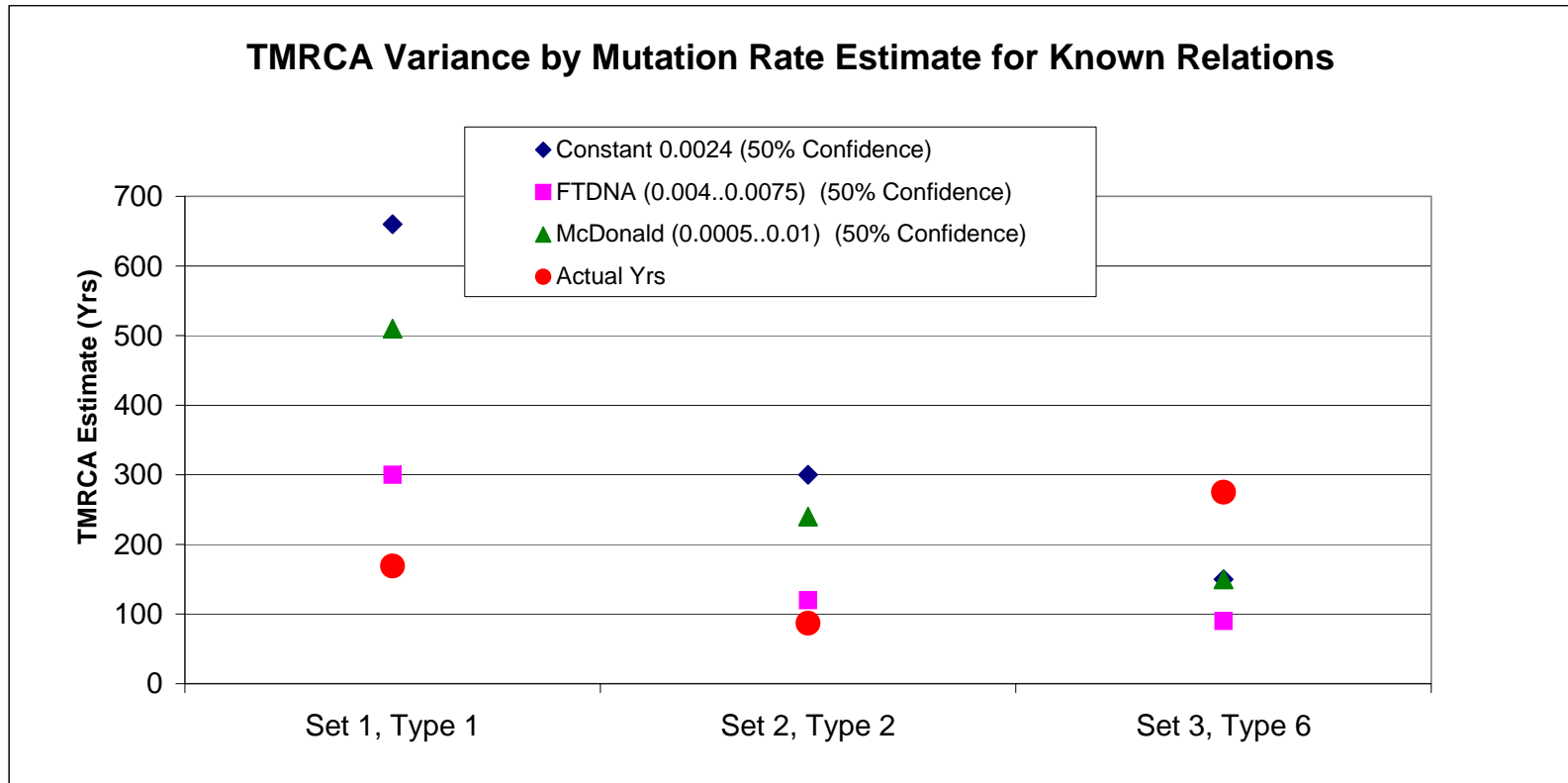


Taxon	Surname Group	Ancestral Parish	Ancestral County	Analysis Group	Ancestral Country	Dataset	Residence Country	Wt	393	390	19	391	385a	385b	426	388	439	389-I	392
								w/s	10	10	10	10	5	5	10	10	5	5	10
L-06	Larkin	Knigh	Tipperary	Type 1	Ireland	LarkinAncestry	United States		13	26	14	11	11	14	12	12	13	13	14
L-26	Larkin	Loughrea	Galway	Type 1	Ireland	LarkinAncestry	United States		13	25	14	11	11	15	12	12	12	13	14
L-34	Larkin	Lorrha	Tipperary	Type 1	Ireland	LarkinAncestry	Ireland		13	25	14	11	11	14	12	12	12	13	14
L-37	Larkin	Dorrha	Tipperary	Type 1	Ireland	LarkinAncestry	Ireland		13	25	14	12	11	14	12	12	12	13	14
L-38	Larkin	Aghnameadle	Tipperary	Type 1	Ireland	LarkinAncestry	Ireland		13	25	14	11	11	14	12	12	12	13	14
L-41	Larkin	Knigh	Tipperary	Type 1	Ireland	LarkinAncestry	United States		13	26	14	11	11	14	12	12	12	13	14
L-42	Larkin			Type 1		LarkinAncestry	United States		13	25	14	11	11	14	12	12	12	13	14
L-44	Larkin	Clonfert	Galway	Type 1	Ireland	LarkinAncestry	Ireland		13	25	14	11	11	14	12	12	12	13	14
L-51	Larkin	Clonfert	Galway	Type 1	Ireland	LarkinAncestry	Ireland		13	25	14	11	11	14	12	12	12	13	14
L-56	Larkin	Tynagh	Galway	Type 1	Ireland	LarkinAncestry	United States		13	25	14	11	11	14	12	12	12	13	14
L-64	Larkin	Knigh	Tipperary	Type 1	Ireland	LarkinAncestry	United States		13	26	14	11	11	14	12	12	12	13	14
L-14	Larkin	Killallaghtan	Galway	Type 2	Ireland	LarkinAncestry	Ireland		13	25	14	11	11	13	12	12	12	13	14
L-22	Larkin			Type 2	Ireland	LarkinAncestry	United States		13	25	14	11	11	13	12	12	12	13	14
L-36	Larkin	Lusmagh	Offaly	Type 2	Ireland	LarkinAncestry	Ireland		13	25	14	11	11	13	12	12	12	13	14
L-50	Larkin	Killimorologue	Galway	Type 2	Ireland	LarkinAncestry	Ireland		13	25	14	11	11	13	12	12	12	13	14
