## **ACTUARIAL NOTE**

SOCIAL SECURITY ADMINISTRATION

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## ILLUSTRATIVE BENEFITS FOR RETIRED WORKERS, DISABLED WORKERS, AND SURVIVORS SCHEDULED UNDER CURRENT LAW

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The Social Security program provides monthly benefits to retired workers and their families, disabled workers and their families, and survivors of workers. The *progressivity* of the Social Security benefit formula provides individuals who have lower career-average earnings with monthly benefits that are a higher percentage of their career-average earnings than the percentage for those who have higher career-average earnings. For a group of *example workers* with a range of full-lifetime average earnings levels at various ages in 2023, this note displays their current earnings at various ages in 2022, their full-lifetime average earnings, and the amounts they would expect to receive at benefit entitlement.

The assumptions underlying the attached tables are similar to those used in the annual Social Security Statement available online to workers and former workers aged 18 and older. The benefit amounts are calculated as specified in current law. The amounts reflect no increase in price levels or in average wage levels after 2022. Thus, the benefit estimates for workers at various ages in 2023 who would be retiring in future years are roughly comparable to their potential benefits as disabled workers and for their survivors, which both assume benefit entitlement in 2023.

All example workers, except the steady maximum worker, 2 have scaled earnings patterns beginning at age 21. These patterns reflect the actual average work experience of fully insured workers during 2000-2019. These patterns show relatively low wages and probability of work at young and old ages and higher relative wages and probability of work at mid-career.<sup>3</sup> A worker is considered fully insured if he or she has a total number of quarters of coverage (QCs)<sup>4</sup> at least equal to the number of years after attainment of age 21 through the last year considered in the analysis (in this case 2019). A further requirement is that the worker must have a minimum of 6 OCs. Since a worker achieves permanently insured status with 40 QCs, any worker with 40 QCs is fully insured no matter how many years have elapsed since age 21. Any fully insured worker is likely to become eligible for a Social Security retirement benefit if he or she survives to eligibility age. After 2022, earnings levels for workers illustrated in this note increase or decrease due solely to the scaled earnings pattern, and not due to changes in the average wage level.

The following four tables show estimated future benefits consistent with earnings in 2022 and age in 2023. Each table lists *earnings in 2022* at various ages and *annual benefit amounts* at entitlement for example workers with full-lifetime average

http://www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf.

<sup>4</sup>The QC is the basic unit for determining whether a worker is insured for Social Security benefits. In 2023, for example, a worker needed to have \$1,640 in covered earnings to obtain a QC. Workers can earn up to 4 QCs per calendar year. Since 1978, the amount of covered earnings required to obtain a QC has been automatically indexed each year with the growth in average wage levels. See: <a href="http://www.ssa.gov/OACT/COLA/QC.html">http://www.ssa.gov/OACT/COLA/QC.html</a> for more information,

including a list of historical QC amounts.

<sup>&</sup>lt;sup>1</sup> The full-lifetime average earnings level reflects the average of the highest 35 years of wage-indexed earnings (wage-indexed to 2022) expected for the illustration assuming that the worker survives to age 65 without becoming disabled.

<sup>&</sup>lt;sup>2</sup> For the steady maximum worker, earnings start at age 22 and are assumed to equal the taxable maximum (the OASDI benefit and contribution base) for each year through 2022. Earnings after 2022 are assumed to equal the taxable maximum of \$147,000 for 2022.

<sup>&</sup>lt;sup>3</sup> For more details on development of the scaled earnings patterns, see Actuarial Note Number 2023.3 at:

earnings levels<sup>1</sup> of \$15,000, \$30,000, \$45,000, \$60,000, \$75,000, \$90,000, and the taxable maximum. As mentioned above, the benefit amounts assume no increase in price levels or in average wage levels after 2022. Additional information about each table is provided below.

