barbers,hairstylists and related	35.62
6144	Guides	32.87

6145	Travel and related attendants,except food and beverage	48.83
6147	Child-care occupations	23.70
6149	Personal service:n.e.c.	25.53
6160	Supervisors:apparel and furnishings service	34.28
6162	Laundering and dry cleaning	25.90
6165	Pressing	24.49
6169	Apparel and furnishings service:n.e.c.	24.49
6190	Supervisors:other service	37.46
6191	Janitors,charworkers and cleaners	26.36
6193	Elevator-operating	32.21
6198	Labouring and other elemental:other services	21.24
6199	Other service:n.e.c.	27.60
7113	Livestock farmers	29.59
7115	Crop farmers	31.32
7119	Farmers:n.e.c.	27.92
7180	Foremen/women:other farming,horticult.+ animal husbandry	38.95
7183	Livestock farm workers	25.36
7185	Crop farm workers	22.04
7195	Nursery and related workers	26.99
7196	I.t.g.+s.:other farming,horticultural + animal husbandry	25.71
7197	Farm machinery operators	23.76
7199	Other farming,horticultural and animal husbandry:n.e.c.	23.34
7311	Captains and other officers:fishing vessels	36.35
7313	Net,trap and line fishing	24.59
7315	Trapping and related	19.02
7319	Fishing,trapping and related:n.e.c.	22.73
7510	Foremen/women:forestry and logging	45.16
7511	Forestry conservations	34.14
7513	Timber cutting and related	25.23
7516	Log inspecting,grading,scaling and related	44.19
7517	Log hoisting,sorting,moving and related	34.57
7518	Labouring and other elemental:forestry and logging	25.34
7519	Forestry and logging:n.e.c.	32.30
7710	Foremen/women:mining + quarrying including oil+gas field	54.07
7711	Rotary well-drilling and related	42.43
7713	Rock and soil-drilling	40.23
7715	Blasting	40.43
7717	Mining and quarrying:cutting,handling and loading	39.56
7718	Labouring+other elemental:mining+quarrying incl.oil+gas	34.73
7719	Mining and quarrying including oil and gas field:n.e.c.	40.74
8110	Foremen/women:mineral ore treating	51.56
8111	Crushing and grinding:mineral ores	39.45
8113	Mixing,separating,filtering and related:mineral ores	42.59
8115	Melting and roasting:mineral ores	43.35
8116	I.t.g.+s.:mineral ore treating	45.92
8118	Labouring and other elemental:mineral ore treating	37.94
8119	Mineral ore treating:n.e.c.	40.81
8130	Foremen/women:metal processing and related	51.27
8131	Metal smelting,converting and refining	40.30
8133	Metal heat-treating	39.33
8135	Metal rolling	41.18

8137	Moulding,coremaking and metal casting	36.45
8141	Metal extruding and drawing	36.41
8143	Plating,metal spraying and related	33.89
8146	I.t.g.+s.:metal processing	44.50
8148	Labouring and other elemental:metal processing	36.06
8149	Metal processing and related:n.e.c.	38.29
8150	Foremen/women:clay,glass+stone processing,forming+relat.	44.48
8151	Furnacemen and kiln workers:clay,glass and stone	36.43
8153	Separating,grinding,crushing + mixing:clay,glass+stone	34.81
8155	Forming:clay,glass and stone	34.85
8156	I.t.g.+s.:clay,glass and stone processing and forming	37.98
8158	Labouring+oth. elem.:clay,glass+stone processing+forming	31.45
8159	Clay,glass and stone processing,forming + related:n.e.c.	36.07
8160	Foremen/w:chemicals,petrol,rubber,plastics+rel.mat.proc.	49.77
8161	Mixing and blending:chemicals and related materials	36.19
8163	Filtering,straining+separating:chemicals+rel.materials	40.14
8165	Distilling,subliming+carbonizing:chemicals+rel.materials	51.21
8167	Roasting,cooking+drying:chemicals and related materials	39.76
8171	Crushing and grinding:chemicals and related materials	34.69
8173	Coating and calendering:chemicals and related materials	32.40
8176	I.t.g.+s.:chemicals,petrol.rubber,plast.+rel.mat.process.	43.64
8178	Labour.+oth.elem.:chemicals,petr.rub.plas.+rel.mat.proc.	32.50
8179	Chemical,petrol.,rubber,plast.+rel.mat.processing:n.e.c.	40.75
8210	Foremen/women:food,beverage and related processing	41.92
8211	Flour and grain milling	34.77
8213	Baking,confectionery making and related	30.55
8215	Slaughtering and meat cutting,canning,curing and packing	33.82
8217	Fish canning,curing and packing	20.38
8221	Fruit and vegetable canning,preserving and packing	23.18
8223	Milk processing and related occupations	37.03
8225	Sugar processing and related	36.76
8226	I.t.g.+s.:food,beverage and related processing	34.09
8227	Beverage processing and related	40.13
8228	Labouring+other elem.:food,beverage + related processing	24.92
8229	Food,beverage and related processing:n.e.c.	32.32
8230	Foremen/women:wood processing,except pulp + papermaking	44.20
8231	Sawmill sawyers and related	33.71
8233	Plywood making and related	34.66
8235	Wood treating	35.92
8236	I.t.g.+s.:wood processing,except pulp and papermaking	38.91
8238	Labouring+other elem.:wood processing,except pulp+paper	29.71
8239	Wood processing,except pulp and papermaking:n.e.c.	34.87
8250	Foremen/women:pulp and papermaking and related	52.46
8251	Cellulose pulp preparing	44.18
8253	Papermaking and finishing	43.92
8256	I.t.g.+s.:pulp and papermaking	46.10
8258	Labouring and other elemental work:pulp and papermaking	39.32
8259	Pulp and papermaking and related:n.e.c.	39.74
8260	Foremen/women:textile processing	40.71
8261	Textile fibre preparing	29.13
8263	Textile spinning and twisting	28.74

