SURNAMES IN CHILE

A study of the population of Chile through isonymy

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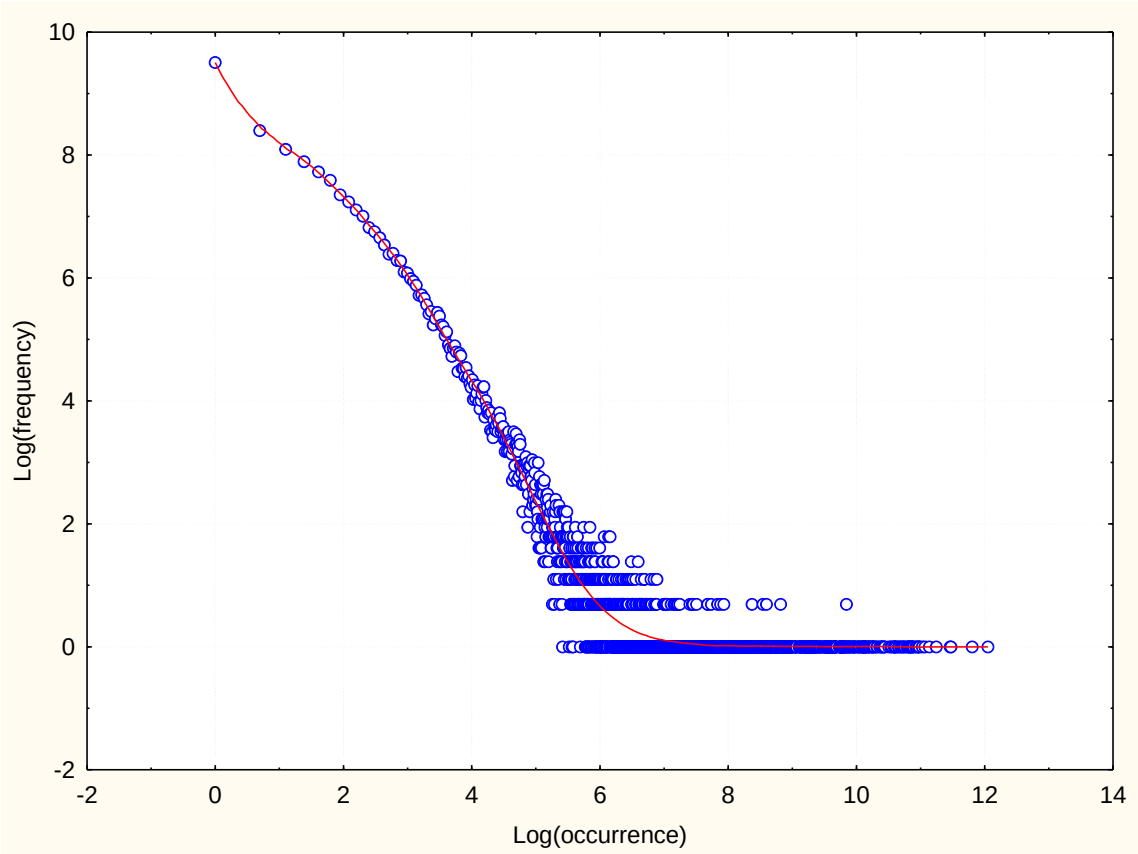

Figure S1. Frequency of a given occurrence of a surname as a function of its occurrence. 8.1 million paternal surnames, Chile 2006. Bilogarithmic scale.

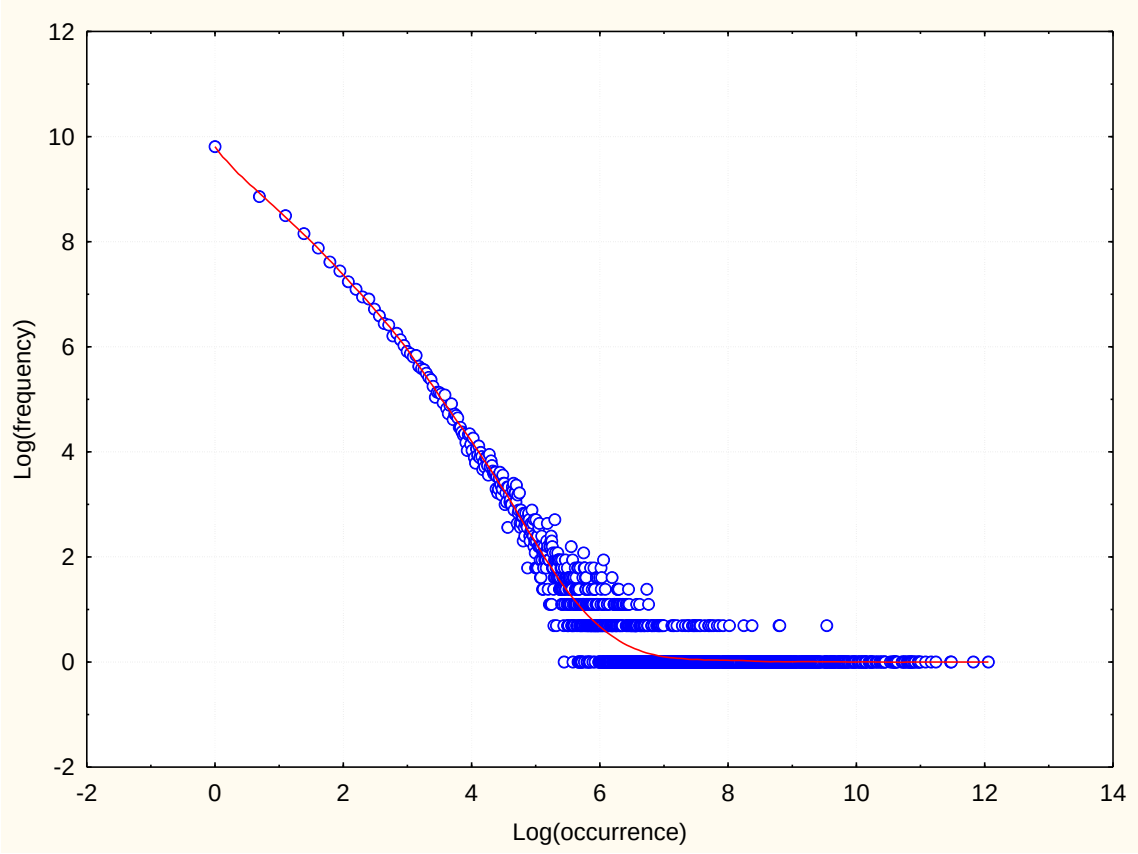

Figure S2. Frequency of a given occurrence of a surname as a function of its occurrence. 8.1 million maternal surnames, Chile 2006. Bilogarithmic scale.

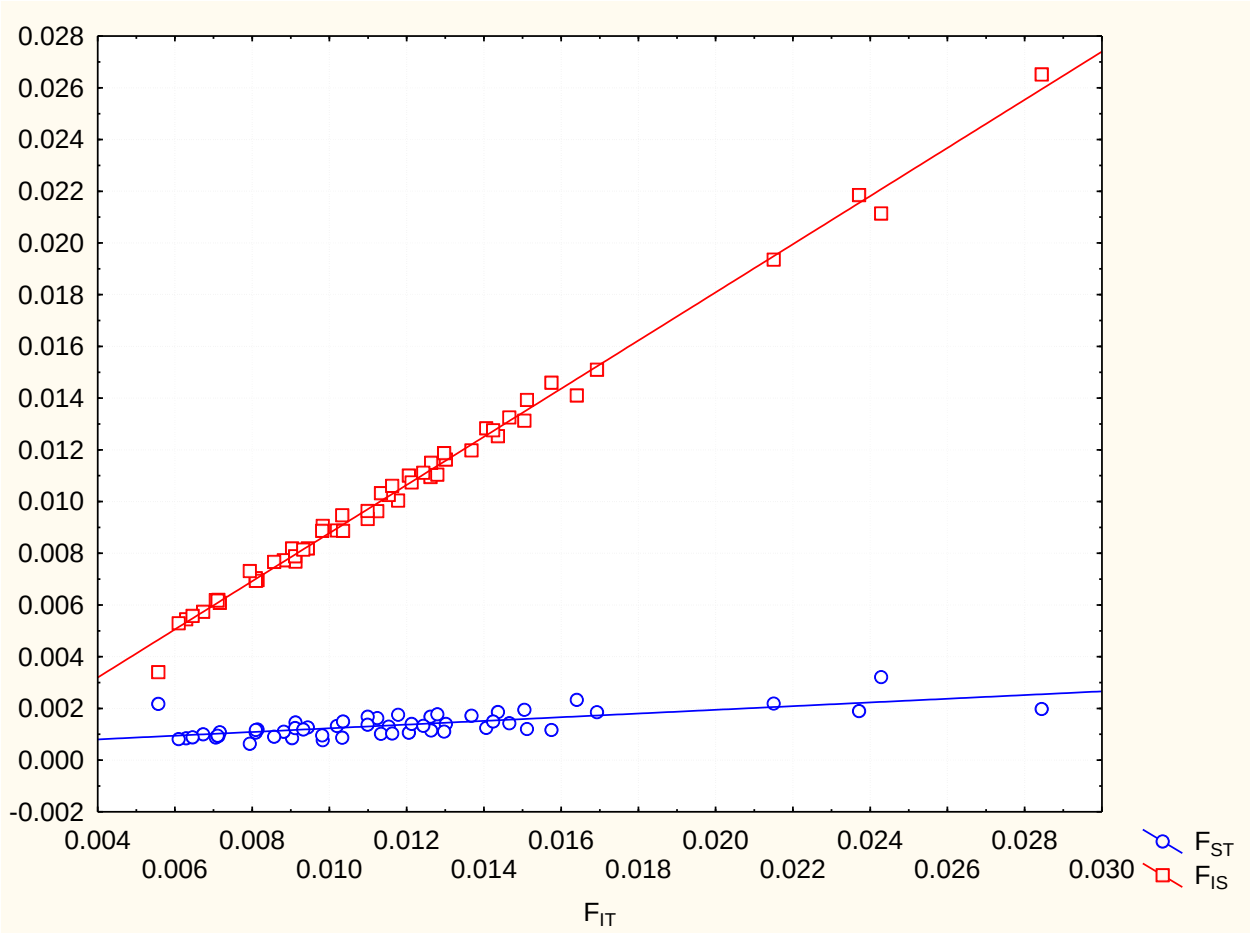

Figure S3. The components of inbreeding levels in 54 provinces of Chile. Local inbreeding seems to be the largest component, whereas random inbreeding tends to stay constant. Inbreeding from isonymy, 16 million surnames, Chile 2006.

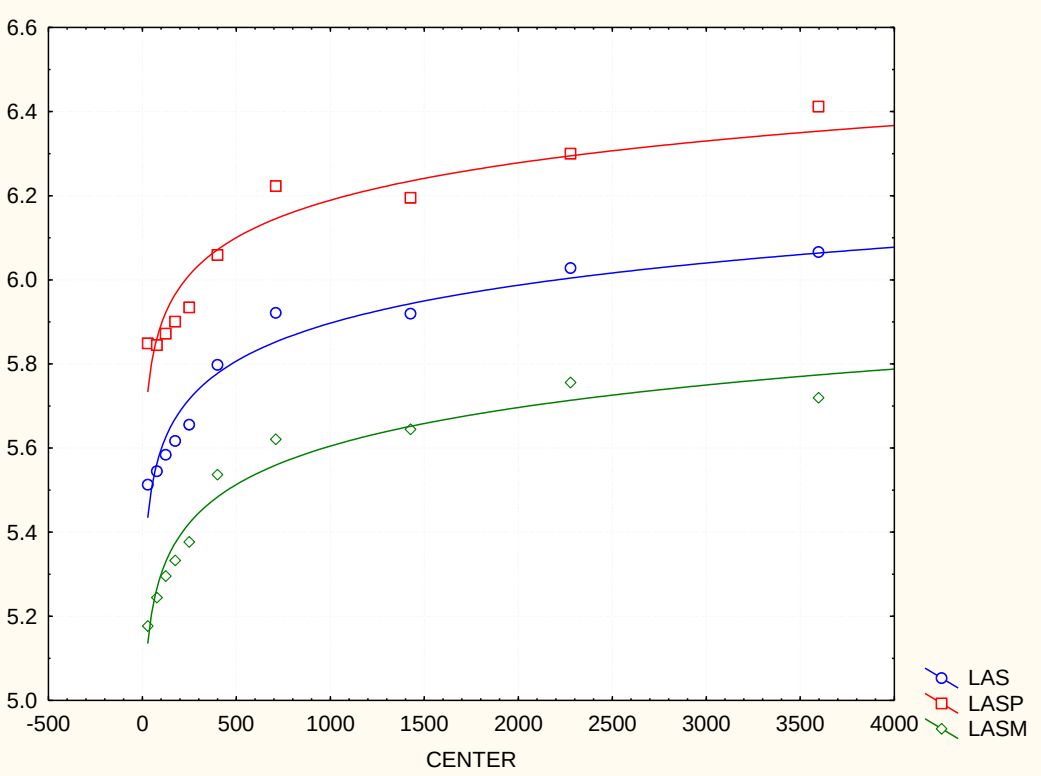

Figure S4. Variation of Lasker's distance on kilometers, Chile 2006. The belts are one standard deviation wide.

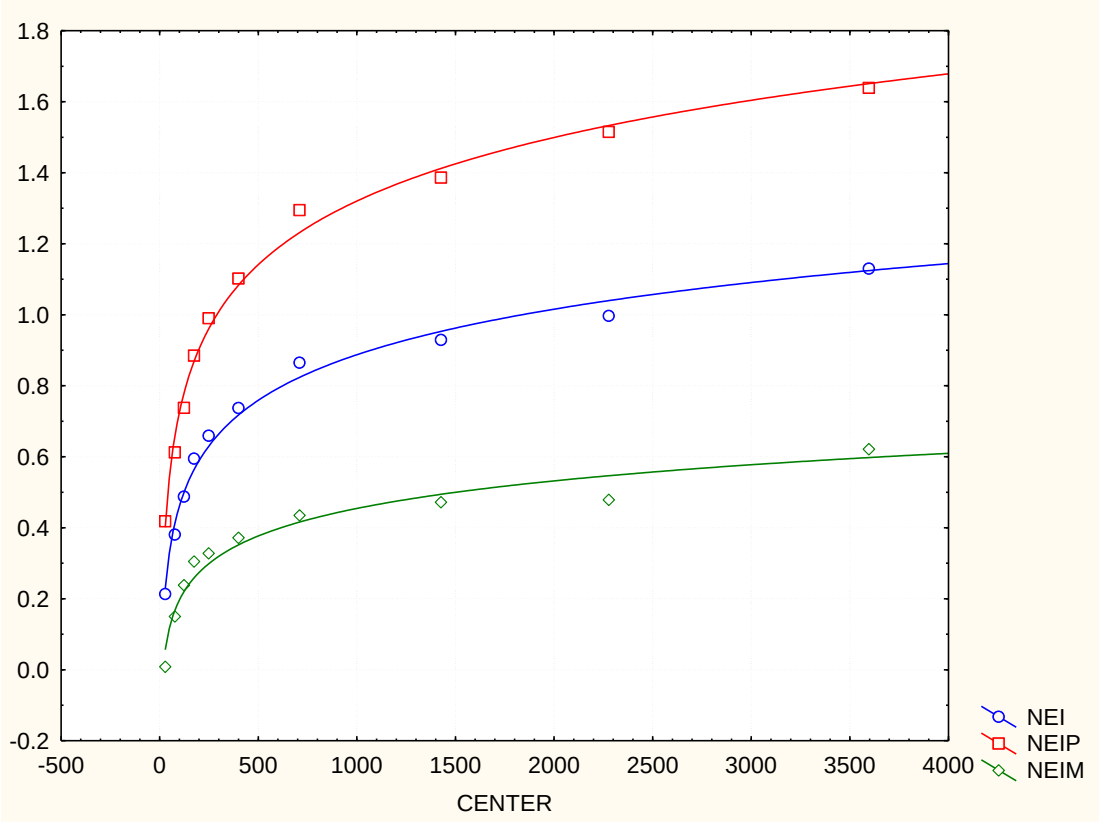

Figure S5. Variation of Nei's distance on kilometers, Chile 2006. The belts are one standard deviation wide.

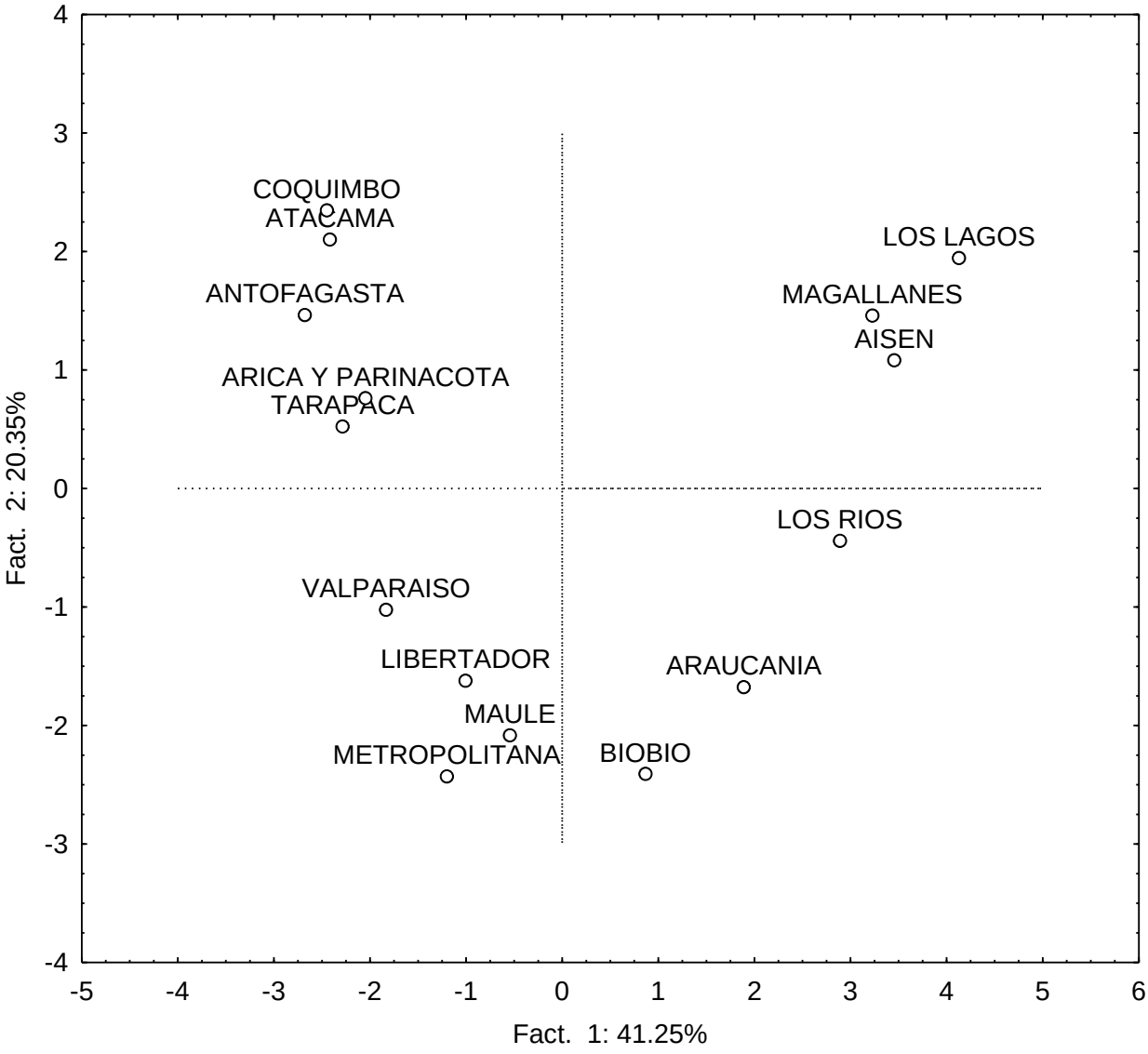

Figure S6P. Projection of the Euclidean distance matrix between regions on the first two Factors of PCA. Regions result geographically ordered in a concave arc from North to South.

