APPENDIX Nc:

PRESENTATION ENTITLED
"THE LONG-TERM CARE POLICY SIMULATOR MODEL"

The Long-Term Care Policy Simulator Model

September 22, 2010

Avalere Health LLC

Presentation Purpose and Agenda

- The purpose of this presentation is to describe an approach for estimating the premiums for a voluntary, public long-term care insurance program.

- Agenda

  - » Provide brief project background

  - » Summarize overall modeling approach

  - » Highlight key issues/challenges

    - – Adverse selection

    - – Enrollment rates

    - – Benefit qualification

  - » Questions/Discussion

Description of the Long-Term Care Policy Simulator (LTC-PS)

Purpose

- In 2009, before health reform, The SCAN Foundation funded construction of a model that would estimate average premiums for four different long-term care public insurance reform approaches

Proposals to Model

- Mandatory or voluntary social insurance programs

- Either a cash benefit or services benefit

- Note: None of the proposals would allow underwriting other than age. Users could elect to require attachment to the workforce

Basic Overview

- The LTC-PS is an Excel-based spreadsheet model

- It has an inputs page that allows users to vary the key policy options

- The model then calculates the premiums necessary to have an actuarially-balanced program over 75 years

LTC-PS Input Options

Choice	Benefit Description		Population Covered	Minimum Premium Payment Period	Length Of Benefit	Elimination Period	Cross Subsidies To Low-income Individuals [1]	Program Costs Funded Through Premiums [2]
Mandatory	Cash Benefit	$50 / day	Workers and Their Spouses May Participate	Zero Years	Lifetime	Zero Days	150% of the Federal Poverty Level	100%
		$75 / day			5 Years			75%
		$100 / day			4 Years			
Voluntary	Services Benefit	No Cost Sharing	All Over Age 18 May Participate [3]	5 Years	3 Years	90 Days	100% of the Federal Poverty Level	
		$500 Deductible, 20% Copayment			1 Year		No cross subsidy	50%

Options shaded in yellow are the closest to CLASS legislative specifications but there are a number of key CLASS inputs that were not included in this model

[1] Low income individuals pay no premium. All others pay additional premiums to compensate
[2] General revenues used to subsidize premiums in the 75% and 50% options
[3] Excludes people who are initially disabled and not working

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Key Differences between the LTC-PS and the CLASS Act

- CLASS prohibits non-working spouses from enrolling, but LTC-PS does not

- CLASS has a minimum income and work requirement, but LTC-PS simulates that anyone at work regardless of income could enroll

- CLASS applies the work and income requirement to low-income individuals, but LTC-PS simulates full participation by anyone below the subsidy threshold

- CLASS has a variable ADL trigger for payment of benefits, but the LTC-PS simulates a trigger of slightly below 2 ADLs

- CLASS has a minimal $5 premium for students and low-income individuals, but the LTC-PS has a $0 premium for low-income individuals and excludes students

- CLASS-Medicaid dual beneficiaries retain some of their CLASS payout[1], but LTC-PS simulates entire payout going to Medicaid

- CLASS has level premiums once a person enrolls, but LTC-PS uses inflation-adjusted premiums for all enrollees

- CLASS has the ability to require payment of premiums by enrollees receiving benefits, but LTC-PS simulates enrollees will either be paying premiums or receiving benefits, not both

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[1] Public Health Service Act, §3205(c)(1)(D)(i) and (ii) specify that institutional and certain HCBS Medicaid beneficiaries retain 5 percent and 50 percent of their CLASS payouts.

