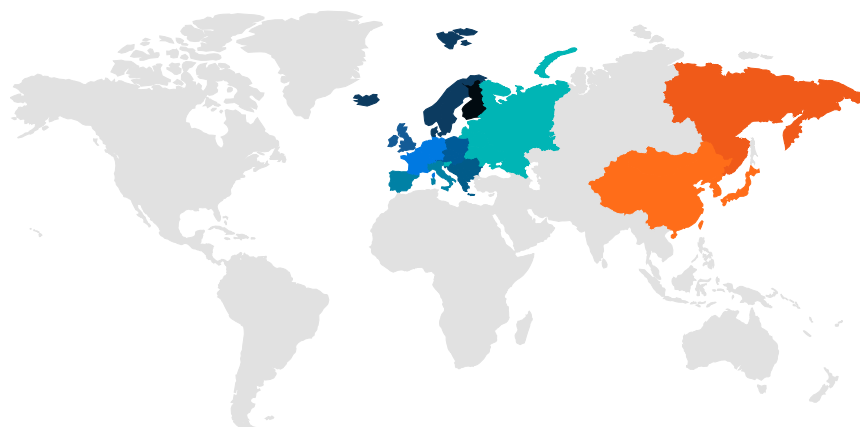
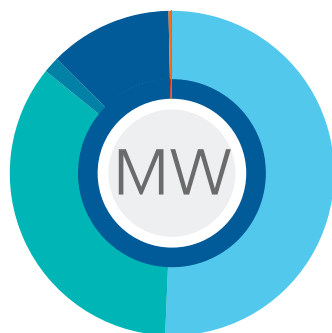




## Ancestry Composition

Your genome tells the unique story of your ancestry: where your ancestors lived, when they contributed to your family tree, and how their DNA was passed down to you through your parents. For more information about your results, see [Frequently Asked Questions](#).



### Martin Wolske

100%

#### European **99.7%**

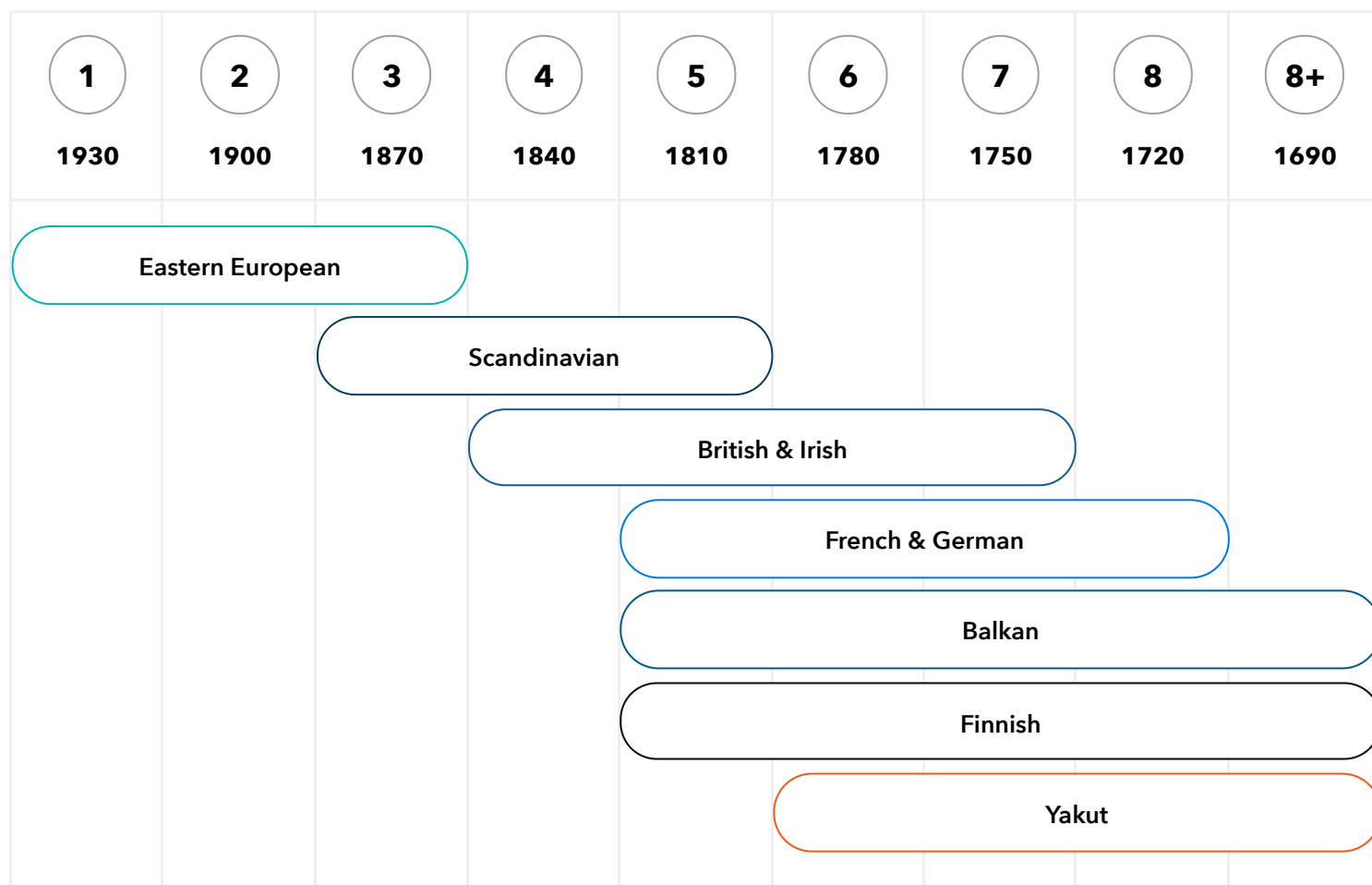
• Northwestern European	50.7%
Scandinavian	10.9%
French & German	4.7%
British & Irish	3.5%
Finnish	0.4%
Broadly Northwestern European	31.1%
• Eastern European	35.1%
• Southern European	1.6%
Balkan	0.5%
Broadly Southern European	1.1%
• Broadly European	12.2%

