



Why DNA is Still Important for Illinois Adoptees

by Mary Eberle

Types of Birth Certificates

When a baby is born, a birth certificate is created and includes the baby's name, gender and the name of one or both birth parents. Adoptees have two kinds of birth certificates, the original birth certificate (OBC) and the amended birth certificate (ABC). The first is created at birth. OBCs contain names of one or both *birth* parents. Following adoption, the OBC is sealed and replaced with an amended birth certificate containing the *adoptive* parents' names and their name for the child. Adoptees use ABCs the same way others use their OBCs, for example, to get drivers' licenses.

Illinois Adoptees' Rights to OBCs

Adoptees' access to OBCs is determined by the law of the birth state. Before 2010, Illinois adoptees could not obtain their OBCs. An amendment to Illinois' adoption law in 2010¹ now allows Illinois adoptees to access their OBCs. To obtain a copy, they complete a Request for a Non-Certified Copy of an Original Birth Certificate.² It is submitted to the Illinois Department of Health (IDH), which then sends the adoptee their OBC.

In balancing the rights of adoptees and birth parents, the new Illinois law allowed birth parents to file requests to withhold their names and other identifying information. This is one reason not all Illinois adoptees can find their birth parents.

On January 1, 2017, Illinois reported the following on adoptees obtaining their OBCs under the new law:³

- 14,465 adoptees obtained their as-filed OBCs;
- 82 adoptees received their OBCs with identifying information such as birth parent names removed; and
- 277 adoptees failed to receive their OBCs, as they were not located or issued.

This last category adds two more reasons some Illinois adoptees cannot find their birth parents. Plus, some OBCs contain incomplete or incorrect information. The law change helped many, but not all, adoptees find their birth parents. This is why DNA is important for many Illinois adoptees, as exemplified by two cases described below.

Mirror Trees

One technique for identifying unknown parents is a Mirror Tree,⁴ which is built based on the adoptee's DNA match's tree. Because Mirror Trees rely on Shared Ancestor Hints (SAHs),⁵ they work only on *Ancestry*. *Ancestry* provides an SAH when (1) a person has a DNA match with someone in *Ancestry's* database and (2) there is overlap in the trees of both people, that is, both trees have the same ancestor(s). *Ancestry* marks SAHs with a leaf. When the leaf is clicked, *Ancestry* shows a tree with the presumed shared ancestor(s) on top. On the left is a lineage down to the person who tested. On the right is a lineage down to the newly identified match with the overlapping tree.

To create a Mirror Tree, an adoptee's close match with a family tree is selected (hereinafter "Match A"). The tree is reproduced. If the tree does not already include several generations of Match A's tree, it is built back several generations, ideally to 3rd great-grandparents. The adoptee's DNA is attached to Match A in the tree.⁶ The adoptee then waits for SAHs. When they appear, SAHs indicate part(s) of Match A's tree that are relevant to the adoptee. That is because the SAHs show where the adoptee has other DNA matches in common with Match A. For example, if Match A is a 2nd cousin match, the adoptee and Match A share a set of great-grandparents. An SAH should appear if another match also has that same set of great-grandparents in their tree or the ancestors of those great-grandparents. This narrows down the branch(es) of Match A's tree relevant to the adoptee's biological family.

Once the Mirror Tree's relevant part is identified, then that portion of the tree is built forward in time to present day. This identifies potential birth parents and their descendants. Testing of potential birth parents or their close relatives can confirm (or refute) who the birth parents are. Full instructions on creating a Mirror Tree are available.⁷

Shared Matches

Ancestry also has a Shared Matches (SM) tool, showing DNA matches who are in common with other

¹ "Illinois General Assembly: Illinois Compiled Statutes," database, Illinois General Assembly (www.ilga.gov/legislation/publicacts/96/096-0895.htm : accessed 8 February 2017), "The Adoption Act of 2010," Public Act 96-0895, Code Section 750 ILCS 50/1 to 50/24.

² The form is available at www.dph.illinois.gov/sites/default/files/forms/medical-information-exchange-request-050316.pdf.

³ Information on obtaining original birth certificates at <http://www.dph.illinois.gov/topics-services/birth-death-other-records/adoption/iarmie/statistics>.

⁴ Christa Stalcup, DNA Detectives, *Facebook* (www.facebook.com/groups/DNADetectives/files : accessed 27 February 2017), "Creating-Your-Mirror-Trees.docx," posted 9 July 2016.

⁵ Stephen Baloglu, *Ancestry Blogs* (<https://blogs.ancestry.com/ancestry/2013/02/06/ancestrydna-discoveries-made-easier-with-the-help-of-the-shaky-leaf> : accessed 1 March 2017), "Ancestry Discoveries Made Easier With the Help of the Shaky Leaf," posted 6 February 2013.

⁶ Attaching DNA to someone in an Ancestry tree is done via the Settings.

