

Statistical Work on Heiresses

Publication/Creation

1897

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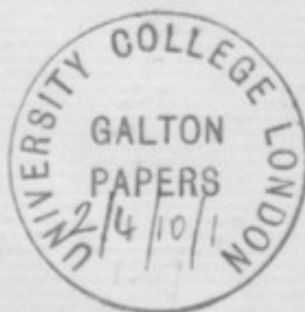


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f.1r

CHURCHFIELD,
EDGBASTON,
BIRMINGHAM.

July 25th 1917



Dear Mr Galton:

I have gone carefully into your Burke & the copy book, which are returned herewith, and, so far as I can make out, the following would apparently be the result of an attempt to reduce your 6.20 per fawn to more moderate diminutions. There has not been time to attach any of the other sides to the problem.

CHURCHFIELD
EDGASTON
BIRMINGHAM

(i) The note on page 7 of
copy book "I Exclude
issueless cases" accounts
for the "2 steriles" in your
statistics, which must of
course have slipped in by
accident. The steriles
should not of course have
been included in the heirs
marriages after this, in fact
they necessarily vitiate the
comparison, as there are
more steriles than you have
noted in the ordinary marriages.

§. 24

(ii) I am inclined to differ from the limits you attach on page 7. e.g. I always have omitted second & third marr. whether of husband or wife, as ~~they~~ in my opinion, the generative systems are hardly comparable in the strict sense of the word with systems of which you have the whole history as it were of their function.

(iii) I cannot see why for instance you include - as I believe you have - the first marr. of Lord Aberdeen, which was sterile. The lady lived for 7 years without issue, & surely she had as much right to be included as the 2nd marr.?

(iv) Do you "include all but
issue of the last peer or his
brothers" (p.?) I gather that
there are many notable
exceptions, but I leave subject
to your correction.

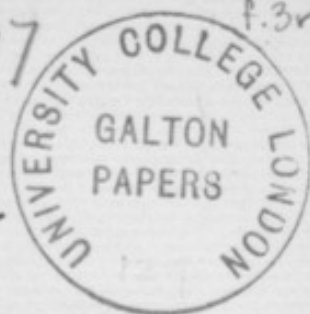
(v) The only way, which would
satisfy me with such statistics
would be to open the book
at chance, & then read line by
line every word & extract
all marr. which were not
included by ~~and~~ the limits
first agreed upon. Unless this
is done our eye is necessarily
drawn to the fertile marr.
because of the printing of the
children as an inset to the
general letter press.



CHURCHFIELD,
EDGBASTON,
BIRMINGHAM.

July 25/97

2



(vi) I very much wish
you would have the goodness
to extract 50 more. (at
least) on these lines & see
what the aver. per fam.
came out at. I have
a strong impression - very
strong - that it would be
much less than your
figures. I do so wish you
would try this, as I am
doubtful if in all cases I
have read your data correctly.

I met Weldon at Oxford

CHURCHFIELD
EDCROFT
BIRMINGHAM

Since you have been
abroad, & chatting on
heredity matters, he said ^{of mine}
he should like to see this paper,
which I sent him & also
on his recommendation

Karl Pearson: The result
so far as I can gather is
from both that there is no obvious
slip in it, but that it ~~only~~
~~remains~~ would be improved
by a little further development
by getting out the probable
errors" for the different classes

f. 4r

observed. This however must
await my return from
Switzerland & Austria in the
first or second week in Sept.
as I start early tomorrow
morning the 26th July.

Fearon has been at work
on this same subject, but
he will not tell me any-
thing about ~~it~~ what his data
even are, for he evidently
has a law of sorts "up his
sleeve" as children say.

Nonetheless, I very
much hope you will

with you f. 4v

Let me thresh out ^{the} data I have collected until something definite is discovered.

I hope you will agree that it is worth settling, there are few things more disagreeable to me than to leave something only half done.