8265	Textile winding and reeling	27.90
8267	Textile weaving	30.36
8271	Knitting	27.82
8273	Textile bleaching and dyeing	32.29
8275	Textile finishing and calendering	29.16
8276	I.t.g.+s.:textile processing	30.21
8278	Labouring and other elemental:textile processing	27.40
8279	Textile processing:n.e.c.	29.65
8290	Foremen/women:other processing	43.35
8293	Tobacco processing	36.65
8295	Hide and pelt processing	28.42
8296	I.t.g.+s.:other processing	35.64
8298	Labouring and other elemental:other processing	28.78
8299	Other processing:n.e.c.	38.18
8310	Foremen/women:metal machining	50.89
8311	Tool and die making operations	48.15
8313	Machinist and machine tool setting-up	43.99
8315	Machine tool operating	38.43
8316	I.t.g.+s.:metal machining	42.47
8319	Metal machining:n.e.c.	36.62
8330	Foremen/women:metal shaping and forming,except machining	49.19
8331	Forging	37.68
8333	Sheet metal workers	40.36
8334	Metalworking-machine operators:n.e.c.	34.06
8335	Welding and flame cutting	41.42
8336	I.t.g.+s.:metal shaping and forming,except machining	43.19
8337	Boilermakers,platers and structural metal workers	43.58
8339	Metal shaping and forming,except machining:n.e.c.	34.61
8350	Foremen/women:wood machining	41.47
8351	Wood patternmaking	42.52
8353	Wood sawing and related:n.e.c.	30.68
8355	Planing,turning,shaping and related wood machining	31.62
8356	I.t.g.+s.:wood machining	34.03
8357	Wood sanding	27.51
8359	Wood machining:n.e.c.	31.82
8370	Foremen/w.:clay,glass,stone + related material machining	43.15
8371	Cutting and shaping:clay,glass,stone + related material	33.26
8373	Abrading+polishing:clay,glass,stone+related mat.:n.e.c.	32.88
8376	I.t.g.+s.:clay,glass,stone + related materials machining	36.21
8379	Clay,glass,stone and related material machining:n.e.c.	35.01
8390	Foremen/women:other machining and related:n.e.c.	46.88
8391	Engravers,etchers and related:n.e.c.	32.27
8393	Filing,grinding,buffering,cleaning and polishing:n.e.c.	35.40
8395	Patternmakers and mouldmakers:n.e.c.	42.82
8396	I.t.g.+s.:other machining and related	33.55
8399	Other machining and related:n.e.c.	32.48
8510	Foremen/women:fabricating+assembling:metal product:n.e.c.	49.97
8511	Engine + related equipment fabricating+assembling:n.e.c.	36.00
8513	Motor vehicle fabricating and assembling:n.e.c.	36.86
8515	Aircraft fabricating and assembling:n.e.c.	43.57
8523	Ind.,farm,const.+oth.mech.equi.+mach.:fabr.+assem:n.e.c.	36.35

