COUNTRY REPORT – USA

This is the Country Report for the United States of America as of March, 2015.

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NEW EXPERIENCE STUDIES / RESEARCH / MORTALITY TABLES

RP 2014 MORTALITY TABLES

The Society of Actuaries' (SOA's) Retirement Plans Experience Committee (RPEC) has released the final report of the RP-2014 mortality tables. The primary focus of this study was a comprehensive review of recent mortality experience of uninsured private retirement plans in the United States. The RP-2014 mortality tables presented in this report and the Mortality Improvement Scale MP-2014 presented in the companion report form a new basis for the measurement of retirement program obligations in the United States. An Excel version of the RP-2014 mortality tables has been posted to accompany the RP-2014 Mortality Tables Report. The reports and accompanying information can be obtained via the following link: SOA RP-2014 Mortality Tables

The new tables increased the pension liabilities of a number of government and private organizations.

<table>
<thead>
<tr>
<th><strong>Period Covered:</strong> 2004 - 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exposure / claims in underlying study:</strong> 10.5 million life-years exposure / 220,000 claims</td>
</tr>
<tr>
<td><strong>Products covered:</strong> Uninsured private retirement plans in the United States</td>
</tr>
<tr>
<td><strong>Factors:</strong> Longevity (annuity mortality)</td>
</tr>
</tbody>
</table>

2013 GROUP TERM LIFE EXPERIENCE STUDY AND TABLES

The Group Life Insurance Experience Committee of the Society of Actuaries has completed the 2013 Group Term Life Mortality and Morbidity Study Report. Data were solicited from insurers regarding Group Term Life Insurance policies in force anytime during the study period of 2007 to 2009. The 2013 Study includes three pivot tables: Individually Billed Group Life, Self-Administered Group Life, and AD&D, which will enable companies to perform their own analysis to supplement the findings of this report. The study was originally published in May 2013 and revised Sept. 24, 2014. Additional information was provided in December, 2014. The reports and accompanying information can be obtained via the following link: 2013 Group Term Life

<table>
<thead>
<tr>
<th><strong>Period Covered:</strong> 2007 - 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exposure / claims in underlying study:</strong> 25.5 million life-years exposure / 60,884 death claims &amp; 9,837 disability claims</td>
</tr>
<tr>
<td><strong>Products covered:</strong> Group term life insurance</td>
</tr>
<tr>
<td><strong>Factors:</strong> Mortality, disability waiver of premium, accidental death</td>
</tr>
</tbody>
</table>

2007-2010 GROUP ANNUITY MORTALITY EXPERIENCE STUDY AND TABLES

The SOA and its Group Annuity Experience Committee developed a new mortality experience study of insurance company annuity experience for group pension contracts in the United States. The study adds 2007-2010 data, with an overall 8 year study period of 2003-2010. The report focusing on mortality improvement, gender, attained age groups, retirement class and income group.
INDIVIDUAL PAYOUT ANNUITY STUDY

The Individual Annuity Experience Committee has completed an experience study of individual payout annuities, covering calendar years 2005 through 2008. The study includes immediate annuities, annuitizations and life settlement options. The overall by amount A/E ratios, based on the Annuity 2000 Basic Table, for all data combined were 0.895 for males and 0.932 for females. These compare to values of 0.929 for males and 0.977 for females in the 2000-04 report and imply yearly 0.8% mortality improvement for males and 1.1% for females over the 4.5 years between the two studies.

STUDIES / RESEARCH / TABLES IN PROGRESS

NEXT INDIVIDUAL LIFE MORTALITY TABLE – 2017 CSO / 2014 VBT TABLES

The most recent version of the 2014 VBT and 2017 CSO tables was presented to the NAIC’s Life Actuarial Task Force in March, 2015 for its formal approval. The 2017 CSO (valuation) tables were developed using the 2014 VBT (experience) tables as the base upon which valuation loads were applied. Contact Jack Luff (email: jluff@soa.org) at the SOA for more information.

OTHER ITEMS

LONGEVITY SEMINAR – SOCIETY OF ACTUARIES

The SOA hosted a limited participation “by invitation only” seminar on longevity risk at the University of Chicago on February 23-24, 2015. It was put together to bring key industry experts together to ensure that the topic of longevity mortality be given its proper attention, and was a recommendation of (what is the name Al?), an SOA committee.

There were about 70 participants from a broad range of countries and disciplines (not only actuaries). The SOA will share more details on the findings and possible developments in the future.