Model Overview

Model Description

- We use an incidence and continuance model

  » Track enrollees by age

  » Model incidence and continuance of disability to determine when a person becomes disabled and how long he or she remains disabled

Data Sources

- Point-in-time surveys for prevalence of disability in the community (Survey of Income and Program Participation, American Community Survey, Current Population Survey) and in nursing homes (National Nursing Home Survey)

- Longitudinal survey for continuance rates among elderly aged 65+ (National Long Term Care Survey) and actuarial data for continuance rates among disabled aged 18 to 65

- Data Issues:

  » No national, longitudinal data for disability across age spectrum

  » Aggregation of data from multiple surveys

  » No single accepted method to estimate adverse selection

Model Overview
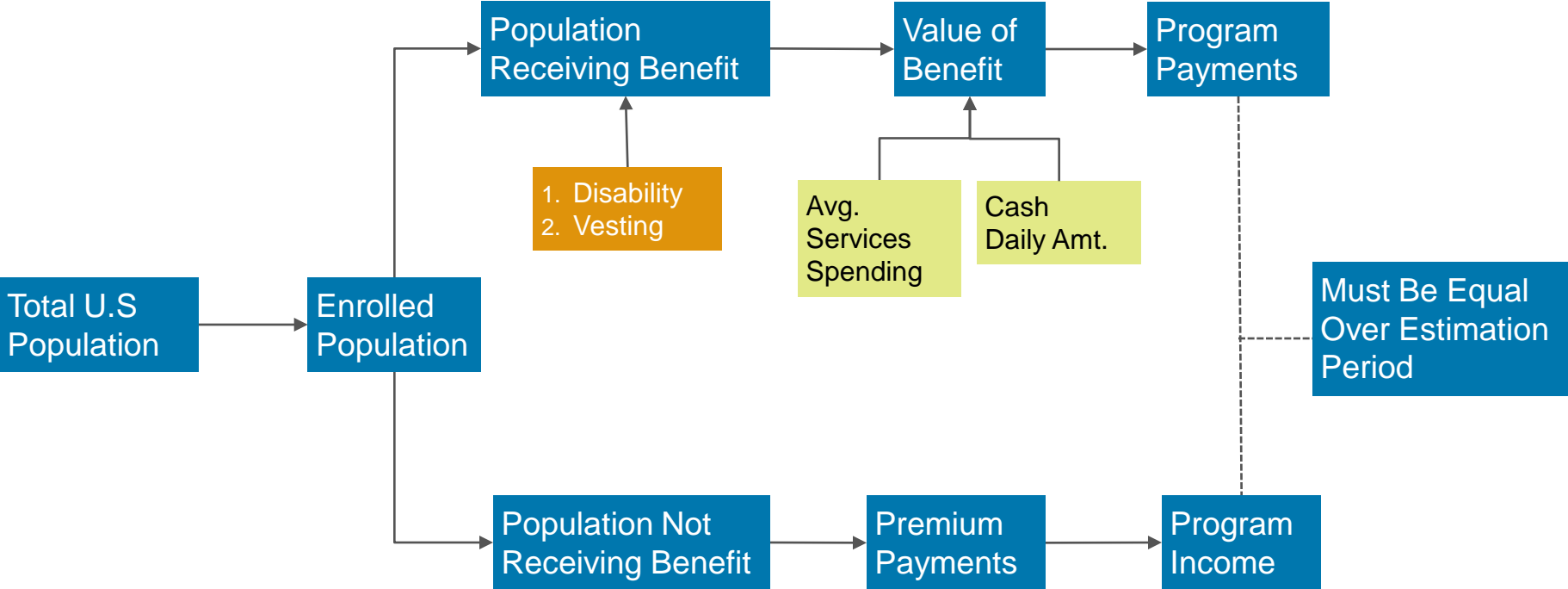
# Modeling Enrollment: Population and Program Eligibility

- We use Social Security estimates of the total population by age through 2085.

- Eligibility can be extended to:

  » **All workers:** we estimate attachment to workforce from American Community Survey.

  » **All over age 18:** we exclude people currently disabled unless they are currently working (regardless of reported income).

    – We estimate 5 to 7 percent of people with 2+ ADL disabilities in the community setting are currently working (approximately 400,000 people).

Modeling Enrollment: Participation

- We modeled participation using a points system:

  » We constructed a points system based on plausible upper and lower bounds for participation.

