Appendix D
Misfit Item Plots

## Tables List

MSA 2006 Plots of Operational Items Flagged for Misfit ............................................. 3
MSA 2006 Plots of Field Test Items Flagged for Misfit ............................................... 60

MSA 2006 Plots of Operational Items Flagged for Misfit

Grade 3, Mathematics, Item \#63 (Form 2), MC Item


Grade 4, Mathematics, Item \#66 (Form 1), \#65 (Form 2), MC Item



Grade 4, Mathematics, Item \#60A (Form 1), CR Item (Level 1)

| \% Item Detail |  |  |  | - 可 $\times$ |
| :---: | :---: | :---: | :---: | :---: |
| File Item Detail |  |  |  |  |
|  | Active Value A/Alpha B/Gamma C/Gamma Leve Item number | $\begin{array}{\|l\|} \hline \hat{v} \\ \hline \text { n } \\ \hline \text { Clear } \\ \hline \end{array}$ | Active Item \# <br> 72 <br> EPM/OPM |  |

(2,

Grade 4, Mathematics, Item \#60A (Form 1), CR Item (Level 2)

Level 2

Grade 4, Mathematics, Item \#64 (Form 1), MC Item

| 7 It Item Detail |
| :--- | :--- |
| File Item Detail |


| 仑े | Active Item \# <br> 75 <br>  <br> Clear |
| :---: | :---: |



Grade 4, Mathematics, Item \#68B (Form 1), CR Item (Level 1)

| Z'stem Detail |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| File Item Detail |  |  |  |  |
|  | Active Value A/Alpha B/Gamma C/Gamma Leve Item number | $\begin{array}{\|c\|} \hline \text { 令 } \\ \hline \text { n } \\ \hline \text { Clear } \end{array}$ | Active Item \# <br> 78 <br> EPM/OPM |  |



Grade 4, Mathematics, Item \#68B (Form 1), CR Item (Level 2)


Grade 4, Mathematics, Item \#68B (Form 1), CR Item (Level 3)


Grade 4, Mathematics, Item \#68B (Form 2), CR Item (Level 1)


Grade 4, Mathematics, Item \#68B (Form 2), CR Item (Level 2)



Grade 4, Mathematics, Item \#68B (Form 2), CR Item (Level 3)


| 1.10 | Item 110 <br> Level 3 <br> 1.60 |
| :--- | :--- |

Grade 5, Mathematics, Item \#33B (Form 1), CR Item (Level 1)


Grade 5, Mathematics, Item \#33B (Form 1), CR Item (Level 2)


Grade 5, Mathematics, Item \#33B (Form 1), CR Item (Level 3)



Grade 5, Mathematics, Item \#63B (Form 1), CR Item (Level 1)


Grade 5, Mathematics, Item \#63B (Form 1), CR Item (Level 2)


Grade 5, Mathematics, Item \#63B (Form 1), CR Item (Level 3)


Grade 6, Mathematics, Item \#68B (Form 1), CR Item (Level 1)

| 7 Item Detail |
| :--- |
| File Item Detail |


| 亿 | Active Item \# |
| :---: | :---: |
| ת. | 79 |
| Clear | EPM/OPM |



Grade 6, Mathematics, Item \#68B (Form 1), CR Item (Level 2)


Grade 6, Mathematics, Item \#68B (Form 1), CR Item (Level 3)



Grade 6, Mathematics, Item \#75B (Form 1), CR Item (Level 1)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |




Grade 6, Mathematics, Item \#75B (Form 1), CR Item (Level 2)

| 7\% Item Detail |  |  |  | - 可 $x$ |
| :---: | :---: | :---: | :---: | :---: |
| File Item Detail |  |  |  |  |
|  | Active Value <br> C A/Alpha <br> C B/Gamma <br> C/Gamma Leve <br> O Item number | t <br> n <br> Clear | Active Item \# $83$ <br> EPM/OPM |  |



Grade 6, Mathematics, Item \#75B (Form 1), CR Item (Level 3)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| ช | Active Item \# |
| :---: | :---: |
| ת | 83 |
| Clear | EPM/OPM |



Grade 6, Mathematics, Item \#68B (Form 2), CR Item (Level 1)



Grade 6, Mathematics, Item \#68B (Form 2), CR Item (Level 2)



