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APPENDIX B

Preface to Kenneth Janda, *Cumulative Index to the American Political Science Review*, *Volumes 1-57: 1900-1963*. Evanston: Northwestern University Press 1964.

Selected by the American Library Association as an Outstanding Reference Book for 1964.

The enormous increase of research and publication in political science since World War II confronts us with the urgent problem of finding and utilizing more efficient means of information storage and retrieval. Officers of the American Political Science Association have a continuing interest in the problem and are attempting to learn from the experience of other disciplines—notably law and the natural sciences.

The work in this field of Dr. Kenneth Janda of Northwestern University was brought to my attention in 1962 by Charles S. Hyneman, then President of the Association. After discussion at the Annual Meeting in September, 1962, Dr. Janda, who had completed a pilot study on the uses of KWIC indexing, agreed to supervise an experimental project which would produce a cumulative index of the *Review* at the same time it increased our knowledge of the potential uses of KWIC indexing in political science.

Now complete, this project has provided the first cumulative index of the *Review* in almost forty years. Dr. Janda's index, successor to those of 1917 and 1926, is welcome indeed. All of us who benefit from it owe a debt of gratitude to Dr. Janda, to Northwestern University, whose computer installation was utilized, and to the Northwestern University Press, which made publication possible.

Evron M. Kirkpatrick June 1, 1964

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INTRODUCTION

Serious scholars in all fields must bear the same cross: the responsibility of catching up and keeping up with the literature. This responsibility has begun to weigh ever more heavily upon the political scientist within recent years. Employing traditional methods of reviewing the literature, the individual scholar seems to have little chance of gaining control of the situation as new publications mushroom. In the absence of any concerted, collective effort to catalogue the existing and forthcoming literature, the stream of publications threatens to engulf the hapless researcher.

Other disciplines have been confronted with the threatening consequences of an unmanageable literature long before now. Early responses to the problem resulted in involving professional organizations in the traditional tasks of preparing bibliographies and abstracts of relevant literature. Examples of such professionally supported projects, and their initial publication dates, include the American Chemical Society's Chemical Abstracts (1907), the Union of American Biological Societies' Biological Abstracts (1926), the American Psychological Association's Psychological Abstracts (1927), the American Bar Foundation's Index to Legal Theses and Research Projects (1952), and the American Sociological Association's Sociological Abstracts (1953). While the American Political Science Association has not sponsored a separate publication for the purpose, extensive bibliographical sections on different fields in political science have been included as regular features of the Review since the first issue appeared in 1906.

Professionally sponsored attempts at cataloguing the literature generally employed the traditional procedures of listing references alphabetically by author under subject-headings. The job of formulating subject-heading classifications was tedious and expensive, and the utility of any given classification scheme was open to question. Cross-filing entries imposed added burdens and expenses in compilation. As the number of references under any particular subject grew, the author-alphabetization listing tended to obstruct quick retrieval of specific references, for dissimilar articles by men with similar names were grouped together under such headings as "American Government." Furthermore, the high costs

of compilation and reproduction discouraged attempts at cumulation of references. Problems of searching the literature were replaced with problems of searching bibliographies.

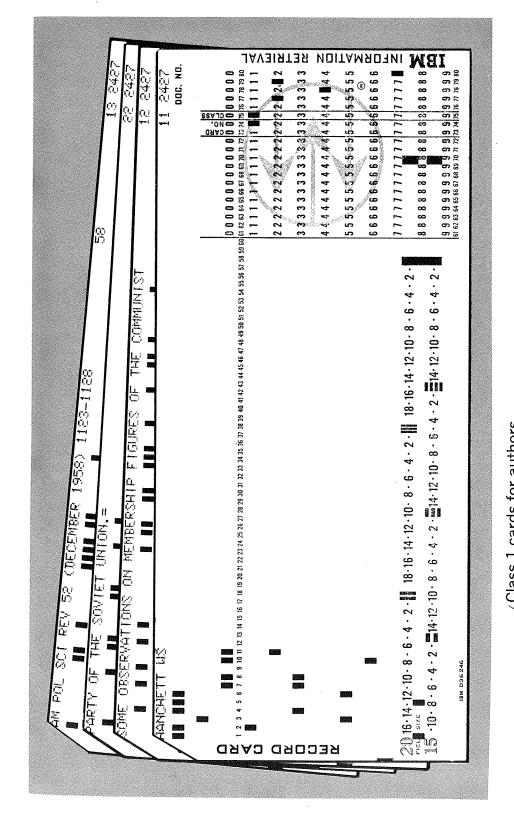
Some professional organizations have recently adopted a new approach to these problems. Traditional methods of constructing subject-heading bibliographies have been replaced with mechanical procedures for producing "indexes" to literature. The mechanically-produced Chemical Titles appeared in 1960; Biological Abstracts mechanized its listing of titles in 1961; and The Index to Legal Theses and Research Projects followed suit in 1962. The technique adopted in these cases was that of indexing titles by means of permuting the "keywords" they contain. The program utilized for this purpose was the IBM-developed "KWIC" (Key-Word-In-Context) Index.¹ More recently, the American Political Science Association has underwritten an exploration of the possibilities in this approach to mechanized documentation by sponsoring the preparation of this KWIC Cumulative Index to all the articles which have appeared in every issue of the first 57 volumes of the American Political Science Review.

The Nature of a KWIC Index

A total of 2,614 articles appeared in the *Review* since its first issue in 1906 through its fifty-seventh volume in 1963. These articles were recorded on punchcards according to the format shown in Figure 1 (p. xi), where different "classes" of cards are used for different types of information: author, title, and facts of publication. An IBM 709 computer read and processed thousands of these cards, producing three types of output: an alphabetical listing of all previously defined "keywords" in the titles, a complete bibliography of all titles alphabetized by senior author, and an alphabetical cross-reference for all authors.

The heart of the *Cumulative Index* is Section I, which contains the keyword listing (see Figure 2 on p. xii). The keywords themselves are arranged vertically in alphabetical order to the immediate right of the blank column. A keyword is identified by the computer in one of two ways. The computer can be instructed to refer to a previously prepared table of keywords or to a table of *non*-keywords. In the first case, the computer looks at every word in the title of the publication and compares it with its own table of keywords stored in memory. The words in the titles which are found on the list in memory are then selected for indexing. When a *non*-keyword list is used, the computer will include in the index only those words that are *not*

¹H. P. Luhn, "Keyword-in-Context Index for Technical Literature (KWIC Index)," IBM Advanced Systems Development Division Report RC-127, August 1959. A general discussion of this technique is given in the IBM General Information Manual E20-8091, "Keyword-in-Context (KWIC) Indexing." Kennedy (see note 3 below) states that the first published use of the KWIC Index appears to have been in the IBM Bibliography, "Literature on Information Retrieval and Machine Translation," September, 1958.



