

Description of the Manifesto Data Set

Full Dataset¹

Units	Parliamentary parties at national elections
Number of countries	55
Number of parties	880
Number of elections	612
Time period covered	Various free and competitive elections between 1920 and 2011.
Number of cases	3517
Number of variables	11 identification variables 4 data quality variables 5 electoral data variables 114 programmatic data variables 5 programmatic dimensions
Data Sources	Publicly available election statistics and content analysed election programs (or its nearest equivalents; see documentation)
Country	<i>Identification Variables:</i> 11 Sweden 12 Norway 13 Denmark 14 Finland 15 Iceland 21 Belgium 22 Netherlands 23 Luxembourg 31 France 32 Italy 33 Spain 34 Greece

¹ 2012-04-10

35	Portugal
41	Germany
42	Austria
43	Switzerland
51	Great Britain
52	Northern Ireland
53	Ireland
54	Malta
55	Cyprus
61	United States
62	Canada
63	Australia
64	New Zealand
71	Japan
72	Israel
73	Sri Lanka
74	Turkey
75	Albania
76	Armenia
77	Azerbaijan
78	Belarus
79	Bosnia-Herzegovinian
80	Bulgaria
81	Croatia
82	Czech Republic
83	Estonia
84	Georgia
85	German Democratic Republic (N/A > 1990)
86	Hungary
87	Latvia
88	Lithuania
89	Macedonia
90	Moldova
91	Montenegro
92	Poland
93	Romania
94	Russia
95	Serbia

	96	Slovakia
	97	Slovenia
	98	Ukraine
	113	South Korea
	171	Mexico
Countryname	Name of country in English (string variable)	
Edate	Day, month, and year of national election (DD.MM.YY)	
Date	Year and month of national election	
Party	The party identification code consists of six digits. The first three digits repeat the country code. The third, fourth, and fifth digits are running numbers.	
Partyname	Abbreviations of names of parties in original language and names of parties in English (string variable)	
Parfam	Tentative grouping of political parties and alliances into the following party families :	
	10	ECO Ecology parties
	20	COM Communist parties
	30	SOC Social democratic parties
	40	LIB Liberal parties
	50	CHR Christian democratic parties
	60	CON Conservative parties
	70	NAT Nationalist parties
	80	AGR Agrarian parties
	90	ETH Ethnic and regional parties
	95	SIP Special issue parties
	98/00	DIV Electoral alliances of divers origin without dominant party
	999	MI Missing information
	Data quality variables:	
CoderID	Identification number of coder, three digit code:	
	First digit:	1 = MRG/CMP group member
		2 = hired coder
		8 = specifically trained coder
		999 = missing information
Manual	Codings based on manual version 0 (no manual), 1, 2, or 3	

Coderyear	Year during which codings took place 999 missing information
Test result	Result of entry test as given in coding handbook: test of reliability in comparison to the master copy, Krippendorff's Alpha for ordinal data: -1.00 very bad +1.00 very good 999 no handbook during first phase of codings/ no test by MRG member. <i>Electoral data variables:</i>
Pervote	Percentage of votes gained by each party; in CEE countries also percentage of votes gained by parties or party blocs; for mixed electoral systems with a proportional and a majoritarian component votes for proportional component, only; 999 no votes available Northern Ireland, Sri Lanka, Belarus 1995 and Montenegro 1990
Voteest	0 original figure from data source As a rule, election statistics present votes and seats for each party in parliament. However, in CEE countries electoral coalitions are quite frequent so that votes and seats are available for blocs of parties, only. 1 estimated In OECD countries, blocs of parties are less frequent and seats are given for each single party in the electoral coalition. In these cases, votes for parties in electoral coalitions have been estimated on the basis of the distribution of seats between them.
Presvote	Percentage of votes in presidential elections; for USA only, 998 for all other countries
Absseat	Absolute number of seats held by each party or party bloc; 999 not available for Northern Ireland and Sri Lanka
Totseats	Total number of seats in parliament; 999 not available for Northern Ireland and Sri Lanka

Progtype

Programmatic data variables:

1 Program of a single party

As a rule, each party issues one program for each election.

2 Program of two or more parties

In a number of countries, parties compete as programmatic coalitions by issuing joint programs. In these cases, the joint program was assigned to each of the party of the programmatic coalition.