Yours truly

J. Howard Collins,





Heineken

Abercorn 2 ^d Earl	3 sons eldest mar dsh - 2 other unmar	h	only son	-
	heir apparent west & contin			
Aberdeen 2 ^d Earl	1 mar only son - only son	only son	heir	-
	2 — 1 m			
	3 — 3 m			
Abergavenny 2 ^d Earl	3 sons 1 d unmar	only child		-
	2 mar dsh			
	3 — 3 ^d Earl			
Abingdon 2 ^d Earl	1 — no issue	heir	heir	-
	2. — 1 son d unmar		fallen 3 sons & 2 heirs	
Aylesbury 2 ^d Earl	2 sons only planning	mar	-	x
Balsall 2 ^d Earl	(not stated)	mar	-	x
Barkly 2 ^d Earl	1 son 4 sons	mar	-	x
Albemarle 2 ^d Earl	8 sons 7 sons	mar	-	x
Albion 2 ^d Earl	dsh h 2 heirs	h 2 heirs		-
	3 ^d Earl brother 3 sons	x mar	co-heir	
	4 th Earl brother 1 son 2 sons	h heirs		
Amherst 1 st Baron	1 son 1 son no son	co-heir	-	-
	nephew (uncle) 2 ^d Baron by legit			
	is inherited from his uncle. natural			
Angelsey 2 ^d Earl	unmar unmar	unmar	co-heir	
Annesley 2 ^d Earl	3 sons 2 sons h	heir	heir	-
Antrobus 2 ^d Earl	no issue brother succeeded	heir	-	-
Arbuthnot 2 ^d Visct	3 sons 1 plan	mar	heir	-
Argyll 2 ^d Duke	5 daughters	x mar	mar	x
Arran 2 ^d Earl (4 sons 3 sons)	3 ^d Earl son mar heir	h heir	heir	x
	no issue nephew succeeded			

(2)

Some Day

f. lv

				with mottle ground	
Arundell 2 nd Earl	x	4m + ?	mar	—	x
Ashbrook 2 nd Visct	x	2 some day	mar	—	x
Ashburnham 2 nd Baron	h	none	heavily	heavily	—
broth succeeded as 3 rd Baron he mar 3 times, once to an heir - by her nephew					
Athole 2 nd Duke	x	x 1 2	mar	—	x
Avonmore 2 nd Viscount	x	x 3 2	—	—	x
Aylesford 2 nd Earl	h	1 3	heavily	coheir	—
Aylmer 2 nd Baron	x	x 2 -	—	—	x
Basot 2 nd Baron	x	x 3 3	—	—	x
Bandon 2 nd Earl		3 1	—	heavily	—
Bangor 2 nd Earl			unmar	—	x
Barrington 2 nd Visct	h	7 ⁰ 55	heavily	heavily	—
Bath 2 nd Visct	x	x 2 -	—	—	heavily ?
Bathurst 2 nd Earl			—	heavily	—
Beauchamp 2 nd Earl			unmar	—	x
broth { 3 rd mar only day & sh 4 th mar					
Beaufort 2 nd Duke	x	x 4 3	—	out, day	x
* Bedford Duke 2 nd	x	x 2	2 heavily	—	x
		h an heavily	(another)	—	
Belmore 2 nd Earl	x	x 2 2	heavily	—	x
father also mar heavily also another with 20 times					
Berkely 2 nd Earl		h 3	—	coheir	—
Berwick (2 nd 3 rd unmar) 2 nd Baron	x	x 4 4	—	—	x
Bessborough 2 nd Visct	x	x 1 2	—	—	x
Blantyre 2 nd Baron		(sum + ?)	—	—	x

12x
7-

(3) Son dan wife with son with

Blagney 2 ^d Baron	x	2	5	-	-	-	x
Bolingbroke 2 ^d Viscount		3	3	Cokein	-	-	-
Bottom 2 ^d Baron		0	-	heir	-	-	-
Boston 2 ^d Baron		2	-	only dan	-	-	-
Boyne 2 ^d Baron	50 then for	3	5	Sister	only dan	-	-
Bradford 2 ^d Baron		4	1	-	heir	-	-
Breadalbane 2 ^d Earl		1	2	twice	-	-	x
Bristol 2 ^d Earl		2	3	Rister	-	-	-
Brownlow 2 ^d Baron		2	1	Cokein	-	*	-
Buccleugh 2 ^d Duke		1	1	also cokein	-	-	x
Buchan 2 ^d Earl		only son	-	-	-	-	x
Buckinghamshire 2 ^d Earl		-	3	Cokein	-	Cokein	-
Bute 2 ^d Earl		2	+	?	-	-	x
Byron 2 ^d Lord		yes	-	-	-	-	x
Caledon 2 ^d Earl		only son	-	-	-	-	x
Camden 2 ^d Earl	70	h	1	3	heir	heir	-

