



Federal Accounting Standards Advisory Board

April 20, 2005

TO: Members of FASAB
FROM: Richard Fontenrose, Assistant Director
THROUGH: Wendy Comes, Executive Director
SUBJECT: Social Insurance – Tab A

NOTE: FASAB staff prepares memos and other materials to facilitate discussion of issues at Board meetings. This material is presented for discussion purposes only; it is not intended to reflect authoritative views of the FASAB or its staff. Official positions of the FASAB are determined only after extensive due process and deliberations.

This paper continues the discussion of the Social Insurance liability from the March 2005 meeting. This paper:

- Explains how the eligibility and performance program characteristics are related.
- Explores further the choice of “threshold eligibility” as the obligating event.
- Explains how the “threshold eligibility” obligating event would be applied to Medicare.
- Continues the discussion of social insurance liability recognition points, measures, and displays, in Appendix A.

The staff presents the following questions for the Board’s consideration:

Does the Board believe the draft language below (pp. 5-6) regarding program characteristics is a reasonable summary of the characteristics relevant to determining that a present obligation exists for Social Security in advance of the due and payable date?

After reviewing Section II of this memorandum (“Threshold Eligibility as the Obligating Event,” pp. 6-10), does the Board wish to discuss beginning work in covered employment as the obligating event?

In Section III of this memorandum (“Applying Threshold Eligibility to Medicare,” pp. 11-14) the staff concludes that the “threshold eligibility” obligating event is applicable to Medicare Hospital Insurance and that the obligating event for Supplemental Medical Insurance should be the point when the participant decides to enroll. Does the Board agree?

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I. Program Characteristics

Essential Characteristics of a Liability

The Social Insurance Liability Project is coordinated with the Elements – Liabilities Project. Ms. Wardlow's February 17, 2005 memorandum, paragraph L7, presents two liability characteristics. First, the federal entity has a present obligation, which would require a past event. Second, "under existing conditions, the federal entity is required to settle the obligation at a specified or determinable date, when a specific event occurs, or on demand."

The staff believes that certain characteristics of Social Security and Medicare and other social insurance programs support the conclusion that a present obligation exists for these programs, in conjunction with a past obligating event, prior to the point when benefit payments are due and payable. The staff memorandum for the March FASAB meeting listed eligibility and performance as two essential social insurance characteristics.

When a draft exposure draft is prepared one or both of these two characteristics may serve as the basis for the Board's conclusion that a present obligation exists. Staff wishes to explore further the members' views regarding the creation of a present obligation and identify the majority view regarding the underlying characteristic(s) that is most relevant. It is feasible to include both underlying characteristics in the basis for conclusions if needed since the basis for conclusions can be used to offer various reasons for reaching the same conclusion as long as there is majority support for the same conclusion.

The characteristics presented in March were drafted as follows:

a. Eligibility.

Current law provides the conditions that, once met, qualify the participants to receive a specific benefit for a specific period of time. Such benefits begin within a discernable range of dates and end upon occurrence of a specified event. The specificity of the law with respect to qualification for benefits, timing and amount of benefit payments, and provision of recourse if benefits are unlawfully withheld may influence the determination of what past transaction (obligating event) creates a present obligation to make a future sacrifice consistent with the liability definition.

b. Performance.

The participants are performing under the terms of the program. With respect to Social Security, participants work in covered employment and the wages earned therein determine the amount they (and their employers) pay in dedicated taxes and their future benefits. Participants can and do reasonably expect and rely on the future benefits. They and their employers arrange their long-term finances based thereon. Moreover, performing under the terms of the program and paying dedicated taxes can be viewed as exchanging current resources for future benefits. The participatory nature of the program contributes to the belief that

1 future benefits arise or accrue as a result of events occurring before or during the
2 period. This connection between future benefit payments and past events –
3 perhaps coupled with meeting conditions for eligibility – suggests that a present
4 obligation to make a future sacrifice arises from these past events.

5
6 c. Other
7

8 Other characteristics of Social Security that may be relevant include the
9 specificity of benefits and benefit formulas; the “permanence of funding;” and
10 direct communication benefit information. While the Board’s consensus in prior
11 discussions was that the existence of funding is not required for a liability to exist,
12 some believe the permanence of funding adds weight to the notion that an
13 obligation exists, especially when the participants are providing that funding.
14 Current law not only provides all the means to determine the entitlement, amount
15 and timing of benefits but also provides a perpetual source of funding.
16

17 The staff presumes that the concepts of exchange and/or nonexchange
18 transaction would be relevant but not essential to meet a liability definition. The
19 occurrence of an exchange transaction traditionally has triggered the recording
20 an accounting event, but a liability could exist without either an exchange or a
21 nonexchange transaction occurring, e.g., a tort or natural disaster.
22

23 At the March FASAB meeting several members asked the staff to explain the
24 relationship between the two characteristics. One member said that eligibility and
25 performance were alternative incompatible core views of the program because eligibility
26 focuses on Social Security as a social program while performance focuses on its
27 pension aspects – virtually an exchange event. Several members said that eligibility
28 was a key concept for meeting the liability definition.
29

30 Another member suggested defining participation and relating eligibility to it. For him
31 eligibility means one has gotten to a certain point in one’s participation, e.g., the first day
32 one is employed, or 40 quarters, or retirement age. Specifying participation,
33 performance, and other characteristics would define the universe of people that the
34 standard applies to. He favored a broader approach rather than a narrow, legalistic one
35 where the Government is legally obliged to do something because people are eligible;
36 but in order to be eligible one must meet all the tests, including staying alive.
37

38 In staff’s view, the key distinction between the two characteristics is the emphasis on
39 “equity.” Eligibility focuses on the terms of the program under current law – the
40 legislative agreement between those eligible to participate in the program and the
41 Government. Performance introduces a notion of fairness by describing the reasonable
42 expectations induced by the program and the reliance of the participants on a future
43 payment being made in return for their current actions. The equity notion introduced in
44 the “performance” characteristic may be relevant to members if they believe the
45 likelihood that the Government will alter the program in the future is relevant to
46 assessing whether a liability exists today. The strength of reliance and the “exchange-
47 like” characteristics weigh on individual’s judgments about possible future changes.
48 Because staff believes that changes in law that may occur in the future are not relevant,
49 staff believes the equity notion embodied in the performance characteristics should not
50 be a factor in the basis for the Board’s conclusions.
51

1 In addition to the equity notion, the performance characteristic emphasizes the
2 connection between current effort and future compensation to a greater degree than the
3 eligibility characteristic. The fact that work in covered employment for a set wage during
4 the period and the worker's future benefits are related causally is relevant to the notion
5 that a present obligation exists as a result of a past transaction or event. Staff believes
6 that this notion has relevance and should be included in the basis for the Board's
7 conclusions.

8
9 The staff notes that recently the Governmental Accounting Standards Board (GASB)
10 tentatively agreed that obligations arising out of exchange transactions that are legally
11 enforceable are liabilities; and that obligations arising out of nonexchange transactions
12 are liabilities when all eligibility requirements are met. The GASB tentatively concluded
13 that eligibility is a surrogate for legal enforceability.¹
14

15 Staff proposes the following discussion of characteristics relevant to "present obligation"
16 for the Board's consideration:
17

18 Eligibility and Links between Current Events and Future Payments. 19

20 For Social Security, current law provides the conditions that, once met, qualify
21 the participants to receive a specific benefit for a specific period of time. Such
22 benefits begin within a discernable range of dates and end upon occurrence of a
23 specified event. The specificity of the law with respect to qualification for benefits,
24 timing and amount of benefit payments, and provision of recourse if benefits are
25 unlawfully withheld influenced the determination of what past transaction
26 (obligating event) creates a present obligation to make a future sacrifice
27 consistent with the liability definition. The Board evaluated the steps leading to
28 being eligible to receive benefit payments and determined that the past event that
29 creates a present obligation for Social Security is work in covered employment
30 combined with attainment of fully insured status upon 40 quarters of work and
31 that the expense associated with future benefit payments also should be
32 recognized upon occurrence of that event.
33

34 In addition, participants in Social Security perform work in covered employment
35 which causes them to be eligible for future benefits when other conditions are
36 met. The wages earned in covered employment and other factors (for example,
37 indexing of wages for inflation) determine their future benefits. The relationship of
38 work in covered employment to future benefits means that a portion of future
39 benefits are attributable to events occurring before or during the period being
40 reported on. This connection between future benefit payments and past events –
41 perhaps coupled with meeting conditions for eligibility – suggests that a present
42 obligation to make a future sacrifice arises from these past events. The Board
43 evaluated the link between events leading to benefit payments and determined
44 that a present obligation is caused by work in covered employment combined
45 with attainment of fully insured status upon 40 quarters of work and that the
46 expense associated with future benefit payments also should be recognized
47 upon occurrence of that event.
48

¹ Governmental Accounting Standards Board, Minutes of Meetings, March 15 and April 5-7, 2005, Topic 2: Conceptual Framework—Elements of Financial Statements.

1 These characteristics are together sufficient to determine that a present
2 obligation exists. However, the Board is aware that there are varying
3 perspectives regarding the program. Some may find other characteristics
4 relevant. Alternative characteristics are the *specificity* of benefits and benefit
5 formulas; the “*permanence of funding*,” and *direct communication* of benefit
6 information. With respect to the permanence of funding, the Board notes that,
7 while the existence of funding is not required for a liability to exist, some believe
8 the permanence of funding gives weight to the notion that an obligation exists,
9 especially when the participants are providing that funding. Current law not only
10 provides all the means to determine the entitlement, amount and timing of
11 benefits but also provides a perpetual (but not unlimited) source of funding
12 through the combination of the trust fund and payroll taxes.

Does the Board believe the draft language immediately above regarding program characteristics is a reasonable summary of the characteristics relevant to determining that a present obligation exists for Social Security in advance of the due and payable date?

14 II. Threshold Eligibility as the Obligating Event

15
16 At the meeting in March the Board considered three obligating events for Social
17 Security: (1) full eligibility, (2) threshold eligibility, and (3) beginning work in covered
18 employment and a majority favored “threshold eligibility.” The staff memorandum for the
19 March FASAB meeting noted that potential obligating events other than “due and
20 payable” would recognize that the remaining unmet conditions are beyond the control of
21 the Government under current law, and the likelihood that the conditions will remain
22 unmet is remote to varying degrees within the population. Conditions beyond the control
23 of the Government include the passage of time, the aging of fully insured individuals,
24 and continued work in covered employment to become fully insured. Each of these
25 conditions is equally beyond the control of the entity.

26
27 The majority of the Board favored the “threshold eligibility” obligating event for Social
28 Security. Threshold eligibility is a notion similar to vesting.² Employee Retirement
29 Income Security Act defines a vested claim as one that is “nonforfeitable.”

30
31 The term “nonforfeitable” when used with respect to a pension benefit or right means a
32 claim obtained by a participant or his beneficiary to that part of an immediate or deferred
33 benefit under a pension plan which arises from the participant's service, which is
34 unconditional, and which is legally enforceable against the plan. For purposes of this
35 paragraph, a right to an accrued benefit derived from employer contributions shall not be
36 treated as forfeitable merely because the plan contains a provision described in section
37 1053(a)(3) of this title. [I.e., “A right to an accrued benefit derived from employer
38 contributions shall not be treated as forfeitable solely because the plan provides that it is
39 not payable if the participant dies (except in the case of a survivor annuity which is
40 payable as provided in section 1055 of this title).”]³

² Staff analogizes to “vesting” so that comparisons can be made to pension and other postemployment benefits accounting in the private sector. We recognize that the analogy is imperfect. Unlike pension benefits (but like “OPEB” – other postemployment benefits), Social Security benefits do not convey a property right – that is, changes in law can reduce or eliminate a participant’s benefits attributable to past participation. Nonetheless, there are similarities between attaining fully insured status through 40 quarters of work in covered employment and vesting.

³ 29 USC 1002, “Definitions,” par. 19. 29 USC 1053 provides ERISA’s “Minimum Vesting Standards.”

1
2 Threshold eligibility/vesting relates to conditions and performance. One achieves
3 threshold eligibility/vesting by performing under the program's conditions. The specific
4 conditions for receiving social insurance benefits are specified in current law. The
5 participant has recourse if benefits are unlawfully withheld.
6

7 The Social Security participants begin performing in accordance with the specified
8 conditions and accepting the conditions of the program when they begin working in
9 covered employment. As the participant continues to work in covered employment he or
10 she reaches the point of threshold eligibility for – or becomes vested in – certain
11 benefits.
12

13 Some argue that only vested benefits qualify as liabilities. In this view vesting is an
14 event which must occur along with the earning of pension credits over time. They
15 analogize to warranty expense where the condition that will result in a future
16 expenditure is inherent in the product when sold and not a future event.⁴ In this view
17 vesting is a necessary event. However, Harry L. Wolk and Terri M. Vaughan⁵ note that
18 this argument is not applicable in many cases, for example, bad debt expense where
19 the future default is not inherent in the initial loan. Wolk and Vaughan argue that the
20 default on a loan is a "one sided event" included in the measurement of the initial bad
21 debt expense and therefore an issue of measurement. They contrast this with a "two-
22 sided" event that would not be merely an issue of measurement.
23

24 Wolk and Vaughan argue that vesting is not an obligating event but a "one sided" or
25 secondary event or condition for which they recommend disclosure. They believe that
26 time spent on the job is the obligating event for pensions and other postemployment
27 benefits (OPEB). For them vesting is closer to an effect rather than a cause of pension
28 expense and liabilities.⁶
29

30 William H. Beaver⁷ has noted that there are numerous events related to an asset or a
31 liability over its life and that the choice of an obligating event (he called it a "critical
32 event") in a particular context must be guided by the objectives of financial reporting.
33 For private entities, Beaver said that future cash flows are of ultimate interest, which is
34 derived from the FASB Statement of Financial Accounting Concepts (SFAC) 1 objective
35 that financial reporting should provide information to help investors, creditors, and others
36 assess the amount, timing, and uncertainty of prospective net cash inflows to the related
37 enterprise. For Beaver, accruals could be viewed as a form of forecast about the future
38 based on current and past events, and accrual accounting can be viewed as a cost-
39 effective way of conveying expectations about future benefits or sacrifices.
40

41 Beaver noted that in the stream of events associated with an asset or liability there are
42 usually several candidates for the obligating event, which gives rise to controversy.
43

⁴ Lorensen, Leonard and Rosenfeld, Paul, "Vested Benefits – A Company's Only Pension Liability," *Journal of Accountancy*, October 1983, cited in Wolk, Harry L. and Terri M. Vaughan, "A Conceptual Framework Analysis of Pension and Other Postemployment Benefit Accounting," *Accounting Enquiries*, Vol. 2, No. 2, February 1993, p. 243 ("Wolk and Vaughan").

⁵ Wolk, Harry L. and Terri M. Vaughan, "A Conceptual Framework Analysis of Pension and Other Postemployment Benefit Accounting," *Accounting Enquiries*, Vol. 2, No. 2, February 1993. ("Wolk and Vaughan")

⁶ Wolk and Vaughan, p. 244.