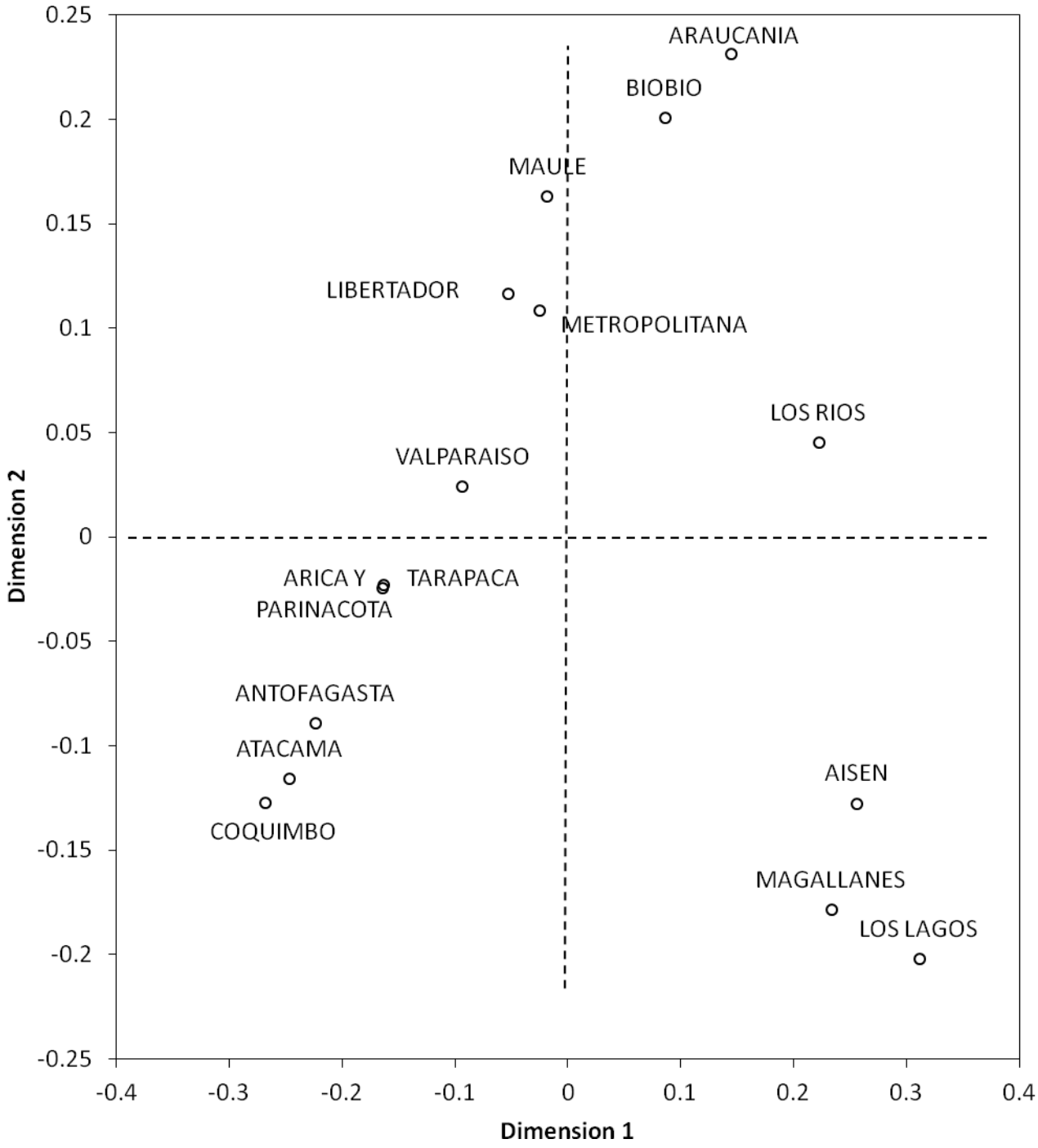

Figure S6M. Projection of the Euclidean distance matrix between regions on the first two Dimensions of MDS. Regions result geographically ordered in a convex arc from North to South.

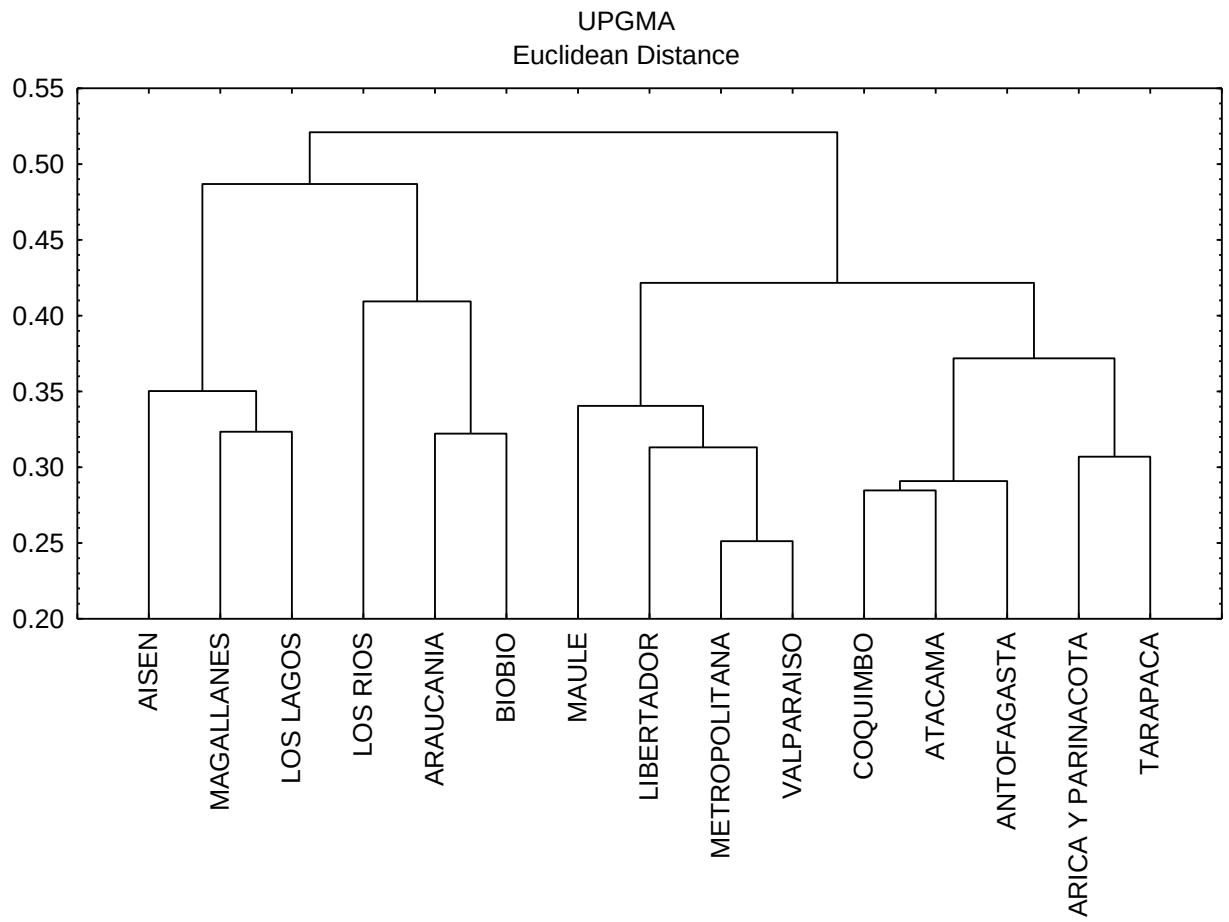

Figure S7. Dendrogram based on the matrix of Euclidean surname distances between regions. Note the strict North-South clustering from Tarapaca to Aisen.

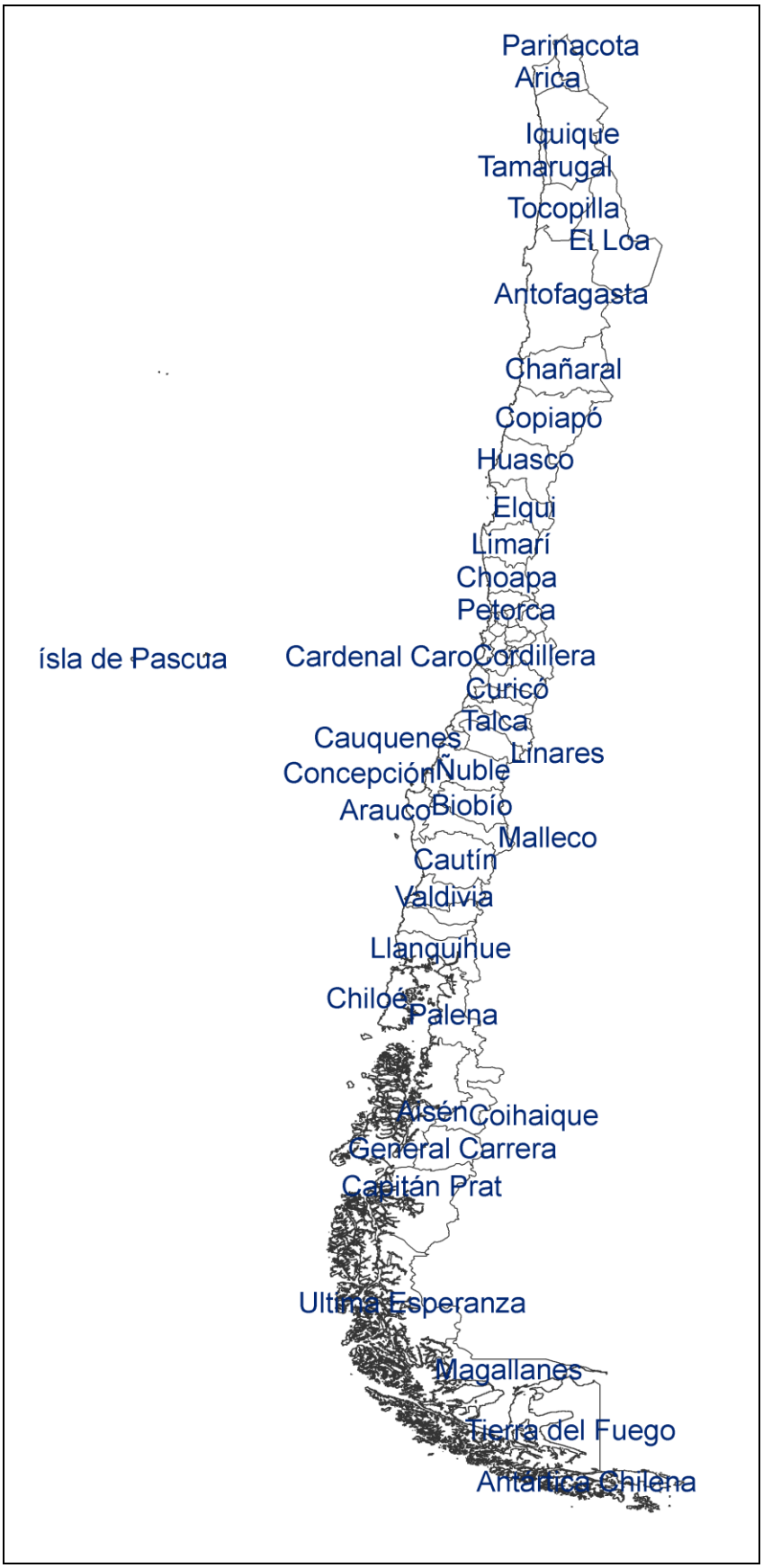

Figure S8. The provinces of Chile.

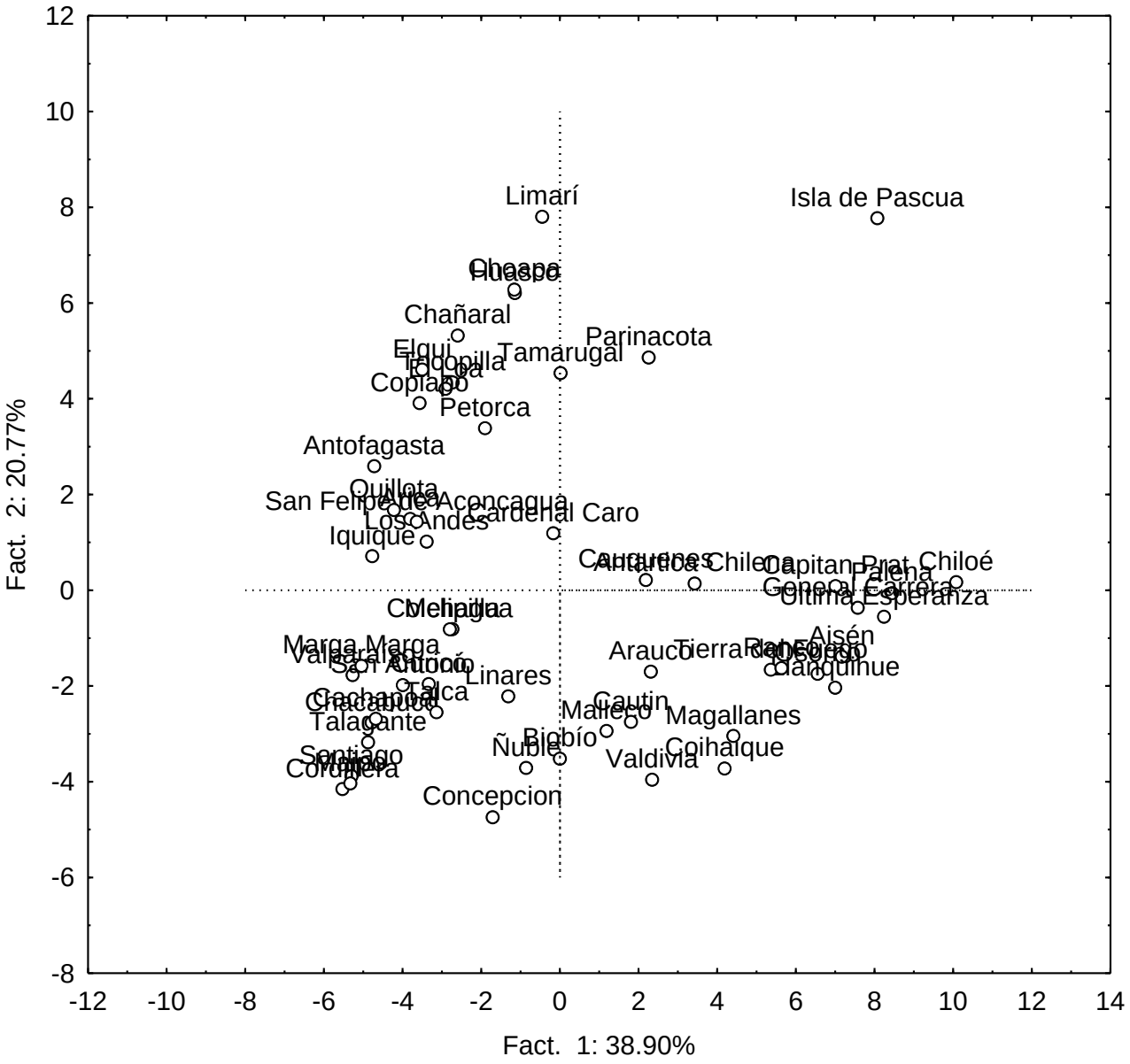

Figure S9P. Projection of the Euclidean distance matrix between provinces on the first two Factors of PCA. Note the counterclockwise arc ordering of the provinces in the second, third, fourth, and first quadrant. Note the outlier position of Isla de Pascua (Easter Island) in the first quadrant.