  » Options that **reduce cost**, like adding a deductible or elimination period, or reducing benefit amount or length, **increase participation**

  » Typical enrollment rates for CLASS-like program: 12 to 18 percent

  » We age-adjust participation rates

    – Participation at age 50 is same as overall estimate

    – Participation increases at a 2 percent growth rate for individuals aged over 50

    – Participation decreases at a 1 percent growth rate for individuals aged under 50

We plan on refining the participation methodology for ASPE using assumptions about employer adoption and demand elasticity

Participation by Age*
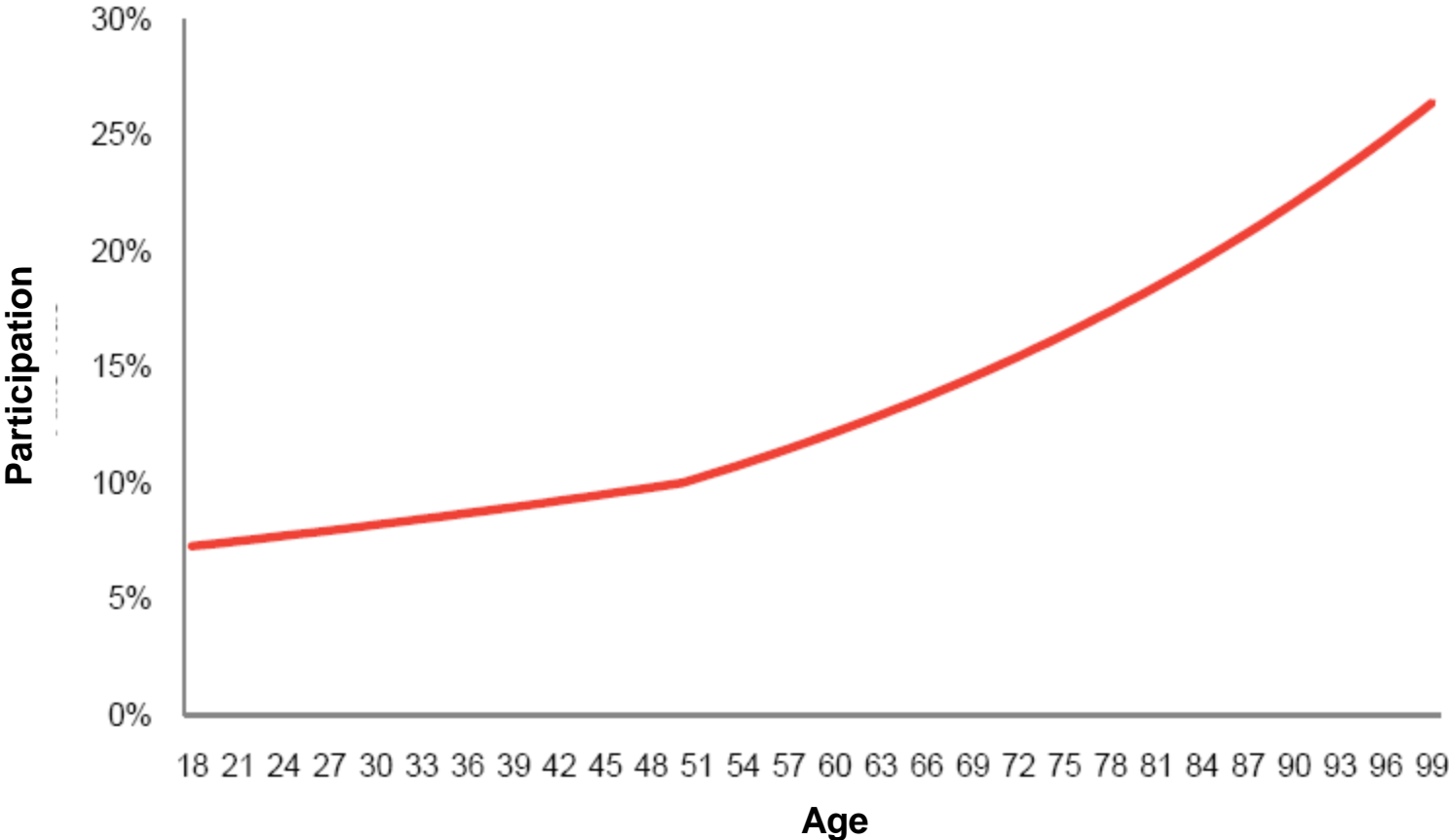
Modeling Enrollment: Vesting

