

TOTALIZATION AGREEMENTS AND TOTALIZED BENEFITS

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Section 233 of the Social Security Act authorizes the President to enter into bilateral Social Security agreements with other countries. One purpose of these agreements, commonly called “totalization” agreements, is to allow a person to establish entitlement to U.S. Social Security benefits based on a combination of the person’s work under the U.S. Social Security system and the person’s work coverage under the social insurance system of the other country. Totalization agreements do not include Medicare benefits: credits for work in another country cannot be used to establish entitlement under the Medicare program.

This is the third version of this actuarial note. The original version was Note Number 152 by Nettie Barrick and Bertram Kestenbaum dated May 2013. The second version was Note Number 161 by Nettie Barrick-Funk dated March 2021. The note begins with a discussion of insured-status requirements and how the totalization process helps persons achieve insured status. We then illustrate of how a totalized benefit is computed. Following that, we present several tabulations from the Master Beneficiary Record (MBR) of the population of beneficiaries in receipt of totalized benefits. Next, we outline the role of the Office of the Chief Actuary in estimating the various effects of proposed totalization agreements under consideration. Finally, we present several tabulations including data from the MBR and from the Master Earnings File of the U.S. quarters of coverage and the earnings of totalized worker beneficiaries.

Insured-status Requirements and Totalization

A worker needs to be “fully” insured and at least 62 years old to receive an old-age worker benefit under the U.S. system. For those born after January 1, 1929, forty quarters of coverage (QCs) are needed to be fully insured for an old-age worker benefit; for persons born earlier, the number of QCs required is equal to the number of years after 1950 and before the year of attainment of age 62, but not less than 6. Persons who are not fully insured but have at least 6 quarters of coverage under the U.S. system may qualify for a totalized U.S. benefit. Periods of work (after 1936 or as specified in that particular agreement), in a country that has a totalization agreement with the U.S., generate international QCs which can be counted towards the remaining quarters of coverage needed. Coverage is limited to a combined total of 4 quarters per year including foreign cover-

age and coverage under the U.S. system. The number of U.S. quarters of coverage credited for a given year is determined by the worker’s total U.S. earnings for that year whether or not the worker actually has earnings during each quarter. If the partner country does not credit work on a quarterly basis, the work must be converted into quarterly increments; for example, if the partner credits work on a monthly basis, then an international QC is given for each 3 months of work, if the partner credits work on an annual basis, then up to 4 international QCs are given for each year of work. Fewer than 4 international quarters could be credited for a year of foreign work if there are also domestic (U.S.) QCs for that year.

To be eligible for a U.S. disability benefit, a worker needs to be both fully insured and have substantial recent work. For disability benefits, the number of QCs required for fully-insured status equals the number of years after the year of attainment of age 21 through the year of disability onset, but not less than 6. The recency-of-employment requirement for a worker age 31 or older at onset is 20 credits in the 40-quarter period ending with the quarter of onset. The recency-of-employment requirement for workers under age 31 is one-half of the quarters during the period after they turned 21 and ending with the quarter of onset, but not less than 6. For a disability benefit, international QCs can be used to satisfy either requirement or both. (In the case that international QCs are needed only to establish recency of employment, the worker will be paid a regular (non-totalization) benefit when their disability benefit converts to a retirement benefit at Normal Retirement Age (NRA)¹, unless the totalization benefit is larger.) The assignment of international QCs to satisfy the recency criterion is done in a generous way; for example, within a given year, the international QCs will be assigned to whichever quarters the worker needs credit for in order to meet the 20/40 criteria.

The fully-insured requirement for survivor benefits is a number of QCs for the deceased worker equal to the number of years after age 21 – after 1950, if later – through the year of death. However, benefits for children and for widow(er)s with children in their care are also payable if the “currently”-insured requirement is met. A deceased worker is currently insured if he or she had at least 6 QCs during the 13 calendar quarters ending with the calendar quarter of death.

¹ See www.ssa.gov/OACT/ProgData/nra.html.

A basic tenet of the U.S. totalization program is that a worker who is insured without totalization is not eligible for a totalized benefit. However, a worker who was receiving a totalized benefit and subsequently became insured based on domestic work alone continues to receive the totalized benefit if it is the larger of the two². The first totalization agreement was with Italy. The agreement was signed on May 23, 1973 and became effective on November 1, 1978. The most recent agreement was with Iceland and became effective March 1, 2019. Several more agreements are being considered but have not been signed into law. The U.S. currently has totalization agreements in effect with 30 countries, most of which are in Western Europe. The list below comes from SSA's website (www.ssa.gov/international/agreements_overview.html).

Country	Effective Date
Italy	November 1, 1978
Germany	December 1, 1979
Switzerland	November 1, 1980
Norway	July 1, 1984
Belgium	July 1, 1984
Canada	August 1, 1984
United Kingdom	January 1, 1985
Sweden	January 1, 1987
Spain	April 1, 1988
France	July 1, 1988
Portugal	August 1, 1989
Netherlands	November 1, 1990
Austria	November 1, 1991
Finland	November 1, 1992
Ireland	September 1, 1993
Luxembourg	November 1, 1993
Greece	September 1, 1994
South Korea	April 1, 2001
Chile	December 1, 2001
Australia	October 1, 2002
Japan	October 1, 2005
Denmark	October 1, 2008
Czech Republic	January 1, 2009
Poland	March 1, 2009
Slovak Republic	May 1, 2014
Hungary	September 1, 2016
Brazil	October 1, 2018
Uruguay	November 1, 2018
Slovenia	February 1, 2019
Iceland	March 1, 2019

Totalized Benefits

The amount of benefit received by a disabled worker or by a worker retiring at NRA is the Primary Insurance Amount, or PIA. The base benefit for auxiliary³ or survivor beneficiaries is

² This tenet did not apply to the original agreement with Italy, which allowed the option of choosing a totalized benefit over a regular benefit. A supplementary agreement with Italy eliminated this option for claims adjudicated after 1985.

