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Surnames in Honduras: A Study of the Population of Honduras through Isonymy

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Summary

In this work, we investigated surname distribution in 4,348,021 Honduran electors with the aim of detecting population structure through the study of isonymy in three administrative levels: the whole nation, the 18 departments, and the 298 municipalities. For each administrative level, we studied the surname effective number, α , the total inbreeding, F_{IT} , the random inbreeding, F_{ST} , and the local inbreeding, F_{IS} . Principal components analysis, multidimensional scaling, and cluster analysis were performed on Lasker's distance matrix to detect the direction of surname diffusion and for a graphic representation of the surname relationship between different locations. The values of F_{IT} , F_{ST} , and F_{IS} display a variation of random inbreeding between the administrative levels in the Honduras population, which is attributed to the "Prefecture effect." Multivariate analyses of department data identified two main clusters, one south-western and the second north-eastern, with the Bay Islands and the eastern Gracias a Dios out of the main clusters.

The results suggest that currently the population structure of this country is the result of the joint action of short-range directional migration and drift, with drift dominating over migration, and that population diffusion may have taken place mainly in the NW-SE direction.

Table ST1. Distribution of isonymy parameters in 298 municipalities of Honduras.

Cod. Dep.: 1, Atlántida; 2, Colón; 3, Comayagua; 4, Copán; 5, Cortés; 6, Choluteca; 7, El Paraíso; 8, Francisco Morazán; 9, Gracias a Dios; 10, Intibucá; 11, Islas de la Bahía; 12, La Paz; 13, Lempira; 14, Ocotepeque; 15, Olancho; 16, Santa Bárbara; 17, Valle; 18, Yoro; Number of electors **N**; number of paternal surnames **S**; Fisher's alpha α_F ; α as effective surname number; Karlin-McGregor v ; isonymy **I**; ratio of number of different surnames to sample size **S/N**; proportion of surnames present only once to sample size, **hapax**.

Municipality	Cod. Dep.	N	S	α_F	α	v	I	S/N	hapax
La Ceiba	1	95,540	2,783	148.8	149.8	0.00156	0.00669	0.029	0.01124
El Porvenir	1	10,969	754	116.7	117.7	0.01053	0.00858	0.069	0.02224
Esparta	1	9,960	669	115.6	116.6	0.01147	0.00868	0.067	0.01978
Jutiapa	1	17,471	871	116.1	117.1	0.00660	0.00860	0.050	0.01654
La Masica	1	17,584	875	120.2	121.2	0.00679	0.00831	0.050	0.01467
San Francisco	1	7,761	633	118.5	119.5	0.01504	0.00850	0.082	0.02487
Tela	1	57,983	1,721	131.4	132.4	0.00226	0.00757	0.030	0.01004
Arizona	1	14,646	766	120.3	121.4	0.00815	0.00831	0.052	0.01502
Trujillo	2	30,303	1,338	127.8	128.8	0.00420	0.00780	0.044	0.01630
Balfate	2	5,218	533	97.6	98.6	0.01836	0.01033	0.102	0.03565
Iriona	2	6,544	570	78.4	79.4	0.01183	0.01275	0.087	0.03087
Limón	2	5,639	587	114.9	115.9	0.01996	0.00881	0.104	0.03706
Sabá	2	19,864	935	125.0	126.0	0.00625	0.00799	0.047	0.01581
Santa Fé	2	3,228	367	73.2	74.3	0.02219	0.01377	0.114	0.04368
Santa Rosa de Aguán	2	3,526	410	92.0	93.0	0.02543	0.01103	0.116	0.04339
Sonaguera	2	25,399	1,010	120.4	121.5	0.00472	0.00827	0.040	0.01244
Tocoa	2	42,567	1,342	128.0	129.0	0.00300	0.00778	0.032	0.01083
Bonito Oriental	2	17,323	866	120.2	121.2	0.00689	0.00831	0.050	0.01570
Comayagua	3	64,929	1,218	105.6	106.6	0.00162	0.00939	0.019	0.00618
Ajuterique	3	7,202	375	61.1	62.1	0.00841	0.01625	0.052	0.01805
El Rosario	3	11,452	353	44.7	45.7	0.00389	0.02196	0.031	0.00838
Esquíás	3	8,024	357	48.0	49.0	0.00595	0.02053	0.044	0.01221
Humuya	3	1,045	155	28.6	29.7	0.02668	0.03466	0.148	0.06507
La Libertad	3	11,604	435	68.5	69.5	0.00587	0.01448	0.037	0.01094
Lamaní	3	3,679	268	37.1	38.1	0.00998	0.02651	0.073	0.02582
La Trinidad	3	2,421	177	34.6	35.6	0.01410	0.02846	0.073	0.02602
Lejamaní	3	3,800	276	52.0	53.0	0.01351	0.01911	0.073	0.02711
Meámbar	3	5,487	246	37.3	38.3	0.00675	0.02630	0.045	0.01567
Minas de Oro	3	6,527	326	57.9	58.9	0.00879	0.01713	0.050	0.01578
Ojo de Agua	3	5,197	221	14.7	15.7	0.00282	0.06386	0.043	0.01616
San Jerónimo	3	10,875	425	58.7	59.7	0.00537	0.01683	0.039	0.01094
S. José de Comayagua	3	4,293	273	59.1	60.1	0.01358	0.01686	0.064	0.02003
San José del Potrero	3	3,071	169	40.0	41.0	0.01286	0.02471	0.055	0.01824
San Luis	3	4,844	262	29.4	30.4	0.00603	0.03311	0.054	0.01755
San Sebastián	3	2,170	210	30.9	32.0	0.01406	0.03175	0.097	0.03871
Siguatepeque	3	45,997	1,100	105.7	106.7	0.00229	0.00939	0.024	0.00761
Villa de San Antonio	3	10,192	532	71.5	72.5	0.00696	0.01390	0.052	0.01648
Las Lajas	3	6,411	306	26.9	27.9	0.00417	0.03603	0.048	0.01497

Taulabe	3	13,893	541	83.8	84.9	0.00600	0.01186	0.039	0.01072
Santa Rosa de Copán	4	29,232	818	83.2	84.2	0.00284	0.01191	0.028	0.00869
Cabañas	4	6,216	323	73.4	74.4	0.01166	0.01361	0.052	0.01496
Concepción	4	3,436	235	62.6	63.6	0.01789	0.01601	0.068	0.02095
Copán Ruinas	4	19,890	620	46.3	47.3	0.00232	0.02119	0.031	0.01081
Corquín	4	7,871	325	38.4	39.4	0.00485	0.02552	0.041	0.01283
Cucuyagua	4	7,796	326	36.6	37.6	0.00468	0.02669	0.042	0.01603
Dolores	4	2,795	188	31.7	32.7	0.01120	0.03097	0.067	0.02218
Dulce Nombre	4	3,486	261	56.0	57.1	0.01582	0.01782	0.075	0.02037
El Paraíso	4	12,157	496	71.9	72.9	0.00588	0.01380	0.041	0.01152
Florida	4	15,434	659	87.6	88.6	0.00564	0.01135	0.043	0.01186
La Jigua	4	5,861	425	91.0	92.0	0.01528	0.01104	0.073	0.02286
La Unión	4	7,024	309	58.7	59.7	0.00829	0.01689	0.044	0.01552
Nueva Arcadia	4	20,837	744	90.5	91.5	0.00432	0.01098	0.036	0.01008
San Agustín	4	2,416	179	21.7	22.7	0.00890	0.04447	0.074	0.02608
San Antonio	4	6,098	390	75.0	76.0	0.01214	0.01333	0.064	0.01919
San Jerónimo	4	3,427	277	72.7	73.7	0.02076	0.01387	0.081	0.02334
San José	4	4,152	273	53.6	54.6	0.01274	0.01856	0.066	0.02119
San Juan de Opoa	4	4,857	268	51.1	52.1	0.01041	0.01939	0.055	0.01750
San Nicolás	4	4,357	278	40.2	41.2	0.00914	0.02451	0.064	0.01698
San Pedro	4	4,097	243	36.7	37.7	0.00887	0.02678	0.059	0.01953
Santa Rita	4	13,061	520	70.6	71.6	0.00537	0.01405	0.040	0.01286
Trinidad	4	4,156	277	53.3	54.3	0.01266	0.01865	0.067	0.02334
Veracruz	4	1,964	199	46.9	47.9	0.02331	0.02139	0.101	0.03411
San Pedro Sula	5	390,349	4,623	141.2	142.2	0.00036	0.00704	0.012	0.00451
Choloma	5	100,970	1,843	122.3	123.3	0.00121	0.00812	0.018	0.00631
Omoa	5	26,289	1,030	103.1	104.1	0.00390	0.00965	0.039	0.01343
Pimienta	5	9,536	697	130.6	131.6	0.01351	0.00770	0.073	0.02433
Potrerrillos	5	15,740	761	118.4	119.4	0.00747	0.00844	0.048	0.01480
Puerto Cortés	5	71,243	1,999	147.2	148.2	0.00206	0.00676	0.028	0.00931
S. Antonio de Cortés	5	12,448	509	66.3	67.3	0.00530	0.01493	0.041	0.01205
S. Francisco de Yojoa	5	11,894	622	66.1	67.1	0.00552	0.01499	0.052	0.01581
San Manuel	5	19,481	917	120.2	121.2	0.00613	0.00830	0.047	0.01478
Santa Cruz de Yojoa	5	40,599	1,014	101.0	102.0	0.00248	0.00983	0.025	0.00810
Villanueva	5	58,487	1,478	120.5	121.5	0.00206	0.00825	0.025	0.00858
La Lima	5	53,713	1,607	140.1	141.1	0.00260	0.00710	0.030	0.00929
Choluteca	6	83,309	1,287	93.5	94.5	0.00112	0.01059	0.015	0.00519
Apacilagua	6	6,102	195	31.2	32.2	0.00509	0.03122	0.032	0.01114
Concepción de Maria	6	14,549	399	60.4	61.4	0.00414	0.01635	0.027	0.00990
Duyure	6	2,715	167	25.8	26.8	0.00943	0.03761	0.062	0.02063
El Corpus	6	11,837	337	58.9	60.0	0.00496	0.01676	0.028	0.00972
El Triunfo	6	25,800	554	68.0	69.0	0.00263	0.01453	0.021	0.00628
Marcovia	6	23,980	712	108.2	109.2	0.00449	0.00920	0.030	0.00884
Morolica	6	3,995	234	33.1	34.1	0.00821	0.02960	0.059	0.02453
Namasigue	6	16,649	512	63.8	64.8	0.00382	0.01549	0.031	0.01009
Orocuina	6	11,170	244	27.7	28.7	0.00247	0.03498	0.022	0.00868
Pespire	6	17,651	382	58.5	59.5	0.00330	0.01687	0.022	0.00737

