

Effective Use of Spark Charts

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| Purpose | This tool provides guidelines and tips on how to effectively use spark charts to communicate research findings. |
| Format | This tool provides guidance on spark charts and their purposes, and shows examples of preferred practices and practical tips for spark charts. |
| Audience | This tool is designed primarily for researchers from the Model Systems that are funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR). The tool can be adapted by other NIDILRR-funded grantees and the general public. |

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Spark Charts

- ▶ The primary use of Spark Charts is to display the general shape or impression of trend data for multiple entities in a very small space for quick overview purposes.
- ▶ Spark charts are often embedded into associated tables in spreadsheets or text documents.
- ▶ Spark Charts can be displayed in three formats – as Spark Line Charts, Spark Area Charts, and Spark Column Charts.
- ▶ Spark Charts typically have minimal or no axis information.
- ▶ Spark Charts are often associated with adjacent numeric values in a table that might display the most recent value of the Spark trend (or the average value to-date over the displayed Spark trend history) (or the high-low values in the displayed Spark history).

Spark Lines

Client Intakes – Chatham Health Clinics – By Month – CY 2014

| HEALTH CLINIC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | MIN | MAX | MEAN | SPARK LINE |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------------|
| CHICKEN BRIDGE | 130 | 141 | 137 | 144 | 150 | 135 | 105 | 95 | 119 | 131 | 120 | 110 | 95 | 150 | 126 | |
| JONES FERRY | 213 | 227 | 271 | 296 | 280 | 276 | 278 | 284 | 306 | 289 | 300 | 299 | 213 | 306 | 277 | |
| WHITE CROSS | 282 | 270 | 266 | 260 | 238 | 230 | 240 | 253 | 265 | 270 | 289 | 290 | 230 | 290 | 263 | |
| HARRISON POND | 107 | 115 | 121 | 103 | 108 | 100 | 98 | 88 | 90 | 101 | 96 | 110 | 88 | 121 | 103 | |
| CHATHAM PARK | 125 | 123 | 122 | 142 | 148 | 132 | 144 | 161 | 170 | 175 | 180 | 192 | 122 | 192 | 151 | |
| FEARRINGTON | 77 | 95 | 82 | 67 | 71 | 94 | 92 | 64 | 69 | 87 | 82 | 94 | 64 | 95 | 81 | |
| MANN'S CROSSING | 281 | 261 | 252 | 199 | 205 | 190 | 239 | 254 | 280 | 247 | 250 | 279 | 190 | 281 | 245 | |
| HAMLET CHAPEL | 134 | 142 | 136 | 132 | 150 | 166 | 152 | 157 | 160 | 182 | 160 | 169 | 132 | 182 | 153 | |
| MOORE MOUNTAIN | 221 | 245 | 215 | 231 | 243 | 230 | 243 | 230 | 220 | 213 | 245 | 229 | 213 | 245 | 230 | |
| FIELDSTONE | 124 | 99 | 110 | 109 | 112 | 133 | 139 | 106 | 105 | 118 | 144 | 106 | 99 | 144 | 117 | |
| RIVER BIRCH | 269 | 230 | 247 | 224 | 197 | 219 | 225 | 208 | 219 | 224 | 260 | 280 | 197 | 280 | 234 | |
| BRIAR CHAPEL | 150 | 151 | 164 | 168 | 170 | 176 | 170 | 171 | 164 | 163 | 152 | 131 | 131 | 176 | 161 | |

Spark Lines provide a general impression of trends. These Spark Lines are embedded in the table. An automatic minimum [not necessarily zero] was selected for the vertical axis for the Spark Line for each of the Health Clinics. Can override this vertical axis approach if desired.