³ An auxiliary beneficiary is the spouse or child of a retired or disabled worker. A survivor beneficiary is the widow(er), child, or parent of a deceased worker.

a specified fraction of PIA, between ½ and 1, and depends on the type of beneficiary. The PIA is a function of the worker's earnings history. A totalized PIA is a function of the worker's domestic earnings history and of the number of domestic QCs. In the computation of a totalized PIA the worker's earnings history is replaced by a simulated work history in which the earnings for each year from the year after attaining age 21 through the year prior to eligibility (eligibility defined as age 62, or age of disability onset or death if earlier, and insured) are set equal to the national average wage index⁴ times a factor. To calculate this factor, the worker's actual earnings for each year of domestic work (annualized if less than 4 credits) are divided by the average wage index for that year. The factor is calculated as the average of these ratios. Then the resulting PIA is multiplied by another factor, which is approximately equal to the ratio of the number of years of domestic work to the number of years used in the PIA computation formula. This ratio is less than 1 since totalization is needed, except in a disability case where the ratio could be 1 if totalization is only needed for the recency requirement.

An illustration might be helpful. The illustrative worker was born in 1956 and became entitled to old-age benefits in 2018 upon attaining age 62 and 1 month. He worked in the United States only from 2012 through 2015, with annual earnings and ratios to the national average wage indexing series shown below; the average of the ratios is 0.30643. The AIME (Average Indexed Monthly Earnings) of a worker born in 1956 and entitled in 2018 who earns the national average wage each year from age 22 through age 61 is \$4,057 with a PIA, at entitlement, of \$1,817.30. The totalized AIME of our illustrative worker is 0.30643 as much, or \$1,242, with a corresponding PIA, at entitlement, of \$916.50. The pro rata totalized PIA is 4/35 of the hypothetical PIA, or \$104.70; that is, the worker had 48 months (4 years) of U.S. coverage and a retired worker's PIA is based on 420 elapsed months (35 years of highest indexed earnings). If the illustrative worker begins taking a benefit at age 62, prior to attainment of NRA, the monthly amount will be reduced from the pro rata totalized PIA of \$104.70 to \$77.20. If the worker waits until their NRA of 66 and 4 months to take the benefit, the monthly amount will be increased from the pro rata PIA of \$104.70 to \$117.30 due to the intervening COLAs (cost-of-living adjustments).

Illustrative example: U.S. Earnings History

Year	Earnings	Quarters of coverage	Average wage indexing series value	Ratio
2012	\$6,000.00	4	\$44,321.67	0.13537
2013	\$9,000.00	4	\$44,888.16	0.20050
2014	\$23,000.00	4	\$46,481.52	0.49482
2015	\$19,000.00	4	\$48,098.63	0.39502

⁴ See www.ssa.gov/OACT/COLA/AWI.html.

Data on Totalized Beneficiaries and their Benefits

The Master Beneficiary Record (MBR) is the master file used to administer the OASDI program; it contains information on OASDI beneficiaries and benefits. Totalization is identified in the MBR record from a field which indicates the basis for the computation of the PIA. The totalization status code on the MBR indicates additional statuses: ‘A3’ means that the totalized beneficiary is eligible for Medicare hospital insurance, for example, because the beneficiary is also entitled to a non-totalization auxiliary benefit, while ‘E2’ means that the totalized beneficiary subsequently converted to an old-age benefit or became insured on the basis of post-entitlement domestic work yet continues to receive a totalized benefit because the totalized benefit is larger. A complication in presenting data on totalized beneficiaries and benefits is that some beneficiaries may be dually-entitled, for example as a worker and as a spouse or widow(er); sometimes both benefits are totalized and sometimes only one of the two is totalized⁵.

Tables 1 and 2 present data from the MBR as it stood in mid-December 2023 on totalized worker beneficiaries. In December 2023, there were 155,633 retired or disabled workers receiving a totalized U.S. benefit. The largest number of totalized beneficiaries worked in Japan. Canada, Germany, and the United Kingdom follow. The benefits of totalized retired workers are low, reflecting the methodology described above for determining a totalized Primary Insurance Amount. Overall, about 68 percent are men, but for Japan over 96 percent are men and for South Korea nearly 95 percent are men. Among totalized worker beneficiaries, 16,779 are dually entitled. For 13,284 of these dually-entitled beneficiaries, the other benefit is not a totalized benefit. For many of these dually-entitled beneficiaries, the amount of OASDI benefit they receive would be the same even if they were not receiving a totalized worker benefit. In table 1 the benefit amount shown for a beneficiary entitled to both a worker and a higher auxiliary or survivor benefit is only the worker benefit.

⁵ A beneficiary who is entitled to a worker benefit and a higher spouse or widow benefit receives the worker benefit plus the excess of the higher benefit over the worker benefit. That is, they receive the higher amount.

Table 1.—Individuals Receiving a Totalized OASDI Worker Benefit, by Agreement Country and by Trust Fund, as of December 2023^a