8525	Business+commercial machines:fabricat.+assembling:n.e.c.	35.56
8526	I.t.g.+s.:fabricating + assembling metal products:n.e.c.	43.88
8527	Precision instrum.+rel.equip:fabricat.+assembling:n.e.c.	36.24
8528	Labouring+oth.elemental:fabric.+assem.metal prod.:n.e.c.	31.03
8529	Other fabricating and assembling:metal products:n.e.c.	33.83
8530	Foremen/w.:fabr.,assemb.,instal.+r.:el.electron.+rel.eq.	50.36
8531	Electrical + related equipment:fabricating + assembling	33.31
8533	Electrical + related equip.:installing+repairing:n.e.c.	48.14
8534	Electronic + related equipment:fabricating + assembling	32.33
8535	Electronic + related equip.:installing+repairing:n.e.c.	52.85
8536	I.t.g.+s.:fabric.,assem.,inst.+rep:el.,electron.+rel.eq.	42.52
8537	Radio and television repairers	43.76
8538	Labour.+oth.elem.:fab.,ass.,i.,+r.:el.,electron.+rel.eq.	29.59
8539	Fabr.,assemb.i.+r.:electric.,electron.+rel.equip.:n.e.c.	34.62
8540	Foremen/women:fabricat.,assembl.+repairing:wood products	39.87
8541	Cabinet and wood furniture makers	32.57
8546	I.t.g.+s.:fabricating,assembling+repairing:wood products	31.98
8548	Labouring+oth.elem.:fabric.,assem.,+repair:wood products	27.61
8549	Fabricating,assembling + repairing:wood products:n.e.c.	29.04
8550	Foremen/w.:fabr.,assem.+repair.:textile,fur+leather pr.	34.53
8551	Patternmaking,marking+cutting:textile,fur+leather prod.	30.32
8553	Tailors and dressmakers	28.52
8555	Furriers	28.91
8557	Milliners,hat and cap makers	22.71
8561	Shoemaking and repairing	25.37
8562	Upholsterers	31.22
8563	Sewing machine operators:textile and similar materials	25.00
8566	I.t.g.+s.:fabricating,assem.,+repair:textile,fur+leather	26.78
8568	Labouring+oth.elem.:fab.,assem,+repair:text.,fur+leather	24.81
8569	Fabricating,assemb.+repairing:textile,fur+leather:n.e.c.	26.36
8570	Foremen/women:fabr.,assem.,+repair.:rubber,plastics+rel.	42.59
8571	Bonding and cementing:rubber,plastics + related products	33.27
8573	Moulding:rubber,plastics and related products	30.45
8575	Cutting and finishing:rubber,plastics + related products	31.37
8576	I.t.g.+s.:fabric.,assembl.+repair.:rubber,plastics+rel.	36.98
8578	Labouring+oth.elem.:fab.assem.+rep.:rubber,plastics+rel.	30.37
8579	Fabricat.,assemb.+repair.:rubber,plastics+related:n.e.c.	31.23
8580	Foremen/women:mechanics and repairers:n.e.c.	48.51
8581	Motor vehicle:mechanics and repairers	39.19
8582	Aircraft:mechanics and repairers	49.42
8583	Rail transport equipment:mechanics and repairers	42.57
8584	Industrial,farm+construct. machinery:mechanics+repairers	46.70
8585	Business and commerce machine:mechanics and repairers	48.13
8586	I.t.g.+s.:equipment repair:n.e.c.	43.87
8587	Watch and clock:repairers	39.87
8588	Precision instrument:mechanics and repairers	53.83
8589	Other mechanics and repairers:n.e.c.	38.25
8590	Foremen/w.:other product:fabric.,assem.+repairing:n.e.c.	42.99
8591	Jewelry and silverware:fabricat.,assembling+repairing	33.35
8592	Marine craft:fabricating,assembling and repairing	37.66
8593	Paper product:fabricating + assembling	32.93