3 Estimate

For calculating median voter or median party figures, missing election programs have been estimated on the basis of available programs whenever a party obtained seats in parliament. Estimates were derived either by computing averages between two adjacent programs or by duplicating programmatic data (see Appendix IV for details).

4 Program taken from main party of electoral coalition

Especially in CEE countries, parties often compete as electoral coalitions in which blocs of parties receive joint votes and seats, but parties in the bloc still issue separate programs. When the electoral coalition is dominated by one strong party, the program of the main coalition party was used to measure positions of the 'electoral coalition' as a whole.

5 Average of all members of an electoral coalition

When the electoral coalition consists of equally strong parties, the average of platforms from all coalition parties was used to measure positions of the electoral coalition as a whole.

6 General program

Some parties did not issue separate election programs but contested elections with their general programs.

8 Party bloc program

Some party blocs issue joint programs. As opposed to type 2 programs, electoral statistics are given for the party bloc as a whole, not for the single parties making up the bloc.

	<p>9 Other type of program Other types of programmes not specified by types 1 to 8 (see Appendix IV for details).</p> <p>99 Missing program In cases where it was impossible to find a manifesto from the respective party or in cases where content-analytical data from this party is still missing, but will be added soon.</p>
<p>Datasetorigin</p>	<p>Datasets that include the observation</p> <p>10 MPPI 20 MPPII 30 Update 2009 40 Update 2010 41 Update 2010b 50 Update 2011a 51.....Update 2011b 60 Update 2012a 100 MPPI+MPPII</p>
<p>Data Entries per 101 – per 706</p>	<p>Percentages of fifty-six categories grouped into seven major policy areas. Because of the different length of documents, the number of (quasi-) sentences in each category is standardised taking the total number of (quasi-) sentences in the respective documents as a base. In the data set each of these categories is a variable that represents the percentage.</p>
<p>per101</p>	<p>Domain 1: External Relations</p> <p><i>Foreign Special Relationships: Positive</i></p> <p>Favourable mentions of particular countries with which the manifesto country has a special relationship. For example, in the British case: former colonies; in the German case: East Germany; in the Swedish case: the rest of Scandinavia; the need for cooperation with and/or aid to such countries.</p>
<p>per102</p>	<p><i>Foreign Special Relationships: Negative</i></p> <p>Negative mentions of particular countries with which the manifesto country has a special relationship; otherwise as 101, but negative.</p>

per103

Anti-Imperialism: Positive

Negative references to exerting strong influence (political, military or commercial) over other states; negative references to controlling other countries as if they were part of an empire; favourable mentions of decolonisation; favourable references to greater self-government and independence for colonies; negative references to the imperial behaviour of the manifesto and/or other countries.

per104

Military: Positive

Need to maintain or increase military expenditure; modernising armed forces and improvement in military strength; rearmament and self-defence; need to keep military treaty obligations; need to secure adequate manpower in the military; importance external security.

per105

Military: Negative

Favourable mentions of decreasing military expenditures; disarmament; "evils of war"; promises to reduce conscription, otherwise as 104, but negative.

per106

Peace: Positive

Peace as a general goal; declarations of belief in peace and peaceful means of solving crises; desirability of countries joining in negotiations with hostile countries.

per107

Internationalism: Positive

Need for international cooperation; cooperation with specific countries other than those coded in 101; need for aid to developing countries; need for world planning of resources; need for international courts; support for any international goal or world state; support for UN.

per108

European Community/Union: Positive

Favourable mentions of European Community/Union in general; desirability of expanding the European Community/Union and/or of increasing its competence; desirability of expanding the competences of the European Parliament; desirability of the manifesto country joining (or

remaining a member).

per109

Internationalism: Negative

Favourable mentions of national independence and sovereignty as opposed to internationalism; otherwise as 107, but negative.

per110

European Community/Union: Negative

Hostile mentions of the European Community/Union; opposition to specific European policies which are preferred by European authorities; opposition to the net-contribution of the manifesto country to the EU budget; otherwise as 108, but negative.