L-52	Larkin	Killallaghtan	Galway	Type 2	Ireland	LarkinAncestry	Ireland		13	25	14	11	11	13	12	12	12	13	14
L-53	Larkin	Ettagh	Offaly	Type 2	Ireland	LarkinAncestry	Ireland		13	25	14	11	11	13	12	12	12	13	14
L-23	Larkin		Galway	Type 3	Ireland	LarkinAncestry	United States		13	25	14	12	12	13	12	12	12	13	14
L-15	Larkin		Galway	Type 4	Ireland	LarkinAncestry	United States		13	25	14	10	13	13	12	12	12	14	14
L-05	Larkin			Type 5	British Isles	LarkinAncestry	United States		13	24	14	11	11	14	12	12	11	13	13
L-35	Larkin	Beckley	Sussex	Type 5	England	LarkinAncestry	United States		13	24	14	11	11	14	12	12	11	13	13
L-27	Larkin			Type 6	British Isles	LarkinAncestry	United States		13	24	14	11	11	14	12	12	12	13	13
L-28	Larkin			Type 6	British Isles	LarkinAncestry	United States		13	24	14	11	11	14	12	12	13	13	13
L-39	Larkin	Templetouhy	Tipperary	Type 7	Ireland	LarkinAncestry	Ireland		13	24	14	10	11	14	12	12	12	13	13
L-58	Larkin	Kilseily	Clare	Type 7	Ireland	LarkinAncestry	Ireland		13	24	14	11	11	14	12	12	13	13	13
L-40	Larkin	Fahy	Galway	Type 8	Ireland	LarkinAncestry	Ireland		13	24	15	10	11	14	12	12	12	12	13
L-31	Larkin	Killarney	Kerry	Type 9	Ireland	LarkinAncestry	United States		13	24	14	11	11	14	12	12	11	13	13
L-07	Larkin		Dublin	Type 10	Ireland	LarkinAncestry	United States		13	24	14	11	11	13	12	12	13	13	13
L-47	Larkin	Borris	Laois	Type 11	Ireland	LarkinAncestry	Ireland		13	24	14	11	11	14	12	12	11	13	13
L-59	Larkin	Owenduff	Wexford	Type 12	Ireland	LarkinAncestry	Ireland		13	25	14	11	11	14	12	12	11	13	13
L-32	Larkin			Type 13	Ireland	LarkinAncestry	United States		13	23	14	10	11	15	12	12	12	13	13
L-60	Larkin	Kilsheelan	South Tipperary	Type 14	Ireland	LarkinAncestry	Ireland		13	21	14	11	11	14	12	12	12	14	13