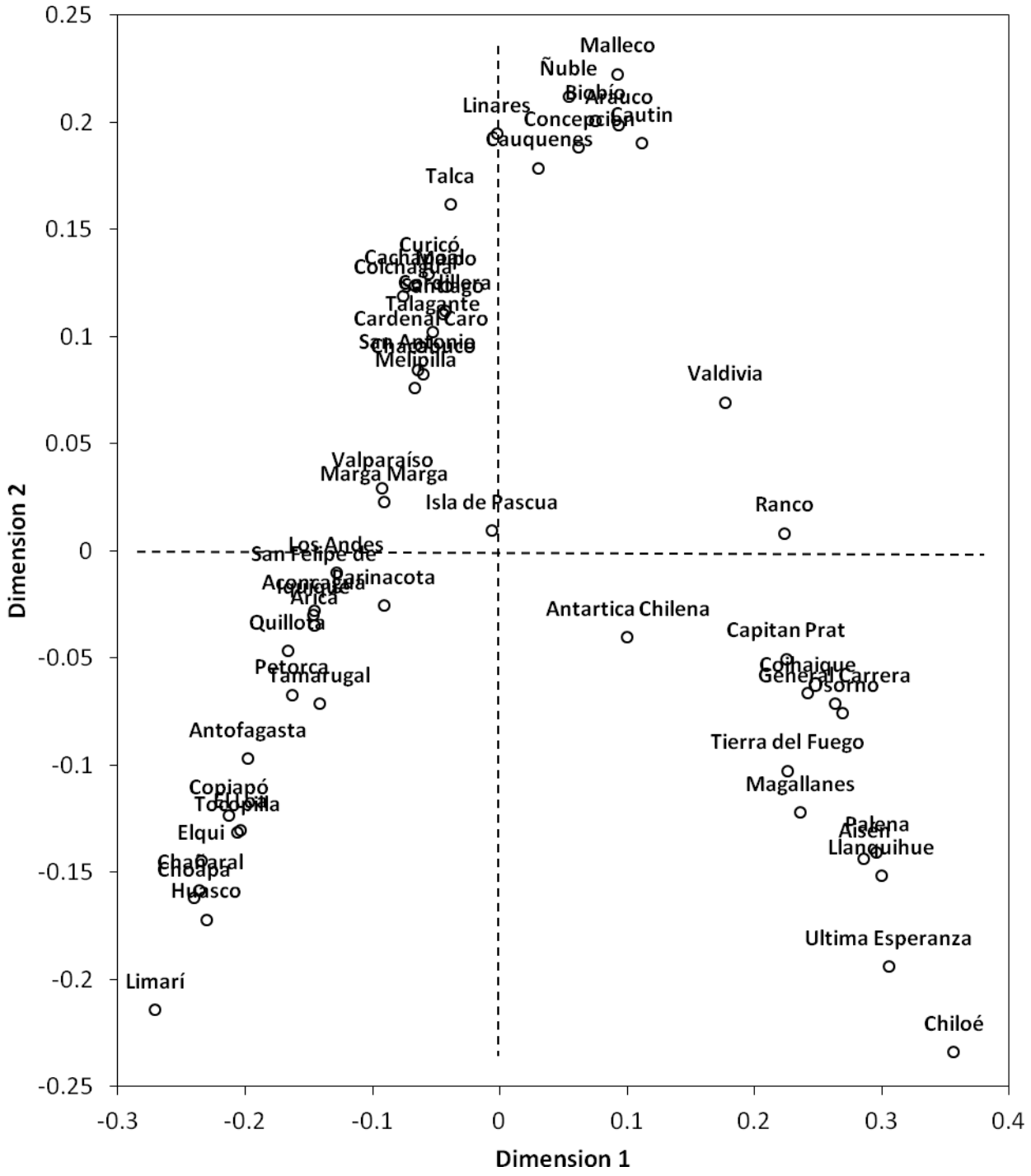

Figure S9M. Projection of the Euclidean distance matrix between provinces on the first two Dimensions of MDS. Note the counterclockwise arc ordering of the provinces in the third, second, first and fourth quadrant.

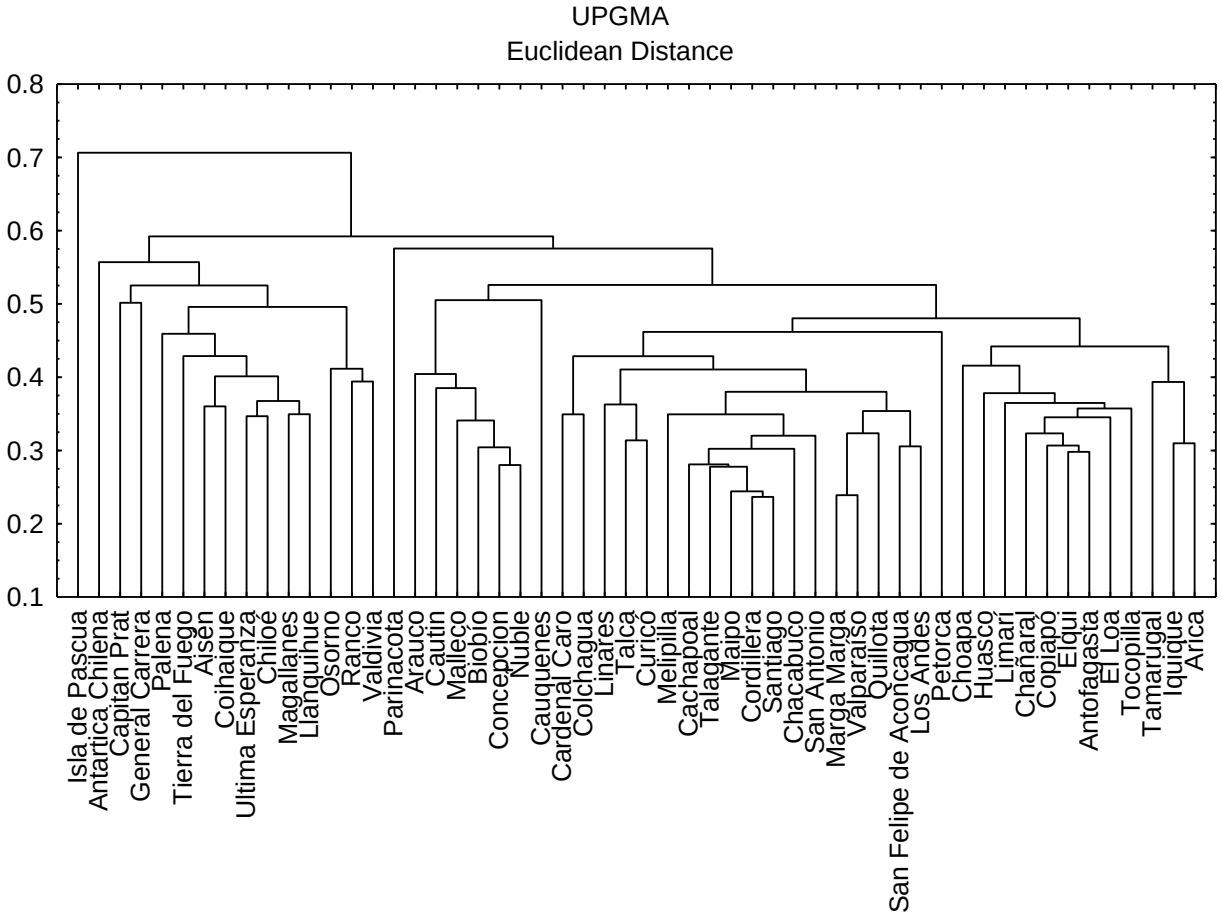

Figure S10. Dendrogram of the 54 provinces of Chile. Note the considerable North-South ordering of the provinces from Arica down to Tierra del Fuego and Antartica Cilena.

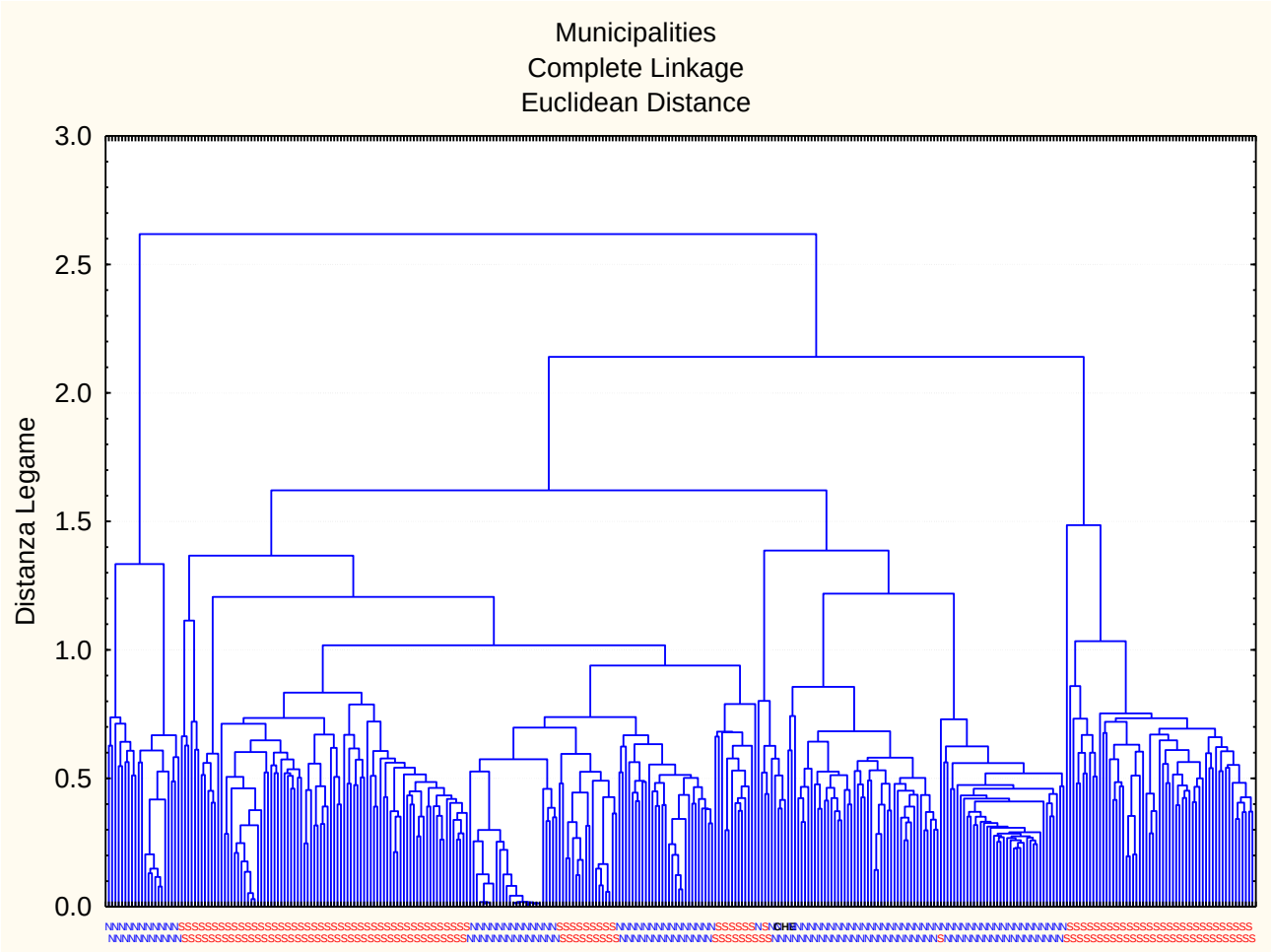

Figure S11. The dendrogram from the Euclidean distance matrix between the 346 communes of Chile. (Label CHE means Chepica municipality; N = North; S = South)

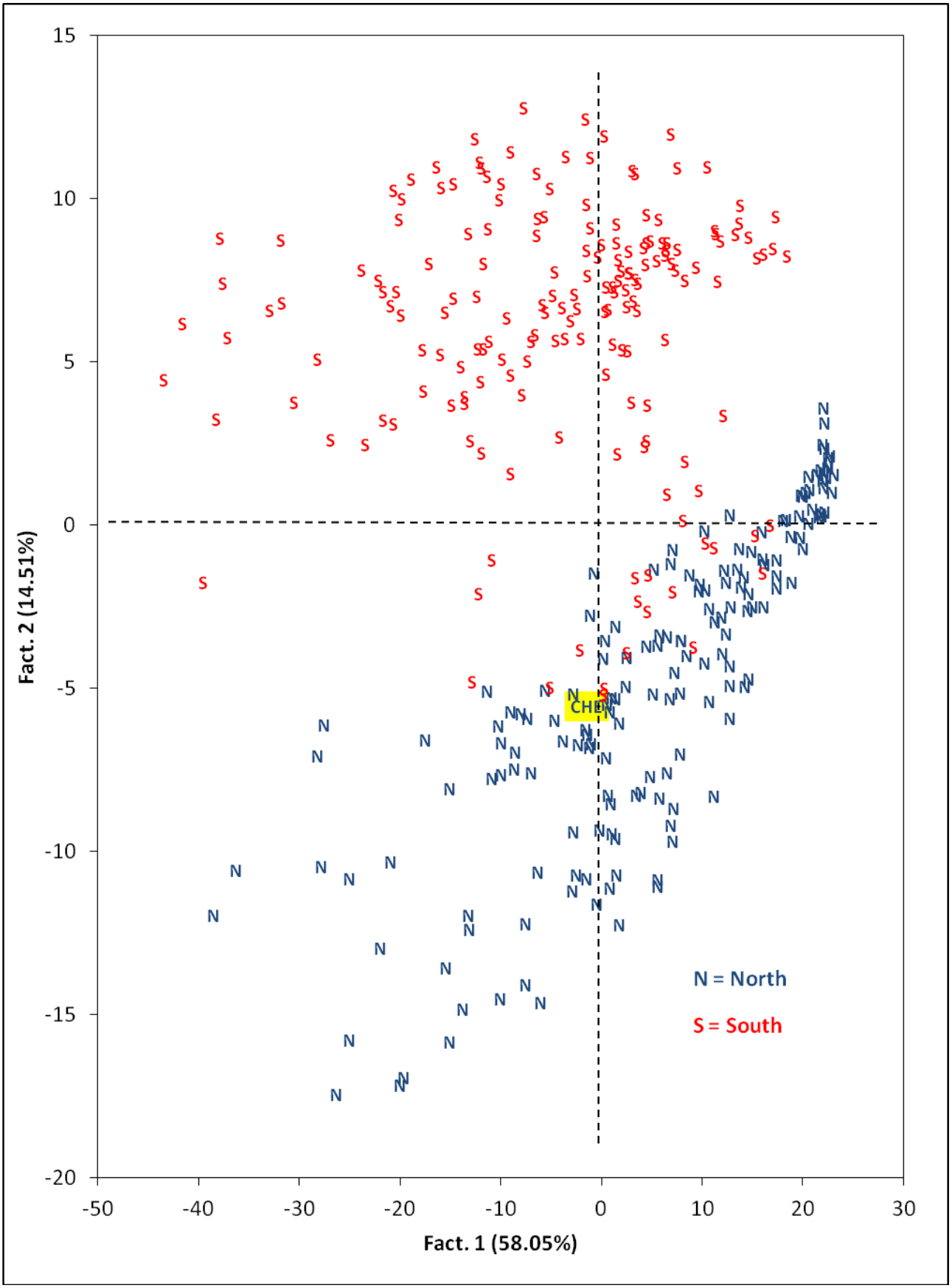

Figure S12P. Projection of the Euclidean distance matrix between the 346 communes of Chile on the first two Factors of PCA. Note that the North (N) and the South (S) clusters are inverted in the Projection. Label CHE means Chepica municipality.

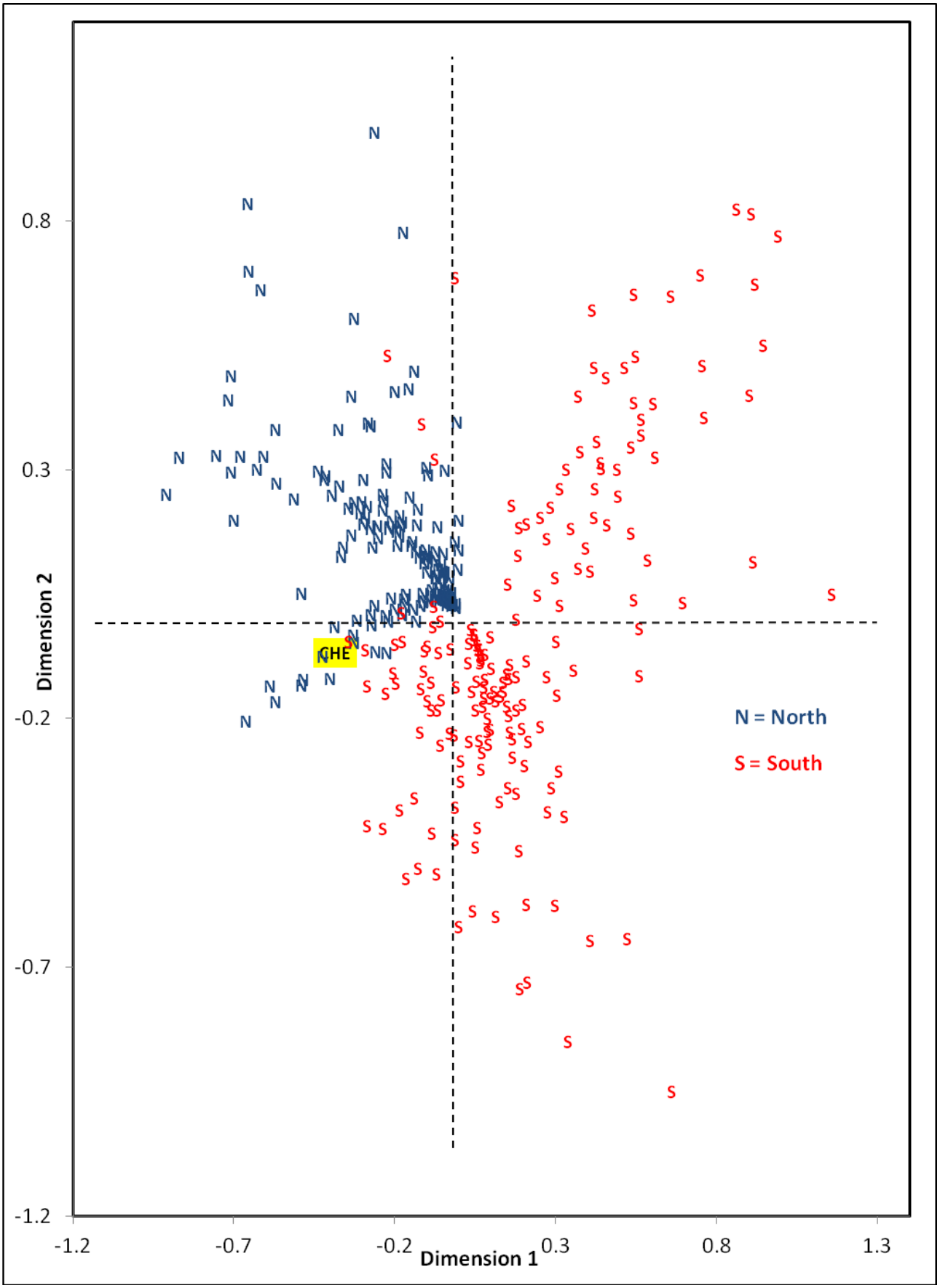

Figure S12M. Projection of the Euclidean distance matrix between the 346 communes of Chile on the first two Dimensions of MDS. Label CHE means Chepica municipality.

