

***Benefits Administration Letter***

**Number:** 20-104

**Date:** May 28, 2020

**Subject: Revised Present Value Factors and Discount Factors Effective  
October 1, 2019**

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Several statutory provisions of the Civil Service Retirement System (CSRS) require reduction of annuities on an actuarial basis. The Office of Personnel Management (OPM) uses present value factors to compute the actuarial reductions required by these provisions. Present value factors change periodically to conform to changes in economic assumptions and demographic factors adopted by the Board of Actuaries of the Civil Service Retirement System. Discount factors also change when the Board of Actuaries recommend changes in economic assumptions related to the expected rate of investment return earned by the Civil Service Retirement and Disability Fund (Fund). We are issuing this Benefits Administration Letter (BAL) to inform agencies that the present value factors and discount factors have been revised as of October 1, 2019. You can access CSRS and FERS Present Value Factors, effective October 1, 2019 at: <https://www.federalregister.gov/documents/2020/04/06/2020-07103/civil-service-retirement-system-present-value-factors>

The actuarial reductions required or permitted by statute allow annuitants to receive benefits without having to pay a deposit or redeposit for amounts owed to the Fund. In lieu of paying a lump-sum deposit or redeposit, OPM reduces the annuity in a way that, on average, allows OPM to recover the amount due the Fund over the annuitant's lifetime. The actuarial reduction becomes a permanent reduction in the annuitant's benefit. The amount of the reduction depends on the individual's age and the amount of the deposit or redeposit due. To compute an actuarial reduction, OPM divides the amount due by the present value factor for the individual's age at retirement.

OPM uses present value factors to compute the actuarial reductions applied to the following benefits:

- CSRS and Federal Employees Retirement System (FERS) retirees' benefits when retirees elect the Alternative Form of Annuity;
- CSRS and FERS benefits when retirees marry after retirement and elect to provide survivor annuity benefits;

- CSRS benefits and FERS benefits with a CSRS component when retirees elect to credit refunded service that ended before March 1, 1991 (if the retirees separated for retirement on/after October 28, 2009) without paying the redeposit owed for that service;
- CSRS and FERS benefits when retirees elect to credit Non-appropriated Fund Instrumentality (NAFI) service for retirement purposes under Pub. L. No. 104-106, 110 Stat. 186 (1996) and Pub. L. 107-107, 115 Stat. 1012 (2001);
- Retirement benefits for individuals with certain types of retirement coverage errors who can receive credit for service by taking an actuarial reduction under the provisions of the Federal Erroneous Retirement Coverage Correction Act (FERCCA), Pub. L. No. 106-265, 114 Stat. 762 (2000); and
- Annuities payable to survivors of deceased separated FERS employees.

The factor for computing installment payments of the FERS Basic Employee Death Benefit (BEDB) has changed. For deaths on or after October 1, 2019, each BEDB installment is equal to 2.96358 percent of the BEDB lump-sum amount.

The discount factors used for determining the reduction to a CSRS or FERS annuity when an individual elects to credit NAFI Service to qualify for an immediate CSRS or FERS retirement under Pub. L. 107-107, 115 Stat. 1012 (2001), have changed. The new factors are found in the following attachments:

Attachment 1– CSRS Factors for alternative annuities, post-retirement marriages, redeposits, NAFI elections when the individual is age 40 or older, and FERCCA actuarial reductions over age 40

Attachment 2 – FERS Factors for alternative annuities, post-retirement marriages, and NAFI elections when the individual is age 40 or older

Attachment 3 – CSRS and FERS Factors for NAFI Elections when the individual is under age 40 and FERCCA under age 40

Attachment 4 – FERS Present Value Conversion Factors for deceased separated employees

Attachment 5 – NAFI Discount Factors

***Effective Dates:***

- For purposes of computing actuarial reductions that must be applied to alternative annuities, FERCCA actuarial reductions, and redeposits for refunded CSRS service before March 1, 1991, use the new present value factors if the annuity commenced on or after October 1, 2019.

- For purposes of computing the actuarial reduction that must be applied to an annuitant's annuity for purposes of making the deposit for a post-retirement survivor annuity election, use the new present value factors for survivor reductions effective on or after October 1, 2019.
- For purposes of computing NAFI cases, use the new discount factors if the computation under 5 C.F.R. § 847.603 is on/after October 1, 2019.

