| New and Improved Power Ranking (NIPR)$\text { Nipr }=\{\text { all cats }\} ; \text { Bopper }=\{r u n, h r, r b i, t b\} ; \text { Pitchin }=\{w, s v, k, e r a, w h i p\}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Team | NIPR | NIPR <br> Rank | BOPPER | BOPPER Rank | PITCHIN | PITCHIN |
| Bay City Brawlers | -51 | 13 | 78 | 3 | -147 | 14 |
| Boston Poindexters | 31 | 5 | -1 | 8 | 43 | 2 |
| CRYOGENIC TEDS | 22 | 6 | 78 | 4 | 5 | 9 |
| KGG Baseball 2019 | -26 | 10 | -69 | 11 | 6 | 7 |
| Killer Maltese | 56 | 1 | 94 | 2 | 67 | 1 |
| Killer Rabbits | -28 | 12 | -33 | 10 | -49 | 13 |
| Naperville Jellyfish | 50 | 2 | 133 | 1 | -1 | 11 |
| Notorious BE AR D | 3 | 7 | 17 | 7 | 15 | 5 |
| Plano Tiburon | -9 | 8 | -25 | 9 | 0 | 10 |
| PTBNL | -27 | 11 | -111 | 13 | 6 | 8 |
| RBI's all day | -70 | 14 | -159 | 14 | -1 | 12 |
| SATX Elephants | -23 | 9 | -102 | 12 | 25 | 3 |
| Southern Rockets | 39 | 3 | 46 | 6 | 10 | 6 |
| Vatican City Popes | 33 | 4 | 54 | 5 | 20 | 4 |
|  | 12 |  |  |  |  |  |

## NIPR for Special Category Areas

NIPR-1 $=\{$ all cats except your worst $\} ; P Q U A L=\{$ era, whip $\} ; P Q U A N=\{$ win,sv, $k\}$

| Team | NIPR-1 | NIPR-1 Rank | PQUAL | PQUAL Rank | PQUAN | PQUAN Rank |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bay City Brawlers | -31 | 13 | -153 | 14 | -143 | 14 |
| Boston Poindexters | 44 | 4 | 130 | 3 | -15 | 11 |
| CRYOGENIC TEDS | 38 | 6 | -0 | 6 | 9 | 9 |
| KGG Baseball 2019 | -16 | 11 | -13 | 8 | 19 | 6 |
| Killer Maltese | 79 | 1 | 150 | 1 | 11 | 8 |
| Killer Rabbits | -13 | 10 | -81 | 12 | -27 | 12 |
| Naperville Meerkats | 74 | 2 | -72 | 11 | 47 | 2 |
| Notorious BE AR D | 16 | 7 | 57 | 4 | -13 | 10 |
| Plano Tiburon | 3 | 8 | -32 | 9 | 22 | 5 |
| PTBNL | -16 | 12 | -108 | 13 | 82 | 1 |
| RBI's all day | -56 | 14 | -36 | 10 | 22 | 4 |
| SATX Elephants | -11 | 9 | 39 | 5 | 15 | 7 |
| Southern Rockets | 60 | 3 | 132 | 2 | -72 | 13 |
| Vatican City Popes | 41 | 5 | -12 | 7 | 42 | 3 |

## NIPR Category Data

Category $Z$-score * 100. Average is 0 . One stdev better than average is 100 . And 1 stdev worse is -100

| Team | Run | Hr | Rbi | Sb | Tb | w | Sv | K | Era | Whip | NIPR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bay City Brawlers | 204 | 63 | 18 | -90 | 28 | -212 | 5 | -221 | -73 | -232 | -51 |
| Boston Poindexters | 94 | -17 | -59 | 101 | -24 | 16 | -81 | 20 | 143 | 117 | 31 |
| CRYOGENIC TEDS | 55 | 89 | 74 | -115 | 94 | 105 | -52 | -26 | 38 | -39 | 22 |
| KGG Baseball 2019 | -116 | -12 | -59 | -15 | -89 | 54 | -3 | 6 | 11 | -36 | -26 |
| Killer Maltese | 50 | 147 | 42 | -148 | 138 | -60 | 168 | -75 | 130 | 170 | 56 |
| Killer Rabbits | -37 | -102 | -12 | 101 | 19 | -9 | -3 | -70 | -156 | -6 | -28 |
| Naperville Meerkats | 72 | 137 | 216 | -32 | 105 | 168 | -173 | 145 | -106 | -37 | 50 |
| Notorious BE AR D | -7 | 47 | 18 | -115 | 8 | 29 | -102 | 34 | 73 | 41 | 3 |
| Plano Tiburon | -121 | -17 | 15 | 9 | 22 | -72 | 104 | 34 | -69 | 5 | -9 |
| PTBNL | -90 | -107 | -122 | 142 | -126 | -47 | 182 | 111 | -129 | -88 | -27 |
| RBI's all day | -147 | -134 | -160 | -57 | -193 | 92 | -67 | 40 | -55 | -18 | -70 |
| SATX Elephants | -20 | -134 | -125 | 51 | -129 | -22 | -10 | 78 | 45 | 34 | -23 |
| Southern Rockets | 90 | -70 | 86 | 159 | 79 | -123 | 54 | -146 | 135 | 129 | 39 |
| Vatican City Popes | -29 | 110 | 68 | 9 | 68 | 80 | -24 | 69 | 14 | -39 | 33 |

## NIPR Explanation

May 2013
The goal of the NIPR is to give a statistical measure of a team's performance, independent of head-to-head weekly competition. The NIPR measures a team's statistical performance in each category (cat) over the whole season.

For each cat, the NIPR is a team's Z-score for that cat times 100 . I multiply by 100 , so that the NIPR is a whole number. The Z-score is the number of standard deviations either better or worse than average for a cat. An average performance gives a NIPR of 0 , no better or worse than average.

Example: Assume the league average is 9 homers per week and the stdev is 1
If Team $Z$ averages 9 homers per week, their NIPR is 0 .
If team X averages 10 homers per week, then their NIPR for homers is 100.
If Team Y averages 11 homers per week, their NIPR is 200
If Team DOP averages 8 homers per week, their NIPR is -100 .
Other NIPR scores are simply the averages over multiple categories:
NIPR = average(all cats)
NIPR-1 = average( all cats except team's worst)
BOPPER = average(run,hr,rbi,tb)
PQUAN=average(win,k)
PQUAL=average(era,whip)