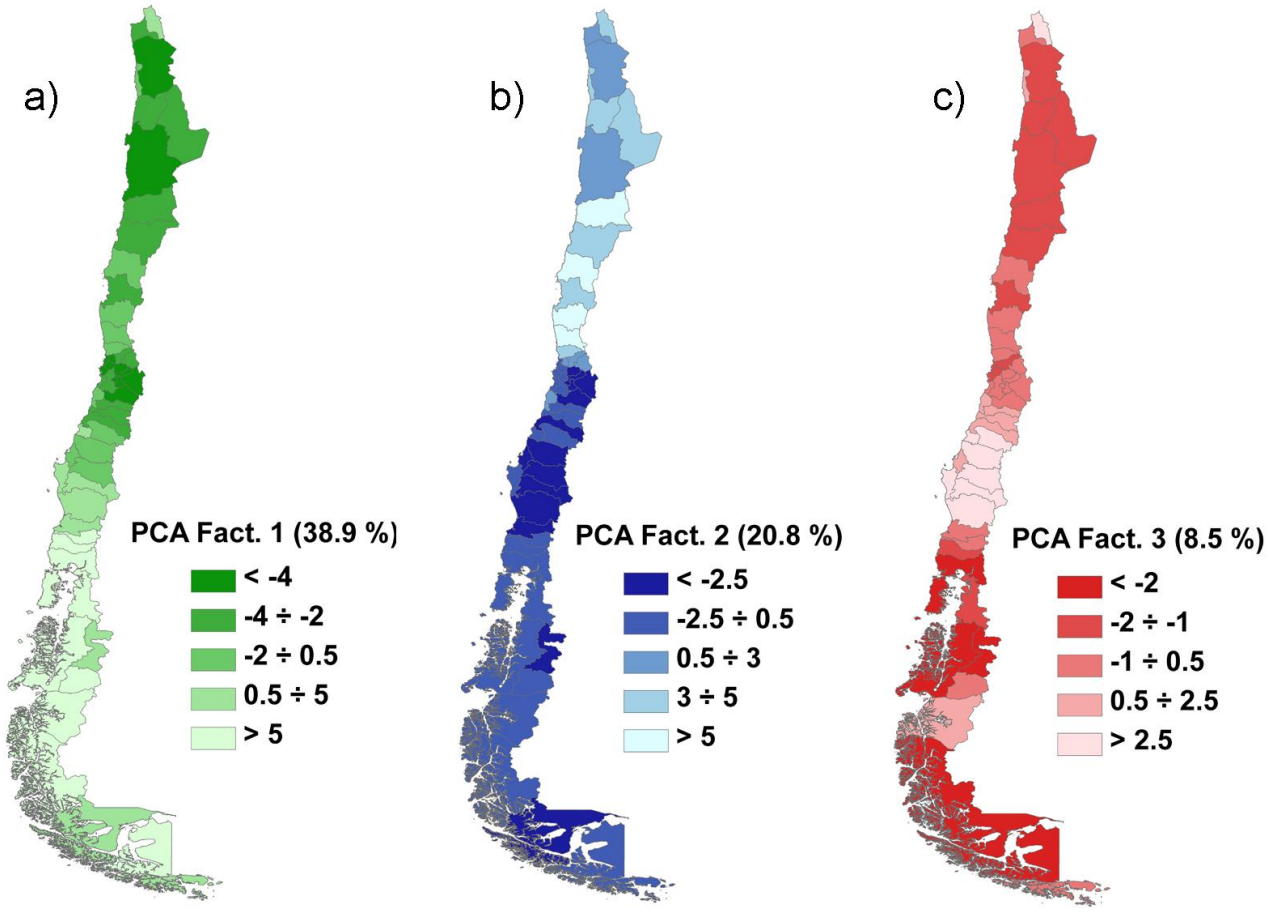

Figure S13. Mapping of Euclidean's matrix of surname distances between departments in Chile on the first three components of Pca. The first component (a) green) represents 38.9% of the total dispersion, the second (b) blue) 20.8%, and the third component (c) red) 8.5%.

Table S1. Isonymy in Chile. From: I. Barrai et al., to be submitted to: Am J Phys Anthropol, 2011. Municipality, average coordinates (Lat and Lon). Prefix: NIND = number of individuals; NSUR = number of different surnames; I = isonymy; ALFA = Fisher'α; NI = Karlin's ν. Suffix: PA = paternal surname; MA = maternal surname; PM = both paternal and maternal surname. FST = random inbreeding FST; IOBS = total observed isonymy; FIS = local inbreeding FIS; FIT = total inbreeding FIT.

MUNICIPALITY	LAT	LON	NINDIPA	NSURPA	NINDIMA	NSURMA	IPA	IMA	ALFAPA	ALFAMA	NIPA	NIMA	NINPM	NSUPM	NIPM	IPM	ALFAPM	FST	IOBS	FIS	FIT
AISEN	-73.4996	-44.9743	12974	1492	12841	1502	0.004913	0.00527	205.7539	191.5669	0.015611	0.014699	25815	2100	0.007703	0.005004	200.3922	0.001251	0.057628	0.013172	0.014407
ALGARROBO	-71.6311	-33.2766	7308	1474	7244	1568	0.004852	0.004688	211.0646	218.7496	0.028071	0.029312	14552	2257	0.014704	0.004652	217.1731	0.001163	0.033821	0.007301	0.008455
ALHUE	-71.1457	-34.0184	2955	405	2920	434	0.008559	0.008098	120.5985	127.8937	0.039211	0.041961	5875	565	0.021507	0.007853	129.1322	0.001963	0.056507	0.012187	0.014127
ALTO BIOBIO	-71.3167	-38.05	2590	327	2584	368	0.011215	0.010132	91.31408	101.5737	0.034056	0.037822	5174	462	0.01874	0.01021	98.81094	0.002553	0.070433	0.015094	0.017608
ALTO DEL CARMEN	-70.1678	-29.1212	3560	468	3455	501	0.01404	0.015745	71.66098	63.6813	0.019732	0.018098	7015	669	0.00973	0.014442	68.92489	0.00361	0.085673	0.017872	0.021418
ALTO HOSPICIO	-70.1167	-20.25	19282	2219	19075	2228	0.003824	0.00406	264.0565	248.5241	0.013509	0.012861	38357	3075	0.006656	0.003902	257.0128	0.000975	0.038794	0.008732	0.009699
ANCUD	-73.7999	-41.9782	22355	1622	22033	1759	0.008754	0.009808	113.8208	101.4267	0.005066	0.004582	44388	2310	0.002426	0.0092	107.9655	0.0023	0.08578	0.019189	0.021445
ANDACOLLO	-70.8848	-30.1467	7302	535	7135	590	0.01306	0.013779	76.37037	72.31134	0.010351	0.010033	14437	743	0.005153	0.013266	74.77205	0.003316	0.083812	0.017695	0.020953
ANGOL	-72.8386	-37.73	28885	1652	28672	1704	0.004543	0.004533	220.8218	221.3217	0.007587	0.00766	57557	2267	0.003846	0.004497	222.22	0.001124	0.036447	0.007996	0.009112
ANTARTICA	-75	-71.5	275	193	274	201	0.007074	0.006633	288.8077	332.9375	0.512245	0.548553	549	325	0.354625	0.005119	301.668	0.00128	0.014599	0.002373	0.00365
ANTOFAGASTA	-69.4192	-24.2777	131292	5753	129398	6159	0.004506	0.004779	221.2997	208.5846	0.001683	0.001609	260690	8302	0.000824	0.004631	215.1044	0.001158	0.031677	0.006769	0.007919
ANTUCO	-71.3512	-37.3678	2992	439	2960	466	0.007881	0.009163	131.4689	112.2778	0.042091	0.036545	5952	604	0.020481	0.008138	124.4511	0.002034	0.044932	0.009217	0.011233
ARAUCO	-73.3639	-37.2673	17965	1126	17801	1173	0.005977	0.005763	167.8586	174.2187	0.009257	0.009692	35766	1536	0.004792	0.0058	172.2316	0.00145	0.050671	0.011234	0.012668
ARICA	-70.0082	-18.5033	100147	5418	98656	5832	0.003367	0.003453	296.8869	289.419	0.002956	0.002925	198803	7884	0.001475	0.0034	293.5813	0.00085	0.035781	0.008102	0.008945
BUIN	-70.8793	-33.6888	35052	2290	34841	2400	0.004424	0.004435	226.4967	225.9497	0.00642	0.006443	69893	3265	0.003243	0.004392	227.4167	0.001098	0.028128	0.00594	0.007032
BULNES	-72.1799	-36.8041	13643	856	13529	921	0.006298	0.006149	159.6267	163.5946	0.011565	0.011948	27172	1170	0.005993	0.006103	163.8324	0.001526	0.043684	0.00941	0.010921
CABILDO	-70.8794	-32.3583	10943	766	10783	849	0.007092	0.007102	141.8381	141.6517	0.012796	0.012966	21726	1071	0.006566	0.006962	143.5929	0.00174	0.059724	0.013213	0.014931
CABO DE HORNOS	-67.6167	-54.9333	1443	591	1433	604	0.004523	0.004198	259.9488	284.4836	0.152646	0.16564	2876	885	0.087435	0.003962	275.557	0.000991	0.043964	0.01001	0.010991
CABRERO	-72.3101	-37.086	14908	948	14784	994	0.006714	0.006147	149.4312	163.4756	0.009924	0.010937	29692	1306	0.005267	0.006354	157.218	0.001588	0.048837	0.010638	0.012209
CALAMA	-68.6028	-22.1857	70024	3491	68782	3652	0.005013	0.005177	199.0347	192.6889	0.002834	0.002794	138806	4994	0.001412	0.005077	196.2574	0.001269	0.053517	0.012125	0.013379
CALBUCO	-72.9744	-41.5045	16058	1045	15873	1073	0.01482	0.015403	66.75853	64.18365	0.00414	0.004027	31931	1478	0.002052	0.015036	65.64386	0.003759	0.095382	0.020162	0.023846
CALDERA	-70.7118	-27.2861	8345	1293	8202	1295	0.004961	0.004727	205.5543	216.1171	0.02404	0.025673	16547	1786	0.012695	0.004738	212.7579	0.001185	0.036211	0.007877	0.009053
CALERA	-71.1616	-32.6439	26609	1589	26306	1735	0.005224	0.005257	191.8114	190.6118	0.007157	0.007194	52915	2225	0.003621	0.005192	192.2963	0.001298	0.036722	0.007893	0.00918
CALERA DE TANGO	-70.9074	-33.5199	11798	1616	11739	1667	0.003983	0.004051	255.5104	251.1499	0.021198	0.020946	23537	2331	0.01083	0.003908	257.7051	0.000977	0.022574	0.004671	0.005644
CALLE LARGA	-70.5445	-32.9116	6538	780	6456	841	0.005776	0.00596	176.8254	171.2272	0.026334	0.025837	12994	1092	0.013453	0.005688	177.196	0.001422	0.038724	0.008271	0.009681
CAMARONES	-69.7056	-18.8339	2822	769	2772	771	0.004984	0.005355	214.9053	199.1775	0.070765	0.067037	5594	1106	0.036136	0.004923	209.7226	0.001231	0.048341	0.010868	0.012085
CAMIÑA	-69.4652	-19.2587	2303	521	2238	520	0.013638	0.016102	74.70119	62.84908	0.031417	0.027316	4541	746	0.01515	0.014331	69.85217	0.003583	0.073727	0.014902	0.018432
CANELA	-71.4561	-31.3989	6100	390	5823	514	0.020186	0.02061	48.93745	47.91992	0.007959	0.008162	11923	636	0.00408	0.020144	48.84592	0.005036	0.153357	0.033472	0.038339
CAÑETE	-73.293	-37.8664	17365	1100	17231	1181	0.004163	0.003922	242.5789	257.7765	0.013777	0.01474	34596	1462	0.007257	0.003967	252.897	0.000992	0.041263	0.009333	0.010316
CARAHUE	-73.1881	-38.6613	15261	1240	15142	1355	0.003891	0.003647	260.3642	278.2435	0.016775	0.018044	30403	1676	0.008896	0.003684	272.9003	0.000921	0.038898	0.008812	0.009725
CARTAGENA	-71.5074	-33.4667	11617	1454	11494	1446	0.004647	0.004547	218.2371	223.1804	0.01844	0.019047	23111	2021	0.009546	0.004513	222.7363	0.001128	0.028798	0.006078	0.007199
CASABLANCA	-71.5131	-33.2411	12534	1156	12469	1222	0.005983	0.00628	168.3755	160.2836	0.013255	0.012691	25003	1641	0.00662	0.006006	166.6167	0.001501	0.041222	0.008817	0.010306
CASTRO	-73.8858	-42.484	19843	1751	19591	1760	0.007619	0.00834	131.1115	119.6389	0.006564	0.00607	39434	2441	0.003174	0.007926	125.5712	0.001981	0.094125	0.021593	0.023531
CATEMU	-70.9622	-32.5928	7496	692	7404	778	0.006698	0.006416	151.3065	158.196	0.019786	0.020919	14900	983	0.010445	0.006385	157.2735	0.001596	0.04268	0.009088	0.01067
CAUQUENES	-72.2756	-35.8929	26086	1014	25777	1131	0.00813	0.007745	122.5831	128.7646	0.004677	0.00497	51863	1456	0.002427	0.007883	126.1602	0.001971	0.058812	0.012757	0.014703
CERRILLOS	-70.7167	-33.5	41466	3261	41108	3207	0.0037	0.003835	271.0239	261.3823	0.006494	0.006318	82574	4544	0.003219	0.003748	266.6963	0.000937	0.026832	0.005776	0.006708
CERRO NAVIA	-70.7333	-33.42	67420	3633	66733	3761	0.00365	0.003665	274.0988	272.9574	0.004049	0.004074	134153	4945	0.002038	0.003644	273.9802	0.000911	0.031574	0.006989	0.007893
CHAITEN	-72.8428	-42.6882	4326	766	4285	747	0.009271	0.010034	109.5933	101.0136	0.024708	0.023031	8611	1048	0.012288	0.009363	107.1314	0.002341	0.107585	0.024613	0.026896
CHAÑARAL	-70.3418	-26.3343	7437	907	7267	905	0.006632	0.006786	152.8787	149.3911	0.020142	0.020143	14704	1207	0.010293	0.006565	152.9167	0.001641	0.049401	0.010727	0.01235
CHANCO	-72.4984	-35.6538	7135	469	7076	530	0.00972	0.009665	103.3727	103.9823	0.014281	0.014482	14211	677	0.007329	0.009511	104.9198	0.002378	0.05342	0.011003	0.013355
CHEPICA	-71.3769	-34.7534	8617	600	8571	634	0.008685	0.008049	115.6897	125.0554	0.013248	0.014381	17188	800	0.007043	0.008193	121.9216	0.002048	0.053203	0.011276	0.013301
CHIGUAYANTE	-73.0167	-36.9167	34924	2452	34602	2593	0.003804	0.0039	263.8612	257.2866	0.007499	0.007381	69526	3495	0.003748	0.003823	261.5524	0.000956	0.028553	0.006188	0.007138
CHILE CHICO	-72.6379	-46.7674	3637	721	3583	735	0.005622	0.005892	185.9505	177.1207	0.048641	0.047105	7220	1028	0.025048	0.0055	185.4907	0.001375	0.047725	0.010571	0.011931
CHILLAN	-72.0119	-36.5494	86481	3205	85881	3491	0.004611	0.004742	216.4159	210.3973	0.002496	0.002444	172362	4659	0.001239	0.004661	213.813	0.001165	0.034664	0.00751	0.008666
CHILLAN VIEJO	-72.1358	-36.6239	11664	1068	11596	1104	0.004959	0.005039	204.1813	200.9041	0.017204	0.01703	23260	1450	0.008701	0.004917	204.1699	0.001229	0.044067	0.0098	0.011017
CHIMBARONGO	-70.9339	-34.7187	17998	996	17918	1058	0.006263	0.005678	160.0978	176.8467	0.008817	0.009773	35916	1356	0.00471	0.005877	169.9741	0.001469	0.031421	0.006395	0.007855
CHOLCHOL	-72.8333	-38.6	6521	886	6503	988	0.003926	0.003234	264.035	323.6357	0.038914	0.047408	13024	1229	0.022511	0.003399	299.9389	0.00085	0.036137	0.008191	0.009034
CHONCHI	-73.9077	-42.7488	6919	750	6821	782	0.012686	0.012413	78.72266	80.51142	0.01125	0.011666	13740	1086	0.005814	0.012365	80.34743	0.003091	0.163466	0.037892	0.040866
CISNES	-72.6545	-44.3581	2980	676	2938	706	0.005714	0.005349	184.8601	198.5676	0.05841	0.063307	5918	983	0.032538	0.005167	199.0366	0.001292	0.056501	0.01285	0.014125
COBQUECURA	-72.7152	-36.1049	4217	435	4172	445	0.015244	0.013978	65.62197	71.77028	0.015323	0.016912	8389	597	0.008196	0.014337	69.32586	0.003584	0.048178	0.008491	0.012045
COCHAMO	-72.0923	-41.7113	2571	402	2533	378	0.012527	0.013021	81.35044	78.17188	0.030671	0.029937	5104	563	0.015633	0.01238	81.05596	0.003095	0.067904	0.013924	0.016976
COCHRANE	-72.7735	-47.3691	2073	467	2053	464	0.006009	0.006753	179.8529	158.5137	0.079833	0.071677	4126	654	0.040533	0.005945	174.3059	0.001486	0.047248	0.010341	0.011812
CODEGUA	-70.6468	-34.0762	6622	737	6550	792	0.00609	0.005671	167.3443	180.1959	0.024648	0.026774	13172	1026	0.013326	0.005665	177.9053	0.001416	0.032977	0.006838	0.008244
COELEMU	-72.6569	-36.4436	10726	667	10592	739	0.006904	0.00659	145.8128	152.9439	0.013412	0.014234	21318	911	0.007004	0.006653	150.3571	0.001663	0.036631	0.007507	0.009158
COIHUECO	-71.4818	-36.675	13118	722	13041	769	0.008945	0.008085	111.7417	123.8578	0.008446	0.009408	26159	985	0.004512	0.008402	118.5637	0.0021	0.036117	0.006943	0.009029
COINCO	-71.0407	-34.301	4491	528	4433	578	0.00977	0.008723	103.7207	116.6499	0.022574	0.025639	8924	748	0.012388	0.008966	111.9349	0.002241	0.047598	0.00968	0.011899
COLBUN	-70.9656	-36.0724	11121	802	11075	818	0.008641	0.008759	115.9321	114.3509	0.010317	0.01022	22196	1078	0.005214	0.008568	116.3266	0.002142	0.044515	0.009006	0.011129
COLCHANE	-68.8159	-19.3018	1791	457	1758	453	0.041367	0.039883	23.49076	24.42185	0.012946	0.013702	3549	684	0.006714	0.040289	23.98869	0.010072	0.09727	0.01439	0.024317
COLINA	-70.6652	-33.1157	35846	3280	35664	3395	0.003537	0.003622	283.9725	277.24	0.00786	0.007714	71510	4859	0.003925	0.00355	281.8008	0.000887	0.032722	0.007299	0.008181
COLLIPULLI	-72.15	-37.976	13706	1055	13668	1112	0.004773	0.004591	211.7321	220.3167	0.015213	0.015863	27374	1417	0.007955	0.004571	219.5148	0.001143	0.035777	0.00781	0.008944
COLTAUCO	-71.1394	-34.2815	8794	732	8723	799	0.008065	0.008287	124.7548	121.3569	0.013988	0.013721	17517	1031	0.00706	0.008022	124.5424	0.002006	0.045168	0.009305	0.011292
COMBARBALA	-70.931	-31.1637	8192	550	7779	638	0.018308	0.017794	53.9818	55.60021	0.006546	0.007097	15971	829	0.003442	0.017868	55.15853	0.004467	0.144492	0.031798	0.036123
CONCEPCION	-72.963	-36.8676	129505	5986	128371	6433	0.003432	0.003554	291.0619	281.0071	0.002242	0.002184	257876	8618	0.001109	0.003484	286.3165	0.000871	0.026252	0.005697	0.006563
CONCHALI	-70.675	-33.3833	77046	4245	76130	4193	0.003801	0.003926	262.9913	254.554	0.003402	0.003333	153176	5877	0.001689	0.00385	259.163	0.000963	0.026048	0.005555	0.006512
CONCON	-71.5167	-32.9167	19966	2890	19821	2961	0.003334	0.00335	303.4834	302.0991	0.014972	0.015013	39787	4285	0.007608	0.003293	305.0273	0.000823	0.02457	0.005324	0.006142
CONSTITUCION	-72.2593	-35.2938	23969	1312	23830	1399	0.007653	0.007734	130.3771	129.0031	0.00541	0.005384	47799	1852	0.002719	0.007635	130.3251	0.001909	0.051574	0.011006	0.012893
CONTULMO	-73.2701	-38.0426	4076	573	4015	634	0.006276	0.005226	164.7886	199.8801	0.038858	0.047422	8091	807	0.02266	0.005425	187.5943	0.001356	0.0401	0.00868	0.010025
COPIAPO	-69.7575	-27.3108	61219	3095	60041	3294	0.00532	0.005429	187.5518	183.7667	0.003054	0.003051	121260	4473	0.001532	0.005353	186.0929	0.001338	0.040406	0.008775	0.010101
COQUIMBO	-71.298	-30.21	77099	3390	75295	3648	0.007002	0.007184	142.0829	138.4533	0.001839	0.001835	152394	5015	0.000921	0.007071	140.5464	0.001768	0.053071	0.01152	0.013268
CORONEL	-73.0701	-36.9611	50326	1823	50003	1941	0.004235	0.004342	236.2273	230.3542	0.004672	0.004586	100329	2499	0.002328	0.004263	234.1449	0.001066	0.024139	0.004974	0.006035
CORRAL	-73.4408	-40.0567	3989	592	3946	640	0.007046	0.006465	146.115	159.9555	0.035335	0.038957	7935	832	0.019549	0.006406	158.2137	0.001602	0.053218	0.011722	0.013305
COYHAIQUE	-72.0309	-45.5368	31297	2683	30948	2743	0.004062	0.004266	247.1296	235.1963	0.007834	0.007542	62245	3823	0.003877	0.004127	242.2424	0.001032	0.0464	0.010579	0.0116
CUNCO	-71.903	-38.9577	11198	1078	11130	1174	0.004019	0.003938	253.4783	258.8554	0.022135	0.022729	22328	1484	0.011536	0.003868	260.5782	0.000967	0.033333	0.007374	0.008333
CURACAUTIN	-71.6387	-38.374	11529	963	11458	1032	0.005341	0.004876	189.3082	207.7888	0.016155	0.017812	22987	1321	0.00868	0.004987	201.2659	0.001247	0.043725	0.009696	0.010931
CURACAVI	-71.1926	-33.2795	13596	1422	13496	1448	0.00505	0.005183	199.938	194.731	0.014493	0.014224	27092	2020	0.007315	0.005021	199.6353	0.001255	0.036381	0.00785	0.009095
CURACO DE VELEZ	-73.5351	-42.4661	2417	304	2385	333	0.023455	0.020139	42.38196	49.68949	0.017233	0.020409	4802	461	0.009564	0.021314	46.37057	0.005329	0.161426	0.035216	0.040356
CURANILAHUE	-73.2237	-37.46	19133	920	19026	990	0.00599	0.005696	167.4114	176.2011	0.008674	0.009176	38159	1248	0.004513	0.005773	172.9957	0.001443	0.042573	0.009213	0.010643
CURARREHUE	-71.5378	-39.3228	4849	621	4820	707	0.006758	0.005934	151.5975	173.5831	0.030316	0.034761	9669	902	0.017017	0.006041	167.3904	0.00151	0.045436	0.009863	0.011359
CUREPTO	-71.9472	-35.0997	7276	495	7176	529	0.018682	0.018815	52.91633	52.53776	0.00722	0.007268	14452	694	0.003653	0.018591	52.98766	0.004648	0.114409	0.024066	0.028602
CURICO	-70.9045	-35.2021	62394	2601	61864	2762	0.005888	0.006166	169.3089	161.6145	0.002706	0.002606	124258	3759	0.001333	0.006003	165.8138	0.001501	0.039522	0.008392	0.009881
DALCAHUE	-73.9048	-42.2802	5733	635	5643	640	0.022111	0.023213	44.57712	42.40379	0.007716	0.007458	11376	898	0.003827	0.022455	43.7045	0.005614	0.15187	0.032536	0.037967
DIEGO DE ALMAGRO	-69.2576	-26.1892	9703	1124	9527	1143	0.007571	0.007479	132.8838	134.6006	0.01351	0.013931	19230	1542	0.00693	0.007448	134.1987	0.001862	0.05878	0.012857	0.014695
DOÑIHUE	-71.0151	-34.1517	11019	930	10948	955	0.007708	0.007558	130.2696	132.9111	0.011684	0.011995	21967	1265	0.006009	0.007519	132.8035	0.00188	0.039368	0.007977	0.009842
EL BOSQUE	-70.6667	-33.5667	81319	4501	80554	4527	0.00387	0.00391	258.2153	255.579	0.003165	0.003163	161873	6347	0.001586	0.003879	257.1952	0.00097	0.02854	0.006171	0.007135
EL CARMEN	-71.7235	-37.0138	8388	518	8334	552	0.013426	0.013833	74.13795	71.91506	0.008761	0.008555	16722	710	0.004399	0.013414	73.87805	0.003354	0.068635	0.013852	0.017159
EL MONTE	-71.1113	-33.5602	15324	1227	15230	1345	0.004944	0.005189	203.9587	194.166	0.013135	0.012588	30554	1748	0.006564	0.004962	201.8786	0.00124	0.034143	0.007304	0.008536
EL QUISCO	-71.6727	-33.3907	7811	1388	7743	1404	0.004941	0.004787	206.7662	213.6428	0.025789	0.026851	15554	2032	0.013458	0.004755	212.1825	0.001189	0.03487	0.007538	0.008718