For annuities payable to survivors of deceased separated FERS employees, use the new factors for deaths on or after October 1, 2019. See Benefits Administration Letters 03-102, dated January 22, 2003, and 96-108, dated September 6, 1996, for details about the NAF computations. The revised Discount Factors are attached.

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**Civil Service Retirement System**  
Present Value Factors Effective October 1, 2019

These Present Value Factors apply to the following:

- Computations of alternative annuities, FERCCA actuarial reductions, and actuarial reductions applied to CSRS annuities for the purpose of paying redeposits for service ending before March 1, 1991, if the commencing date of those annuities are on/after October 1, 2019;
- Actuarial reductions applied to CSRS annuities to pay for the cost of the deposit when annuitants have elected survivor annuities on behalf of their post-retirement spouses for elections effective on/ after October 1, 2019; and
- Computations of annuities involving credit for service with non-appropriated fund instrumentalities (NAFI) when the individual is age 40 or older and the date of computation under 5 C.F.R. § 847.603 is on/after October 1, 2019.

<i>Age at Retirement</i>	<i>Factor</i>	<i>Age at Retirement</i>	<i>Factor</i>
40	351.8	74	142.5
41	347.1	75	135.6
42	342.2	76	128.8
43	337.2	77	122.1
44	332.1	78	115.5
45	326.9	79	109.0
46	321.6	80	102.7
47	316.4	81	96.6
48	311.1	82	90.6
49	305.9	83	84.9
50	300.7	84	79.4
51	295.3	85	74.1
52	289.8	86	69.0
53	284.1	87	64.1
54	278.2	88	59.6
55	272.2	89	55.3
56	266.0	90	51.3
57	259.7	91	47.7
58	253.3	92	44.2
59	246.8	93	41.1
60	240.2	94	38.2
61	233.5	95	35.6
62	226.7	96	33.2
63	219.8	97	31.1
64	212.9	98	29.2
65	206.0	99	27.4
66	199.0	100	25.9
67	192.0	101	24.4
68	184.9	102	23.1
69	177.8	103	21.8
70	170.7	104	20.5
71	163.6	105	18.9
72	156.5	106	17.0
73	149.5	107	14.2
74	142.5	108	9.5
75	135.6	109	6.4
76	128.8		
77	122.1		
78	115.5		
79	109.0		
80	102.7		

## Federal Employees Retirement System

Present Value Factors Effective October 1, 2019

These Present Value Factors apply to the following:

- Actuarial reductions applied to FERS alternative annuities when the commencing date of the annuity is on/after October 1, 2019;
- Actuarial reductions applied to FERS annuities when an annuitant has elected a survivor annuity benefit for a post retirement spouse if the election is effective on/after October 1, 2019; and
- Actuarial reductions applied to cases involving credit for service with non-appropriated fund instrumentalities (NAFI) when the individual is age 40 or older and date of computation under 5 C.F.R. § 847.603 is on/after October 1, 2019.

These factors apply if COLAs are payable before age 62 (ages 40 – 61).

<i>Age at Retirement</i>	<i>Factor</i>	<i>Age at Retirement</i>	<i>Factor</i>
40	319.8	51	273.3
41	316.0	52	268.7
42	312.1	53	263.8
43	308.0	54	258.8
44	303.8	55	253.6
45	299.6	56	248.3
46	295.3	57	242.9
47	290.9	58	237.3
48	286.6	59	231.6
49	282.2	60	225.8
50	277.9	61	219.9

These factors apply if COLAs are **not** payable before age 62 (ages 40 – 61).

<i>Age at Retirement</i>	<i>Factor</i>	<i>Age at Retirement</i>	<i>Factor</i>
40	244.2	51	232.0
41	243.3	52	230.8
42	242.3	53	229.5
43	241.2	54	228.0
44	240.0	55	226.4
45	238.9	56	224.8
46	237.7	57	223.1
47	236.5	58	221.4
48	235.4	59	219.6
49	234.3	60	217.7
50	233.2	61	215.8

These factors apply for FERS individuals ages 62 and older.