heir - heir	son	dan	x	son	dan	h	son	dan	5+7+9- = 21
- Aberdeen	0	0	-	2	4	2	0	0	9+12+7x = 28
- Aberdeen	0	0	-	1	4	2	0	0	
- Annesley	2	2	-	0	7	2	0	0	
- Argyll	4	3	-	0	2	2	3	2	
- Argyll	0	0	-	1	2	2	0	0	
- Argyll	1	3	-	3	2	2	0	0	
- Barrington	0	0	-	2	3	2	0	0	
- Boyle (Aberdeen)	3	5	-	2	0	2	0	0	
- Camden	1	3	-	4	4	2	1	3	
5	12	17		2	2	2	1	3	
				17	16	13	9	11	

4

f.2v

	Total	her caput Sons	daus
78 : 179 :: 100 : x	x = 78 / 17900 (231	78 / 15800 (208	
	$\begin{array}{r} 156 \\ 230 \\ 296 \\ 980 \end{array}$	$\begin{array}{r} 156 \end{array}$	
	Fertile	her caput con	
	62 / 17900 (263	62 / 15800 (229	
	$\begin{array}{r} 136 \\ 430 \\ 408 \\ 250 \end{array}$	$\begin{array}{r} 136 \\ 220 \\ 224 \end{array}$	

7

under Pratt - insert ^{L2} Hardinge - (see in Burke)

f.3v

See Westworth for K^0 K_2 on $\frac{ch}{h}$

No of Cases thus far	Per cents		
	H	Sum	Sum
19	34	49	100 H 188
19	53	41	100 ch 280
52	176	140	100 V 342

No of Cases thus far	Per cents		
	H	Sum	Sum
19	34	49	100 H 243
19	53	41	100 ch 377
52	176	140	100 V 342

25:32::4:1.7

= 3:4 is the proportion

of four of heretofore L

four of non heretofore

h:4 of $\frac{230}{179}$ $\frac{299}{100}$

No of Cases thus far	Per cents		
	H	Sum	Sum
20	45	72	100 260
20	77	59	100 385
15	20	29	100 349

Averages

No of Cases thus far	Per cents		
	H	Sum	Sum
100	2.50	4.00	6.50
100	3.75	3.00	6.75
100	3.25	2.75	6.00
100	3.50	3.00	6.50

§. 4r

Comparison of ifue of heirep² & non-heirep²

exclude cases where the $\underline{G'}$ or g' of the non-hered, was an heredit

or coke inf. ^{by means of carb. water} Exclude if any cases where the lad was not the

unless the ~~books~~ ^{of which I have a copy} they first ^{had been} ^{quarantined}: more than 20 years
my wife Exclude all but issue of the last peer or his brothers

Exclude when the father was an inf. son. — I exclude Inglef. case,

& a few h x ch from letter A.

Beginning with letter H.

Spies

days

[illegible]

Beginning with letter A

no. 1 cases

Heinrich
Coburn

Ch II

Indes who have received peerages

f. 4 v
18. 11. 14

Colpeker L^o C.

Cooper

C Colpeker L^o C.

of Cooper Earl Shaftesbury

E

f Finch E Nottingham

g

h ~~Harbert S^o L^o Cooper~~
Hyde S^o L^o Clarendon

i

k

l

m

n

o

p

q

r

s

t

u

v

w

Jeffrey L^o J. Wren

North F L^o Shaftesbury

Harcom S^o L^o H

Parker T. L^o Marchmont

Somers L^o S.

Trevelyan L^o T.

Ragland R. L^o R.

Pratt C. S. of Camden

Sutton Manners P. Manners

Thurlow L^o T.