EL TABO	-71.6269	-33.4443	6539	1254	6466	1237	0.004487	0.004245	229.7077	243.4287	0.033937	0.036282	13005	1787	0.018057	0.004241	239.1487	0.00106	0.030467	0.006564	0.007617
EMPEDRADO	-72.3112	-35.5579	3177	359	3159	376	0.013287	0.012264	76.06171	82.67264	0.023382	0.025503	6336	480	0.012652	0.012323	81.18951	0.003081	0.082305	0.017549	0.020576
ERCILLA	-72.2722	-38.0499	5235	687	5221	770	0.004853	0.004352	213.478	239.3275	0.039181	0.04383	10456	947	0.021799	0.004369	233.0064	0.001092	0.050948	0.011658	0.012737
ESTACION CENTRAL	-70.699	-33.4591	75306	4657	74533	4589	0.003755	0.004026	266.2454	248.2041	0.003523	0.003319	149839	6609	0.001717	0.003873	257.6563	0.000968	0.023372	0.00488	0.005843
FLORIDA	-72.6675	-36.8327	7468	652	7389	694	0.006061	0.006241	167.7044	162.7646	0.021963	0.021553	14857	891	0.011195	0.005977	168.207	0.001494	0.064014	0.014531	0.016004
FREIRE	-72.4663	-39.0031	14058	1489	13992	1644	0.002957	0.002714	345.5514	377.4348	0.023991	0.026267	28050	2088	0.012954	0.002745	368.1184	0.000686	0.034305	0.007896	0.008576
FREIRINA	-71.192	-28.8551	3775	458	3673	497	0.01003	0.008941	101.3745	114.3269	0.026152	0.030187	7448	658	0.014509	0.00917	109.6574	0.002292	0.05309	0.011005	0.013273
FRESIA	-73.632	-41.0537	8395	777	8208	852	0.009526	0.009065	105.2886	110.8044	0.012386	0.01332	16603	1087	0.006524	0.009148	109.0295	0.002287	0.058601	0.012392	0.01465
FRUTILLAR	-73.168	-41.0172	8922	1097	8786	1151	0.007032	0.007044	143.4973	143.2835	0.015829	0.016046	17708	1535	0.008097	0.006927	144.5448	0.001732	0.046324	0.009866	0.011581
FUTALEUFU	-72.0558	-43.1838	1699	365	1669	380	0.009174	0.009115	115.4018	116.3549	0.063603	0.065172	3368	526	0.034585	0.008515	120.6535	0.002129	0.071899	0.01588	0.017975
FUTRONO	-72.1511	-40.1928	8133	849	8050	932	0.005519	0.005025	184.307	203.0269	0.022159	0.0246	16183	1191	0.012061	0.005098	197.564	0.001274	0.055528	0.012624	0.013882
GALVARINO	-72.7097	-38.3888	7743	856	7704	996	0.003756	0.003422	274.6634	302.7172	0.034257	0.037808	15447	1189	0.018713	0.003448	294.5725	0.000862	0.038032	0.008654	0.009508
GENERAL LAGOS	-69.5608	-17.7909	1850	479	1809	480	0.019739	0.017508	51.05835	57.94802	0.026858	0.031039	3659	720	0.014735	0.018215	54.72189	0.004554	0.066888	0.012224	0.016722
GORBEA	-72.6624	-39.1875	9903	1030	9842	1167	0.004224	0.00378	241.4959	270.8023	0.023806	0.026778	19745	1456	0.012965	0.003891	259.3499	0.000973	0.037594	0.008434	0.009398
GRANEROS	-70.8574	-34.0349	15421	1194	15308	1240	0.005355	0.005225	188.0111	192.7848	0.012045	0.012437	30729	1668	0.006213	0.005211	192.1155	0.001303	0.02809	0.005727	0.007022
GUAITECAS	-73.692	-44.1822	1103	319	1093	312	0.013757	0.011765	76.7476	91.08116	0.065054	0.076921	2196	466	0.038421	0.011719	87.74402	0.00293	0.1043	0.023213	0.026075
HIJUELAS	-71.0725	-32.7633	9045	799	8955	848	0.006675	0.006276	151.3163	161.2069	0.016454	0.017684	18000	1092	0.008717	0.006333	158.2858	0.001583	0.045226	0.009739	0.011307
HUALAIHUE	-72.5344	-42.1166	5510	658	5466	655	0.014595	0.015936	68.36575	62.46928	0.012256	0.0113	10976	933	0.005966	0.015043	65.87726	0.003761	0.104098	0.022348	0.026025
HUALAÑE	-71.7057	-34.9591	6472	514	6393	575	0.01204	0.011477	83.12066	87.32034	0.01268	0.013475	12865	718	0.006609	0.011625	85.59573	0.002906	0.075551	0.016028	0.018888
HUALPEN	-73.0867	-36.7883	51600	2444	51087	2575	0.00406	0.004062	246.5018	246.3848	0.004754	0.0048	102687	3426	0.0024	0.004042	247.0174	0.00101	0.028383	0.006091	0.007096
HUALQUI	-72.8481	-37.0118	12316	932	12220	1003	0.005917	0.006084	170.3412	165.5969	0.013642	0.01337	24536	1270	0.006851	0.005914	169.2648	0.001478	0.0482	0.010587	0.01205
HUARA	-69.641	-19.5458	3326	794	3207	840	0.005986	0.005917	174.8347	177.3397	0.049941	0.0524	6533	1154	0.026586	0.005725	178.4303	0.001431	0.051138	0.011369	0.012785
HUASCO	-71.0076	-28.2413	5267	763	5162	769	0.007883	0.00727	128.9635	140.281	0.0239	0.026457	10429	1039	0.012923	0.007366	136.5368	0.001841	0.051918	0.011159	0.012979
HUECHURABA	-70.5665	-33.4254	34334	2798	34039	2912	0.003569	0.003688	281.4761	272.293	0.008132	0.007936	68373	4013	0.004044	0.003603	277.6496	0.000901	0.029437	0.006464	0.007359
ILLAPEL	-70.969	-31.5183	16433	929	16122	1054	0.009906	0.009939	100.5697	100.2344	0.006083	0.006179	32555	1347	0.00309	0.009845	100.8908	0.002461	0.095832	0.02155	0.023958
INDEPENDENCIA	-70.6667	-33.4167	45950	3976	45519	3905	0.003594	0.003744	278.9507	267.6409	0.006034	0.005845	91469	5669	0.002984	0.00365	273.7745	0.000913	0.022848	0.004804	0.005712
IQUIQUE	-70.0407	-20.7141	87262	5499	86181	5539	0.003353	0.003541	298.2949	282.2924	0.003407	0.003265	173443	7801	0.001673	0.003434	290.7122	0.000858	0.025887	0.005618	0.006472
ISLA DE MAIPO	-71.0525	-33.6539	14261	1388	14179	1403	0.00497	0.005068	203.0704	199.0795	0.01404	0.013846	28440	1945	0.007092	0.004934	203.1235	0.001233	0.028211	0.005826	0.007053
ISLA DE PASCUA	-109.367	-27.1167	2607	643	2558	687	0.01017	0.008247	101.1385	126.2481	0.037346	0.047033	5165	988	0.022085	0.008692	116.6452	0.002173	0.022283	0.003405	0.005571
JUAN FERNANDEZ	-78.8232	-33.6451	648	225	640	224	0.024429	0.020137	42.62706	52.75394	0.061722	0.076151	1288	340	0.037646	0.020223	50.38425	0.005056	0.026563	0.001593	0.006641
LA CISTERNA	-70.6642	-33.535	53545	4262	53069	4244	0.003507	0.003761	285.6933	266.1876	0.005307	0.004991	106614	6009	0.002586	0.003614	276.3933	0.000904	0.023856	0.005065	0.005964
LA CRUZ	-71.2327	-32.6988	7838	1036	7761	1101	0.005116	0.005023	199.4386	203.2784	0.024814	0.025524	15599	1467	0.012962	0.004922	204.8484	0.00123	0.032212	0.006831	0.008053
LA ESTRELLA	-71.6312	-34.2488	2688	374	2663	392	0.017863	0.015881	56.15121	63.46804	0.020462	0.023278	5351	551	0.01124	0.016358	60.82881	0.004089	0.053699	0.009374	0.013425
LA FLORIDA	-70.5833	-33.5333	166953	8548	165712	8748	0.003509	0.003592	284.4392	277.8377	0.001701	0.001674	332665	12199	0.000845	0.003545	281.3033	0.000886	0.026069	0.005636	0.006517
LA GRANJA	-70.625	-33.5333	58708	3417	58145	3497	0.003858	0.003971	259.3438	251.9386	0.004398	0.004314	116853	4776	0.002187	0.003897	256.1578	0.000974	0.026623	0.005687	0.006656
LA HIGUERA	-70.9279	-29.3643	2655	394	2588	403	0.011968	0.011537	85.24055	88.64886	0.031107	0.033119	5243	553	0.016519	0.011416	88.06542	0.002854	0.070325	0.014769	0.017581
LA LIGUA	-71.3081	-32.2301	17915	1163	17698	1259	0.006766	0.007535	148.0105	132.7126	0.008194	0.007443	35613	1633	0.003952	0.007056	141.2905	0.001764	0.062888	0.013983	0.015722
LA PINTANA	-70.6333	-33.5833	58721	3515	58203	3602	0.003743	0.003739	267.3673	267.6736	0.004533	0.004578	116924	4851	0.002286	0.003727	267.9202	0.000932	0.032112	0.007103	0.008028
LA REINA	-70.55	-33.45	62091	8236	61645	8797	0.002266	0.002429	443.4405	413.4465	0.007091	0.006662	123736	12232	0.003456	0.002333	429.0823	0.000583	0.017439	0.003779	0.00436
LA SERENA	-70.9939	-29.7572	84682	4106	82675	4524	0.006269	0.006728	158.8259	147.8978	0.001872	0.001786	167357	6176	0.000917	0.006476	153.56	0.001619	0.042226	0.008952	0.010556
LA UNION	-73.0833	-40.2833	22850	1667	22579	1804	0.004879	0.004868	205.8119	206.3212	0.008927	0.009055	45429	2348	0.004547	0.004818	207.5045	0.001204	0.045086	0.010079	0.011272
LAGO RANCO	-73.0857	-40.2659	5798	762	5745	788	0.00547	0.005018	187.7368	205.3926	0.031364	0.034517	11543	1037	0.017179	0.005018	201.7689	0.001254	0.051001	0.01151	0.01275
LAGO VERDE	-71.8437	-44.4946	769	237	763	255	0.011622	0.009875	95.75491	115.6077	0.110731	0.131581	1532	368	0.067675	0.009559	111.203	0.00239	0.051114	0.010414	0.012779
LAGUNA BLANCA	-71.9167	-52.25	752	292	745	317	0.007597	0.007594	158.3544	158.7349	0.173948	0.175643	1497	467	0.098399	0.006747	163.3799	0.001687	0.055034	0.012092	0.013758
LAJA	-72.5384	-37.2136	14330	897	14235	968	0.005846	0.005993	172.1139	167.8339	0.011868	0.011653	28565	1229	0.005973	0.005827	171.6559	0.001457	0.055567	0.012453	0.013892
LAMPA	-70.9	-33.2833	20733	1962	20584	1990	0.003954	0.004006	255.0477	251.6464	0.012152	0.012078	41317	2772	0.006126	0.003935	254.6757	0.000984	0.034493	0.007647	0.008623
LANCO	-72.741	-39.689	9676	1108	9629	1212	0.003408	0.003138	301.6018	328.5816	0.030228	0.032998	19305	1525	0.016387	0.003151	321.6163	0.000788	0.043722	0.010151	0.010931
LAS CABRAS	-71.3746	-34.1975	11967	870	11855	911	0.009417	0.009376	106.1366	106.6123	0.008791	0.008913	23822	1239	0.004472	0.009299	107.0163	0.002325	0.047997	0.009697	0.011999
LAS CONDES	-70.55	-33.4117	155626	15437	154531	16803	0.001756	0.001849	570.6083	541.6185	0.003653	0.003493	310157	21966	0.001791	0.001797	556.5812	0.000449	0.014631	0.00321	0.003658
LAUTARO	-72.1612	-38.4709	19259	1610	19140	1751	0.003212	0.003126	315.4713	324.3047	0.016116	0.016662	38399	2229	0.008365	0.003104	323.9048	0.000776	0.030721	0.00691	0.00768
LEBU	-73.5622	-37.6343	13945	970	13849	1006	0.004687	0.004666	215.667	216.6747	0.01523	0.015404	27794	1272	0.007787	0.004599	218.1231	0.00115	0.043613	0.009765	0.010903
LICANTEN	-72.0611	-34.9666	4924	564	4860	577	0.011296	0.012386	89.13144	81.08227	0.01778	0.01641	9784	759	0.008731	0.011572	86.17511	0.002893	0.073045	0.015413	0.018261
LIMACHE	-71.2931	-32.887	21837	1955	21634	2072	0.00395	0.004129	255.0982	243.9249	0.011547	0.011149	43471	2778	0.005757	0.00398	251.6914	0.000995	0.027226	0.005817	0.006806
LINARES	-71.3422	-35.8693	48401	1901	48138	2012	0.006167	0.006554	161.6834	152.0687	0.003329	0.003149	96539	2690	0.001627	0.006327	157.2995	0.001582	0.035294	0.007253	0.008824
LITUECHE	-71.7553	-34.1203	4181	469	4157	508	0.014758	0.013671	67.85965	73.4394	0.015971	0.01736	8338	672	0.008512	0.013896	71.58316	0.003474	0.062305	0.012144	0.015576
LLANQUIHUE	-73.1657	-41.1945	9236	1066	9109	1133	0.007674	0.007666	131.153	131.3185	0.014001	0.014211	18345	1490	0.007159	0.007557	132.2839	0.001889	0.048633	0.010289	0.012158
LLAY-LLAY	-70.8936	-32.8268	12406	908	12254	983	0.00623	0.00605	161.6083	166.5395	0.012859	0.013408	24660	1252	0.006693	0.006022	166.1695	0.001506	0.036315	0.007585	0.009079
LO BARNECHEA	-70.5167	-33.35	38811	5462	38601	6076	0.002007	0.002026	503.7152	499.0804	0.012812	0.012764	77412	8333	0.006489	0.001987	505.618	0.000497	0.017124	0.003786	0.004281
LO ESPEJO	-70.6917	-33.5167	57661	3092	56953	3184	0.003901	0.004073	256.4796	245.6059	0.004428	0.004294	114614	4281	0.00219	0.003968	251.5829	0.000992	0.02546	0.005378	0.006365
LO PRADO	-70.725	-33.45	55967	3578	55392	3649	0.003674	0.003697	272.4742	270.812	0.004845	0.004865	111359	4918	0.002437	0.003671	272.0785	0.000918	0.028885	0.006309	0.007221
LOLOL	-71.6926	-34.7386	4620	420	4565	427	0.013316	0.013369	75.32362	75.02781	0.016042	0.01617	9185	574	0.008202	0.013101	75.95954	0.003275	0.089814	0.019241	0.022453
LONCOCHE	-72.6175	-39.449	13917	1295	13826	1416	0.003878	0.0036	261.7459	282.4255	0.01846	0.020018	27743	1801	0.009798	0.003665	274.5186	0.000916	0.048459	0.011209	0.012115
LONGAVI	-71.4808	-35.9625	16605	779	16552	834	0.008025	0.008233	124.5506	121.3563	0.007445	0.007278	33157	1074	0.003729	0.008024	124.0952	0.002006	0.046158	0.009553	0.011539
LONQUIMAY	-71.1892	-38.4442	6191	653	6156	709	0.005949	0.00587	171.7537	174.1661	0.026994	0.027514	12347	914	0.014232	0.005659	178.2556	0.001415	0.07976	0.018551	0.01994
LOS ALAMOS	-73.3517	-37.6947	10991	822	10909	885	0.005056	0.004696	200.3843	216.1567	0.017905	0.01943	21900	1093	0.009533	0.004767	210.7725	0.001192	0.048217	0.010875	0.012054
LOS ANDES	-70.2687	-32.9123	32617	2248	32269	2375	0.004114	0.004245	243.9012	236.3043	0.007422	0.00727	64886	3200	0.003704	0.004144	241.2216	0.001036	0.031981	0.006967	0.007995
LOS ANGELES	-72.338	-37.3405	85490	2979	84755	3262	0.004617	0.004665	216.1341	213.9164	0.002522	0.002518	170245	4342	0.001265	0.004622	215.6349	0.001155	0.044505	0.009982	0.011126
LOS LAGOS	-72.5855	-40.0338	10912	1050	10821	1122	0.004911	0.004443	206.4961	228.8282	0.018572	0.020709	21733	1464	0.01	0.00458	219.5265	0.001145	0.044728	0.010048	0.011182
LOS MUERMOS	-73.5636	-41.3626	9741	772	9549	830	0.012068	0.012836	82.56734	77.53843	0.008405	0.008055	19290	1093	0.004154	0.012326	80.46677	0.003082	0.065033	0.013217	0.016258
LOS SAUCES	-72.8146	-37.9271	5449	602	5423	681	0.005295	0.005038	194.5841	204.979	0.034479	0.036421	10872	824	0.018461	0.004958	204.4841	0.00124	0.051079	0.011544	0.01277
LOS VILOS	-71.2949	-31.8929	10502	1047	10359	1130	0.008634	0.009288	116.1035	107.783	0.010934	0.010298	20861	1545	0.005376	0.008839	112.7463	0.00221	0.070277	0.015394	0.017569
LOTA	-73.0759	-37.0733	32870	1230	32611	1363	0.004514	0.004647	222.0216	215.6132	0.006709	0.006568	65481	1695	0.003347	0.004542	219.9251	0.001135	0.021097	0.004144	0.005274
LUMACO	-73.0207	-38.2531	6219	686	6172	750	0.004938	0.004095	208.2881	253.211	0.032407	0.039409	12391	912	0.018665	0.004306	235.6736	0.001076	0.050713	0.011614	0.012678
MACHALI	-70.3616	-34.3593	16698	1576	16605	1702	0.004569	0.004483	220.7407	225.0714	0.013047	0.013373	33303	2301	0.006691	0.004468	224.3247	0.001117	0.027522	0.00577	0.00688
MACUL	-70.6	-32.6583	65656	5230	65018	5343	0.003478	0.003497	287.7803	286.2271	0.004364	0.004383	130674	7567	0.002196	0.003472	287.6162	0.000868	0.023732	0.005069	0.005933
MAFIL	-72.7962	-39.9007	4664	696	4618	765	0.005267	0.004522	196.8947	231.2228	0.040506	0.047682	9282	987	0.023029	0.004657	218.7922	0.001164	0.053919	0.01233	0.01348
MAIPU	-70.7667	-33.5167	174568	7790	173402	7791	0.003693	0.003795	270.2349	262.8715	0.001546	0.001514	347970	10907	0.000766	0.003739	266.6879	0.000935	0.024371	0.005163	0.006093
MALLOA	-71.0256	-34.4705	8221	756	8176	807	0.00649	0.006272	156.0147	161.6019	0.018624	0.019382	16397	1017	0.009776	0.0062	161.8729	0.00155	0.037304	0.007788	0.009326
MARCHIGUE	-71.7168	-34.3893	4915	481	4884	485	0.013529	0.012453	74.02954	80.62623	0.014838	0.01624	9799	658	0.007978	0.012632	78.80241	0.003158	0.053235	0.010183	0.013309
MARIA ELENA	-69.4257	-22.0504	4983	817	4897	822	0.006946	0.007272	147.2267	140.4496	0.028698	0.027881	9880	1111	0.0145	0.006932	145.3722	0.001733	0.042679	0.008952	0.01067
MARIA PINTO	-71.3182	-33.4164	5844	678	5785	707	0.006325	0.006053	161.4724	169.0329	0.026888	0.02839	11629	939	0.014304	0.005976	168.7515	0.001494	0.044252	0.009583	0.011063
MARIQUINA	-73.1002	-39.6764	10927	1124	10753	1236	0.004162	0.003778	244.6198	270.3691	0.021897	0.024527	21680	1586	0.011934	0.003851	261.8431	0.000963	0.064726	0.015234	0.016182
MAULE	-71.6721	-35.4378	10494	848	10417	931	0.008568	0.007968	117.0161	126.0268	0.011028	0.011954	20911	1196	0.005828	0.00814	122.5769	0.002035	0.05059	0.010634	0.012648
MAULLIN	-73.71	-41.5347	9078	779	8878	784	0.015715	0.01541	63.07603	64.3629	0.0069	0.007198	17956	1085	0.003554	0.015429	64.04521	0.003857	0.092814	0.019421	0.023203
MEJILLONES	-70.2115	-22.969	6001	1034	5932	1066	0.005092	0.005067	201.9925	203.0972	0.032564	0.033104	11933	1441	0.016908	0.004932	205.2331	0.001233	0.033715	0.007205	0.008429
MELIPEUCO	-71.5017	-38.771	3990	565	3948	601	0.005328	0.004737	195.8987	221.9867	0.0468	0.053234	7938	780	0.027023	0.004641	220.4689	0.00116	0.031155	0.006636	0.007789
MELIPILLA	-71.2502	-33.6801	50861	2158	50433	2313	0.005037	0.00509	198.3049	196.2168	0.003884	0.003876	101294	3106	0.001952	0.005032	198.1176	0.001258	0.031765	0.006692	0.007941
MOLINA	-70.9016	-35.3729	24041	1191	23900	1292	0.006434	0.00647	155.4348	154.5539	0.006424	0.006425	47941	1639	0.003241	0.006395	155.8721	0.001599	0.035439	0.007273	0.00886
MONTE PATRIA	-70.6006	-30.8685	16313	785	15600	930	0.018547	0.019613	53.09272	50.15164	0.003244	0.003205	31913	1172	0.001621	0.018963	51.82098	0.004741	0.105385	0.021708	0.026346
MOSTAZAL	-70.6485	-33.9628	11463	1010	11370	1068	0.00549	0.005352	184.0657	188.9517	0.015804	0.016347	22833	1392	0.008228	0.005295	189.4354	0.001324	0.033069	0.006953	0.008267
MULCHEN	-72.1102	-37.814	16689	908	16577	1022	0.005409	0.005354	185.9376	187.8782	0.011019	0.011207	33266	1259	0.005646	0.005296	188.8832	0.001324	0.041262	0.009003	0.010315
NACIMIENTO	-72.8114	-37.4262	15135	863	14963	910	0.007979	0.007883	125.3711	126.9358	0.008215	0.008412	30098	1177	0.004204	0.007842	127.0575	0.00196	0.053398	0.011411	0.01335
NANCAGUA	-71.1871	-34.6236	9435	730	9381	743	0.007061	0.007416	142.7557	135.802	0.014905	0.01427	18816	979	0.007445	0.007088	141.1375	0.001772	0.040827	0.00845	0.010207
NATALES	-75.3328	-48.8261	12971	1426	12755	1442	0.007355	0.007633	136.391	131.363	0.010406	0.010194	25726	1981	0.00519	0.007434	134.2175	0.001859	0.069149	0.015458	0.017287