Grade 6, Mathematics, Item \#68B (Form 2), CR Item (Level 3)


| 1.01 | Item 110 |
| :--- | :--- |
| Level 3 |  |
| 1.32 |  |

Grade 6, Mathematics, Item \#75A (Form 2), CR Item (Level 1)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |




Grade 6, Mathematics, Item \#75A (Form 2), CR Item (Level 2)

| 78 Item Detail |  |  |  | - ar $^{\text {x }}$ |
| :---: | :---: | :---: | :---: | :---: |
| File Item Detail |  |  |  |  |
|  | Active Value <br> C A/Alpha <br> C B/Gamma <br> - C/Gamma Leve <br> C Item number | v <br> n <br> Clear | Active Item \# $113$ <br> EPM/OPM |  |



Grade 7, Mathematics, Item \#66 (Form 1), SPR Item (Level 1)

| $7 s$ Item Detail |
| :--- | :--- |
| File Item Detail |


(2)

Grade 7, Mathematics, Item \#66 (Form 1), SPR Item (Level 2)

| 7 It Item Detail |
| :--- | :--- |
| File Item Detail |


| 仑 | Active Item \# |
| :---: | :---: |
| ת | 81 |
| Clear | EPM/OPM |



Grade 7, Mathematics, Item \#63B (Form 2), CR Item (Level 1)

| 7 It Item Detail |
| :--- | :--- |
| File Item Detail |


| Active Value |  |  |
| :---: | :---: | :---: |
| C A/Alpha | 介 |  |
| C B/Gamma | ת |  |
| - C/Gamma Level | Clear | EPM/OPM |

(tem 105

Grade 7, Mathematics, Item \#63B (Form 2), CR Item (Level 2)



Grade 7, Mathematics, Item \#63B (Form 2), CR Item (Level 3)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| Active Value |  | Active Item \# |
| :---: | :---: | :---: |
| C. A/Alpha | さ | 105 |
| C B/Gamma | 8. |  |
| - C/Gamma Leve | Clear | EPM/OPM |



Grade 7, Mathematics, Item \#63B (Form 2), CR Item (Level 4)

Item 105

Grade 8, Mathematics, Item \#60 (Form 1), \#59 (Form 2), SPR Item (Level 1)


Grade 8, Mathematics, Item \#60 (Form 1), \#59 (Form 2), SPR Item (Level 2)



Grade 8, Mathematics, Item \#32A (Form 1), CR Item (Level 1)


Grade 8, Mathematics, Item \#32A (Form 1), CR Item (Level 2)



Grade 8, Mathematics, Item \#32B (Form 1), CR Item (Level 1)



Grade 8, Mathematics, Item \#32B (Form 1), CR Item (Level 2)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| Active Value |  | Active ltem \# |
| :---: | :---: | :---: |
| C A/Alpha | 亿 | Activellem |
| C B/Gamma | n) |  |
| - C/Gamma Level <br> C Item number | Clear | EPM/OPM |



Grade 8, Mathematics, Item \#32B (Form 1), CR Item (Level 3)

| 7 It Item Detail |
| :--- | :--- |
| File Item Detail |


Item 60
Level 3

Grade 8, Mathematics, Item \#47B (Form 1), CR Item (Level 1)

| 75 Item Detail |
| :--- | :--- |
| File Item Detail |




Grade 8, Mathematics, Item \#47B (Form 1), CR Item (Level 2)

| $77^{\prime}$ Item Detail |  |  |  | - 똦 |
| :---: | :---: | :---: | :---: | :---: |
|  | File Item Detail |  |  |  |
|  | Active Value A/Alpha B/Gamma C/Gamma Leve Item number | $\begin{aligned} & \mathrm{v} \\ & \hline \text { n } \\ & \text { Clear } \\ & \hline \end{aligned}$ | Active Item \# $65$ <br> EPM/OPM |  |



Grade 8, Mathematics, Item \#47B (Form 1), CR Item (Level 3)

| Z's Item Detail |
| :--- |
| File Item Detail |


| Active Value |  |  |
| :---: | :---: | :---: |
| C A/Alpha | 亿 | $65$ |
| C B/Gamma | n. |  |
| - C/Gamma Level <br> C Item number | Clear | EPM/OPM |



