IS1619 Genealogy, Genetics and the Next Generation

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Overview:

Predicting future trends in the field of genealogy requires that we first investigate the answers to key questions. Who does genealogical research? Why do they do it? In this class we explore some answers to these questions through the use of demographic and immigration data from the past century. Next we explore what these observations mean for the future of genealogy. We identify likely areas of future genealogical interest review record availability in those areas, and explore what role genetic genealogy will play in relation to these observations. In the context of displacement and disconnect, we explore current trends in genetic genealogy and what these mean for the future of genetic genealogy. Finally, we identify action areas and opportunities related to genetic genealogy, traditional genealogy and family history in general.

Who Does Genealogy?

A research study on the growth of the genealogy industry in 2012 showed that the fastest growing genealogy markets were in United States, Canada, United Kingdom.[1] These findings were based on a study of major genealogy websites only those countries with more than 4 major websites were considered, though honorable mention was given to Australia and the widely European base of Geneanet.org

In an open market, we would expect that supply for genealogy services would mirror demand. We reviewed the largest registry of genealogists at the APG website and found that the following countries are among the highest areas of demand for research services.

Number of Research Professionals per Area of Expertise

Country	APG 2015	APG 2014		Country	APG 2015	APG 2014
United Kingdom[2]	304	245		Russia	31	33
Ireland	184	196		New Zealand	30	32
Canada[3]	151	64		Netherlands	29	32
Germany	122	131		Czech Republic	27	28
Italy	82	86		Slovakia	27	27
Poland	77	80		Mexico	26	22
Eastern Europe[4]	64	69		Switzerland	25	30
France	63	64		Denmark	25	25
Australia[3]	61	55		Spain	25	24
Austria-Hungary	47	49		Norway	24	26
Sweden	41	42		Hungary	24	22
Ukraine	41	NN[5]		Israel	21	23

Though LinkedIn perhaps has a larger registry of genealogical professionals, analysis of this registry would require review of individual profiles, many of which are not further categorized by research specialty. Future research on this topic might include investigation of genealogical professionals at LinkedIn. Although the APG registry is biased toward an American base and is much smaller, the results observed can still inform our understanding of the genealogy market. The registry is also useful as a sampling of the larger population of genealogical service providers.

Why are these areas the top research areas?

We observe that 17 of the 23 countries listed above were among the top origin countries of the foreign-born population of the United States between 1870 and 1930.[6] Viewed from another perspective, with the exception of China, all countries that contributed to at least 1% of the foreign born population in the United States between 1870 and 1910 are among the areas of greatest demand in genealogical research. Of the remaining countries, New Zealand, Australia and Israel have strong histories of immigration; Netherlands, Spain and Ukraine have strong histories of emigration. Also, Netherlands was a major source population for immigrants to the United States throughout its history, though never contributing more than 1% of the foreign born population until 1950. Slovakia was not an independent state until 1993 before which it was part of Czechoslovakia. Therefore genealogical interest in Slovakia might be tied to genealogical interest in neighboring countries including the Czech Republic. One reason there is not as high a demand for research services in China may be that immigration from China to the United States during the late 1800s and early 1900s was banned.

Source populations of the foreign-born population of the U.S. 1850-1930 in thousands

Country	1850	1860	1870	1880	1890	1900	1910	1920	1930
Screen	22	41	55	66	92	103	135	139	142
Germany	584	1276	1691	1967	2784	2663	2311	1686	1608
United Kingdom	379	588	770	918	1251	1168	1221	1135	1403
Ireland	962	1611	1856	1855	1871	1615	1352	1037	745
France	54	110	116	107	113	104	117	153	136
Canada	148	250	493	717	980	1180	1209	1138	1310
Norway	12	44	114	182	323	336	404	364	347
Switzerland	13	53	75	88	104	115	125	119	113
China	.7	36	63	104	107	82	57	44	46
Sweden	4	19	97	194	478	582	665	626	595
Czechoslovakia	0	0	40	85	118	156	219	362	492
Mexico	13	28	43	68	79	103	222	486	641
Denmark	2	10	30	64	133	154	181	189	179
Austria	0	25	31	39	123	276	626	576	370
Poland	0	7	14	49	147	383	937	1139	1268
Russia/ Soviet	1	3	5	36	182	423	1184	1400	1154
Italy	4	12	17	44	182	484	1343	1610	1790
Hungary	0	0	4	12	62	145	495	397	274
Finland	0	0	0	0	0	63	130	149	142
Greece	0	0	0	0	2	9	101	176	174
Yugoslavia	0	0	0	0	0	0	0	166	211
Lithuania	0	0	0	0	0	0	0	135	194
Romania	0	0	0	0	0	15	66	103	146
Netherlands	9	28	47	58	82	95	120	132	133