NAVIDAD	-71.819	-34.009	4186	499	4146	546	0.011668	0.011107	86.47396	91.01248	0.02024	0.02148	8332	729	0.01072	0.011073	90.28554	0.002768	0.088037	0.019294	0.022009
NEGRETE	-72.5911	-37.5513	5728	569	5687	624	0.005656	0.005612	181.3938	182.9253	0.030696	0.031163	11415	759	0.016047	0.00543	186.1639	0.001358	0.055038	0.012419	0.013759
NINHUE	-72.3151	-36.2675	4469	371	4423	391	0.012263	0.011598	82.04563	86.91288	0.018028	0.019272	8892	501	0.009531	0.011664	85.5612	0.002916	0.092697	0.020318	0.023174
ÑIQUEN	-71.8266	-36.2263	7289	565	7251	588	0.011664	0.011394	85.7449	87.83056	0.011627	0.011968	14540	758	0.005974	0.011383	87.3818	0.002846	0.055441	0.011046	0.01386
NOGALES	-71.1556	-32.5816	11987	877	11841	934	0.007723	0.007524	129.8841	133.41	0.010719	0.011141	23828	1190	0.005532	0.007529	132.5502	0.001882	0.047716	0.010065	0.011929
NUEVA IMPERIAL	-72.8172	-38.6953	18760	1636	18654	1770	0.002341	0.002301	436.113	443.9414	0.022719	0.023246	37414	2210	0.011809	0.002258	447.1148	0.000565	0.030771	0.007132	0.007693
ÑUÑOA	-70.6	-33.4583	122484	11419	121353	11787	0.002651	0.002804	377.3163	356.6313	0.003071	0.00293	243837	16374	0.001503	0.00272	367.1591	0.00068	0.018409	0.003925	0.004602
O HIGGINS	-72.9119	-48.5009	554	258	551	259	0.008491	0.009226	148.2992	133.6889	0.211162	0.195255	1105	394	0.12249	0.007341	154.2456	0.001835	0.063521	0.014071	0.01588
OLIVAR	-70.913	-34.1244	7742	869	7701	951	0.00554	0.005315	183.788	191.8192	0.023189	0.024303	15443	1232	0.012259	0.005255	191.6582	0.001314	0.033242	0.007006	0.008311
OLLAGUE	-68.3181	-21.4839	1301	434	1254	405	0.008457	0.007893	128.96	139.8193	0.090184	0.100314	2555	610	0.051434	0.007555	138.5405	0.001889	0.072568	0.016284	0.018142
OLMUE	-71.1444	-32.9287	9282	1249	9186	1301	0.006059	0.005559	167.0174	182.4611	0.017676	0.019476	18468	1819	0.009496	0.00567	177.0449	0.001418	0.045177	0.009891	0.011294
OSORNO	-73.2265	-40.5189	84355	4156	83296	4519	0.004208	0.004302	237.3343	232.0828	0.002806	0.002779	167651	5892	0.001402	0.004238	235.3081	0.001059	0.043063	0.009717	0.010766
OVALLE	-71.2314	-30.6149	48187	1825	46477	2180	0.01132	0.011452	87.49945	86.48103	0.001813	0.001857	94664	2823	0.00092	0.011347	87.2108	0.002837	0.082062	0.017729	0.020516
PADRE HURTADO	-70.8333	-33.5667	18220	1710	18078	1776	0.004674	0.004243	215.4951	237.7641	0.011689	0.012981	36298	2407	0.006227	0.004405	227.436	0.001101	0.031807	0.006858	0.007952
PADRE LAS CASAS	-72.6	-38.7667	27569	2199	27402	2381	0.002813	0.002615	359.1755	386.7832	0.012861	0.013919	54971	3064	0.006787	0.002673	375.636	0.000668	0.026239	0.005895	0.00656
PAIHUANO	-70.2719	-30.2234	3037	478	2900	501	0.013885	0.014882	72.74496	67.76748	0.023393	0.022834	5937	715	0.011839	0.01403	71.12978	0.003507	0.074828	0.015253	0.018707
PAILLACO	-72.7938	-40.1922	12238	1110	12089	1230	0.004456	0.004981	227.6085	203.1215	0.018259	0.016525	24327	1566	0.008922	0.004586	219.0064	0.001147	0.04227	0.009432	0.010567
PAINE	-70.8495	-33.8255	26923	1992	26744	2038	0.004866	0.004823	206.069	207.9375	0.007596	0.007715	53667	2840	0.003871	0.00479	208.5606	0.001198	0.028941	0.006045	0.007235
PALENA	-71.9486	-43.7134	1222	304	1212	323	0.009081	0.009193	119.9322	118.4055	0.089373	0.089	2434	446	0.04849	0.008405	124.0406	0.002101	0.039604	0.007816	0.009901
PALMILLA	-71.37	-34.5429	6608	526	6586	556	0.00815	0.008729	123.9944	115.5678	0.018419	0.017245	13194	713	0.009146	0.00822	121.7819	0.002055	0.035226	0.006766	0.008807
PANGUIPULLI	-72.029	-39.8584	17907	1516	17818	1665	0.002864	0.003044	355.083	333.6679	0.019444	0.018382	35725	2115	0.009677	0.002884	349.0762	0.000721	0.039567	0.009177	0.009892
PANQUEHUE	-70.8153	-32.6713	4037	617	3980	646	0.006619	0.00632	155.9262	163.7431	0.037188	0.039516	8017	859	0.020197	0.006139	165.2569	0.001535	0.031658	0.00639	0.007915
PAPUDO	-71.3815	-32.3958	3717	716	3678	746	0.007772	0.008274	132.2443	123.94	0.034356	0.032599	7395	1067	0.01733	0.007744	130.4163	0.001936	0.034258	0.006641	0.008564
PAREDONES	-71.9341	-34.6644	4580	351	4514	397	0.016048	0.014784	62.16052	67.65579	0.01339	0.014767	9094	507	0.007198	0.015049	65.93151	0.003762	0.084626	0.01746	0.021156
PARRAL	-71.61	-36.1711	24260	1110	24140	1202	0.008512	0.008459	117.0443	117.7922	0.004801	0.004856	48400	1562	0.002434	0.008419	118.0702	0.002105	0.048053	0.009929	0.012013
PEDRO AGUIRRE CERDA	-70.625	-33.4917	64056	3636	63289	3702	0.003976	0.003952	251.5101	253.0177	0.003911	0.003982	127345	5083	0.001981	0.003949	252.7142	0.000987	0.024522	0.005148	0.006131
PELARCO	-71.3908	-35.3322	5372	547	5351	591	0.009999	0.008676	100.8864	116.7713	0.018434	0.021356	10723	751	0.010187	0.009072	110.3645	0.002268	0.041674	0.008169	0.010419
PELLUHUE	-72.6008	-35.8869	5141	544	5086	597	0.020822	0.021122	47.46993	46.77903	0.009149	0.009114	10227	782	0.0046	0.020815	47.26488	0.005204	0.076681	0.01404	0.01917
PEMUCO	-72.0508	-37.0645	5461	453	5414	494	0.010775	0.010059	93.39483	100.252	0.016815	0.018181	10875	621	0.008977	0.010141	98.50619	0.002535	0.055227	0.0113	0.013807
PEÑAFLOR	-70.9783	-33.4732	37091	2577	36806	2648	0.004158	0.004218	241.0801	237.6191	0.006458	0.006415	73897	3684	0.003244	0.004154	240.5018	0.001039	0.026517	0.005597	0.006629
PEÑALOLEN	-70.55	-33.4833	99495	5778	98632	6050	0.003484	0.003523	286.8892	283.654	0.002875	0.002868	198127	8408	0.00144	0.003493	285.6949	0.000873	0.030913	0.006861	0.007728
PENCAHUE	-71.8032	-35.2657	7303	621	7255	644	0.013321	0.014837	74.83966	67.02283	0.010144	0.009154	14558	872	0.00487	0.013911	71.23788	0.003478	0.081599	0.016981	0.0204
PENCO	-72.9041	-36.762	27156	1393	26966	1451	0.004416	0.004498	227.3585	223.1623	0.008303	0.008208	54122	1899	0.004171	0.00441	226.6906	0.001103	0.023659	0.004818	0.005915
PERALILLO	-71.5274	-34.4885	6531	544	6508	559	0.010703	0.010997	93.77544	91.21025	0.014155	0.013821	13039	739	0.007082	0.010715	92.99548	0.002679	0.053473	0.010718	0.013368
PERQUENCO	-72.2997	-38.3349	4623	694	4586	771	0.004281	0.004008	244.9937	262.8245	0.050327	0.054204	9209	984	0.027655	0.003912	261.9152	0.000978	0.035107	0.007806	0.008777
PETORCA	-70.8863	-32.144	6042	578	5913	626	0.008271	0.007971	122.3499	127.1495	0.019848	0.021051	11955	825	0.010577	0.007847	127.8	0.001962	0.078471	0.017691	0.019618
PEUMO	-71.2743	-34.378	7999	632	7958	669	0.008203	0.008023	122.784	125.6122	0.015118	0.015539	15957	861	0.007813	0.007958	125.6487	0.00199	0.03531	0.006852	0.008828
PICA	-68.9304	-20.4884	3466	788	3393	825	0.004847	0.005075	218.323	208.1339	0.059257	0.057797	6859	1129	0.030576	0.004746	216.3346	0.001187	0.050693	0.0115	0.012673
PICHIDEGUA	-71.4027	-34.4087	10290	653	10220	716	0.007977	0.008075	125.8944	124.3411	0.012087	0.01202	20510	899	0.006148	0.007869	126.8751	0.001967	0.034638	0.006706	0.008659
PICHILEMU	-71.9341	-34.3666	8559	851	8515	880	0.016178	0.016863	61.25653	58.71083	0.007106	0.006848	17074	1205	0.00353	0.01632	60.4921	0.00408	0.057076	0.010231	0.014269
PINTO	-71.4386	-36.9428	7756	676	7694	709	0.008061	0.008232	125.0532	122.4121	0.015868	0.015661	15450	930	0.00804	0.007987	125.2196	0.001997	0.057967	0.01252	0.014492
PIRQUE	-70.664	-33.6477	12084	1729	12016	1835	0.004623	0.004472	219.2344	226.8329	0.017819	0.018528	24100	2570	0.009272	0.004455	225.5567	0.001114	0.031957	0.006883	0.007989
PITRUFQUEN	-72.6146	-39.1121	13560	1390	13474	1533	0.003257	0.00324	313.1296	314.8826	0.022571	0.022836	27034	1957	0.011625	0.003172	317.9723	0.000793	0.041636	0.009624	0.010409
PLACILLA	-71.0557	-34.6016	5524	549	5500	581	0.00897	0.008078	112.7549	125.6223	0.020004	0.02233	11024	747	0.010841	0.008299	120.8206	0.002075	0.039455	0.007805	0.009864
PORTEZUELO	-72.3117	-36.4418	4213	407	4185	421	0.009612	0.008847	105.6467	115.1451	0.024463	0.026777	8398	547	0.013185	0.008952	112.2052	0.002238	0.064277	0.013862	0.016069
PORVENIR	-70.3667	-53.2833	4889	1088	4854	1109	0.004512	0.004892	231.1311	212.3583	0.045142	0.041915	9743	1590	0.022496	0.004542	224.2212	0.001136	0.05892	0.01361	0.01473
POZO ALMONTE	-69.5338	-20.743	6566	1218	6438	1212	0.004482	0.004394	229.9371	234.8887	0.033834	0.0352	13004	1702	0.017701	0.004326	234.3304	0.001081	0.046288	0.010502	0.011572
PRIMAVERA	-69.3429	-52.8443	1188	466	1183	483	0.006096	0.006496	189.1505	175.8217	0.137349	0.129393	2371	707	0.072867	0.005757	186.3465	0.001439	0.073542	0.016971	0.018385
PROVIDENCIA	-70.6083	-33.4333	93436	12565	92795	12956	0.001955	0.002155	513.2267	465.4509	0.005463	0.004991	186231	18218	0.002619	0.002046	489.1051	0.000511	0.01679	0.003688	0.004197
PUCHUNCAVI	-71.3674	-32.6439	8685	1150	8565	1139	0.007335	0.006994	137.4869	144.3795	0.015584	0.016577	17250	1626	0.008191	0.007028	142.4582	0.001757	0.047636	0.01017	0.011909
PUCON	-71.7706	-39.2178	11502	1464	11435	1556	0.003693	0.003767	276.3039	270.756	0.023459	0.02313	22937	2152	0.012019	0.003614	279.0325	0.000904	0.034893	0.007827	0.008723
PUDAHUEL	-70.6938	-33.5003	74478	4068	73893	4186	0.003761	0.003843	265.8443	260.1272	0.003557	0.003508	148371	5730	0.001771	0.00379	263.294	0.000948	0.029705	0.006485	0.007426
PUENTE ALTO	-70.5667	-33.6167	145156	6268	144206	6232	0.003767	0.003773	264.9166	264.5403	0.001822	0.001831	289362	8712	0.000915	0.003764	264.9127	0.000941	0.02787	0.006032	0.006967
PUERTO MONTT	-72.8081	-41.4766	84590	4306	83430	4391	0.006553	0.007195	151.87	138.2103	0.001792	0.001654	168020	6044	0.000864	0.006845	145.229	0.001711	0.050989	0.011055	0.012747
PUERTO OCTAY	-72.7501	-40.9012	5515	780	5441	830	0.007508	0.007585	135.4619	134.0888	0.023974	0.024051	10956	1105	0.012358	0.007333	137.0828	0.001833	0.062489	0.013814	0.015622
PUERTO VARAS	-72.4199	-41.1704	20497	2513	20318	2607	0.00529	0.00576	189.8019	174.1078	0.009175	0.008496	40815	3692	0.004453	0.005472	182.573	0.001368	0.042425	0.009251	0.010606
PUMANQUE	-71.7368	-34.5625	2813	333	2793	340	0.017329	0.018534	57.89477	53.998	0.020166	0.018967	5606	453	0.010055	0.017435	56.93949	0.004359	0.090584	0.018367	0.022646
PUNITAQUI	-71.288	-30.9576	6435	516	6201	587	0.018882	0.018729	52.39278	52.84939	0.008076	0.008451	12636	762	0.004158	0.018678	52.76273	0.004669	0.114498	0.024067	0.028624
PUNTA ARENAS	-73.6676	-53.3101	73839	4832	73115	4962	0.005157	0.005496	193.4378	181.4031	0.002613	0.002475	146954	6850	0.001275	0.00531	187.5675	0.001327	0.049415	0.011041	0.012354
PUQUELDON	-73.6369	-42.6325	2747	295	2704	334	0.021859	0.020824	45.50593	47.87204	0.016296	0.017396	5451	449	0.008533	0.02105	46.91589	0.005262	0.10318	0.020641	0.025795
PUREN	-73.0567	-38.0007	8194	738	8128	794	0.004448	0.004397	230.128	232.9699	0.027318	0.027864	16322	967	0.014338	0.004255	237.434	0.001064	0.039493	0.008819	0.009873
PURRANQUE	-73.486	-40.8041	13004	1241	12748	1311	0.005899	0.005998	170.7378	167.9264	0.012959	0.013001	25752	1740	0.006587	0.005861	170.7505	0.001465	0.046517	0.010179	0.011629
PUTAENDO	-70.5388	-32.3738	8532	823	8429	888	0.008933	0.008355	112.423	120.4029	0.013005	0.014083	16961	1149	0.006869	0.00851	117.3181	0.002128	0.041405	0.008241	0.010351
PUTRE	-69.3349	-18.3889	5287	1122	5202	1170	0.004336	0.004692	240.0728	221.1934	0.043436	0.040787	10489	1617	0.02175	0.004365	233.2094	0.001091	0.046905	0.010647	0.011726
PUYEHUE	-72.6	-40.6833	7512	960	7431	1044	0.00515	0.005002	198.3183	204.4183	0.025721	0.026772	14943	1362	0.013477	0.004941	204.1406	0.001235	0.062845	0.014494	0.015711
QUEILEN	-73.4696	-42.9668	3352	383	3275	409	0.013348	0.012864	75.60787	78.60053	0.022058	0.023438	6627	544	0.011622	0.012819	77.92576	0.003205	0.11145	0.024737	0.027863
QUELLON	-74.1429	-43.4014	10508	1158	10420	1180	0.007808	0.007871	128.6368	127.6034	0.012094	0.012098	20928	1634	0.006136	0.007728	129.2003	0.001932	0.102783	0.02381	0.025696
QUEMCHI	-73.5113	-42.1867	4891	528	4800	563	0.016924	0.017886	58.79965	55.55558	0.011879	0.011442	9691	763	0.005899	0.017194	57.50638	0.004298	0.152917	0.034077	0.038229
QUILACO	-71.7202	-37.9209	3136	447	3095	482	0.006724	0.006539	155.0632	159.8373	0.047116	0.049108	6231	601	0.025603	0.00623	163.7224	0.001558	0.05622	0.012517	0.014055
QUILICURA	-70.7333	-33.3667	55404	3864	55095	3825	0.003704	0.003819	270.321	262.098	0.004855	0.004735	110499	5415	0.002405	0.003748	266.4397	0.000937	0.02748	0.005938	0.00687
QUILLECO	-71.9267	-37.4014	6488	530	6406	580	0.007188	0.00737	141.1381	137.606	0.021291	0.021029	12894	714	0.010816	0.00712	140.988	0.00178	0.077896	0.017726	0.019474
QUILLON	-72.4251	-36.8368	10210	810	10095	853	0.006497	0.006778	155.2657	148.7131	0.014979	0.014517	20305	1115	0.007533	0.006496	154.1089	0.001624	0.058346	0.012984	0.014586
QUILLOTA	-71.2032	-32.796	42547	2603	42086	2813	0.004399	0.004632	227.5533	215.9833	0.00532	0.005106	84633	3774	0.002622	0.004486	222.492	0.001122	0.032006	0.006888	0.008001
QUILPUE	-71.289	-33.0532	72782	5033	72002	5198	0.003363	0.003642	297.5899	274.6086	0.004072	0.003799	144784	7179	0.001975	0.003485	286.4775	0.000871	0.024291	0.005206	0.006073
QUINCHAO	-73.4472	-42.4328	4880	531	4799	559	0.010588	0.01092	95.29501	92.33594	0.019154	0.018877	9679	766	0.009643	0.010602	94.242	0.00265	0.175453	0.041322	0.043863
QUINTA DE TILCOCO	-71.0825	-34.3983	8297	736	8256	754	0.006739	0.006495	150.0638	155.8617	0.017765	0.018529	16553	990	0.009294	0.006458	155.2881	0.001615	0.041788	0.008847	0.010447
QUINTA NORMAL	-70.7	-33.4283	59105	3919	58469	3836	0.003694	0.003904	270.9795	256.2544	0.004564	0.004364	117574	5457	0.002239	0.003784	263.8953	0.000946	0.024372	0.005152	0.006093
QUINTERO	-71.4363	-32.7924	13852	1609	13689	1649	0.004268	0.004297	237.3037	235.7114	0.016843	0.016928	27541	2257	0.008588	0.00421	238.5759	0.001053	0.030097	0.006479	0.007524
QUIRIHUE	-72.512	-36.1526	7790	556	7717	597	0.009376	0.010288	107.1216	97.42826	0.013565	0.012468	15507	756	0.006606	0.009668	103.1225	0.002417	0.059609	0.012515	0.014902
RANCAGUA	-70.9379	-34.042	107061	4118	106340	4389	0.004082	0.004283	244.5565	232.9876	0.002279	0.002186	213401	5955	0.001119	0.004169	239.1102	0.001042	0.026688	0.005636	0.006672
RANQUIL	-72.495	-36.6179	4236	499	4184	532	0.007531	0.006821	136.0533	150.8979	0.031119	0.03481	8420	670	0.017047	0.006919	146.0284	0.00173	0.045411	0.00964	0.011353
RAUCO	-71.4008	-34.9318	6367	571	6312	610	0.009239	0.009251	109.0949	108.9668	0.016846	0.01697	12679	777	0.008629	0.009058	110.3635	0.002264	0.060361	0.012855	0.01509
RECOLETA	-70.6333	-33.4083	82874	4969	82011	5092	0.003582	0.003788	279.0771	263.84	0.003356	0.003207	164885	7115	0.001645	0.003672	271.7466	0.000918	0.028472	0.006206	0.007118
RENAICO	-72.6267	-37.6978	6118	654	6070	671	0.005918	0.005984	172.7523	170.8293	0.027461	0.027373	12188	863	0.014188	0.00575	175.408	0.001438	0.035091	0.007346	0.008773
RENCA	-70.7167	-33.4033	60854	3559	60272	3735	0.003861	0.003917	259.1025	255.3683	0.00424	0.004219	121126	5027	0.002123	0.003873	257.7431	0.000968	0.030445	0.00665	0.007611
RENGO	-70.8105	-34.4676	27188	1635	27021	1665	0.005249	0.005632	190.8592	177.7187	0.006971	0.006534	54209	2234	0.003408	0.005385	185.3501	0.001346	0.031494	0.006536	0.007874
REQUINOA	-70.7616	-34.2956	12417	1100	12356	1169	0.005259	0.005581	192.0743	180.8085	0.015233	0.014422	24773	1567	0.007561	0.005311	188.739	0.001328	0.030835	0.00639	0.007709
RETIRO	-71.8283	-35.9232	10579	628	10525	683	0.009664	0.009069	103.4912	110.4214	0.009688	0.010382	21104	841	0.005084	0.009235	107.8385	0.002309	0.043515	0.00859	0.010879
RINCONADA	-70.7066	-32.823	5359	748	5294	775	0.006489	0.006515	157.647	157.0365	0.028577	0.028809	10653	1062	0.014774	0.006314	159.7428	0.001579	0.04099	0.008683	0.010247
RIO BUENO	-72.4694	-40.5472	19074	1428	18893	1550	0.005376	0.005207	186.8255	193.008	0.0097	0.010113	37967	1995	0.005014	0.005226	191.3104	0.001307	0.058699	0.013386	0.014675
RIO CLARO	-71.2977	-35.2513	7008	553	6981	611	0.009516	0.008939	105.6759	112.6801	0.014855	0.015885	13989	757	0.007818	0.009062	110.2263	0.002265	0.044263	0.00882	0.011066
RIO HURTADO	-70.4888	-30.3967	3166	309	2918	372	0.027815	0.025112	35.35291	39.35906	0.011043	0.013309	6084	482	0.006167	0.025966	37.75033	0.006492	0.129883	0.026149	0.032471
RIO IBAÑEZ	-72.5204	-46.2786	2078	430	2037	447	0.008117	0.008428	129.8912	124.9362	0.05883	0.057789	4115	616	0.030942	0.007795	131.3911	0.001949	0.03731	0.007393	0.009327
RIO NEGRO	-73.5067	-40.6619	8642	994	8516	1095	0.006172	0.006004	164.101	168.8707	0.018635	0.019444	17158	1394	0.009752	0.005941	168.9809	0.001485	0.058008	0.013036	0.014502

