Evaluating Proposed 2020 Age-Grade Standards Against 2019 Rankings

# Alan Jones and Tom Bernhard

# 2020-04-12 Rough Draft

## Introduction

Alan Jones has produced the road-running age-grade standards every five years since 2005. These standards were based on single-age bests at each distance as compiled by Ken Young who created the Association of Road Racing Statisticians (ARRS): <http://arrs.run>. Unfortunately, Ken died in 2018. The data used for the proposed 2020 age-grade standards is comprised of Ken’s most recent data along with significant new Masters data supplied by Tom Bernhard.

Using these revised data, Alan created new, proposed standards for 2020. In order to evaluate them, Tom used the 2019 Masters age-graded rankings to compare the 2020 proposed standards against the 2015 standards. That is, he computed each runner’s performance factor which is a percentage giving how close that runner is to running the age standard for the runner’s age and gender. In this document, the rankings for the distances 1 Mile, 5 km, 10 km, Half Marathon, and Marathon are given in a table. These are the same distances that Alan uses in determining the factors since these are the most run distances. After each table, a graph showing the 2015 and 2020 factors vs age are displayed along with an explanation of the differences observed in each table.

## 1 Mile Men

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Age** | **Time** | **Race** | **Location** | **Date** | **2015 Factors** | **2020 Factors** | **2015 Factors Place** | **2020 Factors**  **Place** |  |
| Nat Larson | 57 | 4:56 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 92.04% | 92.06% | 1 | 1 | AG went up |
| Mark Zamek | 56 | 4:55 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 91.62% | 91.62% | 2 | 2 | same |
| Charles Novak | 51 | 4:46 | Liberty Mile | Pittsburgh, PA | 8/9/2019 | 90.88% | 90.77% | 3 | 4 |  |
| Tim Van Orden | 51 | 4:46 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 90.88% | 90.77% | 4 | 5 |  |
| David Noyes | 59 | 5:05 | Liberty Mile | Pittsburgh, PA | 8/9/2019 | 90.79% | 90.85% | 5 | 3 | AG went up |
| Mark Zamek | 56 | 4:58 | Midland Avenue Mile | Montclair, NJ | 8/28/2019 | 90.69% | 90.69% | 6 | 6 | same |
| Kenneth Barbee | 56 | 4:58 | Midland Ave Mile | Montclair, NJ | 8/18/2019 | 90.69% | 90.69% | 7 | 7 | same |
| Michael Madson | 46 | 4:37 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 90.36% | 90.16% | 8 | 8 |  |
| David Westenberg | 61 | 5:13 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 89.94% | 90.05% | 9 | 9 | AG went up |
| Mike Kearns | 65 | 5:25 | Liberty Mile | Pittsburgh, PA | 8/9/2019 | 89.59% | 89.80% | 10 | 11 |  |
| Alan Wells | 56 | 5:02 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 89.49% | 89.49% | 11 | 13 | same |
| Chuck Bridgeman | 58 | 5:07 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 89.46% | 89.51% | 12 | 12 | same |
| Doug Goodhue | 77 | 6:20 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 89.43% | 89.90% | 13 | 10 | AG went up |
| John Borthwick | 55 | 5:00 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 89.38% | 89.36% | 14 | 14 |  |
| Charlie Muse | 63 | 5:21 | Navy Mile | Washington, DC | 10/6/2019 | 89.18% | 89.33% | 15 | 15 | AG went up |

Note: The 2020 age-factors were generated by using the 5 km age-factors and the current Open Class (OC) time. It is not possible to evaluate the differences since age factors for the Road Mile were not produced in 2015.