Three members of the MWG attended.
The current population count and life expectancies were updated since the last report. The population pyramid is unchanged.

### Basic Information

<table>
<thead>
<tr>
<th>Current population (2015/03)</th>
<th>321 million</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current period life expectancy</strong></td>
<td></td>
</tr>
<tr>
<td>- At birth (in 2010)</td>
<td>Males – 76.2 years, females – 81.0 years (published 2014-11)</td>
</tr>
<tr>
<td>- At 65 (in 2010)</td>
<td>Males – 17.7 years, females – 20.3 years (published 2014-11)</td>
</tr>
</tbody>
</table>

### Population Pyramid (as of 2012 – percent of total population); median age: Male – 36.1 years, female – 38.5 years.

<table>
<thead>
<tr>
<th>Age range</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>49.0%</td>
<td>51.0%</td>
</tr>
<tr>
<td>0-9</td>
<td>6.7</td>
<td>6.4</td>
</tr>
<tr>
<td>10-19</td>
<td>7.0</td>
<td>6.6</td>
</tr>
<tr>
<td>20-29</td>
<td>7.0</td>
<td>6.9</td>
</tr>
<tr>
<td>30-39</td>
<td>6.3</td>
<td>6.5</td>
</tr>
<tr>
<td>40-49</td>
<td>6.8</td>
<td>7.0</td>
</tr>
<tr>
<td>50-59</td>
<td>6.7</td>
<td>7.1</td>
</tr>
<tr>
<td>60-69</td>
<td>4.8</td>
<td>5.3</td>
</tr>
<tr>
<td>70-79</td>
<td>2.5</td>
<td>3.1</td>
</tr>
<tr>
<td>80+</td>
<td>1.4</td>
<td>2.1</td>
</tr>
</tbody>
</table>

**Data sources:**

CDC/NCHS, National Vital Statistics System, Mortality
United States Census Bureau

### POPULATION MORTALITY TABLES

The main source of U.S. population statistics is the U.S. Center for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)). The most recent report, published annually, on population mortality is "United States Life Tables, 2010", published in November, 2014. This report is new. It was published since the prior U.S. country update. More recent interim reports are available on subsets of the full data.

### POPULATION MORTALITY IMPROVEMENT

Life expectancy at birth is a common index used to indicate the level of mortality improvement. The table below provides the official U.S. government all population life expectancies at various times. It is provided annually be the US Center for Disease Control (CDC). The most recent 2010 figures were published in November, 2014. As a cautionary note, this index is a very rudimentary indicator. It is not a good view of even the most important mortality improvement nuances. It is used because it is simple to understand.
## PROTECTION INSURANCE

### MARKET BACKGROUND

This section should provide high level details on the following:

- Individual life products sold: Term, Universal/Variable Life, Whole Life. Virtually no endowment. Sold as protection vehicles, with cash value products used for estate planning. Separate annuity/pension products are the main vehicle for savings needs.
- Levels of underwriting: provided in a separate IAA-MWG global report “Underwriting Around the World” document)
- Group products are common. Many employers provide group life insurance in their employee benefit packages, including both coverages paid by the employer and voluntary coverages paid for by the employees.
- No mandated coverages.
- Government Social Security death benefits provided universally, but amounts are minimal.

### MORTALITY TABLES

The most recent individual life insurance mortality table is the 2008 VBT. This table provides best estimate mortality without margins. There is no corresponding valuation table. This table can be found on the SOA website: [2008 VBT Report](#).

The predecessor table is the 2001 VBT table. The 2001 CSO was developed by adding conservatism margins to the 2001 VBT. Because no valuation table was included in the 2008 VBT work, the 2001 CSO table is still the current prescribed valuation mortality table. The table can be found on the SOA website: [2001 VBT Report](#).

### MORTALITY IMPROVEMENT

Future looking mortality improvement scales are not usually attached to life tables. Improvement factors are used only for the purpose of adjusting experience from the central point of the experience to the year for which the table is being developed. For example, the 2008 VBT tables were developed...
from experience from 2002-2004. Therefore, the experience rates needed to be adjusted by having five (5) years of mortality improvement. These factors tend to be close to actual recently experienced mortality improvements. No forward-looking element is included in their development. The written reports documenting the table construction normally include the improvement factors used.