- Table 1A: Retired Workers Who Become Entitled at Normal Retirement Age (NRA). This table also shows the percentage of fully insured workers with full-lifetime average earnings at or below each of the seven fulllifetime average earnings levels. We base these percentages on the earnings of a onepercent sample of individuals, aged 25 through 65, who were fully insured in 2020. For this purpose, comparisons are made to hypothetical scaled worker career average earnings at each of the applicable ages corresponding to the \$15,000, \$30,000, ..., maximum full lifetime average earnings levels. The illustrative benefits are for workers only. Additional benefits may be available for auxiliary beneficiaries such as spouses and dependent children. The NRA increased to 66 for those attaining age 62 in 2005, and it is currently increasing further beginning with those attaining age 62 in 2017, reaching 67 for those attaining age 62 in 2022 and later.
- Table 1B: Retired Workers Who Become Entitled at Age 65. The only difference between table 1B and table 1A is that the example workers retire at age 65 rather than at NRA, resulting in lower benefit amounts due to reduction for early retirement. The illustrative benefits are for workers only. Additional benefits may be available for auxiliary beneficiaries such as spouses and dependent children.

- Table 2: Disabled Worker Annual Benefit **Amounts.** For the seven full-lifetime average earnings levels, table 2 provides benefit amounts assuming benefit entitlement in 2023 for disabled example workers aged 25, 35, 45, and 55. In addition, the table provides the percentage of disability insured<sup>5</sup> workers with full-lifetime average earnings at or below each full-lifetime average earnings level. We base these percentages on the earnings of a onepercent sample of individuals, aged 25 through 65, who were disability insured in 2020. The illustrated benefits are for workers only. Additional benefits may be available for auxiliary beneficiaries such as spouses and dependent children.
- Table 3: Survivor Annual Benefit Amounts. For the seven full-lifetime average earnings levels, table 3 provides benefit amounts assuming that the deceased example workers would have attained ages 25, 35, 45, or 60 just before dying in 2023. In each case, we assume the surviving spouse is the same age as the deceased worker and that he or she becomes entitled to benefits in 2023. The table provides benefit estimates for three scenarios of survivor beneficiaries: (1) spouse and one child (spouse only for the age 60 case), (2) one child only, and (3) spouse and two children. Because of the family maximum benefit provision, annual benefit amounts for a spouse and two children are the same as, or only moderately higher than, benefit amounts for a spouse and one child. In addition, the table provides the percentage of fully or currently insured<sup>6</sup> workers with full-lifetime average earnings at or below each full-lifetime average earnings level. We base these percentages on the earnings of a one-percent sample of individuals, aged 25 through 65, who were fully or currently insured in 2020.

one-half of the quarters elapsed after the quarter of attainment of age 21 and up to and including the current quarter, or (3) a fully insured worker under age 24 who has accumulated six quarters of coverage during the 12-quarter period ending with the current quarter.

<sup>&</sup>lt;sup>5</sup>A worker is *disability insured* if he or she is: (1) a fully insured worker who has accumulated 20 quarters of coverage during the 40-quarter period ending with the current quarter, (2) a fully insured worker aged 24-30 who has accumulated quarters of coverage during

<sup>&</sup>lt;sup>6</sup>A worker is *currently insured* if he or she has accumulated six quarters of coverage during the 13-quarter period ending with the current quarter.

## Table 1A. Retired Worker Annual Benefit Amounts<sup>1</sup> Scheduled in Current Law

For Fully Insured<sup>2</sup> Workers at Various Ages Who Become Entitled at Normal Retirement Age (NRA) With Various Full-Lifetime Earnings Patterns<sup>3</sup>

Age in 2023	Age at benefit entitlement (NRA)			Farning	rs in 2022 a	nd benefit a	t entitleme	nt (NRA)	
2023	(IVIXI)	· <u>-</u>	\$7,901	\$15,803	\$23,704	\$31,605	\$39,506	\$47,408	\$147,000
25	67	Earnings in 2022	\$7,901	\$13,603	\$23,704	\$31,003	\$39,300	\$47,400	\$147,000
23	07	Benefit at entitlement	12,924	17,724	22,524	27,324	32,124	35,988	44,592
		Benegu at entitiement	,:				,		,
			14,308	28,615	42,923	57,230	71,538	85,845	147,000
35	67	Earnings in 2022							
		Benefit at entitlement	12,924	17,724	22,524	27,324	32,124	35,988	45,072
			16,199	32,397	48,596	64,795	80,993	97,192	147,000
45	67	Earnings in 2022	10,177	32,371	40,570	04,773	00,773	77,172	147,000
15	07	Benefit at entitlement	12,924	17,724	22,524	27,324	32,124	35,988	45,504
		F : 2022	16,066	32,133	48,199	64,266	80,332	96,398	147,000
55	67	Earnings in 2022							
		Benefit at entitlement	12,924	17,724	22,524	27,324	32,124	35,988	45,840
			11,645	23,291	34,936	46,582	58,227	69,873	147,000
65	66 and 8 mos.	Earnings in 2022	11,0.0	20,291	2 1,5 2 0	.0,002	00,227	0,075	117,000
		Benefit at entitlement	12,432	17,076	21,720	26,364	31,008	34,608	44,376
		J							
Full-lifet	Full-lifetime average earnings level <sup>4</sup>			30,000	45,000	60,000	75,000	90,000	Maximum
Percent of fully insured workers with career average earnings at this level or below <sup>5</sup>			10	27	43	59	71	80	100

