#### ACTUARIAL NOTE Number 147 March 2006

### SOCIAL SECURITY ADMINISTRATION Office of the Chief Actuary Baltimore, Maryland

### VARIABLE SUPPLEMENTARY MEDICAL INSURANCE PREMIUMS

by Jacqueline A. Walsh & Bert M. Kestenbaum

Prior to 1987 the amount paid by all persons enrolled in Medicare's Supplementary Medical Insurance (SMI) program was based on the standard premium set by the Centers for Medicare & Medicaid Services (CMS). Persons who also receive Social Security benefits under the Old-Age, Survivors, and Disability Insurance (OASDI) program have the premium deducted from their benefit unless the premium is being paid by a third party or the premium is larger than the benefit amount. Beginning in January 1987 some beneficiaries with premium withholding were eligible for a smaller, nonstandard premium, also called "variable premium" (VSMI), under section 1839(f) of the Social Security Act. Briefly, the provision—quoted below—shelters certain beneficiaries from a reduction in their benefit check which is a consequence of the increase in their SMI premium being greater than the amount of the Social Security cost-ofliving adjustment (COLA).

"(f) For any calendar year after 1988, if an individual is entitled to monthly benefits under section 202 or 223 or to a monthly annuity under section 3(a), 4(a), or 4(f) of the Railroad Retirement Act of 1974 for November and December of the preceding year, if the monthly premium of the individual under this section for December and for January is deducted from those benefits under section 1840(a)(1) or section 1840(b)(1), and if the amount of the individual's premium is not adjusted for such January under subsection (i), the monthly premium otherwise determined under this section for an individual for that year shall not be increased, pursuant to this subsection, to the extent that such increase would reduce the amount of benefits payable to that individual for that December below the amount of benefits payable to that individual for that November (after the deduction of the premium under this section). For purposes of this subsection, retroactive adjustments or payments and deductions on account of work shall not be taken into account in determining the monthly benefits to which an individual is entitled under section 202 or 223 or under the Railroad Retirement Act of 1974."

Even though this section of the Act begins "For any calendar year after 1988..." because of a subsequent, minor change to the Act, in fact the law was passed in 1984 to be effective January 1986. However, because there was no increase in the standard SMI premium for January 1986, the first effect of this provision was for January 1987.

In this note, we describe in detail the eligibility criteria and the computational method for VSMI, and the dollar effects of VSMI in 2005 and 2006. Two points should be kept in mind. First, that SMI premiums are deducted one month in advance, and thus the December premium is deducted from the benefit for November and the January premium is deducted from the benefit for December. The annual OASDI COLA increase and the SMI premium increase arrive together for the December payment, and the essence of VSMI is that the premium is affected by the size of the COLA. Second, that the SMI premium is not affected by any changes in benefit amounts other than the COLA. Changes in the benefit amount due to the imposition or removal of offset for receipt of government pension or workers' compensation or to change in family size do not affect the premium.

The Medicare Modernization Act of 2003 added Part D (prescription drug benefit) to the SMI program, but in this note the term "SMI premium" refers to the premium for Part B (medical insurance).

# **VSMI ELIGIBILITY CRITERIA**

As quoted above from the Social Security Act, for a person to be eligible for a variable premium, a premium must be deducted from the November and December benefit payments the person receives. If the beneficiary's premium is being paid by a third party, such as a State, the standard premium applies. If the third party begins payment and ends payment between one general premium increase and the next, the variable premium in effect before the third-party payment began is again effective after the third-party payment ends. Under the Government Pension Offset provision, the Social Security benefit of certain persons who receive a government pension based on work not covered by the Social Security program is reduced by two-thirds of that pension. Federal government pensions increase for a cost-of-living adjustment in December, and there is in place an automated process for SSA to receive information about those increases from the Office of Personnel Management and to increase the offset amounts and correspondingly decrease the benefit amounts. According to SSA regulations the January SMI premium is then redetermined, and, in particular, additional beneficiaries will qualify for VSMI. This is not the case, however, for persons receiving a non-Federal government pension, where such an automated process is not in place.

