

ELIMINATION OF MEDICARE'S WAITING PERIOD FOR SERIOUSLY DISABLED ADULTS: IMPACT ON COVERAGE AND COSTS

APPENDIX

ESTIMATING THE FISCAL IMPACTS ON MEDICAID AND MEDICARE FROM ELIMINATING THE WAITING PERIOD: DATA SOURCES AND METHODOLOGY

This appendix provides details of the methodology and data sources used to produce estimates of Medicare and Medicaid savings and increased Medicare expenditures that would result from eliminating the Medicare waiting period for SSDI beneficiaries. As described below, we began by estimating the total number of SSDI beneficiaries in the Medicare waiting period, and the number of these waiting-period beneficiaries who are also covered by Medicaid. We then compared the Medicaid and Medicare expenditures that would be incurred if the waiting period were eliminated (the new policy) with those that would be incurred under current policy. Specifically, we estimated the Medicaid expenditures for Medicaid beneficiaries in the waiting period under current policy, the Medicaid expenditures that would be taken over by Medicare under the new policy, and the increased Medicare expenditures that would be incurred for non-Medicaid beneficiaries under the new policy.

I. ESTIMATING THE NUMBER OF MEDICAID BENEFICIARIES IN THE WAITING PERIOD

We began by estimating the total number of people in the waiting period in each state. Then we estimated the fraction of these individuals who also are covered by Medicaid.

A. TOTAL NUMBER IN THE WAITING PERIOD

Because the waiting period is 24 months, the number of individuals who are in the waiting period as of a given date includes all new SSDI beneficiaries during the prior two years less those who died or had their benefits terminated. Therefore, we began by estimating the number of beneficiaries who started the waiting period in 1999 and 2000, and then estimated the number that would still be in the waiting period as of January 2002, as explained below.

1. The Number of SSDI Beneficiaries Starting the Waiting Period

We drew the number of new disabled worker beneficiaries in each state during 1999 and 2000 from the Social Security Administration's Annual Statistical Supplements for 2000 and 2001. To arrive at the estimates shown in Table A.1, columns 1 and 2, we made two

adjustments to these numbers. First, we added an estimate of the number of dependents of disabled workers (disabled spouses and disabled adult children) who would also be in the waiting period for Medicare. Because state-by-state estimates of the number of new awards for disabled workers' dependents were not available, we assumed that the dependents of disabled workers represented 10.5 percent of new SSDI beneficiaries in each state.¹ Second, we subtracted an estimate of the number of SSDI beneficiaries that would be in one of the special groups (those with end-stage renal disease or Lou Gehrig's disease) that do not have to go through the full two-year waiting period. Here, we assumed that 1.8 percent of new SSDI beneficiaries would not have to go through the full two-year waiting period.²

2. The Number of SSDI Beneficiaries in the Waiting Period as of January 2002

To obtain our estimate of the number of people who were still in the waiting period as of January 2001, we assumed that the flow of new beneficiaries is evenly distributed throughout the year, and that 1 percent of new beneficiaries (that is, those who were awarded benefits in 1999 and 2000) have their benefits terminated and 4 percent die each year.³ Finally, because the number of new awards for disabled workers has remained fairly constant over the past decade, our final estimates assume that the number of beneficiaries in the waiting period in January 2002 is equal to the number of beneficiaries in the waiting period as of January 2001 (Table A.1., column 3).

Table A.1. Estimated Number of Medicaid Beneficiaries in Medicare Waiting Period

State	Number Starting Waiting Period ^a		Number in Waiting Period as of January 2002 ^b
	1999	2000	
	1	2	3
Alabama	16,927	16,954	32,272
Alaska	1,041	1,210	2,148
Arizona	11,448	12,772	23,102
Arkansas	9,342	9,381	17,834
California	61,588	59,665	115,447
Colorado	6,993	6,351	12,694
Connecticut	7,539	7,931	14,745
Delaware	2,103	2,194	4,095
District of Columbia	1,180	1,062	2,133
Florida	40,545	38,327	75,071

¹ According to the Social Security Administration's Annual Statistical Supplement (2001), nationally, 10.5 percent of new awards for SSDI beneficiaries are for the disabled dependents of disabled workers.

² According to the Annual Statistical Supplement (2001), approximately 1.3 percent of Medicare beneficiaries had end-stage renal disease; we assumed that 1.3 percent of new SSDI beneficiaries would also have end-stage renal disease. Based on the prevalence of Lou Gehrig's disease in the general population, we assumed that 0.5 percent of individuals who are newly eligible for SSDI have Lou Gehrig's disease.

³ According to tabulations of Social Security Administration data from nine states, an average of approximately 4 percent of SSDI beneficiaries die each year during the waiting period.