<sup>&</sup>lt;sup>1</sup> The assumptions underlying the above benefit estimates are similar to those used for the Social Security Statement. These estimates reflect no increase in the cost of living or average wage and earnings levels after December 2022. However, earnings after 2022 follow scaled earnings patterns as age increases. (These assumptions are not consistent with those used for table V.C7 of the 2023 Trustees Report.)

<sup>&</sup>lt;sup>2</sup> A worker is *fully insured* if he or she has a total number of quarters of coverage (QCs) at least equal to the number of years after attainment of age 21 through the last year considered in the analysis (in this case 2019), or through age 62 if earlier, and has a minimum of 6 QCs.

<sup>&</sup>lt;sup>3</sup> Scaled earnings patterns starting at age 21 are assumed for all but the maximum worker. These scaled patterns reflect the actual average work experience of fully insured workers during 2000-2019. For the maximum worker, earnings start at age 22 and are assumed to equal the taxable maximum (the OASDI contribution and benefit base) for each year through 2022. (For 2022, this amount was \$147,000.) For more details on the scaled-earnings patterns see Actuarial Note Number 2023.3 at: <a href="http://www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf">http://www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf</a>.

<sup>&</sup>lt;sup>4</sup>The full-lifetime average earnings level reflects the average of the highest 35 years of wage-indexed earnings (wage-indexed to 2022) expected for the illustration assuming the worker survives to age 65 without becoming disabled.

<sup>&</sup>lt;sup>5</sup> Based on a 1% sample of actual earnings histories for individuals aged 25 through 65 who were fully insured in 2020. Comparisons are made to hypothetical scaled worker career average earnings at each of the applicable ages corresponding to the \$15,000, \$30,000, ..., maximum full lifetime average earnings levels.

Table 1B. Retired Worker Annual Benefit Amounts <sup>1</sup> Scheduled in Current Law For Fully Insured <sup>2</sup> Workers at Various Ages Who Become Entitled at Age 65 With Various Full-Lifetime Earnings Patterns <sup>3</sup>									
Age in 2023	Age at benefit entitlement	_		Earnin	gs in 2022 a	nd benefit a	at entitleme	ent (Age 65)	
		_	\$7,901	\$15,803	\$23,704	\$31,605	\$39,506	\$47,408	\$147,000
25	65	Earnings in 2022	11,196	15,360	19,524	23,676	27,840	31,188	38,640
		Benefit at entitlement	11,190	15,500	19,324	23,070	27,840	31,100	30,040
35	65	Earnings in 2022	14,308	28,615	42,923	57,230	71,538	85,845	147,000
		Benefit at entitlement	11,196	15,360	19,524	23,676	27,840	31,188	39,060
		Equations in 2022	16,199	32,397	48,596	64,795	80,993	97,192	147,000
45	65	Earnings in 2022  Benefit at entitlement	11,196	15,360	19,524	23,676	27,840	31,188	39,444
55	65	Earnings in 2022	16,066	32,133	48,199	64,266	80,332	96,398	147,000
	03	Benefit at entitlement	11,196	15,360	19,524	23,676	27,840	31,188	39,732
65	65	Earnings in 2022	11,645	23,291	34,936	46,582	58,227	69,873	147,000
65	65	Benefit at entitlement	11,040	15,180	19,308	23,436	27,564	30,768	39,348
Full-lifetime average earnings level <sup>4</sup> 15,000 30,000 45,000						60,000	75,000	90,000	Maximum
Percent of	of fully insur	ed workers with career	10	27	43	59	71	80	100

<sup>&</sup>lt;sup>1</sup> The assumptions underlying the above benefit estimates are similar to those used for the Social Security Statement. These estimates reflect no increase in the cost of living or average wage and earnings levels after December 2022. However, earnings after 2022 follow scaled earnings patterns as age increases. (These assumptions are not consistent with those used for table V.C7 of the 2023 Trustees Report.)

average earnings at this level or below<sup>5</sup>.....