RIO VERDE	-72.3659	-53.0037	587	299	582	287	0.007078	0.007977	184.7354	158.5009	0.239377	0.214046	1169	464	0.130442	0.006521	175.3617	0.00163	0.065292	0.014717	0.016323
ROMERAL	-70.6841	-35.071	8363	796	8311	849	0.006961	0.007755	145.1496	129.9625	0.01706	0.015397	16674	1111	0.00831	0.007165	139.7296	0.001791	0.042955	0.008963	0.010739
SAAVEDRA	-73.2865	-38.8302	7992	955	7902	1078	0.003588	0.003097	287.7112	335.6352	0.034749	0.040744	15894	1325	0.019598	0.0032	317.7231	0.0008	0.037965	0.008698	0.009491
SAGRADA FAMILIA	-71.4745	-35.1012	10228	682	10138	733	0.00902	0.009261	111.0694	108.1354	0.010743	0.010554	20366	913	0.005427	0.008967	111.1295	0.002242	0.05287	0.011001	0.013218
SALAMANCA	-70.6531	-31.8647	13147	805	12888	914	0.009072	0.009648	110.156	103.4789	0.008309	0.007965	26035	1191	0.004109	0.009261	107.4216	0.002315	0.055944	0.011698	0.013986
SAN ANTONIO	-71.494	-33.6049	47381	2386	47004	2439	0.004862	0.004968	205.5803	201.1593	0.00432	0.004261	94385	3341	0.002158	0.004886	204.1179	0.001221	0.032784	0.006983	0.008196
SAN BERNARDO	-70.8469	-33.5421	110179	5131	109516	5352	0.003804	0.003949	262.5371	252.8414	0.002377	0.002303	219695	7284	0.001173	0.003864	258.089	0.000966	0.026508	0.005666	0.006627
SAN CARLOS	-71.9006	-36.2853	29599	1150	29458	1193	0.009231	0.00863	107.7236	115.3242	0.003626	0.0039	59057	1550	0.001891	0.008877	111.8589	0.002219	0.050309	0.010381	0.012577
SAN CLEMENTE	-70.841	-35.7235	21400	1046	21268	1103	0.008224	0.007814	121.2866	127.7371	0.005636	0.00597	42668	1426	0.002928	0.007941	125.3047	0.001985	0.04843	0.010142	0.012107
SAN ESTEBAN	-70.3811	-32.6064	8865	911	8769	957	0.006707	0.006186	150.6361	163.6718	0.016708	0.018323	17634	1290	0.008936	0.006307	158.9956	0.001577	0.041396	0.008786	0.010349
SAN FABIAN	-71.2166	-36.5543	3429	432	3409	423	0.015681	0.01272	63.96271	79.45172	0.018312	0.022776	6838	583	0.010408	0.013859	71.91509	0.003465	0.063068	0.012345	0.015767
SAN FELIPE	-70.7843	-32.5832	32548	2037	32115	2190	0.004824	0.004539	207.637	220.837	0.006339	0.006829	64663	2928	0.003318	0.00464	215.2384	0.00116	0.035404	0.0077	0.008851
SAN FERNANDO	-70.6042	-34.7385	36163	1894	35957	1976	0.005234	0.005294	191.083	188.9007	0.005256	0.005226	72120	2667	0.00264	0.005225	190.8973	0.001306	0.027088	0.005473	0.006772
SAN GREGORIO	-69.6833	-52.3167	756	337	753	345	0.006701	0.006732	184.6799	183.8094	0.196326	0.196208	1509	524	0.109099	0.006042	184.7913	0.00151	0.061089	0.013783	0.015272
SAN IGNACIO	-71.8753	-36.8364	9566	585	9466	658	0.009942	0.009675	100.6412	103.4872	0.010411	0.010814	19032	798	0.005389	0.009656	103.1275	0.002414	0.060532	0.01275	0.015133
SAN JAVIER	-71.9752	-35.5242	24643	1139	24460	1252	0.009221	0.009437	107.9241	105.417	0.00436	0.004291	49103	1618	0.002174	0.00928	106.9891	0.00232	0.055805	0.011658	0.013951
SAN JOAQUIN	-70.6413	-33.4792	53927	3455	53310	3476	0.003969	0.004146	252.1222	241.3157	0.004653	0.004506	107237	4889	0.0023	0.004038	247.2049	0.00101	0.025305	0.005322	0.006326
SAN JOSE DE MAIPO	-70.1658	-33.6861	9762	1462	9690	1477	0.004151	0.004319	245.989	236.1803	0.024579	0.023794	19452	2136	0.01243	0.004119	244.8319	0.00103	0.033333	0.007311	0.008333
SAN JUAN DE LA COSTA	-73.6144	-40.4111	4835	708	4718	742	0.005491	0.005194	188.2164	199.6709	0.037469	0.040603	9553	977	0.020206	0.005155	197.0051	0.001289	0.067825	0.015688	0.016956
SAN MIGUEL	-70.6494	-33.4858	58368	5001	57812	4972	0.00339	0.003583	295.5132	279.483	0.005037	0.004811	116180	7182	0.002471	0.003472	287.7487	0.000868	0.022833	0.004844	0.005708
SAN NICOLAS	-72.0428	-36.3628	7473	658	7415	692	0.007792	0.007934	129.5675	127.1954	0.017043	0.016865	14888	897	0.008665	0.007692	130.1347	0.001923	0.046797	0.009795	0.011699
SAN PABLO	-73.2709	-40.3257	6984	957	6834	1008	0.004588	0.004375	223.9547	235.4271	0.03107	0.033302	13818	1311	0.016567	0.00435	232.7838	0.001087	0.061311	0.014256	0.015328
SAN PEDRO	-71.4668	-33.9339	5162	548	5113	580	0.010203	0.00907	98.88633	111.6594	0.018797	0.021372	10275	772	0.01035	0.009316	107.4615	0.002329	0.075298	0.016534	0.018825
SAN PEDRO DE ATACAMA	-67.9517	-23.4297	3383	710	3291	648	0.012079	0.013191	83.84091	76.57233	0.024184	0.022738	6674	980	0.011991	0.012343	80.99805	0.003086	0.106958	0.023727	0.02674
SAN PEDRO DE LA PAZ	-73.1031	-36.8419	39867	3161	39615	3403	0.003533	0.003553	284.0441	282.4603	0.007074	0.00708	79482	4658	0.003561	0.00352	284.079	0.00088	0.026025	0.005631	0.006506
SAN RAFAEL	-71.5333	-35.3167	5404	570	5372	585	0.011093	0.01027	90.66022	98.15397	0.0165	0.017944	10776	771	0.008798	0.010439	95.64514	0.00261	0.056776	0.011615	0.014194
SAN RAMON	-70.6417	-33.5333	52023	3169	51511	3234	0.003805	0.003952	263.1104	253.2845	0.005032	0.004893	103534	4369	0.002493	0.00386	258.7301	0.000965	0.029994	0.00654	0.007498
SAN ROSENDO	-72.6434	-37.121	3354	450	3336	476	0.007734	0.007183	133.4471	144.2309	0.038265	0.041443	6690	594	0.020929	0.007092	143.0092	0.001773	0.052158	0.011286	0.01304
SAN VICENTE	-71.1725	-34.5062	23595	1333	23472	1422	0.006393	0.006501	156.4577	153.8367	0.006587	0.006511	47067	1877	0.003307	0.006383	156.1877	0.001596	0.039707	0.008344	0.009927
SANTA BARBARA	-71.5579	-37.7184	7876	640	7796	683	0.006347	0.005669	159.7584	179.4533	0.019881	0.022501	15672	850	0.01086	0.005842	172.0631	0.00146	0.064905	0.014787	0.016226
SANTA CRUZ	-71.4363	-34.6163	18908	1111	18843	1193	0.006717	0.007034	149.0527	142.2338	0.007821	0.007492	37751	1566	0.003855	0.006825	146.0826	0.001706	0.052699	0.011488	0.013175
SANTA JUANA	-72.9093	-37.2085	8141	618	8017	654	0.00855	0.008282	117.6556	121.5683	0.014246	0.014937	16158	851	0.007413	0.008281	120.6664	0.00207	0.065735	0.014393	0.016434
SANTA MARIA	-70.6176	-32.5644	7785	773	7641	864	0.00771	0.007384	130.8779	136.846	0.016534	0.017594	15426	1094	0.00875	0.007354	136.1751	0.001839	0.044366	0.00927	0.011091
SANTIAGO	-70.618	-33.3046	136693	10509	135473	10278	0.003152	0.003395	317.0103	294.2197	0.002314	0.002167	272166	15144	0.001121	0.003266	305.4882	0.000817	0.025001	0.005438	0.00625
SANTO DOMINGO	-71.6663	-33.8065	8297	1533	8263	1676	0.005003	0.004576	203.7886	223.4359	0.023973	0.026329	16560	2399	0.01289	0.004663	216.2474	0.001166	0.032797	0.007042	0.008199
SIERRA GORDA	-69.3294	-23.2599	2756	735	2734	745	0.00567	0.006111	187.3691	172.9864	0.063658	0.059507	5490	1045	0.031912	0.005677	180.9701	0.001419	0.041697	0.009018	0.010424
TALAGANTE	-71.0034	-33.5772	30021	2196	29841	2324	0.004541	0.004813	220.8164	208.2119	0.007302	0.006929	59862	3178	0.003594	0.004626	215.9383	0.001157	0.026775	0.005544	0.006694
TALCA	-71.5879	-35.3336	99807	3217	99109	3547	0.006613	0.006725	150.4449	147.9266	0.001505	0.00149	198916	4720	0.000751	0.006654	149.4009	0.001663	0.036838	0.007559	0.00921
TALCAHUANO	-73.1084	-36.7437	83655	3466	83048	3613	0.003802	0.003939	262.8788	253.6399	0.003133	0.003045	166703	4872	0.00155	0.003855	258.8002	0.000964	0.027406	0.005893	0.006851
TALTAL	-69.8889	-25.1763	6370	784	6279	844	0.007719	0.008358	131.2265	120.9491	0.020185	0.018898	12649	1104	0.00998	0.00786	127.5091	0.001965	0.04523	0.009361	0.011308
TEMUCO	-72.4518	-38.7659	120717	6347	119912	6876	0.002935	0.003028	340.6503	330.1903	0.002814	0.002746	240629	8939	0.001394	0.002973	335.8456	0.000743	0.024718	0.00544	0.00618
TENO	-70.9943	-34.8772	13768	874	13686	869	0.007908	0.008046	126.6195	124.4183	0.009113	0.009009	27454	1143	0.004583	0.007886	126.3977	0.001971	0.039603	0.007945	0.009901
TEODORO SCHMIDT	-73.0621	-39.0287	9389	1058	9290	1209	0.003752	0.003159	273.2773	326.7333	0.028283	0.033976	18679	1464	0.016098	0.003315	305.6168	0.000829	0.038536	0.008813	0.009634
TIERRA AMARILLA	-69.6408	-27.8983	7585	944	7463	988	0.006869	0.006813	147.4009	148.6949	0.019063	0.019535	15048	1331	0.009915	0.006658	150.7021	0.001664	0.04864	0.010513	0.01216
TILTIL	-70.9278	-33.0817	8118	1014	8042	1044	0.004932	0.005016	206.943	203.3874	0.024858	0.024667	16160	1405	0.012742	0.004833	208.5624	0.001208	0.040537	0.008937	0.010134
TIMAUKEL	-69.7407	-54.3636	635	314	631	311	0.008023	0.007748	153.8423	160.9927	0.195023	0.203275	1266	494	0.113704	0.006904	162.4173	0.001726	0.074485	0.016924	0.018621
TIRUA	-73.3626	-38.3206	5306	602	5269	635	0.00619	0.005576	165.5956	184.6289	0.030265	0.033854	10575	819	0.016672	0.005641	179.2944	0.00141	0.053141	0.011892	0.013285
TOCOPILLA	-70.0035	-21.9958	13497	1407	13300	1427	0.005699	0.005876	176.7776	171.3655	0.012928	0.012721	26797	1917	0.006525	0.005687	176.0015	0.001422	0.034211	0.007141	0.008553
TOLTEN	-73.0523	-39.2479	6509	770	6382	849	0.004428	0.004217	232.8993	245.2244	0.034545	0.037003	12891	1066	0.018712	0.004129	245.8161	0.001032	0.037606	0.008378	0.009401
TOME	-72.8186	-36.5744	33868	1390	33572	1494	0.005094	0.005286	196.4589	189.2334	0.005767	0.005605	67440	1908	0.002865	0.005149	193.7766	0.001287	0.035446	0.007584	0.008862
TORRES DEL PAINE	-72.8068	-51.0945	1265	429	1263	425	0.008501	0.008604	128.5964	126.9013	0.092277	0.091302	2528	635	0.048997	0.008012	130.2458	0.002003	0.053048	0.011282	0.013262
TORTEL	-74.2636	-47.1748	429	156	426	164	0.016034	0.014481	71.80412	81.22071	0.143378	0.160129	855	239	0.088906	0.013	83.43224	0.00325	0.035211	0.005571	0.008803
TRAIGUEN	-72.5687	-38.1781	13036	1179	12962	1267	0.004202	0.004228	241.3874	239.9024	0.01818	0.018172	25998	1600	0.00926	0.004137	242.9959	0.001034	0.03572	0.007904	0.00893
TREGUACO	-72.5806	-36.3274	4284	399	4238	432	0.012423	0.011206	81.01489	90.13909	0.01856	0.020826	8522	554	0.009962	0.011644	85.74789	0.002911	0.04908	0.009386	0.01227
TUCAPEL	-71.6899	-37.2419	8333	676	8240	717	0.007524	0.006757	134.0532	149.6925	0.015832	0.017842	16573	910	0.008619	0.006953	144.0818	0.001738	0.042476	0.008896	0.010619
VALDIVIA	-73.1624	-39.9771	76701	4638	75814	5045	0.003326	0.003422	300.8508	292.3136	0.003907	0.003841	152515	6664	0.001945	0.003359	297.2848	0.00084	0.03221	0.007219	0.008053
VALLENAR	-70.5408	-28.5647	27883	1562	27129	1730	0.006759	0.006482	147.7357	154.1522	0.00527	0.00565	55012	2267	0.002748	0.006571	151.5969	0.001643	0.045339	0.009708	0.011335
VALPARAISO	-71.5892	-33.0813	167746	7165	165791	7440	0.003534	0.003742	282.463	266.6356	0.001681	0.001606	333537	10188	0.000823	0.003631	274.6656	0.000908	0.02391	0.005074	0.005977
VICHUQUEN	-72.0269	-34.8415	3797	479	3748	514	0.019285	0.01686	51.55804	59.24984	0.013397	0.015562	7545	713	0.007367	0.017674	55.99951	0.004419	0.083244	0.016465	0.020811
VICTORIA	-72.1236	-38.215	21233	1658	21115	1851	0.003509	0.00369	287.8111	273.5508	0.013374	0.01279	42348	2327	0.006628	0.00355	282.5382	0.000888	0.037319	0.00845	0.00933
VICUÑA	-70.3256	-29.9442	12629	900	12176	965	0.012371	0.013133	80.34709	75.61594	0.006322	0.006172	24805	1288	0.003161	0.012595	78.64667	0.003149	0.07137	0.01474	0.017842
VILCUN	-71.9638	-38.6856	13582	1293	13526	1432	0.003739	0.003457	271.8034	294.5446	0.019619	0.021312	27108	1815	0.010496	0.003502	287.5415	0.000876	0.033713	0.007559	0.008428
VILLA ALEGRE	-71.6393	-35.5878	9112	766	9054	805	0.007994	0.008963	125.8282	111.9458	0.013621	0.012213	18166	1026	0.006547	0.008339	119.7152	0.002085	0.039872	0.0079	0.009968
VILLA ALEMANA	-71.3534	-32.9502	49603	3852	49042	4092	0.00355	0.003616	282.2625	277.1252	0.005658	0.005619	98645	5579	0.002834	0.003565	280.3318	0.000891	0.023837	0.005073	0.005959
VILLARRICA	-72.1388	-39.4294	27187	2211	27026	2372	0.003227	0.003403	312.4591	296.0401	0.011362	0.010835	54213	3153	0.005619	0.003272	306.3612	0.000818	0.034744	0.007875	0.008686
VIÑA DEL MAR	-71.4944	-32.9189	180026	10492	178164	11263	0.003112	0.003253	320.9467	306.9548	0.00178	0.00172	358190	15013	0.000876	0.003176	314.1369	0.000794	0.023793	0.005158	0.005948
VITACURA	-70.575	-33.3833	60134	9170	59795	9964	0.001505	0.001587	670.695	635.6712	0.01103	0.010519	119929	13465	0.005441	0.00153	656.0523	0.000383	0.011656	0.002533	0.002914
YERBAS BUENAS	-71.4972	-35.6195	8878	705	8818	738	0.008194	0.0081	122.7334	124.1925	0.013636	0.013888	17696	953	0.006995	0.008014	124.6566	0.002004	0.047063	0.009782	0.011766
YUMBEL	-72.5688	-37.0526	13420	791	13286	840	0.006852	0.006635	146.5367	151.4361	0.010801	0.01127	26706	1074	0.005596	0.006647	150.2802	0.001662	0.070902	0.01609	0.017725
YUNGAY	-71.7532	-37.1527	10007	721	9915	759	0.006799	0.006641	148.2567	151.8839	0.014599	0.015087	19922	965	0.007535	0.006618	151.2487	0.001655	0.049117	0.010642	0.012279
ZAPALLAR	-71.3778	-32.5201	5350	1086	5318	1214	0.00704	0.005621	144.8868	183.0417	0.026368	0.033274	10668	1679	0.015142	0.006153	164.0196	0.001538	0.037044	0.007735	0.009261

