

My Experience with DNA Testing

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I have been doing genealogy research for several years now – but strictly as a hobbyist and with no illusions of being an “expert”! Everyone undertaking family genealogy understands the importance of gleaning information from elder relatives; reviewing old family papers and pictures; and digging through public documents such as the Census, etc. One other thing that sometimes can help is DNA testing – utilizing the power of science can be a valuable tool in genealogy research.

In my family genealogy, there were two significant mysteries (“brick walls”):

1. Who was my maternal grandfather (my mother's biological father)?

My mother came from a small community in a rural area of far southwest Virginia near Cumberland Gap. The subject of her father wasn't openly discussed as I was growing up, at least, not around us (kids). When I was old enough to become aware that I had only one grandpa – not two, like all my friends had – I asked my father about it. He responded with a threat of dire consequences if I ever mentioned the subject again.

Mothers and their children born out of wedlock generally carried a severe stigma in their communities.

Although I stopped asking about my mystery grandfather at that time, the “curious bug” was planted – to arise another day. In later years, my sister and I began to discreetly ask questions of a few older relatives. A couple of them began to open up a bit and stated their beliefs as to the identity of my mother's father. Unfortunately, by then all the key people were dead and nobody was alive who could factually tell the story.

2. Where did my paternal great-great-grandfather come from and where did he go?

Family legend said my paternal great-great-grandfather, William Hash, came from Shamokin, Pennsylvania to Buckingham County, Virginia sometime in the mid-to-late 1830s. There, he found a job working for a harness and cabinet maker and later married his boss' daughter. That much (marrying the boss' daughter) is factual.

Unfortunately, William Hash was a mysterious fellow and left almost no “footprints”. The only record of William that I've been able to find was in the 1840 Census. That year, he was living with an age-appropriate female at a residence next door to his mother-in-law. (Only the head of household was named in pre-1850 Censuses.)

A second family legend said that William left his wife and three young sons ca. 1845-1846 and went to “the Kanawha Region” to look for land. He never returned.

I decided to see if DNA testing could help me break down these two “brick walls”.

By 2012, significant competition had emerged in the DNA testing market and prices had

dropped dramatically from where they had been only a few years before. Ancestry.com had acquired a DNA testing company to enhance their offerings to the genealogy market and were advertising tests for as low as \$99. Early in the next year, I purchased the AncestryDNA mitochondrial test (which tests genetic material inherited from both male and female ancestors), hoping it would lead to the identity of my maternal grandfather.

During that same period, I had been corresponding with a man who is the *de facto* genealogy leader of a large group of Hashes with roots in Grayson County, Virginia. The Grayson County Hashes descend from “Old John” Hash, who left the Philadelphia area ca. 1765 and settled in Montgomery County, VA (in what today is Grayson County). Their history is well documented.

Over the years, there had been anecdotal “evidence” which had convinced several members of my family that we and the Grayson County Hashes were related. On at least two occasions, my relatives had seen pictures of men from Grayson Hash families and were struck by the strong physical resemblance to men from our family. In addition, it simply seemed intuitive – after all, both families had come to Virginia from southeastern Pennsylvania.

Unfortunately, we could never come up with any facts or documentation to support what seemed so obvious.

Meanwhile, my contact from the Grayson County group posted on-line that he had purchased a y-DNA test from a company named FamilyTreeDNA. That test examines the y chromosome, which is passed only from father-to-son. This test also appeared to have the potential to help solve the mystery surrounding my great-great-grandfather; hopefully, it would enable me to identify his ancestry and the place where he came from – and maybe also yield some clues as to where he went after leaving his family.

I thought it made sense to utilize the same company and the same test – for consistency and to facilitate comparisons with the Grayson County Hashes' research. The company offered tests for 12, 25, 37, and 67 genetic markers (and later added a test for 111 markers). Generally, the more markers that are tested, the more precise the results. Whereas my contact had taken the 67-marker test, I opted for the 37-marker test. I thought it a good middle-of-the-road approach for a beginner. It cost \$169 and I could always purchase another test for more markers, if warranted.

In early 2013, I purchased FamilyTreeDNA's 37-marker y-DNA test.

Results from my two DNA tests have been mixed.

The AncestryDNA test:

- Confirmed the identity of my maternal grandfather (just as some older family members had believed).
- Led to meeting his two surviving sisters (my great aunts) and several new cousins – a branch of my family previously unknown. Along with that, of course, came pictures and lots of information about my grandfather.

- Resulted in visits with other new family members and three reunions (to date) in the Cumberland Gap area of Virginia and Tennessee.

AncestryDNA emphasizes relationships between customers whose DNA is matched, and encourages them to post and share family trees. Consequently, an ongoing stream of new cousins is generated as more customers have their DNA tested.

Thus far, my AncestryDNA test has resulted in:

- 7 second cousins
- 21 third cousins
- 1,242 fourth cousins (or closer)
- More than 20,000 cousins (through 9th cousin)!
- several gaps in my family tree being filled; e.g., learning what happened to certain ancestors who moved away from this area decades ago and whose families lost contact with our branch of the family, names of their descendants, etc.