State	Number Starting Waiting Period ^a		Number in Waiting Period as of January 2002 ^b
	1999	2000	
	1	2	3
Georgia	20,939	21,033	39,981
Hawaii	2,348	2,309	4,435
Idaho	2,890	2,915	5,531
Illinois	24,487	24,015	46,187
Indiana	14,552	14,173	27,351
Iowa	6,021	6,502	11,940
Kansas	6,019	6,208	11,650
Kentucky	14,538	15,172	28,314
Louisiana	10,619	11,611	21,199
Maine	4,305	4,356	8,250
Maryland	10,332	11,104	20,436
Massachusetts	15,583	15,840	29,937
Michigan	24,169	25,915	47,748
Minnesota	9,568	9,669	18,325
Mississippi	10,846	10,942	20,755
Missouri	16,718	17,954	33,055
Montana	1,850	1,979	3,651
Nebraska	3,758	3,811	7,211
Nevada	4,398	4,784	8,755
New Hampshire	3,210	3,088	5,996
New Jersey	20,735	18,455	37,272
New Mexico	3,726	3,984	7,350
New York	46,743	45,413	87,746
North Carolina	26,478	25,209	49,201
North Dakota	1,122	1,069	2,085
Ohio	23,609	23,915	45,274
Oklahoma	8,762	8,973	16,898
Oregon	8,491	7,486	15,193
Pennsylvania	30,602	32,848	60,491
Rhode Island	3,132	3,207	6,039
South Carolina	13,045	13,672	25,464
South Dakota	1,460	1,417	2,740
Tennessee	18,849	17,119	34,217
Texas	34,943	33,889	65,537
Utah	2,912	2,964	5,598
Vermont	1,671	1,616	3,130
Virginia	17,727	17,668	33,712
Washington	12,782	13,557	25,107
West Virginia	7,547	7,527	14,358
Wisconsin	10,499	11,155	20,642
Wyoming	966	936	1,811
United States Total	661,657	661,310	1,260,114

^a The number of disabled workers, drawn from Social Security Administration, *Annual Statistical Supplement*, 2000 and 2001, is adjusted to include the number of disabled spouses and adult disabled children who are also in the waiting period and is reduced to account for those in special groups who do not have to go through the full two-year waiting period.

^b Assumes 4 percent of new SSDI beneficiaries die each year and 1 percent have their benefits terminated. Assumptions based on tabulations of Social Security Administration data for nine states (Iowa, Minnesota, New Hampshire, New Mexico, North Carolina, Ohio, Utah, Vermont, and Wisconsin). This produces an estimate of the number in the waiting period as of January 1, 2001. We assume that this number remains unchanged between January 2001 and January 2002.

B. NUMBER COVERED BY MEDICAID

We next estimated the fraction of SSDI beneficiaries in the waiting period who were covered by Medicaid. Based on tabulations of Social Security Administration data for nine states (Iowa, Minnesota, New Hampshire, New Mexico, North Carolina, Ohio, Utah, Vermont, and Wisconsin), we calculated that the percentage of SSDI beneficiaries in the Medicare waiting period who were enrolled in Supplemental Security Income (SSI) (and therefore also eligible for Medicaid) averaged 40 percent, ranging from 29 percent in New Hampshire to 47 percent in New Mexico (Table A.2.). We multiplied the total number of SSDI beneficiaries in the waiting period (1.26 million individuals) by 40 percent to arrive at our estimate of the number of SSDI beneficiaries covered by Medicaid (504,046 individuals).⁴

Table A.2. Estimates of the Fraction of SSDI Beneficiaries in the Waiting Period Covered by Medicaid

A. Percentage of SSDI Beneficiaries on SSI, 2001, SSA Data

State	Number of SSDI Beneficiaries in Waiting Period	Number of SSDI Beneficiaries in Waiting Period Also on SSI	Fraction of SSDI Beneficiaries on SSI
	1	2	3
Iowa	11,877	4,857	0.41
Minnesota	16,893	5,751	0.34
New Hampshire	5,273	1,544	0.29
New Mexico	7,984	3,753	0.47
North Carolina	44,887	18,504	0.41
Ohio	44,091	18,452	0.42
Utah	5,253	1,894	0.36
Vermont	2,911	1,182	0.41
Wisconsin	20,312	8,032	0.40
All 9 States	159,481	63,969	0.40

Source: Tabulations of Social Security Administration data for nine states.

⁴ Our estimates assume that those who are on SSI will also be covered by Medicaid. In 40 states, those who enroll in SSI are automatically enrolled in Medicaid, although seven of those states require a separate Medicaid application. In the remaining states, Medicaid eligibility standards are somewhat different from those for SSI, so some SSI beneficiaries may not have enrolled in Medicaid. Therefore, our estimates may overstate the percentage of SSDI beneficiaries in the waiting period who are covered by Medicaid by virtue of their SSI eligibility. On the other hand, our estimates of the percentage enrolled in Medicaid may be understated to the extent that some SSDI beneficiaries who are not eligible for SSI may be eligible for Medicaid through other routes (for example, some may meet the “medically needy” criteria). We tested the plausibility of our 40 percent assumption by using data from the Multi-State Dual Eligibles Database for eleven states for 1994–95, as reported in Schmitz, 2003. We compared the number of “pre-duals” (those enrolled in Medicaid in 1994 and 1995 who were newly enrolled in Medicare in 1996) with the number of new SSDI awards in 1994 (Social Security Administration, *Annual Statistical Supplement*, 1995). These comparisons indicated that about 31 percent of those receiving SSDI awards (and therefore in the waiting period for Medicare) were also enrolled on Medicaid (Table A.2., bottom panel). Since the number of new SSI awards has increased by 20 percent since 1994 while the number of new SSDI awards has remained relatively constant, we believe it is reasonable to assume that the national percentage of those in the waiting period who are covered by Medicaid is now closer to 40 percent than to 31 percent.