- We estimate compliance with the 5 year vesting period using SSDI vesting as an analog

- We do not model the effect of lapses

  » In our Excel-based model, we only need to know the percent of people in any given year that would be eligible to receive benefits

  » Ineligibility could be related to vesting or lapses

EXHIBIT 3 Vesting Curve
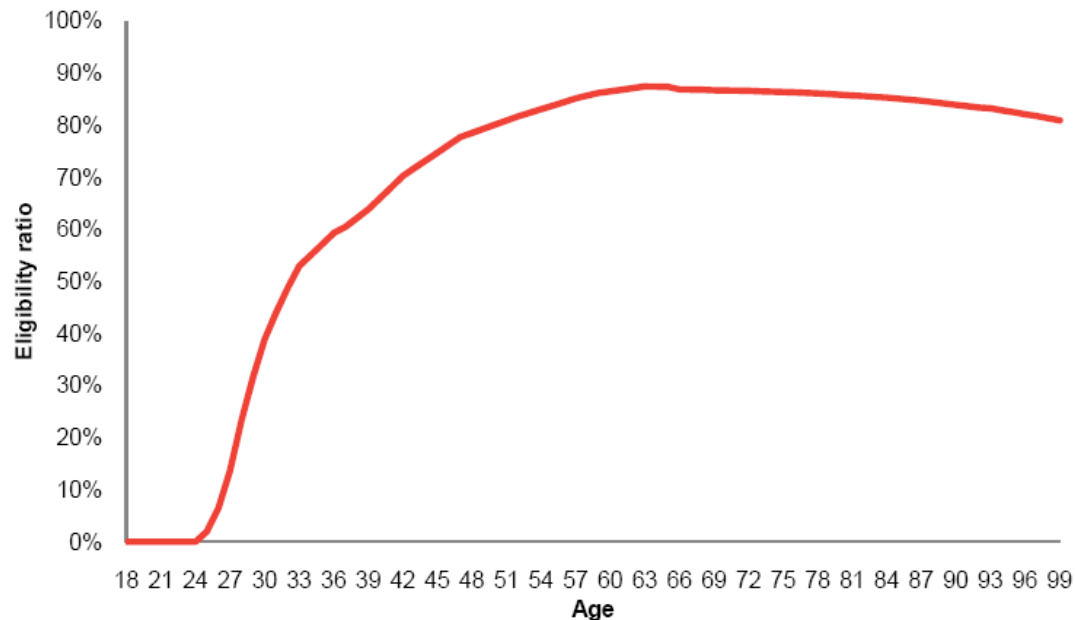
Modeling Disability: Prevalence

- We estimated prevalence from:
  - » 2004 SIPP for community setting
  - » 2004 NNHS for institutional setting
- We collected data on percent of individuals in each setting with:
  - » Only 1 ADL
  - » 2 or more ADLs
  - » 3 or more ADLs
- We assumed 50 percent of individuals with only 1 ADL would become eligible for the program
  - » Any individual in a nursing home with only 1 ADL would be eligible
  - » 48 percent of individuals in the community with only 1 ADL would be eligible
- We also adjust the SIPP data to account for individuals in an assisted-living facility
  - » Only the 65+ population
  - » We add these people to the 'institutional' estimates
  - » Shifts approximately 700k people from the community to institution estimates

Modeling Disability: Continuance

- To estimate continuance, or how long someone remains severely disabled, we used two data sets

  - » Over age 65: transition matrices from National Long Term Care Survey[1]