Conclusion: this DNA test has been very successful for me. However, meaningful results depend upon the number of people who get tested and how closely they are related to you. It is very gratifying to meet new cousins or to find a long-lost ancestor!

At the same time, this process can be frustrating:

- There are few “silver bullets”. Meaningful clues are still painstakingly slow to emerge.
- Many of the people who show up as cousins do not post their family tree.
- Some people who show up as cousins do post a family tree, but then “lock” it for privacy reasons.
- Any initial communication between DNA matches is indirect (through Ancestry.com). Many people who show up as cousins refuse to communicate – failing to respond to emails. (I always try to be polite, offer to share information, and to assure the other person that I'm a legitimate researcher.)
- Results may have the potential to be embarrassing. Occasionally, our ancestors' indiscretions and secrets finally emerge!

For example, I heard of a situation where two young men – let's call them “Mr. a” and “Mr. b” – are friends who grew up in the same area and share an interest in genealogy. They descend from two prominent antebellum families from that same area, who were friends and neighbors – let's call them “Mr. and Mrs. A” and “Mr. and Mrs. B”.

A family legend had been whispered about over the past 150 years or so that one of

Mr. and Mrs. A's sons was not not fathered by Mr. A. Further, It had been scandalously suggested that the young man's biological father actually was Mr. B, who was Mr. A's close friend and neighbor!

The present-day genealogy sleuths, (Mr. a and Mr. b), decided to take a DNA test to see if they could resolve questions raised by the legend. The DNA results clearly showed that the legend was true! Both present day men were connected by DNA to Mr. B and the only plausible connection for Mr. a was his ancestor, the (whispered-about) son of Mr. and Mrs. A from the mid-1800s.

The FamilyTreeDNA y-DNA test:

- Quickly established that I am not related to the Grayson County Hashes.
- Has actually led to more questions than answers (about my paternal great-great-grandfather).
- Has yielded 12 “hits” with men whose DNA matches mine (with varying levels of genetic distance).
 - I have been able to communicate with four.
 - Tried unsuccessfully to communicate with two others.
 - Attempts to communicate with two recent matches are in progress.
 - No contact information given by the remaining four.
- Four meaningful hits out of 12 (thus far):
 - #1 is a man in north central Michigan.

“Michigan Man” has a well documented male ancestry going back to ca. 1750-1755. In that ancestor's military file, I found a very interesting item. Late in the Revolutionary War, Michigan Man's ancestor was posted for a while in the same county in southeastern Pennsylvania where my great-great-grandfather reportedly came from! I immediately conjured up a scenario involving a lonely soldier stationed on the frontier, far from home, and who encountered a local lass, etc. When the war ended, he returned home and left her pregnant or with a “love child”. Since William Hash (my mysterious ancestor) would appear to have been born ca. 1814, he would not have been the illegitimate child from a Revolutionary War-era liaison – but his father possibly could have been.

That raises the question of a name change, since Michigan Man and I have different surnames. There were a few Hash families living in eastern Pennsylvania during the late 1700s and it's possible a young woman from one of those families became pregnant – therefore, her son would have also carried her surname if she was unmarried. It's also possible she had a different surname, but later found a husband named Hash who adopted her son and gave the child his name.

Despite my efforts to formulate a theory to explain my DNA connection with Michigan Man, FamilyTreeDNA's computer calculated only ~41% probability that our Most Recent Common

Ancestor (MRCA) occurred within 7 generations (i.e., back to the 1750-1755 period). That means the likelihood is somewhat slim, but it's certainly a possibility.

- #2 is a man in northern Virginia (NOVA).

“NOVA Man”, a beginner in family genealogy, can document his family only back to his grandparents, who immigrated from Poland in the early 1900s.

I have no known Polish roots and neither of us can offer any explanation for our DNA connection. However, the computer calculated ~51% probability that our MRCA occurred within 7 generations!

- #3 and #4 are men whose names were shown on my DNA results summary, but listed no physical location. Neither responded to my attempts to establish contact. For both of these men, the computer calculates ~85% probability that our MRCA occurred within 7 generations and ~59% probability that our MRCA occurred within 4 generations.
- Significant points regarding these four meaningful hits.
- It would certainly appear that there have been name changes over the past several generations. That may have arisen from an illegitimate birth or possibly through a child being orphaned / adopted.
 - My ethnicity had been calculated (by AncestryDNA) as 38% Ireland, 39% Europe West, and a smattering of other geographic areas. (They define Europe West as encompassing parts of France, Austria, Switzerland, Germany, Czech Republic, Poland, and the Low Countries.) We must also remember, though, that national borders as we know them today often were different in earlier times. That might help explain how I could share DNA with someone from Poland when I have no known connections to that country.

Conclusions:

It may be that I will never be able to definitively trace my paternal ancestry past my great-great-grandfather.

The y-DNA test has not been as successful for my immediate interests as the mitochondrial test – at least up to this point. However, I am still satisfied. It has shed some light on my ancestry – albeit in a totally different context from what I had envisioned at the beginning. As more people get tested, I remain hopeful that a breakthrough will eventually occur.

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