**Table A.2. Estimates of the Fraction of SSDI Beneficiaries
in the Waiting Period Covered by Medicaid**

B. Percentage of Waiting Period Beneficiaries on Medicaid, 1994, Pre-Duals Data and SSA Data

	Number of New Disabled Medicare Beneficiaries, 1996, Who Were on Medicaid During 1994–95 ^a	Estimated Number of Disabled Medicaid Beneficiaries in Medicare Waiting Period in 1994 ^b	Number of New SSDI Beneficiaries, 1994 ^c	Fraction of Waiting Period Beneficiaries on Medicaid, 1994 ^d
State	1	2	3	4
Colorado	1,903	2,213	10,092	0.22
Florida	11,679	13,580	35,803	0.38
Georgia	5,244	6,098	20,525	0.30
Indiana	2,828	3,288	13,509	0.24
Iowa	1,550	1,802	6,545	0.28
Kentucky	4,861	5,652	16,244	0.35
Maine	1,708	1,986	4,910	0.40
Michigan	6,376	7,414	23,915	0.31
New Jersey	3,882	4,514	19,571	0.23
Washington	3,369	3,917	13,172	0.30
Wisconsin	3,015	3,506	10,681	0.33
All 11 States	46,415	53,971	174,966	0.31

Note: The data reported in Panel A pertain to 2001 while the data in Panel B pertain to 1994. The number of new SSI awards increased by 20 percent from 1994–2001 while the number of new SSDI awards remained relatively constant. Therefore, we assume that the national percentage of those currently in the waiting period who are covered by Medicaid is closer to 40 percent (the average from the 2001 data reported in panel A) than to 31 percent (the 1994 average reported in Panel B).

^a Number of new disabled (under age 65) Medicare Beneficiaries in 1996 who were covered by Medicaid in 1994–95 are based on data from the Multi-State Dual Eligibles Database, as reported in Schmitz (2003).

^b Column 1 adjusted to account for those who died, had their benefits terminated, or were age 63 or above during 1994 and 1995.

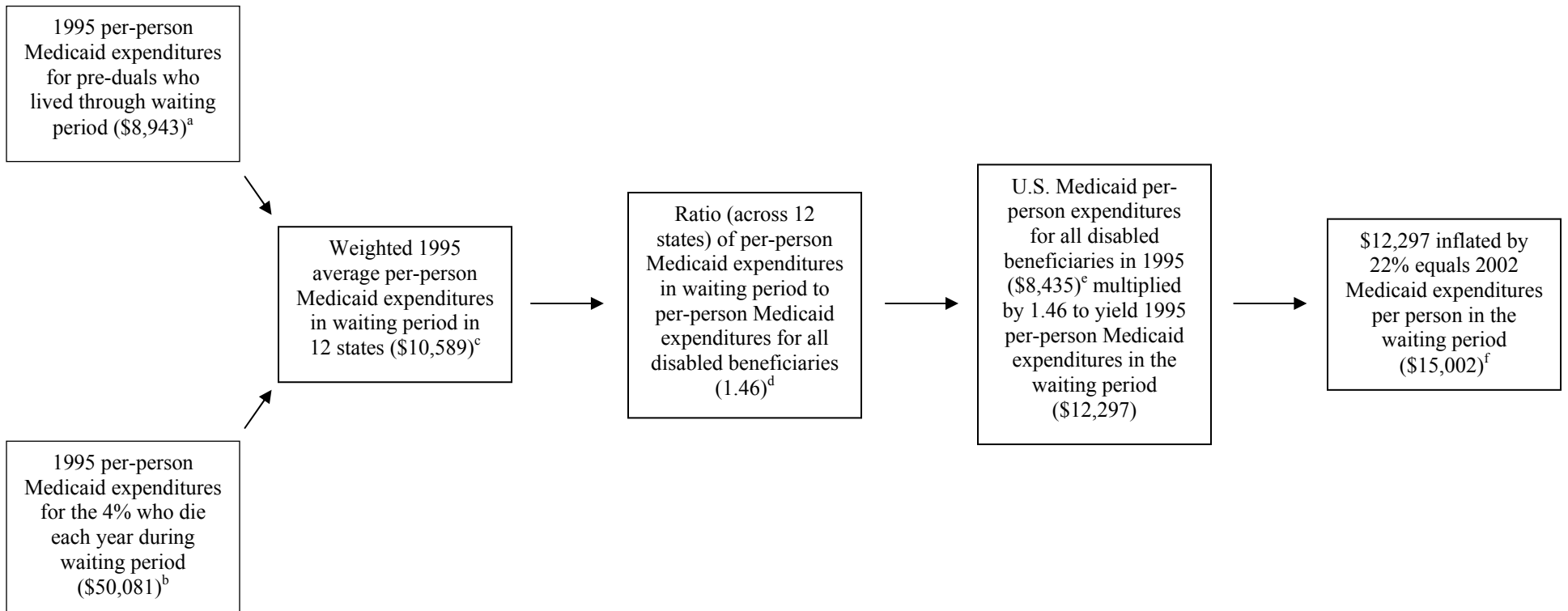
^c The number of benefits awarded for disabled workers for 1994 were drawn from the Social Security Administration Annual Statistical Supplement, 1995. To arrive at the numbers in column 3, we inflated these numbers by 10.5 percent to include disabled widows and widowers and disabled adult children, and reduced them by 1.3 percent to account for those with end-stage renal disease.