Agreement Country	DI			OASI			Total				
	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit	Percent of total number	Percent of total benefits
Australia	52	\$46,440	\$893.08	4,239	\$1,190,438	\$280.83	4,291	\$1,236,878	\$288.25	2.8%	2.5%
Austria	23	12,773	555.33	1,227	320,784	261.44	1,250	333,557	266.85	0.8%	0.7%
Belgium	b	b	b	b	b	b	839	253,742	302.43	0.5%	0.5%
Brazil	0	0	-----	137	40,606	296.39	137	40,606	296.39	0.1%	0.1%
Canada	397	312,675	787.59	32,758	8,739,253	266.78	33,155	9,051,928	273.02	21.3%	18.4%
Chile	b	b	b	b	b	b	309	101,804	329.46	0.2%	0.2%
Czech Rep	b	b	b	b	b	b	199	53,719	269.94	0.1%	0.1%
Denmark	8	6,172	771.50	713	229,383	321.72	721	235,555	326.71	0.5%	0.5%
Finland	15	8,090	539.33	410	114,625	279.57	425	122,715	288.74	0.3%	0.2%
France	9	7,067	785.19	5,116	1,479,609	289.21	5,125	1,486,676	290.08	3.3%	3.0%
Germany	382	268,046	701.69	14,074	3,225,243	229.16	14,456	3,493,289	241.65	9.3%	7.1%
Greece	36	25,673	713.14	4,265	1,081,346	253.54	4,301	1,107,019	257.39	2.8%	2.3%
Hungary	b	b	b	b	b	b	107	26,813	250.59	0.1%	0.1%
Iceland	0	0	-----	12	4,585	382.10	12	4,585	382.08	0.0%	0.0%
Ireland	28	24,487	874.54	2,774	770,462	277.74	2,802	794,949	283.71	1.8%	1.6%
Italy	20	14,894	744.70	5,827	1,488,379	255.43	5,847	1,503,273	257.10	3.8%	3.1%
Japan	25	20,976	839.03	42,482	18,855,017	443.84	42,507	18,875,993	444.07	27.3%	38.4%
Luxembourg	b	b	b	b	b	b	72	25,698	356.92	0.0%	0.1%
Netherlands	15	11,534	768.91	2,446	661,794	270.56	2,461	673,328	273.60	1.6%	1.4%
Norway	36	28,077	779.92	2,355	643,830	273.39	2,391	671,907	281.02	1.5%	1.4%
Poland	50	23,942	478.84	8,917	1,634,492	183.30	8,967	1,658,434	184.95	5.8%	3.4%
Portugal	42	35,972	856.47	1,784	521,362	292.24	1,826	557,334	305.22	1.2%	1.1%
Slovak Republic	b	b	b	b	b	b	67	20,895	311.87	0.0%	0.0%
Slovenia	0	0	-----	27	9,754	361.27	27	9,754	361.26	0.0%	0.0%
South Korea	8	6,233	779.13	2,950	1,074,817	364.34	2,958	1,081,050	365.47	1.9%	2.2%
Spain	71	55,276	778.53	2,718	715,763	263.34	2,789	771,039	276.46	1.8%	1.6%
Sweden	14	8,740	624.29	3,151	868,317	275.57	3,165	877,057	277.11	2.0%	1.8%
Switzerland	16	16,807	1050.41	2,617	701,031	267.88	2,633	717,838	272.63	1.7%	1.5%
U.K.	91	82,554	907.19	11,636	3,271,232	281.13	11,727	3,353,786	285.99	7.5%	6.8%
Uruguay	0	0	-----	67	16858	251.62	67	16,858	251.61	0.0%	0.0%
Total	1,357	1,032,713	761.03	154,276	48,125,366	311.94	155,633	49,158,079	315.86	100.0%	100.0%

^a Data may not match those published elsewhere on SSA’s website due to definitional differences.

^b Cell contents have been suppressed to avoid possible disclosure of personal information.

Table 2.—Individuals Receiving a Totalized OASDI Worker Benefit, by Agreement Country and by Sex, as of December 2023^a

Agreement Country	Men	Women	Total	% Women
Australia	2,367	1,924	4,291	45%
Austria	681	569	1,250	46%
Belgium	570	269	839	32%
Brazil	76	61	137	45%
Canada	18,794	14,361	33,155	43%
Chile	207	102	309	33%
Czech Rep	129	70	199	35%
Denmark	485	236	721	33%
Finland	247	178	425	42%
France	3,083	2,042	5,125	40%
Germany	6,777	7,679	14,456	53%
Greece	2,640	1,661	4,301	39%
Hungary	65	42	107	39%
Iceland	b	b	12	b
Ireland	1,292	1,510	2,802	54%
Italy	3,428	2,419	5,847	41%
Japan	40,946	1,561	42,507	4%
Luxembourg	44	28	72	39%
Netherlands	1,491	970	2,461	39%
Norway	1,258	1,133	2,391	47%
Poland	6,122	2,845	8,967	32%
Portugal	967	859	1,826	47%
Slovak Republic	42	25	67	37%
Slovenia	b	b	27	b
South Korea	2,809	149	2,958	5%
Spain	1,829	960	2,789	34%
Sweden	1,924	1,241	3,165	39%
Switzerland	1,530	1,103	2,633	42%
U.K.	5,914	5,813	11,727	50%
Uruguay	37	30	67	45%
Total	105,777	49,856	155,633	32%

^a Data may not match those published elsewhere on SSA's website due to definitional differences.

^b Cell contents have been suppressed to avoid possible disclosure of personal information.

Table 3 presents similar data for totalized auxiliary and survivor benefits. The benefit amounts are smaller on average than for workers because auxiliary and survivor beneficiaries receive a maximum of 50 and 75 percent of the worker's PIA, respectively. For a beneficiary receiving both worker and auxiliary or survivor benefits, only the amount in excess of the

worker benefit is included in this table. There were 90,401 totalized auxiliary or survivor beneficiaries as of December 2023. This includes 3,495 individuals who are also totalized worker beneficiaries and 146 individuals who are also non-totalized worker beneficiaries.

Table 3.—Dependents and Survivors Receiving a Totalized OASDI Benefit, by Agreement Country and Type of Beneficiary, as of December 2023^a