Class 1 cards for authors Figure~1: PUNCHCARDS: $\left\langle \text{Class 2 cards for titles} \right\rangle$ Class 3 cards for publication facts

SECTION I: KEYWORD LISTING

Reference Code

	Ref	erence	Code
Title of Article	Author	Year of	ldent. Number
KEYWORD		Pubn.	
REPUBLICAN AND DEMOCRATIC NATIONAL COMMITTEES (PARTIES).= PERSONNEL OF			111
ADVISORY COMMITTEES IN BRITISH ADMINISTRATION.=	FAIRLI P ELDER		82
RLIAMENTARY ROLE OF JOINT STANDING COMMITTEES IN SWEDEN.= THE I CONFERENCE COMMITTEES IN THE NEBRASKA LEGISLATURE.=	BURDET		206 136
SUB - COMMITTEES OF CONGRESS.=	FRENCH		31
INISTRATION).= PERMANENT ADVISORY COMMITTEES TO THE BRITISH GOVERNMENT DEPAIR			151
LEGISLATIVE INVESTIGATING COMMITTEES.=	MCCART		64
LEGISLATIVE INVESTIGATING COMMITTEES.=	BLAIR	JH24	71
INTRODUCTION TO THE SENATE POLICY COMMITTEES.= STION TIME IN THE BRITISH HOUSE OF COMMONS (PARLIAMENT).=	A BONE J MCCULL	HA56	229 120
TEST FOR CABINET AUTOCRACY (OVER COMMONS IN BRITAIN).= WOMAN SUFFRAGE IN I			42
).= AMENDMENTS IN HOUSE OF COMMONS PROCEDURE SINCE 1881 (PARLIAMENT)			03
OF THE PARLIAMENTS OF THE BRITISH COMMONWEALTH .= THE COMMUNI	T HALL	HD42	165
RITISH EMPIRE (DEVELOPMENT OF THE COMMONWEALTH).= THE TREND WITHIN THE	BOGGS	THIS	35 154
BRITISH DOMINIONS AND NEUTRALITY (COMMONWEALTH).= THE	CLOKIE SMELLI		85
THE BRITISH IMPERIAL CONFERENCE (COMMONWEALTH).= FOREIGN POLICY AND THE DOMINIONS (COMMONWEALTH).= BRITISH			64
STATUS OF THE BRITISH DOMINIONS (COMMONWEALTH).= INTERNATION			68
REIGNTY OF THE BRITISH DOMINIONS (COMMONWEALTH).= THE SO			103
THE BRITISH COMMONWEALTH OF NATIONS.=	HALL	HD53	219 202
IS THE BRITISH COMMONWEALTH WITHERING AWAY.= THE NATURE AND STRUCTURE OF THE COMMONWEALTH.=	WHEARE WHEARE		219
VALISM AND DEMOCRACY IN THE BRITISH COMMONWEALTH SOME GENERAL TRENDS.= NATIO		4 53	219
SEARCH).= INTER-AMERICAN SCHOLARLY COMMUNICATION IN THE HUMANITIES AND SOCIAL	BURKHA	F 60	249
OCTRINAL CONFLICT (CATHOLICISM AND COMMUNISM).= DEVIATION CONTROL A STUDY	BRZEZI		254
SLAVIA').= HOW DIFFERENT IS TITO'S COMMUNISM (COMMENT ON 'THE COMMUNIST PAR'	T DRAGNI WATKIN		233 54
REVOLUTIONARY COMMUNISM IN THE UNITED STATES.= THE NEW STRATEGY OF INTERNATIONAL COMMUNISM.=	KAUTSK		226
THE FRENCH PEASANT AND COMMUNISM.=	EHRMAN		210
WESTERN EUROPEAN COMMUNISM A PROFILE.=	EINAUD	M 51	206
STATE LEGISLATURES AND COMMUNISM THE CURRENT SCENE.=	PRENDE		202
SOVIET POLICY TOWARD NATIONAL COMMUNISM THE LIMITS OF DIVERSITY.=	MORRIS	В 59 Р 62	243 258
TY OF NATIONS AFTER WORLD WAR II.= COMMUNISM, NATIONALISM, AND THE GROWTH OF CONSTITUTIONALISM IN COMMUNIST CHINA.=	SHOUP STEINE		224
CURRENT 'MASS LINE' TACTICS IN COMMUNIST CHINA.=	STEINE		206
NATIONALISM, AND THE GROWTH OF THE COMMUNIST COMMUNITY OF NATIONS AFTER WORLD	SHOUP	P 62	258
WAR.= THE COMMUNIST DOCTRINE OF THE INEVITABILITY OF	BURIN	FS63	260
AS A FACTOR IN THE RECRUITMENT OF COMMUNIST LEADERSHIP.=		RT54	222 231
) MODERATION.= THE TWENTIETH CPSU (COMMUNIST PARTY) CONGRESS A STUDY IN C. S ORGANIZATIONS IN MAINLAND CHINA (COMMUNIST PARTY).= MA:	A KENNEY S KUDCHU		222
YOUTH UNDER DICTATORSHIP (RUSSIAN COMMUNIST PARTY).= THE KOMSOMOLS A STU			205
RECENT LITERATURE ON CHINESE COMMUNIST PARTY HISTORY.=	STEINE		212
PPARATUS! OF THE CENTRAL COMMITTEE, COMMUNIST PARTY OF THE SOVIET UNION.= THE	NEMZER		200
G OF A SOCIAL MOVEMENT.= THE COMMUNIST PARTY OF THE U.S.A AN ANALYS	I MOORE NEAL	8 45 FW57	175 233
THE COMMUNIST PARTY OF YUGOSLAVIA. = TITO'S COMMUNISM (COMMENT ON 'THE COMMUNIST PARTY OF YUGOSLAVIA').= HOW DI			233
ATIONS ON MEMBERSHIP FIGURES OF THE COMMUNIST PARTY OF THE SOVIET UNION. = SOM	E HANCHE		
THE COMMUNIST PARTY OF THE SOVIET UNION.=	HARPER	SN29	
TH CENTRAL COMMITTEE OF THE CHINESE COMMUNIST PARTY A STUDY OF AN ELITE. = THE	H HOUN	FW57	
THE COMMUNIST PRESENCE (PARTY) IN FRANCE.=	GODFRE T ASPATU		
AND ITS PHILOSOPHICAL FOUNDATIONS (COMMUNIST THEORY).= THE CONTEMPORARY DOC CHINESE COMMUNIST URBAN POLICY.=	STEINE		
CASTE AND THE ANDHRA COMMUNISTS (IN INDIA).=	HARRIS		
VESIA).= PRESIDENT SUKARNO AND THE COMMUNISTS THE POLITICS OF DOMESTICATION	N HINDLE	D 62	258
SM. AND THE GROWTH OF THE COMMUNIST COMMUNITY OF NATIONS AFTER WORLD WAR II.=	SHOUP	P 62	
H-SPEAKING PEOPLES FIRST STEPS.= COMMUNITY OF THE PARLIAMENTS OF THE ENGLI THE COMMUNITY OF THE PARLIAMENTS OF THE BRITI	S HALL S HALL	HD44 HD42	
THE COMMUNITY OF THE PARLIAMENTS OF THE BRITE IN THE FOOTSTEPS OF COMMUNITY POWER.=	HERSON		
A COMMUNITY REGISTRATION SURVEY (VOTING).	= BRADLE		208
MANAGER PLAN AND THE METROPOLITAN COMMUNITY.=	H VIEG	JA39	147
NON - VOTING IN A TYPICAL OHIO COMMUNITY.=	ARNESC		
DMPARED WITH 1924 IN A TYPICAL OHIO COMMUNITY. VOTING BEHAVIOR IN 1948 AS			
COSMOPOLITAN MAN AND THE POLITICAL COMMUNITY AN INTERPRETATION OF *OTHELLO TIONS TO CERTAIN USES OF INTERSTATE COMPACTS.= THE ECONOMIC LIMIT	' BLOOM A SPENGL		
		EE54	
INATORIAL PRIMARIES. = FLORIDA'S NEW COMPAIGN EXPENSE LAW AND THE 1952 DEMOCRA	T ROADY		
RNATORIAL PRIMARIES.= FLORIDA'S NEW COMPAIGN EXPENSE LAW AND THE 1952 DEMOCRA BLUE SKY LEGISLATION (INVESTMENT COMPANIES).=	DYKSTR		
RNATORIAL PRIMARIES.= FLORIDA'S NEW COMPAIGN EXPENSE LAW AND THE 1952 DEMOCRA BLUE SKY LEGISLATION (INVESTMENT COMPANIES).= DRY OF BASIC TRENDS AND PATTERNS IN COMPARATIVE AND INTERNATIONAL POLITICS.=	DYKSTR T DEUTSC	KW60	246
RNATORIAL PRIMARIES.= FLORIDA'S NEW COMPAIGN EXPENSE LAW AND THE 1952 DEMOCRA BLUE SKY LEGISLATION (INVESTMENT COMPANIES).= DRY OF BASIC TRENDS AND PATTERNS IN COMPARATIVE AND INTERNATIONAL POLITICS.= VANY.= COMPARATIVE CIVIL SERVICE STATISTICS.— GE	DYKSTR T DEUTSC R MARX	KW60 FM35	246 128
RNATORIAL PRIMARIES.= FLORIDA'S NEW COMPAIGN EXPENSE LAW AND THE 1952 DEMOCRA BLUE SKY LEGISLATION (INVESTMENT COMPANIES).= BLUE SKY LEGISLATION (INVESTMENT COMPANIES).= COMPARATIVE AND INTERNATIONAL POLITICS.= COMPARATIVE CIVIL SERVICE STATISTICS.— GE JNITS AND AREAS.= SOME COMPARATIVE EXPERIENCE IN ADJUSTING LOCAL	DYKSTR T DEUTSC R MARX WEIDNE	FM35 E EW48	246 128 193
RNATORIAL PRIMARIES.= FLORIDA'S NEW COMPAIGN EXPENSE LAW AND THE 1952 DEMOCRA BLUE SKY LEGISLATION (INVESTMENT COMPANIES).= DRY OF BASIC TRENDS AND PATTERNS IN COMPARATIVE AND INTERNATIONAL POLITICS.= COMPARATIVE CIVIL SERVICE STATISTICS.— GE JNITS AND AREAS.= SOME COMPARATIVE EXPERIENCE IN ADJUSTING LOCAL REPORT ON THE RESEARCH PANEL ON COMPARATIVE GOVERNMENT.=	DYKSTR T DEUTSC R MARX WEIDNE LOWENS	FM35 E EW48 K 44	246 128 193 172
RNATORIAL PRIMARIES.= FLORIDA'S NEW COMPAIGN EXPENSE LAW AND THE 1952 DEMOCRA BLUE SKY LEGISLATION (INVESTMENT COMPANIES).= BLUE SKY LEGISLATION (INVESTMENT COMPANIES).= COMPARATIVE AND INTERNATIONAL POLITICS.= COMPARATIVE CIVIL SERVICE STATISTICS.— GE JNITS AND AREAS.= SOME COMPARATIVE EXPERIENCE IN ADJUSTING LOCAL	DYKSTR T DEUTSC R MARX WEIDNE LOWENS T COLEGR DODD	KW60 FM35 EW48 K 44 K 27 WF06	246 128 193 172 132 00
RNATORIAL PRIMARIES.= FLORIDA'S NEW COMPAIGN EXPENSE LAW AND THE 1952 DEMOCRA BLUE SKY LEGISLATION (INVESTMENT COMPANIES).= BRY OF BASIC TRENDS AND PATTERNS IN COMPARATIVE AND INTERNATIONAL POLITICS.= COMPARATIVE CIVIL SERVICE STATISTICS.— GE JNITS AND AREAS.= SOME COMPARATIVE EXPERIENCE IN ADJUSTING LOCAL REPORT ON THE RESEARCH PANEL ON COMPARATIVE GOVERNMENT.=).= COMPARATIVE GOVERNMENT (CONFERENCE REPOR	DYKSTR T DEUTSC R MARX WEIDNE LOWENS T COLEGR	E KW60 FM35 E EW48 S K 44 R K 27 WF06 O R 53	246 128 193 172 132 00 217

