

| Blocks (Game) | Player | Team | Year | extra | Conference |
|----------------------|------------------|------------------|-------------|--------------|-------------------|
| 22 | Dave Mills | Salpointe | 1960 | so | 5A |
| 18 | Darnell Shumpert | Santa Rita | 2008 | | 4A |
| 15 | Jay Knollmiller | Marcos de Niza | 1992 | | 5A |
| 14 | David Van Dyke | Mesa | 1987 | jr | 5A |
| 14 | James Anderson | Page | 2005 | | 4A |
| 13 | Mike Golleher | Tempe | 1998 | | 4A |
| 13 | Levi Jones | Santa Cruz | 1997 | | 3A |
| 13 | Skyler Musser | Carl Hayden | 2000 | | 5A |
| 13 | John Underwood | Alhambra | 2007 | jr | 5A |
| 13 | John Underwood | Alhambra | 2007 | jr | 5A |
| 12 | John Underwood | Alhambra | 2007 | jr | 5A |
| 12 | John Underwood | Alhambra | 2007 | jr | 5A |
| 12 | John Underwood | Alhambra | 2007 | jr | 5A |
| 12 | Casey Frank | North | 1995 | | 5A |
| 12 | Chancey Wade | Dysart | 1992 | jr | |
| 12 | John Smith | Carl Hayden | 1995 | jr | 5A |
| 12 | Danny Clougherty | Mesa Life School | 2003 | | 1A |