Domain 2: Freedom and Democracy

per201

Freedom and Human Rights

Favourable mentions of importance of personal freedom and civil rights; freedom from bureaucratic control; freedom of speech; freedom from coercion in the political and economic spheres; individualism in the manifesto country and in other countries.

per202

Democracy

Favourable mentions of democracy as a method or goal in national and other organisations; involvement of all citizens in decision-making, as well as generalised support for the manifesto country's democracy.

per203

Constitutionalism: Positive

Support for specific aspects of the constitution; use of constitutionalism as an argument for policy as well as general approval of the constitutional way of doing things.

per204

Constitutionalism: Negative

Opposition to the constitution in general or to specific aspects; otherwise as 203, but negative.

Domain 3: Political System

per301

Decentralisation

Support for federalism or devolution; more regional autonomy for policy or economy; support for keeping up local and regional customs and symbols; favourable mentions of special consideration for local areas; deference to local expertise; favourable mentions of the territorial subsidiary principle.

per302

Centralisation

Opposition to political decision-making at lower political levels; support for more centralisation in political and administrative procedures; otherwise as 301, but negative.

per303

Governmental and Administrative Efficiency

Need for efficiency and economy in government and administration; cutting down civil service; improving governmental procedures; general appeal to make the process of government and administration cheaper and more effective.

per304

Political Corruption

Need to eliminate corruption, and associated abuse, in political and public life.

per305

Political Authority

Favourable mentions of strong government, including government stability; manifesto party's competence to govern and/or other party's lack of such competence.

Domain 4: Economy

per401

Free Enterprise

Favourable mentions of free enterprise capitalism; superiority of individual enterprise over state and control systems; favourable mentions of private property rights, personal enterprise and initiative; need for unhampered individual enterprises.

per402

Incentives

Need for wage and tax policies to induce enterprise; encouragement to start enterprises; need for financial and

other incentives such as subsidies.

per403

Market Regulation

Need for regulations designed to make private enterprises work better; actions against monopolies and trusts, and in defence of consumer and small business; encouraging economic competition; social market economy.

per404

Economic Planning

Favourable mentions of long-standing economic planning of a consultative or indicative nature, need for government to create such a plan.

per405

Corporatism

Favourable mentions of the need for the collaboration of employers and trade union organisations in overall economic planning and direction through the medium of tripartite bodies of government, employers, and trade unions. This category was not used for Austria up to 1979, for New Zealand up to 1981, and for Sweden up to 1988.

per406

Protectionism: Positive

Favourable mentions of extension or maintenance of tariffs to protect internal markets; other domestic economic protectionism such as quota restrictions.

per407

Protectionism: Negative

Support for the concept of free trade; otherwise as 406, but negative.

per408

Economic Goals

Statements of intent to pursue any economic goals not covered by other categories in domain 4. This category is created to catch an overall interest of parties in economics and, therefore, covers a variety of economic goals.

per409

Keynesian Demand Management

Demand-oriented economic policy; economic policy devoted to the reduction of depressions and/or to increase private demand through increasing public demand and/or

through increasing social expenditures.

per410

Productivity

Need to encourage or facilitate greater production; need to take measures to aid this; appeal for greater production and importance of productivity to the economy; increasing foreign trade; the paradigm of growth.

per411

Technology and Infrastructure

Importance of modernisation of industry and methods of transport and communication; importance of science and technological developments in industry; need for training and research. This does not imply education in general (see category 506). This also covers public spending on infrastructure such as streets and harbours.

per412

Controlled Economy

General need for direct government control of economy; control over prices, wages, rents, etc; state intervention into the economic system.

per413

Nationalisation

Favourable mentions of government ownership, partial or complete, including government ownership of land.

per414

Economic Orthodoxy

Need for traditional economic orthodoxy, e.g. reduction of budget deficits, retrenchment in crisis, thrift and savings; support for traditional economic institutions such as stock market and banking system; support for strong currency.

per415

Marxist Analysis

Positive references (typically but not necessary by communist parties) to the specific use of Marxist-Leninist terminology and analysis of situations which are otherwise uncodable. This category was not used for Austria 1945-1979, for Australia, Japan and the United States up to 1980; for Belgium, Ireland, The Netherlands and New Zealand up

to 1981; for Italy and Britain up to 1983; for Denmark, Luxembourg and Israel up to 1984; for Canada, France and Sweden up to 1988.

per416

Anti-Growth Economy: Positive

Favourable mentions of anti-growth politics and steady state economy; sustainable development. This category was not used for Austria 1945-1979, for Australia, Japan and the United States up to 1980; for Belgium, Ireland, The Netherlands and New Zealand up to 1981; for Italy and Britain up to 1983; for Denmark, Luxembourg and Israel up to 1984; for Canada, France and Sweden up to 1988; and for Norway up to 1989. Test codings, however, have shown that parties before the beginning of the 1990s hardly ever advocated anti-growth policies.