Taxon	389-II	458	459a	459b	455	454	447	437	448	449	464a	464b	464c	464d	460	GataH 4	YCA2 a	YCA2 b	456	607	576	570	CDYa	CDYb	442	438	389D
	0	5	7	7	10	10	10	10	10	5	7	7	7	7	10	10	7	7	5	10	5	5	10	10	10	10	5
L-06	29	17	9	10	11	11	25	15	18	28	15	15	16	17	11	11	19	23	17	16	17	17	37	38	12	12	16
L-26	29	17	9	10	11	11	25	15	18	27	15	15	16	17	11	12	19	23	17	16	17	17	37	38	12	12	16
L-34	29	17	9	10	11	11	25	15	18	27	15	15	16	17	10	11	19	23	17	16	17	17	36	39	13	12	16
L-37	29	18	9	10	11	11	25	15	18	27	15	15	16	17	11	11	19	23	16	16	17	17	37	38	12	12	16
L-38	29	17	9	10	11	11	25	15	18	27	15	15	16	17	11	11	19	23	18	16	18	17	36	38	12	12	16
L-41	29	17	9	10	11	11	25	15	18	28	15	15	16	17	11	11	19	23	17	16	17	17	37	38	12	12	16
L-42	29	17	9	10	11	11	25	15	18	27	15	15	16	17	11	11	19	23	16	16	17	17	36	39	12	12	16
L-44	29	17	9	10	11	11	25	15	18	27	15	15	16	17	11	11	19	23	17	16	17	17	37	38	12	12	16
L-51	29	17	9	10	11	11	25	15	18	27	15	15	16	17	11	11	19	23	17	16	17	17	37	38	12	12	16
L-56	29	17	9	10	11	11	25	15	18	27	15	15	16	17	11	12	19	23	17	16	17	17	37	38	12	12	16
L-64	29	17	9	10	11	11	25	15	18	27	15	15	16	17	11	11	19	23	17	16	17	17	38	38	12	12	16
L-14	30	18	9	10	11	11	25	15	18	29	15	16	16	17	12	10	19	23	15	15	18	18	38	38	12	12	17
L-22	29	18	9	10	11	11	25	15	18	30	15	16	16	17	11	10	19	23	15	16	18	16	37	38	12	12	16
L-36	29	18	9	10	11	11	25	15	18	29	15	15	16	17	12	10	19	23	15	16	18	17	38	38	12	12	16
L-50	30	18	9	10	11	11	25	15	18	29	15	16	16	17	11	10	19	23	15	15	18	17	38	38	12	12	17
L-52	30	18	9	10	11	11	25	15	18	29	15	16	16	17	12	10	19	23	15	15	18	17	38	38	12	12	17
L-53	29	18	9	10	11	11	25	15	18	29	15	15	16	16	12	11	19	23	16	16	18	16	38	38	12	12	16
L-23	29	18	9	10	11	11	25	15	18	30	15	16	16	17	12	11	19	23	18	16	17	17	37	38	12	12	16
L-15	30	16	9	11	11	11	25	15	18	30	15	16	16	17	11	11	19	23	17	16	18	17	36	38	12	12	16
L-05	29	17	9	10	11	11	24	14	20	28	15	15	16	17	11	10	19	23	17	15	17	17	37	38	13	12	16
L-35	29	17	9	10	11	11	24	14	20	28	15	15	16	17	11	10	19	23	17	15	17	17	37	38	13	12	16
L-27	29	15	9	10	11	11	25	14	18	30	15	15	17	17	10	10	19	23	16	15	18	16	36	38	12	12	16
L-28	29	15	9	10	11	11	25	14	18	30	15	15	17	17	10	10	19	23	16	15	18	16	36	38	12	12	16
L-39	29	18	9	10	11	11	25	15	19	31	15	15	17	17	12	11	19	23	15	15	19	17	36	39	12	12	16
L-58	29	19	9	10	11	11	25	15	19	32	15	15	17	17	12	11	19	23	15	15	19	17	36	39	12	12	16
L-40	29	17	9	10	11	11	26	15	19	29	14	15	16	18	11	10	19	24	16	15	20	16	36	40	12	12	17
L-31	29	17	8	9	11	11	25	15	19	28	13	14	15	17	11	11	19	23	16	16	18	17	37	39	12	12	16
L-07	29	18	9	9	11	11	25	15	19	29	15	15	17	18	11	10	19	23	15	15	18	18	37	39	12	12	16
L-47	29	18	8	9	11	11	23	15	19	29	13	13	13	17	11	11	19	23	15	15	18	18	37	39	12	12	16
L-59	30	16	9	10	11	11	25	15	19	29	15	15	17	17	11	11	19	23	16	15	20	19	38	38	12	12	17
L-32	29	17	9	10	11	11	25	15	20	28	15	15	17	18	11	11	19	22	15	14	16	17	36	39	11	12	16
L-60	30	17	8	10	11	11	25	16	19	30	15	15	16	17	12	11	22	23	17	14	19	17	38	40	12	12	16

Observed Mutational Rates and TMRCA								TMCRA - 50% Probability				Actual Yrs
Y-STR Type	Relationships	MRCA (Generations)	Y-STR Markers Tested	Nbr Observed Y-STR Mutations	Transmission Events	Total Mutation Opportunities	Observed Mutation Rate	Constant 0.0024 (50% Confidence)	FTDNA (0.004..0.0075) (50% Confidence)	McDonald (0.0005..0.01) (50% Confidence)	Observed Constant Rate (50% Confidence)	
Set 1, Type 1	L-64 and L-41 are 3rd cousins, L-06 and L-41 are 2nd cousins once removed.	5	37	2	12	444	0.00450	660	300	510	360	169
Set 2, Type 2	L-14 and L-52 are 1st cousins	2	37	1	4	148	0.00676	300	120	240	120	87
Set 3, Type 6	L-27 and L-28 are 7th cousins	9	67	1	18	1,206	0.00083	150	90	150	450	275

