Supplemental file—survey

| Participant ID | |
|--|-----|
| Demographics What grade are you in? | |
| Are you a (circle one): boy girl other | |
| Do you have a disability? Yes (please tell us what kind of disability) | _No |
| What did you like most about the robotics program? | |
| What did you like <u>least</u> about the programs (or an area you would like to see improved). | |

Is there anything else that you would like to share about the HB FIRST® Robotics program?

| Quality of the HB FIRST® experience (adapted from (Melchior, Cohen, Cutter, & Leavitt, 2005)) | | | | |
|---|----------|-------|----------|----------|
| Statement | Strongly | Agree | Disagree | Strongly |
| | Agree | | | Disagree |
| Kids in my group made the important decisions, not | | 0 | 0 | 0 |
| the adults. | 0 |) | | |
| I had a chance to do lots of different jobs in my group. | 0 | 0 | 0 | 0 |
| I had real responsibilities in my group. | 0 | 0 | 0 | 0 |
| I had a chance to be both a designer and a builder | 0 | 0 | 0 | 0 |
| I had fun working in the HB FIRST® group. | 0 | 0 | 0 | 0 |
| I felt like I really belonged in my group. | 0 | 0 | 0 | 0 |

| Impacts from the HB FIRST® Experience (adapted from (Melchior, Cohen, Cutter, & Leavitt, | | | | |
|--|----------|---------|----------|----------|
| 2005)) | | | | |
| Statement | Strongly | Agree | Disagree | Strongly |
| | Agree | | | Disagree |
| HB FIRST® helped me understand the value of working | | \circ | | 0 |
| in a group | |) | | |
| I gained a better understanding of how math, science and | | 0 | | 0 |
| technology are used to solve problems in the real world | J |) | |) |
| I gained a sense of self-confidence by being in HB | | \circ | | 0 |
| FIRST® | |) | | |
| My interest in science and technology greatly increased | | | | 0 |
| as a result of being in HB FIRST® | |) | | |
| HB FIRST® helped motivate me to do better in school | 0 | 0 | 0 | 0 |

| I gained a better idea of what I wanted to study in school | \circ | | 0 | \circ |
|--|---------|---|---|---------|
| as a result of HB FIRST® | \cup | J | J | |

| Skills Gained Through HB FIRST® (adapted from (Melchior, Cohen, Cutter, & Leavitt, 2005)) | | | | |
|---|-------|------|--------|--------|
| Statement | A Lot | Some | Very | Not at |
| | | | Little | All |
| HB <i>FIRST</i> ® helped me weigh different issues and possibilities before making a decision | 0 | 0 | 0 | 0 |
| I learned how to listen and respond to other people's suggestions or concerns | 0 | 0 | 0 | 0 |
| HB <i>FIRST</i> ® helped me talk with people to get the information I need | 0 | 0 | 0 | 0 |
| It taught me to get along with other students, teachers, and adults | 0 | 0 | 0 | 0 |
| I learned to work within the rules of a group | 0 | 0 | 0 | 0 |
| I learned how to manage my time | 0 | 0 | 0 | 0 |
| I learned new ways of thinking or acting from other people | 0 | 0 | 0 | 0 |
| HB <i>FIRST</i> ® gave me confidence to work with people that I do not know | 0 | 0 | 0 | 0 |
| HB FIRST® has taught me to stop or decrease conflicts between people | 0 | 0 | 0 | 0 |
| I learned how to use computers to analyze information | 0 | 0 | 0 | 0 |
| I learnt to use practical math skills, such as graphs and tables | 0 | 0 | 0 | 0 |

Melchior, A., Cohen, F., Cutter, T., & Leavitt, T. (2005). More than robots: An evaluation of the FIRST robotics competition and institutional impacts. In. New Hampshire.