Grade 8, Mathematics, Item \#47B (Form 1), CR Item (Level 4)

| 7\% Item Detail |  |  |  | - 可 $x$ |
| :---: | :---: | :---: | :---: | :---: |
| File Item Detail |  |  |  |  |
|  | Active Value <br> C A/Alpha <br> C B/Gamma <br> C/Gamma Leve <br> C Item number | 令 <br> n <br> Clear | Active Item \# 65 <br> EPM/OPM |  |

1.58
Level 65
0.85

Grade 8, Mathematics, Item \#72 (Form 1), SPR Item (Level 1)

| 78 Item Detail |
| :--- |
| File Item Detail |
| $\boldsymbol{x}$ |




Grade 8, Mathematics, Item \#72 (Form 1), SPR Item (Level 2)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| ง | Active Item \# |
| :---: | :---: |
| ת | 81 |
| Clear | EPM/OPM |



Grade 8, Mathematics, Item \#75A (Form 1), CR Item (Level 1)

| 78 Item Detail |
| :--- |
| File Item Detail |




Grade 8, Mathematics, Item \#75A (Form 1), CR Item (Level 2)



Grade 8, Mathematics, Item \#75B (Form 1), CR Item (Level 1)

| 7 Item Detail |
| :--- |
| File Item Detail |


| ช | Active Item \# |
| :---: | :---: |
| ת | 84 |
| Clear | EPM/OPM |



Grade 8, Mathematics, Item \#75B (Form 1), CR Item (Level 2)


1.02

-2.02 $\quad$| Item 84 |
| :---: |
| Level 2 |

Grade 8, Mathematics, Item \#75B (Form 1), CR Item (Level 3)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |




Grade 8, Mathematics, Item \#60 (Form 2), SPR Item (Level 1)

| 7 Item Detail |
| :--- |
| File Item Detail |




Grade 8, Mathematics, Item \#60 (Form 2), SPR Item (Level 2)


Grade 8, Mathematics, Item \#75B (Form 2), CR Item (Level 1)

| 78 Item Detail |
| :--- |
| File Item Detail |




Grade 8, Mathematics, Item \#75B (Form 2), CR Item (Level 2)

| \% Item Detail |  |  |  | - ㅂ丁 $_{\text {x }}$ |
| :---: | :---: | :---: | :---: | :---: |
| File Item Detail |  |  |  |  |
|  | Active Value <br> $C$ A/Alpha <br> $C$ <br> C/Gamma <br> C C/Gamma Level <br> C | 令 <br> n <br> Clear | Active Item \# <br> 110 <br> EPM/OPM |  |



Grade 8, Mathematics, Item \#75B (Form 2), CR Item (Level 3)



MSA 2006 Plots of Field Test Items Flagged for Misfit
Grade 3, Mathematics, Form A, Item \#88, MC Item

| Active Value |  |  |
| :---: | :---: | :---: |
| C A/Alpha | 亿 |  |
| C B/Gamma | ת |  |
| C/Gamma Level <br> - Item number | Clear | EPM/OPM |

(2.88

Grade 5, Mathematics, Form D, Item \#89, MC Item

| 78 Item Detail |  |
| :--- | :--- |
| File Item Detail | $-\|\boldsymbol{a}\| x \mid$ |


| Active Value |  |  |
| :---: | :---: | :---: |
| C A/Alpha | ช |  |
| C B/Gamma | 8. |  |
| C/Gamma Level <br> - Item number | Clear | EPM/OPM |

Level 18

Grade 6, Mathematics, Form A, Item \#87B, CR Item (Level 1)




Grade 6, Mathematics, Form A, Item \#87B, CR Item (Level 2)




Grade 6, Mathematics, Form A, Item \#87B, CR Item (Level 3)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| $\hat{\imath}$ | Active Item \# |
| :---: | :---: |
|  | 127 |
| Clear |  |



Grade 6, Mathematics, Form B, Item \#93B, CR Item (Level 1)


Grade 6, Mathematics, Form B, Item \#93B, CR Item (Level 2)

| \% Item Detail |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| File Item Detail |  |  |  |  |
|  | Active Value A/Alpha B/Gamma C/Gamma Leve Item number | $\frac{\hat{\imath}}{\left.\frac{\wedge}{n} \right\rvert\,}$ | Active Item \# $149$ <br> EPM/OPM |  |