Domain 5: Welfare and Quality of Life

per501

Environmental Protection

Preservation of countryside, forests, etc.; general preservation of natural resources against selfish interests; proper use of national parks; soil banks, etc; environmental improvement.

per502

Culture

Need to provide cultural and leisure facilities including arts and sport; need to spend money on museums, art galleries etc.; need to encourage worthwhile leisure activities and cultural mass media.

per503

Social Justice

Concept of equality; need for fair treatment of all people; special protection for underprivileged; need for fair distribution of resources; removal of class barriers; end of discrimination such as racial or sexual discrimination, etc.

per504

Welfare State Expansion

Favourable mentions of need to introduce, maintain or expand any social service or social security scheme; support for social services such as health service or social housing.

Note: This category excludes education.

per505

Welfare State Limitation

Limiting expenditure on social services or social security; otherwise as 504, but negative.

per506

Education Expansion

Need to expand and/or improve educational provision at all levels. This excludes technical training which is coded under 411.

per507

Education Limitation

Limiting expenditure on education; otherwise as 506, but negative.

Domain 6: Fabric of Society

per601

National Way of Life: Positive

Appeals to patriotism and/or nationalism; suspension of some freedoms in order to protect the state against subversion; support for established national ideas.

per602

National Way of Life: Negative

Against patriotism and/or nationalism; opposition to the existing national state; otherwise as 601, but negative.

per603

Traditional Morality: Positive

Favourable mentions of traditional moral values; prohibition, censorship and suppression of immorality and unseemly behaviour; maintenance and stability of family; religion.

per604

Traditional Morality: Negative

Opposition to traditional moral values; support for divorce, abortion etc.; otherwise as 603, but negative.

per605

Law and Order

Enforcement of all laws; actions against crime; support and resources for police; tougher attitudes in courts; importance of internal security.

per606	<p>Social Harmony</p> <p>Appeal for national effort and solidarity; need for society to see itself as united; appeal for public spiritedness; decrying anti-social attitudes in times of crisis; support for the public interest; favourable mention of the civil society (Note: This category neither captures what your country can do for you nor what you can do for your country, but what you can do for your fellow citizens.).</p>
per607	<p>Multiculturalism: Positive</p> <p>Cultural diversity, communalism, cultural plurality and pillarisation; preservation of autonomy of religious, linguistic heritages within the country including special educational provisions.</p>
per608	<p>Multiculturalism: Negative</p> <p>Enforcement or encouragement of cultural integration; otherwise as 607, but negative.</p>
	<p>Domain 7: Social Groups</p>
per701	<p>Labour Groups: Positive</p> <p>Favourable references to labour groups, working class, unemployed; support for trade unions; good treatment of manual and other employees.</p>
per702	<p>Labour Groups: Negative</p> <p>Abuse of power of trade unions; otherwise as 701, but negative.</p>
per703	<p>Farmers</p> <p>Support for agriculture and farmers; any policy aimed specifically at benefiting these.</p>
per704	<p>Middle Class and Professional Groups</p> <p>Favourable references to middle class, professional groups, such as physicians or lawyers; old and new middle class.</p>
per705	<p>Underprivileged Minority Groups</p> <p>Favourable references to underprivileged minorities who</p>

are defined neither in economic nor in demographic terms, e.g. the handicapped, homosexuals, immigrants, etc.

per706

Non-economic Demographic Groups

Favourable mentions of, or need for, assistance to women, old people, young people, linguistic groups, etc; special interest groups of all kinds.