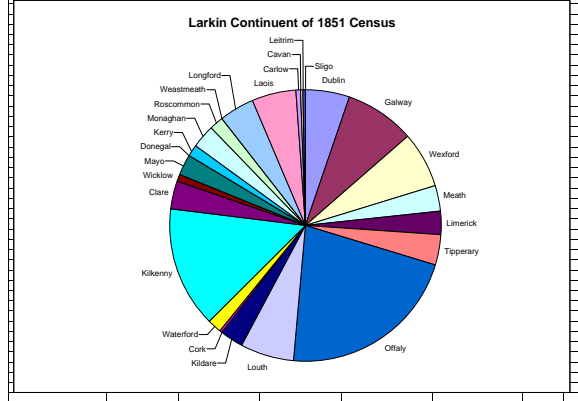
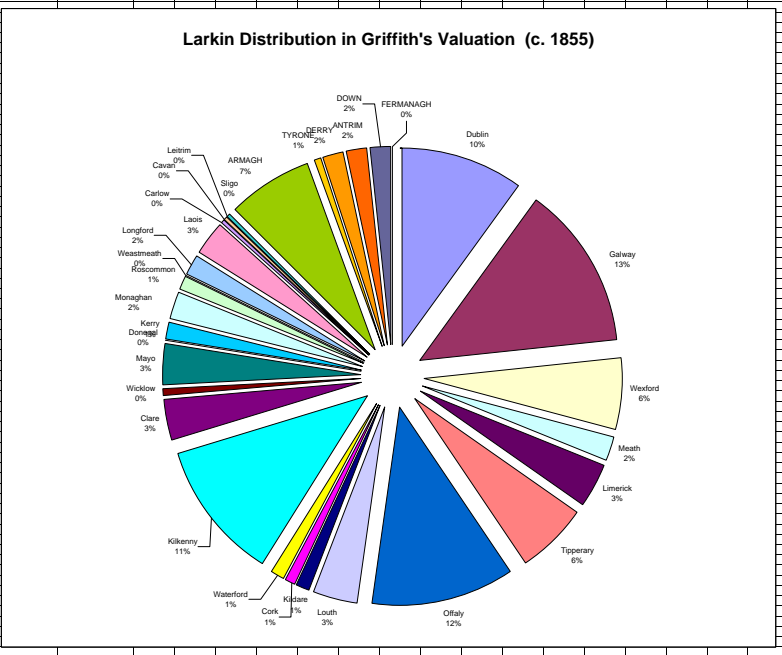
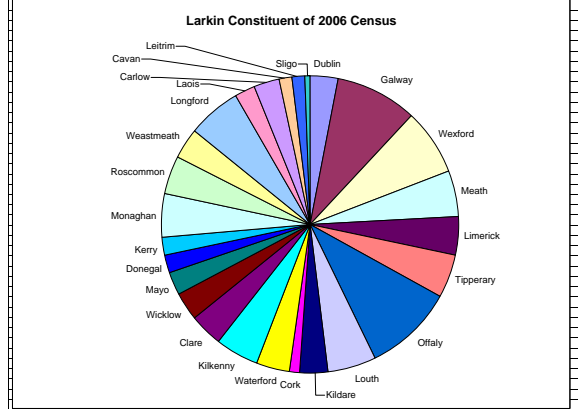
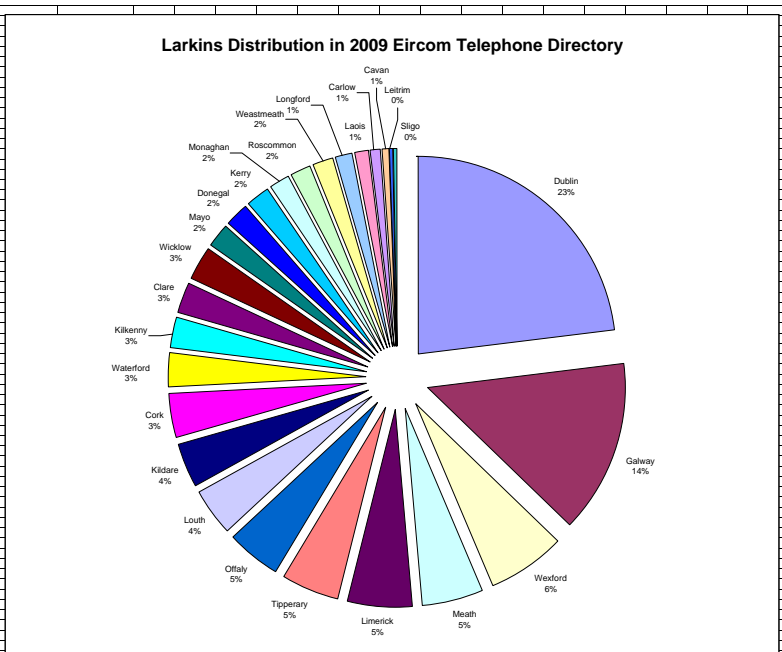