stored in its memory. Errors of omission in preparing a keyword list will cause important terms to be excluded from the index; however, errors of omission in a non-keyword list will only produce some unhelpful entries, or "noise," in the index. The *Cumulative Index* to the *Review* was prepared with the use of a 417-item non-keyword list, which is given on pp. xxiii-xxvi along with the number of times each word occurred in the titles.

After identifying the keywords through this process of comparison, the computer sorted all the keywords in alphabetical order and printed them out with a substantial portion of the context in which they were embedded—hence the name: "Key-Word-In-Context." To use the index in Figure 2, scan the vertical column of keywords to select a term of interest. Then read the context of the title printed on the same line as the keyword. There is room provided on the line for only 78 character-spaces. A title with no more than 78 characters and spaces prints out in full, although a portion of the title may be "wrapped around" and printed before or after the keyword, depending on where it appears in the title. Some of the words in longer titles do not print out, again depending on the position of the keyword. In order to provide a clear indication of the first and last words when a title has been "wrapped around," every title is ended with a period and equal sign.²

Once an interesting title has been located in the keyword listing, the user of the *Index* should look at the reference code given on the same line in the right-hand column. This code gives the first six letters of the senior author's last name, his initials, the year of publication of the article, and a unique identification number arbitrarily assigned to that article. The code enables the user to locate the complete citation in the author-alphabetized bibliography which comprises Section II (see Figure 3 on p. xiv). The author cross-reference in Section III (see Figure 4 on p. xv) gives reference codes for *all* authors, permitting the user to identify articles by junior authors.