Agreement Country	Spouses			Children			Widow(er)s			Total			Percent of total number		
	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit	Spouse	Child	Widow (er)
Australia	797	\$108,009	\$135.52	10	\$2,156	\$215.60	236	\$78,076	\$330.83	1,043	\$188,241	\$180.48	76%	1%	23%
Austria	246	32,765	133.19	19	3,726	196.11	162	45,034	277.99	427	81,525	190.93	58%	4%	38%
Belgium	241	38,696	160.56	18	3,219	178.83	126	36,662	290.97	385	78,577	204.10	63%	5%	33%
Brazil	30	4,713	157.10												
Canada	8,348	1,092,348	130.85	225	51,288	227.95	6,996	1,791,468	256.07	15,569	2,935,104	188.52	54%	1%	45%
Chile	78	12,943	165.94							112	22,591	201.71	70%		
Czech Rep	18	2,753	152.94	10	2,173	217.30	6	1,050	175.00	34	5,976	175.76	53%	29%	18%
Denmark	278	44,924	161.60							336	61,991	184.50	83%		
Finland	119	16,899	142.01	7	1,924	274.86	41	11,433	278.85	167	30,256	181.17	71%	4%	25%
France	1,591	249,326	156.71	37	8,993	243.05	767	216,063	281.70	2,395	474,382	198.07	66%	2%	32%
Germany	3,266	383,432	117.40	154	27,055	175.68	2,380	629,525	264.51	5,800	1,040,012	179.31	56%	3%	41%
Greece	1,177	147,817	125.59	55	7,818	142.15	884	232,161	262.63	2,116	387,796	183.27	56%	3%	42%
Hungary	16	2,367	147.94							26	3,991	153.50	62%		
Iceland															
Ireland	789	101,363	128.47	38	5,792	152.42	355	105,872	298.23	1,182	213,027	180.23	67%	3%	30%
Italy	2,079	250,354	120.42	109	21,585	198.03	1,797	458,008	254.87	3,985	729,947	183.17	52%	3%	45%
Japan	28,374	5,894,267	207.73	226	45,141	199.74	6,728	2,604,705	387.14	35,328	8,544,113	241.85	80%	1%	19%
Luxembourg	16	2,500	156.25							19	3,980	209.47	84%	5%	11%
Netherlands	761	111,028	145.90	23	6,252	271.83	370	105,278	284.53	1,154	222,558	192.86	66%	2%	32%
Norway	771	107,933	139.99	39	9,736	249.64	649	195,841	301.76	1,459	313,510	214.88	53%	3%	44%
Poland	4,321	359,972	83.31	61	7,559	123.92	2,666	523,916	196.52	7,048	891,447	126.48	61%	1%	38%
Portugal	357	43,795	122.68	26	5,591	215.04	399	108,474	271.86	782	157,860	201.87	46%	3%	51%
Slovak Republic	12	1,739	144.92							17	3,022	177.76	71%	6%	24%
Slovenia															
South Korea	1,713	289,395	168.94	6	1,504	250.67	145	54,283	374.36	1,864	345,182	185.18	92%	0%	8%
Spain	848	107,280	126.51	83	17,596	212.00	597	151,286	253.41	1,528	276,162	180.73	55%	5%	39%
Sweden	1,080	159,170	147.38	39	10,853	278.28	331	93,850	283.54	1,450	263,873	181.98	74%	3%	23%
Switzerland	704	95,249	135.30	18	4,025	223.61	445	115,416	259.36	1,167	214,690	183.97	60%	2%	38%
U.K.	2,968	436,990	147.23	89	19,145	215.11	1,890	552,288	292.22	4,947	1,008,423	203.85	60%	2%	38%
Uruguay															
Total	61,013	10,100,427	165.55	1,309	267,128	204.07	28,079	8,141,540	289.95	90,401	18,509,095	204.74	67%	1%	31%

^a Data may not match those published elsewhere on SSA's website due to definitional differences.

^b Cell contents have been suppressed to avoid possible disclosure of personal information.

Tables 4 and 5 combine the information on workers and auxiliaries provided in the previous tables. There are a total of 246,034 totalized benefits, received by 242,539 beneficiaries. Totalized benefits in December 2023 totaled almost \$67.7 million, for an average of \$275 per benefit and \$279 per beneficiary.

A limited amount of totalization data is available on the Office of the Chief Actuary's website.⁶ For December 2023 the website shows 242,439 beneficiaries and an average benefit of

\$326, which would result in \$79.0 million in monthly benefits. The main reason that the numbers on the website are different than those reported in this note is that for beneficiaries who receive both a totalized worker benefit and a non-totalized non-worker benefit, the website uses the combined benefit amount while this note includes only the amount of the totalized benefit.

⁶ See www.ssa.gov/OACT/STATS/totaliz.html.

Table 4.—Number of Individuals Receiving a Totalized OASDI Worker, Dependent, or Survivor Benefit, by Agreement Country, as of December 2023^a

Agreement Country	Type of Beneficiary				Total	Percent of Total			
	Worker	Spouse	Child	Widow(er)		Worker	Spouse	Child	Widow(er)
Australia	4,291	797	10	236	5,334	80%	15%	0%	4%
Austria	1,250	246	19	162	1,677	75%	15%	1%	10%
Belgium	839	241	18	126	1,224	69%	20%	1%	10%
Brazil	137	30	b	b	180	76%	17%	b	b
Canada	33,155	8,348	225	6,996	48,724	68%	17%	0%	14%
Chile	309	78	b	b	421	73%	19%	b	b
Czech Rep	199	18	10	6	233	85%	8%	4%	3%
Denmark	721	278	b	b	1,057	68%	26%	b	b
Finland	425	119	7	41	592	72%	20%	1%	7%
France	5,125	1,591	37	767	7,520	68%	21%	0%	10%
Germany	14,456	3,266	154	2,380	20,256	71%	16%	1%	12%
Greece	4,301	1,177	55	884	6,417	67%	18%	1%	14%
Hungary	107	16	b	b	133	80%	12%	b	b
Iceland	12	b	b	b	b	b	b	b	b
Ireland	2,802	789	38	355	3,984	70%	20%	1%	9%
Italy	5,847	2,079	109	1,797	9,832	59%	21%	1%	18%
Japan	42,507	28,374	226	6,728	77,835	55%	36%	0%	9%
Luxembourg	72	16	b	b	91	79%	18%	b	b
Netherlands	2,461	761	23	370	3,615	68%	21%	1%	10%
Norway	2,391	771	39	649	3,850	62%	20%	1%	17%
Poland	8,967	4,321	61	2,666	16,015	56%	27%	0%	17%
Portugal	1,826	357	26	399	2,608	70%	14%	1%	15%
Slovak Republic	67	12	b	b	84	80%	14%	b	b
Slovenia	27	b	b	b	b	b	b	b	b
South Korea	2,958	1,713	6	145	4,822	61%	36%	0%	3%
Spain	2,789	848	83	597	4,317	65%	20%	2%	14%
Sweden	3,165	1,080	39	331	4,615	69%	23%	1%	7%
Switzerland	2,633	704	18	445	3,800	69%	19%	0%	12%
U.K.	11,727	2,968	89	1,890	16,674	70%	18%	1%	11%
Uruguay	67	b	b	b	b	b	b	b	b
Total	155,633	61,013	1,309	28,079	246,034	63%	25%	1%	11%

^a Data may not match those published elsewhere on SSA's website due to definitional differences.