<sup>&</sup>lt;sup>2</sup> A worker is *fully insured* if he or she has a total number of quarters of coverage (QCs) at least equal to the number of years after attainment of age 21 through the last year considered in the analysis (in this case 2019), or through age 62 if earlier, and has a minimum of 6 QCs.

<sup>&</sup>lt;sup>3</sup> Scaled earnings patterns starting at age 21 are assumed for all but the maximum worker. These scaled patterns reflect the actual average work experience of fully insured workers during 2000-2019. For the maximum worker, earnings start at age 22 and are assumed to equal the taxable maximum (the OASDI contribution and benefit base) for each year through 2022. (For 2022, this amount was \$147,000.) For more details on the scaled-earnings patterns see Actuarial Note Number 2023.3 at: <a href="http://www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf">http://www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf</a>.

<sup>&</sup>lt;sup>4</sup>The full-lifetime average earnings level reflects the average of the highest 35 years of wage-indexed earnings (wage-indexed to 2022) expected for the illustration assuming the worker survives to age 65 without becoming disabled.

<sup>&</sup>lt;sup>5</sup> Based on a 1% sample of actual earnings histories for individuals aged 25 through 65 who were fully insured in 2020. Comparisons are made to hypothetical scaled worker career average earnings at each of the applicable ages corresponding to the \$15,000, \$30,000, ..., maximum full lifetime average earnings levels.

Age at benefit	r Disability Insured <sup>1</sup> Workers Entitled in	2023 at Se.	ected Ages a	nd with van	ous run-Lnei	mie Earnings	s ratterns				
entitlement in 2023		Earnings in 2022 and benefit at entitlement in 2023									
	E	\$7,901	\$15,803	\$23,704	\$31,605	\$39,506	\$47,408	\$147,00			
25	Earnings in 2022	5.740	11.500	12.006	15.040	10.000	20.052	12.15			
	Benefit at entitlement	5,748	11,520	13,896	15,948	18,000	20,052	43,45			
		14,308	28,615	42,923	57,230	71,538	85,845	147,000			
35	Earnings in 2022										
	Benefit at entitlement	10,044	14,904	18,468	22,044	25,620	29,196	44,100			
	F 2022	16,199	32,397	48,596	64,795	80,993	97,192	147,000			
45	Earnings in 2022	12,048	16,344	20,640	24,936	29,232	33,528	44,124			
	Benefit at entitlement										
		16,066	32,133	48,199	64,266	80,332	96,398	147,000			
55	Earnings in 2022	12,348	16,932	21,516	26,112	30,696	34,368	44,004			
	Benefit at entitlement	12,546	10,932	21,510	20,112	30,090	34,306	44,00			
Full-lifetime aver	rage earnings level <sup>3</sup>	15,000	30,000	45,000	60,000	75,000	90,000	Maximun			
	lity insured workers with career at this level or below <sup>4</sup>	5	20	38	55	68	78	100			

<sup>&</sup>lt;sup>1</sup>A worker is disability insured if he or she is: (1) a fully insured worker who has accumulated 20 quarters of coverage during the 40-quarter period ending with the current quarter, (2) a fully insured worker aged 24-30 who has accumulated quarters of coverage during one-half of the quarters elapsed after the quarter of attainment of age 21 and up to and including the current quarter, or (3) a fully insured worker under age 24 who has accumulated six quarters of coverage during the 12-quarter period ending with the current quarter.

Note: These estimates reflect no increase in the cost of living after December 2022.

<sup>&</sup>lt;sup>2</sup> Scaled earnings patterns starting at age 21 are assumed for all but the maximum worker. These scaled patterns reflect the actual average work experience of fully insured workers during 2000-2019. For the maximum worker, earnings start at age 22 and are assumed to equal the taxable maximum (the OASDI contribution and benefit base) for each year through 2022. (For 2022, this amount was \$147,000.) For more details on the scaled-earnings patterns see Actuarial Note Number 2023.3 at: <a href="http://www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf">http://www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf</a>.

<sup>&</sup>lt;sup>3</sup> The full-lifetime average earnings level reflects the average of the highest 35 years of wage-indexed earnings (wage-indexed to 2022) expected for the illustration assuming the worker survives to age 65 without having become disabled.