^d Column 2 divided by column 3.

II. ESTIMATING THE FISCAL IMPACTS OF ELIMINATING THE WAITING PERIOD

We next estimated per-person Medicaid and Medicare expenditures for those in the waiting period under current policy, and how those expenditures would change under a new policy in which Medicare coverage were extended to SSDI beneficiaries in the waiting period. Figures A.1. through A.3. illustrate our framework, which is described in more detail below.

Figure A.1. Estimation of 2002 Medicaid Expenditures per Beneficiary in Waiting Period Under Current Policy



^a Estimate based on 1994–95 Medicaid spending for disabled individuals (“pre-duals”) who were covered by Medicaid and Medicare in 1996 and by Medicaid only in 1994–95, according to data from the Multi-State Dual Eligibles Database as reported in Schmitz (2003) for the following 12 states: California, Colorado, Florida, Georgia, Kentucky, Indiana, Iowa, Maine, Michigan, New Jersey, Washington, and Wisconsin.

^b Assumes that the costs of those who die during the waiting period are 5.6 times the expenditures of the pre-duals who lived through the waiting period. See Appendix text for details.

^c Weighted average of the expenditures of those who lived through the waiting period and those who died during the waiting period. Assumes that approximately 4% of those in the waiting period die each year, based on tabulations of SSA data for nine states: Iowa, Minnesota, New Mexico, North Carolina, New Hampshire, Ohio, Utah, Vermont, Wisconsin.

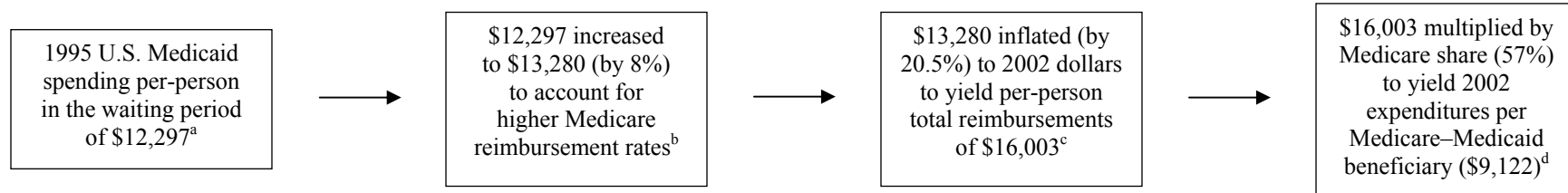
^d The Medicaid spending for those in the waiting period in the 12 states for which we had waiting period data (from the Multi-State Dual Eligibles Database) was 46 percent higher than the Medicaid expenditures for all blind and disabled beneficiaries (according to MSIS data) in those same 12 states.

^e U.S. estimate of per-person Medicaid spending for all blind and disabled beneficiaries (\$8,435) drawn from MSIS data.

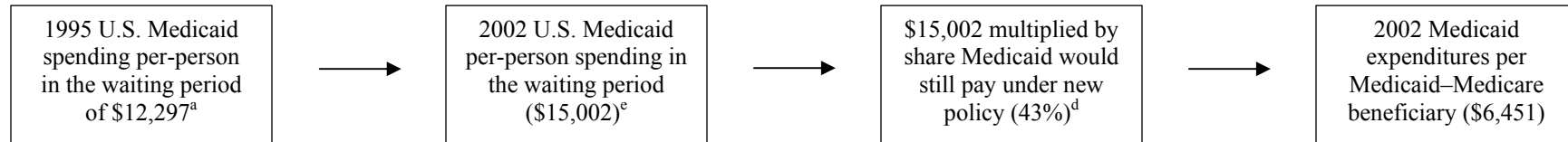
^f Growth in per-person spending from 1995 to 2002 was 22 percent, based on actual increase in Medicaid per-person expenditures for the blind and disabled (according to MSIS data) from 1995 to 2000, and assumed rate of growth of 3 percent per year from 2000 to 2002. (The average annual rate of growth in per-beneficiary Medicaid spending for disabled beneficiaries was about 3 percent a year from 1995 to 2000 according to MSIS data, and the growth in Medicare per capita spending for the disabled was also about 3 percent a year over the period from 1995 to 2002, according to the Medicare U.S. Per Capita Cost [USPCC] data produced by CMS.)

