EXHIBIT C

Blackwood, Kristine (HHS/ASL)

From: Gotts, Jill M. (CMS/OL)
Sent: Friday, June 12, 2009 1:00 PM
To: Foster, Richard S. (CMS/OACT)
Cc: Snow, Jennifer M. (CMS/OL); Hall, Amy (CMS/OL)
Subject: RE: Actuarial studies on an earlier version of the CLASS Act
Attachments: Actuarial Analysis of the Community Living Assistance Services and Supports Act.pdf

Rick,
Here is the other study. I apologize for its poor quality. The incoming fax was also of such quality.

From: Gotts, Jill M. (CMS/OL)
Sent: Thursday, June 11, 2009 5:24 PM
To: Foster, Richard S. (CMS/OACT)
Cc: Snow, Jennifer M. (CMS/OL); Hall, Amy (CMS/OL)
Subject: Actuarial studies on an earlier version of the CLASS Act

Hi Rick,
Here is the first of two studies on the CLASS Act. The other Connie is faxing me, which I in turn will scan and send to you over email. The latter study was commissioned by AARP, which they have not released, and Connie expects us to keep it very close hold since it will be only be in our and CBO's possession. She's also noted that both of these studies were done on the introduced bill and not the current language in their health care reform bill. According to Connie, they used the study findings to adjust the solvency model. What the Mercer (Wyman) study says is that even using the original bill and taking the poorest participation rate and a moderate adverse selection with no flexibility to change premiums or triggers (like the new bill says), a solvent program can be supported in the out years for a premium between $61. and $123. per month.
I'll be sending over the other study, likely tomorrow morning.

From: Garner, Connie (HELP Committee) [redacted]
Sent: Thursday, June 11, 2009 4:35 PM
To: Gotts, Jill M. (CMS/OL)
Subject: Moran Co. report

Sorry Jill --- I forgot the attachment. Here is the study that one of the aging groups had commissioned on the CLASS construct ----- this is the mandatory model so you can see the savings, if one were to do a mandatory model.

March 3, 2008

Actuarial Analysis of the Community Living Assistance Services and Supports Act

AARP

OLIVER WYMAN

Kurt Giesa, FSA, MAAA
Randall Fitzpatrick, ASA

MARSH MERCER KROLL
GUY CARPENTER OLIVER WYMAN

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Executive Summary

The Community Living Assistance Services and Supports Act, S.1758, was introduced in the 110th Congress. This bill would provide cash benefits and other tools to individuals with functional limitations that would allow these individuals to "maintain their personal and financial independence and to live in the community..."

We have undertaken a review of the Act, with a strong focus on the financial aspects of the Act. Our major findings are as follows:

Participation rates are critically important to the success of this program.

First, the premium enrollees would pay for coverage under the Act does not vary by age if an eligible individual enrolls in the program when first eligible, though the cost of providing coverage increases sharply with age. This means the program must attract a sufficiently large number of younger, low-cost enrollees to offset the cost of older, high-cost enrollees. If participation in the program is low, we suspect it will be the younger, low-cost enrollees that opt out of the program.

Second, the Act prohibits using underwriting to screen enrollees. This prohibition against underwriting guarantees broad access to the program. However, it also means that individuals who currently meet the disability requirements for receiving benefits or are very near to meeting those requirements would be eligible for coverage. However, such individuals would not be able to receive benefits under the Act until they had paid premiums for at least 60 months. If the program does not attract a sufficiently large number of healthy enrollees, premiums would need to be increased significantly. Again, if enrollment is low, it will generally be the relatively healthy individuals who opt out.

While the Act contains a number of provisions that are aimed at limiting adverse selection and achieving broad enrollment, our modeling shows that the combination of voluntary enrollment, the prohibition of underwriting, and community rating will ultimately lead to

a deterioration of the pool of enrollees and an unsustainable situation with respect to the premium. Options for curing this problem include more significant governmental subsidies than those that result from the tax provision of the Act which we have not modeled, or making the program mandatory.

We have modeled the finances under the Act under alternate enrollment scenarios – one where enrollment is mandatory, and several others where enrollment is voluntary as in the Act. Our modeling covers the 50 year period from 2008 through 2057. In Section 3 of this report, we describe the enrollment scenarios in detail and we provide the rationale behind the assumptions used in developing the scenarios. We show several summary statistics from our modeling under the various enrollment scenarios in Table 1.

Table 1
Summary Statistics under Various Enrollment Scenarios

	Enrollment Scenario				
		Voluntary			
	Mandatory	High	Moderate	Baseline	Low
Number of Active Enrollees (Millions)					
2008	151	79	64	48	33
2038	217	110	88	66	45
Enrollees Receiving Benefits					
2013 – Number (Millions)	0.60	0.49	0.47	0.45	0.42
2013 – Percentage of Eligible	0.4%	0.8%	0.7%	0.9%	1.3%
2043 – Number (Millions)	6.12	3.44	2.63	2.23	1.62
2043 – Percentage of Eligible	3.0%	3.4%	3.5%	3.6%	3.8%
Year Independence Fund Turns Negative Absent Recalculated Premium	2036	2032	2031	2028	2023
Recalculated Premium for Program Solvency					
First Year Adjustment Required	2015	2015	2015	2015	2015
Percentage Adjustment	50%	100%	133%	166%	250%
Resulting Monthly Premium	$ 47	$ 53	$ 70	$ 80	$ 105
Year Second Adjustment Required	2019	2019	2019	2019	2020
Percentage Adjustment	50%	37%	31%	29%	24%
Resulting Monthly Premium	$ 70	$ 86	$ 91	$ 103	$ 130
Self-Sustaining Premium at Inception	$ 70	$ 77	$ 80	$ 85	$ 95

If enrollment in the program were mandatory, we estimate that there would be roughly 151 million enrollees in the program in 2008 growing to 217 million enrollees by 2038. The Act makes enrollment in the program voluntary. If enrollment in the program were voluntary and participation was consistent with our baseline voluntary enrollment assumption, we estimate that there would be roughly 48 million enrollees in 2008, growing to roughly 66 million over the next 30 years. Table 1 shows enrollment projections under the other enrollment scenarios we modeled as well.

In Table 1, we also show the number of enrollees receiving benefits and the percentage of enrollees receiving benefits under the various scenarios. Of course the percentage of enrollees receiving benefits is critical to the financial health of the Independence Fund, and the values in Table 1 show the importance of achieving broad enrollment in the program. Under our low enrollment scenario the percentage of enrollees receiving benefits is roughly three times the percentage of enrollees who would be receiving benefits under the mandatory enrollment scenario in 2013, the first year benefits would be available under the Act. This difference narrows over time. Thirty years later, in 2043, the percentage receiving benefits is roughly 25% higher under the low enrollment scenario than under the mandatory enrollment scenario.

Premiums paid under the Act and investment income would be deposited into a trust fund maintained by the United States Treasury that would be called Independence Fund. Benefits and administrative expenses would be subtracted from the Independence Fund as they were paid out. Assuming a $30 monthly premium, our projections show the Independence Fund would become negative under each of the enrollment scenarios we tested unless the premium were increased as called for under the Act. Under the mandatory enrollment scenario, the Independence Fund would become negative in 2036. Under our baseline enrollment scenario, the Independence Fund becomes negative in 2028, and under our low enrollment scenario, the Independence Fund becomes negative in 2024.

The Act does contain a solvency test that requires the premium to be increased if certain conditions are met. In Table 1 we show that our modeling indicates premiums will have to be increased under each enrollment scenario in 2015, the first year the Act allows adjustments to be made. However, the size of the adjustment required depends heavily on the enrollment scenario, ranging from 55% under the mandatory enrollment scenario to 250% under the low enrollment scenario. We show similar statistics in Table 1 related to when a second rate increase would be required under the solvency test specified in the Act and the magnitude of that rate increase. It is interesting to note that the larger rate increases required initially under the scenarios with lower enrollment mean that the second rate adjustment can be less. However, the combined effect of the two rate increases is a premium that increases as assumed enrollment in the program declines.

Under either the mandatory or voluntary enrollment scenarios, our modeling shows the $30 monthly premium would be insufficient to support the full cost of the program over the duration of our projection. Assuming enrollment in the program were mandatory, we estimate the premium would have to be approximately $70 per month if revenue from the program, plus investment income were to be sufficient to pay claims and expenses under the program for the next 50 years. We recognize that this $70 monthly premium represents a significant increase over the $30 monthly premium called for in the Act, yet this is lower than premiums for similar coverage currently being offered by long-term care insurers. A $70 monthly premium would equate to roughly 2.3% of the median full-time employee wage.

If enrollment were voluntary and consistent with our baseline voluntary enrollment assumption, we estimate that the premium would have to increase to roughly $85 per month in order for the program to be self-supporting, or roughly 2.8% of the median full-time employee wage.

The Act contains a solvency test where the level of the Independence Fund is compared to benefits that will be paid to eligible beneficiaries over the next 20 years. If the ratio of the benefits that will be paid in any year to the funds contained in the Independence Fund exceeds 40%, the Secretary is required to adjust the premium in such a manner that the ratio of the benefits that would be paid to eligible beneficiaries would be less than 20% of the funds held in the Independence Fund.

We examined other solvency tests altering both the period over which the ratio of benefits paid to the funds in the Independence Fund is calculated and the ratio where the Secretary would have to adjust the premiums. Shortening the projection period from 20 to 10 years would delay the required rate action, but once triggered, the increase in the premium would be larger. Similarly, increasing the ratio at which the Secretary would have to take action from 40% to 60% would delay the required rate action, but again, once triggered, the rate increases be larger. In Table 2, we show the results of our modeling under these alternative solvency tests assuming enrollment is mandatory.