Dataset Summary

11/8/2010

Count of Taxon	Dataset					
Surname Group	LarkinAncestry	HyManySurname	McEwanStr19Set	McEwanReference	Reference	Grand Total
Bonner			1			1
Bryson			1			1
Burns			2			2
Cannon		6	1			7
Clarkson			1			1
Coffey		14				14
Conroy			1			1
Damman			1			1
Davidson			1			1
Donohoe			1			1
Dooley		2				2
Dunn			1			1
Egan		40				40
Ewing			1			1
Ferguson			2			2
Flanagan			1			1
Gallagher			1			1
Galyean			1			1
Glenn			1			1
Gormley			1			1
Hunter			1			1
Kelly		11	1			12
Larkin	31					32
Logan			1			1
MacUaraig			1			1
Madden		2				2
Martin			1			1
McCarty	1					1
McGee			1			1
McGill			1			1
McHargue			1			1
Megonnigil			3			3
Milligan			1			1
Mooney		1				1
Moore			1			1
Mullins			2			2
O'Hara			1			1
O'Shaughnessy			1			1
Sinor			1			1
Slavens			1			1
Tracy		4				4
Vanover			1			1
Wilson			1			1
(blank)				49	5	54
Grand Total	32	80	40	49	5	206

Larkin Records Found by County						
Republic of Ireland 2009	2009 Eircom	2006 Population	Pct 2006	Griffith's Valuation	1851 Population	Pct 1851
Dublin	176	1,871,776	0.018%	123	405,147	0.030%
Galway	108	231,670	0.046%	161	321,684	0.050%
Westford	48	131,148	0.036%	70	180,158	0.039%
Meath	40	162,811	0.025%	26	140,748	0.018%
Limerick	38	184,025	0.021%	42	262,122	0.016%
Tipperary	38	149,244	0.026%	72	331,567	0.022%
Offaly	35	70,868	0.049%	143	110,776	0.129%
Louth	30	111,267	0.027%	41	107,962	0.038%
Kildare	27	186,530	0.014%	15	90,723	0.016%
Cork	26	481,295	0.005%	8	640,308	0.001%
Waterford	21	107,817	0.019%	18	164,025	0.010%
Kilkenny	20	87,528	0.023%	137	158,743	0.086%
Clare	20	110,950	0.018%	42	212,440	0.020%
Wicklow	20	126,134	0.016%	4	89,979	0.004%
Mayo	15	123,830	0.012%	42	274,495	0.015%
Donegal	15	147,264	0.010%	1	250,158	0.000%
Kerry	14	139,833	0.010%	16	230,254	0.007%
Monaghan	13	55,997	0.023%	25	141,823	0.018%
Roscommon	13	80,708	0.022%	15	174,246	0.009%
Weastmeath	13	79,240	0.017%	-	113,407	0.000%
Longford	10	34,391	0.029%	21	82,348	0.026%
Laois	8	67,029	0.012%	34	111,664	0.030%
Carlow	7	50,248	0.014%	2	80,979	0.003%
Cavan	4	84,003	0.005%	4	174,071	0.002%
Lanin	2	28,950	0.007%	1	11,899	0.001%
Sligo	2	60,894	0.003%	1	128,115	0.001%
ARMAGH				84		
TYRONE				7		
DERRY				22		
ANTRIM				20		
DOWN				13		
FERMANAGH				1		
Belfast				-		
Republic of Ireland	759	4,239,848	0.018%	1,062	5,111,557	0.021%
Northern Ireland				62		
Ireland Total				1,124		



ID	Time to Most Recent Common Ancestor (Years)																
	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0	2	3	3	3	4	4	4	5	5	6	1	2	3	5	5	5
	6	6	4	7	8	1	2	4	1	6	4	4	2	6	0	2	3
	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y
	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e
	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
L-06 Type 1	-	480	690	570	570	150	570	300	300	390	300	1470	990	990	1230	1350	1110
L-26 Type 1	480	-	570	480	480	390	480	210	210	150	390	1230	780	780	990	1110	990
L-34 Type 1	690	570	-	690	480	570	300	390	390	480	480	1470	1230	990	1350	1350	1110
L-37 Type 1	570	480	690	-	480	480	390	300	300	390	480	1230	780	780	990	1110	780
L-38 Type 1	570	480	480	480	-	480	300	300	300	390	390	1110	780	690	900	990	780
L-41 Type 1	150	390	570	480	480	-	480	210	210	300	210	1350	900	900	1110	1230	990
L-42 Type 1	570	480	300	390	300	480	-	300	300	390	390	1350	990	900	1110	1230	900
L-44 Type 1	300	210	390	300	300	210	300	-	60	150	210	1230	780	780	990	1110	900
L-51 Type 1	300	210	390	300	300	210	300	60	-	150	210	1230	780	780	990	1110	900
L-56 Type 1	390	150	480	390	390	300	390	150	150	-	300	1230	780	780	990	1110	990
L-64 Type 1	300	390	480	480	390	210	390	210	210	300	-	1230	990	780	990	1110	900
L-14 Type 2	1470	1230	1470	1230	1110	1350	1350	1230	1230	1230	1230	-	570	390	210	150	570
L-22 Type 2	990	780	1230	780	780	900	990	780	780	780	990	570	-	480	480	570	570
L-36 Type 2	990	780	990	780	690	900	900	780	780	780	780	390	480	-	390	300	390
L-50 Type 2	1230	990	1350	990	900	1110	1110	990	990	990	990	210	480	390	-	150	690
L-52 Type 2	1350	1110	1350	1110	990	1230	1230	1110	1110	1110	1110	150	570	300	150	-	570
L-53 Type 2	1110	990	1110	780	780	990	900	900	900	990	900	570	570	390	690	570	-
0-270 Years	300-570 Years	600-870 Years	900-1170 Years														
- Infinite allele mutation model is used																	
- Average mutation rate: 0.005068																	
- Probability is 50% that the TMRCAs is no longer than indicated																	
- Average generation: 30 years																	
Time to Most Recent Common Ancestor (Years)																	
ID	L	L															
	-	-															
	2	2															
	7	8															
L-27 Type 6	-	450															
L-28 Type 6	450	-															
0-270 Years	300-570 Years	600-870 Years	900-1170 Years														
- Infinite allele mutation model is used																	
- Average mutation rate: 0.00083																	
- Probability is 50% that the TMRCAs is no longer than indicated																	
- Average generation: 30 years																	