Wetherburn L^o Long Gough

York P. Earl Hardwicke

to end of Geo III
28 letters.

Arden L^o Almonley
Bathurst S. of Best L^o Weymouth
De la Roche L^o Walsingham
Porkine L^o
Pitt-Rivers L^o
Hendley S. of Northampton
Hemphill J. L^o Shaftesbury

No of Peerages
33

Abbott L² Tenterden 1827

m

2 sons

2

2

—

Arden L² Alvanley

1801

m Feb 29

2

3

extinct ✓

His eldest son d. unmarried. His 2nd son m. when young & had 5 sons.

Bathurst E¹

1771

m twice by second wife

2

4

—

Eldest son succ: & had 3 sons & 3 daus
2nd son d. unmarried

Best L² Wyndham

1829

m

his son mar. & had 4 sons & 2 daus
4th son d. unmarried

4

2

—

Brougham L²

1830

not 61

m a widow

—

2

no male descendants ✓

his father m. an only child. had 5 sons & 1 dau
the sons have issue

Colthorpe L²

1664

(in Chancery time)

mar twice & 1st wife left

5

4

extinct ✓

1st son mar. & had 1 son & 1 dau
2nd son mar. & had 1 son & 1 dau
3rd son mar. & had 1 son & 1 dau
4th son mar. & had 1 son & 1 dau

2nd eldest son mar. & had 1 son & 1 dau
1st dau m. 3rd son mar. & had 1 son & 1 dau

Cooper E¹ Shaftesbury

1672

mother was dau & sole heiress

1

0

—

the wife 3 times & had only 1 son
his son mar. & had 3 sons & 1 dau

Cowher Earl

1718

mar 1. dau & heiress no surviving issue
2. dau & had 1 son

2

—

Eldest son mar. & co. heiress — 1 son 1 dau

Eldest son mar. & co. heiress — 3 sons

De Grey L² Walsingham

1780

not 92

1

1

—

son had 2 sons & 2 daus
& plenty of grandsons through the younger

Prokine L²

1806

m

eldest son mar. twice & had 7 sons & 7 daus

4

4

—

Finch. Earl of Nottingham

Eldest son mar 1. co. heiress — 1 dau
2nd son mar 5 sons & 7 daus

no children

Windsor & Nottingham

23 24

7 14

7 36

(11)		Carried over	30	34	f.b
Gifford Lord	1824	mar	4	3	—
Harcourt Lord	1712	m. 3 times, first by 1 st wife only (2 nd & 3 rd were widows) 2 sons 2. young. the eldest mar d. vit. parent. leaving 1 son 1 dau. the sole mar $\frac{1}{2}$ son both of these mar d. s.p. $\frac{1}{2}$ - 1	3	2	extinct ✓
Henley E. of Northampton	1764	mother, a co-heir. mar twice Son of <u>unmar</u> in mature life.	1	5	extinct ✓
<u>Herbert Lord</u>					
Hewitt ^{W¹⁵} 2nd Lifford	1781	mar twice in all had plenty of descendants	5	2	—
Hyde ^{Earls} L ^{ts} Charendon	1681	mar twice essentially sole heir 1 son drowned on board ship. another of unmar. 2 nd Earl mar 1. 1802. whole son & young the descendant of the 1 st Earl, 2 nd son, was of dau.	4	2	extinct ✓
Jeffreys L ^{ts} of Wem	1685	mar twice in all had this son mar had 1 son - only 1 dau.	1	2	extinct. ✓
Kennyon L ^{ts} 1788	mar	numerous descendants, the 2 nd has mar co-heir & had 2-3	3	—	—
King L ^{ts} 1725	mar	1 son - mar: no issue 2 sons of unmar. a successful heir 3 mar 2-2	4	2	Earl Lovelace
Law L ^{ts} Ellenborough	1802	mar numerous descen. (the Earl down will be extinct, but that does not affect the question)	5	5	Earl Ellenborough
Murray E. of Mansfield	1776	mar	0	0	extinct in direct male line.
North L ^{ts} Guilford	1683	mar co-heir only 1 grandson but he lived & bred.	1+	?	—
			62	56	