Table 2
Alternative Solvency Tests -- Mandatory Enrollment

	20-Year Look Forward		10-Year Look Forward	
	40% Ratio Adjusted to 20%	60% Ratio Adjusted to 40%	40% Ratio Adjusted to 20%	60% Ratio Adjusted to 40%
Year of First Rate Increase	2015	2015	2024	2025
Size of First Rate Increase	55%	17%	100%	45%
Resulting Monthly Premium	$ 47	$ 35	$ 60	$ 44
Year of Second Rate Increase	2019	2017	2028	2027
Size of Second Rate Increase	50%	25%	80%	50%
Resulting Monthly Premium	$ 70	$ 44	$ 108	$ 65

As an example, in Table 2 we show that if the solvency test were changed so that the look-forward period were 10 years rather than 20 years, the rate increase would be delayed from 2015 to 2024, but the rate increase would need to be 100% rather than the 55% we estimate would be required under the solvency test contained in the Act.

We note that the Act does contain a provision allowing additional appropriations to ensure the solvency of the Independence Fund during the initial benefit years (2011 through 2015). While our projections indicate the $30 premium would not be adequate to ensure the Fund's solvency for the duration of the projection, we are projecting the Fund will be positive and growing during the initial benefit years.

The values in Table 3 show the $70 self-sustaining premium under the mandatory enrollment assumption, and the premium under alternative assumptions regarding morbidity, enrollment, and the interest rate environment. This demonstrates that there is considerable variability in the results depending on the assumptions used. However, even under what we consider to be very optimistic assumptions (e.g., a 7% interest rate) and mandatory enrollment, the $30 premium would not be self-sustaining over the 50 year time period covered by our modeling.

Table 3
Self-Sustaining Monthly Premium

	Enrollment Assumption				
		Voluntary			
Scenario	Mandatory	High	Moderate	Baseline	Low
Morbidity Improvement					
2% for 20 years	$ 70	$77	$ 80	$ 85	$ 95
No Improvement	100	107	110	115	123
3% for 20 years	57	65	68	72	81
2% for entire projection	54	61	64	69	77
Interest Rate					
4.5%	$ 70	$77	$ 80	$ 85	$ 95
5.0%	65	72	75	79	88
6.0%	57	64	66	71	79
7.0%	50	56	59	63	71

The values in Table 3 show the self-sustaining premium rate is highly dependent on the assumptions chosen. Under the assumption that enrollment in the program is mandatory and an optimistic assumption of 7% interest, the self-sustaining premium is $50 per month. If enrollment in the program is low, and morbidity does not improve from current levels, we estimate the self-sustaining premium would need to be $123 per month.

If the Act were to become law with the $30 monthly premium and the other provisions related to enrollment, we believe the market for private long-term care insurance would shrink. Because the Act would provide broad access at less than current market rates, we would expect sales of new LTC policies to decline. Similarly, we would expect some portion of the population with private LTC policies in force to lapse those policies and instead obtain coverage under the Act. We note, however, that there would likely be opportunities to for private insurers to provide insurance policies to supplement the coverage provided under the Act.

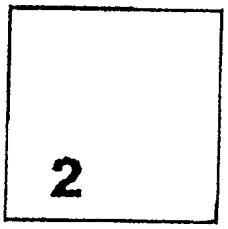
We examined the impact of the tax provisions of the Act related to federal income tax receipts. We estimate that the tax provisions of the Act related to the above-the-line deduction of premiums and the tax credit extended to low-income enrollees would result

in roughly a 1% reduction in federal income tax receipts related to individual income taxes, and a 0.5% reduction in total federal tax receipts over the first 10 years of the program.

We also examined the impact of the provisions of the Act related to coordinating benefits under the Act with those available through the Medicaid program. For the first few years of the program, we estimate that the benefits provided under the Act would offset roughly 1.5% of Medicaid spending for LTC services. We expect that this number would increase significantly over time as the population covered under the Act reaches ages where LTC claims become likely. Under the assumptions we describe in Section 8 of this report, we estimate this percentage would increase to roughly 12% in 2045.

Caveats

This report concerns future events that cannot be known with certainty. We have based our estimates of these events on a number of assumptions regarding conditions in the future. In general, these assumptions are founded on our interpretation of recent historical information or our judgment. Our projections are accurate only to the extent that future experience conforms to these assumptions. To the extent that these assumptions are at variance with conditions in the future, our projections will vary from actual results.



Overview of the CLASS Act

The Community Living Assistance Services and Supports Act (the "Act" or the "CLASS Act") is meant to provide financial and other resources to individuals with functional limitations to allow them to maintain their personal and financial independence. In its current form, the Act is to be effective January 1, 2008.

The program would be open to individuals who are actively at-work and their spouses. Employers would have the option of automatically enrolling their employees in the program. Those employees working for employers who offer enrollment in the program would have the option to opt out of the program, but would otherwise be covered and premiums would automatically be deducted from their pay. Actively at-work individuals working for employers who choose not to offer access to the program through the workplace and self-employed individuals would have alternative means of enrolling in the program. Continued employment would not be required to remain in the program. Unemployed individuals would be allowed to remain in the program provided they continued to pay the monthly premium. There is no minimum period of time during which an employee must be employed prior to becoming eligible for the program

Premiums under the program would be $30 per month ($360 per year) for individuals enrolling during the first year the program is in effect, regardless of the individual's age, gender, or other criteria. The premium is intended to stay level for the life of the enrollee. This $30 monthly premium would increase with inflation for those individuals enrolling in years other than the first year the program is in effect, provided they enroll in the program when first eligible.

If an individual chooses not to enroll in the program when first eligible, they would still be able to enroll in the program, but their premium would be adjusted based on their age at enrollment, inflation, and administrative expenses.

Individuals with incomes below 150% of the poverty line would be charged a nominal premium. Premium for these low income individuals could be adjusted for age at enrollment, inflation, and administrative costs if the individual failed to enroll when first eligible for coverage.

The program is meant to be self-sustaining, and thus includes a solvency test which, if triggered, requires the Secretary to adjust premium rates in a specified fashion. Any such adjustment cannot result in premiums for any given individual being more than 50% higher than they were prior to the adjustment, or more than 200% of what they were when the enrollee first enrolled in the program. In addition, such adjustments would not apply to those who had attained age 65, were not actively at work, and had paid into the program for at least 20 years.

The Act does anticipate people lapsing and re-entering the program. While such individuals will receive credit for the time they had paid premiums into the program, if the lapse was for a period greater than 90 days, their premiums would be adjusted for their age at re-entry into the program, for inflation, and for administrative costs. In addition, in before they would be considered eligible to receive benefits, they would be required to have paid premiums for at least 60 months and for at least 12 months since the date of re-enrollment.

The Act is clear that underwriting cannot be used either in establishing an individual's premium, or in determining whether or not an individual is eligible for coverage.

Premiums are waived if an individual is receiving benefits and is unemployed or is a full time student less than age 22 who is actively at work.

Like all modern LTC policies, eligibility for benefits under the program is based on functional limitations as measured by an inability to perform certain activities of daily living (ADLs), or based on cognitive impairment. The six ADLs used in the Act are the following: eating, toileting, transferring, bathing, dressing, and continence. The Act defines two types of benefit eligible individuals – tier I and tier II beneficiaries. Tier I beneficiaries are those individuals who are unable to perform at least two ADLs or demonstrate a mild cognitive impairment by being unable to perform two or more of the following "critical life functions:" communicating, taking medications, household management, or basic money management. Tier II beneficiaries are those individuals who are unable to perform four or more ADLs or unable to perform all of the four critical life functions listed above.

Eligible tier I beneficiaries will receive a $50 daily benefit, while tier II beneficiaries will receive a $100 daily benefit. The benefits will be paid on a monthly basis into individual accounts. Beneficiaries will obtain access to these funds through debit cards. These daily benefit amounts will increase with CPI. There is no lifetime limit to the benefit.

The Act includes provisions to coordinate with Medicaid. Institutionalized beneficiaries who are enrolled in Medicaid are allowed to retain 5% of their daily benefit amount. The balance is to go toward the facility's cost of care with Medicaid providing secondary coverage. Beneficiaries receiving home and community based services under Medicaid are eligible to retain 50% of their daily benefit, with the balance going to the provider and Medicaid again providing secondary coverage, unless the state's home and community based waiver under the Social Security Act meets certain provisions, in which case the state will retain 100% of the daily benefit amount. For our purposes, we are assuming states will meet these provisions, and the benefits paid to Medicaid eligibles will generally offset Medicaid expenditures for long-term care services.

The Act includes patient advocacy and consumer protection provisions, and protections against fraud and abuse. These provisions are not the focus of our work.

The funds collected under the Act will be deposited into a trust established by the Treasury that will be called the Independence Fund. The Independence Fund balance will be invested in the same way the Federal Old-Age and Survivor's Trust Fund and the Federal Disability Insurance Trust Fund are invested.

The Act contains a provision allowing additional appropriations to ensure the solvency of the Independence Fund during the initial benefit years (2011 through 2015).

The Act calls for an assessment of the infrastructure required to deliver services to beneficiaries under the Act, and the working conditions for the individuals delivering services to beneficiaries.

Finally, the Act contains changes to the tax code making premiums paid deductible for enrollees with incomes in excess of 250% of the poverty line. Individuals with incomes less than 250% of the poverty line receive a tax credit equal to 50% of the premiums paid. Employers can receive credit equal to 25% of the cost of establishing and running this program on their employees' behalf. To claim this tax credit, employers must automatically enroll employees in the program and withhold and pay the monthly premiums on behalf of their employees.

3

Data and Methods and Assumptions

Model Structure

In order to understand the financial and other provisions of the Act, we created a micro-simulation model. The model consists of three essential pieces: (1) a population projection engine that projects the population out into the future taking into account various assumptions regarding participation rates, (2) a set of claims costs and morbidity assumptions that are applied to the population to generate the claims that are expected under the program, and (3) a premium model that applies the premium provision of the Act to the population to estimate revenue.