## 1 Mile Women

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Jeannie Rice | 71 | 6:25 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 97.15% | 95.27% | 1 | 1 |
| Marisa Sutera Strange | 56 | 5:28 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 94.16% | 92.33% | 2 | 2 |
| Doreen McCoubrie | 57 | 5:32 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 94.12% | 92.29% | 3 | 3 |
| Sonja Friend-Uhl | 48 | 5:06 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 92.34% | 90.55% | 4 | 4 |
| Sonja Friend-Uhl | 48 | 5:07 | Music City Distance Carnival, Mile | Nashville, TN | 5/31/2019 | 92.04% | 90.25% | 5 | 5 |
| Nancy Simmons | 60 | 5:54 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 91.49% | 89.72% | 6 | 6 |
| Fiona Bayly | 52 | 5:23 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 91.36% | 89.59% | 7 | 7 |
| Lisa Veneziano | 54 | 5:35 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 90.10% | 88.35% | 8 | 8 |
| Carmen Ayala-Troncoso | 60 | 6:00 | Manzano Mile | Austin, TX | 2/16/2019 | 89.97% | 88.22% | 9 | 9 |
| Nora Cary | 64 | 6:19 | Midland Ave Mile | Montclair, NJ | 8/18/2019 | 89.84% | 88.10% | 10 | 10 |
| Jill Miller-Robinett | 64 | 6:27 | Mile of Truth | Danville, CA | 5/5/2019 | 87.99% | 86.28% | 11 | 11 |
| Hronn Gudmundsdottir | 53 | 5:40 | Mile of Truth | Danville, CA | 5/5/2019 | 87.78% | 86.07% | 12 | 12 |
| Lorraine Jasper | 57 | 5:56 | Navy Mile | Washington, DC | 10/6/2019 | 87.77% | 86.07% | 13 | 13 |
| Patrice Combs | 62 | 6:22 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 86.90% | 85.22% | 14 | 14 |
| Amy Fakterowitz | 51 | 5:37 | USATF Masters 1 Mile Championships | Flint, MI | 8/23/2019 | 86.60% | 84.93% | 15 | 15 |

Same comment as for the women but here we notice there was no change in the rankings.

## 5 km Men

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Age** | **Time** | **Race** | **Location** | **Date** | **2015 Factors** | **2020 Factors** | **2015 Factors Place** | **2020 Factors Place** |
| Sean Wade | 53 | 15:25 | Carlsbad 5000 | Carlsbad, CA | 4/14/2019 | 97.93% | 97.15% | 1 | 1 |
| Sean Wade | 52 | 15:28 | Houston Heights 5K | Houston, TX | 6/1/2019 | 96.85% | 96.04% | 2 | 2 |
| Andrew Duncan | 51 | 15:58 | Carlsbad 5000 | Carlsbad, CA | 4/14/2019 | 93.10% | 92.27% | 3 | 4 |
| Tim Van Orden | 51 | 16:00 | Run Westfield 5K | Westfield, MA | 5/18/2019 | 92.91% | 92.08% | 4 | 5 |
| John Barbour | 65 | 17:58 | Run Westfield 5K | Westfield, MA | 5/18/2019 | 92.69% | 92.55% | 5 | 3 |
| Nat Larson | 57 | 16:54 | USATF Masters 5K Championships | Atlanta, GA | 8/17/2019 | 92.20% | 91.65% | 6 | 8 |
| Christian Cushing-Murray | 51 | 16:08 | Carlsbad 5000 | Carlsbad, CA | 4/14/2019 | 92.14% | 91.32% | 7 | 9 |
| Roger Sayre | 61 | 17:29 | USATF Masters 5K Championships | Atlanta, GA | 8/17/2019 | 92.09% | 91.74% | 8 | 7 |
| Tony Marshall | 74 | 20:02 | Carlsbad 5000 | Carlsbad, CA | 4/14/2019 | 92.06% | 91.95% | 9 | 6 |
| Jacques Sallberg | 44 | 15:21 | Carlsbad 5000 | Carlsbad, CA | 4/14/2019 | 91.91% | 90.81% | 10 | 13 |
| John Van Danacker | 56 | 16:51 | Brian Kraft 5K | Minneapolis, MN | 5/27/2019 | 91.74% | 90.81% | 11 | 10 |
| Kenneth Barbee | 55 | 16:44 | Haddonfield Adrenaline 5K | Haddonfield, NJ | 3/16/2019 | 91.65% | 91.01% | 12 | 11 |
| Andy Gardiner | 53 | 16:29 | B.A.A. 5K | Boston, MA | 4/13/2019 | 91.59% | 90.86% | 13 | 12 |
| Neville Davey | 43 | 15:21 | Carlsbad 5000 | Carlsbad, CA | 4/14/2019 | 91.24% | 90.11% | 14 | 18 |
| Mark Andrews | 48 | 15:57 | USATF Masters 5K Championships | Atlanta, GA | 8/17/2019 | 91.10% | 90.17% | 15 | 19 |
| Jaime Heilpern | 49 | 16:05 | Freedom Fest 5K | Morgan Hill, CA | 7/4/2019 | 91.03% | 90.14% | 16 | 17 |