  - » Under age 65: continuance tables from IDEC survey [2]

- Non-continuance can be caused by two factors: mortality or improvement in condition

  - » Tend to see improvement at younger ages: these individuals are returned to the population eligible to pay premiums

  - » Mortality is higher for all ages of disabled individuals compared to non-disabled individuals

  - » We required non-continuance to always be at least as high as age-specific mortality from SSA

[1] Stallard, E and Yee, R.K.W. 1999. "Non-insured Home- and Community- Based Long-Term Care Incidence and Continuance Tables." Society of Actuaries
[2] Society of Actuaries. 2005. "Experience Studies in Individual Disability."

Modeling Disability: Incidence

- Incidence can be computed once we have estimated prevalence and continuance

- Prevalence $_{T2}$ = Prevalence $_{T1}$ + Incidence $_{T2}$ – Non Continuance $_{T2}$

- We constructed a single cohort of individuals at all ages and tracked them for 100 years to develop incidence rates

  - » Population as of 2000, according to SSA

  - » Used age-specific prevalence and continuance

  - » Applied age-specific mortality estimates from SSA to non-disabled population

- After computing incidence by age, we accounted for an expected decline in prevalence through 2025

  - » We modeled a 0.5% decline in age-specific prevalence until 2025, at which point we hold prevalence constant

  - » We also hold continuance constant, which results in a decline in age-specific incidence

  - » A debatable proposition

Modeling Disability: Adverse Selection

- We increased incidence of participants in the LTC-PS to account for adverse selection

    » Enrolled population in voluntary program has higher disability than general population

- Under the extreme scenario, every individual who would develop disability within 5 years would enroll – this is the "perfect knowledge" scenario

- For the LTC-PS, we assumed enrollment in the initial years was weighted 75% to perfect knowledge scenario