This type of index is known as a "permuted" keyword index because an article will appear as many times as the number of keywords it contains. The first title listed in Figure 2, for example, will be found in five other places in the *Index:* under "Republican," "Democratic," "National," "Parties," and "Personnel." A total of 10,089 keyword lines was produced for the 2,614 articles from the *Review.* Therefore each title appears in the *Index* on an average of 3.9 times.

²The principle of the "wrap-around" feature may perhaps be grasped better by visualizing a title printed on a strip of paper wrapped around a drum which fits inside a cylinder with a slot 78 characters wide. Imagine turning the drum so that one of the keywords in the title appears in the middle of the slot. If the keyword appears in the center of the title and if the title is not more than 78 characters long, the entire title will be visible in its normal order through the slot. If, however, the keyword appears at the beginning of the title, part of the title to the right of the keyword may extend past the opening of the slot. In this case, the part of the title that would ordinarily be chopped off would be "wrapped around" so that it showed through the slot to the *left* of the keyword.

SECTION II: AUTHOR-ALPHARETIZED BIBLIOGRAPHY

Ident.	Author	Year	Author(s)				
Number		of	Title				
		Pubn.	Publication	Vol.	Date	Page Numbers	
432	AAUP	16	AAUP GENERAL REPORT ACADEMIC TENUF		THE COMMIT	TEE ON ACADEMIC F	REEDOM AND
1929	ABBOTT	R548	AM POL SCI REY	10.		MAY 1916) 3-29	
2024	ABBOTT	9550	THE FEDERAL LO AM POL SCI REY ABBCTT RS	42		- BACKGROUND AND 1 486-499	PROBLEMS.=
2024	A00011	K330		LCPM	ENT IN FRE	NCH REGIONAL GOVE	RNMENT THE
2068	ABBOTT	RS51	ABBCTT RS	ONTEM	PORARY POL	ITICAL PARTIES IN	CHILE.=
1120	ADAMS	GW32	ADAMS GW THE SELF-GOVER AM POL SCI RE	RNING	BAR (LAW).=	
2155	ADAMS	JC53	ADAMS JC	ATION	BARILE P OF THE IT	ALIAN CONSTITUTIO	N.=
2134	ADRIAN	CR52	ADRIAN CR SOME GENERAL (CHARA	CTERISTICS	OF NONPARTISAN E 1952) 766-776	LECTIONS.=
1825	AFROS	JL46	AFROS JL	PATIC	N IN THE C	FFICE OF PRICE AD	MINISTRATION. =
932	AHL	FN28	AHL FN REAPPORTIGNMEN AM POL SCI RE	NT IN	CALIFORNI	A.=	
1052	AIKIN	C 31	AIKIN C	OR R	EVISION OF	THE CALIFORNIA C	ONSTITUTION.=
1291	AIKIN	C 35	AIKIN C	of SE	LECTING JU	DGES IN CALIFORNI	A . =
1470	AIKIN	C 39	AIKIN C THE BRITISH BI POLICY, I AND	JREAU 11.=	CRACY AND	THE ORIGINS OF PA	
1537	AIKIN	C 40	219-233 AIKIN C STATE CONSTIT				
1587	AIKIN	C 41	AM POL SCI RES AIKIN C STATE CONSTITU	JTION	AL LAW IN	1940-41.=	
1631	AIKIN	C 42	AM POL SCI RE AIKIN C STATE CONSTITU	JTION	AL LAW IN	1941-42.=	
1983	AIKIN	C 49		t ťo	KOENIG LW THE HOOVER	COMMISSION SYMPO	SIUM).=
2489	AKZ IN	8 60	AM POL SCI REMAKZIN B ELECTION AND	APPCI	NTMENT.= ~		
2607	ALBINS	н\$63	ALBINSKI HS THE CANADIAN	SENAT	E POLITI	1960) 705-713 CS AND THE CONSTI	TUTION.=
1547	ALBRIG	\$040	AM POL SCI RE ALBRIGHT SD THE PRESIDENT	IAL S	HORT BALLO	т.=	
2609	ALGER	CF63	AM POL SCI RE ALGER CF COMPARISON OF	INTR	ANATIONAL	AND INTERNATIONAL	POLITICS.=
1883	ALLEN	EP47	AM POL SCI RE ALLEN EP THE TEACHER O	F GOV	ERNMENT.=		
447	ALLEN	JC17	AM POL SCI RE ALLEN JC OUR BUNGLING	ELECT	ORAL SYSTE	M. =	
455	ALLIN	CD18				1917) 685-710 TAL TRADE IN THE	BRITISH EMPIRE
684	ALLIN	CD23	AM POL SCI RE ALLIN CO INTERNATIONAL			18) 381-402 British dominions	[COMMONWEALTH