Notice that men in their 50s were hurt by the new factors and men in their 60s and 70s were helped. This can be seen by looking at the age-grade 5 km graph showing 2015 and proposed 2020 age-factors.

Ages 30-60 are hurt because the OC changed by 1% and there was a new improved record at age 41. Ages 65 and above did not change much because there were no new records.

## 5 km Women

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Age** | **Time** | **Race** | **Location** | **Date** | **2015 Factors** | **2020 Factors** | **2015 Factors Place** | **2020 Factors Place** |
| Jeannie Rice | 71 | 21:49 | John Clay 5K | Naples, FL | 9/2/2019 | 98.12% | 97.90% | 1 | 1 |
| Jan Holmquist | 75 | 23:15 | Run Westfield 5K | Westfield, MA | 5/18/2019 | 97.58% | 97.36% | 2 | 2 |
| Marisa Sutera Strange | 56 | 18:38 | USATF Masters 5K Championships | Atlanta, GA | 8/17/2019 | 94.86% | 94.65% | 3 | 3 |
| Marisa Sutera Strange | 55 | 18:30 | Freihofer's Run for Women 5K | Albany, NY | 6/1/2019 | 94.45% | 94.24% | 4 | 4 |
| Libby James | 82 | 27:13 | Freihofer's Run for Women 5K | Albany, NY | 6/1/2019 | 94% | 93.79% | 5 | 5 |
| Carmen Ayala-Troncoso | 60 | 19:44 | Carlsbad 5000 | Carlsbad, CA | 4/14/2019 | 93.94% | 93.73% | 6 | 6 |
| Nora Cary | 64 | 20:57 | Harrington Park Fall Spectacular 5K | Harrington Park, NJ | 11/2/2019 | 93.03% | 92.82% | 7 | 7 |
| Nora Cary | 64 | 21:03 | New Milford Fire Dept. 5K Run | New Milford, NJ | 6/15/2019 | 92.58% | 92.37% | 8 | 8 |
| Fiona Bayly | 52 | 18:17 | Abbott Dash to the Finish Line 5K | New York, NY | 11/2/2019 | 92.38% | 92.17% | 9 | 9 |
| Kate Landau | 42 | 16:39 | Celebration 5K | Jacksonville, FL | 7/4/2019 | 92.23% | 92.02% | 10 | 10 |
| Karen Durante | 68 | 22:17 | Run for All Ages | Wakefield, MA | 11/2/2019 | 92.18% | 91.97% | 11 | 11 |
| Sonja Friend-Uhl | 48 | 17:35 | USATF Masters 5K Championships | Atlanta, GA | 8/17/2019 | 91.97% | 91.77% | 12 | 12 |
| Fiona Bayly | 52 | 18:23 | USATF Masters 5K Championships | Atlanta, GA | 8/17/2019 | 91.88% | 91.67% | 13 | 13 |
| Jane Treleven | 70 | 22:59 | National Senior Games 10k Road Race | Albuquerque, NM | 6/21/2019 | 91.85% | 91.64% | 14 | 14 |
| Roberta Groner | 41 | 16:38 | The Ridgewood Run 5K | Ridgewood NJ | 5/27/2019 | 91.73% | 91.52% | 15 | 15 |

There is no change in the rankings because from age 15 up all factors change by 0.23% which is the amount by which the OC changed.

