UNISEX LIFE EXPECTANCIES AT BIRTH AND AGE 65

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Life expectancies at birth and age 65 are shown in tables V.A3 and V.A4 of the 2004 Annual Report of the Board of Trustees. The life expectancies in those tables are presented on both a period and a cohort basis, separately, for males and females. This note provides the corresponding unisex life expectancies, and a brief explanation of their calculation method.

The following standard actuarial functions[1] are used in this note:

$\mathring{e}_x$ = the average number of years of life remaining at exact age x

l_x = the number of persons surviving to exact age x

l_0 = the starting number of persons in life table at age 0 (radix)

Additionally, a second subscript is used to denote gender where the letters *u*, *m*, and *f* represent unisex, male, and female, respectively.

The Office of the Chief Actuary computes all unisex life table values from the corresponding male and female life tables based on the observation that there are approximately 1,050 males born for every 1,000 females each year.[2] Thus, a unisex life table is created by combining a male life table with radix[3] 105,000 and a female life table with radix 100,000, and then rescaling the combined table to radix 100,000. Unisex life expectancy at birth is then 1.05 times male life expectancy at birth plus female life expectancy at birth, this sum divided by 2.05.

$$\mathring{e}_{0,u} = \frac{1.05\,\mathring{e}_{0,m} + 1.00\,\mathring{e}_{0,f}}{2.05} \qquad (1)$$

At a given age x, the unisex life expectancy may be calculated as[4]

$$\mathring{e}_{x,u} = \frac{l_{x,m}\,\mathring{e}_{x,m} + l_{x,f}\,\mathring{e}_{x,f}}{l_{x,m} + l_{x,f}}. \qquad (2)$$

For the unisex life expectancy at birth, notice that Equation (2) reduces to Equation (1) for the case where $x = 0$, $l_{0,m} = 105,000$ and $l_{0,f} = 100,000$. For age 65, the unisex life expectancy is computed as[4]

$$\mathring{e}_{65,u} = \frac{l_{65,m}\,\mathring{e}_{65,m} + l_{65,f}\,\mathring{e}_{65,f}}{l_{65,m} + l_{65,f}}. \qquad (3)$$

The tables on the following pages correspond to tables V.A3 and V.A4 of the 2004 Trustees Report. Table 1 presents historical and projected unisex life expectancies on a period basis (for the intermediate alternative, only) in the same format as table V.A3 of the Trustees Report. Similarly, table 2 shows the unisex life expectancies on a cohort basis in the same format as table V.A4 of the Trustees Report. Detailed versions of tables 1 and 2 which contain unisex life expectancies for all years from 1940-2080 are attached. For the purpose of comparison and easy accessibility, gender specific life expectancies are included in tables 1 and 2.

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[1] These actuarial functions are described in chapter IV of Actuarial Study Number 116, <u>Life Tables for the United States Social Security Area 1900-2100</u>. www.socialsecurity.gov/OACT/NOTES/as116/as116_IV.html

[2] See the National Vital Statistics Report, Volume 52, Number 10, page 8 for a description of the sex ratio.

[3] The radix of a life table is defined as l_0, and is selected to be an arbitrarily but generally large integer.

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[4] This equation is based on a male life table radix of 105,000 and a female life table radix of 100,000.

Table 1.—Period Life Expectancies[1]

