

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 an update of Note Number 152 by Nettie Barrick and Bertram Kestenbaum dated May 2013. The note begins with a discussion of insured-status requirements and how the totalization process helps persons achieve insured status. The note then proceeds to an illustration of how a totalized benefit is computed. Following that, several tabulations from the Master Beneficiary Record (MBR) of the population of beneficiaries in current receipt of totalized benefits are presented. Next, the role of the Office of the Chief Actuary in estimating the various effects of proposed totalization agreements under consideration is outlined. Finally, 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 are presented.

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 4 quarters per year including foreign coverage and coverage under the U.S. system. The number of U.S. quarters of cover-

age 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 (maximum of 4 quarters per year). 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 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 his disability benefit converts to a retirement benefit at Normal Retirement Age¹, 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 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 internet site (http://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 the Normal Retirement Age is the Primary Insurance Amount, or PIA. The base benefit for auxiliary³ or survivor beneficiaries is a specified fraction of PIA, between 1/2

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.

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 (U.S.) 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 1952 and became entitled to old-age benefits in 2014 upon attaining age 62. He worked in the United States only from 2008 through 2011, with annual earnings and ratios to the national average wage indexing series shown below; the average of the ratios is 0.34005. The AIME (Average Indexed Monthly Earnings) of a worker born in 1952 and entitled in 2014 who earns the national average wage each year from age 22 through age 61 is \$3,694 with a PIA, at entitlement, of \$1,655.3. The hypothetical AIME of our illustrative worker is 0.34005 as much, or \$1,256, with a corresponding PIA, at entitlement, of \$875.2. The pro rata PIA is 4/35 of the hypothetical PIA, or \$100.0; 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, the monthly amount will be reduced from the pro rata PIA of \$100.00 to \$75.40. If the worker waits until their Normal Retirement Age of 66 to take the benefit, the monthly amount will be increased from the pro rata PIA of \$100.00 to \$104.00 due to the intervening COLAs (cost-of-living adjustments).

Illustrative example

Year	Earnings	Quarters of coverage	Wage indexing	
			series value	Ratio
2008	\$6,000.00	4	\$41,334.97	0.14516
2009	\$9,000.00	4	\$40,711.61	0.22107
2010	\$23,000.00	4	\$41,673.83	0.55191
2011	\$19,000.00	4	\$42,979.61	0.44207

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

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, and 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 2019 on totalized worker beneficiaries. In December 2019, there were 157,163 retired or disabled workers receiving a totalized U.S. benefit. Slovenia is not included in the tables because no beneficiaries appeared in the data. 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 67 percent are males, but for each of the two Asian totalization countries, Japan and Korea, over 96 percent are males. Among totalized worker beneficiaries, 17,618 are dually entitled. For 13,964 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 2019^a