Table S2. The first 50 surnames in Chile, paternal and maternal series.

Paternal	***N***	***Maternal***	***N***
GONZALEZ	171266	GONZALEZ	172755
MUÑOZ	133998	MUÑOZ	136343
ROJAS	96090	ROJAS	96793
DIAZ	94912	DIAZ	95589
PEREZ	76643	PEREZ	76053
SOTO	68560	SOTO	70602
CONTRERAS	64057	CONTRERAS	64716
SILVA	61416	SILVA	60162
SEPULVEDA	58638	SEPULVEDA	58613
MARTINEZ	58330	MARTINEZ	58146
MORALES	57962	MORALES	57747
RODRIGUEZ	56353	LOPEZ	55210
LOPEZ	55418	RODRIGUEZ	55086
FUENTES	53657	FUENTES	53675
ARAYA	52596	TORRES	52383
TORRES	52393	ARAYA	52313
HERNANDEZ	52350	HERNANDEZ	52070
ESPINOZA	51132	FLORES	51562
VALENZUELA	50590	ESPINOZA	51042
FLORES	50462	VALENZUELA	50610
CASTILLO	49786	CASTILLO	49584
RAMIREZ	49316	RAMIREZ	49174
REYES	48353	REYES	48475
GUTIERREZ	46829	GUTIERREZ	46959
CASTRO	46104	CASTRO	46642
VARGAS	45640	VARGAS	46536
ALVAREZ	44468	VASQUEZ	45231
VASQUEZ	43960	ALVAREZ	44866
FERNANDEZ	42641	TAPIA	41821
TAPIA	42268	CARRASCO	40950
SANCHEZ	40822	SANCHEZ	40582
CORTES	40347	FERNANDEZ	40167
HERRERA	39925	CORTES	40100
CARRASCO	39811	GOMEZ	39858
GOMEZ	39795	HERRERA	39422
NUÑEZ	38325	NUÑEZ	39142
JARA	37672	JARA	38334
VERGARA	36579	VERGARA	37338
RIVERA	34321	FIGUEROA	34522
FIGUEROA	34072	RIVERA	34337
GARCIA	33385	RIQUELME	33967
RIQUELME	33114	VERA	33209
BRAVO	32903	MIRANDA	32747
VERA	32071	BRAVO	31986
MIRANDA	31696	GARCIA	31800
MOLINA	30464	MOLINA	30652
VEGA	30309	VEGA	30273
SANDOVAL	29194	CAMPOS	29762
CAMPOS	29116	SANDOVAL	28667
OLIVARES	28660	ORELLANA	28618