⁷ Beaver, William H., "Problems and Paradoxes in the Financial Reporting of Future Events," *Accounting Horizons*, December 1991, p. 123. ("Beaver")

1 By definition, the critical event becomes the “past event” and all subsequent events are
2 future events. For initial measurement (as well as for subsequent measurements),
3 estimates of some future events are incorporated into the measurement of the asset or
4 liability. However, [the effect has been that] some future events are recognized, while
5 others are excluded. A major issue is – what are the criteria for deciding which to include
6 and which to ignore?⁸
7

8 Beaver noted that the usefulness of the phrase “past transaction or event” depended on
9 how the terms are defined, and that FASB concepts do not provide much definitional
10 help.
11

12 Donald J. Kirk⁹ noted that neither SFAC 6 nor SFAS 5 describe how a future probable
13 sacrifice should be measured at the time of initial recognition. That problem was left to
14 practice or later standards. No workable boundary was placed between today’s losses
15 and tomorrows. Kirk noted that telescoping future cash flows down to a single present
16 value obscures the lumpiness and uncertainty of projections.
17

18 Staff notes that recent FASB work regarding “expected value” and “fair value” will be
19 surveyed in the measurement phase of the project.
20

21 The threshold eligibility/vesting obligating event (and beginning work in covered
22 employment) focuses on the occurrence of economic events of consequence to the
23 Government. Social Security participants begin performing in accordance with the
24 specified conditions when they take the first step towards accepting the conditions of the
25 program. As the participant continues work in covered employment he or she reaches
26 the point of threshold eligibility for certain benefits.
27

28 The FASAB Chairman has noted that:
29

30 The foundation principle of accrual accounting is to measure the economic effects of an
31 event when the event occurs. An event may have multiple economic effects. Those effects
32 may happen at the time of the event or in the future, but they are all measured and reported
33 by accrual accounting at the time the casual event happens.
34

35 [For a hypothetical worker under Social Security], the casual event is work performed in
36 covered employment. Work in covered employment causes two cash flows immediately by
37 way of payroll deduction and remission to the Internal Revenue Service. The other is the
38 benefit payment which flows many years later after the individual’s retirement.¹⁰
39

40 The work-in-covered-employment obligating event for Social Security would result in the
41 liability characteristics being met each working day. Benefits are being credited each
42 day and therefore are accruing. Because of this and considering the “going concern”
43 convention, threshold eligibility/vesting may not be the critical event. The “going
44 concern” convention allows that the program will continue in operation and the benefits
45 defined in law will be provided. As stated by Financial Accounting Standards Board
46 (FASB) with respect to pension accounting:
47

⁸ Beaver, p. 124.

⁹ Kirk, Donald J., “Future Events: When Incorporating into Today’s Measurements,” *Accounting Horizons*, June 1990. (“Kirk”)

¹⁰ Remarks by David Mosso, Chairman, FASAB, to the American Accounting Association, Government and Nonprofit Section, Kennedy School of Government, Harvard University, April 1-2, 2005.

1 148. A number of respondents argued that a pension liability must be limited either to the
2 amount that would have to be paid on plan termination or to the amount of vested benefits.
3 Those arguments were based on the view that the employer has discretion to avoid any
4 obligations in excess of those limits. Some who preferred no recognition nevertheless
5 agreed that it is difficult to argue that at least unfunded vested benefits are not a liability.
6

7 149. The Board concluded that, in the absence of evidence to the contrary, accounting
8 should be based on a going-concern assumption that, as applied to pensions, assumes
9 that the plan will continue in operation and the benefits defined in the plan will be provided.
10 Under that assumption, the employer's probable future sacrifice is not limited to either the
11 termination liability or amounts already vested. The Board believes that the actuarial
12 measurement of the obligation encompasses the probability that some employees will
13 terminate and forfeit nonvested benefits. Benefits that are expected to vest are probable
14 future sacrifices, and the liability in an ongoing plan situation is not limited to vested
15 benefits. However, the Board was influenced by respondents' views of the nature of
16 vested and accumulated benefit obligations in its decision that a reported liability should
17 not be less than the unfunded accumulated benefit obligation. Some Board members
18 were also influenced by arguments that the accumulated benefit obligation, which requires
19 no estimate of future salary levels, is more reliably measurable than is the projected
20 benefit obligation.¹¹
21

22 Based on current law coupled with the going concern notion, individuals with 40, 35 or 2
23 quarters of work in covered employment – grouped appropriately for actuarial analysis –
24 have engaged in the primary event that results in a future benefit: work in covered
25 employment. Attainment of the 40th quarter of work in covered employment is a
26 secondary event of importance because it conveys fully insured status. However, it is
27 not the causal event triggering future benefits.
28

29 An analogy can be drawn to liabilities arising from injury claims as well. The causal
30 event is the event in which a third party is injured; not the events in which the third party
31 files a claim or a judge rules on the case. The Board's discussion of Supplemental
32 Security Insurance in March was consistent with this view as well. The Board tentatively
33 decided that an incurred but not reported approach would be conceptually sound. The
34 instance of whether a claim is ultimately filed is determined by the eligible individual. In
35 the case of Social Security, the attainment of 40 quarters of work in covered
36 employment also is determined by the worker subject to conditions in the economy.
37

38 To reiterate a point made in March, staff believes that the mere existence of a program
39 would not satisfy the requirement for a past obligating event. A program that is entirely
40 executory and therefore relates to costs that will be incurred in the future would not meet
41 the liability characteristics. For example, Federal employees' salaries next year would
42 not be a liability this year; likewise social insurance benefits to be credited next year
43 would not be a liability this year. Thus, at a minimum, actual participation in meeting the
44 conditions of the program is required to be considered an event for accounting purposes.
45 For example, if conditions to qualify for a one-time payment were simply the birth of a
46 child then birth could be an "event" relevant to obligations for that program.
47

48 A recent GASB Preliminary Views (PV) document addresses the question of obligating
49 events with respect to pollution remediation obligations.¹² The PV states that GASB

¹¹ FAS 87, *Employers' Accounting for Pensions*, par. 149.

¹² GASB Preliminary Views, *Accounting and Financial Reporting for Pollution Remediation Obligations*, March 25, 2005 (PV). The PV is available as a pdf file at the GASB Website, <http://www.gasb.org>.

considered but did not require recognition of all legal liabilities or moral obligations to perform pollution remediation. Instead, GASB proposes to base recognition on the occurrence of the following obligating events:

1. When a government knows or reasonably believes that a site is polluted, the government should determine whether one or more components of a pollution remediation obligation are recognizable as a liability (based on the expected cash flow technique ... when any of the following events occur:
 - a. Pollution creates an imminent endangerment to public health or welfare or the environment that compels the government to take pollution remediation action.
 - b. The government is in violation of a pollution prevention-related permit or license
 - c. The government is named, or is aware of evidence indicating that it will be named, by a regulator as a responsible party
 - d. The government is named, or is aware of evidence indicating that it will be named, in a lawsuit
 - e. The government commences, or obligates itself to commence, cleanup activities, or monitoring or operation and maintenance GASB characterizes this as voluntary remediation.¹³

The GASB believes that these obligating events are evidence that a government has a *reasonable expectation* that an outflow or sacrifice will occur. Once an obligating event occurs, the entity considers when recognition is appropriate. Recognition would be required if the future outflows can be estimated using a technique it calls the “expected cash flow technique.”¹⁴ The latter can be described as a technique that measures the liability as the sum of probability-weighted amounts in a range of possible estimated amounts—the estimated mean or average.¹⁵ GASB states that this approach would result in earlier recognition of many pollution remediation liabilities and recognition of greater amounts for contingencies considered reasonably possible or remote and lesser amounts for some contingencies considered probable than the prior standard – NCGA Statement 4, which required the application of SFAS 5’s contingent liability formula (i.e., “probable,” “reasonably possible,” “remote”) and FASB Interpretation 14’s requirement to recognize the low end of a range of estimates when no amount in the range is best.

In the context of deciding whether it is remote that other conditions will not be met, the threshold eligibility/vesting obligating (or earlier) event(s) leaves only the passage of time and remaining alive. However, again, staff believes that both the likelihood of changes in law and the reliability of estimates are not relevant to determining the point at which a liability definition would be met, but may be relevant to other decisions such as an assessment of relevance, reliability or understandability.

Does the Board wish to discuss beginning work in covered employment as the obligating event?

¹³ PV, par. 15.

¹⁴ PV, par. 14.

¹⁵ PV, par. 23 and A13.

III. Applying Threshold Eligibility to Medicare

Medicare Is Similar to Social Security in Some Ways

In some ways Medicare is similar to Social Security.¹⁶ Medicare conditions are specified by the Government. Participants perform under those conditions and can and do reasonably expect and rely on the future benefits. They would reasonably arrange their long-term finances based thereon. Also, employers expense the Medicare Hospital Insurance (HI) payroll taxes and include Medicare in their post-employment healthcare plans.

Both Social Security and Medicare have distinct parts. Social Security has Old-age and Survivors Insurance (OASI) and Disability Insurance (DI). The former is similar to a pension in that benefits accumulate through the participant's working life based on wages earned. Disability Insurance provides coverage against a specific risk. HI payroll taxes rate (employer and employee) is a percentage of the wages participants earn in covered employment. HI participants' retirement health coverage and their option for future Medicare Supplemental Medical Insurance (SMI) coverage vests after 40 quarters (or equivalent) of work in covered employment. Medicare participants begin to receive coverage and benefits as needed at 65 years of age (or earlier depending on certain conditions) and no longer pay payroll taxes.

Medicare Is Not Similar to Social Security in Some Ways

On the other hand, Medicare is unlike Social Security in some ways. Retirement health coverage is the same for every one, regardless of wages earned in covered employment. Medicare benefits are not annuities and they do not accumulate based wages in covered employment.

Also, there is no cap on HI payroll taxes, which are assessed on a participant's full wages. Although under Social Security lower wage earners receive a higher income replacement ratio than higher earners, OASI and DI benefits are related to the amount of wages earned and payroll taxes paid in covered employment. Under HI, benefits are not related to the amount of wages earned or payroll taxes paid. Some participants will pay much more than others for the same coverage.

SMI is distinct from both HI and Social Security (Old Age, Survivors, and Disability Insurance (OASDI)). Generally Medicare participants may choose to participate in SMI when they begin their HI coverage. And SMI is not financed with payroll taxes. Participants must pay premiums, albeit heavily subsidized by the general fund.

Medicare is Similar to OPEB

Medicare is similar to other postemployment benefits (OPEB). The FASB defines postemployment benefits as all forms of benefits, other than retirement income, provided to retirees.¹⁷

¹⁶ For more on the Medicare program, see Appendix A for Medicare "Fact Sheet" from prior staff memoranda.

¹⁷ SFAS 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions*, December 1990, glossary.

1 Like pension benefits and OPEB, Social Security (Old Age and Survivors Insurance,
2 “OASI”) and the Medicare HI program are linked. Both will be paid when the participant
3 retires. If the liability definition is met for Social Security at threshold eligibility, then it
4 seems logical that it is also met for HI.

5
6 Unlike pension benefits and OPEB, Social Security (OASI) and HI are not “earned” in the
7 sense of deferred compensation. For pension benefits and OPEB, the allocation period
8 in SFAS 87 and 106 is from beginning work to full retirement age because both the
9 employer and the employee understand that the benefits are being provided in exchange
10 for services over the employee’s full working period. Staff believes there is a similar
11 understanding of conditions and performance for Social Security (OASI) and HI.

12
13 The eligibility requirement for many OPEB plans require that the employee meet certain
14 age and service requirements as well as the employer’s criteria for retirement in order to
15 receive OPEB benefits. One could argue that meeting the retirement age or,
16 alternatively, the “full eligibility” age, is therefore the obligating event for HI (and OASI).
17 FASB in SFAS 106, *Accounting for Employer’s Postretirement Benefits Other Than*
18 *Pensions*, rejected that view. FASB argued that the act of retirement does not in and of
19 itself reflect the exchange that takes place between the employer and the employee.¹⁸

20 21 *The Obligating Event for Medicare*

22
23 Although Medicare is not an “exchange transaction” between the Government and the
24 participant, the staff believes that participants accrue HI benefits when they begin
25 accepting the conditions of the program (e.g., begin work in covered employment). They
26 are performing in accordance with the HI specified conditions, and as the participant
27 continues to work in covered employment he or she reaches the point of threshold
28 eligibility for – or becomes vested in – certain benefits.

29
30 The point at which threshold eligibility/vesting occurs for HI is clear. The benefits “vest”
31 at 40 QC (or equivalent) of work in covered employment.

32
33 The threshold eligibility point would be different for SMI, which generally requires a
34 decision at age 65. Although the Medicare participant’s has an option with respect to
35 SMI at the threshold eligibility point of 40 QC, the liability definition would seem more
36 likely met for SMI when the participant decides to enroll in SMI. Thus, SMI would be
37 equivalent to an insurance liability. On the other hand, SMI is heavily subsidized and the
38 subsidy cost could be viewed as accruing over the participants working lives similar to
39 HI. Most participants will enroll in SMI. Although the staff recommends focusing on the
40 choice the participants make when they enroll, there is an element of form or substance
41 to consider.

42
43 The following applies the template presented in the staff memorandum for the March
44 FASAB meeting for Social Security to Medicare for the “threshold liability” obligating
45 event. The template uses the draft liability characteristics.

¹⁸ From Wolk and Vaughan, p. 248, citing FAS 106, par. 233.

1
2 1. Present obligation
3

- 4 a. Government established the HI and SMI programs and asserts that it will meet
5 its obligations to the participant. The Government is specific about how to
6 qualify for benefits, about the nature of the coverage, and about other
7 conditions. At 40 QCs the participants have met the conditions for HI
8 participation and will have the option of enrolling in SMI. The participant and
9 his or her spouse will receive coverage for a specific period of time barring
10 death. Coverage ends upon occurrence of a specified event. Unlike HI
11 benefits that will not cost the participant anything when coverage begins, the
12 participant will have to make a decision about enrolling in SMI coverage and
13 will have to pay a premium for SMI. The participant will have recourse if
14 benefits are unlawfully withheld.
15
16 b. The participants are performing under the terms of the program. Regarding HI,
17 they are working in covered employment and the wages they are earning
18 determine the amount they (and their employers) pay in dedicated HI taxes.
19 Regarding SMI, the participants elect to take the coverage. Participants
20 reasonably expect and rely on the future benefits. They and their employers
21 reasonably would arrange their long-term finances based thereon. Moreover,
22 the Government encourages them to view and they reasonably could view their
23 performance under the terms of the program and payment of HI dedicated
24 taxes as an exchange of current resources for future benefits. The
25 participatory nature of the program contributes to the belief that HI future
26 benefits arise or accrue as a result of events occurring before or during the
27 period.
28
29 c. The obligating event has already occurred: Threshold eligibility conditions for
30 HI have been met. Medicare participants attaining 40 QC need not perform
31 any further work in covered employment to be covered at 65, or to have the
32 option of enrolling in SMI; only the passage of time remains. Further action by
33 the participant, i.e., additional work in covered employment, does not create the
34 liability.
35
36 2. Under existing conditions, the Government is required to settle the obligation at a
37 specified or determinable date, when a specific event occurs, or on demand.
38

39 *Discussion*
40

41 Medicare benefits would present issues of cost allocation. Unlike Social Security, the HI
42 taxes are assessed on a participant's full earned wages, without a cap; and HI benefits
43 are not based wages in covered employment. HI benefits do not accumulate; rather
44 they provide the same coverage for everyone. Although under Social Security lower
45 wage earners receive a higher income replacement ratio than higher earners, benefits
46 are related to the amount of wages earned in covered employment. Under HI, benefits
47 are not related to the amount of payroll taxes paid. Some participants will pay much
48 more than others for the same coverage.
49

50 If the liability definition is met for HI at 40 QC (or earlier), would the liability be allocated
51 over the participant's working life or, recognized in full at 40 QC? What does the

1 participant have at 40 QCs or after the first day of work in covered employment? If one's
2 working life were, for example, 40 years, then would the first year's benefit be one-
3 fortieth of the PV of benefits accumulated at 65 years of age? Staff believes that that
4 alternative is compelling because it relates the cost to the participation in the program.