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	76	\$52,906	\$696.13	4,356	\$1,004,477	\$230.60	4,432	\$1,057,383	\$238.58	2.8%	2.7%
Austria	31	16,153	521.05	1,319	269,540	204.35	1,350	285,693	211.62	0.9%	0.7%
Belgium	b	b	b	b	b	b	787	182,384	231.75	0.5%	0.5%
Brazil	0	0	0	25	6,439	257.56	25	6,439	257.56	0.0%	0.0%
Canada	556	338,589	608.97	35,740	7,628,052	213.43	36,296	7,966,641	219.49	23.1%	20.4%
Chile	b	b	b	b	b	b	269	74,612	277.37	0.2%	0.2%
Czech Rep	b	b	b	b	b	b	164	39,943	243.55	0.1%	0.1%
Denmark	b	b	b	b	b	b	649	166,465	256.49	0.4%	0.4%
Finland	15	8,586	572.40	358	79,663	222.52	373	88,249	236.59	0.2%	0.2%
France	12	7,861	655.05	5,162	1,190,578	230.64	5,174	1,198,439	231.63	3.3%	3.1%
Germany	528	317,949	602.18	16,143	2,987,772	185.08	16,671	3,305,721	198.29	10.6%	8.5%
Greece	51	29,903	586.33	4,247	907,941	213.78	4,298	937,844	218.20	2.7%	2.4%
Hungary	0	0	0	58	12,342	212.80	58	12,342	212.79	0.0%	0.0%
Iceland	0	0	0	b	b	b	b	b	143.00	0.0%	0.0%
Ireland	35	29,878	853.66	2,618	590,817	225.67	2,653	620,695	233.96	1.7%	1.6%
Italy	28	13,939	497.82	6,211	1,305,089	210.13	6,239	1,319,028	211.42	4.0%	3.4%
Japan	31	19,893	641.70	37,360	13,125,923	351.34	37,391	13,145,816	351.58	23.8%	33.7%
Luxembourg	b	b	b	b	b	b	69	17,815	258.19	0.0%	0.0%
Netherlands	17	9,591	564.20	2,549	545,186	213.88	2,566	554,777	216.20	1.6%	1.4%
Norway	34	18,199	535.27	2,696	592,532	219.78	2,730	610,731	223.71	1.7%	1.6%
Poland	68	25,680	377.65	8,932	1,343,850	150.45	9,000	1,369,530	152.17	5.7%	3.5%
Portugal	82	54,155	660.43	1,630	383,047	235.00	1,712	437,202	255.38	1.1%	1.1%
Slovak Republic	b	b	b	b	b	b	37	8,168	220.76	0.0%	0.0%
South Korea	9	5,133	570.33	2,316	673,814	290.94	2,325	678,947	292.02	1.5%	1.7%
Spain	83	49,603	597.63	2,683	566,784	211.25	2,766	616,387	222.84	1.8%	1.6%
Sweden	20	10,210	510.49	3,114	678,820	217.99	3,134	689,030	219.86	2.0%	1.8%
Switzerland	21	16,074	765.41	3,020	646,543	214.09	3,041	662,617	217.89	1.9%	1.7%
U.K.	122	83,840	687.21	12,821	2,852,365	222.48	12,943	2,936,205	226.86	8.2%	7.5%
Uruguay	0	0	0	b	b	b	b	b	264.94	0.0%	0.0%
Total	1,846	1,125,385	609.63	155,317	37,866,267	243.80	157,163	38,991,652	248.10	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 2019^a

Country	Male	Female	Total	% Female
Australia	2,501	1,931	4,432	44%
Austria	741	609	1,350	45%
Belgium	533	254	787	32%
Brazil	9	16	25	64%
Canada	21,285	15,011	36,296	41%
Chile	194	75	269	28%
Czech Rep	108	56	164	34%
Denmark	431	218	649	34%
Finland	218	155	373	42%
France	3,055	2,119	5,174	41%
Germany	7,857	8,814	16,671	53%
Greece	2,770	1,528	4,298	36%
Hungary	36	22	58	38%
Iceland	b	b	b	b
Ireland	1,197	1,456	2,653	55%
Italy	3,729	2,510	6,239	40%
Japan	36,193	1,198	37,391	3%
Luxembourg	43	26	69	38%
Netherlands	1,545	1,021	2,566	40%
Norway	1,461	1,269	2,730	46%
Poland	6,189	2,811	9,000	31%
Portugal	932	780	1,712	46%
Slovak Republic	21	16	37	43%
South Korea	2,238	87	2,325	4%
Spain	1,880	886	2,766	32%
Sweden	1,829	1,305	3,134	42%
Switzerland	1,791	1,250	3,041	41%
U.K.	6,579	6,364	12,943	49%
Uruguay	b	b	b	b
Total	105,371	51,792	157,163	33%

^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. 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 86,959

totalized auxiliary or survivor beneficiaries as of December 2019. This includes 3,654 individuals who are also totalized worker beneficiaries and 137 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 2019^a