San Antonio de Flores	6	4,189	237	18.8	19.8	0.00446	0.05084	0.057	0.02387
San Isidro	6	3,079	167	12.5	13.5	0.00403	0.07454	0.054	0.01916
San José	6	2,574	136	29.5	30.5	0.01134	0.03314	0.053	0.02137
San Marcos de Colón	6	17,692	523	73.8	74.8	0.00415	0.01342	0.030	0.00989
S. Ana de Yusguare	6	7,654	360	71.9	72.9	0.00930	0.01385	0.047	0.01685
Yuscarán	7	8,838	416	66.5	67.5	0.00747	0.01493	0.047	0.01573
Alauca	7	6,230	301	26.5	27.5	0.00424	0.03649	0.048	0.01701
Danlí	7	93,928	1,283	95.5	96.5	0.00102	0.01037	0.014	0.00468
El Paraíso	7	25,982	680	81.8	82.8	0.00314	0.01211	0.026	0.00793
Guinope	7	5,198	321	37.7	38.7	0.00720	0.02603	0.062	0.02212
Jacaleapa	7	3,580	321	53.3	54.3	0.01466	0.01870	0.090	0.03156
Liure	7	6,435	181	22.9	23.9	0.00355	0.04197	0.028	0.01383
Moroceíl	7	8,050	411	70.5	71.5	0.00868	0.01410	0.051	0.01602
Oropolí	7	4,662	289	34.3	35.3	0.00731	0.02852	0.062	0.02402
Potrerrillos	7	1,837	209	30.2	31.2	0.01618	0.03257	0.114	0.04573
San Antonio de Flores	7	3,568	188	35.4	36.4	0.00982	0.02776	0.053	0.01822
San Lucas	7	4,522	183	24.7	25.7	0.00543	0.03912	0.040	0.01128
San Matías	7	2,696	201	17.8	18.8	0.00656	0.05353	0.075	0.03042
Soledad	7	6,094	175	28.1	29.1	0.00459	0.03456	0.029	0.01214
Teupasenti	7	17,510	459	53.2	54.2	0.00303	0.01851	0.026	0.00840
Texiguat	7	5,902	212	19.4	20.4	0.00328	0.04915	0.036	0.01339
Vado Ancho	7	2,371	118	13.0	14.1	0.00547	0.07158	0.050	0.02109
Yauyupe	7	1,255	113	13.2	14.2	0.01042	0.07108	0.090	0.03984
Trojes	7	23,085	659	79.3	80.3	0.00342	0.01250	0.029	0.00827
Distrito Central	8	669,397	5,212	138.0	139.0	0.00021	0.00719	0.008	0.00296
Alubarén	8	3,237	153	20.9	21.9	0.00641	0.04596	0.047	0.01854
Cedros	8	12,069	424	61.6	62.6	0.00508	0.01606	0.035	0.00911
Curarén	8	9,613	237	19.7	20.7	0.00204	0.04852	0.025	0.00801
El Porvenir	8	10,359	403	59.3	60.3	0.00570	0.01667	0.039	0.01236
Guaimaca	8	15,574	592	104.8	105.8	0.00669	0.00951	0.038	0.01034
La Libertad	8	2,489	183	36.5	37.5	0.01444	0.02708	0.074	0.03053
La Venta	8	4,412	203	26.5	27.5	0.00597	0.03657	0.046	0.01813
Lepaterique	8	8,495	273	11.8	12.8	0.00139	0.07809	0.032	0.01165
Maraita	8	4,337	234	22.0	23.0	0.00506	0.04362	0.054	0.02144
Marale	8	4,766	147	18.3	19.3	0.00382	0.05208	0.031	0.01049
Nueva Armenia	8	2,961	223	30.9	31.9	0.01034	0.03164	0.075	0.03107
Ojojona	8	6,540	272	21.3	22.3	0.00325	0.04492	0.042	0.01606
Orica	8	7,605	367	65.6	66.6	0.00856	0.01514	0.048	0.01354
Reitoca	8	5,982	209	38.2	39.2	0.00634	0.02570	0.035	0.01103
Sabanagrande	8	11,319	356	29.5	30.5	0.00260	0.03291	0.031	0.01042
S. Antonio de Oriente	8	7,226	440	51.4	52.4	0.00706	0.01923	0.061	0.02117
San Buenaventura	8	2,429	167	14.4	15.4	0.00590	0.06530	0.069	0.03129
San Ignacio	8	7,071	362	54.7	55.7	0.00767	0.01811	0.051	0.01725
San Juan de Flores	8	8,105	381	59.8	60.8	0.00732	0.01658	0.047	0.01221
San Miguelito	8	1,825	130	24.3	25.3	0.01314	0.04006	0.071	0.03178
Santa Ana	8	6,359	298	24.4	25.4	0.00383	0.03946	0.047	0.01761
Santa Lucía	8	5,501	468	51.8	52.8	0.00933	0.01912	0.085	0.02981