5
6 The measurement phase of the project will address the question of how to allocate
7 cost. The question for consideration at the May meeting is the point at which the liability
8 definition is met rather than measurement per se.

9
10 The liability definition would appear to be met for HI at 40 QC (or earlier). For SMI
11 where the participant's Medicare coverage begins when he or she decides to enroll the
12 program. The liability definition would appear to be met at that point.
13

The staff concludes that the "threshold eligibility" obligating event is applicable to Medicare Hospital Insurance and that the obligating event for Supplemental Medical Insurance should be the point when the participant decides to enroll. Does the Board agree?

Appendix A – Social Security and Medicare Liability and Cost Measures

*The following section is taken from Section III of the staff's March memorandum. Discussion of Medicare and/or additional information on liability and cost amounts has been added to the narrative as indicated by **boldface** font. In particular, Medicare estimates have been added to the illustrative tables where possible.*

Several members asked for a discussion of possible measures of the liability and cost for each of the three obligating events. At least one member mentioned that seeing the effects of alternatives, at least in terms of pluses and minuses if not with actual numbers, would be helpful during the discussion of measurement.

Liability Measures

Several approaches to measuring “unfunded obligation” and/or liability amounts have been and are being discussed. The Office of the Actuary, Social Security Administration (SSA), discusses three measures of Social Security obligations in the paper at Appendix B. These are the “maximum transition cost,” the “closed group transition cost,” and “open group unfunded obligation.”¹⁹ These measures can serve as a starting point for the discussion of measures.

Maximum Transition Cost

The “maximum transition cost” (MTC) is similar to a pension-type liability measure. The MTC population is the current participants – workers and those on the rolls – only. It measures benefits “earned” or credited as of the reporting date. It is computed as the difference between (1) the present value of all future accrued benefit obligations²⁰ payable and (2) the value of the assets on the valuation date plus the present value of revenue from taxation of future accrued benefit obligations payable. From an accounting perspective, e.g., SFFAS 5 or SFAS 87, future revenue would not be included in a pension measure, but the staff assumes that the present value of “revenue from taxation of future accrued benefit obligations payable” would not be a large amount relative to the other amounts involved.

For 2004, SSA estimates the MTC **for Social Security** to be \$13.5 trillion. The MTC is net of assets in the trust fund and adding back the assets yields a net obligation of \$15 trillion, as shown in Table 1 immediately below. ~~(Also see Appendix B.)~~

¹⁹ See Appendix B – Actuarial Note: Unfunded Obligation and Transition Cost for OASDI.

²⁰ SSA defines the “accrued benefit obligation” as the “future benefit obligations based on past earnings as of the valuation date. Thus, these accrued benefit obligations are relevant only to current participants as of the valuation date. The accrued benefit obligations are based on the primary insurance amount (PIA), the early retirement or delayed retirement factors, and other rules of payment.” See Appendix B.

Table 1 – “Maximum Transition Cost” – PBO-type Amount

(trillions)	Social Security	Medicare
Revenue	\$ 0 ²¹	\$ 0
Cost	15.0	???
Net	15.0	???
Less: Assets	1.5 ²²	???
Maximum Transition Cost	\$13.5 ²³	???

Although the staff is using it as a surrogate for a pension-type liability, the MTC is not calculated quite the same as either the accumulated benefit obligation (ABO) or projected benefit obligation (PBO) that a corporation would report pursuant to SFAS 87, *Employers' Accounting for Pensions*.²⁴ However, conceptually, it is the closest thing to the PBO that is officially computed and reported for Social Security.

Both the ABO and the PBO are examples of the asset-liability approach to recognition and measurement of events as opposed to the revenue-expense viewpoint. From the actuarial standpoint both the ABO and the PBO are benefit methods which show the increase in the present value of benefits occurring during the period.

Wolk and Vaughan look to the FASB liability concept for guidance regarding the choice between the ABO and the PBO. The key for them lies in interpreting “past transactions or events,” which generally lead to accounting recognition. Wolk and Vaughan note the failure of SFAC 6 or SFAS 5 to address executory contracts, which represent events of consequence to the entity but are not required to be recognized in the financial statements.

Wolk and Vaughan note that measurement of an event generally requires a price/cost and a quantity; for example, a pension benefit formula where an employee will receive an annuity that equals 2 percent of his or her career average salary (price/cost) for each year of work (quantity). Pension plans are complex because quantities are earned gradually over time and the eventual price/cost is often in the future based on factors such as final pay or average pay over a certain number of years. Actual payments do not occur until after retirement and are stretched over a number of years with the total amount based on the employee's (and perhaps spouse's) mortality. In short, pension benefits accumulate.²⁵

²¹ Although the SSA defines the “maximum transition cost” to include income tax on SS benefits, the assumption used here is that such revenue would not be material.

²² From FY 2004 FRUSG.

²³ From SSA. See Appendix B of this memo.

²⁴ See Appendix C, “Selections from SFAS 87 Glossary,” for more on the definitions of the ABO and PBO and other FASB terms.

²⁵ Wolk and Vaughan, pp. 232-3.

1 **SFAS 87 bases the determination of quantity of pension services for expense and**
2 **liability recognition under the benefit approach upon total service performed to**
3 **date by participants. Future service is not considered. It is totally executory in**
4 **nature, a future event.**

5
6 **Although the accrual accounting focus for the liability definition is current or past**
7 **events, future events often are required to be considered in measuring expense**
8 **and liability. The question is: what future events relating to existing, currently-**
9 **known liabilities should be considered for the purposes of measurement.**

10
11 **Wolk and Vaughan argue that future salaries are “two-sided” events that should**
12 **not be included in the measurement of expense and liability. “Two-sided” events**
13 **are executory in nature. “One-sided” events should be considered. They note**
14 **that Robert T. Sprouse’s dissent to SFAS 87 raised this issue.**

15
16 **[Sprouse] states that a present obligation cannot exist for pension benefits which**
17 **are based upon a future event. Some future events, such as purchase**
18 **commitments, may be represented by executory contracts. Where future events**
19 **are not in contractual form they will be termed *two sided* where both the firm and**
20 **another party have actions that must be performed or *one sided* if the action**
21 **applies to only one party or an exogenous force (anticipated inflation, for**
22 **example). [Footnote omitted]**

23
24 **When enumerating the quantity of services underlying pension measurements it is**
25 **a totally accepted notion to take into account certain one-sided future events such**
26 **as mortality and job terminations. ... Future salary levels stemming from merit**
27 **increases and promotions, on the other hand, are two-sided events because**
28 **qualitatively improved services will be received in the future which will underlie**
29 **these salary increases. One-sided future events which affect the price/cost of the**
30 **presently earned services – as in the case of pensions – appear to be a legitimate**
31 **aspect of the past event attribute of assets and liabilities as presently constituted**
32 **in the [FASB] conceptual framework.²⁶**

33
34 **Wolk and Vaughan hoped that focus on the nature of the action (one sided or two**
35 **sided) would be useful for analyzing complex events because it is unambiguous.**
36 **It would avoid vague phrases like “substantive commitment” regarding**
37 **amendments to pension plans.²⁷**

38
39 **The FASB favored the PBO in SFAS 87 and 106. FASB argued that the accrual**
40 **should be based on the benefit plan’s conditions and that, when the plan required**
41 **the benefit to be based on final salaries, the cost should be based thereon.**

42
43 **William H. Beaver has said the term “past event” is not an effective constraint on**
44 **the use of future events in terms of measuring current liabilities and assets. He**
45 **noted²⁸ that**
46

²⁶ Wolk and Vaughan, p. 235.

²⁷ Wolk and Vaughan, p. 238.

²⁸ Beaver, William H., “Problems and Paradoxes in the Financial Reporting of Future Events,” *Accounting Horizons*, December 1991, pp. 122-134

1 ... [V]irtually every accrual contains an implicit or explicit assumption about future
2 events. ... The treatment of future events is a pervasive issue implicit in virtually
3 every asset and liability.
4

5 When measuring assets and liabilities there is uncertainty about the outcome of
6 one or more future events. Beaver noted that accrual accounting is prospectively
7 oriented.
8

9 Thus, the controversy between ABO vs. PBO is over whether the expense/liability
10 should be based on current or future salaries. The former is arguably more
11 reliable than the latter, which requires assumptions about, for example, whether
12 the employee will get promoted. And, for future healthcare obligation as in the
13 case of OPEB and Medicare, the future healthcare cost assumptions are highly
14 uncertain.
15

16 Another reason for FASB's choice of the PBO is that it was thought to be a better
17 predictor of future cash flow, which is a primary FASB objective. Wolk and
18 Vaughan note that the objectives of financial statements and the information
19 contained therein should be enormously important. They noted that two
20 attributes of relevant information cited in the FASB concepts are that it is
21 predictive of future cash flow and that it helps in assessing management
22 performance.²⁹
23

24 Information can make a difference to decisions by improving decision makers'
25 capacities to predict or by confirming or correcting their earlier expectations.
26 Usually, information does both at once, because knowledge about the outcome of
27 actions already taken will generally improve decision makers' abilities to predict
28 the results of similar future actions. Without a knowledge of the past, the basis for
29 a prediction will usually be lacking. Without an interest in the future, knowledge of
30 the past is sterile.³⁰
31

32 Wolk and Vaughan state that there is an inherent conflict between the predictive
33 and feedback value of the PBO.
34

35 Future salaries will be determined by future management yet present management
36 must estimate what future salaries will be. This estimate feeds into the calculation
37 of the pension expense which is also an element of both the firm's present
38 operating performance and that of management itself. There is clearly a circularity
39 here. Basing present pension expense on future salaries does not appear to be an
40 appropriate input for assessing current managerial performance.³¹
41

42 Social Security is not a pension plan and therefore it may not be appropriate to apply
43 pension accounting methodologies to it. FASB was working in a particular legal and
44 economic environment with respect to SFAS 87. The Employee Retirement Security Act
45 (ERISA) gave FASB the charge to develop pension accounting standards, and
46 established the legal framework. Part of the context for deliberations on SFAS 35,
47 *Accounting for Pensions Plans*, was the legal definition of vested liabilities, and the legal
48 ability of an employer to terminate a plan. That continued to be the case, and may be
49 part of the reason the FASB continued to use the ABO to measure the minimum liability,

²⁹ Wolk and Vaughan, p. 240.

³⁰ SFAC 2, par. 51.

³¹ Wolk and Vaughan, p. 242.

1 while using the PBO as the starting point for measuring the expense. Part of the
2 economic context for deliberations on SFAS 87 was the long-term rise in interest rates,
3 which, with other factors, led to increasing numbers of plan terminations to capture
4 "excess" assets. This made it difficult for accountants to ignore the economic reality
5 created by current market values of assets and liabilities.
6

7 Some might argue for note disclosure of what a pension-type measure would be, e.g.,
8 the ABO and PBO. If that were required it would have to include, to avoid being
9 misleading, an explanation that Social Security is different from a pension program: it is
10 not deferred compensation to employees.
11

12 The GASB took a different approach to pension accounting than SFAS 87. Some have
13 characterized it as similar to the old APB Opinion 8. **The preparer is allowed to**
14 **choose a cost allocation method within certain parameters.** GASB was working in a
15 different context. And FASAB took yet another approach in SFFAS 5, based on its
16 perceptions of what was appropriate in the federal environment. Thus, an argument for
17 certain method of accounting may need to be understood in a specific context.
18

19 **For Medicare, Hospital Insurance (HI) the MTC would be similar to that for Social**
20 **Security. The MTC population is the current participants only – workers and those**
21 **on the rolls – and would measure benefits “earned” or credited as of the reporting**
22 **date. It would be an approach similar to the one for Social Security described**
23 **immediately above. However, the measurement would necessarily provide for the**
24 **different nature of the postemployment benefits other than pensions (OPEB).**
25

26 **In FAS 106, *Employer’s Accounting for Postretirement Benefits Other Than***
27 ***Pensions*, FASB took the position that pension benefits and other**
28 **postemployment benefits were essentially the same. That is, they are:**
29

- 30 1. events requiring recognition and measurement;
- 31 2. in measuring the event, the quantity is unambiguous and based on
- 32 service to date and the terms of the pension plan;
- 33 3. the cost should be measured using the accumulated benefit
- 34 obligation.³²
35

36 **As explained by Wolk and Vaughan, there are some important differences**
37 **between OPEB and pension liabilities. In particular:**
38

39 ... OPEB have not had the same legal status as pensions, and are therefore less
40 firm than pensions. ... Firmness is concerned with the incentives or penalties of a
41 contract being strong enough to compel the parties to carry out the terms of the
42 contract. ... While being less firm, OPEB still represent a probable future sacrifice
43 and an equitable obligation. [footnote omitted]
44

45 One of the most significant differences between pensions and OPEB is the pattern
46 by which the benefits are earned. Most OPEB plans are flat benefits plans: the
47 plan does not clearly specify an accrual rate per year of service. Moreover, vesting
48 is rarely present in OPEB. Since the benefits are not earned in increments, in most
49 plans there is no possibility of receiving partial benefits. There are no intermediate

³² Wolk, Harry L. and Terri M. Vaughan, "A Conceptual Framework Analysis of Pension and Other Postemployment Benefit Accounting," *Accounting Enquiries*, Vol. 2, No. 2, February 1993, pp. 244-5.