Figure 3: AUTHOR-ALPHABETIZED BIBLIOGRAPHY

SECTION III: AUTHOR CROSS-REFERENCE

Author & Co-Authors	Author Year of Pubn.	Author & Co-Authors	Author	Year of Pubn.	Author & Co-Authors	Author	Year of Pubn.
AAUP	AAUP 16	ASPATURIAN VV	ASPATU	VV54	<u> </u>	REER	SH56
ABBCTT RS	ABBOTT RS48		ASPATU			BEER	SH57
	ABBOTT RS50	ATKINSON RC	ATKINS		BEHRMAN JN	BEHRMA	
ADAMS CH	ABBOTT RS51	AUFRICHT H	AUFRIC		BELLE M	DANIEL	
ADAMS GW ADAMS JC	ADAMS Gh32 ADAMS JC53	AUMANN FR	AUMANN AUMANN		BELLQUIST EC	BELLQU	
ADRIAN CR	ADRIAN CR52		AUMANN		BENDIX R Benedict b	RENDIX	
nonce and	WILLIA OP59	AYLSWORTH LE	AYLSWO		BENJAMIN GG	BENED I Benjam	
ADVISCRY COMMIT			AYLSWO		BENNETT EL	BENNET	
	FOREIG RE61		AYLSWO		BENSON GCS	BENSON	
AFRCS JL	AFROS JL46		AYLSWO	LE12		BENSON	
AHL FN	AHL FN28		AYLSWO		BERDAHL CA	BERDAH	
AIKIN C	AIKIN C 31		AYLSHO			BERDAH	
	AIKIN C 35 AIKIN C 39		AYLSWC			BERDAH	
	AIKIN C 40	BACHRACH P	AYLSWC BACHRA			BERDAH	
	AIKIN C 41	OACHRACH P	BACHRA			BERDAH BERDAH	
	AIKIN C 42	BAGGALEY AR	BAGGAL			BERDAH	
	AIKIN C 49	BAILEY G	BAILEY			BERDAH	
	PADELF NJ56	BAILEY SH	BAILEY		BERG EJ	BERG	EJ60
AKZIN B	AKZIN B 60		BAILEY		BERGER J	BERGER	
ALBINSKI HS	ALBINS HS63	BAIN R	BAIN	R 38	BERNS W	BERNS	
ALBRIGHT SD	ALBRIG SC40	BAKER ND	BAKER	ND56		STORIN	HJ63
ALDERFER HF	ZINK H 56	BAKER R	BAKER	R 40	BERRY BY	BERRY	8Y23
ALGER CF	ALGER CF63	BALCH TH	BALCH	TW09	BETH LP	BETH	LP55
ALLEN EP ALLEN JC	ALLEN EP47	BALDWIN SE	BALDWI		BEYLE HC	BEYLE	HC 32
ALLIN CD	ALLEN JC17 ALLIN CD18	BALLING FC	BALDWI BALLIN		DUACMADAN D	BEYLE	HC 33
ALLIN CO	ALLIN CD23	BANFIELD EC	BANFIE		BHASKARAN R BINDER L	ZINK	H 56
ALLPORT FH	ALLPCR FH25	BARATZ MS	BACHRA		BINGHAM H	BINDER BINGHA	
	ALLPOR FH27	onnate 113	BACHRA		BISHOP AL	BISHOP	
ALMOND G	ALMOND G 34	BARBER HW	BARBER		BISHOP JT	BISHOP	
ALMOND GA	ALMOND GA46	BARCLAY TS	BARCLA		BLACHLY FF	BLACHL	
	ALMOND GASS		BARCLA			BLACHL	
	ALMOND GA58	BARILE P	ADAMS	JC53	BLACK FR	BLACK	FR35
ALTMAN OR	ALTMAN OR36	BARKER E	BARKER		BLACK G	SALISB	
	ALTMAN OR37	BARNARD CI	BARNAR		BLAIR GS	BLAIR	
AMES HB	ALTMAN OR38 AMES HB28	BARNES HE	BARNES		BLAIR JH	BLAIR	JH24
ANDERSON CA	ANDERS CA43	BARNES SH Barnett JD	BARNES BARNET		BLAKEY GC	BLAKEY	
ANDERSON CH	ANDERS CHI6	GARNETT JU	BARNET		BLAKEY RG	BLAKEY BLAKEY	
ANDERSON W	ANDERS # 30		BARNET		DEARE! NO	BLAKEY	
	ANDERS W 30		BARNET		BLANKSTEN GI	BLANKS	
	ANDERS W 34		BARNET		BLAU PH	BLAU	PM63
	ANDERS W 43		BARNET	JD21	BLOOM A	BLOOM	A 60
	ANDERS W 55		BARNET			BLOOM	A 60
ANDO A	FISHER FM62		BARNET		BLOOM AD	8L00M	AD60
ANDREWS FF	ANDREW FF24	BARNETT VM	BARNET		BLOOMFIELD LP	BLOOME	
ANDREWS GF	ANDREW GF09	BARNHART JD	BARNHA		BOERNER AV	BUERNE	
ANDREWS IO	ANDREW GF11 Andrew IC11	BARTH H Barth Ha	BARTH Barth	H 27 HA25	BOCART EL	BOERNE	
ANDREWS JB	ANDREW JB12	BATES FG	BATES	FG11	BOGART EL BOGGS SW	BOGART BUGGS	S w 48
	ANDREW JB29	34,23 . 3	BATES	FGII	BOGGS TH	BOGGS	TH11
ANDNYMOUS	ANONYM 10		BATES	FG10		80GG S	TH15
	ANONYM 09		BATES	FGIO		BUGGS	TH16
	ANONYM 44		BATES	FG10	BONE HA	BONE	HA46
APPLEBY PH	APPLEB PH48		BATES	FG12		ZELLER	B 48
	APPLEB PH50		BATES	FG14		BONE	HA51
APSA	APPLEB PH52 APSA 30		BATES	FG14		BONE	HA56
AFSA	APSA 30 APSA 16		BATES	FG15	BONE RC	BONE	RC55
	APSA 22		BATES	FG15	BOOTS RS	80015	R S 2 2
	APSA 50		BATES BATES	FG15 FG16		800TS 800TS	R S 2 3 R S 2 4
	APSA 51		BATES	FG16		80015	RS25
	APSA 52		BATES	FG27		BOOTS	R526
	APSA 62			FG26		80013	RS27
APTER DE	APTER DE57	BAUDE A	ZINK	H 56		BOOTS	RS28
ARMSTRONG HF	ARMSTR HF25	BAYLEY DH	BAYLEY	DH62		BOOTS	RS29
ARNESON BA	ARNESO BA19	BEAN LH	BEAN	LH42	BORCHARD EM	BORCHA	
	ARNESO BAZO	BEARD CA		CA30		BORCHA	
	ARNESO BAZI			CA26	BORN LK	BORN	LK27
	ARNESO BA22 Arneso Ba25			CA27	BORNING BC	BORNIN	
	ARNESO BASI		8EARD		BOSWORTH KA	BOSWCR	
	ARNESO BA34		BEARD BEARD	CA34	BOTTS RS	BOSWOR	
	ARNESO BAST			CA40	BRADLEY P	BOTTS BRADLE	
			OCHRU	UM TU	UNMULLIF	DKAINE	r 17

Figure 4: AUTHOR CROSS-REFERENCE

Obviously the major limitation of permutation or KWIC indexing lies in the lack of "descriptiveness" of the titles fed into the computer. The longer and more descriptive article titles in the physical and biological sciences seem to be better suited for this technique than titles in the social sciences. But this does not mean that social science titles are *not* amenable to permutation indexing; it merely means that the retrieval process may be somewhat less effective.

Some encouraging evidence concerning the utility of KWIC indexing social science literature is given in a study by Donald Kraft.⁴ Kraft examined 3,428 entries in an issue of *The Index to Legal Periodicals* and an issue of *The Index to Legal Theses and Research Projects* and disclosed that 89.5% had titles judged suitable for keyword indexing. Another study by Fels and Jacobs reported similar findings for the titles of state statutes.⁵ Furthermore, the recent publication of the Kansas index to *transliterated* titles from original Russian literary and social science journals would seem to demonstrate the wide applicability of the KWIC technique.⁶

Exclusive reliance on title descriptiveness constitutes both the primary advantage and the major limitation of KWIC indexing. Because the input to the computer consists merely of punchcards bearing the author, title, and source of the reference, the job of preparing the input can be given to keypunch operators working directly from the contents pages of publications. The computer itself prepares and prints the keyword index, the alphabetized bibliography, and the author cross-reference. The computer output can then be photographed and published by offset printing. The whole operation can be done quickly, at low cost, and with a small expenditure of manpower. Kraft reports that in 1961 *Chemical Titles* "indexed 68,000 articles of chemistry, 147,000 authors, produced approximately 410,000 index entries and a million printed lines" with a staff consisting of "an editor, two girls for keypunching and verifying, and one clerical assistant."

