417(e)(3) APPLICABLE MORTALITY TABLES
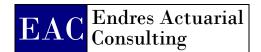
Applicable Mortality Table under 417(e)(3) for lump sum distributions	
Table Name	**Descriptor**
LS1995 LS1996 LS1997 LS1998 LS1999 LS2000 LS2001 LS2002	For lump sum distributions 1995 – 2002 (same as GATT1995 and GAM83U) Revenue Ruling 95-6
LS2003 LS2004 LS2005 LS2006 LS2007	For lump sum distributions 2003 – 2007 (same as GATT2003 and GAR94U) Revenue Ruling 2001-62
LS2008	For lump sum distributions 2008 (same as PPA2008) Revenue Ruling 2007-67
LS2009 LS2010 LS2011 LS2012 LS2013	For lump sum distributions 2009 – 2013 Internal Revenue Bulletin 2008-42
LS2014 LS2015	For lump sum distributions in 2014 – 2015 Internal Revenue Bulletin 2013-32

MORTALITY TABLES

Table Name	Descriptor
ZERO	No mortality: $q_x = 0$ for all ages, except $q_{120} = 1$
56RRB	1956 RRB Ultimate Disabled
58CSO	1958 Commissioner's Stan. Ordinary
60GLPF	1960 Group Life Proxy (female)
60GLPM	1960 Group Life Proxy (male)
64CDT	1964 Commissioner's Disabled
65RRB	1965 RRB Ultimate Disabled
GAM51F	1951 Group Annuity Table (female)
GAM51M	1951 Group Annuity Table (male)
GAM71F	1971 Group Annuity Mortality (female)
GAM71M	1971 Group Annuity Mortality (male)
IAM71F	1971 Individual Annuity Mortality (female)
IAM71M	1971 Individual Annuity Mortality (male)
TPFC71	1971 TPF&C Forecast Mortality
80RRB	1980 RRB Disabled Lives Ultimate
GAM83F	1983 Group Annuity Mortality (female)
GAM83M	1983 Group Annuity Mortality (male)
GAM83U	1983 Group Annuity Mortality (unisex) for lump sums 1995-2002 (aka GATT1995)

Table Name	Descriptor
IAM83F	1983 Individual Annuity Mortality (female)
IAM83M	1983 Individual Annuity Mortality (male)
83AF	1983 Table-a Mortality (female)
83AM	1983 Table-a Mortality (male)
UP84	1984 Unisex Pension Mortality
UP84F	UP84F is UP84 with 4 year set back
UP84M	UP84M is UP84 with 1 year set forward
UP84~	1984 Unisex Pension Mortality (old bad table)
GAM94F	1994 Group Annuity Mortality Static Female
GAM94M	1994 Group Annuity Mortality Static Male
GAR94F	1994 Group Annuity Reserving Table (generational mortality) (female)
GAR94M	1994 Group Annuity Reserving Table (generational mortality) (male)
GAR94U	1994 GAR projected to 2002, unisex, for lumps sums 2003 – 2007 (same as GATT2003 and LS1994)
UP94F	1994 Uninsured Pensioner Mortality (GAM94 Basic) (female)
UP94M	1994 Uninsured Pensioner Mortality (GAM94 Basic) (male)
UP94GF	1994 Uninsured Pensioner Mortality (generational mortality) (female)
UP94GM	1994 Uninsured Pensioner Mortality (generational mortality) (male)
GATT1995	1995 IRS Mandated Lump Sum Mortality (same as LS1995, … , LS2002)
GATT2003	2003 IRS Mandated Lump Sum Mortality (same as LS2003, … LS2007)
PPA2008	2008 PPA Mortality Table Rev. Rul. 2007-67 (same as LS2008)
A2000F	Annuity 2000 (female)
A2000M	Annuity 2000 (male)
A49F	Annuity Table for 1949 (female)
A49M	Annuity Table for 1949 (male)
CALPERSFR2007F	CALPERS Fire 2007 Ret (female)
CALPERSFR2007M	CALPERS Fire 2007 Ret (male)
FARGOFIREF	Fargo Fire (female)
FARGOFIREM	Fargo Fire (male)
IRSDIS1F	IRS disabled female (disabled before 1995 plan year)
IRSDIS1M	IRS disabled male (disabled before 1995 plan year)
IRSDIS2F	IRS disabled female (Social Security disabled after 1994 plan year)
IRSDIS2M	IRS disabled male (Social Security disabled after 1994 plan year)
PBGCDNF	PBGC Mortality for Disabled Females Not Receiving Social Security Benefits
PBGCDRF	PBGC Mortality for Disabled Females Receiving Social Security Benefits
PBGCDNM	PBGC Mortality for Disabled Males Not Receiving Social Security Benefits
PBGCDRM	PBGC Mortality for Disabled Males Receiving Social Security Benefits
PBGCF	PBGC Mortality for Healthy Females
PBGCM	PBGC Mortality for Healthy Males
USL69-71	Table 1 of U. S. Life Tables: 1969-71
USLIFE2000F	US Life 2000 (female)
USLIFE2000M	US Life 2000 (male)
PET76F	Wyatt 1976 PET (female)
PET76M	Wyatt 1976 PET (male)
PET86F	Wyatt 1986 PET (female)
PET86M	Wyatt 1986 PET (male)
PAMF	Wyatt Projected Annuity Mortality (female)
PAMM	Wyatt Projected Annuity Mortality (male)