Figure A.2. Estimation of 2002 Medicaid and Medicare Expenditures per Medicaid–Medicare Beneficiary Under New Policy

Medicare Expenditures per Medicaid–Medicare Beneficiary Under New Policy



Medicaid Expenditures per Medicaid–Medicare Beneficiary Under New Policy



^a Estimate based on 1994–95 Medicaid spending for disabled individuals (“pre-duals”) who were covered by Medicaid and Medicare in 1996 and by Medicaid only in 1994–95, according to data from the Multi-State Dual Eligibles Database as reported in Schmitz, 2003 (see Figure A.1. for details).

^b Hospital payment rates were increased to account for the fact that Medicare’s payment-cost ratio was higher than Medicaid’s (MedPAC, 2003) and physician reimbursement rates were inflated according to the ratio of Medicare to Medicaid’s reimbursement rates, as reported in the Medi-Cal Policy Institute Physician Fee Report (Menges, et al., 2001).

^c Growth in per-person spending from 1995 to 2002 was 20.5%, based on increase in Medicare USPPCs for the blind and disabled.

^d We used 1995 data from the eight states reported by Dale and Schmitz (2001) to calculate the share of expenditures that Medicare (and Medicaid) covered for each service that disabled dual eligibles received. We then multiplied the Medicare (and Medicaid) share for each service by the Medicaid expenditures for each service that disabled “pre-duals” actually received in 1994 and 1995. On average, we calculated that Medicare would cover approximately 57% and Medicaid would cover 43% of the services that disabled individuals in the waiting period received had they been dually eligible for Medicaid and Medicare.

^e Growth in per-person spending from 1995 to 2002 was 22%, based on actual increase in Medicaid per-person expenditures for the blind and disabled (according to MSIS data) from 1995 to 2000, and assumed rate of growth of 3% per year from 2000 to 2002. (The average annual rate of growth in per-beneficiary Medicaid spending for disabled beneficiaries was about 3% a year from 1995 to 2000, and the growth in Medicare per capita spending for the disabled was also about 3% a year over the period from 1995 to 2002, according to the Medicare U.S. Per Capita Cost [USPCC] data produced by CMS.)

Figure A.3. Expenditures Incurred Under New Policy of Eliminating Medicare Waiting Period

1. Medicaid Savings

\$7.6 billion Medicaid expenditures under old policy (504,000 people ^a in waiting period multiplied by \$15,002 per-person ^b)	—	\$3.3 billion Medicaid expenditures under new policy (504,000 people in waiting period ^a multiplied by \$6,451 per person ^b)	=	Medicaid savings under new policy: \$4.3 billion (\$2.5 billion in federal savings, 1.8 billion in state savings) ^c
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2. Medicare Expenditures for Medicaid–Medicare Beneficiaries

Number of Medicaid beneficiaries in waiting period (504,000) ^a	X	Per-person Medicare expenditures for Medicaid–Medicare beneficiaries under new policy (\$9,122) ^b	=	New Medicare expenditures for Medicaid beneficiaries: \$4.6 billion
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3. Medicare Expenditures for Non-Medicaid Beneficiaries

Number Non-Medicaid beneficiaries in waiting period (756,000) ^a	X	Per-person Medicare expenditures for Medicaid–Medicare beneficiaries under new policy (\$9,122) ^b	X	Ratio of Medicare costs for non-Medicaid beneficiaries to Medicaid–Medicare beneficiaries (0.6) ^d	=	New Medicare expenditures for non-Medicaid beneficiaries: \$4.1 billion
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4. Net Federal Expenditures Under New Policy

New Medicare expenditures for Medicaid beneficiaries (\$4.6 billion)	+	New Medicare expenditures for non-Medicaid beneficiaries (\$4.1 billion)	—	Federal share of Medicaid savings (57% of Medicaid savings, or \$2.5 billion)	=	Net federal expenditures under new policy: \$6.2 billion
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^a The estimated number of SSDI beneficiaries in the waiting period is primarily based on the number of new SSDI awards, according to the SSA Statistical Supplement (2000 and 2001). The percentage of these SSDI beneficiaries covered by Medicaid is assumed to be 40%. Assumption based on the percentage of SSDI beneficiaries in the waiting period who are SSI beneficiaries and therefore also eligible for Medicaid according to tabulations of SSA data for nine states (Iowa, Minnesota, New Mexico, North Carolina, New Hampshire, Ohio, Utah, Vermont, and Wisconsin).

^b Calculations for per-person Medicaid and Medicare expenditures for those in waiting period shown in Figures A.1. and A.2. As explained in Figure A.1., Medicaid expenditures for those in waiting period under current policy are estimated based on data produced from Multi-State Dual Eligibles Database as reported by Schmitz (2003) for the following 12 states: California, Colorado, Florida, Georgia, Kentucky, Indiana, Iowa, Maine, Michigan, New Jersey, Washington, and Wisconsin.

^c State and Federal share of Medicaid savings computed using the average Federal Medical Assistance Percentage across all states.

^d According to data from the Medicare Current beneficiary Survey, the Medicare expenditures for those who are eligible for Medicare-only are about 0.6 of those who are eligible for both Medicare and Medicaid. See Murray and Schatto (1998) and Liu and Sharma (2002).

A. PER-PERSON MEDICAID AND MEDICARE EXPENDITURES FOR MEDICAID BENEFICIARIES

Our calculation of per-person Medicaid and Medicare expenditures for those in the waiting period involves multiple steps, described below.