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
Australia	871	\$96,212	\$110.46	19	\$3,539	\$186.26	198	\$52,917	\$267.26	1,088	\$152,668	\$140.32	80%	2%	18%
Austria	282	28,830	102.23	24	3,290	137.08	160	33,351	208.44	466	65,471	140.50	61%	5%	34%
Belgium	238	28,499	119.74	12	884	73.67	127	30,513	240.26	377	59,896	158.88	63%	3%	34%
Brazil	b	b	b	b	b	b	b	b	b	9	1,680	186.67	b	b	b
Canada	9,849	1,007,562	102.30	266	48,515	182.39	7,310	1,454,383	198.96	17,425	2,510,460	144.07	57%	2%	42%
Chile	73	9,122	124.96	b	b	b	b	b	b	97	14,823	152.81	75%	b	b
Czech Rep	19	2,383	125.42	b	b	b	b	b	b	33	3,898	118.12	58%	b	b
Denmark	253	32,168	127.15	b	b	b	b	b	b	297	42,290	142.39	85%	b	b
Finland	105	12,158	115.79	b	b	b	b	b	b	154	22,637	146.99	68%	b	b
France	1,630	202,232	124.07	56	8,215	146.70	715	157,332	220.04	2,401	367,779	153.18	68%	2%	30%
Germany	3,932	370,163	94.14	213	35,410	166.24	2,444	531,154	217.33	6,589	936,727	142.17	60%	3%	37%
Greece	1,154	118,822	102.97	63	7,914	125.62	729	151,908	208.38	1,946	278,644	143.19	59%	3%	37%
Hungary	b	b	b	b	b	b	b	b	b	9	953	105.89	b	b	b
Iceland	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b
Ireland	814	84,753	104.12	42	5,114	121.76	316	77,996	246.82	1,172	167,863	143.23	69%	4%	27%
Italy	2,185	216,209	98.95	121	18,193	150.36	1,782	356,197	199.89	4,088	590,599	144.47	53%	3%	44%
Japan	24,758	3,999,688	161.55	201	32,431	161.35	4,638	1,454,819	313.67	29,597	5,486,938	185.39	b	b	b
Luxembourg	b	b	b	b	b	b	b	b	b	19	2,914	153.37	b	b	b
Netherlands	817	92,082	112.71	23	4,009	174.30	354	80,217	226.60	1,194	176,308	147.66	68%	2%	30%
Norway	927	106,033	114.38	38	6,622	174.26	667	163,131	244.57	1,632	275,786	168.99	57%	2%	41%
Poland	4,481	310,918	69.39	76	8,225	108.22	2,065	337,356	163.37	6,622	656,499	99.14	68%	1%	31%
Portugal	326	33,266	102.04	28	3,767	134.54	396	82,633	208.67	750	119,666	159.55	43%	4%	53%
Slovak Republic	b	b	b	b	b	b	b	b	b	12	1,669	139.08	b	b	b
South Korea	1,214	160,885	132.52	b	b	b	b	b	b	1,307	188,685	144.36	93%	1%	7%
Spain	863	86,573	100.32	83	14,583	175.70	524	107,281	204.73	1,470	208,437	141.79	59%	6%	36%
Sweden	1,088	124,682	114.60	48	9,195	191.56	297	68,075	229.21	1,433	201,952	140.93	76%	3%	21%
Switzerland	894	93,708	104.82	30	5,373	179.10	442	92,916	210.22	1,366	191,997	140.55	65%	2%	32%
U.K.	3,474	402,633	115.90	111	20,943	188.68	1,818	431,002	237.07	5,403	854,578	158.17	64%	2%	34%
Uruguay	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b
Total	60,285	7,624,286	126.47	1,490	243,477	163.41	25,184	5,714,387	226.91	86,959	13,582,150	156.19	69%	2%	29%

^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 244,122 totalized benefits, received by 240,468 beneficiaries. Totalized benefits in December totaled almost \$52.6 million, for an average of \$215 per benefit and \$219 per beneficiary. A limited amount of totalization data is available on the Office of the Chief Actuary's internet site⁶. For December 2019 the report shows 240,365 beneficiaries and an average benefit of

\$258, which would result in \$62.0 million in benefits. The main reason that these numbers are different than those reported here is that for beneficiaries who receive both a totalized worker benefit and a non-totalized non-worker benefit, the internet report uses the combined benefit amount.