Parker ^{Earl of} Maclesfield 1721	mar coheir	1	1	—
Son mar coheir 2. ?dms Second son There was another coheir a the line but just scraped through - the present peer has 10 sons & 4 dams.				
Pratt E. of Camden 1786	mar heirs	1	4	Maryleigh
Son mar heirs 1-3. (narrow scope) Gr son. mar & had. 3-8				
Raymond L ^d 1731	son mar coheir & d. & p.	1	?	extinct ✓
Scott Earl of Eldon 1827	mar	2	2	extinct
Somers L ^d 1695.	d. unmar	—	—	extinct ✓ in direct male line
(Scott)				
Sutton Mannes L ^d Mannes 1807	mar twice only son mar 2-3	1	0	—
Talbot L ^d 1733	mar heir Oldest son mar heir only 1 dam second mar/coheir no issue 2. — the present heir.	3	0	merged in Carlton Shrewsbury
Thurston L ^d 1792	unmar	—	—	extinct ✓ direct male line
Trean L ^d 1711	mar/coheir 2 —	2	3	extinct ✓
the Bishop of London the rest inherited succession & the family regency died out				
Wedderburn L ^d Longborough 1801	mar 1. heir 2. dam	0	0	extinct ✓ in male line
& Earl of Norfolk				
Yorke E. of Hardwicke 1754	mar numerous descendants though 2 lines failed 1 through a coheir	5	2	—

Total no. of cases

Extinct in direct male line

33/78/2.4

33/66/2.0

Left 33

78	68
2	2
80	70

13

120

132

Peers & Peeresses of Geo III (15) & Extinction of title

- 1) Bedford ^{1st Mar} no heirs - 1
 Bolingbroke ^{1st Mar} (1712) 2 mar twice (1st wife) childless -
 * Canning ^{1st Mar} $\frac{h}{3-1}$ 3rd & 2nd second children
 as a youth, 3rd succeeded the 2nd Lord & 1st Earl
 * Castlereagh ^{1st Mar} $\frac{ch}{0-0}$ 4th succeeded by his half brother
 who was h. but had descendants
 Chatham ^{1st Mar} (1766) 3 sons & 2 daus - 2 sons unmarried
 the 3rd if successful
 Dundas ^{1st Mar} Melville (1862) 1 son & 3 daus - the
 son married, but had 4 sons & 2 daus
~~Edinburgh~~
 * Top married, no issue
 not a title
 Grenville Lord (Continued) 3 sons & 4 daus.
 Grenville Lord - was the eldest son never married
 * Keppel & had no male grandchildren. the 2nd
 apparently did not marry at all. the 3rd was
 Grenville George - he married & was if successful
 there is considerable infusion of Keppel blood
 into this family. the present representation
 * marks as herself & has only 3 daus.

Holland Lord 1 son & 1 dau the son mar
 x herself & had only 1st son & 1 dau & that son
 died ifueled

Liverpool 2nd Earl ⁽¹⁷⁷¹⁾₁₀ mar twice died ifueled

S^t Vincent Earl (1797) || mar somewhat late
 in life & had no issue

Nelson Earl 1 | 12 murr at 29; a widow lived
 5¹/₂ years with her in retirement - no issue

Newcastle Duke

x North^{8th} Lord & 2nd Duke of Portland mar herself 3 son & 3 dau
 the two eldest sons had ² the one, an only daughter
 & the other no issue at all ^{heated} the third 7 murr.

Perceval a large family 3rd
 Pitt W^m unmarried - 14

Romilly 5 son & 4 dau numerous descendants

x Stowell L² mar Cochet 1 son who 2 murr, 3 dau, -

Walpole Vth Earl of Orford 3 sons & 2 dau. The eldest
 x son mar th heired only one son who 2 murr. The second
 son 1st Earl of th murr - & the 3rd son 1st Earl, also 2 murr,

(19)

4.10

Robert

Wellesley Margret was only his legitimate
wife of his wife. 18

Wilberforce - numerous descendants

(Aberdeen too recent)

