

Genetic Genealogy Journey

Genetic Genealogy Standards

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Advanced genealogical researchers have long recognized the need for standards to allow us to judge our work and the work of others. Some of the most respected genealogists have written books and articles detailing research and writing standards that all genealogists should adhere to.¹ In the late 1990s and early 2000s, those recommendations were gathered and codified into the Genealogical Proof Standard (GPS) which details defining how to demonstrate that we work to those standards.² In recent years, updated versions of the standards have been published.³ The standards themselves have not changed that much. They are more clearly organized and explained in the more recent publications, and some terminology has changed.

Genetic genealogy is the newest tool in the genealogical research toolbox. It has been around for about fifteen years now. Some thought it was time to define standards for incorporating genetic genealogy into our research. Genetics is still new and misunderstood by many. Even for those who learned about DNA in a biology class twenty or thirty years ago, there is much to learn due to the many new discoveries in genetics.

DNA has had a major impact on medical and law enforcement practices in recent years. Applying genetics to genealogy is different from applying genetics to medical or law enforcement problems. We see some of the same issues and some issues unique to genealogy arise. Most genealogists trying to apply genetics to solve genealogical problems welcome recommendations on how to handle some of these issues.

WHY GENETIC GENEALOGY STANDARDS?

Genetic genealogists often field questions on how to handle sticky issues and how to use genetic information to solve problems. This has resulted in many excellent blogs, books, and articles on genetic genealogy representing a broad range of ideas. As more family researchers began to use genetic genealogy it became clear that a set of basic standards published in a public location would

All URLs accessed 15 February 2015.

¹ Donald Lines Jacobus, *Genealogy as Pastime and Profession* (1930, revised 1968; reprint, Baltimore, Maryland: Genealogical Publishing, 1999). Noel C. Stevenson, *Genealogical Evidence: A Guide to the Standard of Proof Relating to Pedigrees, Ancestry, Heirship and Family History* (Laguna Hills, California: Aegean Park Press, 1979). *Genealogical Research: Methods and Sources*, 2 vols. (Vienna, Virginia: American Society of Genealogists, 1980–1983).

² *BCG Genealogical Standards Manual* (Washington, DC: Board for Certification of Genealogists, 2000). Elizabeth Shown Mills, *Evidence! Citation & Analysis for the Family Historian* (Baltimore, Maryland: Genealogical Publ. Co., 1997). Christine Rose, *Genealogical Proof Standard: Building a Solid Case* (San Jose, California: CR Publications, 2001).

³ Board for Certification of Genealogists, *Genealogy Standards*, 50th anniversary ed. (Nashville, Tennessee: Ancestry, 2014). Elizabeth Shown Mills, *Evidence Explained: Citing History Sources from Artifacts to Cyberspace* (Baltimore, Maryland: Genealogical Publishing Company, Inc., 2007). Christine Rose, *Genealogical Proof Standard: Building a Solid Case*, 4th ed. (San Jose, California: CR Publications, 2014).

be useful. After some initial discussions, Blaine Bettinger, Ph.D. (Biochemistry), J.D., well known as *The Genetic Genealogist* blogger, offered to lead a group willing to help write the standards and he asked for volunteers.⁴

Some have questioned the makeup of the committee. What makes these volunteers think they have the right to write standards for all of us? Why isn't XYZ organization in charge of doing this? Why weren't there more members from outside of the United States?

This ad-hoc committee consists of genetic genealogists who saw a need in the community, who saw no one else stepping up to take on the project after several discussions of the need, and who were willing to volunteer their time for this project. The organizers did not restrict committee membership to any particular skill set or geographic representation. Time commitments may have prevented some from particular organizations or geographies from participating. Perhaps other interested parties can participate in future work to add supporting information to the basic standards. This is a working committee and all members are expected to participate actively to provide a set of standards that will be as useful as possible to as many genetic genealogists as possible. Anyone interested in volunteering should be willing and able to devote time to the project.

THE COMMITTEE AND PROCESS

Committee volunteers include Blaine Bettinger (chair), CeCe Moore (co-chair), David Bachinsky, Traci Barela, Katherine Borges, Angie Bush, Melinde Lutz Byrne, George Cicila, Shannon Christmas, Michael Hait, Tim Janzen, James Owston, Ana Oquendo Pabón, Ugo Perego, Steven Perkins, Ann Turner, Debbie Parker Wayne, and Jennifer Zinck. These volunteers include three medical doctors, four PhDs and one MS in biology or biotechnology or genetics, three Board-certified genealogists, two lawyers, an educator, and an editor, with some who are active in more than one of the roles named. Most have experience as genetic genealogists and one genetic genealogy novice volunteered to help. Some participated from the first, some joined the group later. You can learn more about most of these members in a simple online search for their name.

All of these members represent diverse viewpoints. Not all initially agreed on how every single situation should be handled. Online discussions allowed all to express opinions and discuss the views of others. Blaine moderated discussions to find language most could agree on.