# **VSMI COMPUTATION**

The VSMI computation is illustrated by the following:

Illustrative operation of VSMI for the December 2005 COLA and the January 2006 SMI premium increase					
Prior to COLA and SMI premium increase:					
Illustrative OASDI Monthly Benefit Amount					
(MBA) for November 2005	\$200.40				
Standard 2005 SMI premium for December					
2005 deducted from the MBA for					
November 2005	78.20				
Net monthly amount for November 2005 paid					
in December 2005, after deducting the					
standard SMI premium and rounding					
down to the next lower dollar	122.00				
After COLA and SMI premium increase:					
OASDI MBA for December 2005, after the					
4.1% COLA and rounding down to the					
next lower dime	\$208.60				
Standard 2006 SMI premium for January					
2006 deducted from the MBA for					
December 2005	88.50				
Net monthly amount for December 2005 that					
would be paid in January 2006, after					
deducting the standard SMI premium and					
rounding down to the next lower dollar,					
but before the effect of VSMI	120.00				
Net monthly amount that <i>will</i> be paid, after					
effect of VSMI	122.00				
VSMI premium paid	86.50				

Roughly speaking, the variable premium applies when the increase from the beneficiary's current premium to the new standard premium would be greater than the benefit increase due to the COLA. However, because benefit payments are rounded down to a dollar value, a more precise statement of the criterion for applicability of VSMI is that the December benefit reduced by the new standard premium and then rounded down to the next dollar is smaller than the November benefit reduced by the applicable premium and then rounded down to the next dollar. As an example where the COLA increase is less than the SMI premium increase, yet VSMI does not apply, we consider a beneficiary with a Monthly Benefit Amount (MBA) of \$230.10 in November 2005 and paying the standard premium of \$78.20; the COLA increases his benefit by \$9.40 to \$239.50 in December, which is less than the \$10.30 increase in the standard premium to \$88.50. Yet, as can be seen in Table 1, this beneficiary is not eligible for VSMI.

There is no single threshold value that separates those who qualify for VSMI from those who do not. The bolded lines in Table 1 represent, respectively, the largest benefit amount such that everyone with that amount or less will qualify for VSMI and the smallest benefit amount such that everyone with that amount or more and paying the standard premium in November will not qualify. These thresholds differ substantially.

The calculation in Table 1 is for beneficiaries entitled on one account. For dually-entitled beneficiaries—those with a worker benefit and an auxiliary or survivor benefit—the payment for any month is the primary benefit reduced for the premium and rounded down to the nearest dollar plus the secondary benefit rounded down to the nearest dollar. If a beneficiary is triply-entitled the third benefit is treated like the second.

The definition of benefit amount for VSMI purposes differs somewhat from the usual definition. Specifically, it is the amount payable after reduction for age, reduction for family maximum, workers' compensation offset, Government Pension Offset and the addition of delayed retirement credits, but before work deductions, overpayment reductions, attorney fee deductions, garnishment withholdings, and alien taxation.

November 200	)5 (pre-COLA)	December 200	5 (post-COLA)	Changes to MBA and monthly amount payable		
MBA prior to SMI premium withholding	Amount payable after deducting 2005 standard premium (\$78.20)	MBA prior to SMI premium withholding	Amount payable after deducting 2006 standard premium (\$88.50)	Increase in MBA	December check minus November check prior to effect of VSMI	Eligible for VSMI?
\$229.40	\$151.00	\$238.80	\$150.00	\$9.40	-\$1.00	Yes
229.50	151.00	238.90	150.00	9.40	-1.00	Yes
229.60	151.00	239.00	150.00	9.40	-1.00	Yes
229.70	151.00	239.10	150.00	9.40	-1.00	Yes
229.80	151.00	239.20	150.00	9.40	-1.00	Yes
229.90	151.00	239.30	150.00	9.40	-1.00	Yes
230.00	151.00	239.40	150.00	9.40	-1.00	Yes
230.10	151.00	239.50	151.00	9.40	0	No
230.20	152.00	239.60	151.00	9.40	-1.00	Yes
230.30	152.00	239.70	151.00	9.40	-1.00	Yes
230.40	152.00	239.80	151.00	9.40	-1.00	Yes
230.50	152.00	239.90	151.00	9.40	-1.00	Yes
250.90	172.00	261.10	172.00	10.20	0	No
251.00	172.00	261.20	172.00	10.20	0	No
251.10	172.00	261.30	172.00	10.20	0	No
251.20	173.00	261.40	172.00	10.20	-1.00	Yes
251.30	173.00	261.60	173.00	10.30	0	No
251.40	173.00	261.70	173.00	10.30	0	No
251.50	173.00	261.80	173.00	10.30	0	No
251.60	173.00	261.90	173.00	10.30	0	No
251.70	173.00	262.00	173.00	10.30	0	No
251.80	173.00	262.10	173.00	10.30	0	No
251.90	173.00	262.20	173.00	10.30	0	No
252.00	173.00	262.30	173.00	10.30	0	No