RETAIL LONGEVITY PROTECTION

MORTALITY TABLES

Uninsured private pensions

The most recent table for uninsured private pensions is the newly published RP-2014 table. Details can be obtained through the link SOA RP-2014 Mortality Tables. This is a new study that is referenced in the “New Experience Studies / Research / Mortality Tables” section above. The primary focus of the RP-2014 work was to provide a comprehensive review of recent mortality experience of uninsured private retirement plans in the United States. Although available, Public Pension plan retiree data was specifically excluded from the analysis. The prior version of this table was the RP-2000 table.

Individual Annuity Mortality

The most recent table for individual payout annuities is the 2012 Individual Annuity Mortality Table. The full report can be obtained from the link: 2012 IAM table. The prior version of the table was the Annuity 2000 Mortality Table.

Group Annuity Mortality

The most recent table for annuity experience under group pension contracts is the the 1994 GAM (basic table is the UP-94) table. The most recent experience study for this type of business was published in March, 2015 for the experience period 2007-2010. It can be obtained by following the link: GAM 2007-2010 experience study

MORTALITY IMPROVEMENT

Uninsured private pension plan

The RP-2014 Mortality Table report referenced in the prior section also includes a separate mortality improvement report.
Individual Annuity Mortality

The 2012 IAM Mortality table report referenced in the prior section includes mortality improvement assumptions.

Civil Service Retirement System

The most recent 2013 valuation report of the Civil Service Retirement System, published in February 2014, adopted the following (change from prior report) mortality improvement scale. The report also provides the mortality rates of retirees and disabled retirees.

Mortality rates are revised to incorporate projected generational mortality improvement for employees, survivors and non-disabled retirees. An ultimate 1.0 percent annual rate of mortality improvement (less than 1.0 percent above age 90) is assumed beginning in fiscal year 2020. Assumed mortality improvement prior to 2020 grades linearly from experience based improvement factors, which are given 100 percent weight in FY 2010, to the ultimate rate of 1.0 percent that is given 100 percent weight in 2020 and beyond.

RELEVANT ORGANISATIONS

GOVERNMENT STATISTICS DEPARTMENTS

Centers for disease control and prevention (CDC) – The National Center for Health Statistics (NCHS), part of the CDC, is the most up-to-date and comprehensive source for population mortality. This is the source of the U.S. data provided to the WHO databases. Websites are: www.cdc.gov and www.cdc.gov/nchs.

Census – The U.S. conducts a census every 10 years. Reports, including mortality, etc developed from this complete data are provided in the website: www.census.gov. This is the most accurate data. It is not the main source of data, the CDC is.

Labor Bureau – The U.S. Bureau of Labor provides certain statistics on the U.S. labor force. At best, this source might provide adjunct data to what is available through the CDC. The website is: www.bls.gov.

Social Security Administration – The United States Social Security Administration (SSA) is an independent agency of the United States federal government that administers Social Security, a social insurance program consisting of retirement, disability, and survivors’ benefits.

SSA’s Office of the Actuary produces annual life tables. Further information can be obtained from the link: SSA Actuarial

Federal Retirement Systems – Congress created the Federal Employees Retirement System (FERS) in 1986, and it became effective on January 1, 1987. Since that time, new Federal civilian employees who have retirement coverage are covered by FERS.

Civil Service Retirement Act - It became effective on August 1, 1920, established a retirement system for certain Federal employees. It was replaced by the Federal Employees Retirement System (FERS) for Federal employees who first entered covered service on and after January 1, 1987
ACTUARIAL SOCIETIES OF THE COUNTRY

American Academy of Actuaries (AAA)
Casualty Actuarial Society (CAS)
Confence of Consulting Actuaries (CCA)
Society of Actuaries (SOA)

INSURANCE REGULATION

State insurance regulations - Coordinating insurance organization: National Association of Insurance Commissioners (NAIC). This organization provides model laws which each state decides whether to implement into law. This could be implemented with or without changes. New York (State) Insurance Department has a reputation for not going along with the NAIC.

Federal insurance regulation - Insurance regulation is mostly the responsibility of each state. There is some federal oversight.

In 2010, The Dodd-Frank Wall Street Reform and Consumer Protection Act established Treasury's Federal Insurance Office (FIO) and vested FIO with the authority to monitor all aspects of the insurance sector, monitor the extent to which traditionally underserved communities and consumers have access to affordable non-health insurance products, and to represent the United States on prudential aspects of international insurance matters, including at the International Association of Insurance Supervisors. In addition, FIO serves as an advisory member of the Financial Stability Oversight Council, assists the Secretary with administration of the Terrorism Risk Insurance Program, and advises the Secretary on important national and international insurance matters.