ID	Time to Most Recent Common Ancestor (Years)																																
	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L					
L-06 Type 1	-	450	630	540	540	120	540	300	300	360	300	1380	1770	1260	1380	1380	1380	1380	930	930	1140	1260	1050	930	1140	840	840	1380	1260	1380	1140	2220	1050
L-26 Type 1	450	-	540	450	450	360	450	210	210	120	360	1500	2070	1380	1380	1500	1140	720	720	930	1050	930	840	1050	1050	1050	1380	1500	1500	1500	2220	1380	
L-34 Type 1	630	540	-	630	450	540	300	360	360	450	450	1770	2070	1500	1260	1380	1380	1140	930	1260	1260	1050	1050	1140	1140	1140	1260	1380	1140	1140	2220	1380	
L-37 Type 1	540	450	630	-	450	450	360	300	300	360	450	1500	1770	1140	1500	1650	1140	720	720	930	1050	720	540	1050	1260	1260	1260	1380	1140	1380	2070	1260	
L-38 Type 1	540	450	450	450	-	450	300	300	300	360	360	1500	1770	1140	1260	1380	1050	720	630	840	930	720	840	840	1260	1260	1050	1140	1140	1140	1920	1140	
L-41 Type 1	120	360	540	450	450	-	450	210	210	300	210	1500	1770	1260	1260	1260	1260	840	840	1050	1140	930	840	1050	840	840	1260	1380	1260	1260	2070	1050	
L-42 Type 1	540	450	300	360	300	450	-	300	300	360	360	1500	1770	1140	1140	1380	1260	1140	840	1050	1140	840	930	1050	1260	1260	1140	1260	1050	1050	1770	1050	
L-44 Type 1	300	210	360	300	300	210	300	-	60	120	210	1500	1770	1140	1380	1260	1140	720	720	930	1050	840	720	930	1260	1260	1380	1260	1260	2070	1140		
L-51 Type 1	300	210	360	300	300	210	300	60	-	120	210	1500	1770	1140	1380	1260	1140	720	720	930	1050	840	720	930	930	930	1260	1380	1260	1260	2070	1140	
L-56 Type 1	360	120	450	360	360	300	360	120	120	-	300	1500	1920	1260	1500	1380	1140	720	720	930	1050	930	840	1050	930	930	1260	1380	1380	1380	2070	1260	
L-64 Type 1	300	360	450	450	360	210	360	210	210	300	-	1650	1920	1140	1380	1140	1140	930	720	930	1050	840	930	1050	1050	1050	1260	1380	1260	1260	2070	1260	
L-07 Type 10	1380	1500	1770	1500	1500	1500	1500	1500	1500	1500	1650	-	720	1260	1500	2070	1050	1050	1050	1050	1140	1380	1770	1920	1380	1380	1260	1140	1050	930	1770	1050	
L-47 Type 11	1770	2070	2070	1770	1770	1770	1770	1770	1770	1920	1920	720	-	1380	2070	2070	1650	1650	1770	1650	1770	1920	2220	2400	1650	1650	1770	1770	1260	1260	2220	720	
L-59 Type 12	1260	1380	1500	1140	1140	1260	1140	1140	1140	1260	1140	1260	1380	-	1770	1650	1140	1500	1260	1050	1140	1140	1770	1770	1380	1380	1140	1140	1140	1050	1500	1260	
L-32 Type 13	1380	1380	1260	1500	1260	1260	1140	1380	1380	1500	1380	1500	2070	1770	-	1770	2070	1770	1260	1770	1920	1920	1920	1770	1500	1500	1770	1920	1050	1260	1920	1500	
L-60 Type 14	1380	1500	1380	1650	1380	1260	1380	1260	1260	1380	1140	2070	2070	1650	1770	-	1920	1920	1500	1920	1770	1650	1770	1770	1650	1650	1650	1770	1260	1260	2220	1500	
L-14 Type 2	1380	1140	1380	1140	1050	1260	1260	1140	1140	1140	1140	1050	1650	1140	2070	1920	-	540	360	210	120	540	930	1260	1770	1770	1260	1380	1380	1500	1920	2070	
L-22 Type 2	930	720	1140	720	720	840	930	720	720	720	930	1050	1650	1500	1770	1920	540	-	450	450	540	540	630	840	1500	1500	1050	1140	1500	1650	2070	1500	
L-36 Type 2	930	720	930	720	630	840	840	720	720	720	720	1050	1770	1260	1650	1500	360	450	-	360	300	360	720	1050	1500	1500	1140	1260	1140	1260	2220	1650	
L-50 Type 2	1140	930	1260	930	840	1050	1050	930	930	930	930	1050	1650	1050	1770	1920	210	450	360	-	120	630	930	1050	1500	1500	1260	1380	1380	1500	1770	1770	
L-52 Type 2	1260	1050	1260	1050	930	1140	1140	1050	1050	1050	1050	1140	1770	1140	1920	1770	120	540	300	120	-	540	840	1140	1650	1650	1260	1380	1260	1380	1920	1920	
L-53 Type 2	1050	930	1050	720	720	930	840	840	840	930	840	1380	1920	1140	1920	1650	540	540	360	630	540	-	720	1050	1920	1920	1140	1260	1380	1500	2070	1650	
L-23 Type 3	930	840	1050	540	840	840	930	720	720	840	930	1770	2220	1770	1920	1770	930	630	720	930	840	720	-	840	1770	1770	1650	1770	1380	1650	2790	1770	
L-15 Type 4	1140	1050	1140	1050	840	1050	1050	930	930	1050	1050	1920	2400	1770	1770	1770	1260	840	1050	1050	1140	1050	840	-	2070	2070	1650	1770	1650	1920	2400	1770	
L-05 Type 5	840	1050	1140	1260	1260	840	1260	930	930	930	1050	1380	1650	1380	1500	1650	1770	1500	1500	1500	1650	1920	1770	2070	-	60	1140	1140	1500	1380	1920	1260	
L-35 Type 5	840	1050	1140	1260	1260	840	1260	930	930	930	1050	1380	1650	1380	1500	1650	1770	1500	1500	1500	1650	1920	1770	2070	60	-	1140	1140	1500	1380	1920	1260	
L-27 Type 6	1380	1380	1260	1260	1050	1260	1140	1260	1260	1260	1260	1260	1260	1770	1140	1770	1650	1260	1050	1140	1260	1260	1140	1650	1650	1140	1140	-	120	1050	1050	1500	
L-28 Type 6	1260	1500	1380	1380	1140	1380	1260	1380	1380	1380	1380	1140	1770	1140	1920	1770	1380	1140	1260	1380	1380	1260	1770	1770	1140	1140	120	-	1140	930	1770	1500	
L-39 Type 7	1380	1500	1140	1140	1140	1260	1050	1260	1260	1380	1260	1050	1260	1140	1050	1260	1380	1500	1140	1380	1260	1380	1380	1650	1500	1500	1500	1050	1140	-	360	1650	1260
L-58 Type 7	1140	1500	1140	1380	1140	1260	1050	1260	1260	1380	1260	930	1260	1050	1260	1260	1500	1650	1260	1500	1380	1500	1650	1920	1380	1380	1050	930	360	-	1920	1140	
L-40 Type 8	2220	2220	2220	2070	1920	2070	1770	2070	2070	2070	2070	1770	2220	1500	1920	2220	1920	2070	2220	1770	1920	2070	2790	2400	1920	1920	1650	1770	1650	1920	-	1920	
L-31 Type 9	1050	1380	1380	1260	1140	1050	1050	1140	1140	1260	1260	1050	720	1260	1500	1500	2070	1500	1650	1770	1920	1650	1770	1770	1260	1260	1500	1500	1260	1140	1920	-	
0-270 Years	300-570 Years	600-870 Years	900-1170 Years																														
- Infinite allele mutation model is used																																	
- Average mutation rate varies: 0.0054 to 0.0054, from FTDNA derived rates																																	
- Probability is 50% that the TMRCA is no longer than indicated																																	
- Average generation: 30 years																																	

