

Longevity in US Private Plans and Implications for Risk Transfer

R. Dale Hall, FSA, MAAA, CERA, CFA
Managing Director of Research
Society of Actuaries

dhall@soa.org
@RDaleHall

Overview

- History of US private plan mortality
- SOA's RP-2014 / MP-2014
- US marketplace for Pension Risk Transfer

US Private Plan Mortality

- Pre-Calendar Year 2000
 - 1983 Group Annuity Mortality (GAM 83)
- Retirement Protection Act of 1994
- RP-2000 developed
 - Central on 1992; Improved to 2000
 - Scale AA recommended in report for projecting beyond 2000
- Scale BB released in 2012
 - Move from static to generational improvement tables

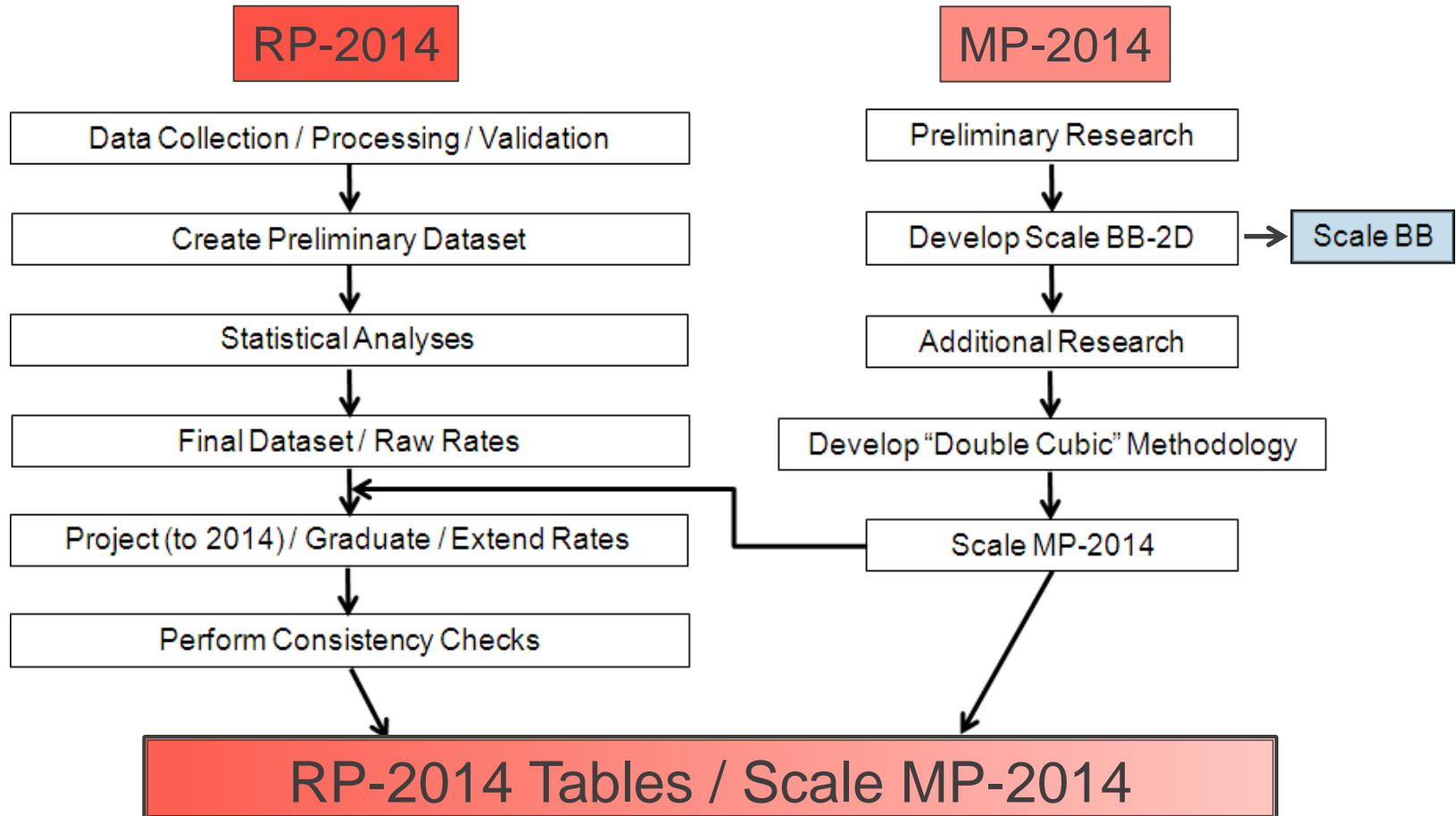
US Private Plan Mortality

- Comparing the improvement in plan mortality over recent decades:
 - 1983 GAM / UP 94
 - RP 2000
 - RP 2014