Note how the 2015 and 2020 lines fall just about on top of each other for ages above 15. The age 68 record is an outlier.

## Men 10 km

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Age** | **Time** | **Race** | **Location** | **Date** | **2015 Factors** | **2020 Factors** | **2015 Factors Place** | **2020 Factors Place** |
| Kevin Castille | 47 | 29:58 | Cooper River Bridge Run 10K | Charleston, SC | 4/6/2019 | 97.79% | 97.58% | 1 | 1 |
| Abdi Abdirahman | 42 | 29:21 | Beach to Beacon 10K | Cape Elizabeth, ME | 8/3/2019 | 95.91% | 95.71% | 2 | 2 |
| Kevin Castile | 47 | 30:47 | USATF Masters 10K Championships | Dedham, MA | 4/28/2019 | 95.20% | 94.99% | 3 | 3 |
| Kevin Castille | 47 | 30:52 | Cresent City Classic 10K | New Orleans, LA | 4/20/2019 | 94.94% | 94.74% | 4 | 4 |
| Abdi Abdirahman | 42 | 30:00 | Peachtree Road Race 10K | Atlanta, GA | 7/4/2019 | 93.83% | 93.63% | 5 | 5 |
| Abdi Abdirahman | 42 | 30:18 | B.A.A. 10K | Boston, MA | 6/23/2019 | 92.90% | 92.71% | 6 | 6 |
| Ken Youngers | 62 | 36:19 | USATF Masters 10K Championships | Dedham, MA | 4/28/2019 | 92.01% | 91.80% | 7 | 7 |
| Andy Gardiner | 53 | 33:44 | USATF Masters 10K Championships | Dedham, MA | 4/28/2019 | 91.36% | 91.16% | 8 | 8 |
| Norm Larson | 63 | 37:13 | USATF Masters 10K Championships | Dedham, MA | 4/28/2019 | 90.63% | 90.42% | 9 | 9 |
| Doug Keller | 61 | 36:33 | MDRA Victory 10K | Minneapolis, MN | 9/2/2019 | 90.58% | 90.37% | 10 | 10 |
| John Van Danacker | 56 | 35:01 | Get in Gear 10K | Minneapolis/St Paul, MN | 4/27/2019 | 90.36% | 90.16% | 11 | 11 |
| Michael McManus | 53 | 34:08 | WMA Indoor Championships, 10K | TORUŃ, POL | 3/29/2019 | 90.29% | 90.10% | 12 | 12 |
| Eric Ashton | 51 | 33:43 | Cooper River Bridge Run 10K | Charleston, SC | 4/6/2019 | 89.86% | 89.66% | 13 | 13 |
| Eric Loeffler | 42 | 31:29 | MDRA Victory 10K | Minneapolis, MN | 9/2/2019 | 89.41% | 89.22% | 14 | 14 |
| Russell Blatt | 62 | 37:27 | B.A.A. 10K | Boston, MA | 6/23/2019 | 89.23% | 89.02% | 15 | 15 |

The places don’t change.

The places don’t change because the factors are very close up through age 70. Above 70 the standards get tougher due to a new record at age 82