Calendar Year	Unisex		Male		Female	
	At birth	At age 65	At birth	At age 65	At birth	At age 65
Historical Data:						
1940.	63.5	12.7	61.4	11.9	65.7	13.4
1945.	65.6	13.6	62.9	12.6	68.4	14.4
1950.	68.3	14.0	65.6	12.8	71.1	15.1
1955.	69.7	14.5	66.7	13.1	72.8	15.6
1960.	69.9	14.5	66.7	12.9	73.2	15.9
1965.	70.2	14.8	66.8	12.9	73.8	16.3
1970.	70.9	15.3	67.2	13.1	74.9	17.1
1975.	72.6	16.0	68.7	13.7	76.6	18.0
1980.	73.6	16.3	69.9	14.0	77.5	18.4
1985.	74.6	16.6	71.1	14.4	78.2	18.6
1990.	75.2	17.1	71.8	15.0	78.9	19.0
1991.	75.4	17.2	72.0	15.1	79.0	19.1
1992.	75.6	17.3	72.2	15.2	79.2	19.2
1993.	75.4	17.1	72.0	15.1	78.9	19.0
1994.	75.6	17.2	72.3	15.3	79.0	19.0
1995.	75.7	17.2	72.5	15.3	79.0	19.0
1996.	76.0	17.3	72.9	15.4	79.2	19.0
1997.	76.3	17.3	73.4	15.5	79.3	19.1
1998.	76.4	17.4	73.7	15.6	79.4	19.0
1999.	76.5	17.3	73.8	15.7	79.3	18.9
2000.	76.6	17.4	74.0	15.8	79.4	18.9
2001[2].	76.7	17.5	74.1	15.9	79.4	18.9
2002[2].	76.8	17.5	74.3	16.0	79.5	18.9
2003[2].	76.9	17.5	74.4	16.0	79.5	19.0
Projected:[3]						
2005.	77.1	17.6	74.7	16.1	79.6	19.0
2010.	77.6	17.8	75.3	16.4	80.0	19.1
2015.	78.0	18.1	75.8	16.7	80.4	19.4
2020.	78.5	18.4	76.3	17.1	80.8	19.7
2025.	79.0	18.7	76.9	17.4	81.3	20.0
2030.	79.5	19.0	77.4	17.7	81.7	20.3
2035.	79.9	19.3	77.8	18.0	82.1	20.6
2040.	80.4	19.6	78.3	18.2	82.5	20.9
2045.	80.8	19.9	78.8	18.5	82.9	21.2
2050.	81.2	20.1	79.2	18.8	83.3	21.4
2055.	81.6	20.4	79.6	19.1	83.6	21.7
2060.	82.0	20.6	80.0	19.3	84.0	22.0
2065.	82.3	20.9	80.4	19.6	84.3	22.2
2070.	82.7	21.2	80.8	19.9	84.6	22.5
2075.	83.0	21.4	81.2	20.1	85.0	22.7
2080.	83.4	21.6	81.6	20.3	85.3	22.9

[1] The period life expectancy at a given age for a given year represents the average number of years of life remaining if a group of persons at that age were to experience the mortality rates for the year over the course of their remaining lives.