1 vesting periods or increases in benefits where interim accruals must by definition
2 occur. There is, in effect, one critical event which occurs at the end of the
3 attribution period in OPEB – the employee works a specified period of time and
4 earns a specified benefit at the conclusion of this period. Consequently, the OPEB
5 event, unlike the pension event, is not embodied by a price/cost time a quantity
6 type measurement for each year of service. [footnote omitted]
7

8 This difference makes the benefit-accrual/asset-liability approach adopted in SFAS
9 No. 87 and SFAS No. 106 conceptually more difficult to accept for postretirement
10 benefits. While the OPEB case clearly involves a liability and an expense, the
11 nature of the amount to be recorded is much more in the nature of an accounting
12 allocation than a measurement: more than one method may be acceptable and
13 none is clearly “correct” relative to other methods. There is a single benefit, with a
14 cost, and the problem becomes one of allocating the expenses of the obligation in
15 a rational manner consistent with the benefits received. For example, the
16 obligation could be amortized as a level percentage of employee compensation. If
17 compensation represents the relative value of employee service across periods,
18 this “cost allocation” approach would result in a better matching of revenues and
19 expenses and a more theoretically defensible accrual of cost. ... [footnotes
20 omitted]³³
21

22 **For Supplementary Medical Insurance (SMI), the effect is similar to an insurance**
23 **obligation, which are discussed immediately below under “Closed Group**
24 **Transition Cost.”**
25

26 *Closed Group Transition Cost*

27
28
29 Another measure provided by SSA and Medicare is the “closed group transition cost,”
30 which is similar to the “maximum transition cost” except that the future cost and future
31 taxes for current participants are included in the calculations. **The closed group**
32 **transition cost is also called the closed group unfunded obligation.** SSA uses a
33 100-year projection period for the closed group transition cost in order to capture the
34 lifetime of all the current participants included in the valuation. SSA’s calculated the
35 “closed group transition cost” – **or unfunded obligation** – as \$11.2 trillion. **The**
36 **Medicare closed group unfunded obligation is 24.5 trillion, as shown in the table**
37 **below.** Using this amount and the FY 2004 Statement of Social Insurance, the staff
38 illustrates the relationship between the MTC and the closed group transition cost in
39 Table 2 immediately below. ~~(Also see Appendix B.)~~

³³ Wolk, Harry L. and Terri M. Vaughan, “A Conceptual Framework Analysis of Pension and Other Postemployment Benefit Accounting,” *Accounting Enquiries*, Vol. 2, No. 2, February 1993, pp. 245-7.

Appendix A – Liability and Cost Amounts: From Staff Memorandum for March 2005 FASAB Meeting (Section III.) with Updates for Medicare

1

2

Table 2 – “Closed Group Transition Cost”

Existing Participants			
(trillions)	“Max. Trans. Cost” or Accrued Benefit Obligation (1)	Future Taxes and <Benefits Paid> (2)	“Closed Group Trans. Cost” or Unfunded Obligation (3) [(1)+(2)]
Revenue:			
Social Security	\$ 0	\$14.8 ³⁴	\$14.8
Medicare, HI (Part A)		???	5.0³⁵
Medicare, SMI (Part B)		???	3.0³⁶
Medicare, SMI (Part D)		???	2.1³⁷
Cost:			
Social Security	<15.0>	<12.3> ³⁸	<27.3> ³⁹
Medicare, HI (Part A)	???	???	<14.3>⁴⁰
Medicare, SMI (Part B)	???	???	<12.1>⁴¹
Medicare, SMI (Part D)	???	???	<8.4>⁴²
Net:			
Social Security	<15.0>	2.3	<12.7>
Medicare, HI (Part A)	???	???	<9.3>
Medicare, SMI (Part B)	???	???	<9.1>
Medicare, SMI (Part D)	???	???	<6.3>
Less: Assets			
Social Security	1.5 ⁴³		1.5
Medicare			3⁴⁴
Social Security	<u>\$(13.5)⁴⁵</u>	<u>\$2.3</u>	<u>\$11.2</u>
Medicare	<u>???</u>	<u>???</u>	<u>24.4</u>

³⁴ Derived from FY 2004 SOSI. Participants 62+ (\$4 trillion) plus participants 15-61 (\$14.4 trillion). (See Appendix C for the FY 2004 SOSI.)

³⁵ **Derived from FY 2004 SOSI. Participants who have attained eligibility age (\$1 trillion) plus participants who have not attained eligibility age (\$4.8 trillion).**

³⁶ **Derived from FY 2004 SOSI. Participants who have attained eligibility age (\$3 trillion) plus participants who have not attained eligibility age (\$2.7 trillion).**

³⁷ **Derived from FY 2004 SOSI. Participants who have attained eligibility age (\$2 trillion) plus participants who have not attained eligibility age (\$2.1 trillion).**

³⁸ Derived from FY 2004 SOSI. Participants 62+ (\$4.9 trillion) plus participants 15-61 (\$22.4 trillion) less the staff's estimate of “gross” “maximum transition cost” (\$15.0 trillion).

³⁹ Derived from FY 2004 SOSI. Participants 62+ (\$4.9 trillion) plus participants 15-61 (\$22.4 trillion).

⁴⁰ **Derived from FY 2004 SOSI. Participants who have attained eligibility age (\$2.2 trillion) plus participants who have not attained eligibility age (\$12.1 trillion).**

⁴¹ **Derived from FY 2004 SOSI. Participants who have attained eligibility age (\$1.5 trillion) plus participants who have not attained eligibility age (\$10.6 trillion).**

⁴² **Derived from FY 2004 SOSI. Participants who have attained eligibility age (\$8 trillion) plus participants who have not attained eligibility age (\$7.6 trillion).**

⁴³ From FY 2004 FRUSG.

⁴⁴ From HHS FY 2004 Performance and Accountability Report, Financial Statement, Notes, RSI, OAI section, Note 5.

⁴⁵ From SSA. See Appendix C of this memo.

The “closed group transition cost” is similar to the “premium deficiency” liability recognized in the insurance industry for future policy benefits relating to long-duration contracts. That liability represents the present value of future benefits to be paid to or on behalf of policyholders and related expenses less the present value of future net premiums and assets for the current “book of business” or policies in force. Changes in the liability for future policy benefits that result from its periodic estimation for financial reporting purposes are recognized in income in the period in which the changes occur. [See SFAS 60, ¶21]

SFFAS 5 similarly requires life insurance programs to recognize a liability for future policy benefits for current policyholders that relates to insured events, such as death or disability, in addition to the liability for unpaid claims incurred. [SFFAS5, ¶104]

The “closed group transition cost” might also be said to reflect the “risk assumed” information required by SFFAS 5 as required supplementary information. Risk assumed is generally measured by the present value of unpaid expected losses net of associated premiums, based on the risk inherent in the insurance or guarantee coverage in force. [SFFAS5, ¶105 as amended by SFFAS 25, ¶4.]

Open Group Unfunded Obligation

Another measure provided by SSA and Medicare administrators is the “open group unfunded obligation.” It includes all income and benefits to be paid for a specified time period, e.g., 75-years, for all who will participant in the program during that period. It is computed as the difference between:

- (a) The present value of the future cost of the program between the valuation date and the end of the specified time period, and
- (b) The sum of the assets in the trust fund as of the valuation date and the present value of the future scheduled tax income of the program between the valuation date and the end of the specified time period.

Thus, all current and future participants over the specified time period are included in the computations.

Although the three obligating events currently under discussion do not involve the “open group,” i.e., they do not include future participants, staff presents it below, in Table 3 for comparison. The open group unfunded obligation focuses on the adequacy of funding rather than the amount or net amount accrued or credited benefits as of the reporting date. Thus, it would be inappropriate for measuring the liability solely to current participants. It has, however, often been used as an indicator of the sustainability or actuarial status of the program.

Appendix A – Liability and Cost Amounts: From Staff Memorandum for March 2005 FASAB Meeting (Section III.) with Updates for Medicare

1 Table 3– “Open Group Unfunded Obligation”

(trillions)	Existing Participants			Future Participants	Existing and Future Participants
	“Max. Trans. Cost” or Accr’d Obligation	Future Taxes and <Benefits>	“Closed Group Trans. Cost” or Unfunded Obligation	Future New Entrants (75-year horizon)	“Open Group Unfunded Obligation” (75-year)
	(1)	(2)	(3) [(1)+(2)]	(4)	(5) [(3)+(4)]
Tax Revenue:					
Social Security	\$ 0	\$14.8 ⁴⁶	\$14.8	\$12.9 ⁵⁰	\$27.7
Medicare – A	???	???	5.0⁴⁷	4.0⁵¹	9.0
Medicare – B	???	???	3.0⁴⁸	.9⁵²	7.9
Medicare – D	???	???	2.1⁴⁹	.6⁵³	2.7
Less: Cost:					
Social Security	(15.0) ⁵⁴	<12.4> ⁵⁵	<27.4>	<5.5> ⁵⁹	<32.9>
Medicare – A	???	???	<14.3>⁵⁶	<3.2>⁶⁰	<17.5>
Medicare – B	???	???	<12.1>⁵⁷	<3.3>⁶¹	<15.4>
Medicare – D	???	???	<8.4>⁵⁸	<2.4>⁶²	<10.8>
Subtotal [Revenue - cost]:					
Social Security	(15.0)	2.4	<12.6>	7.4	<5.2>
Medicare – A	???	???	<9.3>	.8	<8.5>
Medicare – B	???	???	<9.1>	<2.4>	<11.5>
Medicare – D	???	???	<6.3>	<1.8>	<8.1>
Less: Assets:					

⁴⁶ From FY 2004 SOSI in FRUSG, total for participants 62+ and 15-61 years of age.

⁴⁷ From Table 2 above.

⁴⁸ From Table 2 above.

⁴⁹ From Table 2 above.

⁵⁰ From FY 2004 SOSI in FRUSG, total for future participants 2004-2078.

⁵¹ From FY 2004 SOSI in FRUSG, total for future participants 2004-2078.

⁵² From FY 2004 SOSI in FRUSG, total for future participants 2004-2078.

⁵³ From FY 2004 SOSI in FRUSG, total for future participants 2004-2078.

⁵⁴ This amount was “backed into” using \$13.5 trillion from SSA’s “maximum transition cost” and the asset amount from the FY 2004 FRUSG.

⁵⁵ This amount was “backed into” by subtracting the \$15.0 amount in column (1) from \$27.4 trillion, the total cost for participants 62+ and 15-61 years of age from the FY 2004 SOSI in FRUSG.

⁵⁶ From Table 2 above.

⁵⁷ From Table 2 above.

⁵⁸ From Table 2 above.

⁵⁹ From FY 2004 SOSI in FRUSG, total for future participants 2004-2078.

⁶⁰ From FY 2004 SOSI in FRUSG, total for future participants 2004-2078.

⁶¹ From FY 2004 SOSI in FRUSG, total for future participants 2004-2078.

⁶² From FY 2004 SOSI in FRUSG, total for future participants 2004-2078.

Appendix A – Liability and Cost Amounts: From Staff Memorandum for March 2005 FASAB Meeting (Section III.) with Updates for Medicare

(trillions)	Existing Participants			Future Participants	Existing and Future Participants
	"Max. Trans. Cost" or Accr'd Obligation (1)	Future Taxes and <Benefits> (2)	"Closed Group Trans. Cost" or Unfunded Obligation (3) [(1)+(2)]	Future New Entrants (75-year horizon) (4)	"Open Group Unfunded Obligation" (75-year) (5) [(3)+(4)]
Social Security	1.5 ⁶³		1.5	---	1.5
Medicare – A			.3⁶⁴	---	.3
Medicare – B			---	---	---
Medicare – D			---	---	---
"Unfunded" amt.:					
Social Security	\$(13.5) ⁶⁵	\$2.3	\$(11.2)	\$7.4	\$<3.7> ⁶⁶
Medicare – A			<9.0>	.8	<8.2>⁶⁷
Medicare – B			<9.1>	<2.4>	<11.5>⁶⁸
Medicare – D			<6.3>	<1.8>	<8.1>

Measurement in Relation to the Obligor Events

Table 4 immediately below presents alternative liability measures for current participants disaggregated by obligor event. The obligor events are in columns (1), (2) and (3).

Table 4, line 1, presents the present value of future benefits over a 75-year horizon and is derived from the FY 2004 Statement of Social Insurance (SOSI) in the Financial Report of the United States Government (FRUSG). This measure includes benefits to be "earned" or credited in the future as well as those "earned" or credited on or as of the reporting date; thus, it would be larger than a "maximum transition cost" or pension-type amount. Also, since it does not include future revenue, it is larger than a "closed group transition cost" or premium deficiency number.

A note regarding Table 4 column 2, which presents a present value for "threshold eligibility" – i.e., 40 quarters in covered employment (QC). To derive this amount the staff employed a very rough assumption that 40 QC/10 years equals 25% of the

⁶³ From FY 2004 FRUSG.

⁶⁴ From Table 2 above.

⁶⁵ From SSA. See Appendix D of this memo.

⁶⁶ The open group unfunded obligation for Social Security for the infinite horizon is \$10.4 trillion. See Appendix D.

⁶⁷ The open group unfunded obligation for HI for the infinite horizon is \$21.8 trillion. See 2004 Medicare Trustees Report, Table II.B11, pg. 60.

⁶⁸ The open group unfunded obligation for SMI, Part B, for the infinite horizon is \$23.2 trillion. See 2004 Annual Report of the Board of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds (Medicare Trustees Report), Table II.C16, pg. 99, and Table II.C17, pg. 100.

Appendix A – Liability and Cost Amounts: From Staff Memorandum for March 2005 FASAB Meeting (Section III.) with Updates for Medicare

1 15-61 age group provided in SOSI, assuming a working career of 40 years, and subtracted that amount from the “beginning
2 of work” obligating event (column (3)), which represents the entire population 15-61. Column 2 is not added to derive the total
3 in column (4) because column (1) plus (3) would equal 100 percent of the current participants.
4

5 Table 4, line 2, presents a measure similar to the “closed group transition cost” and/or a “premium deficiency” type amount. It
6 presents the same information as line 1 except that the future taxes to be paid by each group are subtracted. The data for
7 line 2 is essentially from the FY 2004 SOSI. The net amount in column (5) is slightly different from the amount SSA
8 calculates for the closed group transition cost (\$11.2 trillion – see Appendix B), but an analysis of the difference is beyond the
9 scope of this preliminary discussion.
10

11 Table 4, line 3, presents a measure based on the SSA’s “maximum transition cost” and represents a pension-type amount.
12 To derive the data for this line the staff started with the MTC, which is was calculated by SSA (\$13.5 trillion), and the asset
13 amount (\$1.5 trillion), from the notes for the SOSI. The staff added these to derive the \$15 trillion net cost amount and
14 subtracted the cost for the 62+ year olds (from the FY 2004 SOSI) to derive the cost for the 15-61 year olds. A factor of 75%
15 was applied to this amount to derive the amount for the threshold group.
16

17 Table 4, line 4, is the current “due and payable” liability reported by SSA and FRUSG.

Appendix A – Liability and Cost Amounts: From Staff Memorandum for March 2005 FASAB Meeting (Section III.) with Updates for Medicare

Table 4– Possible Liability Measures for the Three Obligor Event Alternatives

(billions of dollars)	Full eligibility – 62 years old (1)	Threshold eligibility (2)	Beginning work in covered employment [15-61 years old] (3)	Total for Current Participants [(1)+(3)] (4)	Assets (5)	Net Amount [(4)-(5)] (6)
1. Net present value of benefits “earned” or credited to date and that will be “earned” or credited over the next 75 years by current participants. [From FY04 SOSI, FRUSG]						
Social Security	<u>4,933</u>	<u>16,814</u> ⁶⁹	<u>22,418</u>	<u>27,351</u>	<u>1,531</u>	<u>25,820</u>
Medicare, Part A						
Medicare, Part B	<u>2,168</u>	<u>9,040</u> ⁷⁰	<u>12,054</u>	<u>14,222</u>	<u>287</u>	<u>14,509</u>
Medicare, Part D	<u>1,475</u>		<u>10,557</u>	<u>12,032</u>		<u>12,032</u>
Total	<u>773</u>		<u>7,566</u>	<u>8,339</u>		<u>8,339</u>
	<u>4,416</u>	<u>22,633</u>	<u>30,177</u>	<u>34,593</u>	<u>287</u>	<u>34,306</u>
2. Same as #1 immediately above minus the present value of future taxes to be paid by current participants. This is a “closed group transition cost” type measure. [Calculated from FY04 SOSI, FRUSG]						
Social Security, cost	4,933	16,814	22,418	27,351		
Social Security, taxes	<411>	<10,791>	<14,388>	<14,799>		
Total, Social Security	<u>4,522</u>	<u>6,023</u>	<u>8,030</u>	<u>12,552</u>	<u>1,531</u>	<u>11,021</u>
Medicare, Part A, cost	<u>2,168</u>	<u>9,040</u>	<u>12,054</u>	<u>14,222</u>		
Medicare, Part A, taxes	<u><148></u>	<u><3,615></u>	<u><4,820></u>	<u><4,968></u>		
Subtotal, Medicare, Part A	<u>2,020</u>	<u>5,425</u>	<u>7,234</u>	<u>9,254</u>		
Medicare, Part B, cost	<u>1,475</u>		<u>10,557</u>	<u>12,032</u>		
Medicare, Part B, taxes	<u><332></u>		<u><2,665></u>	<u><2,997></u>		
Subtotal, Medicare, Part B	<u>1,143</u>		<u>7,892</u>	<u>9,035</u>		

⁶⁹ From 2004 SOSI: To derive the present value for “Threshold eligibility” – 40 Qtrs.’ staff employed a very rough assumption of that 40 OC/10 years equals 25% of the 15-61 age group, assuming a working career of 40 years, and subtracted that amount from the “beginning of work” measure provided in SOSI. The full amount of the 15-61 present value is in the “Beginning work in covered employment” column since that covers all participants working in covered employment.