^b Cell contents have been suppressed to avoid possible disclosure of personal information.

Note: There are 3,495 beneficiaries entitled to both a totalized retired worker benefit and a totalized spouse or widow(er) benefit. These beneficiaries are counted twice in this table.

Table 5.—Benefit Payments to Individuals Receiving a Totalized OASDI Worker, Dependent, or Survivor Benefit, by Agreement Country, and Type of Beneficiary, as of December 2023^a

Agreement Country	Type of Beneficiary					Percent of Total			
	Worker	Spouse	Child	Widow(er)	Total	Worker	Spouse	Child	Widow(er)
Australia	\$1,236,878	\$108,009	\$2,156	\$78,076	\$1,425,119	87%	8%	0%	5%
Austria	333,557	32,765	3,726	45,034	415,082	80%	8%	1%	11%
Belgium	253,742	38,696	3,219	36,662	332,319	76%	12%	1%	11%
Brazil	40,606	4,713	b	b	48,557	84%	10%	b	b
Canada	9,051,929	1,092,348	51,288	1,791,468	11,987,033	76%	9%	0%	15%
Chile	101,804	12,943	b	b	124,395	82%	10%	b	b
Czech Rep	53,719	2,753	2,173	1,050	59,695	90%	5%	4%	2%
Denmark	235,555	44,924	b	b	297,546	79%	15%	b	b
Finland	122,715	16,899	1,924	11,433	152,971	80%	11%	1%	7%
France	1,486,675	249,326	8,993	216,063	1,961,057	76%	13%	0%	11%
Germany	3,493,288	383,432	27,055	629,525	4,533,300	77%	8%	1%	14%
Greece	1,107,019	147,817	7,818	232,161	1,494,815	74%	10%	1%	16%
Hungary	26,813	2,367	b	b	30,804	87%	8%	b	b
Iceland	4,585	b	b	b	5,271	87%	b	b	b
Ireland	794,949	101,363	5,792	105,872	1,007,976	79%	10%	1%	11%
Italy	1,503,273	250,354	21,585	458,008	2,233,220	67%	11%	1%	21%
Japan	18,875,992	5,894,267	45,141	2,604,705	27,420,105	69%	21%	0%	9%
Luxembourg	25,698	2,500	b	b	29,678	87%	8%	b	b
Netherlands	673,328	111,028	6,252	105,278	895,886	75%	12%	1%	12%
Norway	671,907	107,933	9,736	195,841	985,417	68%	11%	1%	20%
Poland	1,658,434	359,972	7,559	523,916	2,549,881	65%	14%	0%	21%
Portugal	557,334	43,795	5,591	108,474	715,194	78%	6%	1%	15%
Slovak Republic	20,895	1,739	b	b	23,917	87%	7%	b	b
Slovenia	9,754	b	b	b	10,886	90%	b	b	b
South Korea	1,081,050	289,395	1,504	54,283	1,426,232	76%	20%	0%	4%
Spain	771,038	107,280	17,596	151,286	1,047,200	74%	10%	2%	14%
Sweden	877,057	159,170	10,853	93,850	1,140,930	77%	14%	1%	8%
Switzerland	717,838	95,249	4,025	115,416	932,528	77%	10%	0%	12%
U.K.	3,353,786	436,990	19,145	552,288	4,362,209	77%	10%	0%	13%
Uruguay	16,858	774	b	b	17,948	94%	4%	b	b
Total	49,158,076	10,100,427	267,128	8,141,540	67,667,171	73%	15%	0%	12%

^a Data may not match those published elsewhere on SSA’s website due to definitional differences.

^b Cell contents have been suppressed to avoid possible disclosure of personal information.

Note: For the 3,495 beneficiaries entitled to both a totalized retired worker benefit and a totalized spouse or widow(er) benefit the worker benefit is included in the worker benefit payments, and the excess over the worker benefit is included in the spouse or widow(er) benefits.

Totalization Estimates Produced by the Office of the Chief Actuary

The Office of the Chief Actuary is charged with estimating the several costs, both to the United States and to the partner country, of a totalization agreement which has been proposed or, occasionally, which is being revised or updated. Other costs, besides the cost of totalization benefits, are (1) foregone payroll tax revenue, due to the elimination of double taxation on employees working temporarily (usually less than 5 years) outside their home country, and (2) U.S. auxiliary and survivor benefits becoming payable to nonresident non-citizens due to the elimination of the residence requirement. Estimates of the

cost effects, for both countries, of a proposed totalization agreement are made for the 10-year short-range projection period, as well as an extrapolation of the corresponding long-range (75-year) effects on OASDI benefits and taxes for the U.S.

We estimate the cost to the U.S. social security system of totalized benefits from a proposed agreement or a proposed modification as the product of the average totalized benefit among all totalized beneficiaries under all existing agreements and the estimated expected number of totalized beneficiaries from the proposal. In estimating the latter we recognize explicitly both

net immigration and the temporary work in the United States of persons from the agreement country. Information on the volume and timing of immigration is collected by the Bureau of the Census in censuses and surveys; for the volume of temporary workers we use counts of non-immigrant visas issued by U.S. overseas offices roughly 30 years in the past. A mean squared error regression equation, fit to the same data for current totalization countries, yields an estimate of the number of totalized beneficiaries expected after the agreement has been in effect for five years.

Demographic Characteristics of Individuals Receiving a Totalized OASDI Worker Benefit

As tables 6 through 10 show, the typical person who receives a U.S. totalized worker benefit resides in the agreement country, is not a U.S. citizen (but rather, presumably, a citizen of the agreement country), and worked in the United States about 5 years (20 quarters) and at a fairly young age (under 35). Of

course, there is some variation from country to country; for example, those from Brazil, Chile, Czech Republic, Hungary, Japan, Poland, Slovak Republic, South Korea, and Uruguay were somewhat older overall when they worked in the U.S. The profile implied by these data would seem to better fit the resident of the agreement country, who came to work in the United States for a few years and then returned home, than the immigrant to the United States or the emigrant from the United States.