[2] Preliminary or estimated.

[3] The projected values are based on the intermediate assumptions of the 2004 Trustees Report.

Table 2.—Cohort Life Expectancies[1]

Calendar Year	Unisex		Male		Female	
	At birth[2]	At age 65[3]	At birth[2]	At age 65[3]	At birth[2]	At age 65[3]
1940	72.5	13.8	69.5	12.7	75.8	14.7
1945	74.1	14.3	71.1	13.0	77.3	15.4
1950	75.3	14.7	72.3	13.1	78.5	16.2
1955	76.0	15.1	73.1	13.1	79.1	16.7
1960	76.6	15.5	73.8	13.2	79.6	17.4
1965	77.3	15.9	74.6	13.5	80.2	18.0
1970	78.3	16.4	75.7	13.8	81.0	18.5
1975	79.1	16.7	76.6	14.2	81.7	18.7
1980	79.8	16.9	77.5	14.7	82.3	18.7
1985	80.5	17.1	78.1	15.2	82.9	18.8
1990	81.0	17.4	78.8	15.6	83.4	19.0
1991	81.1	17.4	78.9	15.7	83.5	19.0
1992	81.2	17.5	79.0	15.8	83.6	19.0
1993	81.3	17.6	79.1	15.9	83.6	19.1
1994	81.4	17.6	79.2	16.0	83.7	19.1
1995	81.6	17.7	79.4	16.0	83.9	19.1
1996	81.7	17.7	79.5	16.1	83.9	19.2
1997	81.8	17.8	79.6	16.2	84.0	19.2
1998	81.8	17.9	79.7	16.3	84.1	19.3
1999	81.9	17.9	79.8	16.4	84.2	19.3
2000	82.0	18.0	79.9	16.5	84.3	19.4
2001	82.1	18.1	80.0	16.6	84.3	19.4
2002	82.2	18.1	80.1	16.6	84.4	19.5
2003	82.3	18.2	80.2	16.7	84.5	19.5
2005	82.5	18.3	80.4	16.8	84.7	19.7
2010	82.9	18.6	80.8	17.2	85.0	20.0
2015	83.3	18.9	81.3	17.5	85.4	20.3
2020	83.6	19.2	81.7	17.8	85.7	20.6
2025	84.0	19.5	82.1	18.1	86.0	20.9
2030	84.4	19.8	82.5	18.4	86.4	21.2
2035	84.7	20.1	82.8	18.7	86.7	21.5
2040	85.0	20.4	83.2	19.0	87.0	21.7
2045	85.4	20.6	83.5	19.3	87.3	22.0
2050	85.7	20.9	83.9	19.5	87.6	22.3
2055	86.0	21.2	84.2	19.8	87.8	22.5
2060	86.3	21.4	84.5	20.1	88.1	22.8
2065	86.6	21.7	84.9	20.3	88.4	23.0
2070	86.8	21.9	85.2	20.6	88.6	23.3
2075	87.1	22.1	85.5	20.8	88.9	23.5
2080	87.4	22.4	85.8	21.1	89.1	23.7