⁷⁰ Derived using the same approach as described in the Social Security footnote above. Part A is hospital insurance, which has attributes similar to Social Security. Parts B and D could be viewed as similar to typical insurance, e.g., premiums and co-payments are required.

Appendix A – Liability and Cost Amounts: From Staff Memorandum for March 2005 FASAB Meeting (Section III.) with Updates for Medicare

(billions of dollars)	Full eligibility – 62 years old (1)	Threshold eligibility (2)	Beginning work in covered employment [15-61 years old] (3)	Total for Current Participants [(1)+(3)] (4)	Assets (5)	Net Amount [(4)-(5)] (6)
Medicare, Part D, cost	773		7,566	8,339		
Medicare, Part D, taxes	<176>		<1,857>	<2,033>		
Subtotal, Medicare, Part D	<u>597</u>		<u>5,709</u>	<u>6,306</u>		
Medicare, total	<u>3,760</u>		<u>20,835</u>	<u>24,595</u>	<u>287</u>	<u>24,308</u>
3. Same as #1 above except that it excludes benefits credited to work to be performed in the future. This number is based on the accrued benefit obligation or “maximum transition cost.” [From FY04 SOSI, FRUSG and Appendix B of this memo]						
Social Security	4,933	7,550	10,067	15,000	1,500	13,500
Medicare, Part A						???
Medicare, Part B						???
Medicare, Part D						???
4. “Due and payable” amounts. From FY04 SOSI, FRUSG]				51.6	1,500	-----

Expense Measures

A key consideration regarding Social Security and social insurance generally has been and continues to be: when should expense be recognized? Presumably the Board will be considering expense definitions in due course, but the FASAB Consolidated Glossary contains the following definition of expense:

Outflows or other using up of assets or incurrences of liabilities (or a combination of both) during a period from providing goods, rendering services, or carrying out other activities related to an entity's programs and missions, the benefits from which do not extend beyond the present operating period.

The SFFAS 17, *Accounting for Social Insurance*, approach was as follows:

The expense recognized for the reporting period should be the benefits paid during the reporting period plus any increase (or less any decrease) in the liability from the end of the prior period to the end of the current period. The liability should be social insurance benefits due and payable to or on behalf of beneficiaries at the end of the reporting period, including claims incurred but not reported (IBNR).

If the Social Security expense represents the incurrence of a liability rather than the cash payment, then there are several approaches to measure that increase. Table 5 immediately below presents the net increase (decrease) in the obligation/liability measure, for 2004, for each of the four lines in Table 4 above. **The Medicare program would be susceptible to the same approach.**

Table 5, line 1 represents the increase in the present value of benefits (1) "earned" or credited to date and (2) that will be "earned" or credited over the next 75 years by current participants. Assets are subtracted.

Table 5, line 2 represents the increase in the net present value of benefits (1) "earned or credited to date and (2) that will be "earned" or credited over the next 75 years by current participants over (3) the present value of future taxes to be paid by current participants. Assets are subtracted.

Table 5, line 3 represents the increase in the net present value of benefits (1) "earned" or credited to work in covered employment performed by current participants as of the reporting date. Assets are then subtracted. This amount is a rough guesstimate for the purpose of illustration. Here and elsewhere the staff intends to work with actuaries and others to develop and/or review the illustrations for an eventual exposure draft. To derive this expense amount the staff assumed that the working life of an average worker is 40 years and that the average worker has worked half his or her working life and therefore a illustrative number for the limited purposes of this initial discussion would be 50 percent of the measure for the 15-61 year old group in line #1 of this table.

Table 5, line 4 is the cash outflow reporting for the Social Security programs in 2004.

Appendix A – Liability and Cost Amounts: From Staff Memorandum for March 2005 FASAB Meeting (Section III.) with Updates for Medicare

1 Table 5- Possible Cost Measures for the Three Obligating Event Alternatives

(in billions of dollars)	Full eligibility – 62 yrs. Old (1)	“Threshold eligibility” – 40 Qtrs. (2) [.75 x (3)]	Beginning work in covered employment (3)	Total for Current Participants (4) [(1)+(3)]	Future workers (4)	SOSI Total (5) [(4)+(5)]
1. Increase in the present value of benefits (1) “earned” or credited to date and (2) that will be “earned” or credited over the next 75 years by current participants. ⁷¹ This measure relates to Table 4 line 1. from SOSI and therefore a measure of the next 75 years)	271	977	1403	1,674	180	1853
2. Net increase in the net present value of benefits (1) “earned or credited to date and (2) that will be “earned” or credited over the next 75 years over (3) the present value of future payroll taxes. This measure relates to the “closed group transition cost” in Table 4 line 2. ⁷² From SOSI) [a “closed group transition cost” type measure.]	219	443	591	810	(507)	303
3. Increase in the net present value of benefits “earned” or credited through the reporting date. This measure relates to the “maximum transition cost” type measure in Table 4 line 3. (This is half of line #1.) [A “maximum transition cost” type measure.]	271	367	702	973	XXXXX	XXXX
4. Cash outflow (from SSA’s FY 2004 SNC). This measure relates to Table 4, line 4.	XXXX	XXXX	XXXX	XXXX	XXXX	488

⁷¹ From 2004 SOSI: the difference between 2004 and 2003 present values. To derive the present value for “Threshold eligibility” – 40 Qtrs.’ staff employed a very rough assumption of 25% of the 15-61 age group, assuming a working career of 40 years. The total present value for the 15-61 population is in the “Beginning work in covered employment” column.

⁷² From 2004 SOSI: the difference between 2004 and 2003 present values. To derive the present value for “Threshold eligibility” – 40 Qtrs.’ staff employed a very rough assumption of 25% of the 15-61 age group, assuming a working career of 40 years. The total present value for the 15-61 population is in the “Beginning work in covered employment” column.

Appendix A – Liability and Cost Amounts: From Staff Memorandum for March 2005 FASAB Meeting (Section III.) with Updates for Medicare

Staff notes with respect to expense and cost that all accounting methodologies for "defined benefit" pension plans depend on using either (1) some method of allocating the cost of projected benefits to years of covered employment (e.g., entry age normal); or, (2) attributing the projected future benefit to years of covered service, then valuing it (e.g., unit credit). All methods of allocation or attribution can be said to be – in a sense – "arbitrary" even though they are also reasonable or "rational and systematic." In this regard, they are different from the closed group and open group methods.

Pensions "cost" would have several components. The Board may or may not want to require a breakout cost into components regardless of which methodology is eventually selected. For example, pension cost components are as follows:

- Service or normal cost;
- Interest on the obligation;
- The effect of changes in actuarial assumptions; and
- Amortization of prior service cost.

If the cost is to be net of return on plan assets as called for in SFAS 87, *Employers' Accounting for Pensions*, -- but not under the FASAB's SFFAS 5 – then the calculation includes that effect as well.

Regarding SFFAS 5, the FRUSG contains the following table for federal pensions in the note disclosure:

Table 6 – Change in Actuarial Accrued Pension Liability and Component of Expense

Change in Actuarial Accrued Pension Liability and Components of Related Expenses			
(In billions of dollars)	Civilian ¹	Military	Total ¹
Actuarial accrued pension liability as of September 30, 2003	1,190.4	739.0	1,929.4
Adjusted accrued pension liability	<u>1,190.4</u>	<u>739.0</u>	<u>1,929.4</u>
Pension Expense:			
Normal costs	25.3	13.0	38.3
Plan amendment and assumption change liability	-	81.0	81.0
Interest on liability	73.1	45.3	118.4
Actuarial (gains)/losses	<u>(3.7)</u>	<u>(4.0)</u>	<u>(7.7)</u>
Total pension expense	94.7	135.3	230.0
Less benefits paid	<u>54.9</u>	<u>36.6</u>	<u>91.5</u>
Actuarial accrued pension liability as of September 30, 2004	<u>1,230.2</u>	<u>837.7</u>	<u>2,067.9</u>

¹ Does not include U.S. Tax Court and judicial branch.

Closing Comment

The staff memorandum for the March FASAB meeting offered certain questions in this section as food for thought. The staff provides some answers below as additional "food."

Clarity about the purpose of reporting will be essential. For example, could FASAB, like FASB, refer to the unfunded ABO as the minimum liability? Would this imply that in considering the various plans for transition, there exists a spectrum for measuring Social Security benefits "owed" ranging from the ABO to the "maximum transition cost"? If so, is that the message to send? And what are the implications for the budget? That may depend on how the periodic charge is handled. Will it be done in the context of articulated financial statements, or modify that in some way as FASB did? What would be the rationale?

The purpose of the reporting is complex. Providing information relevant to assessing sustainability is often mentioned as an objective. Some have argued that the open group population, pay-as-you-go perspective over 75 years (or the infinite horizon) is the best perspective for the sustainability of Social Security, Medicare/HI, and the other social insurance programs because they are compulsory and therefore are guaranteed a stream of new participants indefinitely into the future.

1
2
3 **Measures of an accrued benefit obligation and/or the “closed group unfunded**
4 **obligation” focus on the present value of future benefits accumulated by present**
5 **participants; or, for programs with insurance characteristics, in the current “book**
6 **of business.” An accrued benefit obligation and closed group unfunded**
7 **obligation are often said to represent measures of intergenerational equity and/or**
8 **transitional obligation for an existing program.**
9

10 **Some argue that a measure of accrued benefit obligation – the present value of**
11 **future benefits accumulated by present participants – does not assist in**
12 **assessing sustainability of Social Security and Medicare or other social insurance**
13 **programs. In their view the absence of some indication of the implicit tax burden**
14 **suggested by such a measure renders such a measure useless for assessing**
15 **sustainability, and in fact misleading. Some argue that presenting a measure in**
16 **terms of the percentage of taxable payroll and/or the GDP, as is currently required**
17 **by SFFAS 17 as supplemental stewardship information, is the proper approach.**
18

19 **Also, some argue that a large “closed group” liability on the balance sheet might**
20 **incorrectly lead readers to assume that the deficiency (because of its size) is an**
21 **indication that Social Security or Medicare cannot be sustained. For example, a**
22 **current focus for Social Security analysis has been the year 2042, the year the**
23 **2004 Trustees’ Report projects that the OASDI program will be able to pay only 73**
24 **percent of benefits. Some might argue this does not represent insolvency**
25 **because it may become politically acceptable to draw the other 27 percent from**
26 **the general fund because (1) the Government is spending less, and/or (2) taking in**
27 **more taxes because the economy grew faster than projected, and/or (3) the**
28 **Government can borrow because it paid down the national debt from 2004 to 2042,**
29 **then Social Security is sustainable after 2042.**
30

31 **Moreover, some argue that Social Security and Medicare are financed on a pay-as-**
32 **you-go basis and will have by definition a deficiency when only current**
33 **participants are considered. In this view the “current cost” of pay-as-you-go**
34 **programs must be met with current financial resources.⁷³ Future workers are**
35 **required to finance current participants’ benefit payments in the same way that**
36 **the latter have financed prior participants’ benefits. They argue that this would be**
37 **true unless current participants were taxed at levels so as to equal their benefits,**
38 **even after taking into consideration the program’s “horizontal” redistribution**
39 **within generations.**
40

41 **Some have also argued that such a balance sheet measure incorrectly suggests**
42 **that current participants have rights superior to those of future program**
43 **participants; or, that the current participants have legal rights to current benefit**
44 **levels.**
45

46 **Finally, some argue that such a balance sheet measure would imply a greater**
47 **intergenerational equity deficiency than actually exists because it would not**

⁷³ “Social Security: Accounting and Financial Challenges,” Remarks by Stephen C. Goss, Chief Actuary, Social Security Administration, Government & Nonprofit Section, American Accounting Association 2005 Midyear Meeting, April 1, 2005, slide 1.

1 reflect the amount of contributions paid by and on behalf of current participants,
2 or benefits received by them, before the measurement date.

3
4 Solvency, sustainability and inter-period equity can be depicted via multiple
5 measures. Although the concepts are closely related, solvency usually refers to
6 a shorter-range projection – or sometimes to the 75-year projection – than
7 sustainability, which usually refers to the indefinite future. Inter-period equity
8 usually refers to costs incurred in one period that are passed on to future periods.
9 Inter-generational equity is sometimes synonymous with long-range inter-period
10 equity and sometimes focuses on generational cohorts, for example, yearly
11 cohorts.

12
13 The federal budget depicts cash flows and, from the beginning of the program
14 through 2004, Social Security generated \$1.5 trillion more in cash inflow (tax
15 receipts) than outflow (paid benefits). This is reflected in Trust Fund assets of
16 \$1.5 trillion. The budget measure shows the immediate cash flows and the
17 accumulative effect of past net cash flow. As the Board members know well,
18 many other perspectives are provided in the supplemental material submitted with
19 the budget.

20
21 Another measure is the open group unfunded obligation. The open group
22 population's total taxes to be paid and benefit to be received are projected over 75
23 years (sometimes over an infinite horizon), which in 2004 resulted in a deficit over
24 that period of \$3.7 trillion. One major problem with the open group unfunded
25 obligation from a matching revenue vs. cost perspective is that it records 100
26 percent of the amount paid by participants for a given year but not their full cost.
27 Only the cash outlay to current retirees is matched against the taxes paid.