Talanga	8	20,507	678	100.9	101.9	0.00490	0.00986	0.033	0.01063
Tatumbla	8	3,790	239	40.5	41.5	0.01056	0.02438	0.063	0.02480
Valle de Ángeles	8	8,874	540	31.8	32.8	0.00357	0.03058	0.061	0.02152
Villa de San Francisco	8	6,354	367	28.3	29.3	0.00443	0.03429	0.058	0.02077
Vallecillo	8	4,637	252	48.8	49.9	0.01042	0.02027	0.054	0.01466
Puerto Lempira	9	11,899	1,634	241.6	242.6	0.01990	0.00421	0.137	0.06286
Brus Laguna	9	4,181	692	115.1	116.2	0.02680	0.00885	0.166	0.08036
Ahuas	9	2,475	475	90.5	91.5	0.03526	0.01133	0.192	0.09535
Juan Francisco Bulnes	9	1,922	386	92.4	93.5	0.04587	0.01122	0.201	0.09313
R. Villeda Morales	9	2,537	551	132.7	133.8	0.04972	0.00787	0.217	0.11037
Wampusirpi	9	1,756	314	54.3	55.3	0.03000	0.01864	0.179	0.09681
La Esperanza	10	7,501	444	58.3	59.3	0.00771	0.01700	0.059	0.02186
Camasca	10	3,999	130	25.1	26.1	0.00623	0.03859	0.033	0.01075
Colomoncagua	10	8,316	172	21.4	22.4	0.00256	0.04480	0.021	0.00673
Concepción	10	6,214	169	26.7	27.7	0.00428	0.03626	0.027	0.00885
Dolores	10	2,127	71	7.9	8.9	0.00369	0.11312	0.033	0.00987
Intibucá	10	20,510	402	16.7	17.7	0.00081	0.05646	0.020	0.00658
Jesús de Otoro	10	13,384	415	68.4	69.4	0.00509	0.01447	0.031	0.00904
Magdalena	10	2,864	101	17.8	18.8	0.00617	0.05357	0.035	0.01222
Masaguara	10	6,479	199	27.2	28.2	0.00417	0.03567	0.031	0.00864
San Antonio	10	3,563	138	24.2	25.2	0.00674	0.04000	0.039	0.01179
San Isidro	10	1,815	146	18.7	19.7	0.01019	0.05130	0.080	0.03085
San Juan	10	4,982	224	16.5	17.5	0.00329	0.05749	0.045	0.01445
S. Marcos de la Sierra	10	3,481	73	13.8	14.8	0.00396	0.06765	0.021	0.00776
San Miguelito	10	2,940	114	11.6	12.6	0.00394	0.07944	0.039	0.01327
Santa Lucía	10	3,059	86	16.5	17.5	0.00537	0.05741	0.028	0.00883
Yamaranguila	10	7,984	159	16.2	17.2	0.00203	0.05824	0.020	0.00726
S. Francisco Opalaca	10	3,476	72	13.6	14.6	0.00389	0.06891	0.021	0.00547
Roatán	11	18,054	1,411	175.4	176.4	0.00962	0.00572	0.078	0.03130
Guanaja	11	4,554	703	136.6	137.6	0.02911	0.00749	0.154	0.06632
José Santos Guardiola	11	6,025	811	128.7	129.8	0.02092	0.00787	0.135	0.06025
Utila	11	2,113	433	82.8	83.8	0.03771	0.01240	0.205	0.09323
La Paz	12	21,300	613	43.5	44.5	0.00204	0.02251	0.029	0.00934
Aguaqueterique	12	3,111	171	25.7	26.7	0.00820	0.03773	0.055	0.02282
Cabañas	12	1,672	96	18.9	19.9	0.01119	0.05077	0.057	0.01974
Cane	12	2,433	227	44.3	45.3	0.01787	0.02250	0.093	0.03453
Chinacla	12	3,246	177	25.9	26.9	0.00791	0.03748	0.055	0.02095
Guajiquiro	12	6,105	92	7.5	8.5	0.00123	0.11720	0.015	0.00704
Lauterique	12	2,093	120	8.5	9.5	0.00405	0.10563	0.057	0.02532
Marcala	12	13,119	438	50.3	51.3	0.00382	0.01958	0.033	0.01128
Mercedes de Oriente	12	777	75	10.0	11.0	0.01273	0.09195	0.097	0.03604
Oporoto	12	4,779	113	4.7	5.7	0.00098	0.17526	0.024	0.01025
San Antonio del Norte	12	2,175	141	27.4	28.4	0.01242	0.03570	0.065	0.02207
San José	12	4,152	176	22.2	23.2	0.00531	0.04343	0.042	0.01566
San Juan	12	1,276	108	25.7	26.7	0.01976	0.03818	0.085	0.03292
San Pedro de Tutule	12	3,444	217	33.0	34.0	0.00950	0.02967	0.063	0.02062
Santa Ana	12	5,012	156	18.8	19.8	0.00374	0.05068	0.031	0.00958

Santa Elena	12	3,614	104	11.0	12.0	0.00303	0.08377	0.029	0.01190
Santa María	12	5,326	212	15.7	16.7	0.00293	0.06018	0.040	0.01521
Santiago de Puringla	12	8,199	270	27.7	28.7	0.00336	0.03499	0.033	0.01049
Yarula	12	2,979	114	21.5	22.5	0.00718	0.04470	0.038	0.01443
Gracias	13	18,535	480	44.5	45.6	0.00240	0.02201	0.026	0.00825
Belen	13	2,583	127	13.5	14.5	0.00521	0.06920	0.049	0.01858
Candelaria	13	3,695	163	30.8	31.8	0.00826	0.03174	0.044	0.01191
Cololaca	13	3,317	132	10.4	11.4	0.00314	0.08773	0.040	0.01538
Erandique	13	6,863	180	19.8	20.8	0.00288	0.04822	0.026	0.01093
Gualcince	13	4,825	177	28.7	29.7	0.00591	0.03387	0.037	0.01119
Guarita	13	4,839	157	23.4	24.4	0.00482	0.04113	0.032	0.01033
La Campa	13	2,595	114	15.8	16.8	0.00605	0.05986	0.044	0.01850
La Iguala	13	9,930	207	25.9	26.9	0.00260	0.03727	0.021	0.00665
Las Flores	13	4,539	221	31.6	32.6	0.00690	0.03093	0.049	0.01785
La Unión	13	5,997	212	26.7	27.7	0.00443	0.03627	0.035	0.01351
La Virtud	13	3,832	164	32.5	33.5	0.00842	0.03008	0.043	0.01435
Lepaera	13	16,285	408	64.3	65.3	0.00394	0.01536	0.025	0.00749
Mapulaca	13	2,510	147	30.0	31.0	0.01180	0.03267	0.059	0.02191
Piraera	13	6,197	150	31.5	32.5	0.00506	0.03090	0.024	0.00694
San Andrés	13	5,578	141	19.6	20.6	0.00351	0.04864	0.025	0.00914
San Francisco	13	4,056	86	16.8	17.9	0.00414	0.05627	0.021	0.00592
San Juan Guarita	13	1,633	113	14.1	15.1	0.00853	0.06701	0.069	0.02694
San Manuel Colohete	13	5,863	129	12.2	13.2	0.00208	0.07568	0.022	0.00836
San Rafael	13	6,109	234	35.9	36.9	0.00584	0.02726	0.038	0.01064
San Sebastian	13	4,454	140	18.4	19.4	0.00411	0.05179	0.031	0.01055
Santa Cruz	13	2,773	80	4.6	5.6	0.00167	0.17767	0.029	0.01226
Talgua	13	4,271	214	38.5	39.5	0.00893	0.02557	0.050	0.01428
Tambla	13	1,549	104	26.7	27.7	0.01693	0.03675	0.067	0.02001
Tomalá	13	2,948	122	15.6	16.6	0.00526	0.06058	0.041	0.01696
Valladolid	13	2,373	147	25.6	26.6	0.01069	0.03795	0.062	0.02149
Virginia	13	1,680	99	26.7	27.7	0.01564	0.03669	0.059	0.02143
S. Marcos de Caiquín	13	2,368	102	15.3	16.3	0.00644	0.06161	0.043	0.01731
Ocotepeque	14	13,355	563	61.1	62.1	0.00455	0.01619	0.042	0.01393
Belén Gualcho	14	6,909	193	22.3	23.3	0.00322	0.04301	0.028	0.01129
Concepción	14	2,825	203	34.3	35.3	0.01200	0.02866	0.072	0.02549
Dolores Merendon	14	1,680	112	16.6	17.6	0.00977	0.05743	0.067	0.02619
Fraternidad	14	1,322	138	31.0	32.0	0.02289	0.03201	0.104	0.04387
La Encarnación	14	2,871	212	54.6	55.6	0.01865	0.01834	0.074	0.02438
La Labor	14	4,506	285	26.1	27.1	0.00575	0.03718	0.063	0.02330
Lucerna	14	2,525	163	10.9	11.9	0.00429	0.08448	0.065	0.02495
Mercedes	14	3,830	210	36.3	37.3	0.00938	0.02708	0.055	0.01697
San Fernando	14	3,576	228	56.5	57.5	0.01556	0.01766	0.064	0.02181
S. Francisco del Valle	14	4,035	260	53.5	54.5	0.01309	0.01859	0.064	0.02280
San Jorge	14	2,528	225	41.6	42.6	0.01618	0.02388	0.089	0.03165
San Marcos	14	9,731	382	53.2	54.2	0.00544	0.01854	0.039	0.01141
Santa Fé	14	2,867	234	38.9	39.9	0.01338	0.02542	0.082	0.03139
Sensenti	14	5,199	250	40.8	41.8	0.00779	0.02410	0.048	0.01558