Table 1.—Illustrative effect of the VSMI on monthly benefit checks in December 2005

There are two complicating factors affecting the premium determination, and in both situations the VSMI is calculated as if they did not exist. One is the *penalty provision*—for each full year that an eligible beneficiary did not enroll in SMI, a 10-percent penalty is charged. The penalty surcharge is the <u>standard</u> premium multiplied by the total percentage.

The second is that beneficiaries participating in certain Medicare + Choice Organizations are granted a reduction in their SMI premiums. Various reduction amounts are determined by the Centers for Medicare & Medicaid Services on a yearly basis.

How is the nonstandard premium computed? If the payment based on the new standard premium for December is less than the payment for November by K dollars, the new nonstandard premium reflected in the December payment will be K dollars less than the new standard premium. (If this would result in a premium which is less than the premium reflected in the November payment—which could happen if an increase in the Government Pension Offset caused the Social Security benefit to decrease—the premium would be made equal to the premium reflected in the November payment.)

Because of its cumulative effect, the VSMI can produce substantial savings over time for low-benefit individuals. To illustrate, Table 2 (on the next page) shows the effects of this provision for a beneficiary with an MBA of \$50.00 in 1986 and COLA increases afterwards. Because of the VSMI provision, the beneficiary receives monthly checks of \$34.00 from January 1986 through the present year; absent VSMI, the 2006 payment would be reduced to zero.

				Results including the effect of the VSMI		Results if VSMI were not available	
			Standard SMI	November	VSMI actually	December	Reduction in
Date	COLA	MBA	premium	check amount	paid	check amount	monthly check
January 1986		\$50.00	\$15.50				
January 1987	1.3%	50.60	17.90	\$34.00	\$15.90	\$32.00	\$2.00
January 1988	4.2	52.70	24.80	34.00	17.80	27.00	7.00
January 1989	4.0	54.80	27.90	34.00	19.90	26.00	8.00
January 1990	4.7	57.30	28.60	34.00	22.60	28.00	6.00
January 1991	5.4	60.30	29.90	34.00	25.90	30.00	4.00
January 1992	3.7	62.50	31.80	34.00	27.80	30.00	4.00
January 1993	3.0	64.30	36.60	34.00	29.60	27.00	7.00
January 1994	2.6	65.90	41.10	34.00	31.10	24.00	10.00
January 1995	2.8	67.70	46.10	34.00	33.10	21.00	13.00
January 1996	2.6	69.40	42.50	34.00	34.50	26.00	8.00
January 1997	2.9	71.40	43.80	34.00	36.80	27.00	7.00
January 1998	2.1	72.80	43.80	34.00	38.80	29.00	5.00
January 1999	1.3	73.70	45.50	34.00	39.50	28.00	6.00
January 2000	2.5	75.50	45.50	34.00	41.50	30.00	4.00
January 2001	3.5	78.10	50.00	34.00	44.00	28.00	6.00
January 2002	2.6	80.10	54.00	34.00	46.00	26.00	8.00
January 2003	1.4	81.20	58.70	34.00	46.70	22.00	12.00
January 2004	2.1	82.90	66.60	34.00	48.60	16.00	18.00
January 2005	2.7	85.10	78.20	34.00	50.20	6.00	28.00
January 2006	4.1	88.50	88.50	34.00	54.50	0.00	34.00

Table 2.—Illustrative cumulative effect of the VSMI on a beneficiary whose MBA in 1986 was \$50.00

# **VSMI EFFECTS**

In most cases, the SMI premium is automatically computed by the Benefit Rate Increase (BRI) computer program which runs at the end of the November operating month. Alerts are generated for cases where manual action is needed, and then the benefit authorizer is responsible for determining the premium. For example, an alert is generated when the second benefit of a dually-entitled person is not being paid and it is not known whether this is because of work deductions or because of Government Pension Offset.