## Women 10 km

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Age** | **Time** | **Race** | **Location** | **Date** | **2015 Factors** | **2020 Factors** | **2015 Factors Place** | **2020 Factors Place** |
| Jeannie Rice | 71 | 44:19 | Rock Hall Half Marathon, 10K | Cleveland, OH | 8/18/2019 | 103% | 99.56% | 1 | 1 |
| Joan Samuelson | 62 | 40:22 | Bellin Run 10K | Green Bay, WI | 6/8/2019 | 99% | 96.50% | 2 | 2 |
| Jenny Hitchings | 55 | 37:27 | Run to Feed the Hungry | Sacramento, CA | 11/22/2018 | 97.29% | 95.32% | 3 | 3 |
| Jan Holmquist | 74 | 50:01 | USATF Masters 10K Championships | Dedham, MA | 4/28/2019 | 95.81% | 92.30% | 4 | 8 |
| Libby James | 82 | 58:41 | Bolder Boulder 10K | Bolder, CO | 5/26/2019 | 95.46% | 92.83% | 5 | 5 |
| Nora Cary | 64 | 43:07 | Essex County Cherry Blossom 10K Run | Newark, NJ | 4/7/2019 | 95.33% | 92.75% | 6 | 6 |
| Marisa Sutera Strange | 55 | 38:25 | USATF Masters 10K Championships | Dedham, MA | 4/28/2019 | 94.85% | 92.92% | 7 | 4 |
| Nora Cary | 64 | 43:40 | USATF Masters 10K Championships | Dedham, MA | 4/28/2019 | 94.13% | 91.58% | 8 | 11 |
| Jane Lundy | 59 | 40:49 | Queens 10K | New York, NY | 6/15/2019 | 94.01% | 91.83% | 9 | 9 |
| Roberta Groner | 41 | 33:33 | Queens 10K | New York, NY | 6/15/2019 | 93.67% | 92.62% | 10 | 7 |
| Karolyn Bowley | 50 | 36:44 | Beach to Beacon 10K | Cape Elizabeth, ME | 8/3/2019 | 93.31% | 91.70% | 11 | 10 |
| Sharon Gerl | 71 | 48:58 | USATF Masters 10K Championships | Dedham, MA | 4/28/2019 | 93.22% | 90.11% | 12 | 21 |
| Suzanne La Burt | 56 | 39:40 | Queens 10K | New York, NY | 6/15/2019 | 93.03% | 91.07% | 13 | 12 |
| Nora Cary | 64 | 44:16 | Fred D'Elia Ridgewood Run 10K | Ridgewood, NJ | 5/27/2019 | 92.85% | 90.34% | 14 | 17 |
| Nora Cary | 64 | 44:21 | New York Mini 10K | New York, NY | 6/8/2019 | 92.68% | 90.17% | 15 | 19 |
| Dawn Grunnagle | 41 | 34:24 | WMA Indoor Championships, 10K | TORUŃ, POL | 3/29/2019 | 90.33% | 90.33% | 16 | 18 |

One can see that runners 60 through about 80 are hurt by the new standards. The graph shows why.

Those “records” at ages 64 and 68 are deemed outliers but the records at 69, 71, 81, and 85 make runners from 60 to about 85 to be at a disadvantage compared to 2015.