Sinuapa	14	3,952	302	41.8	42.8	0.01047	0.02359	0.076	0.02809
Juticalpa	15	59,361	1,039	110.4	111.4	0.00186	0.00899	0.018	0.00566
Campamento	15	11,918	538	86.7	87.7	0.00722	0.01149	0.045	0.01301
Catacamas	15	52,508	954	102.3	103.3	0.00194	0.00970	0.018	0.00518
Concordia	15	4,986	324	44.9	45.9	0.00893	0.02197	0.065	0.02527
Dulce Nombre Culmí	15	13,107	595	113.9	114.9	0.00862	0.00878	0.045	0.01305
El Rosario	15	2,698	179	27.3	28.3	0.01000	0.03575	0.066	0.02557
Esquipulas del Norte	15	4,146	303	21.9	22.9	0.00525	0.04394	0.073	0.02822
Gualaco	15	9,755	341	46.1	47.1	0.00470	0.02134	0.035	0.01210
Guarizama	15	4,605	200	31.3	32.3	0.00675	0.03117	0.043	0.01412
Guata	15	5,194	177	6.6	7.6	0.00127	0.13167	0.034	0.01386
Guayape	15	7,081	289	44.8	45.8	0.00629	0.02196	0.041	0.01412
Jano	15	2,523	189	14.5	15.5	0.00570	0.06503	0.075	0.03092
La Unión	15	4,407	292	51.6	52.6	0.01158	0.01923	0.066	0.02383
Mangulile	15	4,163	200	33.9	34.9	0.00807	0.02892	0.048	0.01706
Manto	15	6,412	250	37.1	38.1	0.00575	0.02643	0.039	0.01294
Salamá	15	4,644	286	49.9	50.9	0.01063	0.01985	0.062	0.02196
San Esteban	15	12,532	549	83.4	84.4	0.00661	0.01192	0.044	0.01420
S. Francisco de Becerra	15	5,369	386	75.9	76.9	0.01393	0.01320	0.072	0.02403
S. Francisco de la Paz	15	11,515	396	50.7	51.7	0.00438	0.01942	0.034	0.01259
Santa Maria del Real	15	6,691	371	69.2	70.2	0.01024	0.01439	0.055	0.01793
Silca	15	5,225	292	51.4	52.4	0.00975	0.01926	0.056	0.01742
Yocón	15	5,196	193	26.0	27.0	0.00497	0.03728	0.037	0.01289
Patuca	15	15,876	592	100.3	101.3	0.00628	0.00994	0.037	0.01046
Santa Bárbara	16	24,697	645	53.2	54.2	0.00215	0.01849	0.026	0.00887
Arada	16	5,800	204	19.1	20.1	0.00329	0.04985	0.035	0.01155
Atima	16	8,562	313	46.0	47.0	0.00534	0.02140	0.037	0.01238
Azacualpa	16	12,085	552	102.0	103.0	0.00837	0.00979	0.046	0.01208
Ceguaca	16	3,024	145	12.2	13.3	0.00403	0.07580	0.048	0.02083
San José de Colinas	16	12,196	292	19.8	20.8	0.00162	0.04816	0.024	0.00853
Concepción del Norte	16	6,138	294	31.8	32.8	0.00516	0.03063	0.048	0.01857
Concepción del Sur	16	3,314	197	14.4	15.4	0.00431	0.06541	0.059	0.02203
Chinda	16	3,145	211	30.5	31.5	0.00961	0.03204	0.067	0.02448
El Nispero	16	5,089	207	23.0	24.0	0.00450	0.04188	0.041	0.01611
Gualala	16	3,429	192	12.1	13.1	0.00352	0.07653	0.056	0.02100
Ilama	16	5,472	249	24.9	25.9	0.00453	0.03882	0.046	0.01718
Macuelizo	16	17,709	670	83.9	84.9	0.00472	0.01183	0.038	0.01016
Naranjito	16	7,016	285	40.8	41.8	0.00579	0.02405	0.041	0.01283
Nuevo Celilac	16	3,837	166	32.1	33.1	0.00830	0.03045	0.043	0.01225
Petosa	16	7,737	441	72.6	73.6	0.00930	0.01372	0.057	0.01797
Protección	16	6,264	353	64.9	65.9	0.01026	0.01533	0.056	0.01373
Quimistán	16	20,519	780	93.3	94.3	0.00453	0.01065	0.038	0.01209
S. Francisco de Ojuera	16	3,925	194	24.7	25.7	0.00625	0.03920	0.049	0.01885
San Luis	16	14,968	407	27.5	28.5	0.00183	0.03517	0.027	0.00855
San Marcos	16	8,354	481	77.0	78.0	0.00914	0.01293	0.058	0.01808
San Nicolás	16	7,761	280	48.7	49.7	0.00623	0.02025	0.036	0.01147
San Pedro Zacapa	16	6,508	303	38.9	39.9	0.00594	0.02523	0.047	0.01567

Santa Rita	16	2,074	127	19.7	20.7	0.00941	0.04878	0.061	0.02411
S. Vicente Centenario	16	2,185	168	32.6	33.6	0.01469	0.03023	0.077	0.02792
Trinidad de Copán	16	12,487	401	27.2	28.2	0.00217	0.03555	0.032	0.01145
Las Vegas	16	13,910	574	71.6	72.7	0.00512	0.01384	0.041	0.01251
Nueva Frontera	16	8,329	465	81.3	82.3	0.00966	0.01227	0.056	0.01681
Nacaome	17	31,361	669	80.5	81.5	0.00256	0.01230	0.021	0.00622
Alianza	17	6,073	379	58.3	59.3	0.00951	0.01702	0.062	0.02206
Amapala	17	7,670	435	89.4	90.4	0.01152	0.01119	0.057	0.01773
Aramecina	17	5,253	256	37.3	38.3	0.00705	0.02628	0.049	0.01923
Caridad	17	3,084	175	21.1	22.1	0.00679	0.04562	0.057	0.02497
Goascorán	17	10,622	447	60.9	61.9	0.00570	0.01625	0.042	0.01450
Langue	17	13,566	364	46.7	47.7	0.00343	0.02103	0.027	0.00818
S. Francisco de Coray	17	6,413	251	43.2	44.2	0.00669	0.02277	0.039	0.01357
San Lorenzo	17	25,987	805	101.2	102.2	0.00388	0.00982	0.031	0.00997
Yoro	18	39,789	786	69.8	70.8	0.00175	0.01415	0.020	0.00596
Arenal	18	5,135	354	35.1	36.1	0.00679	0.02789	0.069	0.02337
El Negrito	18	21,505	863	124.2	125.2	0.00574	0.00803	0.040	0.01186
El Progreso	18	106,663	1,967	130.1	131.1	0.00122	0.00763	0.018	0.00663
Jocón	18	5,266	245	21.1	22.1	0.00399	0.04543	0.047	0.01652
Morazán	18	22,503	813	115.7	116.7	0.00512	0.00861	0.036	0.01058
Olanchito	18	52,486	1,148	81.0	82.0	0.00154	0.01222	0.022	0.00674
Santa Rita	18	18,191	809	110.0	111.0	0.00601	0.00907	0.044	0.01385
Sulaco	18	9,641	304	30.9	31.9	0.00320	0.03141	0.032	0.01162
Victoria	18	12,301	457	43.7	44.7	0.00354	0.02247	0.037	0.01349
Yorito	18	8,608	346	33.2	34.2	0.00384	0.02936	0.040	0.01348
Mean		14,591	440	53.7	54.7	0.00784	0.03015	0.052	0.01882
St. err.		2,702	30	2.2	2.2	0.00038	0.00141	0.002	0.00084
Min		777	71	4.6	5.6	0.00021	0.00421	0.008	0.00296
Max		669,397	5,212	241.6	242.6	0.04972	0.17767	0.217	0.11037