Data Entries

Per1011 – per7062

Subcategories used for CEE countries. For comparisons between OECD and CEE countries, subcategories can be aggregated into one of the 56 standard categories used in all countries.

per1011

Russia/USSR/CIS: Positive

Favourable mentions of Russia, the USSR, the CMEA bloc or the Community of Independent States.

per 1012

Western States: Positive

Favourable mentions of Western states, including the USA and Germany.

per1013

Eastern European Countries: Positive

Favourable mentions of Eastern European countries in general.

per1014

Baltic States: Positive

Favourable mentions of the Baltic states, including other states bordering the Baltic Sea.

per1015

Nordic Council: Positive

Favourable mentions of the Nordic Council.

per1016

SFR Yugoslavia: Positive

Favourable mentions of countries formerly belonging to SFR Yugoslavia including special relationships with Montenegro, Macedonia, Slovenia, Croatia and Bosnia-Herzegovina.

per1021

Russia/USSR/CIS: Negative

Negative mentions of Russia, the USSR or the Community of

	Independent States.
per1022	<i>Western States: Negative</i> Negative mentions of Western states, including the USA and Germany.
per1023	<i>East European Countries: Negative</i> Negative mentions of Eastern European countries in general.
per1024	<i>Baltic States: Negative</i> Negative references to the Baltic states.
per1025	<i>Nordic Council: Negative</i> Negative references to the Nordic Council.
per1026	<i>SFR Yugoslavia: Negative</i> Negative mentions of countries formerly belonging to SFR Yugoslavia including negative references to Montenegro, Macedonia, Slovenia, Croatia and Bosnia-Herzegovina.
per1031	<i>Russian Army: Negative</i> Need to withdraw the Russian army from the territory of the manifesto country; need to receive reparations for the damage caused by the Russian army or other Soviet institutions.
per1032	<i>Independence: Positive</i> Favourable mentions of the independence and sovereignty of the manifesto country.
per1033	<i>Rights of Nations: Positive</i> Favourable mentions of freedom, rights and interests of nations.
per2021	<i>Transition to Democracy</i> General references to the transition process of one-party states to pluralist democracy.
per2022	<i>Restrictive Citizenship: Positive</i> Favourable mentions of restrictions in citizenship;

	restrictions in enfranchisement with respect to (ethnic) groups.
per2023	<p><i>Lax Citizenship: Positive</i></p> <p>Favourable mentions of lax citizenship and election laws; no or few restrictions in enfranchisement.</p>
per2031	<p><i>Presidential Regime: Positive</i></p> <p>Support for current presidential regime; statements in favour of a powerful presidency.</p>
per2032	<p><i>Republic: Positive</i></p> <p>Support for the republican form of government as opposed to monarchy.</p>
per2033	<p><i>Checks and Balances: Positive</i></p> <p>Support for checks and balances and separation of powers, and specifically for limiting the powers of the presidency by increasing legislative/judicial powers, or transferring some executive powers to the legislature or judiciary.</p>
per2041	<p><i>Monarchy: Positive</i></p> <p>Support for a monarchy, including conceptions of constitutional monarchy.</p>
per3011	<p><i>Republican Powers: Positive</i></p> <p>Favourable mentions of stronger republican powers.</p>
per3051	<p><i>Public Situation: Negative</i></p> <p>Negative references to the situation in public life after the founding elections.</p>
per3052	<p><i>Communist: Positive</i></p> <p>Co-operation with former authorities/communists in the transition period; pro-communist involvement in the transition process; and 'let sleeping dogs lie' in dealing with the nomenclature.</p>
per3053	<p><i>Communist: Negative</i></p> <p>Against communist involvement in democratic government;</p>

	weeding out the collaborators from governmental service; need for political coalition except communist parties.
per3054	<p><i>Rehabilitation and Compensation: Positive</i></p> <p>References to civic rehabilitation of politically persecuted people in the communist era; references to juridical compensation concerning communist expropriations; moral compensation.</p>
per3055	<p><i>Political Coalitions: Positive</i></p> <p>Positive references to the need of broader political coalition; need for co-operation at the political level; necessity of collaboration among all political forces.</p>
per4011	<p><i>Privatisation: Positive</i></p> <p>Favourable references to privatisation.</p>
per4012	<p><i>Control of Economy: Negative</i></p> <p>Negative references to the general need for direct governmental control of the economy.</p>
per4013	<p><i>Property-Restitution: Positive</i></p> <p>Favourable references to the physical restitution of property to previous owners.</p>
per4014	<p><i>Privatisation Vouchers: Positive</i></p> <p>Favourable references to privatisation vouchers.</p>
per4121	<p><i>Social Ownership: Positive</i></p> <p>Favourable references to the creation or preservation of co-operative or non-state social ownership within a market economy.</p>
per4122	<p><i>Mixed Economy: Positive</i></p> <p>Favourable references to mixed ownership within a market economy.</p>