McGhee Mutation Rates

11/8/2010

Mutation Rate Set	D Y S 3 9 3	D Y S 3 9 0	D Y S 1 9 / 3 9 4	D Y S 3 9 1	D Y S 3 8 5 a	D Y S 3 8 5 b	D Y S 4 2 6	D Y S 3 8 8	D Y S 4 3 8 9	D Y S 3 8 9 - 1	D Y S 3 9 2	D Y S 3 8 9 - 2
FTDNA Derived	0.00399	0.00399	0.00399	0.00399	0.00399	0.00399	0.00399	0.00399	0.00399	0.00399	0.00399	0.00399
McDonald Derived	0.000905204	0.003263219	0.001452943	0.001453	0.002969927	0.001796941	0.002810536	0.00025561	0.00037561	0.004245652	0.002049329	0.001123324

	D Y S 4 5 8	D Y S 4 5 9 a	D Y S 4 5 9 b	D Y S 4 5 5	D Y S 4 5 4	D Y S 4 4 7	D Y S 4 3 7	D Y S 4 4 8	D Y S 4 4 9	D Y S 4 6 4 a	D Y S 4 6 4 b	D Y S 4 6 4 c	D Y S 4 6 4 d
FTDNA Derived	0.00399	0.00481	0.00481	0.00481	0.00481	0.00481	0.00481	0.00481	0.00481	0.00481	0.00481	0.00481	0.00481
McDonald Derived	0.002411602	0.005288899	0.000845716	0.001401	0.000276189	0.000143146	0.003265811	0.00144748	0.00189949	0.006024892	0.002561478	0.002973977	0.003795204