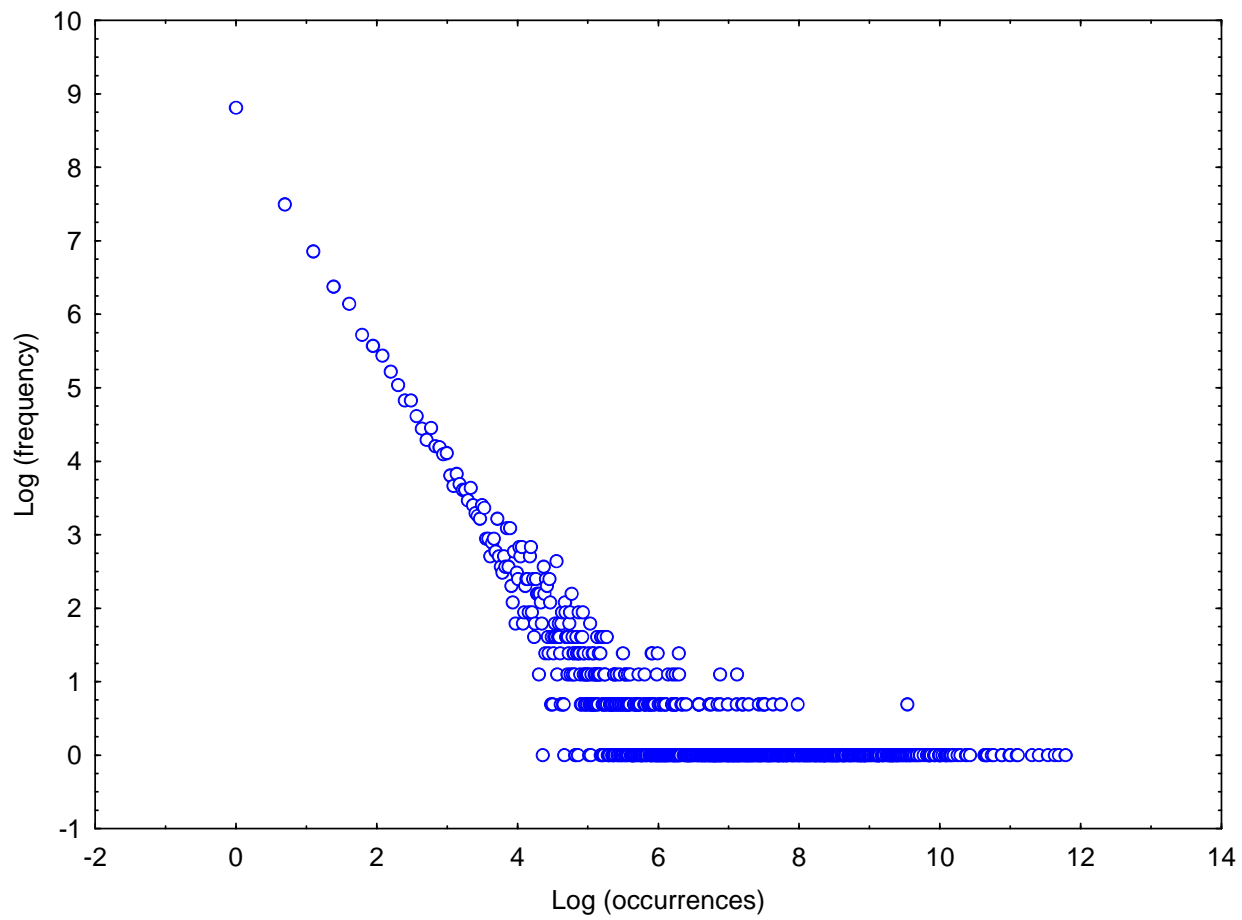
Table ST2. The 50 most frequent surnames in Honduras.

Paternal		Maternal	
HERNANDEZ	131312	HERNANDEZ	107974
LOPEZ	119449	LOPEZ	95932
MARTINEZ	112984	MARTINEZ	93176
RODRIGUEZ	102299	RODRIGUEZ	83773
GARCIA	90200	GARCIA	72289
MEJIA	81525	MEJIA	67379
FLORES	66748	FLORES	57531
CRUZ	65700	CRUZ	55455
REYES	59939	REYES	49064
SANCHEZ	59145	SANCHEZ	45337
VASQUEZ	53301	RIVERA	44428
RIVERA	53032	VASQUEZ	40402
PEREZ	47356	PINEDA	36689
GOMEZ	46117	GOMEZ	36415
PINEDA	43383	PEREZ	35209
DIAZ	43044	DIAZ	34959
RAMOS	42608	RAMOS	34908
AGUILAR	42059	AGUILAR	34049
RAMIREZ	41464	RAMIREZ	33460
ALVARADO	33819	VELASQUEZ	27928
VELASQUEZ	32387	CASTRO	27145
CASTRO	31865	ALVARADO	27044
ROMERO	29545	ROMERO	24997
CASTILLO	28366	CASTILLO	23196
ORELLANA	26761	ORELLANA	22323
NUÑEZ	26037	PAZ	21228
MENDOZA	25711	NUÑEZ	21138
AVILA	25396	AVILA	20950
PAZ	24729	MENDOZA	20614
GONZALEZ	24379	MURILLO	20297
ZELAYA	24137	PADILLA	20046
MURILLO	24009	BONILLA	19791
PADILLA	23932	SANTOS	19774
SANTOS	23780	ZELAYA	19488
BONILLA	22829	MEDINA	19283
MALDONADO	22097	GONZALEZ	18987
MEDINA	22050	MALDONADO	18373
TORRES	22013	TORRES	17965
HERRERA	21929	ORTIZ	17869
GONZALES	21893	AMAYA	17573
GUTIERREZ	21748	GONZALES	17540
ORTIZ	20676	HERRERA	17534
ORDOÑEZ	20348	BARAHONA	16702
AMAYA	20344	BANEGAS	16576
AMADOR	19385	GUTIERREZ	16531
BARAHONA	19040	ZUNIGA	16210
MARADIAGA	18997	ORDOÑEZ	15953
BANEGAS	18994	ALVAREZ	15624
ALVAREZ	18964	AMADOR	15427
ZUNIGA	18947	MARADIAGA	15313

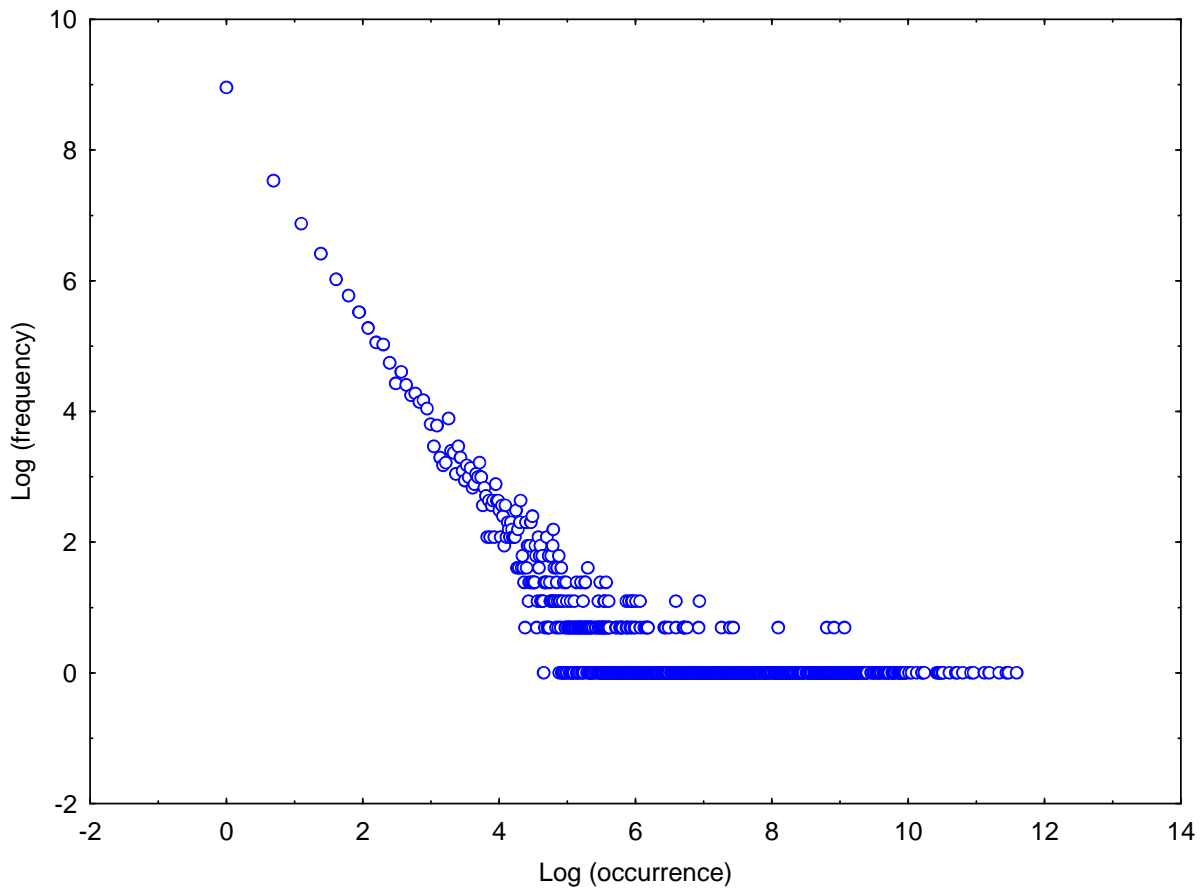
Table ST3. The most frequent 50 surnames of Anglo-Saxon origin in Honduras