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 2019^a

Country	Type of Beneficiary					Percent of Total				
	Worker	Spouse	Child	Widow(er)	Total	Worker	Spouse	Child	Widow(er)	Total
Australia	4,432	871	19	198	5,520	80%	16%	0%	4%	100%
Austria	1,350	282	24	160	1,816	74%	16%	1%	9%	100%
Belgium	787	238	12	127	1,164	68%	20%	1%	11%	100%
Brazil	25	b	b	b	34	74%	b	b	b	100%
Canada	36,296	9,849	266	7,310	53,721	68%	18%	0%	14%	100%
Chile	269	73	b	b	366	73%	20%	b	b	100%
Czech Rep	164	19	b	b	197	83%	10%	b	b	100%
Denmark	649	253	b	b	946	69%	27%	b	b	100%
Finland	373	105	b	b	527	71%	20%	b	b	100%
France	5,174	1,630	56	715	7,575	68%	22%	1%	9%	100%
Germany	16,671	3,932	213	2,444	23,260	72%	17%	1%	11%	100%
Greece	4,298	1,154	63	729	6,244	69%	18%	1%	12%	100%
Hungary	58	b	b	b	67	87%	b	b	b	100%
Iceland	b	b	b	b	b	b	b	b	b	100%
Ireland	2,653	814	42	316	3,825	69%	21%	1%	8%	100%
Italy	6,239	2,185	121	1,782	10,327	60%	21%	1%	17%	100%
Japan	37,391	24,758	201	4,638	66,988	56%	37%	0%	7%	100%
Luxembourg	69	b	b	b	88	78%	b	b	b	100%
Netherlands	2,566	817	23	354	3,760	68%	22%	1%	9%	100%
Norway	2,730	927	38	667	4,362	63%	21%	1%	15%	100%
Poland	9,000	4,481	76	2,065	15,622	58%	29%	0%	13%	100%
Portugal	1,712	326	28	396	2,462	70%	13%	1%	16%	100%
Slovak Republic	37	b	b	b	49	76%	b	b	b	100%
South Korea	2,325	1,214	b	b	3,632	64%	33%	b	b	100%
Spain	2,766	863	83	524	4,236	65%	20%	2%	12%	100%
Sweden	3,134	1,088	48	297	4,567	69%	24%	1%	7%	100%
Switzerland	3,041	894	30	442	4,407	69%	20%	1%	10%	100%
U.K.	12,943	3,474	111	1,818	18,346	71%	19%	1%	10%	100%
Uruguay	b	b	b	b	b	b	b	b	b	100%
Total	157,163	60,285	1,490	25,184	244,122	64%	25%	1%	10%	100%

^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 3,654 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 2019^a

Country	Type of Beneficiary					Percent of Total				
	Worker	Spouse	Child	Widow(er)	Total	Worker	Spouse	Child	Widow(er)	Total
Australia	\$1,057,382	\$96,212	\$3,539	\$52,917	\$1,210,049	87%	8%	0%	4%	100%
Austria	285,692	28,830	3,290	33,351	351,163	81%	8%	1%	9%	100%
Belgium	182,384	28,499	884	30,513	242,280	75%	12%	0%	13%	100%
Brazil	6,439	b	b	b	8,119	79%	b	b	b	100%
Canada	7,966,641	1,007,562	48,515	1,454,383	10,477,101	76%	10%	0%	14%	100%
Chile	74,612	9,122	b	b	89,435	83%	10%	b	b	100%
Czech Rep	39,943	2,383	b	b	43,841	91%	5%	b	b	100%
Denmark	166,465	32,168	b	b	208,755	80%	15%	b	b	100%
Finland	88,249	12,158	b	b	110,886	80%	11%	b	b	100%
France	1,198,438	202,232	8,215	157,332	1,566,217	77%	13%	1%	10%	100%
Germany	3,305,720	370,163	35,410	531,154	4,242,447	78%	9%	1%	13%	100%
Greece	937,844	118,822	7,914	151,908	1,216,487	77%	10%	1%	12%	100%
Hungary	12,342	b	b	b	13,295	93%	b	b	b	100%
Iceland	b	b	b	b	b	b	b	b	b	100%
Ireland	620,695	84,753	5,114	77,996	788,558	79%	11%	1%	10%	100%
Italy	1,319,028	216,209	18,193	356,197	1,909,627	69%	11%	1%	19%	100%
Japan	13,145,816	3,999,688	32,431	1,454,819	18,632,754	71%	21%	0%	8%	100%
Luxembourg	17,815	b	b	b	20,729	86%	b	b	b	100%
Netherlands	554,777	92,082	4,009	80,217	731,085	76%	13%	1%	11%	100%
Norway	610,732	106,033	6,622	163,131	886,518	69%	12%	1%	18%	100%
Poland	1,369,530	310,918	8,225	337,356	2,026,029	68%	15%	0%	17%	100%
Portugal	437,202	33,266	3,767	82,633	556,868	79%	6%	1%	15%	100%
Slovak Republic	8,168	b	b	b	9,837	83%	b	b	b	100%
South Korea	678,947	160,885	b	b	867,632	78%	19%	b	b	100%
Spain	616,387	86,573	14,583	107,281	824,824	75%	10%	2%	13%	100%
Sweden	689,029	124,682	9,195	68,075	890,981	77%	14%	1%	8%	100%
Switzerland	662,616	93,708	5,373	92,916	854,613	78%	11%	1%	11%	100%
U.K.	2,936,205	402,633	20,943	431,002	3,790,784	77%	11%	1%	11%	100%
Uruguay	b	b	b	b	b	b	b	b	b	100%
Total	38,991,647	7,624,283	243,477	5,714,387	52,573,793	74%	15%	0%	11%	100%