    » This declines to 25% weighting within 10 years

    » Mimics pent up initial demand with continuing adverse selection

- Impact of adverse selection much higher for low-enrollment options

2010 Incidence Curve Adjusted for Adverse Selection*
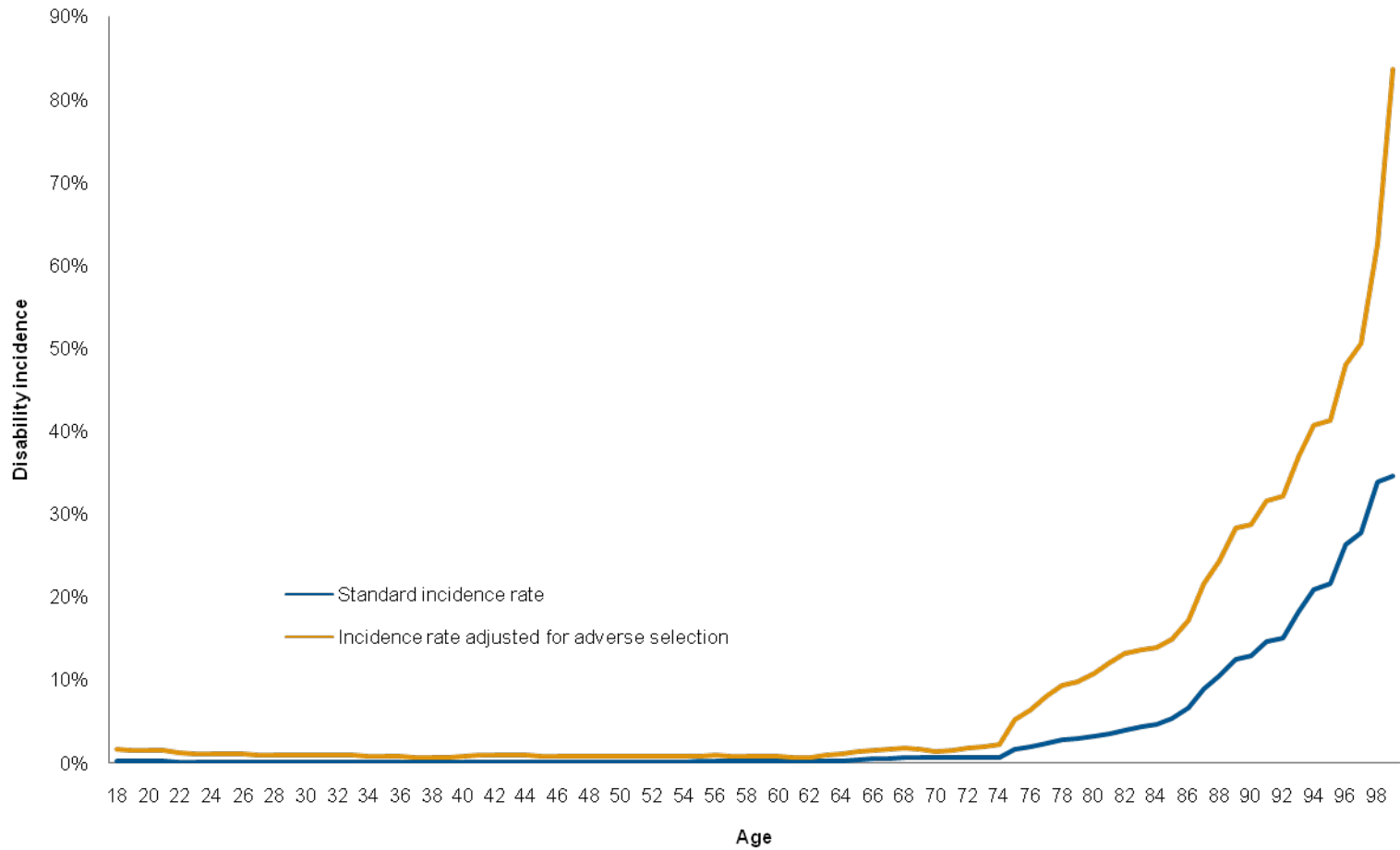
Modeling Costs: Medicaid Interactions

- We model the impact on Medicaid based on an assumption about participation by people who would eventually become Medicaid enrollees and the low-income subsidy.

- We model a Medicaid baseline using data from SIPP and NNHS, supplemented by information published by Brian Burwell and Josh Wiener.

- Even with a low-income subsidy, some future Medicaid beneficiaries would still be unlikely to enroll.

  » Not all future Medicaid beneficiaries are currently below the Federal Poverty Limit (FPL)

- The table below shows our estimated participation rates by people who would eventually become Medicaid beneficiaries by the different low-income subsidy levels.

- We apply these participation rates to our Medicaid baseline to develop estimates of Medicaid savings.

Premiums	None	100% FPL	150% FPL
<$50	25%	50%	75%
$50-80	20%	45%	70%
$81-100	15%	40%	65%
$101-120	10%	35%	60%
$121-150	5%	30%	55%
>$150	0%	25%	50%

Limitations of the Model

- **Disability estimates:** The data sets used have somewhat different ways of measuring disability

- **Participation rates:** Estimating participation for such a novel program is complex. Participation will be driven by many factors, premiums being a large one. Our points system is an approximation.

- **Adverse selection:** Estimating adverse selection is complex. We followed a method used by actuaries and the CBO. However, there is considerable debate among researchers.

- **Impact to Federal budget:** Interactions with the federal budget, specifically around the tax implications of the program, are beyond the current scope of the model.

Questions and Answers

A REPORT ON THE ACTUARIAL, MARKETING, AND LEGAL ANALYSES OF THE CLASS PROGRAM

For additional information, you may visit the DALTCP home page at http://aspe.hhs.gov/_/office_specific/daltcp.cfm or contact the office at HHS/ASPE/DALTCP, Room 424E, H.H. Humphrey Building, 200 Independence Avenue, SW, Washington, DC 20201. The e-mail address is: webmaster.DALTCP@hhs.gov.