8595	Painting and decorating:n.e.c.	33.30
8596	I.t.g.+s.:other product:fabricat.,assembling + repairing	33.38
8598	Labour.+oth.elem.:other product:fabr.,assemb.+repairing	30.01
8599	Other product:fabricating,assembling + repairing:n.e.c.	30.36
8710	Foremen/women:excavating,grading,paving and related	42.54
8711	Excavating,grading and related	35.29
8713	Paving,surfacing and related	30.71
8715	Railway section and track workers	32.64
8718	Labouring+oth.elemental:excavat.,grading,paving+related	28.33
8719	Excavating,grading,paving and related:n.e.c.	37.36
8730	Foremen/w:el.power,light.+wire comm.eq.:erecting,i.+rep.	57.39
8731	Electrical power line workers and related	51.09
8733	Construction electrician and repairers	47.94
8735	Wire communication+related equipment:installing+repair.	50.71
8736	I.t.g.+s.:el.power,light.+wire comm.eq.:erecting,i.+rep.	53.53
8738	Labour.+oth.el.:el.power,light.+wire comm.eq.:er.i.+rep.	36.61
8739	El.power,light.+wire commun.eq.:erecting,ins.+rep:n.e.c.	47.31
8780	Foremen/women:other construction trades	44.75
8781	Carpenters and related	34.86
8782	Brick and stone masons and tile setters	36.21
8783	Concrete finishing and related	33.46
8784	Plasterers and related	34.15
8785	Painters,paperhangers and related	31.94
8786	Insulating:construction	34.34
8787	Roofing,waterproofing and related	29.83
8791	Pipefitting,plumbing and related	45.04
8793	Structural metal erectors	40.78
8795	Glaziers	35.07
8796	I.t.g.+s.:other construction trades	48.79
8798	Labouring and other elemental:other construction trades	28.13
8799	Other construction trades:n.e.c.	33.43
9110	Foremen/women:air transport operating	58.01
9111	Air pilots,navigators and flight engineers	64.07
9113	Air transport operating support	53.64
9119	Air transport operating:n.e.c.	45.16
9130	Foremen/women:railway transport operating	48.23
9131	Locomotive operating	49.25
9133	Conductors and brake workers:railway	44.28
9135	Railway transport operating support	42.87
9139	Railway transport operating:n.e.c.	37.35
9151	Deck officers:ship	56.36
9153	Engineering officers:ship	55.32
9155	Deck crew:ship	36.31
9157	Engine and boiler-room crew:ship	38.48
9159	Water transport operating:n.e.c.	37.15
9170	Foremen/women:motor transport operating	40.79
9171	Bus drivers	34.93
9173	Taxi drivers and chauffeurs	30.92
9175	Truck drivers	34.45
9179	Motor transport operating:n.e.c.	36.04
9190	Foremen/women:other transport equipment operating	47.31

9191	Subway and street railway operating	45.62
9193	Rail vehicle operators,except rail transport	40.79
9199	Other transport equipment operating:n.e.c.	31.93
9310	Foremen/women:materials handling and related:n.e.c.	42.33
9311	Hoisting:n.e.c.	40.73
9313	Longshore workers,stevedores and freight handlers	32.59
9314	Parcel carriers:n.e.c.	21.86
9315	Material handling equipment operators:n.e.c.	35.21
9317	Packaging:n.e.c.	25.79
9318	Labouring and other elemental:material handling+related	28.56
9319	Other material handling and related:n.e.c.	31.99
9510	Foremen/women:printing and related	46.36
9511	Typesetting and composing	42.35
9512	Printing press	40.66
9513	Stereotyping and electrotyping	36.43
9514	Printing,engraving,except photo-engraving	48.79
9515	Photo-engraving and related	44.92
9517	Bookbinding and related	30.30
9518	Labouring and other elemental:printing and related	26.37
9519	Printing and related:n.e.c.	31.69
9530	Foremen/w.:stationary engine+utilities eq.operat.+ rel.	56.59
9531	Power station operators	54.46
9539	Stationary engine+utilities eq.:operating+related:n.e.c.	47.63
9550	Foremen/w.:electronic+related comm. eq.:operating:n.e.c.	57.85
9551	Radio and television broadcasting equipment operators	50.27
9553	Telegraph operators	44.38
9555	Sound + video recording+reproduction equipment operators	49.49
9557	Motion picture projectionists	43.65
9559	Other electronic+related comm.equipment:operating:n.e.c.	45.78
9590	Foremen/women:other crafts + equipment:operating:n.e.c.	50.82
9591	Photographic processing	37.19
9599	Other crafts and equipment:operating:n.e.c.	44.12
9910	Supervisors and foremen/women:n.e.c.	48.27
9916	Inspecting,testing,grading and sampling:n.e.c.	42.68
9919	Other occupations:not elsewhere classified	34.90
9921	Labouring+other elemental:manufacturing	28.97
9922	Labouring+other elemental:transportation + communication	31.28
9923	Labouring+other elemental:trade	23.41
9924	Labouring+other elemental:service	21.26
9925	Labouring+other elemental:public administration+defence	26.16
9926	Labouring+other elemental:other industries	24.11

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