Grade 6, Mathematics, Form B, Item \#93B, CR Item (Level 3)

1.14

$2.51 \backslash$ | Item 149 |
| :--- |
| Level |
| 3 |

Grade 6, Mathematics, Form C, Item \#94, MC Item

| 78 Item Detail |  |
| :--- | :--- |
| File Item Detail | $-\|\boldsymbol{x}\|$ |


| Active Value |  | Active Item\# |
| :---: | :---: | :---: |
| C A/Alpha | ข |  |
| C B/Gamma | 8 |  |
| C/Gamma Level <br> C Item number | Clear | EPM/OPM |



Grade 6, Mathematics, Form E, Item \#90A, CR Item (Level 1)


Grade 6, Mathematics, Form E, Item \#90A, CR Item (Level 2)

| 7 Item Detail |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  | Active Value A/Alpha B/Gamma C/Gamma Level Item number | $\begin{array}{\|c\|} \hline \hat{v} \\ \hline \text { n } \\ \hline \text { Clear } \\ \hline \end{array}$ | Active Item \# 191 <br> EPM/OPM |  |



Grade 7, Mathematics, Form B, Item \#91B, CR Item (Level 1)




Grade 7, Mathematics, Form B, Item \#91B, CR Item (Level 2)

| 78 Item Detail |
| :--- |
| File Item Detail |
| $\boldsymbol{a}\|x\|$ |


| ข | Active Item \# |
| :---: | :---: |
| 8, | 145 |
| Clear | EPM/OPM |



Grade 7, Mathematics, Form B, Item \#91B, CR Item (Level 3)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| 仑 | Active Item \# |
| :---: | :---: |
| ת | 145 |
| Clear | EPM/OPM |

1.07
Level 145
1.73

Grade 7, Mathematics, Form C, Item \#82B, CR Item (Level 1)

| 7 Item Detail |
| :--- |
| File Item Detail |
| $\boldsymbol{x}$ |




Grade 7, Mathematics, Form C, Item \#82B, CR Item (Level 2)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| 介 | Active Item \# |
| :---: | :---: |
| ת, | 148 |
| Clear | EPM/OPM |

1.22
Lteme1 148
Lever

Grade 7, Mathematics, Form C, Item \#82B, CR Item (Level 3)

| 78 Item Detail |  |
| :--- | :--- |
| File Item Detail | $-\|\boldsymbol{a}\| x \mid$ |


| ข | Active Item \# |
| :---: | :---: |
| ת | 148 |
| Clear | EPM/OPM |


| 1.22 | Item 148 <br> Level <br> 1.98 |
| :--- | :--- |

Grade 7, Mathematics, Form C, Item \#84, MC Item

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| Active Value |  |  |
| :---: | :---: | :---: |
| C A/Alpha | 亿 |  |
| C B/Gamma | 8 |  |
| C/Gamma Level <br> C Item number | Clear | EPM/OPM |



Grade 7, Mathematics, Form D, Item \#95, SPR Item (Level 1)

| $7 s$ Item Detail |
| :--- | :--- |
| File Item Detail |


(2) Item 180

Grade 7, Mathematics, Form D, Item \#95, SPR Item (Level 2)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| 亿ิ | Active Item \# <br> ת. <br> Clear |
| :---: | :---: |

Leve1 280

Grade 8, Mathematics, Form A, Item \#83, SPR Item (Level 1)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |




Grade 8, Mathematics, Form A, Item \#83, SPR Item (Level 2)

| $7 s$ Item Detail |
| :--- | :--- |
| File Item Detail |




Grade 8, Mathematics, Form A, Item \#85, SPR Item (Level 1)

| 75 Item Detail |
| :--- | :--- |
| File Item Detail |


Item 120

Grade 8, Mathematics, Form A, Item \#85, SPR Item (Level 2)

| 7 Item Detail |
| :--- |
| File Item Detail |


| へ | Active Item \# |
| :---: | :---: |
| ת. | 120 |
| Clear | EPM/OPM |

Leve1 220

Grade 8, Mathematics, Form B, Item \#77B, CR Item (Level 1)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| ช | Active Item \# |
| :---: | :---: |
| ת. | 129 |
| Clear | EPM/OPM |



