## Appendix G

## Differential Item Functioning Results

Table G-1. 2018 Legacy MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored - ELA Grade 10

| Group |  | Item <br> Type | Number of Items | Number "Low" |  |  | Number "High" |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reference | Focal |  |  | Total | Favoring |  | Total | Favoring |  |
|  |  |  |  |  | Reference | Focal |  | Reference | Focal |
| Male | Female | MC | 36 | 3 | 3 | 0 | 0 | 0 | 0 |
|  |  | OR | 6 | 2 | 0 | 2 | 0 | 0 | 0 |
| Students without Disabilities | Students with Disabilities | MC | 36 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not LEPFLEP | LEPFLEP | MC | 36 | 12 | 12 | 0 | 6 | 6 | 0 |
|  |  | OR | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not Economically Disadvantaged | Economically Disadvantaged | MC | 36 | 1 | 1 | 0 | 0 | 0 | 0 |
|  |  | OR | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
| White | African American | MC | 36 | 9 | 9 | 0 | 1 | 1 | 0 |
|  |  | OR | 6 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Hispanic | MC | 36 | 6 | 6 | 0 | 2 | 2 | 0 |
|  |  | OR | 6 | 0 | 0 | 0 | 0 | 0 | 0 |

Table G-2. 2018 Legacy MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored - Mathematics Grade 10

| Group |  | Item Type | Number of Items | Number "Low" |  |  | Number "High" |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reference | Focal |  |  | Favoring |  |  | Total | Favoring |  |
|  |  |  |  | Total | Reference | Focal |  | Reference | Focal |
| Male | Female | MC | 32 | 3 | 3 | 0 | 0 | 0 | 0 |
|  |  | OR | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| Students without Disabilities | Students with Disabilities | MC | 32 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not LEPFLEP | LEPFLEP | MC | 32 | 2 | 0 | 2 | 0 | 0 | 0 |
|  |  | OR | 10 | 0 | 0 | 0 | 1 | 1 | 0 |
| Not Economically Disadvantaged | Economically Disadvantaged | MC | 32 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| White | African American | MC | 32 | 3 | 2 | 1 | 0 | 0 | 0 |
|  |  | OR | 10 | 1 | 1 | 0 | 0 | 0 | 0 |
|  | Hispanic | MC | 32 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 10 | 1 | 1 | 0 | 0 | 0 | 0 |

Table G-3. 2018 Legacy MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored - High School Biology

| Group |  | $\begin{aligned} & \text { Item } \\ & \text { Type } \end{aligned}$ | Number of Items | Number "Low" |  |  | Number "High" |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reference | Focal |  |  | Total | Favoring |  | Total | Favoring |  |
|  |  |  |  |  | Reference | Focal |  | Reference | Focal |
| Male | Female | MC | 40 | 1 | 0 | 1 | 1 | 1 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Students without Disabilities | Students with Disabilities | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 1 | 1 | 0 | 0 | 0 | 0 |
| Not LEPFLEP | LEPFLEP | MC | 40 | 4 | 3 | 1 | 1 | 1 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not Economically Disadvantaged | Economically Disadvantaged | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| White | African American | MC | 40 | 3 | 2 | 1 | 0 | 0 | 0 |
|  |  | OR | 5 | 1 | 1 | 0 | 0 | 0 | 0 |
|  | Hispanic | MC | 40 | 2 | 1 | 1 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |

Table G-4. 2018 Legacy MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored - High School Chemistry

| Group |  | ItemType | Number of Items | Number "Low" |  |  | Number "High" |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reference | Focal |  |  | Total | Favoring |  | Total | Favoring |  |
|  |  |  |  |  | Reference | Focal |  | Reference | Focal |
| Male | Female | MC | 40 | 14 | 8 | 6 | 1 | 0 | 1 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Students without Disabilities | Students with Disabilities | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not LEPFLEP | LEPFLEP | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not Economically Disadvantaged | Economically Disadvantaged | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| White | African American | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Hispanic | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |

Table G-5. 2018 Legacy MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored - High School Introductory Physics

| Group |  | Item <br> Type | Number of Items | Number "Low" |  |  | Number "High" |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reference | Focal |  |  | Total Favoring |  |  | Total | Favoring |  |
|  |  |  |  | Total | Reference | Focal |  | Reference | Focal |
| Male | Female | MC | 40 | 4 | 2 | 2 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Students without Disabilities | Students with Disabilities | MC | 40 | 3 | 3 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not LEPFLEP | LEPFLEP | MC | 40 | 5 | 3 | 2 | 0 | 0 | 0 |
|  |  | OR | 5 | 1 | 1 | 0 | 0 | 0 | 0 |
| Not Economically Disadvantaged | Economically Disadvantaged | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| White | African American | MC | 40 | 4 | 4 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 1 | 1 | 0 | 0 | 0 | 0 |
|  | Hispanic | MC | 40 | 2 | 2 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |

Table G-6. 2018 Legacy MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored - High School Technology/Engineering

| Group |  | Item <br> Type | Number of Items | Number "Low" |  |  | Number "High" |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reference | Focal |  |  | Total | Favoring |  | Total | Favoring |  |
|  |  |  |  |  | Reference | Focal |  | Reference | Focal |
| Male | Female | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Students without Disabilities | Students with Disabilities | MC | 40 | 16 | 10 | 6 | 3 | 2 | 1 |
|  |  | OR | 5 | 2 | 1 | 1 | 1 | 1 | 0 |
| Not LEPFLEP | LEPFLEP | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not Economically Disadvantaged | Economically Disadvantaged | MC | 40 | 8 | 3 | 5 | 4 | 2 | 2 |
|  |  | OR | 5 | 1 | 1 | 0 | 0 | 0 | 0 |
| White | African American | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Hispanic | MC | 40 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 5 | 0 | 0 | 0 | 0 | 0 | 0 |

Table G-7. 2018 Legacy MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored - Science Grade 5

| Group |  | Item Type | Number of Items | Number "Low" |  |  | Number "High" |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reference | Focal |  |  | Total Favoring |  |  | Total | Favoring |  |
|  |  |  |  | Total | Reference | Focal |  | Reference | Focal |
| Male | Female | MC | 38 | 2 | 2 | 0 | 0 | 0 | 0 |
|  |  | OR | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Students without Disabilities | Students with Disabilities | MC | 38 | 1 | 1 | 0 | 0 | 0 | 0 |
|  |  | OR | 4 | 1 | 1 | 0 | 0 | 0 | 0 |
| Not LEPFLEP | LEPFLEP | MC | 38 | 5 | 4 | 1 | 1 | 1 | 0 |
|  |  | OR | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not Economically Disadvantaged | Economically Disadvantaged | MC | 38 | 2 | 2 | 0 | 0 | 0 | 0 |
|  |  | OR | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| White | African American | MC | 38 | 5 | 3 | 2 | 1 | 1 | 0 |
|  |  | OR | 4 | 1 | 1 | 0 | 0 | 0 | 0 |
|  | Hispanic | MC | 38 | 3 | 2 | 1 | 1 | 1 | 0 |
|  |  | OR | 4 | 0 | 0 | 0 | 0 | 0 | 0 |

Table G-8. 2018 Legacy MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored - Science Grade 8

| Group |  | $\begin{aligned} & \text { Item } \\ & \text { Type } \end{aligned}$ | Number of Items | Number "Low" |  |  | Number "High" |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reference | Focal |  |  | Total | Favoring |  | Total | Favoring |  |
|  |  |  |  |  | Reference | Focal |  | Reference | Focal |
| Male | Female | MC | 38 | 5 | 3 | 2 | 1 | 1 | 0 |
|  |  | OR | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Students without Disabilities | Students with Disabilities | MC | 38 | 4 | 4 | 0 | 0 | 0 | 0 |
|  |  | OR | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Not LEPFLEP | LEPFLEP | MC | 38 | 5 | 3 | 2 | 0 | 0 | 0 |
|  |  | OR | 4 | 1 | 1 | 0 | 0 | 0 | 0 |
| Not Economically Disadvantaged | Economically Disadvantaged | MC | 38 | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  | OR | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| White | African American | MC | 38 | 5 | 4 | 1 | 0 | 0 | 0 |
|  |  | OR | 4 | 1 | 1 | 0 | 0 | 0 | 0 |
|  | Hispanic | MC | 38 | 3 | 2 | 1 | 0 | 0 | 0 |
|  |  | OR | 4 | 0 | 0 | 0 | 0 | 0 | 0 |