Projecting the Size of the Covered Population

The Working Population in 2008

We began by using data from the Bureau of the Census showing a forecast of 137.5 million employed individuals in 2008. In our modeling, we have assumed that the eligible population is 10% larger than the employed population as non-employed spouses attached to the work force would also be eligible for the program. This assumption is based on data from the Current Population Survey showing that roughly 14.5 million persons (or roughly 10% of employed workers) report not being part of the labor force and giving the reason for not being in the labor force as taking care of home or family.

Distribution the Workforce by Age and Size of Employer

We used data from the Bureau of the Census to array the 2008 workforce by age as shown in Table 4.

Table 4
Percentage of Employed
Individuals by Attained Age

Age Band	Employee Distribution
20-29	22.4%
30-44	42.2%
45-54	24.1%
55-59	7.3%
60-61	2.0%
62-64	2.1%
Total	100.0%

Source: Bureau of the Census

We have assumed this age distribution regardless of the size of the employer.

In Table 5, we show the distribution of employees by employer size using data from the Bureau of Labor Statistics.

Table 5
Percentage of Employed Individuals
by Size of Firm

Employer Size	Employee Distribution
< 5 Employees	7.1%
5-9 Employees	8.3%
10-19 Employees	11.1%
20-49 Employees	17.2%
50-99 Employees	13.3%
100-249 Employees	16.5%
250-499 Employees	9.3%
500-999 Employees	6.7%
1000+ Employees	10.5%
Total	100.0%

Source: Bureau of Labor Statistics

Median Wages

In order to provide an indication of the affordability of the premiums we discuss in this report, in Table 6, we show the weekly median wages, before tax, for the second quarter of 2007 by age using data from the Bureau of Labor Statistics.

Table 6
Median Weekly Wage of Full-Time Workers by Attained Age

Age Band	Weekly Wages	52 Times Weekly Wages	$360 Premium as a Percent of Wages	$840 Premium as a Percent of Wages
16-19	$ 317	$ 16,484	2.2%	5.1%
20-24	445	23,140	1.6%	3.6%
25-34	635	33,020	1.1%	2.5%
35-44	770	40,040	0.9%	2.1%
45-54	788	40,976	0.9%	2.0%
55-64	790	41,080	0.9%	2.0%
65+	611	31,772	1.1%	2.6%
Total	$ 690	$ 35,880	1.0%	2.3%

Source: Bureau of Labor Statistics

The data in this table show that the $30 monthly premium, or $360 annual premium, would equate to roughly 1% of payroll, and a $70 monthly premium ($840 per year) would equate to 2.3% of wages.

While not shown in Table 6, we note that the median usual weekly earnings of part-time wage and salary workers is $207[1] which would translate into $10,765 in wages assuming 52 weeks of employment. For part-time workers, the $360 annual premium would equate to roughly 3% of wages, and the $840 annual premium would equate to roughly 8% of wages.

The Working Poor

As we described in Section 2 of this report, the Act includes special provisions related to low-income workers. We used data from the Bureau of the Census to estimate the number of workers who would be eligible for these provisions. We show these estimates in Table 7.

Table 7
Percentage of Employed Individuals below 150% of FPL

Employee Age	Percentage of Employees
20-29	24.5%
30-44	18.3%
45-54	13.8%
55-59	13.5%
60-61	16.3%
62-64	18.3%

Source: Bureau of the Census

[1] Usual Weekly Earnings of Wage and Salary Workers: Second Quarter 2007, Bureau of Labor Statistics.

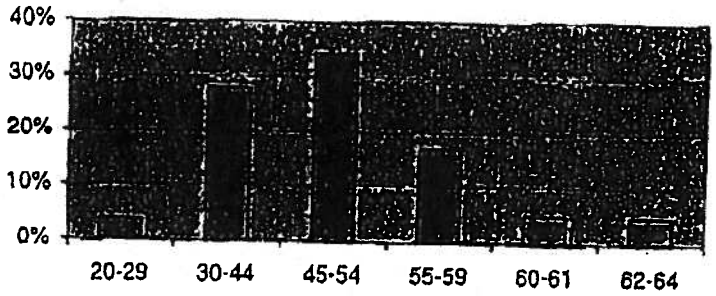
Participation Rates

As we will show in Section 4 of this report, participation rates are a critically important part of this program. As this is a new program, we cannot know participation rates with any kind of certainty. Participation will depend on how well the program is communicated, and economic conditions at the time the program is introduce, among other things. For this reason, we tested the program's financial condition under different scenarios regarding participation rates.

When a group LTC product is offered to employees, typical participation rates range from 3% to 5%[2]. In addition, participation rates tend to vary considerably by age, with older employees much more likely to purchase coverage than younger employees. In Figure 1, we show a typical distribution of certificates issued in the group LTC setting by issue age.

Figure 1

Group LTC Certificates Issued by Issue Age Range



Source: C. Thau, S. Plummer, D. Cathcart, "2007 Group Long Term Care Insurance Survey," Broker World, Vol. 27, No. 3, 46-74, 2005 Data

In Table 4 we showed that roughly two-thirds of the employed workforce is below the age of 45, yet the data in Figure 1 show that only about one-third of group LTC policies are issued to employees in this age cohort.

While participation rates in group-sponsored LTC programs are generally quite low, we know from employers' experience with automatic enrollment and opt-out provisions in 401(k) plans that the type of enrollment mechanism anticipated in the Act should result in higher participation rates than those we typically see in LTC programs offered in an employer group setting. In Table 8, we show participation rates in 401(k) plans where the

2 See, for example, A Survey of Employers Offering Group Long-Term Care Insurance to Their Employees, Final Report, S. Lutzky, J. Corea, L. Alecxih, The Lewin Group, May 31, 2000 http://aspe.hhs.gov/daltcp/reports/ltcinsfr.htm

employee has to opt out if they do not want to participate in the program. Under the typical 401(k) offering, an employee has to take steps to participate.

Table 8
Employee Participation in 401(k) Plans
with Automatic Enrollment

Employee Age	Percent Participation
20-29	82.7%
30-44	87.6%
45-54	90.1%
55-59	90.1%
60-61	86.0%
62-64	86.0%

- Source: B. Madrian, D. Shea. "The Power Of Suggestion: Inertia In 401(k) Participation And Savings Behavior," Quarterly Journal of Economics, 2001, v116(4,Nov), 1149-1187.

The rates in Table 8 are roughly double participation rates seen when the employee has to take positive steps to enroll in a 401(k) program, that is, opt into the 401(k) program.

Participation rates are critically important to this program for at least two reasons. First, the actuarial cost of coverage increases steeply with increasing issue age. We show this in Table 9 using data from the commercial group LTC insurance marketplace.

Table 9
Average Group LTC Premium Rates
$3,000 Monthly Facility Benefit, 50%
Home Care, 5-Year Maximum, 90-Day
Elimination Period, 5% Compound
Inflation Protection

Issue Age	Monthly Premium
20	$ 49.95
30	56.11
40	80.30
50	108.63
60	169.68
70	311.67
80	631.34

Source: C. Thau, S. Plummer, D. Cathcart, "2007 Group Long Term Care Insurance Survey," Broker World, Vol. 27, No. 3, 46-74, 2005 Data

Note that the benefit plan that underlies the monthly premiums in Table 9 is not the same as the benefits included in the Act, and the benefit differences would have an impact on

premiums. However, the benefit plan underlying the premiums in Table 9 is typical of the type of coverage currently being offered in the group setting. The benefit plan underlying the premiums in Table 9 includes a five year maximum where the Act has an unlimited lifetime maximum. The benefit plan behind Table 9 includes a 90-day elimination period where the Act generally requires that benefit eligibility be established within 30 days. The daily benefit under the Act increases with CPI where the benefits behind the premiums in Table 9 increase at 5% per year regardless of CPI. Finally, it is important to note that a substantial part of the premiums in Table 9 will go to carrier administration and risk and profit charges. Administrative expenses under the Act are limited and will likely be considerably smaller than those commercial carriers incur.

While the benefits in Table 9 do not match those that will be available under the Act, these premiums do serve to illustrate the importance of attracting younger workers to keep the average premium low. Recall that the premium under the Act will be a fixed $30 per month regardless of age for those individuals who enroll when first eligible. Relative to the premiums in Table 9, the $30 premium would be considerably more attractive to the 60-year-old than the 20-year-old.

To illustrate the impact that enrollment demographics will have on the cost of the program we have prepared an illustration. The fundamental assumption we make here is the cost of long-term care insurance coverage increases at 5% per year. So, for example, if we set the cost for ages 45 to 54 (central age 50) at 1.00, the cost for ages 55 to 59 (central age 57.5) would be 1.41 ($=1.05^{(57.5-50)}$). Making similar calculations for the age ranges, we arrive at the cost factors shown in Table 10. We then multiply these cost factors by the enrollment figures in Table 10 to arrive at a composite relative cost.

Table 10
Composite Cost Under Alternate
Enrollment Assumptions

Employee Age	Cost Factor(1)	Mandatory Enrollment(2)	Optional Enrollment(3)
20-29	0.30	22.4%	3.9%
30-44	0.54	42.2%	28.0%
45-54	1.00	24.1%	34.5%
55-59	1.41	7.3%	17.0%
60-61	1.67	2.0%	8.3%
62-64	1.89	2.1%	8.3%
Total		100.0%	100.0%
Composite Relative Cost		0.71	1.04

(1) Assumes 5% increase in cost factor per year of age.
(2) Using values from Table 3
(3) Using values from Figure 1

Table 10 shows that the composite relative cost based on the demographic distribution under a mandatory enrollment scenario would be 0.71. If instead, enrollment were voluntary, the composite cost would be 1.04, roughly 46% higher (1.46 = 1.04/0.71). While the demonstration in Table 10 shows composite costs at two ends of the spectrum of possible enrollment assumptions, we note that this comparison takes only demographics into account and ignores the impact of selection. If we were to reflect selection, the difference would be larger.

The second and more important reason the enrollment assumption is critical is the effect of selection in insurance programs. It is a well known and widely observed phenomenon that the more likely a person is to receive benefits under an insurance program, the more likely they are to elect to be covered under that program. In response to this phenomenon, private insurers have adopted underwriting and rating mechanisms to limit this self-selection.

