# ACTUARIAL RESEARCH CLEARING HOUSE 

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## Challenge of an Aging Society

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Agenda

Introduction

- Some key facts
- What are the problems
- Challenges to actuaries


## Introduction

- Some key facts
- Population is aging
- Elderly are heavily female
- Many need assistance with ADLs or IADLs
- Females are not as well off as males
- Social Security has facilitated early retirement


## Introduction - continued

- U.S. perspective, but
- Similar issues in Western countries
- High level of awareness of the issues
- Disagreement about how to address
- Reluctance to make tough decisions


# Population by Age and Sex: 1990 (Millions) 

Male


Female



## Population by Age and Sex: 2020 (Millions)

Male


Female


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## Population by Age and Sex: 2050 (Millions)



Female



Number of Persons (Millions)


## Population 85 Years Old and Over: 1900 to 2050 (Millions)



Estimated Number of Arizonans Aged 85+ Who Have Difficulty Performing One or More Activities of Daily Living, by Gender and Activity, Arizona, 1992


Total Number of Persons in Age 85+ Age Group: Male - 13,000; Fernala - 27,000

Estimated Number of Arizonans Aged 85+ Who Have Difficulty Performing One or More Instrumental Activities of Daily Living, By Gender and Activity, Arizona, 1992


Toral Number of Persons in Age 85+ Age Group: Male - 13,000; Famale-27,000


## Number of Elderly Men Per 100 Women by Age: 1990



## Marital Status <br> By Age and Sex, 1994



Source: U.S. Bureau of the Censes, Statistical Abstract of the United States: 1995 (115th edition.) Washington, DC. 1995. p55

## Annual Median Income <br> Age 55 and Over, 1992

|  | Male | Fermale |
| :---: | :---: | :---: |
| Individuals |  |  |
| Married | \$19,100 | \$ 7,000 |
| Widowed | 12,600 | 9,400 |
| Divorced | 16,100 | 11,400 |
| Never married | 12,200 | 11,500 |
| Family Income -- 1990 age 65 and over |  |  |
| Married | \$25,700 |  |
| Unmarried individual | 12,600 |  |

# U.S. Male Labor Force Participation <br> Rate by Age, 1940 to 1994 (Percentages) 

|  |  |  |  | Age |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | 55 | 60 | 61 | 63 | 65 | 68 | 70 |
| 1940 | 90.9 | 82.9 | 79.2 | 78.2 | 66.1 | 54.9 | 43.1 |
| 1950 | 87.8 | 82.1 | 78.4 | 7.6 | 67.7 | 54.2 | 44.3 |
| 1960 | 89.9 | 83.2 | 79.4 | 75.7 | 53.6 | 39.4 | 33.2 |
| 1970 | 91.8 | 83.9 | 80.1 | 69.4 | 49.9 | 39.4 | 30.1 |
| 1980 | 84.9 | 74.0 | 69.6 | 52.3 | 35.2 | 24.1 | 21.3 |
| 1982 | 86.4 | 72.1 | 67.1 | 45.2 | 30.6 | 24.8 | 21.1 |
| 1983 | 85.7 | 71.5 | 67.7 | 46.5 | 31.0 | 22.7 | 19.2 |
| 1984 | 84.3 | 70.2 | 66.1 | 48.2 | 30.4 | 21.3 | 18.3 |
| 1985 | 83.7 | 71.0 | 66.5 | 44.7 | 30.5 | 20.5 | 15.9 |
| 1980 | 84.1 | 69.2 | 66.2 | 44.3 | 30.7 | 20.7 | 17.1 |
| 1987 | 83.9 | 69.8 | 65.2 | 45.6 | 31.7 | 22.9 | 17.1 |
| 1983 | 82.5 | 68.8 | 65.0 | 45.0 | 31.1 | 22.5 | 18.1 |
| 1989 | 83.7 | 70.7 | 66.4 | 44.5 | 31.4 | 22.2 | 17.9 |
| 1990 | 85.3 | 70.5 | 67.0 | 45.5 | 31.9 | 23.4 | 17.1 |
| 1991 | 82.5 | 70.6 | 66.4 | 44.6 | 30.6 | 21.2 | 16.9 |
| 1992 | 83.9 | 68.6 | 63.7 | 45.7 | 32.0 | 20.7 | 16.8 |
| 1893 | 83.4 | 68.3 | 63.9 | 45.8 | 30.5 | 22.2 | 17.3 |
| 1994 | 80.9 | 65.9 | 63.6 | 45.1 | 33.0 | 22.7 | 18.6 |

Source: Presentation by Richard Burkhauser at 1996 Bowles Symposium, The Old Age Crisis: Actuarial
Oppornnities." Labor force paricipation rates for 1940.1950 and 1960 are based on deceunial U.S. census datz. They are from unpublished Deparment of Labor satisica, based on annual Consumer Population Survey labor force participation questions.

# Percent of Population Needing Care in Great Britain 

| Estimated Number of |  |
| :--- | :---: |
| Disabled Lives in G.B. | Estimated Prevalence |
| In 1985 (thousands) | Rate (\%) |


| OPCS <br> Category | Likely Care Need | $16-59$ | $60+$ | $16-59$ | $60+$ |
| :--- | :--- | :---: | :---: | :---: | :---: |
| $1-2$ | Low-occasional | 067 | 1,371 | 2.1 | 12.0 |
| $3-5$ | Moderate, probably less than <br> daily | 716 | 1,446 | 2.2 | 12.6 |
| $6-8$ | Regular, probably daily | 422 | 1,005 | 1.3 | 8.8 |
| $9-10$ | Continuous | 121 | 454 | 0.4 | 4.0 |

## What Are the Problems?

- Social Security and Medicare funding won't cover benefits
- Other public programs also will cost more
- Individuals are not saving enough, and don't have authoritative information
- Employers not ready to increase role
- No rational long-term care system


## Long-Term Care

- Spectrum of needs
- Long-term care -- most extreme cases only
- Most care -- informal at home
- No integrated system -- provide care
- No integrated system -- finance care
- Potential for Medicaid cuts


## Challenges to Actuaries

- Better information for all stakeholders
- Participate in public debates
- Help invent a better long-term care system
- Help invent financing for it
- Create authority for retirement planning framework


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