Files Available for This Report

[HTML versions of Appendices will be added as they are formatted]

Main Report   [48 PDF pages]
http://aspe.hhs.gov/daltcp/reports/2011/class/index.shtml
http://aspe.hhs.gov/daltcp/reports/2011/class/index.pdf

APPENDIX A: Key Provisions of Title VIII of the ACA, Which Establishes the CLASS   [6 PDF pages]
Program
http://aspe.hhs.gov/daltcp/reports/2011/class/appA.htm
http://aspe.hhs.gov/daltcp/reports/2011/class/appA.pdf

APPENDIX B: HHS Letters to Congress About Intent to Create Independent CLASS   [11 PDF pages]
Office
http://aspe.hhs.gov/daltcp/reports/2011/class/appB.htm
http://aspe.hhs.gov/daltcp/reports/2011/class/appB.pdf

APPENDIX C: Federal Register Announcement Establishing CLASS Office   [2 PDF pages]
http://aspe.hhs.gov/daltcp/reports/2011/class/appC.htm
http://aspe.hhs.gov/daltcp/reports/2011/class/appC.pdf

APPENDIX D: CLASS Office Organizational Chart   [2 PDF pages]
http://aspe.hhs.gov/daltcp/reports/2011/class/appD.pdf

APPENDIX E: CLASS Process Flow Chart   [2 PDF pages]
http://aspe.hhs.gov/daltcp/reports/2011/class/appE.pdf

APPENDIX F: Federal Register Announcement for CLASS Independence Advisory   [3 PDF pages]
Council
http://aspe.hhs.gov/daltcp/reports/2011/class/appF.htm
http://aspe.hhs.gov/daltcp/reports/2011/class/appF.pdf

APPENDIX G: Personal Care Attendants Workforce Advisory Panel and List of   [6 PDF pages]
Members
Full Appendix   http://aspe.hhs.gov/daltcp/reports/2011/class/appG.htm
http://aspe.hhs.gov/daltcp/reports/2011/class/appG.pdf

Ga: Federal Register Announcement for Personal   http://aspe.hhs.gov/daltcp/reports/2011/class/appGa.pdf
Care Attendants Workforce Advisory Panel

Gb: Advisory Panel List of Members   http://aspe.hhs.gov/daltcp/reports/2011/class/appGb.pdf

APPENDIX P: June 22, 2011 Technical Experts Meeting   [77 PDF pages]
     Full Appendix   http://aspe.hhs.gov/daltcp/reports/2011/class/appP.htm
                                            http://aspe.hhs.gov/daltcp/reports/2011/class/appP.pdf

      Pa: Agenda and Discussion Issues and   http://aspe.hhs.gov/daltcp/reports/2011/class/appPa.pdf
      Questions

      Pb: Presentation Entitled "Core Assumptions and   http://aspe.hhs.gov/daltcp/reports/2011/class/appPb.pdf
      Model Outputs"

      Pc: Presentation Entitled "Actuarial Research   http://aspe.hhs.gov/daltcp/reports/2011/class/appPc.pdf
      Corporation's Long Term Care Insurance
      Model"

      Pd: Presentation Entitled "The Avalere Long-   http://aspe.hhs.gov/daltcp/reports/2011/class/appPd.pdf
      Term Care Policy Simulator Model"

      Pe: Presentation Entitled "Alternative Approaches   http://aspe.hhs.gov/daltcp/reports/2011/class/appPe.pdf
      to CLASS Benefit Design: The CLASS
      Partnership"

APPENDIX Q: Table 2: Actuarial and Demographic Assumptions   [2 PDF pages]
                                            http://aspe.hhs.gov/daltcp/reports/2011/class/appQ.htm
                                            http://aspe.hhs.gov/daltcp/reports/2011/class/appQ.pdf

APPENDIX R: Figure 1: Daily Benefit Amount for Increased Benefit   [2 PDF pages]
                                            http://aspe.hhs.gov/daltcp/reports/2011/class/appR.pdf