Spark Columns

Client Intakes – Chatham Health Clinics – By Month – CY 2014

| HEALTH CLINIC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | SPARK COLUMN | SPARK COLUMN |
|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------|--------------|
| CHICKEN BRIDGE | 130 | 141 | 137 | 144 | 150 | 135 | 105 | 95 | 119 | 131 | 120 | 110 | | |
| JONES FERRY | 213 | 227 | 271 | 296 | 280 | 276 | 278 | 284 | 306 | 289 | 300 | 299 | | |
| WHITE CROSS | 282 | 270 | 266 | 260 | 238 | 230 | 240 | 253 | 265 | 270 | 289 | 290 | | |
| HARRISON POND | 107 | 115 | 121 | 103 | 108 | 100 | 98 | 88 | 90 | 101 | 96 | 110 | | |
| CHATHAM PARK | 125 | 123 | 122 | 142 | 148 | 132 | 144 | 161 | 170 | 175 | 180 | 192 | | |
| FEARRINGTON | 77 | 95 | 82 | 67 | 71 | 94 | 92 | 64 | 69 | 87 | 82 | 94 | | |
| MANN'S CROSSING | 281 | 261 | 252 | 199 | 205 | 190 | 239 | 254 | 280 | 247 | 250 | 279 | | |
| HAMLET CHAPEL | 134 | 142 | 136 | 132 | 150 | 166 | 152 | 157 | 160 | 182 | 160 | 169 | | |
| MOORE MOUNTAIN | 221 | 245 | 215 | 231 | 243 | 230 | 243 | 230 | 220 | 213 | 245 | 229 | | |
| FIELDSTONE | 124 | 99 | 110 | 109 | 112 | 133 | 139 | 106 | 105 | 118 | 144 | 106 | | |
| RIVER BIRCH | 269 | 230 | 247 | 224 | 197 | 219 | 225 | 208 | 219 | 224 | 260 | 280 | | |
| BRIAR CHAPEL | 150 | 151 | 164 | 168 | 170 | 176 | 170 | 171 | 164 | 163 | 152 | 131 | | |

Displayed as two different versions of Spark Columns. In the first Spark Column, the common minimum monthly intake value across the 12 clinics was identified (would have been 64) and used as the vertical axis start value. The second Spark Column uses a true zero value vertical axis start.

Spark Change

Client Intakes – Chatham Health Clinics – By Quarter - 2013 vs 2014

| HEALTH CLINIC | 2013 Q1 | 2013 Q2 | 2013 Q3 | 2013 Q4 | 2014 Q1 | 2014 Q2 | 2014 Q3 | 2014 Q4 | TREND LAST 8 QUARTERS | CY 2014 QUARTERS COMPARED [UP VS DOWN] TO SAME QUARTER IN CY 2013 |
|-----------------|---------|---------|---------|---------|---------|---------|---------|---------|-----------------------|---|
| CHICKEN BRIDGE | 350 | 315 | 360 | 290 | 408 | 429 | 319 | 361 | | |
| JONES FERRY | 713 | 718 | 799 | 900 | 711 | 852 | 868 | 888 | | |
| WHITE CROSS | 723 | 690 | 717 | 736 | 818 | 728 | 758 | 849 | | |
| HARRISON POND | 316 | 314 | 294 | 292 | 343 | 311 | 276 | 307 | | |
| CHATHAM PARK | 320 | 418 | 327 | 405 | 370 | 422 | 475 | 547 | | |
| FEARRINGTON | 267 | 247 | 279 | 242 | 254 | 232 | 225 | 263 | | |
| MANN'S CROSSING | 745 | 600 | 716 | 802 | 794 | 594 | 773 | 776 | | |
| HAMLET CHAPEL | 376 | 465 | 398 | 475 | 412 | 448 | 469 | 511 | | |
| MOORE MOUNTAIN | 652 | 702 | 738 | 642 | 681 | 704 | 693 | 687 | | |
| FIELDSTONE | 311 | 399 | 321 | 341 | 333 | 354 | 350 | 368 | | |
| RIVER BIRCH | 690 | 602 | 615 | 691 | 746 | 640 | 652 | 764 | | |
| BRIAR CHAPEL | 420 | 501 | 511 | 429 | 465 | 514 | 505 | 446 | | |

The last Spark Box indicates whether client intakes in any given quarter of CY 2014 were higher [blue] or lower [red] than the client intakes in the same quarter of CY 2013.
 Note: The Blue and Red symbols do not encode the amount of relative change up or down, just whether the values were different and in what direction. Quick Screening Tool only.