ALLEN	466
ANDERSON	350
BENEDITH	229
BENNETT	770
BODDEN	2364
BORDEN	210
BROWN	686
CARTER	235
COLEMAN	399
CONNOR	479
CURRY	261
DAVIS	198
DIXON	535
EBANKS	780
ELWIN	214
GEORGE	3329
GRANT	278
GREEN	587
HARRY	189
HOWELL	273
HYDE	370
JACKSON	800
JAMES	742
JOHNSON	824
JONES	364
JORDAN	654
MC LAUGHLIN	182
MILLER	432
MOORE	385
MORGAN	284
NELSON	632
NICOLAS	1276
NIXON	308
RICHARD	249
SMITH	774
STANLEY	212
STEWART	230
TATUM	248
TAYLOR	340
THOMAS	752
THOMPSON	347
WALTER	208
WATLER	235
WEBSTER	437
WELCOME	255
WILLIAMS	1039
WILSON	495
WOOD	955
WOODS	359
YOUNG	155

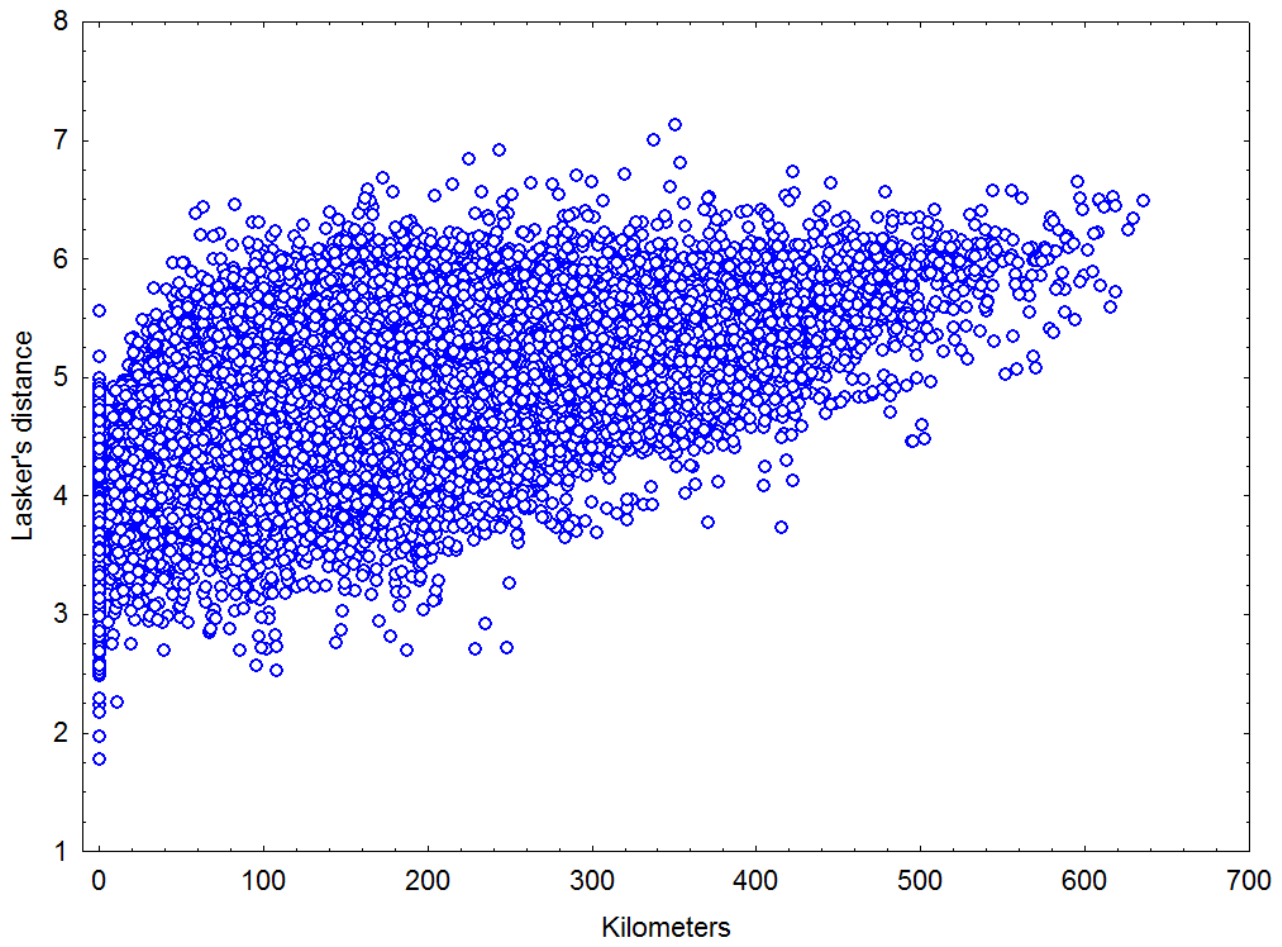
PPLEMENTARY FIGURES



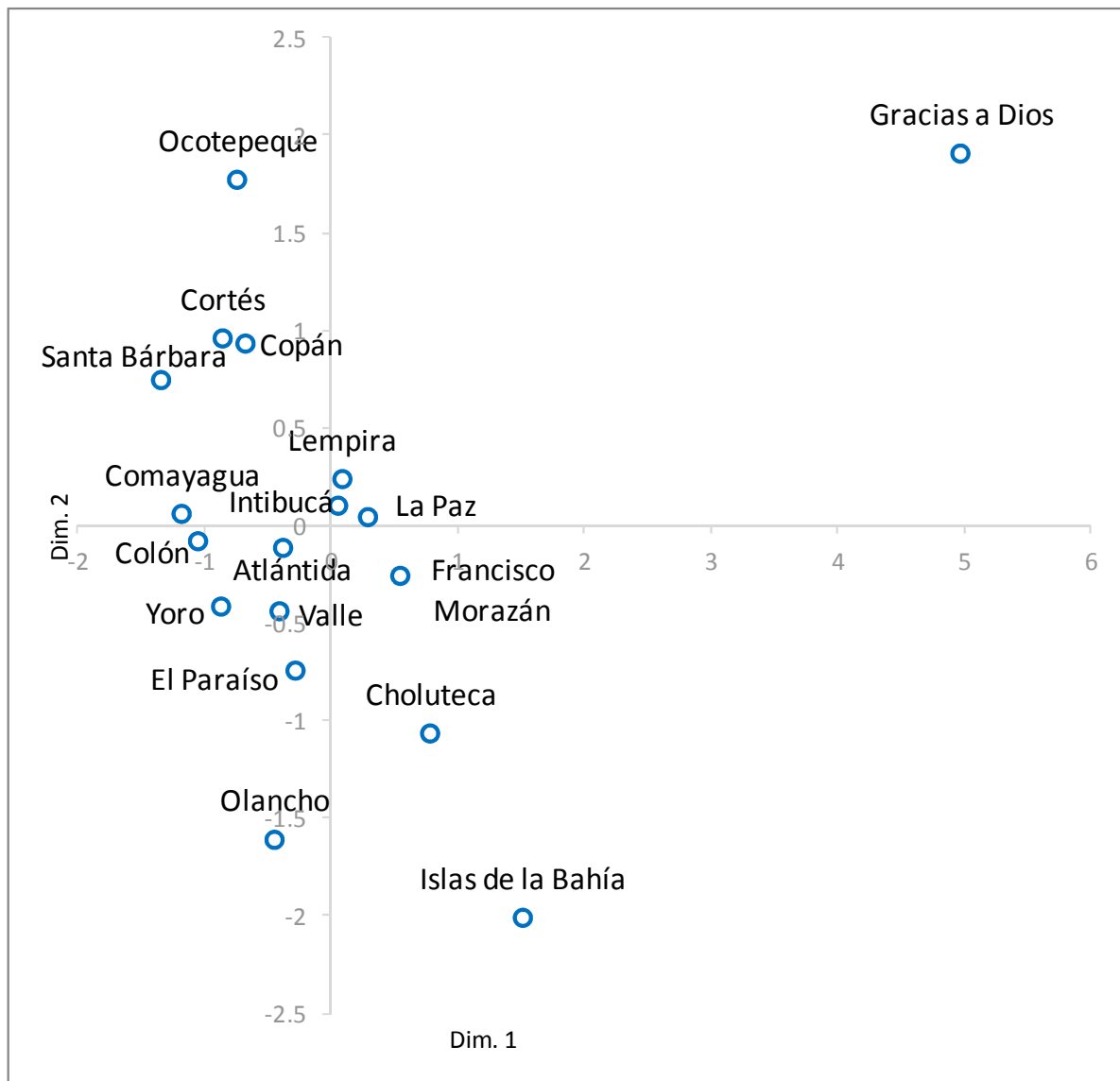
Supplementary Figure SF1a. Variation of the number of occurrences in 4.3 million paternal surnames in Honduras.