In addition to the foreign research areas identified above, research specialties in the United States compose the large majority of the supply for research services. Over the course of United States history, general migration trends have moved West and South. In keeping with our observation regarding the connection between migration and genealogy, we observe that the highest supply of research services is in the Eastern, Mid-Atlantic, Midwestern and Southern United States. Significantly fewer professionals offer research services or claim expertise in the Western, Northwestern, Southwestern, or Rocky Mountains regions.

What are the future areas for research?

From the observed connection between genealogy and historical migration, we hypothesize that genealogical interest is most often born of displacement and disconnect from an individual's cultural roots. Immigrants themselves often maintain connections to their native land. Children and sometimes grandchildren of an immigrant likewise benefit from these connections. However, by the third and fourth generations,

descendants of an immigrant may not know the immigrant themselves, may not have connections with their distant family, and in their absence may have increased interest in discovering their cultural roots and heritage. Accordingly, interest in genealogy often increases about 100 years after migration. Since the history of the United States has included frequent and constant internal migration, this constant displacement maintains a healthy culture of American genealogical investigation.

Based on migration trends to the United States, we propose the following areas as regions of future genealogical demand:

Decade	New areas of demand
2010	Finland, Greece
2020	Yugoslavia, Lithuania
2030	Romania
2060	China, Japan, Philippines
2070	Portugal
2080	Korea, India, Vietnam, Cuba, Dominican Republic, Jamaica, Colombia, Iran
2090	Haiti, El Salvador, Guatemala, Honduras, Peru, Ecuador

In addition to these research areas, we also note other major international migration trends and propose that demand for research services in the global market will increase in South America, Indonesia, Pakistan, Bangladesh, and throughout Northern and Sub-Saharan Africa.

What is the record availability for future research areas?

To date, genealogical interest for the areas of highest demand has been supported by reasonably well-maintained, well-preserved and accessible records. This luxury may not be possible for some areas of future research demand. Many genealogical records from China were destroyed during the Chinese Cultural Revolution. Wars, climate and poor record preservation continue to deplete the available records for many other countries whose migrants will likely demand genealogy services within the next century. Genetic genealogy can provide an important supplement to genealogical investigation in these areas.

The following is needed as part of the preparation for future genealogical demand: 1. Documentation and preservation of current generations; 2. Acquisition of historical records collections for these areas; 3. Archival preservation of records, documents and history for these areas; 4. Subsidized or crowd-funded genetic genealogy testing for these areas.

Though there is strong correlation between migration and genealogy, there are other factors that contribute to the growth of genealogical investigation. According to Maslow's hierarchy of need, we would expect that genealogy would fall into the categories of love/belonging, esteem and self-actualization. Until physiological and safety needs are met, genealogical research is a less-pressing need. Socioeconomic stability and political stability are some of the prerequisites for continued growth and popularity of genealogical research in specific research areas.

Genetic Genealogy and the Future

As with other areas of genealogical investigation, genetic genealogy is often born of disconnect and displacement from cultural roots. Though many individuals perform genetic genealogy testing as a result of gradual loss of family memory, many others do so in order to overcome obstacles of abrupt and recent disconnect. In addition to general interest and ethnicity, some of the most common reasons for genetic genealogy testing include adoptions, unknown paternity, recent unknown ancestors, or investigation of specific questions. Whereas typical disconnect can occur after about 100 years, in the case of many

individuals participating in genetic genealogy, disconnect with their cultural roots has occurred within their own lifetimes.