28
29 The "closed group unfunded obligation" measure shows that the benefits to be
30 paid to current participants and retirees over the next 75 years will exceed
31 dedicated taxes received from them by \$11.2 trillion. The closed group unfunded
32 obligation is an accrual accounting measure of the deficit that includes future
33 revenue is a manner similar to some pension accounting – although not prescribed
34 by FASB in SFAS 87 – and insurance approaches. Some believe that the closed
35 group measure is mostly useful to the extent that a program is meant to be fully
36 advance-funded. However, Jagadeesh Gokhale and Kent Smetters⁷⁴ note that the
37 closed group also communicates inter-generational information, the shifting of
38 burdens across generations. They note that the closed group obligation would
39 reveal whether reforms require current or future generations to bear the burden.

40
41 Finally, the accrued benefit obligation – the "maximum transition cost" – in 2004
42 was \$13.4 trillion. This measure shows the accumulated cost of the program
43 through the reporting date. It includes "the present value of all future accrued
44 benefit obligations payable" and therefore presumably projects future salary
45 levels. Although staff is not prepared to characterize it definitely at this time,
46 presumably it would be similar to the projected benefit obligation or "PBO." If
47 current salary levels were used and, for example, merely adjusted for increases in
48 the cost of living, then it would be similar to the accumulated benefit obligation, or
49 "ABO."

⁷⁴ Jagadeesh Gokhale and Kent Smetters, "Measuring Social Security's Financial Problems," draft dated December 29, 2004, p. 11.

1
2 **Staff believes that an accrued benefit obligation and the changes therein would be**
3 **information for decision makers. Accruing an expense as workers perform under**
4 **the terms of the Social Security program and accumulating a liability on the**
5 **Federal balance sheet, which is a primary means of communication, would focus**
6 **“management’s” attention on the economic cost of the promises being made.**
7

8 **A measure of the present value of accrued Social Security costs would assist in**
9 **assessing the sustainability of the program in terms of future taxpayers’**
10 **willingness and ability to bear the implicit tax burden. If the burden is too great,**
11 **taxpayers will be unable and therefore unwilling to bear the burden.**
12

13 **Such a balance sheet measure and flow information would present a view of**
14 **intergenerational equity. It would articulate the extent to which the resources of**
15 **the social insurance programs on hand and to be provided are sufficient to pay**
16 **the benefits payable in the future under current law. Assuming the status quo, it**
17 **would provide a measure of the payroll taxes that must be provided to fund**
18 **benefits at current levels to current participants.**
19

20 **However, as noted above, it would not include all contributions paid by and on**
21 **behalf of or benefits received by participants before the measurement date, so it**
22 **would not be a true measure of the intergenerational transfer. Nor would**
23 **individual age cohorts be considered, as advocated by Laurence J. Kotlikoff and**
24 **Scott Burns.⁷⁵**
25

26 **Gokhale and Smetters have offered two similar measures that bear on**
27 **sustainability: the “Fiscal Imbalance” (FI) and the “Generational Imbalance” (GI).**
28 **The former equals the current federal debt held by the public plus the present**
29 **value of all future non-interest spending minus the present value of all future**
30 **federal receipts. A sustainable fiscal policy requires the FI to be zero. The GI**
31 **measure indicates how much of the FI imbalance is caused by past and current**
32 **generations.⁷⁶**
33

34 **Finally, such a balance sheet measure would also represent a “transitional**
35 **obligation.” It would provide a measure of the amount of funding (not necessarily**
36 **from future participants) that would be needed to maintain current benefit levels**
37 **to current participants in the event a separate program covers future participants.**
38

39 **Assuming that an accrual obligation or “stock” number would be displayed on the**
40 **balance sheet, the changes in the liability or “flow” number could be displayed in**
41 **total on the statement of net cost, or its component parts could be displayed; for**
42 **example, increases or decreases in the liability due to actuarial assumptions**
43 **could be displayed as holding amounts in net position rather than on the**
44 **statement of net cost. Also, some additional footnote disclosure, e.g., showing**
45 **the unfunded ABO or PBO calculated according to SFAS 87 would be possible.**
46

⁷⁵ Laurence J. Kotlikoff and Scott Burns, *The Coming Generational Storm*, (The MIT Press, 2004), passim.

⁷⁶ Jagadeesh Gokhale and Kent Smetters, *Fiscal and Generational Imbalances: New Budget Measures For New Budget Priorities*, (AEI Pamphlett, 2003)

1 **The staff assumes the display will be in the context of articulated financial**
2 **statements.**
3

Appendix B – Medicare Facts Sheet

Introduction

Medicare was established in 1965 as a federal social insurance program because the private health care market failed to provide adequate, affordable, health insurance to much of America's elderly population. In 1965, Congress recognized that few older people in the United States were free of the fear that expensive health services could do away with any and all of their savings. The Medicare program was enacted to provide health insurance for people 65 years of age and older. This protection was expanded to people receiving Social Security Disability Insurance and people with serious kidney disease in 1972⁷⁷.

The Centers for Medicare & Medicaid Services (CMS) administers the Medicare program, and works in partnership with the States to administer Medicaid, State Children's Health Insurance Program (SCHIP), and health insurance probability standards. Through Medicare, Medicaid and SCHIP about one in four Americans receive health care coverage. Over 75 million people are covered by at least one of these programs; they spend about one in three of the Nation's health care dollars.

With the passing of the Medicare Prescription Drug, Improvement and Modernization Act in December 2003, Medicare will undergo many changes in the upcoming years. The 2003 legislation authorized the biggest expansion in coverage since the program was created in 1965. For the first time, Medicare beneficiaries will have prescription drug coverage for drugs they consume at home. This is a major policy change since drugs have become an increasingly important component in modern health care⁷⁸.

Medicare Characteristics

Enacted by the Social Security Act Amendments of 1965, Medicare is the nation's largest health insurance program, covering nearly 40 million Americans (approx. 14% of pop.) at an annual cost of just under \$300 billion. Medicare provides health insurance to:

- People age 65 or older;
- Some people with disabilities under age 65; and
- People with permanent kidney failure requiring dialysis or a transplant.

Medicare has 3 components: Hospital Insurance (Part A), Medical Insurance (Part B) and the new Prescription Drug Benefit (Part D)⁷⁹.

⁷⁷ National Academy of Social Insurance, *Medicare and the American Social Contract – Final Report of the Study Panel on Medicare's Larger Social Role* (Washington, DC: National Academy of Social Insurance, February 1999)

⁷⁸ National Academy of Social Insurance, *Social Insurance Sourcebook*, website material, <http://www.nasi.org/publications3901/publications.htm>, Washington, DC.

⁷⁹ Medicare Part C, which provides Part A and Part B coverage and, optionally Part D coverage, through private managed care plans; also called Medicare Advantage

Appendix B: FACTS SHEETS – Medicare

- Medicare Part A helps pay for inpatient hospital services, skilled nursing facility services, home health services, and hospice care.
- Medicare Part B helps pay for doctor services, outpatient hospital services, medical equipment and supplies, and other health services and supplies.
- Medicare Part D (begins 01/01/2006) provides coverage on prescription drugs. For 2004 and 2005 there is discount card and Transitional Assistance worth up to \$600/beneficiary.

Table I.C1.—Medicare Data for Calendar Year 2003

	HI	SMI	Total
Assets at end of 2002 (billions)	\$234.8	\$34.3	\$269.1
Total income	\$175.8	\$115.8	\$291.6
Payroll taxes	149.2	—	149.2
Interest	15.0	2.0	17.0
Taxation of benefits	8.3	—	8.3
Premiums	1.6	27.4	29.0
General revenue	0.5	86.4	86.9
Other	1.1	0.0	1.1
Total expenditures	\$154.6	\$126.1	\$280.8
Benefits	152.1	123.8	275.9
Hospital	109.4	17.9	127.3
Skilled nursing facility	14.3	—	14.3
Home health care	2.6	7.1	9.7
Physician fee schedule services	—	48.3	48.3
Managed care	19.5	17.2	36.8
Other	6.3	33.3	39.6
Administrative expenses	\$2.5	\$2.3	\$4.9
Net change in assets	\$21.2	–\$10.3	\$10.8
Assets at end of 2003	\$256.0	\$24.0	\$280.0
Enrollment (millions)			
Aged	34.6	33.1	35.0
Disabled	6.0	5.3	6.0
Total	40.6	38.5	41.0
Average benefit per enrollee	\$3,747	\$3,219	\$6,966

Note: Totals do not necessarily equal the sums of rounded components.

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The traditional Medicare plan is fee for service, available everywhere in the United States. Beneficiaries are free to go to any doctor, specialist, or hospital that accepts Medicare and most providers participate in the Medicare program.

People who qualify for Medicare may have choices beyond the traditional Medicare plan. Some people may have Medicare Managed Care Plans or Private Fee-for-Service Plans (Part C) available in their area. These options are health plans offered by private insurance companies. Medicare pays a set amount of money every month to the private healthcare provider administering the plan. In turn, that organization manages the Medicare coverage for its members.

The Medicare Program

What is Medicare Part A? Medicare Part A (Hospital Insurance or HI) helps cover inpatient care in hospitals, including critical access hospitals, and skilled nursing facilities (not custodial or long-term care). It also helps cover hospice care and some home health care. Cost: Most people don't have to pay a monthly payment, called a premium, for Part A. This is because they or a spouse worked in covered employment and paid Medicare taxes. If an individual did not work in covered

⁸⁰ Medicare Board of Trustees, 2004 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, Washington, DC, March 23, 2004, page 3.

employment and pay Medicare taxes a sufficient amount of time, they may still be able to buy Part A coverage.

What is Medicare Part B? Medicare Part B (Supplemental Medical Insurance or SMI) helps cover doctors' services and outpatient hospital care. It also covers some other medical services that Part A doesn't cover, such as some of the services of physical and occupational therapists, and some home health care. Part B helps pay for these covered services and supplies when they are medically necessary. Cost: Unlike Part A, recipients must pay the Medicare Part B premium each month (\$66.60 in 2004) – see below for more on the premium structure. New premium rates become effective every year in January. If the participant receives Social Security benefits, RRB benefits, or OPM retirement benefits the premium is taken out of those monthly payments⁸¹. Medicare Part B is a voluntary program, for which you must enroll in at the time you are eligible.

What is Medicare Advantage? Medicare Advantage, or Part C as it is sometimes referred to, is the new name for Medicare+Choice. This is Medicare's managed care option. Under this plan, private health care providers agree to provide Medicare-covered services to enrollees in return for fixed rate of payment from Medicare for each enrollee (a "capitation rate"). Medicare law establishes how the capitation rate is established for each Medicare enrollee who chooses to join a Medicare managed care plan, based on a variety of factors including Medicare costs in area, beneficiary age and sex, and whether the beneficiary is institutionalized. Currently, almost all Medicare health plans paid under capitation arrangements offer some benefits beyond those covered under standard Medicare fee-for-service plans.

A substantial increase in Medicare Advantage plans is projected for 2006 as the provisions of the *Medicare Prescription Drug, Improvement and Modernization Act* give higher payments to Medicare Advantage plans. The higher payments provide incentives for expansion of coverage areas and for the provision of additional benefits to plan enrollees. In addition, preferred provider plan demonstrations are being conducted from 2003 through 2005 that will increase total managed care enrollment for those years⁸².

What is Medicare Part D? This is the new Prescription Drug Plan included in the *Medicare Prescription Drug, Improvement and Modernization Act of 2003* (Public Law 108-173). Beginning January 1, 2006, all Medicare beneficiaries (those entitled to Part A and/or enrolled in Part B) are eligible for subsidized prescription drug coverage under Part D. Beneficiaries may access the subsidized coverage by enrolling in either a stand-alone prescription drug plan (PDP) or an integrated Medicare Advantage plan that offers Part D coverage alongside the Medicare medical benefit. Since the new plan does not become effective until 2006, in the transitional period Medicare recipients will be provided discount cards as well as a \$600 credit for lower income individuals to use on prescription drugs purchases. The new Part D coverage for 2006 is⁸³:

⁸¹ Recipients may be able to receive assistance from their states to pay for both Part A or Part B.

⁸² Medicare Board of Trustees, *2004 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, Washington, DC, March 23, 2004, page 133.

⁸³ Medicare Board of Trustees, *2004 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, Washington, DC, March 23, 2004, page 144.

- A \$250 Deductible
- 25% co-insurance coverage for expenses \$250 - \$2,250
- Beneficiary is responsible for all costs until \$3,600 out-of-pocket limit is reached
- Catastrophic coverage: pay higher of 5% Co-insurance or a minimal co-payment

Beneficiaries with low incomes and modest assets will be eligible for subsidies that eliminate or reduce their Part D premiums and cost sharing. Following are some of the rules that apply:

- For dual eligible⁸⁴ beneficiaries whose income does not exceed 100% of the Federal poverty level (FPL), there is no premium or deductible, and co-payments are reduced to \$1 for generic drugs and \$3 for all other drugs. There is also no cost sharing in the catastrophic coverage.
- For dual eligible beneficiaries whose incomes does not exceed 135% FPL, and whose assets are less than three times the SSI limit⁸⁵, there is no premium or deductible, co-payments are \$2 for generic drugs and \$5 for any other drugs. There is also no cost sharing in the catastrophic coverage.
- For beneficiaries not in the above categories, whose incomes are below 150% FPL and who have less than \$10,000 in assets (\$20,000 for a couple), the premium is reduced on a linear sliding scale (down to \$0 at or below 135% FPL); the deductible is reduced to \$50; the co-insurance is reduced to 15%. After reaching the catastrophic coverage, co-payments are \$2 for generic drugs and \$5 for any other drugs.

Eligibility Requirements

In general, you are eligible for Medicare HI if you or your spouse worked at least 40 quarters in Medicare-covered employment and you are 65 years old and a citizen or permanent resident of the United States. You might also qualify for coverage if you are a younger person with a disability or with End-Stage Renal Disease.

Here are some simple guidelines. You can receive HI at age 65 without paying premiums if:

- You are already receiving retirement benefits from Social Security or the RRB
- You are eligible to receive Social Security or RRB benefits but have not yet filed for them
- You or your spouse had Medicare-covered government employment

If you are under 65, you can get Part A without having to pay premiums if:

- You have received Social Security or RRB disability benefits for 24 months
- You are a kidney dialysis or kidney transplant patient

⁸⁴ Beneficiaries eligible for both Medicare (Part A and/or B) and Medicaid

⁸⁵ SSI limits assets to \$2,000 for individuals and \$3,000 for couples.

While you do not have to pay a premium for HI if you meet any of the above conditions, you must pay for SMI if you want it. The SMI monthly in 2004 is \$66.00.

What if I have not worked the required 40 quarters in covered employment? Although most Medicare beneficiaries do not pay a premium for HI services, there are instances where individuals who have not yet met all requirements for Medicare may obtain coverage. Seniors and certain persons under 65 with disabilities who have fewer than 30 quarters of coverage may obtain Part A by paying a monthly premium set according to a formula in the Medicare statute, for 2004 the monthly premium was \$343. In addition, seniors with 30-39 quarters of coverage, and certain disabled persons with 30 or more quarters of coverage, are entitled to pay a reduced premium, for 2004 it was \$189.⁸⁶

How is Medicare Financed?⁸⁷

Medicare is the biggest health program in the United States: it covers 35.1 million persons over the age of 65, and 5.5 million disabled persons.