Addington Vere Sedgwick was son of an
x heirship & had only 1 son & 4 daus. - the
son had numerous descendants 20

x Butcher Margret was a co-heirship but had
a large family 21

Too recent 1910
Godetich (Paul A. Nipson) - was only son & subsequently
heirship - 1 son & 1 dau

x Grafton Duke was heirship & was divorced -
13 years later - had 2 sons & 1 dau. by a 2nd
wife 2 sons & 5 daus

Grey Paul - too recent large family

Landowne 1st Marquis (1784) - continue

(Melbourne Visd too recent)

Newcastle 1st Duke mar gr. Daugh of the
Pr Duke of Marlborough no issue

Rockingham 2nd Marquess mar heir of no issue

Wellington - 2 sons this second son although
he was an heir having had 3 sons & 3 daughters

no of sons	no of cases	
	Heired mothers	ordina mothers
0	11	1
1	8	5
2	11	7
3	11	17
4	5	10
5	3	4
6	1	4
7	0	2
above	0	0

average number of children

Sons	Daughters	Sons	Daughters
2.08	2.06	3.36	2.84

Particulars of the Statistics in p. 7. of this copy book p. 12

H			NCH			Northwich		
Sons			for Sons			Sons		
11	3	0	2	1	1	1	2	2
12	2	2	3	6	1	4	3	3
18	2	2	7	7	3	5	3	4
19	4	1	9	3	6	6	7	6
25	2	7	15	1	0	8	3	5
36	3	4	16	1	?	10	1	4
39	2	6	17	8	5	13	3	5
48	3	3	22	2	1	14	3	2
51	2	4	23	0	4	20	1	0
60	3	1	24	5	4	21	3	3
71	1	1	28	2	3	26	4	2
73	1	0	40	5	3	27	6	3
75	5	2	41	5	3	29	6	1
84	1	0	43	6	6	30	2	7
85	0	1	44	3	4	31	2	2
86	0	3	55	6	3	32	3	2
87	2	2	57	0	1	33	3	2
88	1	?	67	4	4	34	2	0
89	0	0	70	4	2	35	0	0
90	1	0	91	3	1	37	4	6
92	3	5	95	3	0	38	3	7
93	1	0	98	4	5	42	4	4
94	0	0	100	4	0	45	4	1
96	4	7	102	4	1	46	3	1
97	0	0	103	0	2	47	5	6
99	4	3	104	87	63	49	50	3
101	1	3	107	7	5	50	2	4
105	4	6	109	1	0	52	5	2
108	5	2	110	2	4	53	3	3
111	3	0	112	3	3	54	2	3
113	6	0	114	1	3	56	3	2
117	3	3	115	2	1	58	2	7
118	1	3	116	1	1	59	3	0
119	5	5	123	1	0	61	6	3
120	0	1	125	8	5	62	3	6
121	2	4	127	3	1	63	4	1
122	2	6	129	6	5	65	1	2
124	2	0	133	0	4	66	4	1
125	4	2	138	0	5	68	4	4
128	0	0	140	0	5	69	5	1
130	3	0	141	0	5	72	5	1
131	3	2				74	3	0
132	2	2				76	4	2
134	2	2				77	4	4
135	2	2				78	1	0
136	2	2				79	5	2
137	2	2				80	3	4
138	2	2				81	3	4
139	2	2				82	3	4
140	2	2				83	4	4
141	2	2				84	4	4
142	2	2				85	4	4
143	2	2				86	4	4
144	2	2				87	4	4
145	2	2				88	4	4
146	2	2				89	4	4
147	2	2				90	4	4
148	2	2				91	4	4
149	2	2				92	4	4
150	2	2				93	4	4
151	2	2				94	4	4
152	2	2				95	4	4
153	2	2				96	4	4
154	2	2				97	4	4
155	2	2				98	4	4
156	2	2				99	4	4
157	2	2				100	4	4
158	2	2				101	4	4
159	2	2				102	4	4
160	2	2				103	4	4
161	2	2				104	4	4
162	2	2				105	4	4
163	2	2				106	4	4
164	2	2				107	4	4
165	2	2				108	4	4
166	2	2				109	4	4
167	2	2				110	4	4
168	2	2				111	4	4
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