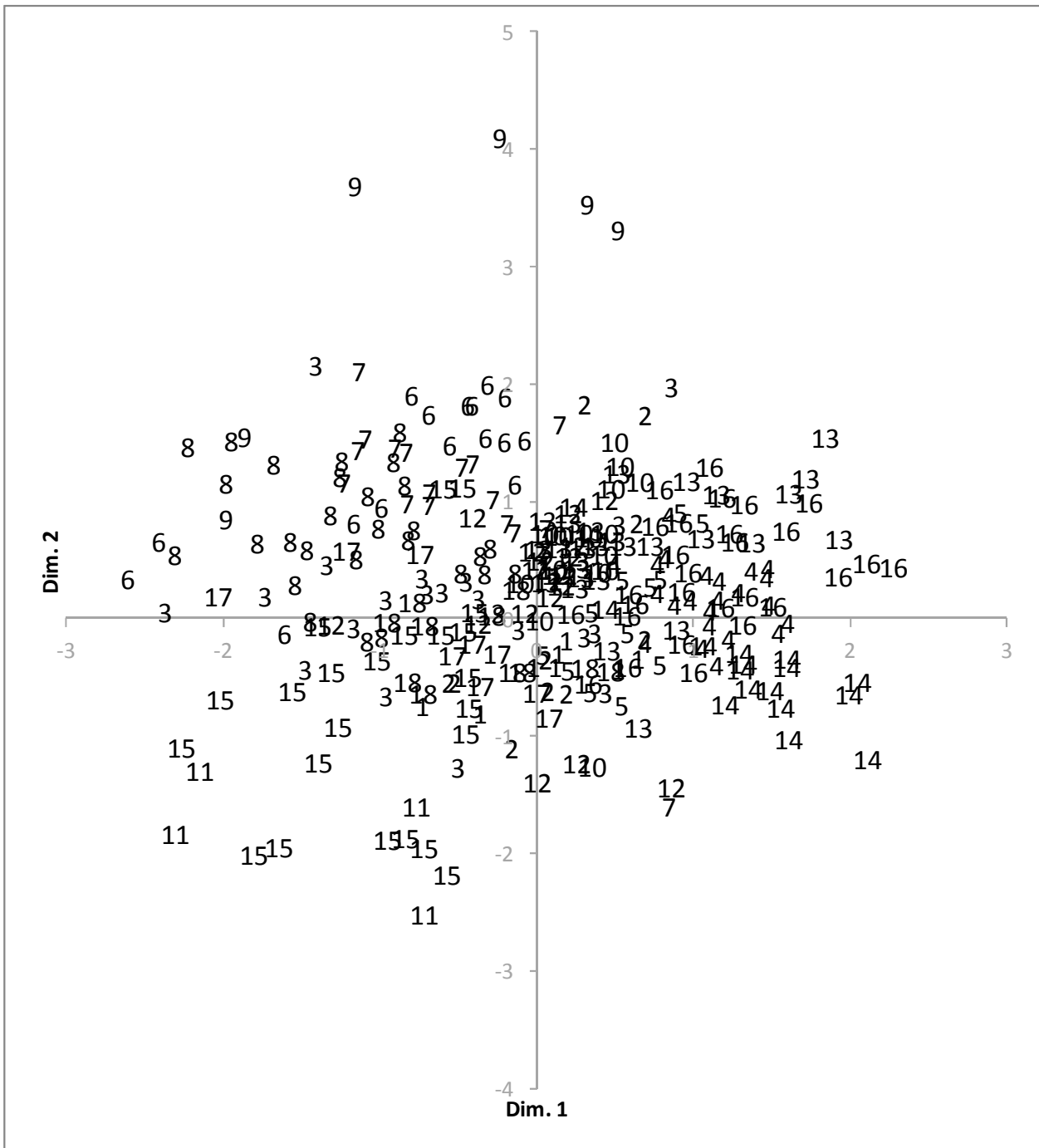
Supplementary Figure SF1b. Variation of the number of occurrences in 3.6 million maternal surnames in Honduras.



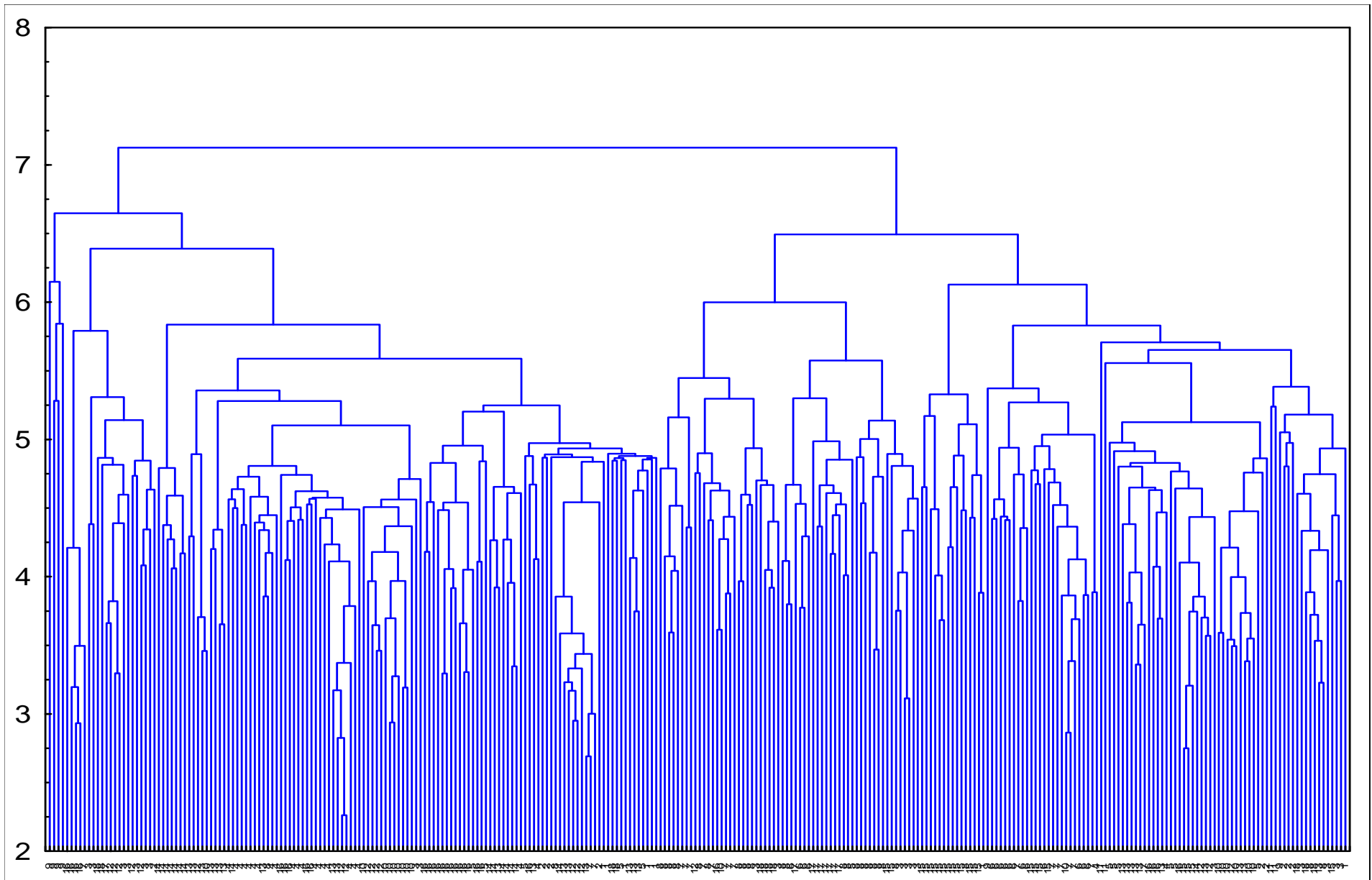
Supplementary Figure SF2. Variation of Lasker's distance between 298 municipalities in Honduras.