The major limitation of keyword indexing can be reduced considerably by exercising some editorial supervision over titles and examining the texts of articles whose titles seem unclear or are literary in nature. Scanning the text will usually disclose some terms or phrases which might be enclosed in parentheses and added to the title. Keywords added in this manner will be indexed as if they had been in the title. This procedure was followed in the American Bar Foundation's *Index*

³See R. A. Kennedy, "Library Applications of Permutation Indexing," *Journal of Chemical Documentation*, 2 (July, 1962), 181–185.

⁴Donald H. Kraft, "A Comparison of Keyword-In-Context (KWIC) Indexing of Titles with a Subject Heading Classification System," *American Documentation*, 15 (January, 1964), 48-52.

⁵E. H. Fels and Joan Jacobs, "Linguistic Statistics of Indexing," unpublished paper cited by Kraft (see note 4).

⁶Farley, Earl (Ed.), *Kansas Slavic Index*. Lawrence: The University of Kansas Libraries, 1963. I wish to thank Mr. Robert S. Feldman of Indiana University for calling this publication to my attention.

to Legal Theses and Research Projects. Keywords were also added to some titles in the APSR Index, as indicated in the first line of Figure 2, where the word "Parties" has been added.

History of the APSR Indexing Project

One of the earliest, if not the first, applications of KWIC indexing to literature with political science relevance was in Julian Feldman's bibliography of "Selected Articles and Documents on Methodology and Research in the Social Sciences" for the September 1960 issue of the *Review*. Through correspondence, Mr. Feldman told me that he had discontinued using the KWIC technique to prepare this bibliography largely because he was unable to obtain financial support to reproduce the index once it was processed. He indicated, however, that he believed the method still had definite use for political science literature.

In order to explore further the uses of KWIC indexing, I conducted a pilot study in August 1962, indexing the articles published in the three most recent volumes of the *Review* and the last two volumes of the *Public Opinion Quarterly*. The result⁸ encouraged me to undertake a project to produce an index which might be published, and then evaluated by a diversified audience of political scientists. The obvious choice was a cumulative index to the *American Political Science Review*. As the official journal of the Association, the *Review* would certainly contain a wide variety of titles to test the effectiveness of keyword indexing within political science. Moreover, a cumulative index to this important journal would seem to have considerable value in its own right. The *Review* had not been indexed since 1926, and its Managing Editor had only recently observed that "References and citations in current literature to issues of the *Review* that antedate the end of World War II are quite uncommon."

Preparing the Computer Input

Work was begun on the *Index* in July 1963. The first of many decisions made in preparing the *Index* came during the punching of the initial issue.¹⁰ The early vol-

⁷Mr. Arthur Stickgold, an undergraduate major in political science, did the keypunching for this pilot study and also helped immeasurably in the actual processing of the index, as did Stuart Harvey, Sales Representative of IBM, and Albert Morris, Senior Programmer of the Northwestern University Computing Center. I wish to thank Miss Louise Cowen, Director of the Computing Center, for granting free computing time for the pilot study and for her many kindnesses extended during both the unsponsored and sponsored phases of the project.

⁸The computer tape from the original pilot study was borrowed with my permission by IBM's Midwestern Regional Office, which prepared an erroneously titled paper, "Keyword-In-Context (KWIC) Index of 236 Recent Political Science Doctoral Dissertations," for distribution at the annual meeting of the American Historical Association, December, 1962.

9"Toward a Definition of Editorial Policy for the Review," 56 (March, 1962), 129n.

¹⁰Virtually all the initial keypunching was done by Miss Rudy Bratman. Mr. Hal Brown helped at every stage of the project, Mr. Alan Wyner helped Mr. Brown in making some final corrections in the input cards.

umes of the *Review* contained sections on "Legislative Notes," "Current Municipal Affairs," and "Judicial Decisions," among other topics. These sections contained many entries ranging in length from one or two paragraphs to several pages. Some of the entries seemed patently trivial, while others appeared informative. To include all the items contained in these sections would have added literally hundreds of "articles" to the *Index* and, I felt, would have been a disservice to its users. Realizing that one man's chaff is another man's wheat, I excluded none on the basis of subject matter but many on the basis of length. For better or worse, no item was included unless it was more than one page in length. For reasons of cost, book reviews were also excluded, as were titles to symposia and the special sections mentioned above.

Virtually all the keypunching was done directly from the tables of contents, but it was first necessary to prepare each volume for the keypuncher by penciling in corrections, notations, and keyword additions. Although I had hoped to have an advanced undergraduate major in political science enter additional keywords while he verified the accuracy and completeness of the table of contents, I soon found I had to do this myself. Skillful addition of keywords requires a greater knowledge of developments in the discipline than any undergraduate can possess, and I regret that someone more knowledgeable than I did not perform this job. On 604 occasions I found it desirable, although not always necessary, to add one or more keywords to the titles—meaning that I considered the original titles suitably "indexable" in about 77% of the cases. This figure is considerably lower than Kraft's estimate of 89.5% "descriptiveness" in the legal titles he examined, but I frequently added keywords to identify the nature of suitably titled articles appearing in special sections, such as one on "Conference Reports."

Wherever possible, I tried to add the keyword at the end of the title, in order to avoid interrupting the title itself. Every addition to a title is enclosed within parentheses in this manner: left parenthesis, space, keyword, space, right parenthesis. The spaces before and after the keyword were entered for two reasons: (1) to avoid obliterating the blank column which sets off the keyword column from the rest of the listing, and (2) to identify a keyword addition from a word which happens to appear in the original title in parentheses. The use of parentheses in original titles occurred only once or twice in all the articles examined.

On many occasions I found it desirable to separate hyphenated words by spaces before and after the hyphen, for the computer considers hyphenated words as one. I always did this, for example, to form "Two - Party" instead of "Two-Party." The non-keyword "Two" is not indexed, and the article appears under "Party." The same was done in the case of "Legislative-Executive," with both terms indexed. I was far more cautious in using the hyphen to join two ordinarily separate words. The words "Latin America" invited the introduction of a hyphen to form one keyword, and I did join these words when they were separated in the original be-

cause they are often joined in practice. Although it would have been good KWIC-indexing practice¹² to join "International Relations" in order to prevent the indexing under "Relations" as well as "International," I did not take this liberty with the original text. I tried to preserve the exact wording of the original so that the user of the *Index* can be confident that he has an unadulterated title to cite. The only exceptions to this policy I can recall (in addition to the hyphenation of "Latin America") came when I spelled out "18th," "66th," and "67th" instead of punching them as given. ¹³ This was done to conform with the practice followed for all other ordinal numbers.