Payroll Taxes and Premiums. The HI component of Medicare is financed by a tax levied on all wage and salary income. The tax is 1.45% each for the employee and the employer.

Example: Jo Waller makes \$50,000 a year would pay \$725 a year. Her employer also would pay \$725.

The wage base for Social Security in 2004 is \$87,900, the maximum amount on which taxes can be levied. But there is no maximum wage base for Medicare taxes. An individual making \$1,000,000 a year would pay a Medicare payroll tax of \$14,500, and his employer would pay an equal amount. Self-employed persons pay 2.9% of earnings.

For SMI, Medicare beneficiaries pay a premium of \$66.60 a month in 2003 for their part B coverage. This can be deducted from the beneficiary's monthly Social Security benefit check. These premiums pay for about 25% of the cost of Part B spending; the rest comes from general tax revenues.

With the passing of the Medicare Modernization Act of 2003, the Part B premium will be increased, beginning in 2007, for beneficiaries meeting certain thresholds. Beneficiaries with modified adjusted gross incomes under \$80,000 will continue to pay premiums that are 25% of twice the actuarial rate (no change from current premium). For beneficiaries with incomes between \$80,000 and \$100,000, the applicable percentage is 35%; for those with incomes between \$100,000 and \$150,000, the percentage is 50%; for incomes between 150,000 and \$200,000, the percentage is 65%; and for incomes above \$200,000, the percentage is 80%. For married couple the income thresholds are doubled. These thresholds are to be updated each calendar year by the CPI.⁸⁸ There is a 5-year adjustment period for this provision, that is, the amount of premium above the 25% of twice the

⁸⁶ U.S. Department of Health and Human Services, *HHS Announces Premium and Deductible Rates for 2004*, website material, <http://www.hhs.gov/news/press/2003.html>, October 16, 2003.

⁸⁷ National Academy of Social Insurance, *Social Insurance Sourcebook*, website material, <http://www.nasi.org/publications3901/publications.htm>, Washington, DC.

⁸⁸ Medicare Board of Trustees, *2004 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, Washington, DC, March 23, 2004, page 152.

actuarial rate is phased in – at 20, 40, 60, 80, and 100 percent for 2007 to 2011 and later, respectively.

If the differential premiums were in effect in 2004, according to estimates by Commerce Clearing House, a beneficiary with an income of \$80,000 a year would pay \$82.18 a month for the Part B premium. The maximum, for someone earning over \$200,000 a year, would be \$187.84 a month. The provision will affect a very small number of Medicare beneficiaries—less than 5% of the Medicare population has an income of \$70,000 a year or more, according to the Centers for Medicare and Medicaid Services (CMS).

The new Part D drug benefits will also be financed by a new beneficiary premium. The premium represents 25.5% of the cost of basic coverage on average. For prescription drug plans (PDPs) and the drug portion Medicare Advantage (MA) plans, the premium will be determined by bids. Taken together, all PDP bids and MA drug bids will form a national weighted average (weighted by plan enrollment). Each plan's premium will be 25.5% of the national weighted average plus or minus the difference between the plan's bid and the average. The remaining 74.5% represents a federal subsidy.

A new Medicare Prescription Drug Account within the SMI trust fund will be established to fund Part D. Amounts in this account will be kept separate from other funds in Part B and do not affect the computation of the Part B premium. The account will generally consist of periodically appropriated general revenues, premiums from Part D enrollees, State contributions to Medicare drug costs, interest, and any leftover balance from temporary drug discount card's Transitional Assistance Account.

Appendix 1: Tables and Charts

Table II.A3.—Medicare Enrollment

[In thousands]

Calendar year	HI	SMI		Part C ¹	Total ²
	Part A	Part B	Part D		
Historical data:					
1970	20,104	19,496	—	—	20,398
1975	24,481	23,744	—	—	24,864
1980	28,002	27,278	—	—	28,433
1985	30,621	29,869	—	842	31,081
1990	33,747	32,567	—	1,181	34,251
1995	37,175	35,641	—	2,714	37,594
1996	37,701	36,104	—	3,672	38,122
1997	38,099	36,445	—	4,735	38,514
1998	38,472	36,756	—	5,732	38,889
1999	38,765	37,022	—	6,191	39,187
2000	39,257	37,335	—	6,233	39,688
2001	39,669	37,667	—	5,608	40,102
2002	40,100	38,049	—	5,005	40,523
2003	40,589	38,465	—	4,655	41,004
Intermediate estimates:					
2004	41,399	39,041	4,651	4,698	41,805
2005	42,006	39,547	4,726	5,305	42,404
2006	42,680	40,083	40,736	9,528	43,069
2007	43,463	40,713	41,468	11,232	43,843
2008	44,347	41,447	42,296	12,221	44,718
2009	45,268	42,216	43,158	13,253	45,629
2010	46,241	43,009	44,069	13,588	46,592
2011	47,359	43,923	45,117	13,961	47,700
2012	48,697	45,055	46,374	14,344	49,029
2013	50,173	46,332	47,761	14,741	50,496
2015	53,198	48,967	50,607	15,386	53,505
2020	61,608	56,349	58,800	³	61,886
2025	70,917	64,673	67,606	³	71,185
2030	78,794	72,060	75,063	³	79,063
2035	83,806	76,530	79,818	³	84,078
2040	86,792	79,247	82,659	³	87,064
2045	88,992	81,273	84,758	³	89,265
2050	91,230	83,449	86,884	³	91,504
2055	93,878	85,992	89,393	³	94,153
2060	97,084	88,951	92,432	³	97,361
2065	100,040	91,591	95,237	³	100,317
2070	102,924	94,240	97,971	³	103,200
2075	105,325	96,466	100,244	³	105,597
2080	107,770	98,746	102,184	³	108,037

¹Number of beneficiaries enrolled in a Medicare Advantage plan. From early 1980s to 1997 represents those enrolled in a risk HMO, and from 1998 to 2003 represents those enrolled in a Medicare+Choice plan. In order to enroll in a Medicare Advantage plan, a beneficiary must be enrolled in both Part A and Part B. Therefore, Part C enrollment is a subset of both Part A and Part B enrollment.

²Number of beneficiaries with HI and/or SMI coverage.

³Enrollment in Medicare Advantage plans is not explicitly projected beyond 2015.

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⁸⁹ Medicare Board of Trustees, *2004 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, Washington, DC, March 23, 2004, page 27.

Appendix C – Statement of Social Insurance

United States Government
Statements of Social Insurance
Present Value of Long-Range (75-Years, except Black Lung) Actuarial Projections

(In billions of dollars)	2004	2003	2002	2001	2000
Federal Old-Age, Survivors and Disability Insurance (Social Security):					
<i>Contributions and Earmarked Taxes from:</i>					
Participants who have attained age 62	411	359	348	309	266
Participants ages 15-61	14,388	13,576	13,048	12,349	11,335
Future participants (under age 15 and births during period) ..	12,900	12,213	11,893	11,035	10,088
All current and future participants	27,699	26,147	25,289	23,693	21,689
<i>Expenditures for Scheduled Future Benefits for:</i>					
Participants who have attained age 62	4,933	4,662	4,401	4,256	4,020
Participants ages 15-61	22,418	21,015	20,210	18,944	17,217
Future participants (under age 15 and births during period) ..	5,578	5,398	5,240	4,700	4,297
All current and future participants	32,928	31,075	29,851	27,900	25,534
Present value of future expenditures less future revenue ..	5,229 ¹	4,927 ²	4,562 ³	4,207 ⁴	3,845 ⁵
Federal Hospital Insurance (Medicare Part A):					
<i>Contributions and Earmarked Taxes from:</i>					
Participants who have attained eligibility age	148	128	125	113	97
Participants who have not attained eligibility age	4,820	4,510	4,408	4,136	3,757
Future participants	4,009	3,773	3,753	3,507	3,179
All current and future participants	8,976	8,411	8,286	7,756	7,033
<i>Expenditures for Scheduled Future Benefits for:</i>					
Participants who have attained eligibility age	2,168	1,897	1,747	1,693	1,681
Participants who have not attained eligibility age	12,054	10,028	9,195	8,568	6,702
Future participants	3,246	2,653	2,470	2,225	1,349
All current and future participants	17,468	14,577	13,412	12,487	9,732
Present value of future expenditures less future revenue ..	8,492 ¹	6,166 ²	5,126 ³	4,730 ⁴	2,699 ⁵
Federal Supplementary Medical Insurance (Medicare Part B):					
<i>Premiums:</i>					
Participants who have attained eligibility age	332	284	252	258	234
Participants who have not attained eligibility age	2,665	2,148	1,856	1,845	1,527
Future participants	891	688	600	593	404
All current and future participants	3,889	3,120	2,708	2,696	2,165
<i>Expenditures for Scheduled Future Benefits for:</i>					
Participants who have attained eligibility age	1,475	1,306	1,132	1,159	1,051
Participants who have not attained eligibility age	10,577	8,845	7,463	7,415	6,094
Future participants	3,277	2,622	2,238	2,206	1,514
All current and future participants	15,329	12,773	10,833	10,780	8,659
Present value of future expenditures less future revenue ⁶ ..	11,440 ¹	9,653 ²	8,125 ³	8,084 ⁴	6,494 ⁵
Federal Supplementary Medical Insurance (Medicare Part D):					
<i>Premiums:</i>					
Participants who have attained eligibility age	176				
Participants who have not attained eligibility age	1,857				
Future participants	618				
All current and future participants	2,651				
<i>Expenditures for Scheduled Future Benefits for:</i>					
Participants who have attained eligibility age	773				
Participants who have not attained eligibility age	7,566				
Future participants	2,431				
All current and future participants	10,770				
Present value of future expenditures less future revenue ⁶ ..	8,119 ¹				

Appendix D – Actuarial Note: Unfunded Obligation and Transition Cost for the OASDI Program

ACTUARIAL NOTE

UNFUNDED OBLIGATION AND TRANSITION COST
FOR THE OASDI PROGRAM

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SOCIAL SECURITY ADMINISTRATION

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1. Introduction

Measures of the unfunded obligation of the Old-Age and Survivors Insurance and Disability Insurance (OASDI) program for any period represent the shortfall of financial resources available under current law to cover the cost associated with scheduled benefits for the period. The unfunded obligation for any program must be defined on the basis of the intended financing of the program. Because the OASDI program is financed on essentially a current-cost or pay-as-you-go basis, the measure of open group unfunded obligation is appropriate. Programs that are intended to be essentially fully-advance funded require the use of other measures, reflecting a closed group participation perspective, to assess their unfunded obligation (or liability).

However, these closed group measures are more accurately described as theoretical measures of "transition cost" for the OASDI program. Estimates of the unfunded obligation vary depending on the valuation period and the assumptions used. Transition cost measures additionally vary depending on which plan participants are included.

The purpose of this actuarial note is to present, explain, and clarify the various measures of unfunded obligation and transition cost used in the context of the OASDI program.¹ Section 5 [below] contains definitions of the various concepts, as used by the Office of the Chief Actuary (OCACT), which appear throughout this note. [Table 1](#) [below] contains estimates of the open group unfunded obligation measured over different time periods. [Table 2](#) [below] includes estimates for other measures, referred to as transition cost for different groups of participants. All measures in these tables are estimated based on intermediate assumptions of Trustees Reports through 2004.

2. Open Group Unfunded Obligation

The open group unfunded obligation is consistent with a pay-as-you-go financing approach and is thus directly applicable for assessing the actuarial status of the OASDI program. The term obligation is used in lieu of the term liability, because liability generally indicates a contractual obligation (as in the case of private pensions and insurance) that cannot be altered by the plan sponsor without the agreement of the plan participants.

Estimates of the open group unfunded obligation for the 75-year projection period are given in [Table 1](#) for annual valuation dates starting with January 1, 1979. The specific year of the

Trustees Report, which identifies the intermediate assumptions used in determining the estimates, is the same as the year of the valuation date. Significant uncertainty surrounds the estimates for a period as long as 75 years. A discussion of this uncertainty for the most recent valuation date (January 1, 2004) is located in appendix E of the 2004 Trustees Report.² Estimates of the open group unfunded obligation for the infinite future are also shown in [Table 1](#) for valuation dates of January 1, 2003 and January 1, 2004. The unfunded obligation for the infinite future does provide a more complete and extended measure of the expected future financial shortfall for the OASDI program. However, the shortfall for the infinite future must be considered in the context of the period over which program modifications are needed, in this case, the infinite future. It is also important to note that the uncertainty surrounding estimates made for periods longer than 75 years would be much greater than that for the 75-year period (which, as noted above, reflects significant uncertainty). It would have been extremely difficult to make projections of today's economy and the numbers of various workers and beneficiaries from a perspective, for example, of 200 years ago. In addition, the infinite horizon estimates assume that the normal retirement age for those turning 62 after 2021 will remain at age 67, even though mortality is expected to continue improving. This means that eventually people may collect benefits for longer than they pay payroll taxes, on average.

Solvency for the OASDI program at any point in time means that the program is able to pay scheduled benefits in full, on a timely basis at that time. Solvency for any point in time is indicated by a zero or positive trust fund balance at that time. However, it is important to realize that the open group unfunded obligation for a period, as a single summarized measure, indicates the financial status of the program for that period taken as a whole and whether the program will be financially solvent at the end of that period. If the unfunded open group obligation over the period is zero or negative, this would *not* necessarily indicate solvency throughout the period.

In order to determine sustainable solvency it is important to consider whether solvency is achieved for the program at all times within the valuation period and beyond. Thus, in order to determine whether the program achieves "sustainable solvency for the foreseeable future", OCACT focuses on a 75-year projection period and uses the following criteria:

- The level of the combined trust funds at each point in time during the 75-year projection period must be zero or positive, and
- The level of the combined trust funds, expressed as a percent of annual program cost, must be stable or rising at the end of the 75-year period. (This indicates that the solvency of the OASDI program can be expected to be sustained well beyond the end of the period.)

3. Decomposition of the Unfunded Open Group Obligation over the Infinite Future
[Table 2](#) separates the unfunded open group obligation over the infinite future into two components from a generational perspective. These components are important for evaluating the financial status of a program that is designed to be "fully-advance-funded". The first of these two components, the "closed group transition cost", is the net present value of the transition cost that would be incurred if participation in the program were closed off to individuals under age 15 as of the valuation date.³ The second component is the net present value of the cost of providing scheduled benefits for future participants in the program (those under age 15 or not yet born on the valuation date) for the infinite future less the scheduled taxes they would be expected to pay. If this net shortfall for future participants is zero or negative, then scheduled

taxes for future generations are expected to be sufficient to finance their benefits on a fully-advance-funded basis.

Under a pay-as-you-go program like the OASDI program, the taxes of each generation are used to pay the benefits of prior generations and are not used to advance fund their own benefits. Thus, the fact that taxes for future generations equal or exceed the present value of the cost of their own scheduled benefits is not relevant to the actuarial status of the program. Similarly, the closed group transition cost of the program is not relevant to the actuarial status of the program, because benefits of current program participants will be paid largely by the taxes of future generations, which are not reflected in this value.