1. Per-Person Medicaid Expenditures for Those in the Waiting Period Under Current Policy in 1994 and 1995

We began by calculating the Medicaid expenditures of a group of people that are presumably in the waiting period for Medicare: “pre-duals.” “Pre-duals” are disabled individuals (those under age 65) who were dually eligible for Medicaid and Medicare in 1996, but were eligible only for Medicaid in 1995 and/or 1994. It is important to note that the pre-duals do not include those in the waiting period in 1994 or 1995 who died before becoming eligible for Medicare; they include only individuals who eventually became dually eligible for Medicaid and Medicare.

We calculated the average yearly Medicaid expenditures for pre-duals from tables reported in Schmitz (2003) for 12 states (California, Colorado, Florida, Georgia, Kentucky, Indiana, Iowa, Maine, Michigan, New Jersey, Washington, and Wisconsin).⁵ As shown in Table A.3., the expenditures for these pre-duals ranged from \$6,873 (in Kentucky) to \$12,367 (in Maine) per person per year; the average across the 12 states (weighted by the number of pre-duals) was \$8,943 in 1995 dollars.⁶ This average should accurately reflect the expenditures of disabled Medicaid beneficiaries who lived through the waiting period. However, the expenditures need to be adjusted to account for the expenditures of beneficiaries who died during the waiting period, and tend to have substantially higher medical expenditures.

⁵ The data for California include the following 17 counties (out of 58 in the state): Alameda, Contra Costa, Fresno, Lassen, Marin, Nevada, Riverside, Sacramento, San Bernardino, San Diego, San Francisco, San Luis, Obispo, Santa Clara, Sonoma, Tulare, and Yolo. The source for the tables was the Multi-State Dual Eligibles database, which was constructed from Medicaid and Medicare claims data.

⁶ We calculated the average monthly expenditures for individuals during the months they were enrolled on Medicaid, and multiplied by 12 to compute the average annual expenditures.

Table A.3. Average Annual Medicaid Expenditures for Medicaid Beneficiaries in Waiting Period

	Per-Person Medicaid Expenditures of Pre-Duals ^a	Per-Person Medicaid Expenditures for All Those in Waiting Period ^b	Medicaid Expenditures for All Blind and Disabled Beneficiaries, 1995 ^c	Ratio of Medicaid Expenditures for Those in Waiting Period to Expenditures for All Blind and Disabled ^d
State	1	2	3	4
California ^e	7,448	8,818	5,902	1.49
Colorado	11,486	13,599	9,177	1.48
Florida	7,808	9,245	6,530	1.42
Georgia	7,988	9,458	6,431	1.47
Indiana	11,883	14,070	10,280	1.37
Iowa	10,357	12,262	9,168	1.34
Kentucky	6,873	8,138	5,698	1.43
Maine	12,367	14,643	10,017	1.46
Michigan	10,001	11,841	7,206	1.64
New Jersey	12,246	14,500	12,155	1.19
Washington	8,232	9,747	5,380	1.81
Wisconsin	10,267	12,156	7,217	1.68
All 12 States	8,943	10,589	7,240	1.46

^a Estimate based on 1994–95 Medicaid spending for disabled individuals who were eligible for Medicaid and Medicare in 1996 and Medicaid only in 1994–95, according to data from the Multi-State Dual Eligibles Database, as reported in Schmitz (2003).

^b Column 2 is inflated to include the expenditures of those who died during the waiting period. We assume that 4 percent of individuals in the waiting period die each year, and the costs of those who die are 5.6 times the costs of those who live.

^c Drawn from Medicaid Statistical Information System data.

^d Column 2 divided by Column 3.

^e The following 17 counties are included in the data: Alameda, Contra Costa, Fresno, Lassen, Marin, Nevada, Riverside, Sacramento, San Bernardino, San Diego, San Francisco, San Luis, Obispo, Santa Clara, Sonoma, Tulare, and Yolo.

To estimate the expenditures of those who died during the waiting period, we assumed that the expenditures for disabled dual eligibles who died each year were 5.6 times greater than the expenditures of disabled dual eligibles who survived the year.⁷ Therefore, we estimated the Medicaid expenditures per dying SSDI beneficiary in the waiting period by multiplying the expenditures per surviving pre-dual (\$8,943) by 5.6. The weighted average of the 1994 to 1995 Medicaid expenditures of beneficiaries in the waiting period who were expected to die (4 percent of beneficiaries each year) and the expenditures of beneficiaries who were expected to live was \$10,589.