The three undergraduate students who were employed to punch and edit the computer input completed the entire job in less than 200 working hours. I find it impossible to estimate the number of hours I invested in supervisory activities, but most of my time was consumed in making decisions arising from the novelty of the enterprise. Considerably less supervision would be needed in future efforts. A more concrete estimate can be made of the time I spent examining titles and articles for keyword additions; this took approximately half an hour per volume, or about 30 hours.

Preparing the Computer Output

The KWIC pilot study in August 1962 utilized a complex series of nine separate programs written for the IBM 704 computer. The final *Cumulative Index*, however, was processed with EIKWIC, an extensive revision of the earlier KWIC programs, prepared for the IBM 709 computer by Professor James S. Aagaard of Northwestern University's Department of Electrical Engineering. 14 Professor Aagaard, who was rewriting the KWIC program for use in his own research, offered generous amounts of his time and energy to incorporate in EIKWIC certain special features I had requested. His skillful programming produced three major improvements in the final output over that prepared with the first pilot study.

The first improvement was the production of a longer KWIC line. The old KWIC line was 60 characters in length, while the KWIC line in this *Cumulative Index* is 78 characters long. The addition of 18 characters enables the printing in full of 86% of all the titles indexed; the old 60-character line would have printed only 73% of all titles in their entirety.¹⁵

¹²See Phyllis V. Parkins, "Approaches to Vocabulary Management in Permuted-Title Indexing of Biological Abstracts," in H. P. Luhn (Ed.), *Automation and Scientific Communication*, Short Papers presented at the 26th Annual Meeting of the American Documentation Institute, 1963. Part 1, pp. 27–28.

¹³The article identification numbers for these exceptions are "18th," #1013; "66th," #576 and #597; "67th," #617 and #690.

¹⁴Aagaard's EIKWIC 709 program may be obtained from SHARE, SDA 3037.

^{11|} want to thank my wife Ann for assembling these and other statistics reported herein.

¹⁵The longer line idea was obtained from Kennedy's articles (see above) describing Bell Laboratories' "BE-PIP" Program, which used a 102-character line. EIKWIC will produce a 120-character line (which would have printed about 98% of all titles in full), but a line this long did not lend itself to reproduction given the format of the *Review*.

The second improvement was the revision of the reference code to include the first six characters of the senior author's last name and the identification number of the title. Earlier KWIC programs (and most of them in current use) employ only the first four characters of the last name and, instead of the identifying number, generate a three-letter code constructed of the initials of the first three significant words in the title. This reference code is not guaranteed to be unique for every article being indexed, although in practice duplications are rare. I had long doubted the value of the three-letter code appearing in KWIC indexes, believing the spaces would be put to better use by giving more of the author's last name. Using just the first four letters would have given the entire last name of the author for only 10% of the titles. The six-letter code gives the entire last name for 57% of the titles, and the two additional letters offer a far better clue to the identity of those with longer names. The inclusion of the unique identifying number, moreover, eliminates the possibility of having duplicate reference codes.

Finally, Aagaard's special 1401 printing program produces a three-column author cross-reference listing instead of the single-column listing generated by the old KWIC programs. It is no longer necessary to cut and paste together the author listings for reproduction purposes.

The total amount of 709 computer time required for the EIKWIC program to process 2,614 article titles, search a 417-item *non*-keyword list for each word in every title, prepare 10,089 KWIC *Index* lines, and produce a cross-reference listing for 2,801 senior and junior authors was less than 12 minutes. It required another 29 minutes to sort the output into alphabetical order with the IBM 9-Sort program, and the total time to print the output on the IBM 1401 was about 30 minutes. The total amount of computer time for the entire project was therefore less than 71 minutes.

Future Applications of KWIC Indexing to Political Science Literature

KWIC Indexing is certainly not the ultimate answer to the problem of catching up and keeping up with the literature. It is basically suited for only one job: providing an inexpensive, quickly prepared guide to literature whose titles are relevant to a researcher's interests. That is all it can do; but it is actually a great deal. At Northwestern University we are extending the application of the technique to the preparation of indexes in specialized sub-fields in political science such as comparative government and international relations. It would be worthwhile to apply the technique to other bodies of literature, such as political science doctoral dissertations—ordinarily a world of lost literature. Those who plan to prepare KWIC indexes should certainly try to communicate with one another and share cards to avoid duplication of effort.

This assumes, of course, that KWIC indexes to political science literature will prove to be useful for the discipline. Suggestions and criticisms are earnestly

requested from the users of the KWIC *Cumulative Index* to the *Review*. Improvements in the product prompted by users' reactions may make the difference between an index of marginal value and one of clear-cut utility. Moreover, the very use of KWIC indexing may increase its utility for the literature of the future, as prospective authors try to improve the descriptiveness of their titles. In his forecast of developments in computer-produced indexes, Youden predicted, "As more and more keyword indexes are published the author's choice of title words will improve, which will lead to both more and better keyword indexes."

Some guides for preparing informative titles for technical articles are contained in a recent paper by Kennedy. The simply put, the title should tell what the article is about. Many titles contained in the *Review* and in other journals in the profession do not do this. Kennedy makes several suggestions for constructing good titles, some of which are particularly relevant for improving the indexability of political science literature:

CONTENT OF TITLE. Consider the title as a one-sentence abstract. Without attempting to summarize the content of your paper, make the title reflect the subject as definitely and concisely as possible. Include some reference to the important topics under which you, as a user as well as a producer of information in this field, would expect, or reasonably hope, to find your paper indexed.

TITLE STRUCTURE. Provide sufficient context, but only enough, to clarify the relationships between the selected technical keywords. Remove words which tell the reader little or nothing. Use short connectives like of, for, the, on, . . . rather freely. Use conventional phrases like Introduction to or Analysis of or Status of only where they are important in indicating the nature and level of the paper. Avoid such generally unhelpful phrases as:

A report on . . .

Some problems associated with . . .

A study of the factors affecting . . .

Some thoughts on . . .

SUBTITLES. When several papers are written under one over-all title, identify the successive parts as Part-1, Part-2, etc. Assign a suitably specific subtitle for each part. Where reasonable, avoid repeating in the subtitle topic words already given in the main title.

LENGTH OF TITLE. Balance brevity against descriptive accuracy and completeness. Consider whether a two- or three-word title is not possibly too cryptic. About four important words is often a good choice. If a prospective title exceeds 14-15 words (or about 100 characters), see whether it might not be shortened to this length without serious information loss.