#### East Asian & Native American **0.3%**

• East Asian	0.3%
Yakut	0.2%
Broadly East Asian	0.1%

## Your Ancestry Timeline

How many generations ago was your most recent ancestor for each population?

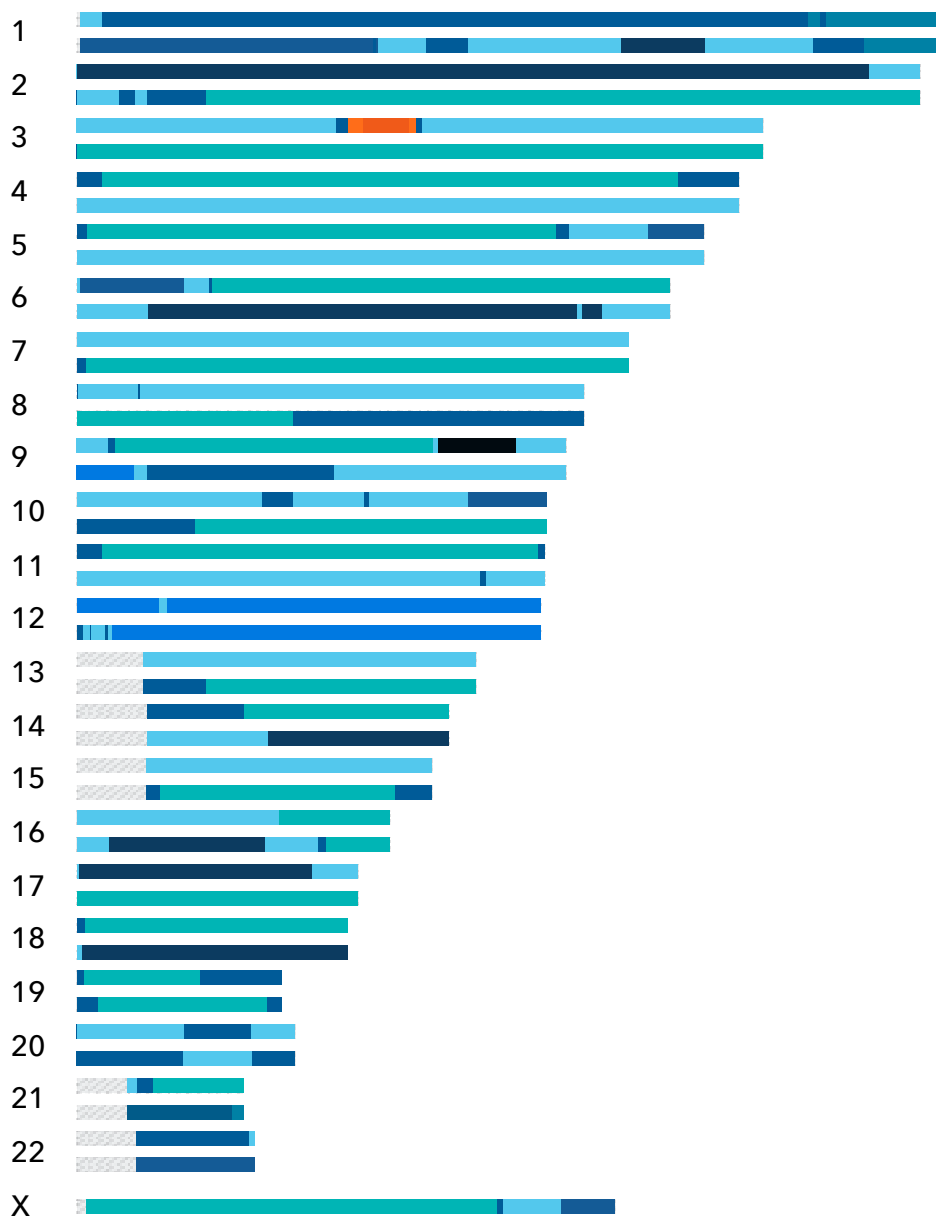


### How to interpret this result

- This module uses your Ancestry Composition results to estimate the generation range where you are likely to have had a single relative who descended from a single population.
- These results may be helpful for learning about your genealogy, in figuring out from which ancestors a particular ancestry may have been inherited, or for piecing together the history of their likely migrations.
- For technical details on how this feature works, read our white paper.

## Your Ancestry Composition Chromosome Painting

These are your chromosomes; we've painted them with your Ancestry Composition results. The first 22 are called autosomes and come in pairs of two, each represented by one of the colored horizontal lines in the graphic below. Chromosomes have different lengths, and are named 1 through 22, when sorted by size (scientists are not very creative). Lastly, we also look at ancestry on your X chromosome: two copies like the autosomes if you are female, and only one copy if you're male (that you got from mom).