[1] The cohort life expectancy at a given age for a given year represents the average number of years of life remaining if a group of persons at that age were to experience the mortality rates for the series of years in which they reach each succeeding age. All mortality rates are consistent with those used for the intermediate assumptions of the 2004 Trustees Report.

[2] Cohort life expectancies at birth are based on a combination of actual and projected data for birth years prior to 2001. For birth years after 2000, these values are based on projected data.

[3] Age 65 cohort life expectancies are based on actual data prior to 1970. For 1970 through 2000, these values are based on a combination of actual and projected data. After 2000, these values are based on projected data.

Detailed Table 1.—Period Life Expectancies

Calendar year	Unisex		Male		Female	
	At birth	At age 65	At birth	At age 65	At birth	At age 65
1940	63.5	12.7	61.4	11.9	65.7	13.4
1941	64.1	13.0	61.9	12.2	66.5	13.8
1942	64.9	13.3	62.6	12.4	67.4	14.1
1943	64.6	13.0	62.3	12.1	67.1	13.7
1944	65.2	13.3	62.7	12.5	67.8	14.1
1945	65.6	13.6	62.9	12.6	68.4	14.4
1946	66.7	13.8	64.3	12.9	69.2	14.6
1947	67.1	13.6	64.6	12.6	69.7	14.5
1948	67.4	13.8	64.8	12.7	70.2	14.7
1949	67.9	13.9	65.3	12.8	70.7	14.9
1950	68.3	14.0	65.6	12.8	71.1	15.1
1951	68.4	14.1	65.7	12.8	71.4	15.2
1952	68.6	14.2	65.8	13.0	71.6	15.3
1953	68.9	14.2	66.0	12.9	72.0	15.3
1954	69.7	14.6	66.7	13.2	72.8	15.8
1955	69.7	14.5	66.7	13.1	72.8	15.6
1956	69.8	14.5	66.7	13.0	72.9	15.7
1957	69.5	14.3	66.5	12.9	72.7	15.6
1958	69.7	14.4	66.6	12.9	72.9	15.7
1959	69.9	14.6	66.8	13.1	73.2	15.9
1960	69.9	14.5	66.7	12.9	73.2	15.9
1961	70.3	14.7	67.1	13.1	73.6	16.1
1962	70.1	14.6	66.9	12.9	73.5	16.0
1963	69.9	14.5	66.6	12.8	73.4	16.0
1964	70.2	14.8	66.8	13.0	73.7	16.3
1965	70.2	14.8	66.8	12.9	73.8	16.3
1966	70.2	14.7	66.7	12.9	73.9	16.3
1967	70.5	14.9	67.0	13.0	74.3	16.6
1968	70.3	14.9	66.6	12.8	74.2	16.6
1969	70.6	15.1	66.9	13.0	74.6	16.9
1970	70.9	15.3	67.2	13.1	74.9	17.1
1971	71.1	15.3	67.4	13.1	75.1	17.1
1972	71.2	15.3	67.4	13.1	75.2	17.2
1973	71.5	15.4	67.6	13.2	75.5	17.4
1974	72.1	15.7	68.3	13.5	76.0	17.7
1975	72.6	16.0	68.7	13.7	76.6	18.0
1976	72.8	16.1	69.1	13.8	76.8	18.1
1977	73.2	16.3	69.4	13.9	77.2	18.3
1978	73.3	16.3	69.6	14.0	77.3	18.3
1979	73.7	16.5	70.0	14.2	77.7	18.6
1980	73.6	16.3	69.9	14.0	77.5	18.4
1981	74.0	16.5	70.4	14.2	77.9	18.6
1982	74.4	16.7	70.8	14.5	78.2	18.8
1983	74.4	16.6	70.9	14.3	78.1	18.6
1984	74.6	16.6	71.1	14.4	78.2	18.7
1985	74.6	16.6	71.1	14.4	78.2	18.6
1986	74.6	16.7	71.1	14.5	78.3	18.7
1987	74.8	16.8	71.3	14.6	78.4	18.7
1988	74.7	16.7	71.2	14.6	78.3	18.7
1989	75.0	17.0	71.5	14.8	78.6	18.9
1990	75.2	17.1	71.8	15.0	78.9	19.0
1991	75.4	17.2	72.0	15.1	79.0	19.1
1992	75.6	17.3	72.2	15.2	79.2	19.2
1993	75.4	17.1	72.0	15.1	78.9	19.0
1994	75.6	17.2	72.3	15.3	79.0	19.0
1995	75.7	17.2	72.5	15.3	79.0	19.0
1996	76.0	17.3	72.9	15.4	79.2	19.0
1997	76.3	17.3	73.4	15.5	79.3	19.1
1998	76.4	17.4	73.7	15.6	79.4	19.0
1999	76.5	17.3	73.8	15.7	79.3	18.9
2000	76.6	17.4	74.0	15.8	79.4	18.9
2001	76.7	17.5	74.1	15.9	79.4	18.9
2002	76.8	17.5	74.3	16.0	79.5	18.9
2003	76.9	17.5	74.4	16.0	79.5	19.0
2004	77.0	17.5	74.5	16.1	79.6	19.0
2005	77.1	17.6	74.7	16.1	79.6	19.0
2006	77.2	17.6	74.8	16.2	79.7	19.0
2007	77.3	17.7	74.9	16.3	79.7	19.0
2008	77.4	17.7	75.0	16.3	79.8	19.1
2009	77.5	17.8	75.1	16.4	79.9	19.1
2010	77.6	17.8	75.3	16.4	80.0	19.1
2011	77.7	17.9	75.4	16.5	80.1	19.2
2012	77.8	17.9	75.5	16.6	80.1	19.2
2013	77.8	18.0	75.6	16.6	80.2	19.3
2014	77.9	18.0	75.7	16.7	80.3	19.4