^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 3,654 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 short-range period (usually through the 8th or 9th year following the date of the estimate), as well as an extrapolation of the corresponding long-range (75 years) 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 any agreement 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 Chile, Czech Republic, Hungary, Japan, Poland, and South Korea 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 also come from the Master Beneficiary Record. The data in table 7 on U.S. citizenship come from the Master Beneficiary Record 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 these files, 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 2019^a

Country	Country of totalized work			United States			Other country		
	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit
Australia	4,187	\$983,080	\$234.79	171	\$55,413	\$324.05	74	\$18,890	\$255.27
Austria	990	193,347	195.30	126	30,091	238.82	234	62,255	266.05
Belgium	629	142,417	226.42	76	17,798	234.18	82	22,169	270.35
Brazil	b	b	b	b	b	b	b	b	b
Canada	32,878	7,074,604	215.18	3,039	787,783	259.22	379	104,254	275.08
Chile	218	60,024	275.34	b	b	292.14	b	b	136.50
Czech Rep	135	33,239	246.21	20	4,035	201.75	9	2,669	296.56
Denmark	605	156,888	259.32	29	6,411	221.07	15	3,166	211.07
Finland	336	80,158	238.57	23	5,331	231.78	14	2,760	197.14
France	4,402	1,022,351	232.25	521	110,682	212.44	251	65,405	260.58
Germany	14,239	2,754,488	193.45	1,874	418,913	223.54	558	132,319	237.13
Greece	4,096	890,113	217.31	174	41,319	237.47	28	6,412	229.00
Hungary	47	10,266	218.43	b	b	b	b	b	b
Iceland	b	b	b	b	b	b	b	b	b
Ireland	2,466	578,013	234.39	122	26,835	219.96	65	15,846	243.78
Italy	5,895	1,242,260	210.73	275	59,854	217.65	69	16,914	245.13
Japan	36,970	13,025,881	352.34	196	51,064	260.53	225	68,871	306.09
Luxembourg	54	14,247	263.83	b	b	135.00	b	b	275.27
Netherlands	2,206	472,304	214.10	206	44,215	214.64	154	38,258	248.43
Norway	2,603	573,275	220.24	49	18,037	368.10	78	19,420	248.97
Poland	8,647	1,301,959	150.57	301	54,919	182.46	52	12,652	243.31
Portugal	1,583	406,930	257.06	120	28,697	239.14	9	1,575	175.00
Slovak Republic	29	6,146	211.93	b	b	b	b	b	b
South Korea	2,186	640,408	292.96	123	33,602	273.19	16	4,937	308.56
Spain	2,494	558,416	223.90	216	43,300	200.46	56	14,671	261.98
Sweden	2,899	628,401	216.76	121	29,181	241.17	114	31,448	275.86
Switzerland	2,644	566,360	214.21	208	51,795	249.01	189	44,462	235.25
U.K.	9652	2,184,148	226.29	2,466	545,380	221.16	825	206,677	250.52
Uruguay	b	b	b	b	b	b	b	b	b
Total	143,124	35,608,408	248.79	10,528	2,483,468	235.89	3,511	899,773	256.27