The closed group transition cost may have specific applications in cases like that of the Federal Government closing the Civil Service Retirement System plan to persons newly hired after 1983. In general, however, this concept is only appropriate for the valuation of the actuarial status of an ongoing plan that has been intended to be essentially fully advance funded, such as plans covered under the Employee Retirement Income Security Act (ERISA).

For a social insurance plan that was designed to be financed on a pay-as-you-go basis with the expectation of a continuing pool of new entrants, like OASDI, the closed group transition cost cannot be applied as a measure of financial status because it is inconsistent with the design and intent of the program. However, the concept can be used in the context of a continuing social insurance program that is converting to another form, where there is a desire to keep the financing of the old and new forms separate for analytical purposes.

4. Maximum Transition Cost

The "maximum transition cost" represents the transition cost for continuing the Social Security program in a different form, with all payroll taxes for work after the valuation date credited to the new benefit form. The maximum transition cost is equivalent to the unfunded accrued obligation of a plan designed to be fully advance funded at the time of plan termination and would be an appropriate calculation to evaluate the actuarial status of an ERISA plan. However, this concept may be applied when a continuing plan that has been financed on a pay-as-you-go basis is being converted abruptly to a new form that will apply not only for future participants but also with respect to all future taxes or premiums of current participants.

5. Definitions

The definitions of various measures and the terms used in the attached tables are given below.

Accrued benefit obligations—This measure reflects future benefit obligations based on past earnings as of the valuation date. Thus, these accrued benefit obligations are relevant only to current participants as of the valuation date. The accrued benefit obligations are based on the primary insurance amount (PIA), the early retirement or delayed retirement factors, and other rules of payment. The accrued benefit obligations include:

- Benefits scheduled to be paid for current (i) retired-worker beneficiaries and (ii) disabled-worker beneficiaries who continue to be disabled after the valuation date.
- Retired worker benefits based on PIAs determined as of the valuation date for workers who have reached benefit eligibility age (62) and are not yet receiving benefits.

- Benefits calculated on a proportional past-service-credit basis determined as of the valuation date for current active participants under age 62. These benefits require a computation of a PIA (PIA), as of the valuation date, as if the worker had just become eligible to receive a disabled-worker benefit. These benefits are then adjusted so they may be viewed as benefit levels of a worker aged 62. The adjustments are made depending on the type of worker, as illustrated below.⁴
- For workers who survive to age 62 and are not disabled after the valuation date, PIA would be indexed to age 62 by the Social Security Average Wage Index, and would then be multiplied by the fraction $(\text{age as of the valuation date} - 22) / 40$.
- For workers who survive to age 62, are not disabled as of the valuation date, and become disabled before age 62, PIA_{DIB} would be indexed to the date of disability by the Social Security Average Wage Index, and would then be multiplied by the fraction $(\text{age as of the valuation date} - 22) / (\text{age as of the date of disability} - 22)$.
- For beneficiaries who are disability beneficiaries as of the valuation date, recover from disability before age 62, and survive to age 62, benefits would equal the disability benefit scheduled to be paid until recovery. After reaching age 62, benefits would be computed based on indexing the final disability benefit received before recovery ($\text{PIA}_{\text{DIB-RECOV}}$) to age 62 by the Social Security Average Wage Index, and would then be multiplied by the fraction $(\text{age as of recovery from disability} - 22)/40$.
- Benefits for auxiliary beneficiaries would be based on the primary worker's benefits as described above.

Closed group transition cost—This measure is computed like the open group unfunded obligation for a 100-year projection period, with the exception that future participants are not included. Specifically, the future cost and future scheduled tax income for only current participants are included in the calculations along with the trust fund assets at the start of the period. The period is extended to 100 years past the valuation date in order to capture the lifetime of all the current participants included in the valuation.

Current participants—All individuals (generations) who are age 15 and older as of the valuation date. This includes all individuals who have been, are, or will be workers and/or beneficiaries. (As noted in [Table 2](#), the age 15 varies slightly for valuation dates before 1984.)

Future cost—The value of OASDI program benefits scheduled in current law and the cost of administering the program.

Future participants—Future workers and beneficiaries, who are under age 15 or not yet born, as of the valuation date. (As noted in [Table 2](#), the age 15 varies for valuation periods before 1984.)

Future scheduled tax income—OASDI tax income scheduled in current law.

Maximum transition cost—This measure represents the cost of meeting the accrued benefit obligations of the old form while continuing the Social Security program in a completely different form, with all payroll taxes for work after the valuation date credited to the new benefit form. The maximum transition cost is determined as of the valuation date for current and past participants only. It is computed as the difference between

- (a) The present value of all future accrued benefit obligations payable on the old form; and
- (b) The value of the assets on the valuation date plus the present value of revenue from taxation of future accrued benefit obligations payable on the old form.

The projection period ends 100 years past the valuation date in order to capture the lifetime of all the current participants included in the valuation.

Open group unfunded obligation—This measure is determined as of the valuation date over a specified time period (such as over the long-range 75-year period). It is computed as the difference between:

- (a) The present value of the future cost of the program between the valuation date and the end of the specified time period, and
- (b) The sum of the assets in the trust fund as of the valuation date and the present value of the future scheduled tax income of the program between the valuation date and the end of the specified time period.

Future scheduled tax income and cost are projected using the intermediate assumptions for the indicated Trustees Report (the year of the Trustees Report corresponds with the year of the valuation date). All current participants, as well as future participants to the system, over the specified time period are included in the computations.

Past participants—Those who contributed money to the program or received benefits from the program and are no longer alive as of the valuation date.

Sustainable solvency—This term is used to indicate that the combined OASDI Trust Funds are expected to be able to pay all scheduled benefits on time over the 75-year projection period and to continue paying all benefits on time for the foreseeable future. Thus, the following two conditions are required to be met:

- (a) The level of the trust funds at each point in time during the 75-year projection period is zero or positive, and
- (b) The level of the trust funds, expressed as a percent of annual program cost, is stable or rising at the end of the 75-year period.

Valuation date—Beginning of the projection period or January 1 of the starting projection year. This date defines the point in time for determining present values.

**Table 1.—Open Group Unfunded Obligation for the Combined
Old-Age and Survivors Insurance and Disability Insurance (OASDI) Program**

Valuation date: January 1 of year	Ultimate valuation interest rate	Open group unfunded obligation for the 75-year projection period beginning at valuation date			Open group unfunded obligation for the infinite future projection period beginning at valuation date		
		As a percent of future:			As a percent of future:		
		Present value ¹	Taxable payroll	GDP	Present value ¹	Taxable payroll	GDP
1979	6.600	\$0.8	—	—	—	—	—
1980	6.080	1.4	—	—	—	—	—
1981	6.080	1.5	—	—	—	—	—
1982	6.080	1.5	—	—	—	—	—
1983	6.080	-0.1	—	—	—	—	—
1984	6.080	0.0	—	—	—	—	—
1985	6.080	0.3	—	—	—	—	—
1986	6.080	0.3	—	—	—	—	—
1987	6.080	0.4	—	—	—	—	—
1988	6.080	0.6	0.6	—	—	—	—
1989	6.080	0.8	0.7	—	—	—	—
1990	6.080	1.2	0.9	—	—	—	—
1991	6.392	1.1	0.9	—	—	—	—
1992	6.392	1.7	1.3	0.5	—	—	—
1993	6.392	1.8	1.3	0.5	—	—	—
1994	6.392	2.7	2.0	0.8	—	—	—
1995	6.392	2.7	2.0	0.8	—	—	—
1996	6.392	2.9	2.0	0.8	—	—	—
1997	6.295	2.8	2.1	0.8	—	—	—
1998	6.398	2.9	2.1	0.8	—	—	—
1999	6.399	2.9	1.9	0.8	—	—	—
2000	6.399	2.9	1.8	0.7	—	—	—
2001	6.399	3.2	1.7	0.7	—	—	—
2002	6.090	3.3	1.7	0.7	—	—	—
2003	6.090	3.5	1.8	0.7	\$10.5	3.8	—
2004	5.884	3.7	1.8	0.7	10.4	3.5	1.2

¹Present value in trillions of dollars as of the valuation date.

Notes:

1. All estimates are based on the intermediate set of economic and demographic assumptions (Alternative II, or Alternative II-B for 1982 through 1990) in the OASDI Trustees Report for the specified valuation year.

2. All values are subject to uncertainty, especially values over the infinite horizon.

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Table 2. Decomposition of the Unfunded Obligation and Transition Cost for the Combined Old-Age and Survivors Insurance and Disability Insurance (OASDI) Program

		Decomposition of infinite future unfunded obligation								
		Closed group ¹ transition cost (100-year projection period)			Net shortfall for future participants only through the infinite future			Maximum transition cost (100-year projection period)		
Valuation date: Ultimate January 1 of year	interest rate	As a percent of future:			As a percent of future:			As a percent of future:		
		Present value ²	Taxable payroll	GDP	Present value ²	Taxable payroll	GDP	Present value ²	Taxable payroll	GDP
1980	6.080	\$5.3	—	—	—	—	—	—	—	—
1981	6.080	5.5	—	—	—	—	—	—	—	—
1982	6.080	5.4	—	—	—	—	—	—	—	—
1983	6.080	4.8	—	—	—	—	—	—	—	—
1984	6.080	3.9	—	—	—	—	—	—	—	—
1985	6.080	4.3	—	—	—	—	—	—	—	—
1986	6.080	5.0	—	—	—	—	—	—	—	—
1987	6.080	5.2	—	—	—	—	—	—	—	—
1988	6.080	5.4	5.0	—	—	—	—	—	—	—

Appendix D – Actuarial Note: Unfunded Obligation and Transition Cost for OASDI

1989	6.080	5.7	5.0	—	—	—	—	—	—	—
1990	6.080	6.7	5.2	—	—	—	—	—	—	—
1991	6.392	6.2	5.2	—	—	—	—	—	—	—
1992	6.392	6.9	5.4	2.2	—	—	—	—	—	—
1993	6.392	7.2	5.3	2.1	—	—	—	—	—	—
1994	6.392	7.9	5.8	2.3	—	—	—	—	—	—
1995	6.392	7.7	5.8	2.3	—	—	—	—	—	—
1996	6.392	8.4	5.8	2.2	—	—	—	\$8.9	6.2	2.3
1997	6.295	7.5	5.7	2.1	—	—	—	8.7	6.6	2.5
1998	6.398	8.0	5.6	2.2	—	—	—	9.5	6.7	2.6
1999	6.399	8.3	5.5	2.1	—	—	—	10.2	6.7	2.6
2000	6.399	8.8	5.3	2.0	—	—	—	10.8	6.5	2.5
2001	6.399	9.6	5.3	2.0	—	—	—	11.7	6.4	2.4
2002	6.090	10.1	5.2	2.0	—	—	—	12.2	6.3	2.4
2003	6.090	10.5	5.3	2.0	—	—	—	12.6	6.3	2.4
2004	5.884	11.2	5.3	2.0	-\$0.8	-0.3	-0.1	13.5	6.4	2.4

¹The closed group consists of current participants. The youngest age in the closed group is 15, 16, 17, and 18 for 1980-1983 respectively.

²Present value in trillions of dollars as of the valuation date.

Notes:

1. All estimates are based on the intermediate set of economic and demographic assumptions (Alternative II, or Alternative II-B for 1982 through 1990) in the OASDI Trustees Report for the specified valuation year.
2. All values are subject to uncertainty, especially values over the infinite horizon.

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¹ Additional details and explanation are included in the document titled "Measuring Solvency in the Social Security System" by Stephen C. Goss. This document is located on the internet at rider.wharton.upenn.edu/~prc/SocialSecurityReformChp2.pdf.

² This report can be found at the following internet location:
www.socialsecurity.gov/OACT/TR/TR04/index.html.

³ As noted in Table 2, the age 15 varies slightly for valuation dates before 1984.

⁴For the purpose of this measure, the accrued benefit obligations for current active participants under age 22 are assumed to be zero.

Appendix E – Selections from SFAS 87's Glossary

Appendix D: GLOSSARY

264. This appendix contains definitions of certain terms used in accounting for pensions.

Accumulated benefit obligation

The actuarial present value of benefits (whether vested or nonvested) attributed by the pension benefit formula to employee service rendered before a specified date and based on employee service and compensation (if applicable) prior to that date. The accumulated benefit obligation differs from the projected benefit obligation in that it includes no assumption about future compensation levels. For plans with flat-benefit or non-pay-related pension benefit formulas, the accumulated benefit obligation and the projected benefit obligation are the same.

Actual return on plan assets component (of net periodic pension cost)

The difference between fair value of plan assets at the end of the period and the fair value at the beginning of the period, adjusted for contributions and payments of benefits during the period.

Actuarial funding method

Any of several techniques that actuaries use in determining the amounts and incidence of employer contributions to provide for pension benefits.

Actuarial gain or loss

See **Gain or loss**.

Actuarial present value

The value, as of a specified date, of an amount or series of amounts payable or receivable thereafter, with each amount adjusted to reflect (a) the time value of money (through discounts for interest) and (b) the probability of payment (by means of decrements for events such as death, disability, withdrawal, or retirement) between the specified date and the expected date of payment.

Allocated contract

A contract with an insurance company under which payments to the insurance company are currently used to purchase immediate or deferred annuities for individual participants. See also **Annuity contract**.

Amortization

Usually refers to the process of reducing a recognized liability systematically by recognizing revenues or reducing a recognized asset systematically by recognizing expenses or costs. In pension accounting, amortization is also used to refer to the systematic recognition in net pension cost over several periods of previously *unrecognized* amounts, including unrecognized prior service cost and unrecognized net gain or loss.

Interest cost component (of net periodic pension cost)

The increase in the projected benefit obligation due to passage of time.

Net periodic pension cost

The amount recognized in an employer's financial statements as the cost of a pension plan for a period. Components of net periodic pension cost are service cost, interest cost, actual return on plan assets, gain or loss, amortization of unrecognized prior service cost, and amortization of the unrecognized net obligation or asset existing at the date of initial application of this Statement. This Statement uses the term *net periodic pension cost* instead of *net pension expense* because part of the cost recognized in a period may be capitalized along with other costs as part of an asset such as inventory.

Prior service cost

The cost of retroactive benefits granted in a plan amendment. See also **Unrecognized prior service cost**.

Projected benefit obligation

The actuarial present value as of a date of all benefits attributed by the pension benefit formula to employee service rendered prior to that date. The projected benefit obligation is measured using assumptions as to future compensation levels if the pension benefit formula is based on those future compensation levels (pay-related, final-pay, final-average-pay, or career-average-pay plans).

Service

Employment taken into consideration under a pension plan. Years of employment before the inception of a plan constitute an employee's past service; years thereafter are classified in relation to the particular actuarial valuation being made or discussed. Years of employment (including past service) prior to the date of a particular valuation constitute prior service; years of employment following the date of the valuation constitute future service; a year of employment adjacent to the date of valuation, or in which such date falls, constitutes current service.

Service cost component (of net periodic pension cost)

The actuarial present value of benefits attributed by the pension benefit formula to services rendered by employees during that period. The service cost component is a

Unfunded accumulated benefit obligation

The excess of the accumulated benefit obligation over plan assets.

Unfunded projected benefit obligation

The excess of the projected benefit obligation over plan assets.