Grade 8, Mathematics, Form B, Item \#77B, CR Item (Level 2)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| 仑 | Active Item \# |
| :---: | :---: |
| ת | 129 |
| Clear | EPM/OPM |



Grade 8, Mathematics, Form B, Item \#77B, CR Item (Level 3)

| 78 Item Detail |  |
| :--- | :--- |
| File Item Detail | $-\|\boldsymbol{a}\| x \mid$ |


| $\hat{\mathrm{v}}$ | Active Item \# <br> n <br> n <br> Clear |
| :--- | :--- |

Level 129

Grade 8, Mathematics, Form B, Item \#82, SPR Item (Level 1)

| 7 It Item Detail |
| :--- | :--- |
| File Item Detail |


| Active Value |  |  |
| :---: | :---: | :---: |
| C AlAlpha | ข |  |
| C B/Gamma | ת |  |
| - C/GammaLevel <br> C Item number | Clear | EPM/OPM |



Grade 8, Mathematics, Form B, Item \#82, SPR Item (Level 2)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| ษ | Active Item \# |
| :---: | :---: |
| ת | 134 |
| Clear | EPM/OPM |



Grade 8, Mathematics, Form C, Item \#77B, CR Item (Level 1)

| 7 It Item Detail |
| :--- | :--- |
| File Item Detail |


| Active Value |  | Active Item\# |
| :---: | :---: | :---: |
| C A/Alpha | 亿 | $144$ |
| C B/Gamma | 8. |  |
| - C/Gamma Level | Clear | EPM/OPM |



Grade 8, Mathematics, Form C, Item \#77B, CR Item (Level 2)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| ช | Active Item \# |
| :---: | :---: |
| ת | 144 |
| Clear | EPM/OPM |



Grade 8, Mathematics, Form C, Item \#77B, CR Item (Level 3)
Z ${ }^{\prime}$ Item Detail
File Item Detail



Grade 8, Mathematics, Form C, Item \#77B, CR Item (Level 4)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| Active Value |  |  |
| :---: | :---: | :---: |
| C A/Alpha | 亿 | Active Item \# |
| C B/Gamma | 8. |  |
| - C/Gamma Level | Clear | EPM/OPM |


| 1.38 |
| :--- | :--- |
| Level 144 |
| 0.84 |

Grade 8, Mathematics, Form D, Item \#83, SPR Item (Level 1)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| 介 | Active Item \# |
| :---: | :---: |
| 8 | 166 |
| Clear | EPM/OPM |



Grade 8, Mathematics, Form D, Item \#83, SPR Item (Level 2)

| 7 It Item Detail |
| :--- | :--- |
| File Item Detail |


| 仑 | Active Item \# |
| :---: | :---: |
| ת, | 166 |
| Clear | EPM/OPM |

Item 166

Grade 8, Mathematics, Form E, Item \#85A, CR Item (Level 1)

| 7 Item Detail |
| :--- | :--- |
| File Item Detail |


| ข | Active Item \# |
| :---: | :---: |
| ת | 185 |
| Clear | EPM/OPM |



Grade 8, Mathematics, Form E, Item \#85A, CR Item (Level 2)


| ษ | Active Item \# |
| :---: | :---: |
| 8. | 185 |
| Clear | EPM/OPM |



Grade 8, Mathematics, Form E, Item \#85B, CR Item (Level 1)

| 7 Item Detail |
| :--- | :--- |
| File Item Detail |


| Active Value |  |  |
| :---: | :---: | :---: |
| C A/Alpha | ข |  |
| C B/Gamma | ת |  |
| - C/GammaLevel <br> C Item number | Clear | EPM/OPM |



Grade 8, Mathematics, Form E, Item \#85B, CR Item (Level 2)

| Zs Item Detail |
| :--- |
| File Item Detail |


| 介 | Active Item \# |
| :---: | :---: |
| 0 | 186 |
| $\checkmark$ |  |
| Clear | EPM/OPM |



Grade 8, Mathematics, Form E, Item \#85B, CR Item (Level 3)

| 78 Item Detail |
| :--- | :--- |
| File Item Detail |


| $\hat{\imath}$ | Active Item \# |
| :---: | :---: |
| n. | 186 |
| Clear | EPM/OPM |