¹⁶W. W. Youden, "Characteristics of Programs for KWIC and Other Computer-Produced Indexes," in H. P. Luhn (Ed.), *Automation and Scientific Communication*, Short Papers presented at the 26th Annual Meeting of the American Documentation Institute, 1963. Part 2, pp. 331–332.

¹⁷R. A. Kennedy, "Writing Informative Titles for Technical Papers—a Guide to Authors," in H. P. Luhn (Ed.), *Automation and Scientific Communication*, Short Papers presented at the 26th Annual Meeting of the American Documentation Institute, 1963. Part 2, pp. 133–134.

NON-KEYWORD LIST

If users find KWIC indexes of limited utility when applied to past literature in political science, perhaps authors' subsequent observations of these guide lines will significantly increase the utility of KWIC indexing the mountains of literature expected in the future.

2nd	1	Around	0	Better	2
3rd	1	As	39	Between	9
4th	1	Aspect	3	Beyond	1
Α	267	Aspects	13	Big	1
About	1	Associated	0	Both	0
Above	0	At	17	Brought	0
Across	0	Attempt	0	But	0
After	7	Attempted	1	Ву	29
Again	2	Available	2	Called	0
Against	1	Away	1	Came	0
Ago	0	Back	0	Can	2
All	1	Background	6	Cannot	0
Allows	0	Basic	4	Cent	0
Almost	0	Basis	5	Centers	0
Along	0	Be	1	Certain	3
Already	0	Became	0	Chain	0
America	10	Because	0	Clearly	0
American	68	Become	0	Come	1
An	59	Been	0	Comment	9
Analysis	20	Before	4	Commentary	2
And	739	Begins	1	Comments	5
Another	2	Being	1	Complete	0
Application	2	Below	0	Concern	0
Applications	2	Beside	0	Concerning	2
Are	2	Besides	0	Contemporary	7
Arise	0	Best	0	Could	0

Critique	8	First	19	Higher	3	Making	5	Operation	11	Problems	30
Current	6	Five	2	Him	0	Many	0	Or	11	Processes	2
Currents	2	Following	0	Himself	0	May	0	Origin	3	Produced	0
D	4	For	128	His	0	Me	0	Origins	4	Production	0
Danger	0	Formation	4	How	6	Meaning	2	Other	8	Professor	5
Decade	5	Formed	0	However	0	Meanings	1	Ouroutlook	0	Professors	1
Decades	1	Former	1		45	Means	2	Over	8	Progress	18
Depending	0	Found	0	lf	0	Meeting	4	Р	3	Project	2
Detection	.0	Four	2		44	Meetings	2	Panel	3	Projects	1
Development	41	Fourth	2	[]]	2	Merely	0	Passing	2	Properties	0
Developments	13	From	12	Impact	2	Might	0	Pattern	6	Proposed	20
Difficulties	2	Full	5	Implications	2	Moment	1	Patterns	5	Prospect	1
Discussion	7	Further	0	In	867	More	6	Pending	2	Prospects	3
Do	1	Gains	2	Include	0	Moreover	0	Per	0	Provisions	5
Down	0	Gave	0	Indeed	0	Most	0	Perhaps	0	Quite	0
Due	4	Generally	0	Induced	0	Mr	5	Perspectives	3	R	3
During	10	Get	0	Instead	0	Much	1	Phase	1	Rather	2
Each	0	Giant	0	Inter	3	Must	0	Phases	4	Recent	46
Earlier	0	Give	0	Interpretation	9	My	0	Phenomena	2	Reflections	9
Early	4	Given	0	Into	1	N	8	Place	2	Rejoinder	2
Easily	0	Gives	0	Introduction	8	Narrow	0 1	Plan	12	Replies	3
Easy	0	Goes	0	Investigation	2	Nearly	0	Point	7	Reply	5
Effect	4	Going	0	Is	10	Need	4	Political	289	Report	71
Effects	2	Government	182	It	1	Needed	1	Porto	2	Reports	6
Either	0	Governmental	13	Its	14	Needs	1	Position	6	Results	4
Elements	1	Governments	7	Itself	0	Neglected	3	Positive	1	Retrospect	2
Enough	0	Great	21	J	3	Neo	3	Possible	2	S	114
Especially	0	Greater	0	Jersey	8	Next	3	Potential	1	Safeguarding	2
Even	0	Growth	8	L	1	No	1	Potentials	0	Said	0
Eventually	0	Н	2	Light	4	None	0	Practice	8	Same	0
Every	0	Had	0	Likely	0	Not	2	Practices	5	Scene	3
Evidence	0	Happened	1	Little	0	Note	6	Precision	0	Second	22
Example	1	Has	0	Long	0	Notes	9	Preliminary	3	Section	1
Experience	8	Have	0	Low	0	Now	0	Prelude	2	Sections	0
F	2	He	0	M	1	0	1	Preparation	2	See	0
Far	5	Her	1	Made	1	Observations	4	Present	11	Seem	0
Few	0	Here	0	Make	0	Of	1312	Principal	0	Seems	0
Finally	0	High	0	Makes	1	On	141	Problem	16	Seen	1

Selected	7	Them	0	Variational	0
Serves	0	Themselves	0	Variations	2
Service	46	Then	0	Various	1
Services	6	There	1	Versus	8
Session	39	Therefore	0	Very	0
Sessions	6	These	0	View	11
Several	0	They	1	Viewed	1
She	0	Things	1	Viewpoint	1
Should	2	Third	9	Vs	2
Show	1	This	0	W	0
Shown	1	Those	0	Was	0
Shows	0	Three	4	Way	1
Significance	6	Through	9	Ways	0
Since	15	Thus	0	We	2
Situation	2	Times	0	Well	0
Slow	0	То	115	Went	1
Small	3	Today	7	Were	0
So	0	Together	0	What	7
Solution	0	Took	0	When	0
Some	36	Toward	24	Where	1
Something	0	Towards	4	Which	1
Sometime	0	Treatment	1	While	0
Special	19	Trend	4	Who	2
Still	0	Trends	14	Whole	1
Studies	11	Two	13	Whom	0
Study	72	Under	20	Whose	0
Such	0	Until	0	Why	1
Symposium	5	Up	0	Will	0
T	1	Upon	6	With	21
Take	0	Us	0	Without	2
Taken	0	Use	4	Work	9
Taking	0	Used	0	Would	0 ,
Tendencies	10	Useful	1	Year	4
Than	3	Usefulness	2	Years	6
That	1	Uses	4	Yet	0
The	1797	Usually	0	York	40
Their	5	V	11	Zealand	4

CUMULATIVE INDEX

TO THE AMERICAN POLITICAL SCIENCE REVIEW

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