Because the Act operates more like a social insurance program than a private insurance program, the Act requires a level premium regardless of age for those who enroll when first eligible even though older individuals are more likely to receive greater value from the program. In addition, the Act prohibits underwriting so that even people with disabilities that would qualify them as eligible for benefits under the Act will be able to enroll.

Later in this report, we show that we would expect roughly 3% of the covered population to be receiving benefits in the future if participation were mandatory and all persons eligible to participate in the program were required to do so, as is the case with Social Security, for example. It may seem obvious, but we believe it is worth stating, that if only half those eligible to participate chose to do so, but due to selection, the number of claimants did not decline, the cost of the program per participant would double.

The Act does include four important provisions that will help to limit selection. First, the Act requires that an individual be actively at work in order to enroll in the program. Second, the Act includes age-rated premiums for enrollees who fail to enroll when first eligible. This will serve as an inducement to encourage individuals to purchase coverage when first eligible. Third, the Act requires individuals to pay premiums for at least 60 months in total and for at least 12 consecutive months before they are eligible to receive benefits, so that individuals cannot simply enroll when they near benefit eligibility and expect to receive benefits immediately. Finally, the Act includes significant subsidies in the form of tax benefits that serve to lower the cost of coverage below what it would otherwise be.

In order to understand the impact of participation and enrollment, we tested five separate scenarios – one with 100% participation, and four based on participation in 401(k) programs with mandatory enrollment and an opt-out provision. For the non-mandatory scenarios, we used 40% (low), 60% (baseline), 80% (moderate) or 100% (high) of the participation rates shown in Table 8.

Our thinking behind the use of 60% of the participation rates in opt-out 401(k) programs as our baseline is that the benefits provided under the Act will be of lesser value to eligible individuals than 401(k) benefits. The benefits provided under the Act are less tangible (e.g., no account value than can be tracked as is the case with 401(k) accounts). The benefits will not accrue to all individuals who participate (not everyone will become benefit eligible) unlike the 401(k) where the contributions to the 401(k) belong to the employee. The program does not involve the same level of subsidy (i.e., the employer match) provided under 401(k) plans. Finally, the program is, to some extent, an asset accumulation program like a 401(k) program, but the returns are likely to be lower than those available under a 401(k) program as the premiums collected under the Act will be invested in relatively low yielding Treasury instruments.

In addition, slightly more than 40% of employees work for employers who do not offer retirement benefits[3]. We believe it is unlikely that these employers will make the payroll deduction option available to their employees. We have assumed that roughly 5% of employees working for these employers would take advantage of the provisions in the Act that allow employees to participate in the program directly, without going through their employer.

Mortality

In order to project the population into the future, we based mortality on the 2003 US Life Table published by the National Centers for Health Statistics. We projected improvement in the 2003 US Life Table to 2008 using a mortality projection scale published by the Society of Actuaries, and then for an additional 20 years, so that mortality rates are assumed to improve through 2028.

Estimating Morbidity Rates and Program Payments

The Act defines benefit eligibility as being unable to perform at least two ADLs or as demonstrating a mild cognitive impairment by being unable to perform two or more of the following "critical life functions:" communicating, taking medications, household management, or basic money management. Both the National Health Interview Survey (NHIS) and the National Long-Term Care Survey (NLTCS) contain specific questions relating to the ADLs and the critical life functions listed in the Act.

We developed prevalence rates for benefit eligibility among the working-age population using data from the NHIS. As might be expected, the results from the NHIS showed the prevalence of ADL deficiencies among the working-age population varied significantly between those who earned wages during the year and those who were unemployed. As a result, we split tier I and tier II benefit eligible prevalence rates by employment status. Note that the prevalence rates for non-working spouses are included among the unemployed population. We developed prevalence rates for benefit eligibility among the

[3] National Compensation Survey, 2006, Bureau of Labor Statistics.

65+ population using data from the 2004 NLTCS. We show these prevalence rates in Table 11.

Table 11

PREVALENCE RATES (100% Participation)						
	EMPLOYED			UNEMPLOYED		
Employee Age	Healthy	2-3 ADLs or Mild CI	4+ ADLs or Severe CI	Healthy	2-3 ADLs or Mild CI	4+ ADLs or Severe CI
20-29	99.89%	0.05%	0.06%	98.50%	0.53%	0.97%
30-44	99.87%	0.07%	0.05%	97.97%	0.90%	1.13%
45-54	99.77%	0.13%	0.10%	95.84%	2.00%	2.16%
55-59	99.77%	0.12%	0.11%	95.78%	1.98%	2.26%
60-61	99.53%	0.11%	0.35%	96.97%	1.18%	1.85%
62-64	99.65%	0.27%	0.07%	97.11%	1.40%	1.49%
65-74	NA	NA	NA	95.73%	1.21%	3.06%
75-79	NA	NA	NA	90.66%	2.04%	7.30%
80-84	NA	NA	NA	84.28%	3.23%	12.49%
85+	NA	NA	NA	65.93%	8.34%	27.73%

The resulting prevalence rates in Table 11 are a representation of the entire population. Later in this report, we discuss how we adjusted these prevalence rates to take into account less than 100% participation.

Note that for the unemployed population, we were not able to distinguish between those who had never worked, and so would likely never gain access into the program, and those who had worked in the past, but who left the workforce because of their disabilities or some other reason.

Projecting Morbidity Rates into the Future

We projected an annual improvement in morbidity among the 65+ population (a reduction in prevalence rates) of 2.0% per year for a 20 year period. This projected decline in morbidity is based on analysis of the National Long-Term Care Surveys which indicate that the prevalence of disability among the elderly is declining at an increasing rate. Between the 1999 and the 2004 surveys, the prevalence of disability declined at an average annual rate of 2.2% per year.

The 20-year horizon for morbidity improvement is consistent with the period during which we are projecting mortality improvement. Note that to some extent, these two forces, morbidity improvement and mortality improvement work in opposite directions. Improvement in mortality means that more persons live to more advanced ages where claims become more likely. On the other hand, morbidity improvement means that the prevalence of claims at all ages declines over time. On balance, projecting mortality and morbidity improvement as we have serves to lower total claims under the program.

Other Assumptions

In modeling the finances under the Act, we have used a long-term rate of return on invested assets of 4.5% as our baseline assumption. This is roughly consistent with recent yields on Treasuries. Under the Act, the only investment vehicle available to the Secretary for investing the Independence Fund is U.S. Treasury securities. For this reason, we expect the returns on the Independence Fund to be lower than the returns pension funds and other financial institutions are able to earn where the asset managers are able to invest in a wider array of higher yielding assets. We illustrate results under alternative interest rates in the following section of this report.

For CPI, we used 2.5%, which is again roughly consistent with recent historical values of the index.

We assumed the employed population would grow at 1.7% per year, and we assumed the unemployment rate would be 5% and that 60% of these individuals would continue to pay the premium to remain in the program. Both the 1.7% growth in employment and the 5% unemployment rate are roughly consistent with recent experience.

The Act requires that low income individuals pay a nominal premium in order to obtain coverage. The Act does not specify the level of the premium. In our modeling, we have assumed the monthly premium for low-income individuals would be $5.00.

Finally, we assumed that administrative expenses would be 1.5% per year based on the administrative expenses CMS reports relative to administering the Medicare program.

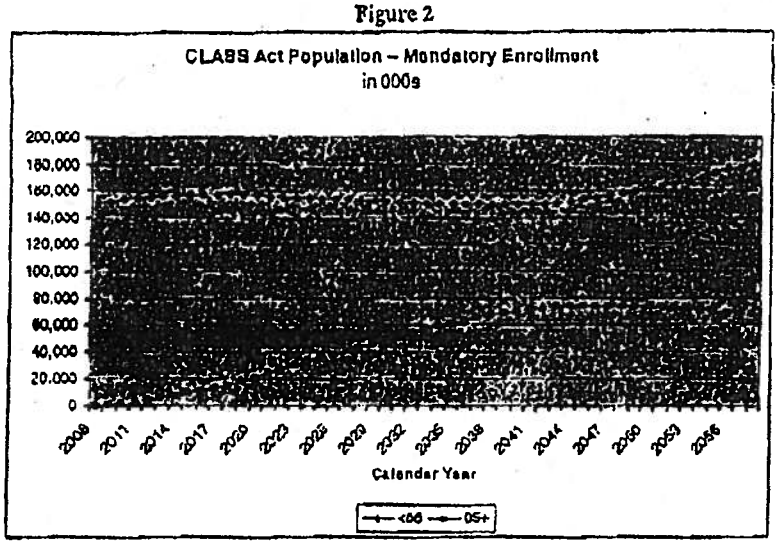
4

Results

Results under Mandatory Enrollment

The results we illustrate here are based on the assumptions described in Section 3 of this report with mandatory enrollment. Under these assumptions, we project that there would be roughly 150 million people covered under the Act in 2008 with that number growing over the next 50 years until roughly 250 million people would be covered under the Act. We show this in Figure 2 with enrollment split between those with attained ages less than age 65, and those with attained ages 65 or greater. Note that total enrollment under the program is the sum of the covered population under 65 and 65 and over in Figure 2.