**Martin Wolske** **100%**

**European** **99.7%**

- **Northwestern European** **50.7%**
  - Scandinavian 10.9%
  - French & German 4.7%
  - British & Irish 3.5%
  - Finnish 0.4%
  - Broadly Northwestern European 31.1%
- **Eastern European** **35.1%**
- **Southern European** **1.6%**
  - Balkan 0.5%
  - Broadly Southern European 1.1%
- **Broadly European** **12.2%**

**East Asian & Native American** **0.3%**

- **East Asian** **0.3%**
  - Yakut 0.2%
  - Broadly East Asian 0.1%

**No Data Available** **--**

Genotype data is not available for these regions because their genetic sequence is highly repetitive, and therefore not readily tested via current genotyping technology.

Broad regional assignments: Sometimes a piece of DNA matches a regional population but cannot be assigned to a more specific population. In such a case we assign the DNA "broadly" to that regional population rather than a specific one.

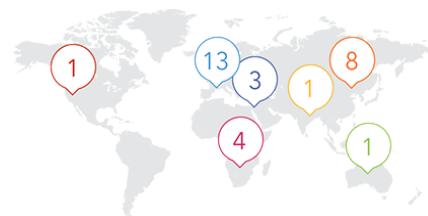
## Do more with your Ancestry Composition results.

- Contribute to research and help us understand patterns of genetic variation around the world.
- Learn more about the reference populations we use to determine your result.
- Join the discussion with other 23andMe customers interested in Ancestry Composition results.