2. U.S. Estimate for 2002 Per-Person Medicaid Spending for Those in the Waiting Period

To estimate the national average per-person Medicaid expenditures for those in the waiting period in 2002, we began by comparing the Medicaid expenditures for those in

⁷ According to a large body of literature, the Medicare expenditures of individuals that died during the year are five to six times as high as Medicare expenditures of individuals that survived the year. See, for example, Lubitz and Riley, 1993.

the waiting period (as estimated from the pre-duals data) with the Medicaid expenditures for all blind and disabled Medicaid beneficiaries, according to data from the Medicaid Statistical Information System (MSIS). As shown in column 4 of Table A.3., the per-person Medicaid spending for those in the waiting period in 1995 was 46 percent higher than the per-person spending for all blind and disabled Medicaid beneficiaries across the 12 states for which we have waiting-period data.⁸ We assumed for purposes of our estimates that this 46 percent differential can be applied to all states for 1995. Accordingly, we multiplied the national average per-person Medicaid spending for the blind and disabled in 1995 (\$8,435 according to MSIS data) by 1.46 to obtain a national average per-person Medicaid expenditure for those in the waiting period in 1995 of \$12,297. Finally, we inflated this estimate to 2002 dollars, assuming that the increase in Medicaid spending from 1995 to 2002 was 22 percent (or about 3 percent per year).⁹ Our final estimate of national average per-person Medicaid spending for those in the waiting period in 2002 is \$15,002.

3. Per-Person Medicare Expenditures for Medicaid–Medicare Beneficiaries Under the New Policy

a. Adjust Per-Person Medicaid Expenditures to Account for Higher Medicare Reimbursement Rates

If the Medicare waiting period were eliminated, Medicare would cover many of Medicaid's expenditures for services, primarily those for hospital, physician, lab and X-ray, and some home health care and nursing facility services. Because Medicare reimbursement rates are generally higher than Medicaid's, we first inflated hospital and physician services to take into account the higher reimbursement rates that Medicare would have paid for these services in 1994–95. To do this, we multiplied the average Medicaid physician expenditures incurred by those in the waiting period in each state by the state's ratio of Medicare to Medicaid reimbursement rates, according to the 2000 data reported in a Medi-Cal Policy Institute report on state-by-state Medicaid physician fees (Menges et al., 2001, Exhibit G, p. 22). Across the 12 states for which we had data, Medicaid reimbursement rates for physician services

⁸ Medicaid spending for those in the waiting period was 19 to 81 percent higher in the 12 states, averaging 46 percent higher across those states when weighted by the number of individuals in the waiting period. Waiting period costs are higher mostly because of inpatient expenditures incurred when individuals first become disabled. According to pre-duals data, Medicaid expenditures are about 25 percent higher during the first year of the waiting period than during the second year. Expenditures likely stabilize at a lower level after the second year.

⁹ The average annual rate of growth in per-beneficiary Medicaid spending for disabled beneficiaries was about 3 percent a year from 1995 to 2000. The growth in Medicare per capita spending for the disabled was also about 3 percent a year over the period from 1995 to 2002, according to the Medicare U.S. Per Capita Cost data produced by CMS.

were about 70 percent of Medicare reimbursement rates. Likewise, according to MedPAC's 2003 report to Congress on Medicare payment policy, the hospital payment-to-cost ratios for Medicaid were 97 percent of Medicare's in 1994 and 94 percent of Medicare's in 1995 (MedPAC 2003, Table D-13, p. 278). We thus inflated inpatient and outpatient hospital expenditures to reflect Medicare's somewhat higher reimbursement rates. Finally, because we have no firm evidence of differences, we assumed that Medicaid and Medicare payment rates are equivalent for the other services that Medicare would cover, such as lab and X-rays, home health, and nursing facility care.

After adjusting for Medicare's higher reimbursement rates, we estimated that the total (Medicaid and Medicare) reimbursements would have been \$13,280 per person in the waiting period in 1995 had Medicare been the primary payer, 8 percent higher than if Medicaid had been the primary payer.

b. Compute Medicare Share of Total Reimbursements

We next computed the share of the \$13,280 that Medicare would cover. (Medicaid would still be responsible for a portion of these expenditures in the form of cost-sharing for Medicare-covered services and because Medicaid covers services not covered by Medicare, such as prescription drugs.) To do this, we began by calculating the average percentage of costs that Medicare covers for disabled dual eligibles, by type of service, across the eight states reported in Dale and Schmitz (2001). We then multiplied these percentages by pre-duals' average Medicaid expenditures for each type of service. For example, Medicare covers approximately 90 percent of the inpatient hospital expenditures of dual eligibles. Therefore, we multiplied the inpatient expenditures of pre-duals by 90 percent to determine what the Medicare expenditures would be if these pre-duals were eligible for Medicare. We assumed that Medicare would cover none of the expenses for those services that are covered only by Medicaid, such as prescription drugs. Overall, we estimated that Medicare would cover approximately 57 percent of the expenditures of Medicaid beneficiaries in the waiting period, had they been eligible for Medicare, and that Medicaid would continue to pay 43 percent of these expenses.¹⁰

Thus, if the waiting period were eliminated, Medicare would be responsible for paying \$7,570 (in 1995 dollars) per Medicaid–Medicare beneficiary.

¹⁰ The Medicare share across the eight states we examined ranged from 53 to 62 percent. It averaged 57 percent, weighted by the number of beneficiaries in each state.

c. Inflate to 2002 Dollars

We used the growth in the Medicare United States Per Capita Cost for disabled beneficiaries from 1995 to 2002 (which was 20.5 percent) to inflate our per-person Medicare estimate of \$7,570 to 2002 dollars. Our estimate of Medicare expenditures per Medicaid beneficiary in the waiting period is \$9,122 in 2002.