⁷ Christa Stalcup, DNA Detectives, "Creating-Your-Mirror-Trees.docx;" and, *Born in New Orleans*, blog, "What is a Mirror Tree?" June 10, 2016 (www.borninneworleans.com/how-to/what-is-a-mirror-tree : accessed 1 March 2017); and, *YouTube*, video, "Born in New Orleans: Mirror Tree Video Tutorial – Fast," July 21, 2016 (www.youtube.com/watch?v=t-ebW5NFvK : accessed 1 March 2017).

match(es).⁸ This helps locate more related matches. Unlike SAHs, it does not require overlapping trees.

Case One

This case involves an Illinois adoptee born in 1954 and adopted in Chicago. Before the Illinois law change, the adoptee confirmed the name of her birth mother (BM). She did not know the name of her birth father (BF). Following the law change, the adoptee requested her original birth certificate (OBC). She hoped it included her BF's name; however, under Birth Father, it read, "unknown;" thus, Illinois' new law did not help identify her birth father.

The adoptee turned to DNA. She tested her autosomal DNA at *Ancestry*. She transferred those results to a second company, *FamilyTreeDNA* (www.familytreedna.com). Each company has its own database of testers. Thus, she was fishing in two ponds, looking for DNA matches in two databases.

She also transferred her DNA results to *GEDMatch.com*, which accepts DNA test results from testing companies,⁹ thereby providing additional matches from companies other than the testing company. *GEDMatch* provided the adoptee a partial match list from *23andMe.com*.

The adoptee's closest matches (referred to as CM and HAM) were put in *Ancestry*'s Second Cousin category.¹⁰ The adoptee and CM and HAM had Shared Matches with other people, including another match (JL) and CM's niece (AN). This group was related to each other and the adoptee, indicating they shared a common ancestor(s). This group was Irish. The adoptee's non-identifying information¹¹ said her BM was German, and her BF Irish. Thus, the group appeared to be paternal.

The adoptee reproduced HAM's 10-person tree as a Mirror Tree and increased it to 500 people. She placed matches from the group in the Mirror Tree. Next, the shared amounts of DNA between the adoptee and the group were examined. Based on this, possible relationships were identified.

Match	Amount of Shared DNA	Possible Relationships*
CM	370 cM	1C1R, 1/2-iC, 1/2-great-aunt/uncle/niece/nephew
AN	276 cM	1C1R, 1/2-1C, 1/2-great-aunt/uncle/niece/nephew, 1C2R, 2C, 1/2-1C1R
HAM	188 cM	1C2R, 2C, 1/2-1C1R, 2C1R, 1/2-2C, 1C3R, 1/2-1C2R
JL	72 cM	2C1R, 1/2-2C, 1C3R, 1/2-1C2R, 3C, 2C2R, 3C1R, other distant cousin

Abbreviations Used: C = cousin, R = removed, 1/2 = half. Possible relationships are based on the ranges published by DNA Detectives Facebook Group.

⁸ *Ancestry Support*, (<https://support.ancestry.com> : accessed 1 March 2017) "Shared Matches Feature."

⁹ View www.GedMatch.com for the latest list of companies from which GedMatch accepts test results.

¹⁰ The categories DNA testing companies use should be verified by examining how much DNA is shared with a match.

¹¹ Non-identifying information is information describing birth parents, but not identifying them.

¹² The only other possible relationships are 1C1R, 1/2-great-aunt/uncle/niece/nephew.

¹³ The people listed on the adoptee's Social Security filings were not related to any birth family.

Notably, CM's mother had a male half-sibling, GL. If GL was the birth father, then CM and the adoptee would be half-first cousins. This is consistent with the possible relationships listed above. Additionally, this amount of sharing is definitive because there are few other possible relationships for this amount of shared DNA.¹² Also, if GL was the BF, then AN, HAM, and JL would be the relationship underlined in the table above. Thus, it appeared GL was the birth father.

Unfortunately, GL was deceased and thus, could not test; however, GL's granddaughter (KM), the adoptee's possible half-niece, agreed to test. The adoptee and KM shared 1099 cM of DNA, which is within the expected range for a half-aunt and half-niece: 575 - 1330 cM. This confirmed that GL was the birth father. The adoptee had found her birth father with DNA.

Case Two

The second case involves an Illinois adoptee who was born on January 8, 1918 in Aurora, Illinois and died in Arizona in 1997. The adoptee's 80-year-old daughter wanted to confirm her mother's birth parents, believing her mother had found her birth parents and listed them in Social Security filings.¹³

Search for Adoptee's Birth Certificate

The daughter searched for her mother's birth certificate (BC) in Illinois. She hired another professional genealogist for this; however, the BC has not been found.

The new Illinois adoption law allows the offspring of deceased adopted parents to obtain their parents' original birth certificate (OBC) by completing the form mentioned above. It requires registration with the Illinois Adoption Registry and Medical Information Exchange (IARMIE) as a surviving relative of the deceased adopted person.

IARMIE registration requires submission of a certified copy of the adoptee's death certificate. For over a year, the daughter tried obtaining her mother's death certificate from Arizona, which is a "closed state," releasing death certificates only to verified family members. Verification was complicated because the adoptee had changed both first and last names many times. Arizona refused to give the daughter her mother's death certificate until recently.