^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 2019^a

Country	U.S. Citizen			Not a U.S. Citizen			Citizenship status not known			Percent U.S. Citizen among those with known status	Percent of amount to U.S. Citizens when status is known
	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit	Number	Total benefits	Average benefit		
Australia	1,775	\$438,713	\$247.16	2,657	\$618,670	\$232.85	0	0	-----	40.0%	41.5%
Austria	258	66,651	258.34	1,060	213,485	201.40	32	\$5,556	\$173.64	19.6%	23.8%
Belgium	122	29,960	245.58	656	149,841	228.42	9	2,583	286.94	15.7%	16.7%
Brazil	17	4,377	257.47	b	b	b	b	b	b	68.0%	68.0%
Canada	11,375	2,575,088	226.38	24,805	5,360,578	216.11	116	30,975	267.02	31.4%	32.4%
Chile	51	14,448	283.3	218	60,163	275.98	0	0	-----	19.0%	19.4%
Czech Rep	45	13,271	294.91	119	26,672	224.14	0	0	-----	27.4%	33.2%
Denmark	120	28,731	239.42	529	137,734	260.37	0	0	-----	18.5%	17.3%
Finland	b	b	b	316	74,281	235.07	b	b	b	14.6%	15.4%
France	1,275	282,067	221.23	3,810	902,818	236.96	89	13,553	152.29	25.1%	23.8%
Germany	3,785	1,040,252	274.84	12,445	2,199,844	176.77	441	65,624	148.81	23.3%	32.1%
Greece	1,790	465,429	260.02	2,501	471,259	188.43	7	1,156	165.07	41.7%	49.7%
Hungary	19	3,816	200.86	39	8,526	218.62	0	0	-----	32.8%	30.9%
Iceland	b	b	b	b	b	b	0	0	-----	b	b
Ireland	595	176,223	296.17	2,041	441,905	216.51	17	2,567	151.02	22.6%	28.5%
Italy	1,678	410,624	244.71	4,506	896,956	199.06	55	11,448	208.15	27.1%	31.4%
Japan	459	143,581	312.81	36,932	13,002,235	352.06	0	0	-----	1.2%	1.1%
Luxembourg	18	4,910	272.8	51	12,904	253.03	0	0	-----	26.1%	27.6%
Netherlands	485	106,313	219.20	2,057	444,699	216.19	24	3,765	156.85	19.1%	19.3%
Norway	358	97,299	271.78	2,370	513,019	216.46	b	b	206.85	13.1%	15.9%
Poland	484	86,581	178.89	8,516	1,282,949	150.65	0	0	-----	5.4%	6.3%
Portugal	369	133,650	362.20	1,340	303,133	226.22	b	b	139.70	21.6%	30.6%
Slovak Republic	13	3,217	247.47	24	4,951	206.27	0	0	-----	35.1%	39.4%
South Korea	81	23,499	290.11	2,244	655,448	292.09	0	0	-----	3.5%	3.5%
Spain	619	163,941	264.85	2,131	449,484	210.93	16	2,962	185.14	22.5%	26.7%
Sweden	412	89,028	216.09	2,715	598,959	220.61	7	1,042	148.89	13.2%	12.9%
Switzerland	578	157,368	272.26	2,432	500,949	205.98	31	4,299	138.66	19.2%	23.9%
U.K.	3,044	742,661	243.98	9,448	2,119,123	224.29	451	74,421	165.01	24.4%	26.0%
Uruguay	b	b	b	b	b	b	0	0	-----	12.5%	8.2%
Total	29,881	7,315,520	244.82	125,979	31,454,856	249.68	1,303	221,269	169.82	19.2%	18.9%

^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: See caveat in narrative.

Table 8.—U.S. Quarters of Coverage for Individuals Receiving a Totalized OASDI Worker Benefit, by Agreement Country, as of December 2019^a