The data in table 6 on country of residence come from the MBR. The data in table 7 on U.S. citizenship come from the MBR and the NUMIDENT file of applications for a social security card. Because it is not a straightforward exercise to derive citizenship from the information in the MBR and NUMIDENT, the data in table 7 are not completely accurate, but they do indicate that only a small minority of workers receiving totalized U.S. benefits are U.S. citizens. The data in tables 8, 9 and 10 come from the Master Earnings File.

Table 6.—Residence of Individuals Receiving a Totalized OASDI Worker Benefit, by Agreement Country, as of December 2023^a

Agreement Country	Resident of Agreement Country			Resident of the U.S.			Resident of another country		
	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit
Australia	4,044	\$1,150,717	\$284.55	159	\$58,976	\$370.92	88	\$27,185	\$308.92
Austria	888	212,763	239.60	114	35,599	312.27	248	85,194	343.52
Belgium	689	203,585	295.48	68	23,385	343.90	82	26,772	326.49
Brazil	113	35,607	315.11	b	b	192.71	b	b	286.03
Canada	29,958	8,028,172	267.98	2,831	896,488	316.67	366	127,268	347.73
Chile	250	82,712	330.85	51	16,962	332.59	8	2,130	266.30
Czech Rep	168	44,787	266.59	21	5,256	250.28	10	3,677	367.66
Denmark	683	223,456	327.17	25	7,934	317.37	13	4,165	320.38
Finland	392	113,822	290.36	19	4,810	253.17	14	4,083	291.63
France	4,396	1,279,234	291.00	463	120,076	259.34	266	87,366	328.44
Germany	12,393	2,892,607	233.41	1,523	443,164	290.98	540	157,517	291.70
Greece	4,127	1,060,037	256.85	150	40,345	268.96	24	6,637	276.55
Hungary	86	21,434	249.23	b	b	263.57	b	b	211.67
Iceland	11	4,365	396.84	b	b	b	b	b	b
Ireland	2,621	741,424	282.88	113	31,674	280.30	68	21,851	321.34
Italy	5,564	1,423,904	255.91	214	60,438	282.42	69	18,930	274.35
Japan	42,077	18,722,804	444.97	209	67,667	323.76	221	85,522	386.98
Luxembourg	54	20,435	378.43	b	b	198.43	b	b	319.19
Netherlands	2,139	575,351	268.98	172	48,449	281.68	150	49,528	330.19
Norway	2,276	628,090	275.96	41	20,498	499.96	74	23,318	315.11
Poland	8,596	1,572,339	182.92	306	66,608	217.67	65	19,488	299.82
Portugal	1,723	523,503	303.83	95	32,123	338.13	8	1,708	213.50
Slovak Republic	52	14,555	279.90	b	b	452.52	b	b	340.50
Slovenia	27	9,754	361.27	b	b	b	b	b	b
South Korea	2,802	1,025,685	366.05	140	50,025	357.32	16	5,340	333.75
Spain	2,488	690,252	277.43	255	66,859	262.19	46	13,927	302.77
Sweden	2,949	813,381	275.82	113	31,838	281.76	103	31,838	309.10
Switzerland	2,265	602,842	266.16	185	56,901	307.57	183	58,095	317.46
U.K.	9,029	2,569,717	284.61	1,967	553,008	281.14	731	231,061	316.09
Uruguay	51	12,955	254.02	b	b	212.95	b	b	312.20
Total	142,911	45,300,289	316.98	9,298	2,755,795	296.39	3,424	1,101,991	321.84

^a Data may not match those published elsewhere on SSA’s website due to definitional differences.

^b Cell contents have been suppressed to avoid possible disclosure of personal information.

Table 7.—Citizenship of Individuals Receiving a Totalized OASDI Worker Benefit, by Agreement Country, as of December 2023^a

Agreement Country	U.S. Citizen			Not a U.S. Citizen			Citizenship status not known			Percent U. S. Citizens among those with known status	
	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit	Number	Total benefits
Australia	1,752	\$507,925	\$289.91	2,539	\$728,953	\$287.10	0	\$0	-----	40.8%	41.1%
Austria	254	82,687	325.54	983	248,522	252.82	13	2,348	\$180.59	20.5%	25.0%
Belgium	b	b	312.28	707	212,093	299.99	b	b	454.70	15.4%	16.0%
Brazil	59	16,239	275.23	78	24,367	312.40	0	0	-----	43.1%	40.0%
Canada	10,742	2,936,477	273.36	22,347	6,093,537	272.68	66	21,914	332.03	32.5%	32.5%
Chile	69	23,312	337.86	240	78,492	327.05	0	0	-----	22.3%	22.9%
Czech Rep	55	17,279	314.17	144	36,440	253.06	0	0	-----	27.6%	32.2%
Denmark	133	40,543	304.83	588	195,012	331.65	0	0	-----	18.4%	17.2%
Finland	b	b	322.50	361	102,458	283.82	b	b	194.70	14.5%	16.1%
France	1,277	346,739	271.53	3,800	1,131,047	297.64	48	8,890	185.20	25.2%	23.5%
Germany	3,499	1,130,824	323.18	10,742	2,322,383	216.20	215	40,081	186.42	24.6%	32.7%
Greece	b	b	300.04	2,405	538,460	223.89	b	b	194.60	44.0%	51.3%
Hungary	39	11,424	292.93	68	15,389	226.30	0	0	-----	36.4%	42.6%
Iceland	b	b	390.00	10	3,805	380.52	b	b	b	16.7%	17.0%
Ireland	640	217,150	339.30	2,149	575,422	267.76	13	2,377	182.83	22.9%	27.4%
Italy	1,623	470,459	289.87	4,199	1,026,676	244.50	25	6,137	245.50	27.9%	31.4%
Japan	596	236,879	397.45	41,911	18,639,113	444.73	0	0	-----	1.4%	1.3%
Luxembourg	14	4,709	336.37	58	20,989	361.87	0	0	-----	19.4%	18.3%
Netherlands	474	125,887	265.58	1,975	545,346	276.12	12	2,095	174.62	19.4%	18.8%
Norway	361	123,148	341.13	2,030	548,759	270.32	0	0	-----	15.1%	18.3%
Poland	515	117,441	228.04	8,452	1,540,993	182.32	0	0	-----	5.7%	7.1%
Portugal	b	b	412.26	1,421	390,594	274.87	b	b	185.30	22.1%	29.9%
Slovak Republic	19	9,742	512.76	48	11,152	232.34	0	0	-----	28.4%	46.6%
Slovenia	b	b	348.00	26	9,406	361.78	b	b	b	3.7%	3.6%
South Korea	110	37,138	337.62	2,848	1,043,913	366.54	0	0	-----	3.7%	3.4%
Spain	691	218,227	315.81	2,086	550,155	263.74	12	2,656	221.37	24.9%	28.4%
Sweden	438	113,707	259.60	2,721	762,514	280.23	6	836	139.30	13.9%	13.0%
Switzerland	520	171,094	329.03	2,099	544,678	259.49	14	2,065	147.50	19.9%	23.9%
U.K.	2,887	866,666	300.20	8,605	2,438,995	283.44	235	48,125	204.79	25.1%	26.2%
Uruguay	12	2,760	230.01	55	14,098	256.33	0	0	-----	17.9%	16.4%
Total	29,269	8,624,070	294.65	125,695	40,393,761	321.36	669	140,241	209.63	18.9%	17.6%