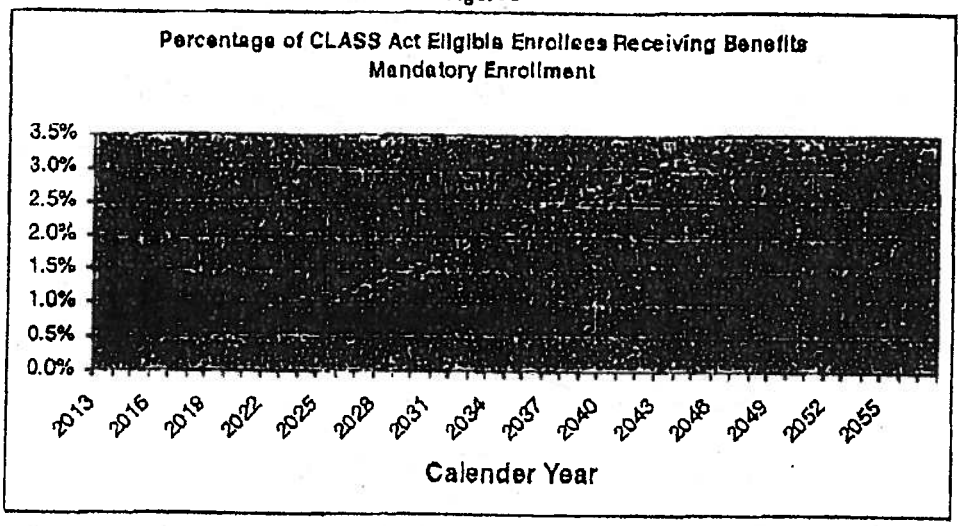
Figure 2



In Figure 3, we show the percent of the covered population that is receiving benefits. Initially, in 2013, when benefits are first available, we project that roughly 600,000

individuals, or 0.4% of the covered population, would be receiving benefits, and that the average duration of eligibility for benefits will be roughly 2.75 years. This percentage increases over time until 2047 at which time we are projecting that just under 3% of the covered population will be receiving benefits.

Figure 3



With roughly 150 million premium-paying individuals in 2008, we are projecting income into the Independence Fund of roughly $49 billion, and an average annual premium of roughly $320 per covered individual, including the low income individuals at $5 per month, or $60 per year.

Premium per covered individual increases over time as new individuals enroll in the program at premiums rates which have been adjusted for CPI, but the increase in the average premium per enrollee is very low initially, at around 0.1% per year. Over time, the increase in the average premium per enrollee accelerates as the force of mortality removes those with the initial $30 per month premium and they are replaced by those who entered the program after 2008 and whose premiums were adjusted for CPI.

During the course of the projection, total premium per year increases at just over 2% per year due to the increase in the number of covered members, and the fact that the premiums that covered individuals will pay at the time of enrollment increase with CPI.

While the total value of premiums paid into the program increases at just over 2% per year, we are projecting an increase in total claims under the program of just under 9% per year from 2013 through the end of the projection. This roughly 9% increase is composed of essentially three factors: the growth in the number of covered members, the increase in the daily benefit due to CPI, and the aging of the population. The impact of aging is

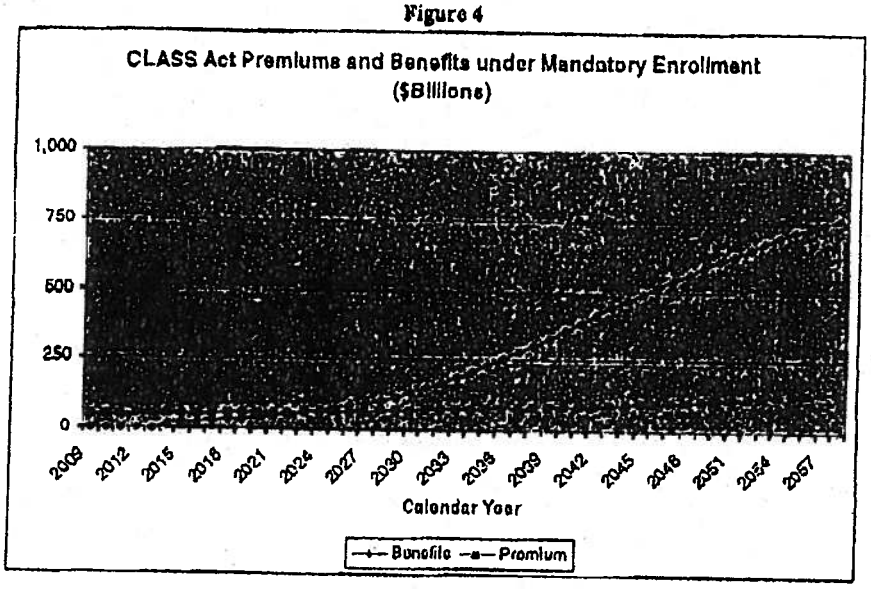
strongest in the early years of the projection when the percentage of the covered population over age 65 (those most likely to claim) is increasing rapidly (see Figure 2).

With roughly 600,000 individuals receiving benefits in 2013, and an average benefit of roughly $32,000 per year, we are projecting total expenditures under the program of approximately $20 billion. We are projecting that the benefits paid will increase over time, reaching roughly $760 billion by the end of the projection.

Note that the average benefit of $32,000 per year that we are estimating will be paid in 2013 is based on the assumption that the CPI, and therefore the daily benefits, will increase at 2.5% per year to $113 for tier II benefits and $57 for tier I benefits, and that roughly equal numbers of covered individuals will be eligible for tier I and II benefits.

In Figure 4, we show the projection of both premium and benefits over time.

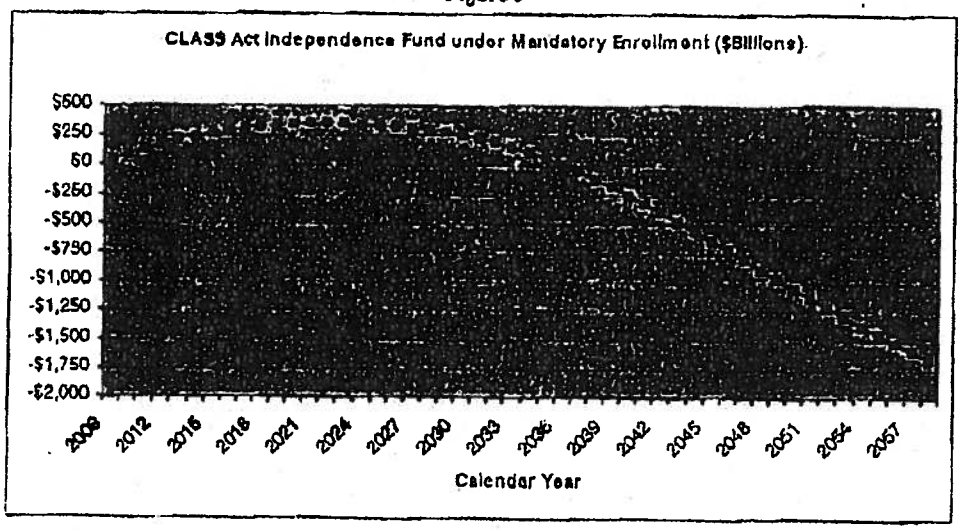
Figure 4



The picture we show in Figure 4 is a familiar one to those who work on level premium insurance products where the risk being covered increases over time. In order for a level-premium funded program like this one to be in balance, the excess of premium over benefits in the initial years of the projection is invested earning interest, and the initial excess premium, plus the interest on the excess, must be sufficient to cover the shortfall in premium during the later years of the projection.

In Figure 5 we show the value of the Independence Fund over the course of the projection. In the early years of the projection, when premium exceeds benefits, the value of the fund is positive and growing. However, we project that the fund would be in a deficit position by 2036, and that the deficit would increase each year thereafter.

Figure 5



The values in Figure 5 assume that the Secretary takes no action to correct the funding shortfall and that the initial $30 premium, increased only by CPI for new entrants enrolling when first eligible, remains in place throughout the projection period.

Faced with results like those we illustrate in Figure 5, the Act would call for the Secretary to take action based on the solvency tests described in the Act. Under the assumptions we have employed, we believe the Secretary would be required to implement a 55% rate increase in 2015 to a $47 monthly premium, and an additional 50% rate increase in 2019 to a $70 monthly premium. Even after having implemented these rate increases, we believe the Independence Fund would be insolvent in 2044.

We note that the Act does contain a provision allowing additional appropriations to ensure the solvency of the Independence Fund during the initial benefit years (2011 through 2015). While our projections indicate the $30 premium would not be adequate to ensure the Fund's solvency for the duration of the projection, we are projecting the Fund will be positive and growing during the initial benefit years.

Based on our modeling, we estimate a self-sustaining premium from inception would be roughly $70 per month (with the same $5 nominal premium for low-wage workers). With this level of premium, the Independence Fund remains positive throughout the course of the projection.

While this $70 premium is considerably less than the market-based premiums from Table 9 in the previous section, we recognize $70 represents a significant increase in the baseline premium assumed in the Act, and would represent roughly 2% of income.

Scenarios

Alternate Enrollment Assumptions

The alternate enrollment scenario we consider here is one where participation in the program is equal to 40% (low), 60% (baseline), 80% (moderate) and 100% (high) of estimated participation rates in 401(k) programs with opt-out provisions. We describe the rationale for this assumption in Section 3 of this report. We show the resulting baseline enrollment in Table 12.