<i>Age at Retirement</i>	<i>Factor</i>	<i>Age at Retirement</i>	<i>Factor</i>
62	213.9	87	63.0
63	207.8	88	58.6
64	201.6	89	54.5
65	195.4	90	50.6
66	189.1	91	47.0
67	182.7	92	43.7
68	176.3	93	40.6
69	169.8	94	37.8
70	163.3	95	35.2
71	156.8	96	32.9
72	150.3	97	30.8
73	143.8	98	28.9
74	137.3	99	27.2
75	130.9	100	25.7
76	124.5	101	24.3
77	118.2	102	23.0
78	112.0	103	21.7
79	105.9	104	20.4
80	99.9	105	18.9
81	94.1	106	17.0
82	88.4	107	14.2
83	83.0	108	9.4
84	77.7	109	6.4
85	72.6		
86	67.7		

## CSRS and FERS Present Value Factors NAFI Elections for Individuals Below Age 40

Use these factors for NAFI cases when the date of computation under 5 C.F.R. § 847.603 is on/after October 1, 2019. (CSRS chart applies to FERCCA reductions < 40 years old.)

### Civil Service Retirement System

<i>Age at Retirement</i>	<i>Factor</i>	<i>Age at Retirement</i>	<i>Factor</i>
17	443.1	29	399.6
18	439.8	30	395.6
19	436.4	31	391.5
20	432.9	32	387.4
21	429.4	33	383.2
22	425.9	34	378.9
23	422.3	35	374.6
24	418.6	36	370.2
25	414.9	37	365.7
26	411.2	38	361.2
27	407.4	39	356.5
28	403.5		

### Federal Employees Retirement System

<i>Age at Retirement</i>	<i>Factor</i>	<i>Age at Retirement</i>	<i>Factor</i>
17	389.9	29	357.3
18	387.4	30	354.2
19	384.9	31	351.1
20	382.4	32	347.9
21	379.8	33	344.7
22	377.2	34	341.3
23	374.5	35	337.9
24	371.8	36	334.5
25	369.0	37	330.9
26	366.1	38	327.3
27	363.3	39	323.6
28	360.3		



## Present Value Conversion Factors FERS Decreased Separated Employee Cases

**For Deaths from 10/1/19 – Present**

**A. With at least 10, but less than 20 years of creditable service—**

<i>Former employee's age at death:</i>	<i>Multiplier</i>	<i>Former employee's age at death:</i>	<i>Multiplier</i>
26	.0998	58	.7536
27	.1068	59	.8076
28	.1138	60	.8663
29	.1214	61	.9302
30	.1291		
31	.1375		
32	.1463		
33	.1555		
34	.1651		
35	.1755		
36	.1867		
37	.1986		
38	.2113		
39	.2247		
40	.2390		
41	.2540		
42	.2701		
43	.2875		
44	.3057		
45	.3252		
46	.3460		
47	.3680		
48	.3917		
49	.4171		
50	.4445		
51	.4739		
52	.5055		
53	.5393		
54	.5758		
55	.6151		
56	.6578		
57	.7037		

**For Deaths from 10/1/19 – Present**

**B. With at least 20, but less than 30 years of creditable service—**

<i>Former employee's age at death;</i>	<i>Multiplier</i>	<i>Former employee's age at death:</i>	<i>Multiplier</i>
36	.2153	51	.5470
37	.2291	52	.5834
38	.2436	53	.6225
39	.2592	54	.6646
40	.2756	55	.7100
41	.2930	56	.7592
42	.3116	57	.8123
43	.3316	58	.8698
44	.3527	59	.9322
45	.3752		
46	.3992		
47	.4247		
48	.4521		
49	.4814		
50	.5131		

**C. With at least 30 years of creditable service—**

<i>Former employee's age at death:</i>	<i>Multiplier by separated employee's year of birth-</i>	
	<i>After 1966</i>	<i>From 1950 through 1966</i>
46	.4912	.5254
47	.5226	.5591
48	.5564	.5953
49	.5926	.6340
50	.6316	.6757
51	.6733	.7203
52	.7181	.7683
53	.7663	.8199
54	.8182	.8754
55	.8741	.9353
56	.9346	1.0000

## Discount Factors Chart Effective October 1, 2019

Factors for determining the reduction in a CSRS or FERS Annuity when an individual elects to credit NAFI Service to qualify for immediate CSRS/FERS Retirement under Pub. L. 107-107, 115 Stat. 1012 (2001), and the annuity begins on/after October 1, 2019.