<sup>&</sup>lt;sup>4</sup>Based on a 1% sample of actual earnings histories for individuals aged 25 to 65 who were disability insured in 2020. Comparisons are made to hypothetical scaled worker career average earnings at each of the applicable ages corresponding to the \$15,000, \$30,000, ..., maximum full lifetime average earnings levels.

## **Table 3. Survivor Annual Benefit Amounts**

For Survivors Entitled in 2023 at Selected Ages and With Various Full-Lifetime Earnings Patterns of the Deceased Spouse<sup>1</sup>

Age of deceased spouse in 2023	Age of surviving spouse in 2023		Ranofit (	at antitlam	ont in 2023	3 and decea	asad spaus	o's oarning	se in 2022
	2023		\$9,576	\$18,456	\$21,864	\$25,296	\$28,704	\$32,112	\$65,592
25		Spouse and one child					ŕ		
	25	Child only	4,788	9,228	10,932	12,648	14,352	16,056	32,796
		Spouse and two children	9,588	18,456	21,876	25,296	31,200	37,392	76,524
	Earnings of deceased spouse in 2022		7,901	15,803	23,704	31,605	39,506	47,408	147,000
	35	Spouse and one child	16,440	23,328	29,160	35,016	40,872	46,704	66,360
2.5		Child only	8,220	11,664	14,580	17,508	20,436	23,352	33,180
35		Spouse and two children	16,440	23,328	32,040	42,660	49,692	54,924	77,400
	Earnings	of deceased spouse in 2022	14,308	28,615	42,923	57,230	71,538	85,845	147,000
	45	Spouse and one child	18,168	24,744	31,296	37,848	44,400	50,616	66,216
		Child only	9,084	12,372	15,648	18,924	22,200	25,308	33,108
45		Spouse and two children	18,180	24,744	35,892	46,992	52,848	59,064	77,256
	Earnings	of deceased spouse in 2022	16,199	32,397	48,596	64,795	80,993	97,192	147,000
		Spouse and one child	8,832	12,108	15,396	18,684	21,972	24,588	31,380
	60	Child only	9,264	12,708	16,152	19,596	23,040	25,788	32,916
60		Spouse and two children	18,528	25,416	37,728	48,204	54,360	60,168	76,788
	Earnings	of deceased spouse in 2022	14,332	28,664	42,995	57,327	71,659	85,991	147,000
Full-lifetime average earnings level <sup>2</sup>		15,000	30,000	45,000	60,000	75,000	90,000	Maximum	
Percent of fully <sup>3</sup> or currently <sup>4</sup> insured workers with career average earnings at this level or below <sup>5</sup>			12	28	44	60	72	80	100

<sup>&</sup>lt;sup>1</sup> Scaled earnings patterns starting at age 21 are assumed for all but the maximum worker. These scaled patterns reflect the actual average work experience of fully insured workers during 2000-2019. For the maximum worker, earnings start at age 22 and are assumed to equal the taxable maximum (the OASDI contribution and benefit base) for each year through 2022. (For 2022, this amount was \$147,000.) For more details on the scaled-earnings patterns see Actuarial Note Number 2023.3 at: <a href="http://www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf">http://www.ssa.gov/OACT/NOTES/ran3/an2023-3.pdf</a>.

Note: These estimates reflect no increase in the cost of living after December 2022.

<sup>&</sup>lt;sup>2</sup> The full-lifetime average earnings level reflects the average of the highest 35 years of wage-indexed earnings (wage-indexed to 2022) expected for the illustration assuming the worker survives to age 65 without having become disabled.

<sup>&</sup>lt;sup>3</sup> A worker is *fully insured* if he or she has a total number of quarters of coverage (QCs) at least equal to the number of years after attainment of age 21 through the last year considered in the analysis (in this case 2019), or through age 62 if earlier, and has a minimum of 6 QCs.

<sup>&</sup>lt;sup>4</sup> A worker is *currently insured* if he or she has accumulated six quarters of coverage during the 13-quarter period ending with the current quarter.

<sup>&</sup>lt;sup>5</sup> Based on a 1% sample of actual earnings histories for individuals aged 25 through 65 who were fully or currently insured in 2020. Comparisons are made to hypothetical scaled worker career average earnings at each of the applicable ages corresponding to the \$15,000, \$30,000, ..., maximum full lifetime average earnings levels.