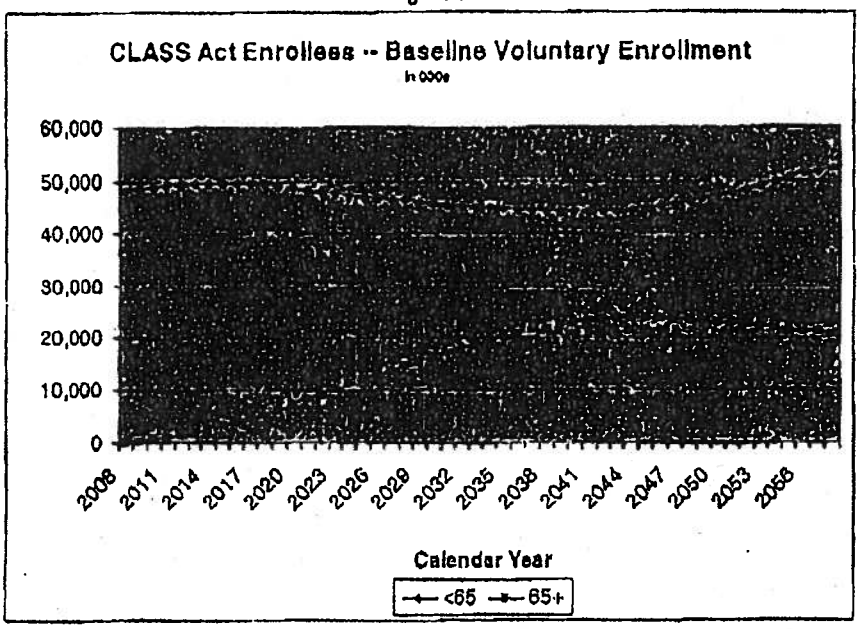
Table 12
Employee Participation Under Optional Baseline
Enrollment Scenario -- Employers Offering Retirement Benefits

Employee Age	401(k) Participation with Opt-Out Provision	Adjustment Factor	Estimated Participation Rates
20-29	82.7%	0.60	49.6%
30-44	87.6%	0.60	52.5%
45-54	90.1%	0.60	54.0%
55-59	90.1%	0.60	54.0%
60-61	86.0%	0.60	51.6%
62-64	86.0%	0.60	51.6%

As we discussed in Section 3 of this report, roughly 40% of employees work for employers who do not offer retirement benefits, and that it is unlikely these employers would make pay-roll deduction available to their employees. We have assumed that roughly 5% of these employees enroll in the program directly, with this 5% varying by age in accordance with current participation in group LTC insurance offerings.

In Figure 6, we show enrollment over time under the using the participation rates we developed in Table 12 and the assumption that 5% of employees without access to retirement benefits enroll in the program.

Figure 6



Under the baseline voluntary enrollment scenario, total enrollment begins at roughly 48 million, and increases to roughly 66 million over the course of the projection.

In Table 13, we show projected enrollment at five year increments under the enrollment scenarios we have modeled.

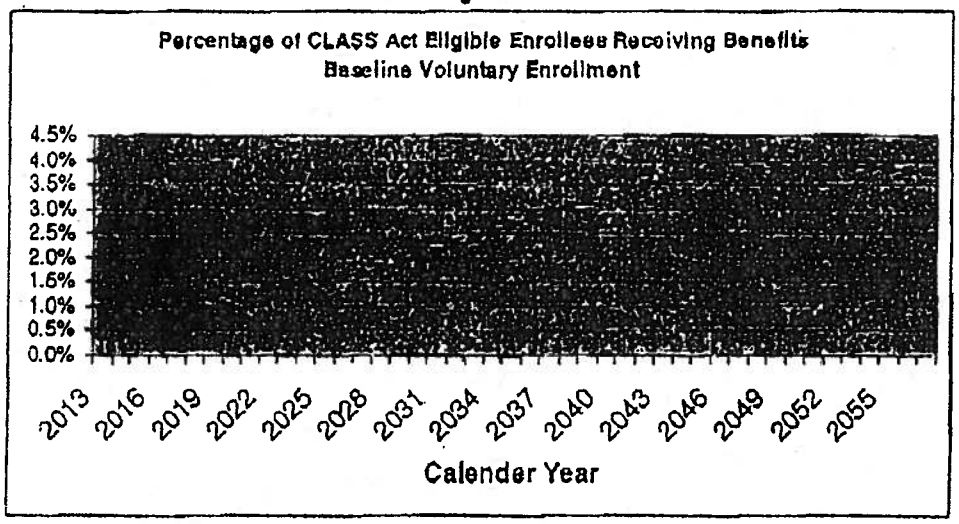
Table 13
Projected Enrollment by Enrollment Scenario (1,000s)

Calendar Year	Mandatory	Voluntary High	Voluntary Moderate	Voluntary Baseline	Voluntary Low
2008	151,273	79,289	63,828	48,367	32,906
2013	162,218	84,499	67,993	51,487	34,981
2018	173,535	89,853	72,271	54,688	37,105
2023	185,050	95,250	76,579	57,907	39,236
2028	196,523	100,557	80,810	61,063	41,316
2033	207,411	105,476	84,725	63,973	43,222
2038	216,956	109,599	87,992	66,386	44,779
2043	225,079	112,683	90,580	68,278	45,975
2048	232,324	115,643	92,744	69,845	46,946
2053	239,933	118,582	95,054	71,526	47,998
2058	247,149	121,553	97,404	73,256	49,107

In modeling morbidity under the voluntary enrollment assumptions, we have assumed that people below age 65 who are most in need of services will be those who enroll in the program. In other words, those individuals opting-out of the program would be very unlikely to have a claim at any point in the future. While this is a rather extreme assumption, it serves as a counterpoint to the mandatory enrollment scenario where there is no selection. In addition, we should point out that this is not the most extreme assumption we could have selected. With a community rated premium, it would be possible for the program to attract members from the oldest eligible individuals, say the working aged population with ages greater than 60. If this were to occur, the result would be a larger deficit in the Independence Fund than we illustrate here.

For ages 65 and over, we assumed morbidity would be the same under the voluntary enrollment scenarios as under the mandatory enrollment scenario. In Figure 7, we show the percentage of the covered population that is eligible for benefits under the baseline voluntary enrollment scenario.

Figure 7



In Table 14, we show the percentage of eligible enrollees receiving benefits under each of the scenarios we modeled.

Table 14
Percentage of Eligible Enrollees Receiving Benefits

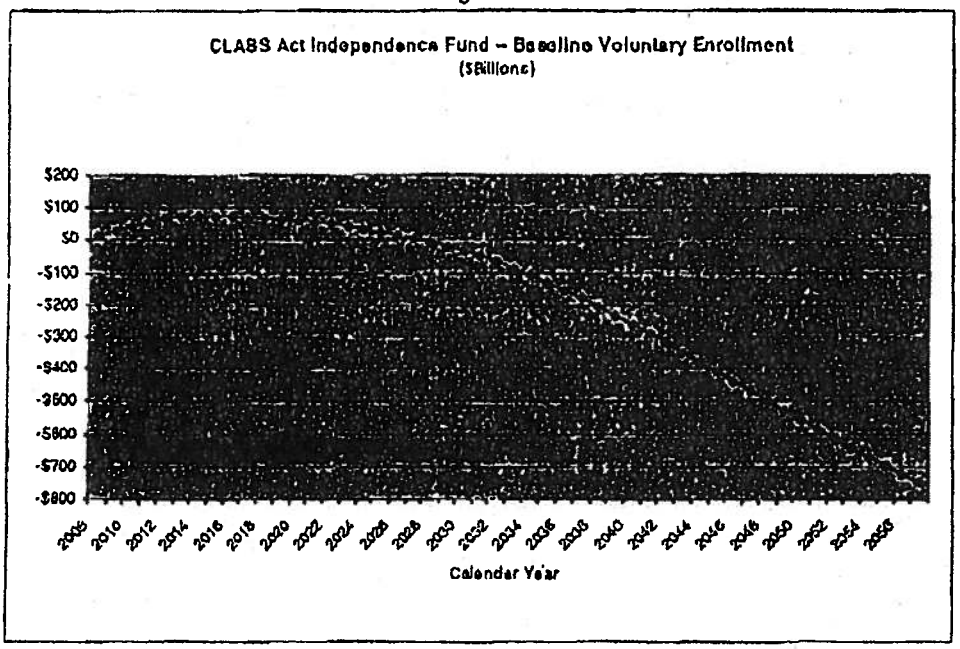
Calendar Year	Mandatory	Enrollment: Voluntary: High	Moderate	Baseline	Low
2008	0.0%	0.0%	0.0%	0.0%	0.0%
2013	0.4%	0.6%	0.7%	0.9%	1.3%
2018	0.6%	0.8%	0.9%	1.1%	1.5%
2023	0.9%	1.1%	1.2%	1.4%	1.8%
2028	1.2%	1.5%	1.6%	1.7%	2.1%
2033	1.9%	2.1%	2.2%	2.4%	2.7%
2038	2.5%	2.8%	2.9%	3.0%	3.3%
2043	3.0%	3.4%	3.5%	3.6%	3.9%
2048	3.2%	3.6%	3.7%	3.8%	4.1%
2053	3.3%	3.8%	3.7%	3.9%	4.1%

The assumption of perfect selection among the population below age 65 means that initially a much larger percentage of the covered population is eligible for benefits under the baseline voluntary enrollment scenario than if enrollment were mandatory (0.9% under the baseline voluntary enrollment scenario compared to 0.4% under the mandatory scenario). However, later in the projection as the effects of selection wear off, the difference narrows considerably yet still persists.

With the exception of enrollment and morbidity, all other assumptions used in the voluntary enrollment scenarios are the same as those we used in generating the results under the mandatory enrollment scenario.

In Figure 8, we show the present value at January 1, 2008 of the Independence Fund over the course of the projection under the voluntary baseline enrollment scenario. In the early years of the projection, when premium exceeds benefits, the value of the fund is positive and growing. However, we project that the fund would be in a deficit position by 2028, and that the deficit would increase each year thereafter.

Figure 8



The values in Figure 8 assume that the Secretary takes no action to correct the funding shortfall and that the initial $30 premium, increased by CPI for new entrants, remains in place throughout the projection period. Although the deficit in the Independence Fund is smaller under the alternate enrollment option than under mandatory enrollment, on a covered individual basis it is considerably larger.

In Table 15, we show the present value of the Independence Fund at January 1, 2008 under the various enrollment scenarios we modeled.