Detailed Table 1.—Period Life Expectancies (Cont.)

Calendar year	Unisex		Male		Female	
	At birth	At age 65	At birth	At age 65	At birth	At age 65
2015	78.0	18.1	75.8	16.7	80.4	19.4
2016	78.1	18.2	75.9	16.8	80.5	19.5
2017	78.2	18.2	76.0	16.9	80.6	19.5
2018	78.3	18.3	76.1	16.9	80.7	19.6
2019	78.4	18.3	76.2	17.0	80.7	19.6
2020	78.5	18.4	76.3	17.1	80.8	19.7
2021	78.6	18.5	76.4	17.1	80.9	19.8
2022	78.7	18.5	76.5	17.2	81.0	19.8
2023	78.8	18.6	76.7	17.2	81.1	19.9
2024	78.9	18.6	76.8	17.3	81.2	19.9
2025	79.0	18.7	76.9	17.4	81.3	20.0
2026	79.1	18.8	77.0	17.4	81.4	20.1
2027	79.2	18.8	77.1	17.5	81.4	20.1
2028	79.3	18.9	77.2	17.5	81.5	20.2
2029	79.4	18.9	77.3	17.6	81.6	20.2
2030	79.5	19.0	77.4	17.7	81.7	20.3
2031	79.6	19.1	77.5	17.7	81.8	20.4
2032	79.7	19.1	77.6	17.8	81.9	20.4
2033	79.7	19.2	77.6	17.8	81.9	20.5
2034	79.8	19.2	77.7	17.9	82.0	20.5
2035	79.9	19.3	77.8	18.0	82.1	20.6
2036	80.0	19.3	77.9	18.0	82.2	20.7
2037	80.1	19.4	78.0	18.1	82.3	20.7
2038	80.2	19.5	78.1	18.1	82.3	20.8
2039	80.3	19.5	78.2	18.2	82.4	20.8
2040	80.4	19.6	78.3	18.2	82.5	20.9
2041	80.4	19.6	78.4	18.3	82.6	20.9
2042	80.5	19.7	78.5	18.4	82.7	21.0
2043	80.6	19.7	78.6	18.4	82.7	21.1
2044	80.7	19.8	78.7	18.5	82.8	21.1
2045	80.8	19.9	78.8	18.5	82.9	21.2
2046	80.9	19.9	78.8	18.6	83.0	21.2
2047	80.9	20.0	78.9	18.6	83.0	21.3
2048	81.0	20.0	79.0	18.7	83.1	21.3
2049	81.1	20.1	79.1	18.8	83.2	21.4
2050	81.2	20.1	79.2	18.8	83.3	21.4
2051	81.3	20.2	79.3	18.9	83.3	21.5
2052	81.3	20.2	79.4	18.9	83.4	21.5
2053	81.4	20.3	79.5	19.0	83.5	21.6
2054	81.5	20.3	79.5	19.0	83.6	21.6
2055	81.6	20.4	79.6	19.1	83.6	21.7
2056	81.7	20.4	79.7	19.1	83.7	21.8
2057	81.7	20.5	79.8	19.2	83.8	21.8
2058	81.8	20.5	79.9	19.2	83.8	21.9
2059	81.9	20.6	80.0	19.3	83.9	21.9
2060	82.0	20.6	80.0	19.3	84.0	22.0
2061	82.0	20.7	80.1	19.4	84.0	22.0
2062	82.1	20.8	80.2	19.4	84.1	22.1
2063	82.2	20.8	80.3	19.5	84.2	22.1
2064	82.3	20.9	80.4	19.6	84.2	22.2
2065	82.3	20.9	80.4	19.6	84.3	22.2
2066	82.4	21.0	80.5	19.7	84.4	22.3
2067	82.5	21.0	80.6	19.7	84.5	22.3
2068	82.5	21.1	80.7	19.8	84.5	22.4
2069	82.6	21.1	80.8	19.8	84.6	22.4
2070	82.7	21.2	80.8	19.9	84.6	22.5
2071	82.8	21.2	80.9	19.9	84.7	22.5
2072	82.8	21.2	81.0	20.0	84.8	22.6
2073	82.9	21.3	81.1	20.0	84.8	22.6
2074	83.0	21.3	81.1	20.1	84.9	22.6
2075	83.0	21.4	81.2	20.1	85.0	22.7
2076	83.1	21.4	81.3	20.2	85.0	22.7
2077	83.2	21.5	81.4	20.2	85.1	22.8
2078	83.2	21.5	81.4	20.3	85.2	22.8
2079	83.3	21.6	81.5	20.3	85.2	22.9
2080	83.4	21.6	81.6	20.3	85.3	22.9