per4123	<p><i>Publicly-Owned Industry: Positive</i></p> <p>Positive references to the concept of publicly-owned industries.</p>
per4124	<p><i>Socialist Property: Positive</i></p> <p>Positive references to socialist property, including public and co-operative property; negative references to privatisation.</p>
per4131	<p><i>Property-Restitution: Negative</i></p> <p>Negative references to the physical restitution of property to previous owners.</p>
per4132	<p><i>Privatisation: Negative</i></p> <p>Negative references to the privatisation system; need to change the privatisation system.</p>
per5021	<p><i>Private-Public Mix in Culture: Positive</i></p> <p>Necessity of private provisions due to economic constraints; private funding in addition to public activity.</p>
per5031	<p><i>Private-Public Mix in Social Justice: Positive</i></p> <p>Necessity of private initiatives due to economic constraints.</p>
per5041	<p><i>Private-Public Mix in Welfare: Positive</i></p> <p>Necessity of private welfare provisions due to economic constraints; desirability of competition in welfare service provisions; private funding in addition to public activity.</p>
per5061	<p><i>Private-Public Mix in Education: Positive</i></p> <p>Necessity of private education due to economic constraints; desirability of competition in education.</p>
per6011	<p><i>The Karabakh Issue: Positive</i></p> <p>Positive references to the unity of Karabakh and Armenia or the recognition of the independent Republic of Karabakh; rendering assistance to Karabakh.</p>
per6012	<p><i>Rebuilding the USSR: Positive</i></p> <p>Favourable mentions of the reunification of all republics and</p>

	nations living on the former territory of the USSR into a new common (democratic) state or into a common economic space whereby the new union would be the guarantor of the manifesto country's sovereignty; negative references to the dissolution of the USSR and the respective treaties.
per6013	<p><i>National Security: Positive</i></p> <p>Support for or need to maintain national security in all spheres of social life; policies devoted to this goal.</p>
per6014	<p><i>Cyprus Issue</i></p> <p>All references concerning the division of Cyprus in a Greek and a Turkish part.</p>
per6061	<p><i>General Crisis</i></p> <p>Identification of a general crisis in the country.</p>
per6071	<p><i>Cultural Autonomy: Positive</i></p> <p>Favourable mentions of cultural autonomy.</p>
per6072	<p><i>Multiculturalism pro Roma: Positive</i></p> <p>Favourable mentions of cultural autonomy of Roma.</p>
per6081	<p><i>Multiculturalism pro Roma: Negative</i></p> <p>Negative mentions of cultural autonomy of Roma.</p>
per7051	<p><i>Minorities Inland: Positive</i></p> <p>References to manifesto country minorities in foreign countries; positive references to manifesto country minorities.</p>
per7052	<p><i>Minorities Abroad: Positive</i></p> <p>References to ethnic minorities living in the manifesto country such as Latvians living in Estonia.</p>
per7061	<p><i>War Participants: Positive</i></p> <p>Favourable mentions of, or need for, assistance to people taking part in the war on the territory of ex-Yugoslavia.</p>
per7062	<p><i>Refugees: Positive</i></p> <p>Favourable mentions of, or need for, assistance to people</p>

	who left their homes because of the war (for instance, on the territory of ex-Yugoslavia) or were forcibly displaced.
Peruncod	Percentage of uncoded (quasi-) sentences Missing information: 11 Sweden 1948-1982 = 99,99 12 Norway 1945-1989 = 99,99
Total	Total number of quasi-sentences Missing information: 12 Norway in 1989 = 9999
	<i>Programmatic dimensions:</i>
Rile	Right-left position of party as given in Michael Laver/Ian Budge (eds.): Party Policy and Government Coalitions, Houndmills, Basingstoke, Hampshire: The MacMillan Press 1992: (per104 + per201 + per203 + per305 + per401 + per402 + per407 + per414 + per505 + per601 + per603 + per605 + per606) - (per103 + per105 + per106 + per107 + per403 + per404 + per406 + per412 + per413 + per504 + per506 + per701 + per202).
Planeco	per403 + per404 + per412.
Markeco	per401 + per414.
Welfare	per503 + per504.
Intpeace	per102 + per105 + per106.