Table 15
Present Value of Independece Fund at January 1, 2008

Calendar Year	Mandatory	Enrollment: Voluntary: High	Moderate	Baseline	Low
		Independence Fund (1,000s)			
2008	$ 46,339	$ 24,327	$ 19,586	$ 14,845	$ 10,104
2013	244,605	123,622	97,722	71,828	45,952
2018	333,207	147,302	107,981	68,684	29,558
2023	347,344	132,287	87,750	43,381	(641)
2028	281,532	75,944	35,120	(5,448)	(45,413)
2033	107,605	(36,380)	(81,797)	(86,849)	(111,034)
2038	(183,776)	(210,463)	(207,723)	(204,514)	(200,198)
2043	(561,567)	(429,084)	(388,717)	(347,785)	(305,520)
2048	(971,257)	(661,815)	(580,286)	(498,304)	(414,780)
2053	(1,373,176)	(885,369)	(764,180)	(642,260)	(518,608)
		Independence Fund/Enrollee			
2008	$ 307	$ 307	$ 307	$ 307	$ 307
2013	1,507	1,463	1,437	1,395	1,314
2018	1,920	1,639	1,494	1,256	797
2023	1,877	1,389	1,146	749	(16)
2028	1,433	755	435	(89)	(1,099)
2033	519	(345)	(729)	(1,358)	(2,569)
2038	(847)	(1,920)	(2,361)	(3,081)	(4,471)
2043	(2,495)	(3,801)	(4,291)	(5,094)	(6,645)
2048	(4,181)	(5,721)	(6,257)	(7,134)	(8,835)
2053	(5,723)	(7,466)	(8,039)	(8,979)	(10,805)

The values in Table 15 show that the $30 monthly premium is not self-sustaining. Regardless of the enrollment scenario, the Independence Fund becomes negative. Again, while the magnitude of the deficit is largest for the mandatory enrollment scenario, on a per enrollee basis, the deficit is smallest for the mandatory enrollment scenario. This shows the effects of selection on the Independence Fund.

Faced with results like those we illustrate in Figure 8 under the baseline voluntary enrollment scenario, the Act would call for the Secretary to take action based on the solvency tests described in the Act. Under the assumptions we have employed and ignoring restrictions included in the Act that limit the cumulative rate increase to 200%, we believe the Secretary would be required to implement a 133% rate increase in 2015 so that the monthly premium would become roughly $70 per month, and an additional 30% rate increase in 2019 so that the monthly premium would be roughly $90. Even after

having implemented these rate increases, we believe the Independence Fund would be insolvent before 2058.

Based on our modeling, we estimate a self-sustaining premium from inception under the baseline voluntary enrollment scenario would be roughly $85 per month (with the same $5 nominal premium for low-wage workers). With this level of premium, the Independence Fund remains positive throughout the course of the projection. The self-sustaining monthly premiums under the low, moderate, and high voluntary enrollment scenarios are $95, $80, and $77, respectively.

Alternate Morbidity and Interest Rate Assumptions

We consider what the resulting self-sustaining premium would need to be under the following morbidity assumptions holding all other assumptions fixed:

1. No morbidity improvement.
2. 3% annual morbidity improvement among 65+ for 20 years.
3. 2% annual morbidity improvement among 65+ for entire projection.

In addition, we developed self-sustaining premiums using 5%, 6%, and 7% interest rate scenarios, again holding all other assumptions fixed.

We show the results in Table 16.

Table 16
Self-Sustaining Monthly Premium

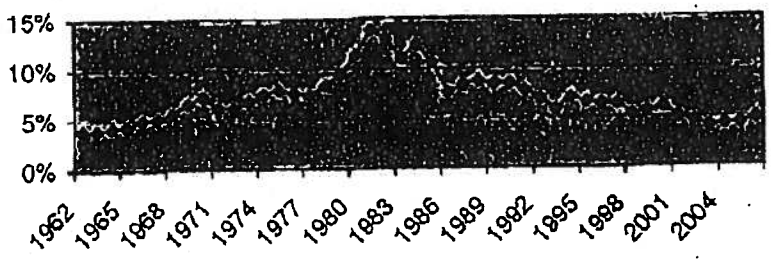
	Enrollment Assumption				
		Voluntary			
Scenario	Mandatory	High	Moderate	Baseline	Low
Morbidity Improvement					
2% for 20 years	$ 70	$77	$ 80	$ 85	$ 95
No Improvement	100	107	110	115	123
3% for 20 years	57	65	68	72	81
2% for entire projection	54	61	64	69	77
Interest Rate					
4.5%	$ 70	$77	$ 80	$ 85	$ 95
5.0%	65	72	75	79	88
6.0%	57	64	66	71	79
7.0%	50	56	59	63	71

As can be seen from Table 16, investment income has a sizeable effect on the self-sustaining premium. We selected the 10-year Treasury for comparison as the fund is to be invested in Treasuries and it is common to invest assets supporting LTC insurance in bonds with this type of duration.

In Figure 9 we display 10-year Treasure yields from 1962 through 2006. For the past 5 years the resulting yield has been less than 5%.

Figure 9

Historical Yield on 10-Year Treasuries



Source: Federal Reserve

We note that CalPERS is assuming a 7% return on their LTC program, but while we illustrate a 7% return in Table 16, we do not recommend that the AARP consider this a realistic scenario.

5

Impact of the CLASS Act on Private LTC Insurance Marketplace

In this section of our report, we provide commentary on the impact the Act may have on the private insurance marketplace assuming enrollment is voluntary. We are also assuming that the public education campaigns will be such that the public will be generally aware of the provisions of the Act as described below.

In considering the impact of the Act on the private insurance marketplace, we believe the four most important factors are 1) the $30 monthly premium ($360 per year) is low relative to current market pricing, 2) eligibility for the program is conditioned on being actively at work, 3) benefits available under the Act are comprehensive, and 4) benefits under the Act are only payable after an enrollee has paid premium for 60 months.

The $30 monthly premium is below current, market-based pricing for a large majority of potential enrollees. In Table 17, we show monthly group LTC insurance premiums for a product providing coverage that is similar to the benefits available under the Act. Note that the Act provides inflation protection tied to the CPI. The premiums with inflation protection in Table 17 include inflation protection at 5% compounded per year.

Table 17
Average Group LTC Premium Rates -- Monthly

$3,000 Monthly Facility Benefit, 60% Home Care,
5-Year Maximum, 90-Day Elimination Period

Issue Age	Without Inflation Protection	With Inflation Protection
20	$ 9.79	$ 49.95
30	11.14	56.11
40	17.59	80.30
50	30.22	108.63
60	61.82	189.68
70	153.72	311.67
80	406.29	631.34

Source: C. Thau, S. Plummer, D. Cathcart, "2007 Group Long Term Care Insurance Survey," Broker World, Vol. 27, No. 3, 46-74, 2005 Data

The values in Table 17 show that the premiums under the Act would be lower than group premiums in most circumstances. Only people less than age 50, purchasing inferior coverage (coverage without inflation protection) would find premiums less than premiums available under the Act.

The average premium for individual LTC insurance coverage was $1,918 ($160 per month) in 2005, the most recent period available. In addition, 71% of individual LTC policies purchased in 2005 were purchased by individuals living in a household where someone was employed[4]. These individuals would generally have access to coverage under the Act at much lower prices than those available in the private marketplace.

Because the Act would provide broad access to those who are currently purchasing new long-term care insurance policies at less than market rates, we would expect sales of new LTC policies to decline significantly.

Similarly, we would expect a significant number of people with LTC policies in force to lapse those policies and instead obtain coverage under the Act. The effect of these lapses on carriers is difficult to predict and will likely vary between carriers offering group coverage and those offering individual coverage, and among carriers in general.

LTC carriers hold reserves on behalf of their policyholders to fund future LTC claims. If the passage of the Act led to a large increase in lapse rates, carriers would no longer have to hold these reserves. The release of these reserves would flow through to profit. This would essentially be a windfall for carriers.

[4] Table 4, *Who Buys Long-Term Care Insurance*, 2007. Prepared for AHIP by LifePlans, Inc.

encourage

Alternatively, the Act requires an individual to have paid premium under the program for at least 60 months before becoming eligible for benefits. This may result in only healthy lives lapsing to take coverage under the Act, leaving carriers with a pool of insureds with significantly higher morbidity than had been assumed in their pricing.

We expect there will be an opportunity for carriers to provide coverage to supplement the coverage available under the Act, particularly in geographic areas where the cost of care is high relative to the benefit available under the Act. In only 10 of the 87 geographic areas included in the MetLife Market Survey of Nursing Home & Home Care Costs, September 2006, would the $100 tier II benefit be enough to pay the full cost of care in the lowest priced semi-private room. This would indicate an opportunity for supplemental coverage.

Conversion to long term care

6

Alternative Solvency Tests

As we have described elsewhere in this report, the Act contains a solvency test where the level of the Independence Fund is compared to benefits that will be paid to eligible beneficiaries over the next 20 years. If the ratio of the benefits that will be paid in any year to the funds contained in the Independence Fund exceeds 40%, the Secretary is required to adjust the premium in such a manner that the ratio of the benefits that would be paid to eligible beneficiaries would be less than 20% of the funds held in the Independence Fund.

In our modeling we have maintained the monthly premium for low-income beneficiaries at $5, regardless of the need for premium increases, and in accordance with the Act, we not allowed premium increases for individuals ages 65 and older. However, we have relaxed the provisions in the Act that assumed the maximum rate increase is 200%. We believe the self-sustaining premium from inception is roughly $70 assuming mandatory enrollment, or 233% higher than the $30 monthly premium called for in the Act, and higher yet if enrollment is voluntary. If the implementation of the $70 premium is delayed until 2015, the required rate increase will exceed 200%, and there is no way to limit the rate increase to 200% on existing insureds and at the same time have a premium for new enrollees that would allow them to participate in the program.

We examined other solvency tests altering both the period over which the ratio of benefits paid to the funds in the Independence Fund is calculated and the ratio where the Secretary would have to adjust the premiums. Specifically, we examined the frequency and magnitude of the rate increases that would be required if the look-forward period were shortened from 20 years to 10 years, and if the need for an adjustment to the premium were triggered if the ratio of the benefits paid to beneficiaries in any year of the projection to the funds in the Independence fund were increased from 40% to 60%. We show the results in Table 18.