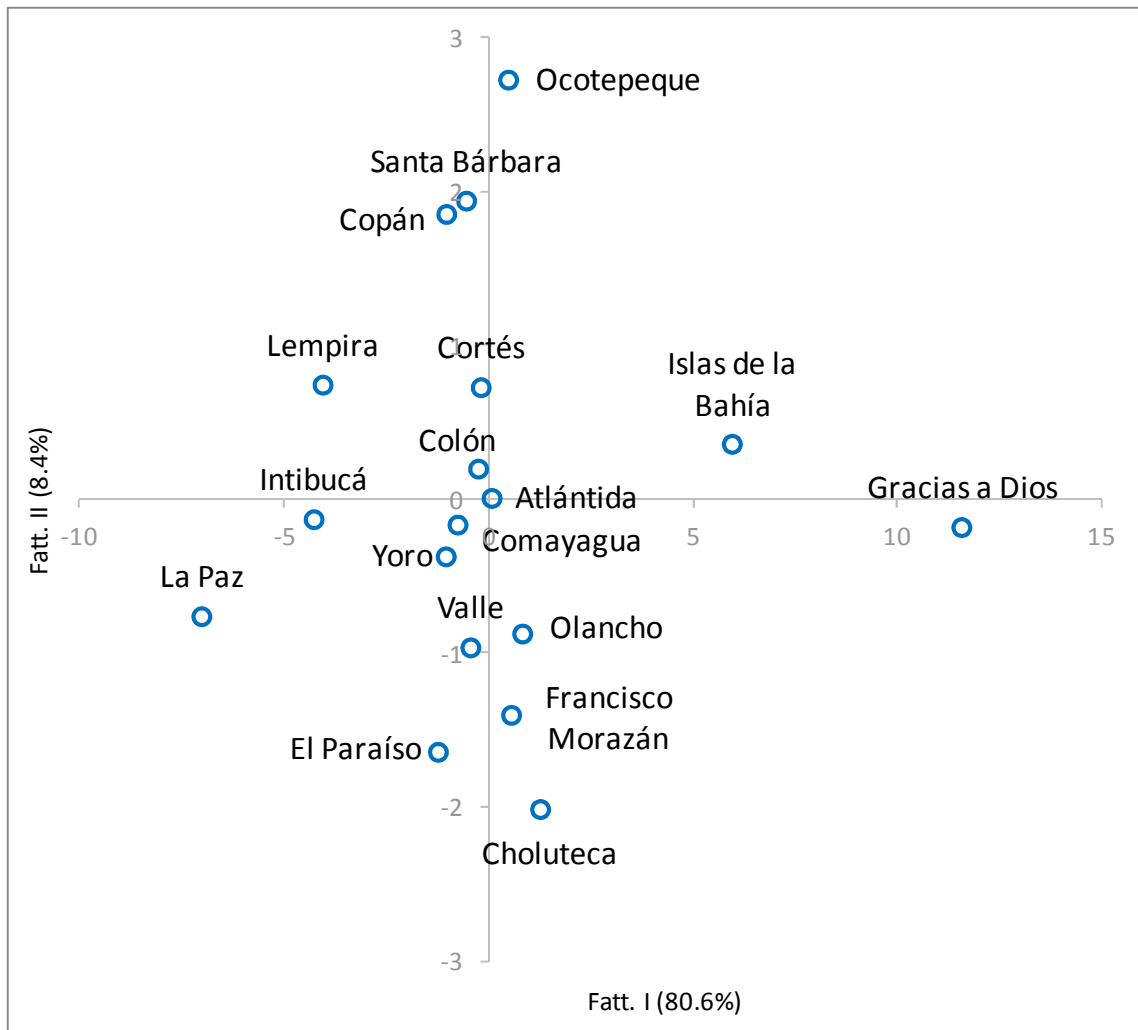
Supplementary Figure SF3. MDS projection of Lasker's distance matrix between the 18 departments. First two dimensions. (Stress= 10.75%). Note the outlier position of Gracías a Dios and Islas de la Bahía, and , in minor degree, of Olancho. All other departments tend to cluster together in the second quadrant of the projection. Paternal and maternal surnames pooled.



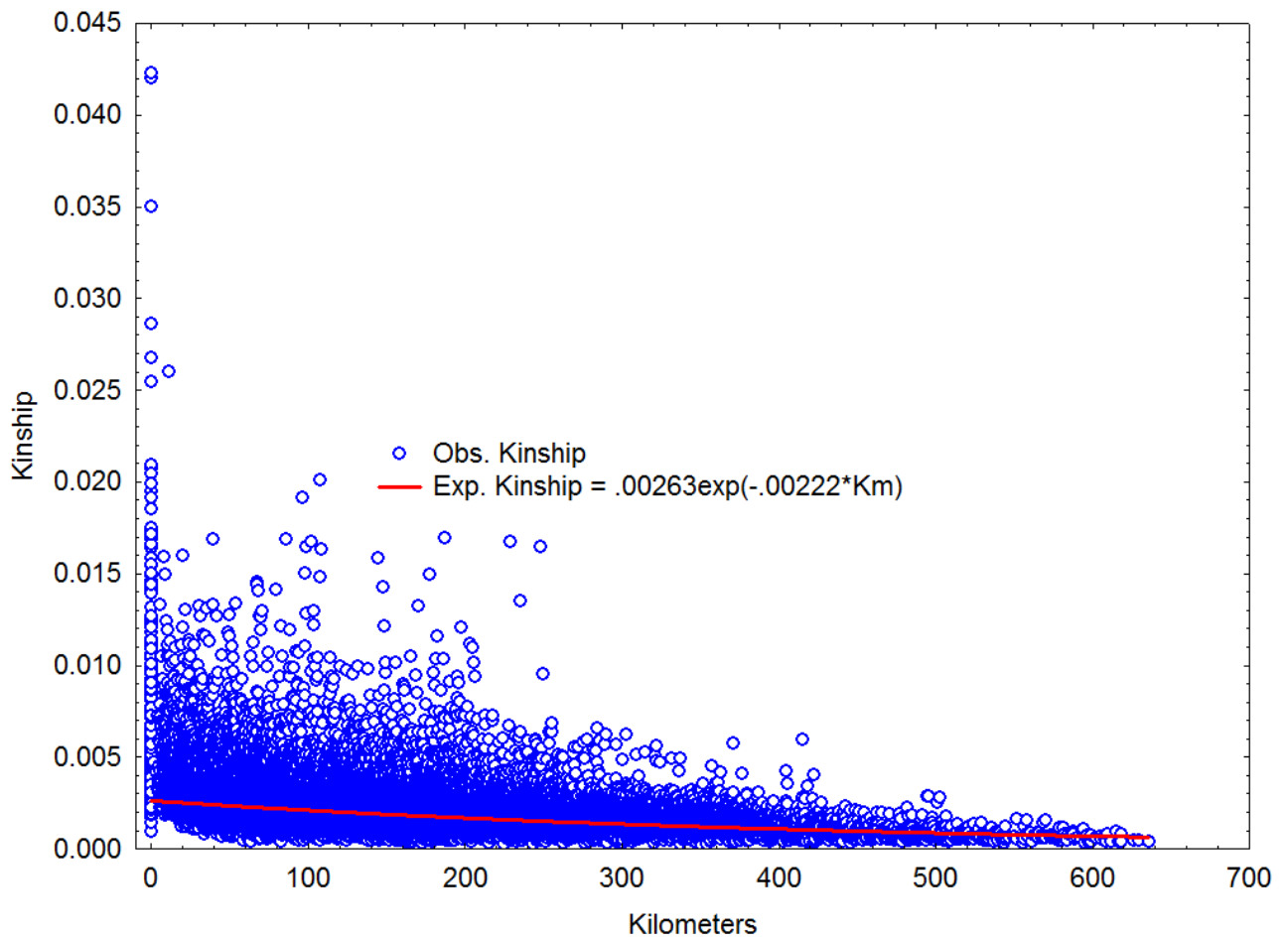
Supplementary Figure SF5. MDS projection of Lasker’s distance matrix between the 298 municipalities. First two dimensions (stress 28.6%). Note the position of the projection of the four municipalities of Gracias a Dios (9) and the four of Islas de la Bahía (11). The graph indicates a strong correlation between the position of the projected points and conterminous municipalities or municipalities belonging to the same department. Paternal and maternal surnames pooled.
 Legend: 1, Atlántida; 2, Colón; 3, Comayagua; 4, Copán; 5, Cortés; 6, Choluteca; 7, El Paraíso; 8, Francisco Morazán; 9, Gracias a Dios; 10, Intibucá; 11, Islas de la Bahía; 12, La Paz; 13, Lempira; 14, Ocotepeque; 15, Olancho; 16, Santa Bárbara; 17, Valle; 18, Yoro.



Supplementary Figure SF6. Dendrogram of 298 municipalities from the matrix of Lasker's distance, Complete Linkage.



Supplementary Figure SF7. PCA projection of Lasker's distance matrix between between the 18 departments. (I Fact: 80.6%; II Fact: 8.4%)



Supplementary Figure SF8. Variation of random observed and expected kinship over geographic distance between 298 municipalities in Honduras.