4. Per-Person Medicaid Expenditures Under the New Policy

Under the current policy, we estimated (in II.A.2.) that Medicaid paid \$15,002 per beneficiary in the waiting period in 2002. Under the new policy, we assumed that Medicaid would be responsible for paying 43 percent of the \$15,002 (\$6,451), and that Medicare would cover the remainder. We estimated that Medicaid's share would be 43 percent by following the same methodology described in II.A.3.b. Here, however, we assumed that Medicaid cost-sharing would be based on a percentage of Medicaid reimbursement rates, rather than on Medicare's higher reimbursement rates.¹¹

5. Per-Person Medicare Expenditures for Non-Medicaid Beneficiaries (Non-Duals)

If the waiting period were eliminated for all SSDI beneficiaries, Medicare would incur costs for non-Medicaid beneficiaries as well as for Medicaid beneficiaries. As noted earlier, we assumed that 40 percent of those in the waiting period would be covered by Medicaid (about 504,000 individuals), and 60 percent (about 756,000 individuals) would be non-Medicaid beneficiaries. The Medicare expenditures for Medicaid beneficiaries were computed by multiplying the number of Medicaid–Medicare beneficiaries (504,000) by \$9,122 (the per-beneficiary costs that Medicare would take over for Medicaid). We assumed that non-Medicaid beneficiaries in the waiting period would have Medicare expenditures that are 60 percent of those who are eligible for Medicaid, or \$5,473 per person per year.¹²

¹¹ Some states in recent years have continued to base their cost-sharing on the higher Medicare rates, even though federal law no longer requires them to do so, but we assume that current state budget pressures have resulted in only a small number of states still following this practice.

¹² We base this assumption on two sources. Murray and Schatto (1998) report that aged and disabled beneficiaries who received only Medicare had annual Medicare expenditures of \$4,228 (according to the 1995 Medicare Current Beneficiary Survey), 60 percent of the \$7,047 in annual Medicare expenditures of those who received both Medicaid and Medicare. Similarly, according to the 1999 Medicare Current Beneficiary survey, among disabled non-institutionalized Medicare beneficiaries, the annual personal health care expenditures were \$4,819 for those who received only Medicare, 60.5 percent of the \$7,960 annual Medicare expenditures for those who received both Medicare and Medicaid (Liu and Sharma, 2002).

B. TOTAL MEDICAID EXPENDITURES, MEDICAID SAVINGS, AND MEDICARE EXPENDITURES UNDER THE NEW POLICY

1. Medicaid Savings

We multiplied \$6,451 by the number of Medicaid beneficiaries in the waiting period (about 504,000) to determine the expenditures that Medicaid would still incur under a new policy that eliminated the Medicare waiting period (about \$3.3 billion). We subtracted this estimate from the \$7.6 billion in expenditures that Medicaid incurred under the old policy (504,000 X \$15,002) to estimate that Medicaid would save \$4.3 billion under the new policy.

2. Medicare Spending for Medicaid–Medicare Beneficiaries (Duals)

By multiplying the number of Medicaid beneficiaries in the waiting period (about 504,000) by \$9,122, we estimated that Medicare would pay about \$4.6 billion for Medicaid–Medicare beneficiaries under the new policy.

3. Medicare Expenditures for Non-Medicaid Beneficiaries (Non-Duals)

We multiplied \$5,473 by the number of non-Medicaid SSDI beneficiaries in the waiting period (about 756,000) to estimate the total Medicare expenditures for non-Medicaid SSDI beneficiaries in the waiting period (about \$4.1 billion).

C. STATE AND FEDERAL SHARE OF EXPENDITURES AND SAVINGS

1. State and Federal Savings

The net federal savings (\$2.5 billion) that would result from eliminating the Medicaid waiting period for all states combined was computed by multiplying the total Medicaid savings (\$4.3 billion) by the average Federal Medical Assistance Percentage (57%). The state savings (\$1.8 billion) was calculated by subtracting the federal savings from the total Medicaid savings.

2. Net Federal Expenditures

We subtracted the federal share of Medicaid savings (\$2.5 billion) from the sum of Medicare expenditures for Medicaid beneficiaries (\$4.6 billion) and for non-Medicaid beneficiaries (\$4.1 billion) to estimate the net federal expenditures resulting from the new policy. Thus, we estimated that the net federal expenditures from eliminating the waiting period are \$6.2 billion.

**D. MEDICARE EXPENDITURES AND MEDICAID SAVINGS IF MEDICAID
COVERS 30 PERCENT OF THOSE IN THE WAITING PERIOD RATHER
THAN 40 PERCENT**

As discussed in the issue brief and in section I.B., above, our main estimates are based on the assumption that Medicaid currently covers 40 percent of those in the waiting period. If we assumed instead that Medicaid only covers 30 percent, our estimate of increased Medicare expenditures in 2002 would drop from \$8.7 billion to \$8.3 billion, since non-duals cost Medicare only about 60 percent of what duals cost. Medicaid savings would drop from \$4.3 billion to \$3.2 billion, since there would be fewer Medicaid costs for Medicare to take over.