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	Total
Australia	589	1,535	1,279	937	92	4,432	13.3%	34.6%	28.9%	21.1%	2.1%	100.0%
Austria	230	495	359	213	53	1,350	17.0%	36.7%	26.6%	15.8%	3.9%	100.0%
Belgium	151	272	211	138	15	787	19.2%	34.6%	26.8%	17.5%	1.9%	100.0%
Brazil	b	b	8	12	0	25	b	b	32.0%	48.0%	0.0%	100.0%
Canada	5,502	11,641	10,492	7,307	1,354	36,296	15.2%	32.1%	28.9%	20.1%	3.7%	100.0%
Chile	18	53	84	93	21	269	6.7%	19.7%	31.2%	34.6%	7.8%	100.0%
Czech Rep	17	39	60	41	7	164	10.4%	23.8%	36.6%	25.0%	4.3%	100.0%
Denmark	98	253	181	105	12	649	15.1%	39.0%	27.9%	16.2%	1.8%	100.0%
Finland	69	142	90	58	14	373	18.5%	38.1%	24.1%	15.5%	3.8%	100.0%
France	706	1,740	1,668	969	91	5,174	13.6%	33.6%	32.2%	18.7%	1.8%	100.0%
Germany	3,311	5,914	4,251	2,574	621	16,671	19.9%	35.5%	25.5%	15.4%	3.7%	100.0%
Greece	313	1,258	1,413	1,178	136	4,298	7.3%	29.3%	32.9%	27.4%	3.2%	100.0%
Hungary	b	17	19	17	b	58	b	29.3%	32.8%	29.3%	b	100.0%
Iceland	b	b	b	b	b	b	b	b	b	b	b	100.0%
Ireland	408	863	790	540	52	2,653	15.4%	32.5%	29.8%	20.4%	2.0%	100.0%
Italy	728	2,001	2,037	1,368	105	6,239	11.7%	32.1%	32.6%	21.9%	1.7%	100.0%
Japan	2,055	12,879	17,085	5,325	47	37,391	5.5%	34.4%	45.7%	14.2%	0.1%	100.0%
Luxembourg	b	24	21	12	b	69	b	34.8%	30.4%	17.4%	b	100.0%
Netherlands	482	940	682	424	38	2,566	18.8%	36.6%	26.6%	16.5%	1.5%	100.0%
Norway	531	1,088	654	395	62	2,730	19.5%	39.9%	24.0%	14.5%	2.3%	100.0%
Poland	1,507	3,800	2,563	1,049	81	9,000	16.7%	42.2%	28.5%	11.7%	0.9%	100.0%
Portugal	112	432	581	462	125	1,712	6.5%	25.2%	33.9%	27.0%	7.3%	100.0%
Slovak Republic	b	11	14	10	b	37	b	29.7%	37.8%	27.0%	b	100.0%
South Korea	129	967	881	324	24	2,325	5.5%	41.6%	37.9%	13.9%	1.0%	100.0%
Spain	417	881	846	512	110	2,766	15.1%	31.9%	30.6%	18.5%	4.0%	100.0%
Sweden	618	1,294	802	383	37	3,134	19.7%	41.3%	25.6%	12.2%	1.2%	100.0%
Switzerland	567	1,242	763	419	50	3,041	18.6%	40.8%	25.1%	13.8%	1.6%	100.0%
U.K.	1,889	4,243	3,709	2,616	486	12,943	14.6%	32.8%	28.7%	20.2%	3.8%	100.0%
Uruguay	b	b	b	b	b	b	b	b	b	b	b	100.0%
Total	20,462	54,029	51,548	27,485	3,639	157,163	13.0%	34.4%	32.8%	17.5%	2.3%	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.

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 Total Earnings were Greater than in Other Intervals, for Individuals Receiving a Totalized OASDI Worker Benefit, by Agreement Country, as of December 2019^a