Other computer programs calculate SMI premiums, as well. For example, if a benefit for November is subsequently adjusted upward to reflect additional earnings, the computer program effecting the adjustment will check whether the COLA amount increased and, if necessary, will recompute the SMI premium.

Here we present the BRI results for both this past November, when the COLA was 4.1 percent and the premium increase was \$10.30, and the previous November, when the COLA was 2.7 percent and the premium increase was \$11.60. These results are based on a 1-in-20 sample of beneficiary records before and after BRI. For January 2006, the BRI program computed the SMI premium of 32.0 million beneficiaries in payment status whose December premium was deducted from their November benefit. Of this total, 951 thousand beneficiaries will have the advantage of the variable premium, according to the BRI calculations. Furthermore, we determined that 450 thousand of these beneficiaries were eligible for the variable premium entirely because of past VSMI. That is, had the standard premium been deducted from the November benefit, the beneficiary would not have been eligible for VSMI in the December benefit. As to the distribution of the amount of the VSMI advantage, 59 percent of variable premiums are within \$10 of the standard premium and 89 percent are within \$20. The VSMI provision will cost the SMI Trust Fund approximately \$112 million in reduced premium collections in 2006, of which \$24 million is due to the accumulation of past VSMI.

The effects of VSMI were more pronounced the previous year, when the COLA was smaller and the premium increase was larger. The results from BRI premium calculations for January 2005 are that 1.8 million of the 31.8 million beneficiaries in payment status with the December premium deducted from their November benefit qualify for a nonstandard premium of less than \$78.20. For those with a nonstandard premium, we determined that 44 thousand beneficiaries qualify for the nonstandard premium solely because of past accumulated VSMI. Among VSMI premiums, 79 percent were at least \$68.20 and 98 percent were at least \$58.20. The SMI Trust Fund received premiums that were reduced by approximately \$133 million in 2005 due to VSMI, of which \$5 million resulted from past VSMI.

Table 3 shows the distribution of VSMI reductions for 2005 and 2006.

		2006		2005			
Reduction in		Percent of			Percent of		
premium due	Number	total for	Cumulative	Number	total for	Cumulative	
to VSMI	affected	year	percentage	affected	year	percentage	
\$1	65,560	6.9%	6.9%	359,980	20.1%	20.1%	
2	66,500	7.0	13.9	196,380	11.0	31.1	
3	65,140	6.9	20.7	151,920	8.5	39.5	
4	57,900	6.1	26.8	138,120	7.7	47.3	
5	59,540	6.3	33.1	114,180	6.4	53.6	
6	58,300	6.1	39.2	106,140	5.9	59.6	
7	54,260	5.7	44.9	103,700	5.8	65.3	
8	43,600	4.6	49.5	96,860	5.4	70.7	
9	46,040	4.8	54.4	81,440	4.5	75.3	
10	42,880	4.5	58.9	72,340	4.0	79.3	
11	38,980	4.1	63.0	64,040	3.6	82.9	
12	39,000	4.1	67.1	59,460	3.3	86.2	
13	37,700	4.0	71.0	50,020	2.8	89.0	
14	34,540	3.6	74.7	42,520	2.4	91.4	
15	30,660	3.2	77.9	28,540	1.6	93.0	
16	28,800	3.0	80.9	23,400	1.3	94.3	
17	25,660	2.7	83.6	19,220	1.1	95.4	
18	19,900	2.1	85.7	16,580	0.9	96.3	
19	17,100	1.8	87.5	15,120	0.8	97.1	
20	15,800	1.7	89.2	13,900	0.8	97.9	
21	14,800	1.6	90.7	9,700	0.5	98.5	
22	13,340	1.4	92.1	8,140	0.5	98.9	
23	11,380	1.2	93.3	6,500	0.4	99.3	
24	12,400	1.3	94.6	4,320	0.2	99.5	
25	9,600	1.0	95.6	3,060	0.2	99.7	
26	8,280	0.9	96.5	2,200	0.1	99.8	
27	6,760	0.7	97.2	980	0.1	99.9	
28	5,940	0.6	97.9	540	0.0	99.9	
29	4,880	0.5	98.4	500	0.0	99.9	
30 or more	15,540	1.6	100.0	1,440	0.1	100.0	
Total	950,780	100.0		1,791,240	100.0		

 Table 3.—Beneficiaries with a VSMI premium in 2006 or 2005, respectively, distributed by the amount of reduction in the standard SMI premium