	D Y S 4 6 0	G A A H 4	Y C A I a	Y C A I b	D Y S 4 5 6	D Y S 6 0 7	D Y S 5 7 6	D Y S 5 7 0	C D Y a	C D Y b	D Y S 4 4 2	D Y S 4 3 8
FTDNA Derived	0.00481	0.00481	0.00481	0.00481	0.00748	0.00748	0.00748	0.00748	0.00748	0.00748	0.00748	0.00748
McDonald Derived	0.003502946	0.003503	0.003503	0.003503	0.003045751	0.002960012	0.000759308	0.00168584	0.00526851	0.00558426	0.007799604	0.006111277

	D Y S 5 3 1	D Y S 5 7 8	D Y S 3 9 5 S 1 a	D Y S 3 9 5 S 1 b	D Y S 5 9 0	D Y S 5 3 7	D Y S 6 4 1	D Y S 4 7 2	D Y S 4 0 6 S 1	D Y S 5 1 1	D Y S 4 2 5	D Y S 4 1 3 a
FTDNA Derived	0.00748	0.00748	0.00748	0.00748	0	0	0	0	0	0	0	0
McDonald Derived	0.010083861	0.010276061	0.00301618	0.000859	0	0	0	0	0	0	0	0

	D Y S 4 1 3 b	D Y S 5 5 7	D Y S 5 9 4	D Y S 4 3 6	D Y S 4 9 0	D Y S 5 3 4	D Y S 4 5 4	D Y S 4 4 4	D Y S 4 8 1	D Y S 5 2 0	D Y S 4 4 6	D Y S 6 1 7	D Y S 5 6 8	D Y S 4 8 7	D Y S 5 7 2	D Y S 6 4 0	D Y S 4 9 2	D Y S 5 6 5	
FTDNA Derived	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
McDonald Derived	0	0	0.002	0	0	0	0	0	0	0	0	0.0005	0	0	0.0008	0	0	0	0



Randomized Larkin Results prior to Ancestral Parish Sampling.									
Lists shows Larkin participants collected fairly randomly prior to the Ancestral Parish Sampling effort and other recruiting activity.									
Aug-09									
ID	HaploType	Group	Notes	All Participants with Larkin Surname				Random	
R1b-M222				Group	R1b SubType	12/31/2009	8/2/2009		
L-22	R1b1b2	Type 2		Type 1	M222	12	23%	4	13%
L-14	R1b1b2	Type 2		Type 2	M222	6	12%	2	7%
L-10	R1b1b2	Type 4		Type 3	M222	1	2%	1	3%
L-23	R1b1b2	Type 3		Type 4	M222	5	10%	5	17%
L-17	R1b	Type 4		Type 5	AMH	3	6%	3	10%
L-18	R1b	Type 4		Type 6	AMH	1	2%	1	3%
				Type 7	AMH	2	4%	0	0%
L-15	R1b1	Type 4		Type 13	AMH	1	2%	1	3%
L-19	R1b	Type 4		Type 9	Irish Type III	1	2%	1	3%
L-41	R1b1b2a1b5		Type 1 but removed as sampling bias, known relative of L-06	Type 10	Irish Type III	1	2%	1	3%
L-06	R1b1b2a1b5	Type 1		Type 11	Irish Type III	1	2%	0	0%
				Type 12	Irish Type III	1	2%	0	0%
L-42	R1b1b2	Type 1		Type 8	R1b Other	2	4%	1	3%
L-45	R1b	Type 1		Type 14	R1b Other	1	2%	0	0%
				Z		2	4%	2	7%
L-26	R1b1b2	Type 1		Continental		2	4%	2	7%
				I		2	4%	1	3%
<b>R1b1b2 - Atlantic Modal Haplotype</b>				R1a		2	4%	2	7%
-	R1b1b2			E		1	2%	1	3%
L-27	R1b1b2a1b	Type 6		NPE		5	10%	2	7%
L-28	R1b1b2		Type 6 but does not have Larkin surname.						
L-46	R1b		Does not have Larkin surname	Total		52		30	
L-08	R1b	Type 5							
L-32	R1b1b2	Type 13		Type 1 & 2 Combined		18	35%	6	20%
L-05	R1b1b2	Type 5							
L-35	R1b1b2	Type 5							
L-31	R1b1b2	Type 9							
L-07	R1b1b2	Type 10							
L-04	R1b1b2	Continental							
L-01	R1b1b2	Z							
L-29	R1b	Z							
L-03	R1b1b2	Continental							
<b>Other R1b</b>									
L-11	R1b1b2	Type 8							
<b>R1a</b>									
L-09	R1a	R1a							
L-30	R1a1	R1a							
<b>I</b>									
L-13	I2b1	I							
<b>E</b>									
L-20	E1b1a	E							
<b>NPE</b>									
L-16	I1b	NPE							
L-25	I1	NPE							