## Men Half Marathon

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Age** | **Time** | **Race** | **Location** | **Date** | **2015 Factors** | **2020 Factors** | **2015 Factors Place** | **2020 Factors Place** |
| Abdi Abdirahman | 42 | 1:03:12 | United Airlines NYC Half | New York, NY | 3/17/2019 | 96.44% | 96.23% | 1 | 1 |
| Abdi Abdirahman | 42 | 1:03:32 | Rock 'n' Roll Philadelphia | Philadelphia, PA | 9/15/2019 | 95.88% | 95.67% | 2 | 2 |
| Gene Dykes | 70 | 1:25:06 | Philadelphia Marathon, Half Marathon | Philadelphia, PA | 11/18/2018 | 92.65% | 92.55% | 3 | 3 |
| Roger Sayre | 61 | 1:17:49 | WMA Indoor Championships, H Mar | TORUŃ, POL | 3/29/2019 | 92.56% | 92.42% | 4 | 4 |
| Brian Pilcher | 62 | 1:19:04 | Napa Valley Marathon, H Mar | Calistoga, CA | 3/3/2019 | 91.98% | 91.85% | 5 | 5 |
| Iain Mickle | 58 | 1:16:59 | Clarksburg Country Run H Mar | Clarksburg, CA | 11/3/2019 | 90.94% | 90.80% | 6 | 6 |
| John Vandanacker | 56 | 1:15:45 | Garry Bjorklund Half Marathon | Duluth, MN | 6/22/2019 | 90.73% | 90.57% | 7 | 7 |
| Nat Larson | 56 | 1:16:07 | New Bedford Half Marathon | New Bedford, MA | 3/17/2019 | 90.29% | 90.14% | 8 | 8 |
| Scott Lindell | 51 | 1:12:55 | Garry Bjorklund Half Marathon | Duluth, MN | 6/22/2019 | 90.13% | 89.96% | 9 | 9 |
| Andy Gardiner | 54 | 1:15:01 | B.A.A. Half Marathon | Boston, MA | 10/13/2019 | 89.97% | 89.81% | 10 | 10 |
| Doug Doodhue | 77 | 1:37:23 | Glass City Marathon, H Mar | Toledo, OH | 4/27/2019 | 89.63% | 89.59% | 11 | 11 |
| Sean Wade | 53 | 1:14:42 | Houston Half Marathon | Houston, TX | 10/27/2019 | 89.55% | 89.38% | 12 | 12 |
| Doug Baldwin | 54 | 1:15:34 | Garry Bjorklund Half Marathon | Duluth, MN | 6/22/2019 | 89.32% | 89.16% | 13 | 13 |
| Doug Keller | 61 | 1:21:00 | Monster Dash H Mar | Saint Paul, MN | 10/26/2019 | 88.92% | 88.79% | 14 | 14 |
| Guillermo Pineda Molales | 46 | 1:10:50 | Staten Island Half | New York, NY | 10/13/2019 | 88.89% | 88.70% | 15 | 15 |

The places are unchanged.

The two lines lie just about on top of each other. The OC improved by 0.63% which is the change for the ages 5 to 32. The change is even smaller from age 33 to 83.

## Women Half Marathon

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Age** | **Time** | **Race** | **Location** | **Date** | **2015 Factors** | **2020 Factors** | **2015 Factors Place** | **2020 Factors Place** |
| Jeannie Rice | 71 | 1:37:01 | Goodyear H Mar | Akron, OH | 8/10/2019 | 102.01% | 99.99% | 1 | 1 |
| Jeannie Rice | 71 | 1:39:41 | Pittsburgh Marathon, Half Marathon | Pittsburgh, PA | 5/5/2019 | 99.28% | 97.31% | 2 | 2 |
| Jeannie Rice | 71 | 1:40:02 | Parkersburg Half Marathon | Parkersburg, WV | 8/1/2019 | 98.93% | 96.97% | 3 | 3 |
| Jeannie Rice | 70 | 1:38:42 | Naples Daily News Half Marathon | Naples, FL | 1/20/2019 | 98.70% | 96.77% | 4 | 4 |
| Jenny Hitchings | 56 | 1:22:51 | Urban Cow Half Marathon | Sacramento, CA | 10/6/2019 | 96.41% | 94.84% | 5 | 5 |
| Jeannie Rice | 71 | 1:43:07 | Cleveland Marathon, Half Marathon | Cleveland, OH | 5/18/2019 | 95.98% | 94.07% | 6 | 6 |
| Roberta Groner | 41 | 1:13:06 | Brooklyn Half Marathon | Brooklyn, NY | 5/18/2019 | 92.89% | 91.76% | 7 | 7 |
| Karen Kunz | 63 | 1:35:17 | Napa Valley Marathon, H Mar | Calistoga, CA | 3/3/2019 | 92.12% | 90.49% | 8 | 11 |
| Grace Wasielewski | 66 | 1:39:33 | Chicago Half Marathon | Chicago, IL | 9/29/2019 | 92.08% | 90.38% | 9 | 12 |
| Perry Shoemaker | 47 | 1:17:46 | Shamrock Half Marathon | Virginia Beach, VA | 3/17/2019 | 92.08% | 90.77% | 10 | 8 |
| Suzanne La Burt | 56 | 1:26:49 | Brooklyn Half Marathon | Brooklyn, NY | 5/18/2019 | 92% | 90.51% | 11 | 10 |
| Roberta Groner | 41 | 1:13:58 | Houston Marathon, H Mar | Houston, TX | 1/19/2019 | 91.80% | 90.69% | 12 | 9 |
| Karen Kunz | 64 | 1:37:01 | Clarksburg Country Run H Mar | Clarksburg, CA | 11/3/2019 | 91.77% | 90.12% | 13 | 16 |
| Jane Lundy | 59 | 1:30:33 | Brooklyn Half Marathon | Brooklyn, NY | 5/18/2019 | 91.75% | 90.20% | 14 | 14 |
| Fiona Bayly | 51 | 1:21:49 | Brooklyn Half Marathon | Brooklyn, NY | 5/18/2019 | 91.72% | 90.32% | 15 | 13 |