Once the committee agreed on basic content, Blaine solicited input from other genealogists with legal degrees, board-certification, and respected genealogical researchers with some knowledge of genetic genealogy. The committee then had a chance to discuss the comments, reword, and reorganize the document with Blaine moderating as needed.

Blaine then opened a public comment period. Most comments came from DNA project administrators, International Society of Genetic Genealogists (ISOGG) members, members of the

⁴ Blaine Bettinger, "About the Author," *The Genetic Genealogist* blog (<http://www.thegeneticgenealogist.com/13-2/>) and "DNA Standards and Certification – A Response to an NGS Quarterly Editorial," (<http://www.thegeneticgenealogist.com/2014/01/26/dna-standards-and-certification-a-response-to-an-ngs-quarterly-editorial/>).

ISOGG *Facebook* page, and others who had seen the call for comments, all with varying levels of experience with genetic genealogy. The committee then had a chance to discuss the comments, reword, and reorganize the document with Blaine moderating as needed.

After several final rounds of review and editing the committee released the standards. The initial version of the “Genetic Genealogy Standards” is now publicly available.⁵ Eventually a website with supporting information will also be available.

THE GENETIC GENEALOGY STANDARDS

This initial document has two major sections: ethical standards for using genetic genealogy test results and standards for interpreting genetic genealogy test results. The standards are for the genealogical community, primarily a DNA test taker and the genealogical researcher who will be using those test results. In some cases both may be one person, in some cases the two are not the same person. Where the two are different people, the standards define some expected interactions between the two.

The standards for using test results cover what we should all understand about company terms of service, consent requirements, and privacy and anonymity. Access by the test taker no matter who pays for the test; access by third-parties to the DNA and personal data; what we want from the testing companies regarding access to our DNA data and storing samples are covered. The possibility of unexpected results and health information are covered, two topics in many recent news articles. When sharing results privacy choices of test-takers need to be considered.

The standards for interpreting test results indicate that a genealogist should understand the different tests offered. There are limitations with each test type and there may be the possibility of more than one explanation for the test results. There will always be the need to correlate the DNA information with findings from documentary research to reach a genealogical conclusion.

Major areas of emphasis include the need to understand that every person has a right to consent or refuse DNA testing. When a person tests he or she should understand how the testing company will use the DNA data and what information may be available to other parties. He or she should understand that any information that is available online might be accessible by third parties who use the data without permission. The standards make no judgment as to whether these things are good or bad, just that the tester should understand in order to make an educated decision. In the same way that some genealogists post their entire family tree online and some do not, some testers find it perfectly normal to have the entire genome sequenced and publicly available; some may be more reticent.

Several items needed for complete standards are still in process. These include recommendations for minimum testing in various situations, interpretation of results, and citation elements. The random nature of DNA inheritance makes it difficult to provide recommendations for analysis applicable to

⁵ Genetic Genealogy Standards Committee, *Genetic Genealogy Standards* (<http://www.geneticgenealogystandards.com/>).

every situation. The basic standards will be useful in many situations and are being released while some of the supporting items are still being discussed.

For example, some genetic genealogists believe Y-DNA STR testers should ignore any matches with more than a stated number of markers with differing values. At the same time, there have been reports of father and son testers who differ on multiple markers. Some situations will fall outside the statistical norms.

Every situation must be analyzed after correlating the genetic information with information from thorough documentary research to ensure a hypothesis makes logical sense. Just as is done with documentary research alone, when thorough research, correlation, and analysis of genetic information indicates relationships that fall outside of the probabilities, a proof argument may be needed to convince other genealogists of the kinship links. The Genetic Genealogy Standards identify some items a researcher will need to understand and incorporate into the proof argument so that researchers will be reasonably convinced.

CONCLUSION

The Genetic Genealogy Standards are not just for professional genealogists or experienced genetic genealogists: these standards are for every genealogist who will use DNA evidence to help solve a genealogical problem. These standards complement the *Genealogy Standards* and add specifics for incorporation of genetics into genealogy. Will everyone agree on every element in the standards? No. Not everyone agrees with every element of the GPS and *Genealogy Standards* that most of us use today.

Just as the genealogical research standards have been revised and clarified over the years, these Genetic Genealogy Standards will likely require revision. New discoveries with DNA, new test offerings, new lab procedures, and advances in processing may result in some details changing, but the basic ethical considerations will not likely change much.

Please share and make use of The Genetic Genealogy Standards published at <http://www.geneticgenealogystandards.com/>.

Debbie Parker Wayne, CG, CGL, is experienced using DNA analysis, as well as more traditional techniques, for genealogical research in Texas, the South and West. She coordinates the genetic genealogy courses at several genealogy institutes and is the Texas State Genealogical Society's DNA Project Director. See <http://debbiewayne.com/> for more information.