^a Data may not match those published elsewhere on SSA's website due to definitional differences.

^b Cell contents have been suppressed to avoid possible disclosure of personal information.

Note: Because it is not a straightforward exercise to derive citizenship from the information in the MBR and NUMIDENT, the data in table 7 are estimated.

Table 8.—U.S. Quarters of Coverage for Individuals Receiving a Totalized OASDI Worker Benefit, by Agreement Country, as of December 2023^a

Agreement Country	Quarters of Coverage						Percent with given numbers of Quarters of Coverage				
	< 10	10-19	20-29	30-39	40 or more	Total	< 10	10-19	20-29	30-39	40 or more
Australia	561	1,457	1,262	933	78	4,291	13.1%	34.0%	29.4%	21.7%	1.8%
Austria	205	452	321	216	56	1,250	16.4%	36.2%	25.7%	17.3%	4.5%
Belgium	139	311	223	147	19	839	16.6%	37.1%	26.6%	17.5%	2.3%
Brazil	^b	29	50	50	^b	137	^b	21.2%	36.5%	36.5%	^b
Canada	4,751	10,414	9,808	6,976	1,206	33,155	14.3%	31.4%	29.6%	21.0%	3.6%
Chile	18	72	91	107	21	309	5.8%	23.3%	29.4%	34.6%	6.8%
Czech Rep	21	47	72	52	7	199	10.6%	23.6%	36.2%	26.1%	3.5%
Denmark	100	274	207	127	13	721	13.9%	38.0%	28.7%	17.6%	1.8%
Finland	76	169	103	62	15	425	17.9%	39.8%	24.2%	14.6%	3.5%
France	675	1,704	1,656	1,007	83	5,125	13.2%	33.2%	32.3%	19.6%	1.6%
Germany	2,889	5,081	3,678	2,277	531	14,456	20.0%	35.1%	25.4%	15.8%	3.7%
Greece	308	1,270	1,448	1,161	114	4,301	7.2%	29.5%	33.7%	27.0%	2.7%
Hungary	^b	35	35	22	^b	107	^b	32.7%	32.7%	20.6%	^b
Iceland	^b	^b	6	^b	0	12	^b	^b	50.0%	^b	0.0%
Ireland	442	915	836	563	46	2,802	15.8%	32.7%	29.8%	20.1%	1.6%
Italy	643	1,877	1,916	1,320	91	5,847	11.0%	32.1%	32.8%	22.6%	1.6%
Japan	2,211	14,010	20,148	6,082	56	42,507	5.2%	33.0%	47.4%	14.3%	0.1%
Luxembourg	^b	22	24	13	^b	72	^b	30.6%	33.3%	18.1%	^b
Netherlands	445	875	693	414	34	2,461	18.1%	35.6%	28.2%	16.8%	1.4%
Norway	444	921	609	363	54	2,391	18.6%	38.5%	25.5%	15.2%	2.3%
Poland	1,499	3,745	2,517	1,115	91	8,967	16.7%	41.8%	28.1%	12.4%	1.0%
Portugal	122	452	638	496	118	1,826	6.7%	24.8%	34.9%	27.2%	6.5%
Slovak Republic	^b	26	21	12	^b	67	^b	38.8%	31.3%	17.9%	^b
Slovenia	^b	10	13	^b	0	27	^b	37.0%	48.1%	^b	0.0%
South Korea	160	1,192	1,163	404	39	2,958	5.4%	40.3%	39.3%	13.7%	1.3%
Spain	386	892	829	555	127	2,789	13.8%	32.0%	29.7%	19.9%	4.6%
Sweden	601	1,305	813	410	36	3,165	19.0%	41.2%	25.7%	13.0%	1.1%
Switzerland	486	1,041	675	386	45	2,633	18.5%	39.5%	25.6%	14.7%	1.7%
U.K.	1,640	3,785	3,422	2,444	436	11,727	14.0%	32.3%	29.2%	20.8%	3.7%
Uruguay	^b	18	30	16	^b	67	^b	26.9%	44.8%	23.9%	^b
Total	18,856	52,403	53,307	27,735	3,332	155,633	12.1%	33.7%	34.3%	17.8%	2.1%

^a Data may not match those published elsewhere on SSA's website due to definitional differences.

^b Cell contents have been suppressed to avoid possible disclosure of personal information.