Trends that contribute to recent disconnect continue to increase in the United States and around the world. Between 1982 and 2012 in the United States there were 1,088,000 public adoptions, 398,000 international adoptions, and more than 1,116,000 private adoptions. An estimated 5 million United States citizens are adoptees accounting for about 1-2% of the population. 2-4 percent of all families have adopted, and 2.5% of children under 18 are adopted. Adoptees and their descendants often engage in genetic genealogy investigation within 2-3 generations of the event. Adoption increases demand for genetic genealogy.[7]

Current estimates regarding misattributed parentage propose rates between 1-2% per generation.[8] Therefore within 10 generations of ancestry, there is an 80%-90% chance that any given family tree is affected by misattributed parentage. Many individuals who perform genetic genealogy testing discover a case of misattributed parentage and thereafter more fully engage with genetic genealogy. In addition to misattributed paternity, donor conceived individuals often use genetic genealogy testing as a means of identifying their family members. 38,000 donor conceived children were born in the United States in 2013. Misattributed parentage, and unknown paternity increase demand for genetic genealogy.

Declines in marriage rates and increases in single-parent households suggest that demand for genetic genealogy research will only increase. In 1940, 3.5% of live births to were unwed mothers. In 2013, 40% of live births were to unwed mothers. Since 1940, more than 50 million individuals have been born to unwed mothers and more than 35 million children were born to teenage mothers.[7] Many of these individuals have limited with or knowledge of their biological father and therefore experience some level of disconnect from their family history. Single-parent births increase demand for genetic genealogy.

Increases in divorce rates result in a larger number of blended families. Current estimates suggest that ⅓ of children will live in a step-parent home before the age of 8 and 50% of individuals will have a step-parent at some point in their lifetime.[9] Blended family situations can lead to levels of disconnect from one side of a family or another. These family situations increase demand for genetic genealogy.

Conclusion

Genetic genealogy will continue to play an important role in the future of genealogy as trends contributing to recent displacement and disconnect augment demand for genetic testing. It will also constitute an important resource for areas of future genealogical demand which have experienced record loss and poor historical preservation.

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[1] "Top Trends in Genealogy," *Genealogy In Time Magazine,* June 2012, accessed January 2016.
[2] The APG registry has separate designations for research specialties in the British Isles, Wales, England and Scotland. This statistic is combined
[3] The APG registry has separate lists for each province. This statistic is combined.
[4] Though technically not a country, this area has been included. Includes Czech Republic, Slovakia, Slovenia, Hungary, Austria, and Ukraine.
[5] Previous count statistics were not collected for Ukraine in 2014.
[6] Region and Country of Area of Birth of the Foreign-Born Population, With Geographic Detail Shown in Decennial Census Publications 1930 or Earlier: 1850 to 1930 and 1960 to 2000 (census.gov); and,
Foreign Born Population by Country of Birth: 1850-1970, Series C 228-295, in Historical Statistics of the United States, colonial times to 1970, part 1, pages 116-118 (books.google.com); and,
Place of Birth for the Foreign Born Population in the United States, 2010 American Community Survey 1 year estimates; (factifinder.census.gov)
[7] Wm. Robert Johnston, "Historical statistics on adoption in the United States, plus statistics on child population and welfare," 22 June 2014, johnstonarchive.net, accessed January 2016; and
"Adoption Statistics," 24 February 2012, pages.uoregon.edu, accessed January 2016.
[8] M.H.D Larmuseau, et al., "Low historical rates of cuckoldry in a Western European human population traced by Y-chromosome and genealogical data," in *Proc Biol Sci.* 2013 Dec 7;280(1772).
[9] Ron L. Deal, "Marriage, Family and Stepfamily Statistics," updated April 2014, smartstepfamilies.com, accessed January 2016.