Detailed Table 2.—Cohort Life Expectancies

Calendar year	Unisex		Male		Female	
	At birth	At age 65	At birth	At age 65	At birth	At age 65
1940	72.5	13.8	69.5	12.7	75.8	14.7
1941	72.9	13.9	69.8	12.8	76.0	14.9
1942	73.4	14.0	70.4	12.8	76.5	15.0
1943	73.6	14.1	70.6	12.9	76.8	15.1
1944	73.9	14.2	70.9	12.9	77.0	15.3
1945	74.1	14.3	71.1	13.0	77.3	15.4
1946	74.5	14.4	71.5	13.0	77.6	15.6
1947	74.8	14.5	71.9	13.0	78.0	15.7
1948	75.0	14.6	72.0	13.1	78.1	15.9
1949	75.1	14.7	72.1	13.1	78.3	16.0
1950	75.3	14.7	72.3	13.1	78.5	16.2
1951	75.5	14.8	72.5	13.1	78.6	16.3
1952	75.6	14.8	72.6	13.1	78.7	16.4
1953	75.7	14.9	72.8	13.1	78.9	16.5
1954	75.9	15.0	73.0	13.1	79.0	16.6
1955	76.0	15.1	73.1	13.1	79.1	16.7
1956	76.2	15.1	73.2	13.1	79.2	16.9
1957	76.3	15.2	73.4	13.2	79.3	17.0
1958	76.3	15.3	73.4	13.2	79.4	17.2
1959	76.5	15.4	73.6	13.2	79.5	17.3
1960	76.6	15.5	73.8	13.2	79.6	17.4
1961	76.8	15.6	74.0	13.3	79.8	17.6
1962	76.9	15.7	74.1	13.3	79.9	17.7
1963	77.0	15.7	74.3	13.4	79.9	17.8
1964	77.2	15.8	74.4	13.4	80.1	17.9
1965	77.3	15.9	74.6	13.5	80.2	18.0
1966	77.5	16.0	74.8	13.5	80.3	18.2
1967	77.7	16.1	75.1	13.6	80.5	18.3
1968	77.9	16.2	75.3	13.7	80.7	18.4
1969	78.1	16.3	75.5	13.7	80.8	18.5
1970	78.3	16.4	75.7	13.8	81.0	18.5
1971	78.4	16.4	75.9	13.9	81.1	18.6
1972	78.6	16.5	76.0	14.0	81.3	18.6
1973	78.7	16.6	76.2	14.1	81.4	18.7
1974	78.9	16.6	76.4	14.1	81.6	18.7
1975	79.1	16.7	76.6	14.2	81.7	18.7
1976	79.2	16.7	76.7	14.3	81.8	18.7
1977	79.4	16.7	76.9	14.4	82.0	18.7
1978	79.5	16.8	77.1	14.5	82.1	18.7
1979	79.7	16.8	77.3	14.6	82.2	18.7
1980	79.8	16.9	77.5	14.7	82.3	18.7
1981	80.0	16.9	77.6	14.8	82.5	18.8
1982	80.1	17.0	77.8	14.9	82.6	18.8
1983	80.2	17.0	77.9	15.0	82.7	18.8
1984	80.4	17.1	78.0	15.1	82.8	18.8
1985	80.5	17.1	78.1	15.2	82.9	18.8
1986	80.6	17.2	78.3	15.3	83.0	18.8
1987	80.7	17.2	78.4	15.3	83.1	18.9
1988	80.8	17.3	78.5	15.4	83.2	18.9
1989	80.9	17.3	78.6	15.5	83.2	18.9
1990	81.0	17.4	78.8	15.6	83.4	19.0
1991	81.1	17.4	78.9	15.7	83.5	19.0
1992	81.2	17.5	79.0	15.8	83.6	19.0
1993	81.3	17.6	79.1	15.9	83.6	19.1
1994	81.4	17.6	79.2	16.0	83.7	19.1
1995	81.6	17.7	79.4	16.0	83.9	19.1
1996	81.7	17.7	79.5	16.1	83.9	19.2
1997	81.8	17.8	79.6	16.2	84.0	19.2
1998	81.8	17.9	79.7	16.3	84.1	19.3
1999	81.9	17.9	79.8	16.4	84.2	19.3
2000	82.0	18.0	79.9	16.5	84.3	19.4
2001	82.1	18.1	80.0	16.6	84.3	19.4
2002	82.2	18.1	80.1	16.6	84.4	19.5
2003	82.3	18.2	80.2	16.7	84.5	19.5
2004	82.4	18.2	80.3	16.8	84.6	19.6
2005	82.5	18.3	80.4	16.8	84.7	19.7
2006	82.5	18.4	80.5	16.9	84.7	19.7
2007	82.6	18.4	80.6	17.0	84.8	19.8
2008	82.7	18.5	80.7	17.0	84.9	19.8
2009	82.8	18.5	80.7	17.1	85.0	19.9
2010	82.9	18.6	80.8	17.2	85.0	20.0
2011	83.0	18.7	80.9	17.2	85.1	20.0
2012	83.0	18.7	81.0	17.3	85.2	20.1
2013	83.1	18.8	81.1	17.4	85.2	20.1
2014	83.2	18.9	81.2	17.4	85.3	20.2

Detailed Table 2.—Cohort Life Expectancies (Cont.)