Note: There are a few situations where a worker who has 40 or more quarters of coverage may be receiving a totalized benefit. A disabled worker who worked in the U.S. earlier in their career and attained 40 QCs may need totalization for the recency of employment requirement. A worker who was receiving a totalized benefit and subsequently became insured based on domestic work (attained 40 quarters of coverage) continues to receive the totalized benefit if it is the larger of the two. The number of dropout years in the benefit calculation for a worker with 40 or more QCs may be affected by a prior period of disability for which totalization was required. This last scenario is technically not a totalized benefit but may still have a totalization indicator since the benefit amount is influenced by a previous totalization.

Table 9.—Age Interval in which U.S. Earnings were Higher than in Other Intervals, for Individuals Receiving a Totalized OASDI Worker Benefit, by Agreement Country, as of December 2023^a

Agreement Country	Age when U.S. earnings were highest				Percent with highest earnings at each age		
	Under 35	35-49	50 or over	Total	Under 35	35-49	50 or over
Australia	2,762	960	569	4,291	64.4%	22.4%	13.3%
Austria	827	286	137	1,250	66.2%	22.9%	11.0%
Belgium	411	300	128	839	49.0%	35.8%	15.3%
Brazil	42	48	47	137	30.7%	35.0%	34.3%
Canada	21,621	5,949	5,585	33,155	65.2%	17.9%	16.8%
Chile	105	111	93	309	34.0%	35.9%	30.1%
Czech Rep	47	94	58	199	23.6%	47.2%	29.1%
Denmark	402	226	93	721	55.8%	31.3%	12.9%
Finland	225	153	47	425	52.9%	36.0%	11.1%
France	2,763	1,603	759	5,125	53.9%	31.3%	14.8%
Germany	10,455	2,740	1,261	14,456	72.3%	19.0%	8.7%
Greece	3,191	918	192	4,301	74.2%	21.3%	4.5%
Hungary	30	49	28	107	28.0%	45.8%	26.2%
Iceland	b	b	b	12	b	b	b
Ireland	1,962	649	191	2,802	70.0%	23.2%	6.8%
Italy	4,491	1,028	328	5,847	76.8%	17.6%	5.6%
Japan	9,218	26,415	6,874	42,507	21.7%	62.1%	16.2%
Luxembourg	50	b	b	72	69.4%	b	b
Netherlands	1,393	744	324	2,461	56.6%	30.2%	13.2%
Norway	1,972	316	103	2,391	82.5%	13.2%	4.3%
Poland	1,913	4,548	2,506	8,967	21.3%	50.7%	27.9%
Portugal	937	693	196	1,826	51.3%	38.0%	10.7%
Slovak Republic	10	35	22	67	14.9%	52.2%	32.8%
Slovenia	19	b	b	27	70.4%	b	b
South Korea	521	2,000	437	2,958	17.6%	67.6%	14.8%
Spain	1,568	829	392	2,789	56.2%	29.7%	14.1%
Sweden	1,667	1,058	440	3,165	52.7%	33.4%	13.9%
Switzerland	1,969	477	187	2,633	74.8%	18.1%	7.1%
U.K.	5,842	3,321	2,564	11,727	49.8%	28.3%	21.9%
Uruguay	18	20	29	67	26.9%	29.9%	43.3%
Total	76,440	55,597	23,596	155,606	49.1%	35.7%	15.2%

^a Data may not match those published elsewhere on SSA's website due to definitional differences.

^b Cell contents have been suppressed to avoid possible disclosure of personal information.

Table 10.—Decade in which U.S. Earnings were Higher than in Other Decades, for Individuals Receiving a Totalized U.S. Worker Benefit, by Agreement Country, as of December 2023^a

Agreement Country	Decade when U.S. earnings were highest									Total
	Prior to 1951	1951-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2019	2020-2023	
Australia	b	66	1,013	1,522	752	492	344	96	b	4,291
Austria	b	59	346	381	211	123	96	b	b	1,250
Belgium	b	b	146	156	261	148	87	22	b	839
Brazil	b	b	b	23	19	31	45	15	b	137
Canada	417	1,767	9,772	9,397	3,735	3,305	3,803	906	53	33,155
Chile	b	b	19	82	76	51	66	12	b	309
Czech Republic	b	b	b	24	40	60	60	14	b	199
Denmark	b	6	121	197	169	136	77	15	b	721
Finland	b	b	52	90	160	76	38	b	b	425
France	8	137	865	1,291	1,512	707	466	129	10	5,125
Germany	9	799	5,140	3,979	2,426	1,041	833	217	12	14,456
Greece	b	33	342	2,745	885	176	79	39	b	4,301
Hungary	b	b	b	6	25	38	23	15	b	107
Iceland	b	b	b	b	6	b	b	b	b	12
Ireland	b	75	858	745	486	492	101	38	b	2,802
Italy	10	151	1,286	3,203	766	200	146	79	6	5,847
Japan	13	45	1,106	6,001	14,517	16,044	4,555	220	6	42,507
Luxembourg	b	b	22	18	15	9	6	b	b	72
Netherlands	b	70	629	595	626	300	182	51	b	2,461
Norway	b	210	1,107	551	287	128	90	16	b	2,391
Poland	b	b	47	901	4,074	2,250	1,390	300	b	8,967
Portugal	b	7	59	648	692	304	90	22	b	1,826
Slovak Republic	b	b	b	6	7	27	18	9	b	67
Slovenia	b	b	b	16	b	8	b	b	b	27
South Korea	b	b	7	180	1,155	1,241	284	87	b	2,958
Spain	b	21	294	1,059	749	335	193	116	18	2,789
Sweden	b	115	761	528	762	620	317	58	b	3,165
Switzerland	b	190	1,048	718	377	162	103	33	b	2,633
U.K.	8	394	2,858	2,374	2,732	1,610	1,261	459	31	11,727
Uruguay	b	b	b	9	15	6	20	14	b	67
Total	489	4,169	27,905	37,447	37,540	30,122	14,774	3,021	166	155,633

^a Data may not match those published elsewhere on SSA's website due to definitional differences.

^b Cell contents have been suppressed to avoid possible disclosure of personal information.