Find the factor that corresponds to the number of whole years and full months between the date the immediate retirement (with credit for NAFI service) and the date the deferred retirement (without credit for NAFI service) would normally begin. Factors derived from an assumed 4.50% rate of investment return earned by the Fund.

Years/ Months	0	1	2	3	4	5	6	7	8	9	10	11
0	1.000000	0.996339	0.992691	0.989056	0.985435	0.981827	0.978232	0.974650	0.971082	0.967526	0.963984	0.960454
1	0.956938	0.953434	0.949943	0.946465	0.943000	0.939547	0.936107	0.932680	0.929265	0.925862	0.922473	0.919095
2	0.915730	0.912377	0.909037	0.905708	0.902392	0.899088	0.895796	0.892516	0.889249	0.885993	0.882749	0.879517
3	0.876297	0.873088	0.869891	0.866707	0.863533	0.860371	0.857221	0.854083	0.850956	0.847840	0.844736	0.841643
4	0.838561	0.835491	0.832432	0.829384	0.826348	0.823322	0.820308	0.817304	0.814312	0.811330	0.808360	0.805400
5	0.802451	0.799513	0.796586	0.793669	0.790763	0.787868	0.784983	0.782109	0.779246	0.776392	0.773550	0.770718
6	0.767896	0.765084	0.762283	0.759492	0.756711	0.753941	0.751180	0.748430	0.745690	0.742959	0.740239	0.737529
7	0.734828	0.732138	0.729457	0.726787	0.724126	0.721474	0.718833	0.716201	0.713579	0.710966	0.708363	0.705769
8	0.703185	0.700611	0.698045	0.695490	0.692943	0.690406	0.687878	0.685360	0.682850	0.680350	0.677859	0.675377
9	0.672904	0.670441	0.667986	0.665540	0.663103	0.660676	0.658257	0.655847	0.653445	0.651053	0.648669	0.646294
10	0.643928	0.641570	0.639221	0.636881	0.634549	0.632225	0.629911	0.627604	0.625306	0.623017	0.620736	0.618463
11	0.616199	0.613943	0.611695	0.609455	0.607224	0.605000	0.602785	0.600578	0.598379	0.596188	0.594006	0.591831
12	0.589664	0.587505	0.585354	0.583211	0.581075	0.578948	0.576828	0.574716	0.572612	0.570515	0.568426	0.566345
13	0.564272	0.562206	0.560147	0.558096	0.556053	0.554017	0.551989	0.549968	0.547954	0.545948	0.543949	0.541957
14	0.539973	0.537996	0.536026	0.534063	0.532108	0.530160	0.528219	0.526285	0.524358	0.522438	0.520525	0.518619
15	0.516720	0.514829	0.512944	0.511066	0.509194	0.507330	0.505472	0.503622	0.501778	0.499941	0.498110	0.496286
16	0.494469	0.492659	0.490855	0.489058	0.487267	0.485483	0.483706	0.481935	0.480170	0.478412	0.476660	0.474915
17	0.473176	0.471444	0.469718	0.467998	0.466284	0.464577	0.462876	0.461182	0.459493	0.457811	0.456134	0.454464
18	0.452800	0.451143	0.449491	0.447845	0.446205	0.444572	0.442944	0.441322	0.439706	0.438096	0.436492	0.434894
19	0.433302	0.431715	0.430135	0.428560	0.426991	0.425427	0.423870	0.422318	0.420771	0.419231	0.417696	0.416167
20	0.414643	0.413125	0.411612	0.410105	0.408604	0.407107	0.405617	0.404132	0.402652	0.401178	0.399709	0.398246
21	0.396787	0.395335	0.393887	0.392445	0.391008	0.389577	0.388150	0.386729	0.385313	0.383902	0.382497	0.381096
22	0.379701	0.378311	0.376926	0.375545	0.374170	0.372801	0.371436	0.370076	0.368721	0.367371	0.366026	0.364685
23	0.363350	0.362020	0.360694	0.359374	0.358058	0.356747	0.355441	0.354139	0.352843	0.351551	0.350264	0.348981
24	0.347703	0.346430	0.345162	0.343898	0.342639	0.341385	0.340135	0.338889	0.337649	0.336412	0.335181	0.333953
25	0.332731	0.331512	0.330299	0.329089	0.327884	0.326684	0.325488	0.324296	0.323109	0.321926	0.320747	0.319573