Even though the new Illinois law permitted the daughter to obtain her mother's OBC, it did not help her. The daughter then turned to DNA.

DNA Testing

The daughter's autosomal DNA was tested at *FamilyTreeDNA* (FTDNA). She also transferred her

FTDNA results to GEDMatch. She had no close DNA matches at either place; therefore, she also tested at *Ancestry*, as did her brother, the adoptee's other child. The adoptee's children's *Ancestry* matches were also distant matches.

Focus was shifted to FTDNA, where a match (LB) was reviewed. He and the daughter had previously communicated. Despite his helpfulness, their connection had not been determined.

Mirror Tree

LB's family tree on FTDNA included his four grandparents. Their surnames were used to search the daughter's matches. At *Ancestry*, several matches had one of the four grandparent surnames—M—in their trees. A Mirror Tree was built based on the M family back to the first Ms who immigrated to New York in 1709 or 1710:

- KM
- b. 1673 Grossen Engels, Hessen, Germany
- d. 1748 Germantown, New York
- KM's first wife (ADK)
- b. 1677 Altengronau, Main-Kinzig-Kreis, Hessen, Germany
- d. 1709 England
- KM's second wife (AM)
- b. _____ Hessen, Germany
- d. 1736 Germantown, New York

Building a Mirror Tree forward to present time from KM and his wives would require ten or more generations—a time-consuming task. But there was something to celebrate: The adoptee was related to the M family.

A book¹⁴ describes two M men (SGM and PM) moving in May 1833 from New York to Kendall County, Illinois. This is close to Aurora, Illinois, where the adoptee was born. A PM (b. 1788 Hillsdale, NY – d. 1881 Rochelle, Ogle, IL), whose facts matched this story fairly well, was identified. PM had a son, SGM (b. Potter Hollow, NY 1815 – d. 1895 Oswego, IL). Although the facts did not line up perfectly, these seemed to be the same people. PM's paternal line went back to the immigrant KM. Relevant branches of the Mirror Tree could be narrowed down. PM's line was then extended forward to around 1900 to find a birth parent.

When PM's line was extended, the M men's wives' surnames were noted. Several surnames overlapped with surnames of the daughter's DNA matches' ancestors. This indicated those lines were relevant.

One M descendant was identified as a potential birth father (BF). BLP (b. 1893 Thomson, IL, d. 1963 Mt. Carroll, IL.)

BLP's lineage went back to immigrant KM and included surnames present in the daughter's DNA matches' ancestors, indicating this might be the correct birth father.

One unusual finding about BLP was that when the adoptee was conceived, he lived in Mt. Carroll, Illinois, 102 miles from Aurora, Illinois, where the adoptee was born; however, birth parents do not always live where the adoptee is conceived. The M family had ties to Aurora; maybe BLP was visiting family when the adoptee was conceived.

In fact, BLP lived with his grandparents in Lombard, Illinois¹⁵ after his mother's death when he was three. Lombard is 25 miles from Aurora, where the adoptee was born. The maiden name of BLP's grandma JMP was M. She was born in Aurora and died in Lombard in 1919, two years after the adoptee's conception. BLP might have been visiting his grandma during the conception.

To determine whether BLP was the BF, the adoptee was added to the Mirror Tree as BLP's daughter. The adoptee's children were also added to the Mirror Tree. The children's DNA was attached to those children. Several SAHs appeared, indicating BLP might be the BF; however, all SAHs were from distant DNA matches, which are not conclusive. Testing a closer relative was needed to verify that BLP was the BF.

BLP's grandson, TP, agreed to DNA testing. TP said his grandfather was in Aurora for business during the relevant time. TP's DNA results are pending.

If BLP is the BF, his grandson would be a half-first cousin to the adoptee's children and they would share 215 – 650 cM of DNA, a definitive amount of DNA. There are only a few other possible relationships sharing this amount: first cousin, once removed and half-great-aunt/uncle/niece/nephew. If the amount of DNA TP shares with the adoptee's children is in this range, it is strong evidence BLP is the BF.

In summary, the adoptee's children found cousins with DNA. A possible BF has been identified for the adoptee, who was born almost 100 years ago.

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Corrections for "Genetic Genealogy: The Newest Game in Town" from ISGS Quarterly, Vol. 48, No. 4, Winter 2016. (A software issue shifted image captions.)

The caption underneath the DNA helix (first image) on page 230 should read: "A portion of DNA showing the base pairs and the form of a double helix" that goes with citation 2.

The caption underneath the 23 chromosomes (second image) on page 230 should read: "Forty-six human chromosomes lined up in matching pairs, including the twenty-two pairs of autosomes and one pair of sex chromosomes" and goes with citation 1.

¹⁴ A citation for this book cannot be provided to protect the privacy of this family.

¹⁵ On the 1900 and 1910 U.S. censuses, BLP was seven and seventeen-years old, respectively, and living with his grandparents.