Country	Age when U.S. earnings were highest				Percent at each age			
	Under 35	35-49	50 or over	Total	Under 35	35-49	50 or over	Total
Australia	2,882	969	581	4,432	65.0%	21.9%	13.1%	100.0%
Austria	926	298	126	1,350	68.6%	22.1%	9.3%	100.0%
Belgium	393	261	133	787	49.9%	33.2%	16.9%	100.0%
Brazil	12	b	b	25	48.0%	b	b	100.0%
Canada	24,154	6,313	5,829	36,296	66.5%	17.4%	16.1%	100.0%
Chile	84	98	87	269	31.2%	36.4%	32.3%	100.0%
Czech Rep	37	69	58	164	22.6%	42.1%	35.4%	100.0%
Denmark	384	178	87	649	59.2%	27.4%	13.4%	100.0%
Finland	199	129	45	373	53.4%	34.6%	12.1%	100.0%
France	2,808	1,597	769	5,174	54.3%	30.9%	14.9%	100.0%
Germany	12,077	3,192	1,402	16,671	72.4%	19.1%	8.4%	100.0%
Greece	2,950	1,127	221	4,298	68.6%	26.2%	5.1%	100.0%
Hungary	18	26	14	58	31.0%	44.8%	24.1%	100.0%
Iceland	b	b	b	b	b	b	b	100.0%
Ireland	1,961	513	179	2,653	73.9%	19.3%	6.7%	100.0%
Italy	4,427	1,418	394	6,239	71.0%	22.7%	6.3%	100.0%
Japan	7,679	22,448	7,264	37,391	20.5%	60.0%	19.4%	100.0%
Luxembourg	49	b	b	69	71.0%	b	b	100.0%
Netherlands	1,480	757	329	2,566	57.7%	29.5%	12.8%	100.0%
Norway	2,297	335	98	2,730	84.1%	12.3%	3.6%	100.0%
Poland	1,515	4,628	2,857	9,000	16.8%	51.4%	31.7%	100.0%
Portugal	726	724	262	1,712	42.4%	42.3%	15.3%	100.0%
Slovak Republic	b	b	b	b	b	b	b	100.0%
South Korea	372	1,580	373	2,325	16.0%	68.0%	16.0%	100.0%
Spain	1,526	888	352	2,766	55.2%	32.1%	12.7%	100.0%
Sweden	1,727	974	433	3,134	55.1%	31.1%	13.8%	100.0%
Switzerland	2,313	529	199	3,041	76.1%	17.4%	6.5%	100.0%
U.K.	6,420	3,625	2,898	12,943	49.6%	28.0%	22.4%	100.0%
Uruguay	b	b	b	b	b	b	b	100.0%
Total	79,421	52,719	25,023	157,163	50.5%	33.5%	15.9%	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 10.—Decade in which Total Earnings were Greater than in Other Decades,
for Individuals Receiving a Totalized U.S. Worker Benefit,
by Agreement Country, as of December 2019^a**

Country	Decade when U.S. earnings were highest								Total
	Prior to 1951	1951-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010-2018	
Australia	b	100	1,178	1,545	727	474	327	b	4,432
Austria	b	93	435	411	201	112	80	b	1,350
Belgium	b	31	191	174	212	103	60	b	787
Brazil	0	b	b	8	b	b	b	0	25
Canada	635	2,875	12,077	9,896	3,607	3,175	3,376	655	36,296
Chile	0	b	22	75	63	37	63	b	269
Czech Republic	0	0	0	31	29	45	47	12	164
Denmark	0	8	149	195	127	104	55	11	649
Finland	b	10	70	95	113	53	29	b	373
France	15	214	1,106	1,383	1,383	612	376	85	5,174
Germany	13	1,324	6,579	4,411	2,351	1,039	780	174	16,671
Greece	b	53	429	2,822	731	174	62	b	4,298
Hungary	0	0	0	b	17	18	b	b	58
Iceland	0	0	b	0	b	0	0	0	b
Ireland	b	124	1,053	748	311	319	73	b	2,653
Italy	12	258	1,659	3,378	584	165	138	45	6,239
Japan	18	94	1,496	6,674	13,444	12,381	3,156	128	37,391
Luxembourg	0	b	25	18	13	8	b	0	69
Netherlands	b	114	814	618	582	268	134	b	2,566
Norway	b	382	1,373	558	247	102	57	b	2,730
Poland	0	b	b	1,146	4,261	2,123	1,210	193	9,000
Portugal	b	b	78	691	609	242	71	9	1,712
Slovak Republic	0	0	0	b	b	14	14	b	37
South Korea	0	0	8	190	1,024	863	186	54	2,325
Spain	b	58	375	1,159	663	287	162	b	2,766
Sweden	b	188	912	559	675	517	249	b	3,134
Switzerland	b	350	1,331	760	347	141	85	b	3,041
U.K.	23	727	3,687	2,689	2,749	1,584	1,150	334	12,943
Uruguay	0	0	0	0	b	b	b	b	8
Total	746	7,019	35,115	40,242	35,082	24,966	11,959	2,034	157,163

^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.