There are a number of changes. Runners in their 60s are hurt by the new standards and those in the 40s and 50s are hurt also but not by as much so their places move up. The graph helps to explain why.

The OC has changed by 1.05% so that is the change for those in their 20s. The ages from 40 up are hurt more because of new records for ages 71 and 85.

## Male Marathon

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Age** | **Time** | **Race** | **Location** | **Date** | **2015 Factors** | **2020 Factors** | **2015 Factors Place** | **2020 Factors Place** |  |
| Bernard Lagat | 44 | 2:12:10 | Gold Coast Marathon | Gold Coast, QLD, AUS | 7/6/2019 | 98.67% | 98.03% | 1 | 1 |  |
| Abdi Abdirahman | 42 | 2:11:34 | NYC Marathon | New York, NY | 11/3/2019 | 97.51% | 96.87% | 2 | 2 |  |
| Gene Dykes | 70 | 2:54:23 | Jacksonville Marathon | Jacksonville, FL | 12/15/2018 | 95.21% | 94.71% | 3 | 3 |  |
| Gene Dykes | 71 | 2:58:50 | Boston Marathon | Boston, MA | 4/15/2019 | 93.87% | 93.36% | 4 | 4 |  |
| Abdi Abdirahman | 42 | 2:18:56 | Boston Marathon | Boston, MA | 4/15/2019 | 92.34% | 91.73% | 5 | 5 |  |
| Jacob Nur | 63 | 2:47:57 | USATF Marathon Championships | Sacramento, CA | 12/2/2018 | 92.08% | 91.56% | 6 | 6 |  |
| Dustin Sprague | 44 | 2:23:00 | Columbus Marathon | Columbus, OH | 10/20/2019 | 91.20% | 90.61% | 7 | 7 |  |
| Iain Mickle | 59 | 2:43:18 | California International Marathon | Sacramento, CA | 12/8/2019 | 91.14% | 90.60% | 8 | 8 |  |
| Michael Roda | 43 | 2:22:37 | Grandma's Marathon | Duluth, MN | 6/22/2019 | 90.69% | 90.10% | 9 | 9 |  |
| Guillermo Pineda Molales | 46 | 2:28:42 | Boston Marathon | Boston, MA | 4/15/2019 | 89.17% | 88.60% | 10 | 10 |  |
| Sam Kreig | 43 | 2:25:58 | Chicago Marathon | Chicago, IL | 10/13/2019 | 88.61% | 88.03% | 11 | 11 |  |
| Thomas Tayeri | 55 | 2:42:13 | Chicago Marathon | Chicago, IL | 10/13/2019 | 88.42% | 87.89% | 12 | 12 |  |
| Martin Keibel | 68 | 3:04:09 | Houston Marathon | Houston, TX | 1/20/2019 | 88.30% | 87.82% | 13 | 13 |  |
| Tom Clark | 47 | 2:31:53 | Boston Marathon | Boston, MA | 4/15/2019 | 88.04% | 87.48% | 14 | 14 |  |
| Jorge Maravilla | 41 | 2:24:55 | Houston Marathon | Houston, TX | 1/20/2019 | 87.85% | 87.23% | 15 | 17 |  |

The only place change is in 15th place where that runner dropped to 17th place. This implies that the changes are rather uniform across the ages. The graph shows this.