RP-2000 MORTALITY TABLES

A table can have generational mortality improvement with Scale AA by using "g" in the name, e.g. "RP2000G-CM" in the name instead of "RP2000-CM".

A table can have generational mortality improvement with Scale BB by adding /BB to the end of the table name, e.g. "RP2000G-CM/BB".

A table can have generational mortality improvement with Scale BB-2D (2-dimensional) by adding /BB2D to the end of the table name, e.g. "RP2000G-CM/BB2D".

RP2000-CF	RP 2000 Combined Healthy (female)
RP2000-CM	RP 2000 Combined Healthy (male)
RP2000-CBF	RP 2000 Combined Healthy Blue Collar (female)
RP2000-CBM	RP 2000 Combined Healthy Blue Collar (male)
RP2000-CWF	RP 2000 Combined Healthy White Collar (female)
RP2000-CWM	RP 2000 Combined Healthy White Collar (male)
RP2000-DRF	RP 2000 Disabled Retiree (female)
RP2000-DRM	RP 2000 Disabled Retiree (male)
RP2000-EF	RP 2000 Employee (female)
RP2000-EM	RP 2000 Employee (male)
RP2000-EBF	RP 2000 Employee Blue Collar (female)
RP2000-EBM	RP 2000 Employee Blue Collar (male)
RP2000-EWF	RP 2000 Employee White Collar (female)
RP2000-EWM	RP 2000 Employee White Collar (male)
RP2000-RF	RP 2000 Healthy Annuitant (female)
RP2000-RM	RP 2000 Healthy Annuitant (male)
RP2000-RBF	RP 2000 Healthy Annuitant Blue Collar (female)
RP2000-RBM	RP 2000 Healthy Annuitant Blue Collar (male)
RP2000-RWF	RP 2000 Healthy Annuitant White Collar (female)
RP2000-RWM	RP 2000 Healthy Annuitant White Collar (male)
RP2000-CHWM	RP 2000 Combined Healthy with White Collar Adjustment (male)
RP2000-CHWF	RP 2000 Combined Healthy with White Collar Adjustment (female)
RP2000-CHBM	RP 2000 Combined Healthy with Blue Collar Adjustment (male)
RP2000-CHBF	RP 2000 Combined Healthy with Blue Collar Adjustment (female)

RP-2014 MORTALITY TABLES

A table can have generational mortality improvement with Scale MP-2014 by using "RP2014G" in the name instead of "RP2014" (this is a 2-dimensional gender specific mortality improvement expressed as a function of both age and calendar year).
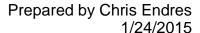
Combined Tables: "Employee" and "Health Annuitant" tables can be combined at a single retirement age by appending "-C*age*" to the table name. In addition, a user-defined table can be used (detailed instructions are provided), allowing the user to create an employee/annuitant table as needed.
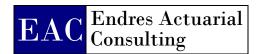
Append "@year" to end of table name to project the table to a specific year

Example "RP2014G-C62-M @2014" = RP2014 mortality for males, generational@ 2014, employee rates up to age 61, healthy annuitant rates thereafter. Projection using MP-2014 is implied: to use AA, BB, or BB2D you would append /AA or /BB or /BB2D to the end of the table name.