Table 18
Alternative Solvency Tests -- Mandatory Enrollment

	20-Year Look Forward		10-Year Look Forward	
	40% Ratio Adjusted to 20%	60% Ratio Adjusted to 40%	40% Ratio Adjusted to 20%	60% Ratio Adjusted to 40%
Year of First Rate Increase	2015	2015	2024	2025
Size of First Rate Increase	55%	17%	100%	45%
Resulting Monthly Premium	$ 47	$ 35	$ 60	$ 44
Year of Second Rate Increase	2019	2017	2028	2027
Size of Second Rate Increase	50%	25%	80%	50%
Resulting Monthly Premium	$ 70	$ 44	$ 108	$ 65

The first column of results in Table 18 shows results of applying the solvency test in the Act, with a 20-year look forward for the ratio of benefits paid to the funds in the Independence Fund and a requirement that the Secretary adjust the premium if the ratio exceeds 40% so that the ratio is less than 20%. Under this solvency test, the $30 premium would have to be increased by 55% to roughly $47 per month in 2015 with a second rate increase of 50% and a resulting monthly premium of $70 in 2019.

Shortening the projection period from 20 to 10 years would delay the required rate action, but once triggered, the increase in the premium would be larger. In fact, the rate increase would be 100% and the required monthly premium would be $60 if the trigger before the rate adjustment was a ratio of 40%, and the ratio after the adjustment were required to be 20%.

While the results in Table 18 show that alternative solvency tests would change the timing and magnitude of the required rate increases, the fundamental fact remains that the based on our modeling the $30 premium is not adequate to fund the program for the duration of the 50-year projection we performed, and that the premium will have to be increased if the program is to be self-sustaining.

7

Impact of the Provisions of the Act Related to Federal Income Taxes

The Act provides an above-the-line deduction for premiums paid under the program for most program enrollees, a credit equal to 50% of the premium paid for those enrollees who qualify as low-income enrollees (those with incomes less than 250% of the FPL), and a credit for employers equal to 25% of the cost of automatically enrolling and withholding CLASS premiums from employees' wages.

In rough terms, under the mandatory enrollment scenario, earned premium per year is $50 billion per year for the first 10 years. In our modeling, about $1 billion of the total $50 billion comes from individuals with incomes less than 150% of the FPL who are paying the nominal $5 monthly premium. These individuals will receive a 50% tax credit. This tax credit is worth roughly $500 million. Another $14 billion in annual premium will come from individuals with incomes between 150% and 250% of the FPL. These individuals too will receive a 50% tax credit worth roughly $7 billion. Finally, about $35 billion of premium will come from individuals with incomes greater than 250% of the FPL. Using a 28% marginal tax rate, the above-the-line deduction of premium will be worth roughly $10 billion. We estimate the cost of the tax provisions related to the premiums paid by individuals will be roughly $18 billion per year.

To put the $18 billion in perspective, we note that total individual income tax receipts are estimated to be $1.2 trillion in 2007, growing to $1.6 trillion in 2012[5]. The $18 billion in lost tax receipts due to the provisions of the Act equate to roughly a 1% reduction in tax receipts.

Note that this analysis ignores the effect of the deduction on state and local taxes, and it ignores secondary effects of the Act. As an example, we would expect a large majority of the benefits paid to individuals under the Act would go to fund support services, and that

[5] Source: Table 2.1 from http://www.gpoaccess.gov/usbudget/fy08/pdf/hist.pdf

these support services would be provided by individuals whose incomes would be subject to federal income tax. Our analysis does not take this into account.

8

Impact of the Act on Medicaid Expenditures

In this section of our report, we address the question of the impact the Act would have on the Medicaid program.

The Act includes provisions to coordinate benefits paid under the Act with those available under the Medicaid program. Institutionalized beneficiaries who are enrolled in Medicaid are allowed to retain 5% of their daily benefit amount. The balance is to go toward the facility's cost of care with Medicaid providing secondary coverage. Beneficiaries receiving home and community based services under Medicaid are eligible to retain 50% of their daily benefit, with the balance going to the provider and Medicaid again providing secondary coverage, provided the state's home and community based waiver under the Social Security Act meets certain provisions. For our purposes, we are assuming states will meet these provisions, and the benefits paid to Medicaid eligibles will generally offset Medicaid expenditures for long-term care services.

This coordination between the Act and the Medicaid program has important implications. Because the payments under the Act are primary, these payments serve to reduce the states' and the federal government's outlay for long-term care services. In addition, because payments made under the Act are meant to be funded entirely by premiums and interest earned on those premiums, the Act could be seen as shifting some of the burden for funding long-term care services from Medicaid to those paying premiums under the Act.

In Table 19, we show projected Medicaid expenditures for nursing home, home health and other personal healthcare services using data from the National Health Expenditure Accounts.

Table 19
Projected Medicaid Expenditures 2008-2016
($1,000,000s)

Calendar Year	Nursing Home	Home Health Care	Other Personal Health Care	Total
2008	$ 59,448	$ 22,673	$ 52,692	$ 134,813
2009	62,789	24,975	58,987	146,751
2010	66,414	27,432	65,988	159,834
2011	70,419	30,159	73,804	174,382
2012	74,785	33,093	82,446	190,324
2013	79,671	36,280	92,073	207,924
2014	84,798	39,714	102,717	227,229
2015	90,537	43,458	114,672	248,567
2016	96,703	47,509	127,587	271,799

Source: National Health Expenditure data -- http://www.cms.hhs.gov/NationalHealthExpendData/

We should note that the data in Table 19 likely overstates to some extent Medicaid expense for long-term care services. The category of other personal health care in the table includes the cost of medical care delivered in unconventional provider sites such as schools, military field stations, and community centers, in addition to payments provided through Home and Community-based waivers in the Medicaid program. In addition, some of the Medicaid nursing home and home health care services could be related to post-acute, rehabilitative care rather than long-term care. On balance, we believe the total values in Table 19 overstate actual Medicaid spending for long-term care services, but the overstatement is not significant in the context of this discussion.

In Table 20, we compare our projection of payments under the Act to total Medicaid payments for long-term care services from Table 19 under the assumption that enrollment in the program is mandatory.

Table 20
Payments under the Act Subject to Coordination with Medicaid -- Mandatory Enrollment
($1,000,000s)

Calendar Year	Total Medicaid LTC Payments	Estimated Payments under the Act Mandatory Enrollment	Estimated Percentage of Payments Made on Behalf of Medicaid Eligibles	Medicaid Coordination Percentage	Payments under the Act Subject to Coordination
2008	$ 134,813	$ -	0.0%	0.0%	$ -
2009	146,751	-	0.0%	0.0%	-
2010	159,834	-	0.0%	0.0%	-
2011	174,382	-	0.0%	0.0%	-
2012	190,324	-	0.0%	0.0%	-
2013	207,924	19,533	15.5%	84.4%	2,548
2014	227,229	22,816	16.3%	85.0%	3,152
2015	248,587	26,082	16.8%	85.3%	3,749
2016	271,799	29,209	17.3%	85.5%	4,330

The last column of Table 20 shows our estimate of the funds paid under the Act that would be available to offset Medicaid payments for long-term care services. We arrive at this column by first taking estimated payments under the Act and estimating the percentage of those payments that would be made on behalf of Medicaid eligible individuals. Note that for the years we show (2008 through 2016), we are estimating that payments under the Act will equate to roughly 10% of total Medicaid payments for LTC services.

As a proxy for Medicaid eligibility, we used incomes less than 150% of the FPL. We understand that eligibility for Medicaid is contingent on having income considerably less than this threshold. On the other hand, it is common for nursing home residents to qualify for Medicaid by spending down their assets during the course of a nursing home stay.

The final step in arriving at the effect of the Act on the Medicaid program is to take into account the percentage of the benefits under the Act that are subject to coordination. For this purpose, we are assuming that tier I Medicaid eligible beneficiaries would retain 50% of tier I benefit, and tier II Medicaid eligible beneficiaries would retain 5% of the tier II benefit. Considering both tier I and tier II benefits, we estimate that roughly 85% of the benefits paid to Medicaid eligibles would be available to reduce Medicaid spending.

Initially, the impact of the Act on Medicaid expenditures is quite modest. We are estimating that payments under the Act would offset Medicaid payments by between $2.5 and $4.3 billion per year, or about 1.5% of total Medicaid spending for the years we show. However, this percentage will increase over time as more people covered under the Act reach advanced ages where the need for long-term care services increases.

CMS does not produce Medicaid expenditure projections beyond the 10-year budget window. However, recent research indicates that Medicaid spending in general, and

Medicaid spending for the aged in particular, is expected to remain relatively level as a percentage of national health expenditures over the next 40 years increasing from an estimated 3.4% of national health expenditures in 2006 to a projected 3.6% of national health expenditures in 2045. This change is roughly consistent with the overall expected change in Medicaid spending across all eligibility categories. Medicaid spending in general is projected to roughly double as a percentage of GDP between 2016 and 2045 over which time GDP is expected to increase at roughly 4.5% per year. This means that Medicaid spending in general, and Medicaid spending on the aged population in particular, is projected to increase overall by roughly seven times.[6]

Under the mandatory scenario we have used here for analyzing the impact of the Act of Medicaid payments, we would eventually expect that the payments under the Act would equate to at most 70% of Medicaid payments for long-term care services. This would be consistent with the percentage of payments for long-term care services that Medicaid currently makes on behalf of those whom we would consider to be eligible for coverage under the Act.[7] However, we note that benefit payments under the Act will increase with CPI. Medicaid payments per unit of service (i.e., per nursing home day), are expected to increase with the rate of increase in wages.[8] To the extent that wages grow faster than CPI, we would expect payments under the Act to equate to less than 70% of Medicaid payments for long-term care services.

[6] R. Kronick and D. Rousseau, "Is Medicaid Sustainable? Spending Projections for the Program's Second Forty Years," Health Affairs Web Exclusive, February 2007

[7] Data provided by the AARP related to the FY2006 payments for Medicaid long-term care services.

[8] R. Kronick and D. Rousseau, "Is Medicaid Sustainable? Spending Projections for the Program's Second Forty Years," Health Affairs Web Exclusive, February 2007

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