The OC changed by 1.06%. That is the size of the change from the youngest ages through age 32. Starting at age 32 the change is even less.

## Women Marathon

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Age** | **Time** | **Race** | **Location** | **Date** | **2015 Factors** | **2020 Factors** | **2015 Factors Place** | **2020**  **Factors**  **Place** |
| Joan Samuelson | 62 | 3:02:21 | Berlin Marathon | Berlin, DE | 9/29/2019 | 99.33% | 97.44% | 1 | 1 |
| Jenny Hitchings | 56 | 2:50:36 | NYC Marathon | New York, NY | 11/3/2019 | 97.56% | 95.74% | 2 | 2 |
| Jenny Hitchings | 56 | 2:50:50 | California International Marathon | Sacramento, CA | 12/8/2019 | 97.43% | 95.61% | 3 | 3 |
| Joan Samuelson | 61 | 3:04:00 | Boston Marathon | Boston, MA | 4/15/2019 | 97.02% | 95.18% | 4 | 4 |
| Jenny Hitchings | 55 | 2:52:03 | USATF Marathon Championships | Sacramento, CA | 12/2/2018 | 95.45% | 93.67% | 5 | 5 |
| Susan Loken | 55 | 2:52:09 | Grandma's Marathon | Duluth, MN | 6/22/2019 | 95.39% | 93.61% | 6 | 6 |
| Roberta Groner | 41 | 2:29:09 | NN Marathon Rotterdam | Rotterdam, NED | 4/7/2019 | 94.23% | 92.65% | 7 | 7 |
| Roberta Groner | 41 | 2:30:12 | NYC Marathon | New York, NY | 11/3/2019 | 93.57% | 92% | 8 | 8 |
| Kate Landau | 43 | 2:33:04 | NYC Marathon | New York, NY | 11/3/2019 | 93.23% | 91.60% | 9 | 9 |
| Kate Landau | 42 | 2:31:56 | Boston Marathon | Boston, MA | 4/15/2019 | 93.18% | 91.58% | 10 | 10 |
| Perry Shoemaker | 48 | 2:43:33 | Eugene Marathon | Eugene, OR | 4/28/2019 | 91.83% | 90.15% | 11 | 12 |
| Jacqueline Komrij | 55 | 2:59:01 | NYC Marathon | New York, NY | 11/3/2019 | 91.74% | 90.02% | 12 | 13 |
| Dawn Grunnagle | 41 | 2:33:14 | Berlin Marathon | Ber, DEU | 9/29/2019 | 91.72% | 90.18% | 13 | 11 |
| Myung Kim | 70 | 3:45:27 | LA Marathon | Los Angeles, CA | 3/24/2019 | 91.06% | 89.29% | 14 | 15 |
| Dot McMahan | 42 | 2:35:36 | Monumental Marathon | Indianapolis, IN | 11/9/2019 | 90.99% | 89.43% | 15 | 14 |

The only change is again at the last place where, using the 2015 factors, 70-year-old Myung Kim beats 42-year-old Dot McMahan but their places are reversed using the 2020 factors.

You can see that the gap between the 2015 and 2020 lines is larger for a 70-year-old than for a 42-year old giving the 70-year-old a slight disadvantage over her 42-year-old competitor. That is why Myung Kim moved from 14th place using the 2015 standards to 15th place using the 2020 standards.

# Summary

As has happened in the past when considering new standards, the changes in the female standards are considerably greater than on the male side. However, it would result in much confusion if we were to release new female standards and keep the male standards the same. After all, there ARE changes in the male standards and they should be recognized.