Male			Combined (for example at retirement age 62)
RP2014-E-M	RP 2014 Total Dataset Employee (male)	age 18-80	RP2014-C62-M
RP2014-HA-M	RP 2014 Total Dataset Healthy Annuitant (male)	age 50+	
RP2014-DR-M	RP 2014 Total Dataset Disabled Retiree (male)	age 18+	
RP2014-BC-E-M	RP 2014 Blue Collar Employee (male)	age 18-80	RP2014-BC-C62-M
RP2014-BC-HA-M	RP 2014 Blue Collar Healthy Annuitant (male)	age 50+	
RP2014-WC-E-M	RP 2014 White Collar Employee (male)	age 18-80	RP2014-WC-C62-M
RP2014-WC-HA-M	RP 2014 White Collar Healthy Annuitant (male)	age 50+	
RP2014-Bot-E-M	RP 2014 Bottom Quartile Employee (male)	age 18-80	RP2014-Bot-C62-M
RP2014-Bot-HA-M	RP 2014 Bottom Quartile Healthy Annuitant (male)	age 50+	
RP2014-Top-E-M	RP 2014 Top Quartile Employee (male)	age 18-80	RP2014-Top-C62-M
RP2014-Top-HA-M	RP 2014 Top Quartile Healthy Annuitant (male)	age 50+	
Female			
RP2014-E-F	RP 2014 Total Dataset Employee (female)	age 18-80	RP2014-C62-F
RP2014-HA-F	RP 2014 Total Dataset Healthy Annuitant (female)	age 50+	
RP2014-DR-F	RP 2014 Total Dataset Disabled Retiree (female)	age 18+	
RP2014-BC-E-F	RP 2014 Blue Collar Employee (female)	age 18-80	RP2014-BC-C62-F
RP2014-BC-HA-F	RP 2014 Blue Collar Healthy Annuitant (female)	age 50+	
RP2014-WC-E-F	RP 2014 White Collar Employee (female)	age 18-80	RP2014-WC-C62-F
RP2014-WC-HA-F	RP 2014 White Collar Healthy Annuitant (female)	age 50+	
RP2014-Bot-E-F	RP 2014 Bottom Quartile Employee (female)	age 18-80	RP2014-Bot-C62-F
RP2014-Bot-HA-F	RP 2014 Bottom Quartile Healthy Annuitant (female)	age 50+	
RP2014-Top-E-F	RP 2014 Top Quartile Employee (female)	age 18-80	RP2014-Top-C62-F
RP2014-Top-HA-F	RP 2014 Top Quartile Healthy Annuitant (female)	age 50+	

USER-DEFINED MORTALITY TABLES

1. A user-defined table may be used, allowing you to project/blend/combine tables as desired. Create your q's, and make a "named range" containing the only q's, <u>starting at age 0</u> and ending at the table's ending age with q=1, but not more than age 120. The named range should include only the q's, in <u>one column</u>.

   Note: If you want to use the MP-2014 projection scale with your user-defined table, you should follow the RP-2014 naming convention: start with "RP2014_" (or "RP2014G_" for generational projection) and end with "_M" or "_F" (for male or female). You must use underscore "_" instead of hyphen "-" because Excel does not allow hyphen "-" to be used in a range name.

   A sample worksheet is available in Excel's menu for EAC PV Tools in "RP-2014 Create a Combined Table".

2. The user may create a table that is saved in a text file. A worksheet tool to do this is available here. A sample text file is available here.