In seeking to understand who will “do” STEM, researchers have often focused on the road most traveled and done so overlooked some of the ways in which members from other racial/ethnic groups achieve success. Our study examines these “unusual suspects” from the ALRI11 data and compares them with white males (usual suspects) in the ALRI11 data set. Our findings were reflective of the themes that emerged in each of our archetypical categories developed in other Activation Lab studies. In particular, we identified themes around civic engagement/policy, influence of family, and informal mentor/coal. More interesting for this analysis were the trends that were different between the two groups. “Unusuals” were more likely than the usual to lack the “usual suspects” and, less likely to be climbers. Those that were climbers tended to have less evidence of fascination beginning in high school than their usual counterparts.

Compared to women and men of color (the “usual suspects”) they make their way into STEM careers. Our study changes the focus by analyzing not just the way that women most traveled by the usual suspects. We also analyze alternative routes to STEM careers. By better understanding the paths that under represented groups take to STEM careers we can also begin to see how these paths may be broadened and landscaped in an effort to ensure access and support for talented individuals.

Future research efforts will focus on more in-depth analysis and interpretation of the cases above. In addition we will seek opportunities to increase our subject pool in an effort to build a more representative sample. We will also seek ways to establish generalizability of the trends that we have begun to detect by designing a survey study of a representative sample of students and engineers, and develop study designs that allow us to oversample “unusuals” with closer attention to the “unusuals” discussed here. Women are not “unusual” in the life sciences, but they are severely underrepresented in the engineering. We also plan to analyze data gathered from children, adolescents, and emerging adults. One set of analyses would seek to determine if there are similar patterns in the cognitive and psycho- emotional dispositions of those individuals. Another set of analyses would compare the way scientists and engineers talk about their science affect in childhood, adolescence, and as emerging adults with the way children, adolescents, and emerging adults talk about it now.