Calendar year	Unisex		Male		Female	
	At birth	At age 65	At birth	At age 65	At birth	At age 65
2015	83.3	18.9	81.3	17.5	85.4	20.3
2016	83.3	19.0	81.3	17.6	85.5	20.3
2017	83.4	19.0	81.4	17.6	85.5	20.4
2018	83.5	19.1	81.5	17.7	85.6	20.5
2019	83.6	19.2	81.6	17.7	85.7	20.5
2020	83.6	19.2	81.7	17.8	85.7	20.6
2021	83.7	19.3	81.8	17.9	85.8	20.6
2022	83.8	19.4	81.8	17.9	85.9	20.7
2023	83.9	19.4	81.9	18.0	85.9	20.8
2024	83.9	19.5	82.0	18.1	86.0	20.8
2025	84.0	19.5	82.1	18.1	86.0	20.9
2026	84.1	19.6	82.1	18.2	86.1	20.9
2027	84.2	19.6	82.2	18.2	86.2	21.0
2028	84.2	19.7	82.3	18.3	86.2	21.1
2029	84.3	19.8	82.4	18.4	86.3	21.1
2030	84.4	19.8	82.5	18.4	86.4	21.2
2031	84.4	19.9	82.5	18.5	86.4	21.2
2032	84.5	19.9	82.6	18.5	86.5	21.3
2033	84.6	20.0	82.7	18.6	86.6	21.3
2034	84.6	20.0	82.8	18.6	86.6	21.4
2035	84.7	20.1	82.8	18.7	86.7	21.5
2036	84.8	20.2	82.9	18.8	86.7	21.5
2037	84.8	20.2	83.0	18.8	86.8	21.6
2038	84.9	20.3	83.0	18.9	86.9	21.6
2039	85.0	20.3	83.1	18.9	86.9	21.7
2040	85.0	20.4	83.2	19.0	87.0	21.7
2041	85.1	20.4	83.3	19.0	87.0	21.8
2042	85.2	20.5	83.3	19.1	87.1	21.8
2043	85.2	20.5	83.4	19.2	87.2	21.9
2044	85.3	20.6	83.5	19.2	87.2	21.9
2045	85.4	20.6	83.5	19.3	87.3	22.0
2046	85.4	20.7	83.6	19.3	87.3	22.1
2047	85.5	20.8	83.7	19.4	87.4	22.1
2048	85.5	20.8	83.7	19.4	87.4	22.2
2049	85.6	20.9	83.8	19.5	87.5	22.2
2050	85.7	20.9	83.9	19.5	87.6	22.3
2051	85.7	21.0	83.9	19.6	87.6	22.3
2052	85.8	21.0	84.0	19.6	87.7	22.4
2053	85.9	21.1	84.1	19.7	87.7	22.4
2054	85.9	21.1	84.1	19.8	87.8	22.5
2055	86.0	21.2	84.2	19.8	87.8	22.5
2056	86.0	21.2	84.3	19.9	87.9	22.6
2057	86.1	21.3	84.3	19.9	87.9	22.6
2058	86.2	21.3	84.4	20.0	88.0	22.7
2059	86.2	21.4	84.5	20.0	88.0	22.7
2060	86.3	21.4	84.5	20.1	88.1	22.8
2061	86.3	21.5	84.6	20.1	88.1	22.8
2062	86.4	21.5	84.7	20.2	88.2	22.9
2063	86.4	21.6	84.7	20.2	88.3	22.9
2064	86.5	21.6	84.8	20.3	88.3	23.0
2065	86.6	21.7	84.9	20.3	88.4	23.0
2066	86.6	21.7	84.9	20.4	88.4	23.1
2067	86.7	21.8	85.0	20.4	88.5	23.1
2068	86.7	21.8	85.0	20.5	88.5	23.2
2069	86.8	21.9	85.1	20.5	88.6	23.2
2070	86.8	21.9	85.2	20.6	88.6	23.3
2071	86.9	22.0	85.2	20.6	88.7	23.3
2072	87.0	22.0	85.3	20.7	88.7	23.3
2073	87.0	22.1	85.3	20.7	88.8	23.4
2074	87.1	22.1	85.4	20.8	88.8	23.4
2075	87.1	22.1	85.5	20.8	88.9	23.5
2076	87.2	22.2	85.5	20.9	88.9	23.5
2077	87.2	22.2	85.6	20.9	89.0	23.6
2078	87.3	22.3	85.6	21.0	89.0	23.6
2079	87.3	22.3	85.7	21.0	89.1	23.7
2080	87.4	22.4	85.8	21.1	89.1	23.7