## Scientific Details

### We determine your Ancestry Composition by comparing your DNA to public and private reference data.

To determine your Ancestry Composition, we use an algorithm that looks at short, non-overlapping segments of your DNA. We compare each segment of your DNA to reference DNA sequences. We have defined 31 ancestry populations from around the world using reference datasets that include over 10,000 individuals with known ancestry. When a segment of your DNA matches the reference DNA from a specific population with a high degree of certainty, the segment is assigned to that population. Sometimes the segment matches reference DNA from several populations, in which case it is assigned to a broad ancestry (e.g. Northwestern European). The results of all of these assignments are then tallied across your genome to determine your Ancestry Composition. Read more about how we assign your DNA to different ancestries



This table shows the number of reference individuals used to define each broad ancestry population. The reference datasets are made up of over 10,000 people, including publicly available data from the Human Genome Diversity Project, HapMap, and the 1000 Genomes project, as well as a large number of 23andMe customers who have consented to participate in research.

Ancestry Composition Populations	23andMe Customers	Public Data*	Total Individuals
<b>East Asian and Native American</b> Native American (Colombian, Karitiana, Maya, Pima, Surui), East Asian, Japanese, Korean (South Korean), Yakut, Mongolian (Daur, Hezhen, Mongolian, Oroqen, Tu, Xibo), Chinese (Chinese, Han, Hong Kongese, Taiwanese), Southeast Asian (Burmese, Cambodian, Indonesian, Lao, Malaysian, Filipino, Thai, Vietnamese)	808	560	1368
<b>European</b> Southern European, Italian (Italian, Northern Italian, Tuscan), Balkan (Albanian, Bosnian and Herzegovinian, Bulgarian, Croatian, Greek, Macedonian, Maltese, Montenegrin, Romanian, Serbian), Sardinian, Iberian (France Basque, Portuguese, Spanish), Northwestern European, British and Irish (Irish, United Kingdom), French and German (Austrian, French, German, Belgian, Dutch, Swiss), Scandinavian (Danish, Norwegian, Swedish), Finnish, Ashkenazi, Eastern European (Belarusians, Czechs, Hungarians, Polish, Russian, Slovak, Slovene, Ukrainian)	6421	421	6842

<b>Middle Eastern and North African</b>	<b>550</b>	<b>176</b>	<b>726</b>
Middle Eastern (Armenian, Azerbaijani, Cypriot, Georgian, Druze, Iranian, Iraqi, Lebanese, Turkish, Syrian), North African (Algerian, Bahrani, Bedouin, Egyptian, Jordanian, Kuwaiti, Moroccan, Mozabite, Palestinian, Saudi Arabian, Tunisian, Emirati, Yemeni)			
<b>Oceanian</b>	<b>3</b>	<b>36</b>	<b>39</b>
Broadly Oceanian (Nan Melanesian, Palauan, Tongan)			
<b>South Asian</b>	<b>207</b>	<b>615</b>	<b>822</b>
Broadly South Asian (Afghan, Balochi, Bangladeshi, Brahui, Burusho, Hazara, Indian, Kalash, Makrani, Nepalese, Pakistani, Pathan, Sindhi, Sri Lankan, Uygur)			
<b>Sub-Saharan African</b>	<b>228</b>	<b>393</b>	<b>621</b>
West African (Bantu, Cameroonian, Ghanian, Ivorian, Liberian, Luhya, Mandenka, Nigerian, Sierra Leonean, Yoruba), East African (Eritrean, Ethiopian, Maasai, Somali), Central and South African (Biaka Pygmies, Mbuti Pygmies, San)			

\* Public Reference Set includes HGDP, 1000 Genomes, HapMap3

## Change Log

Your report may occasionally be updated based on new information. This Change Log describes updates and revisions to this report.

Date	Change
May 1, 2017	Your genetic results were first available from 23andMe.
Oct. 21, 2015	Ancestry Composition report created.

Martin Wolske's Report, printed on 2017-05-06 UTC



© 2017 23andMe, Inc. All Rights Reserved.