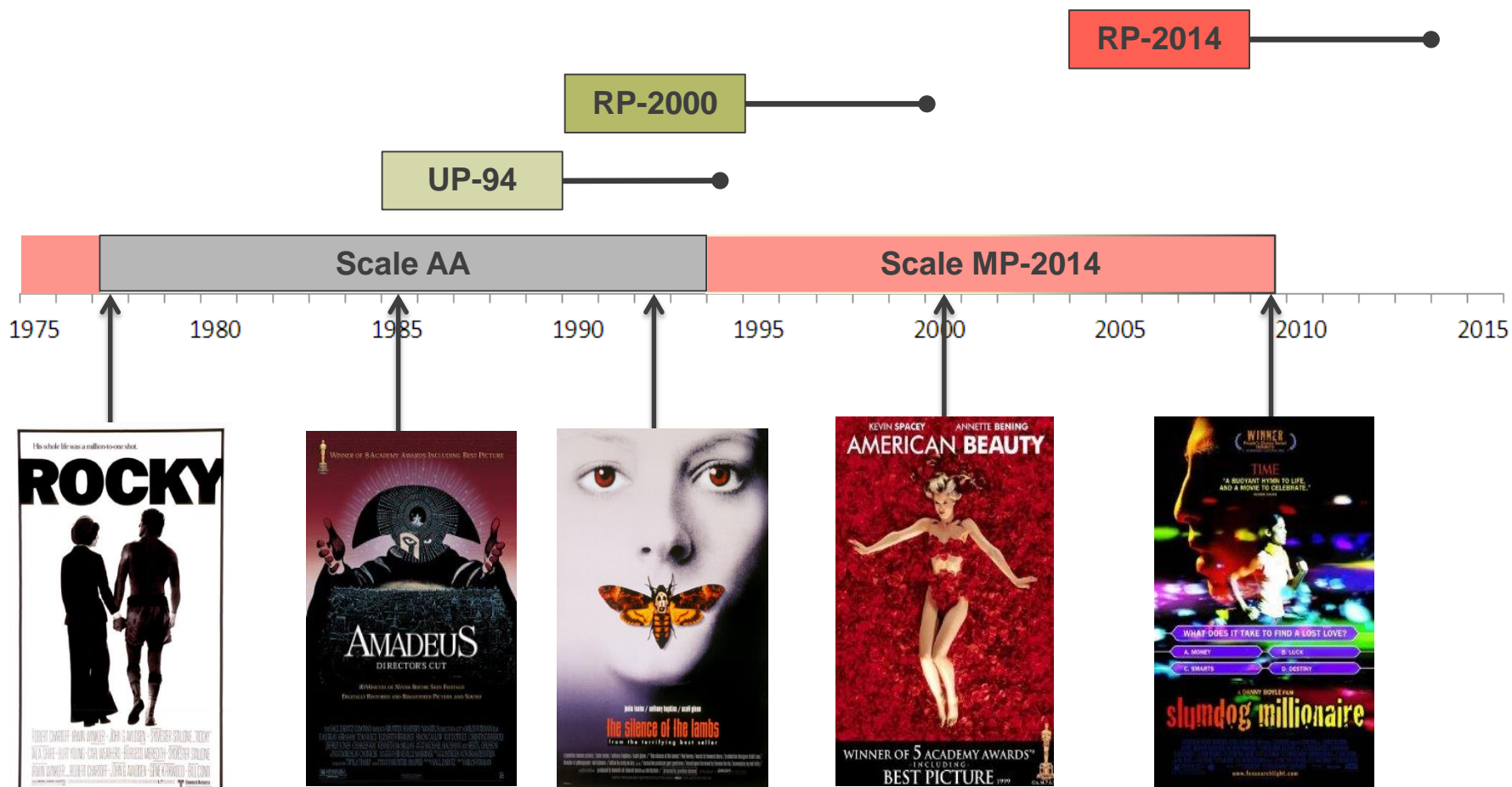
US Private Plan Mortality

- RP 2014 / MP 2014
- Exposure Draft released February 2014
- Comments received through May 2014

Process Overview



It's About Time...



It's About Mortality Improvement...!?!

1975 1980 1985 1990 1995 2000 2005 2010 2015

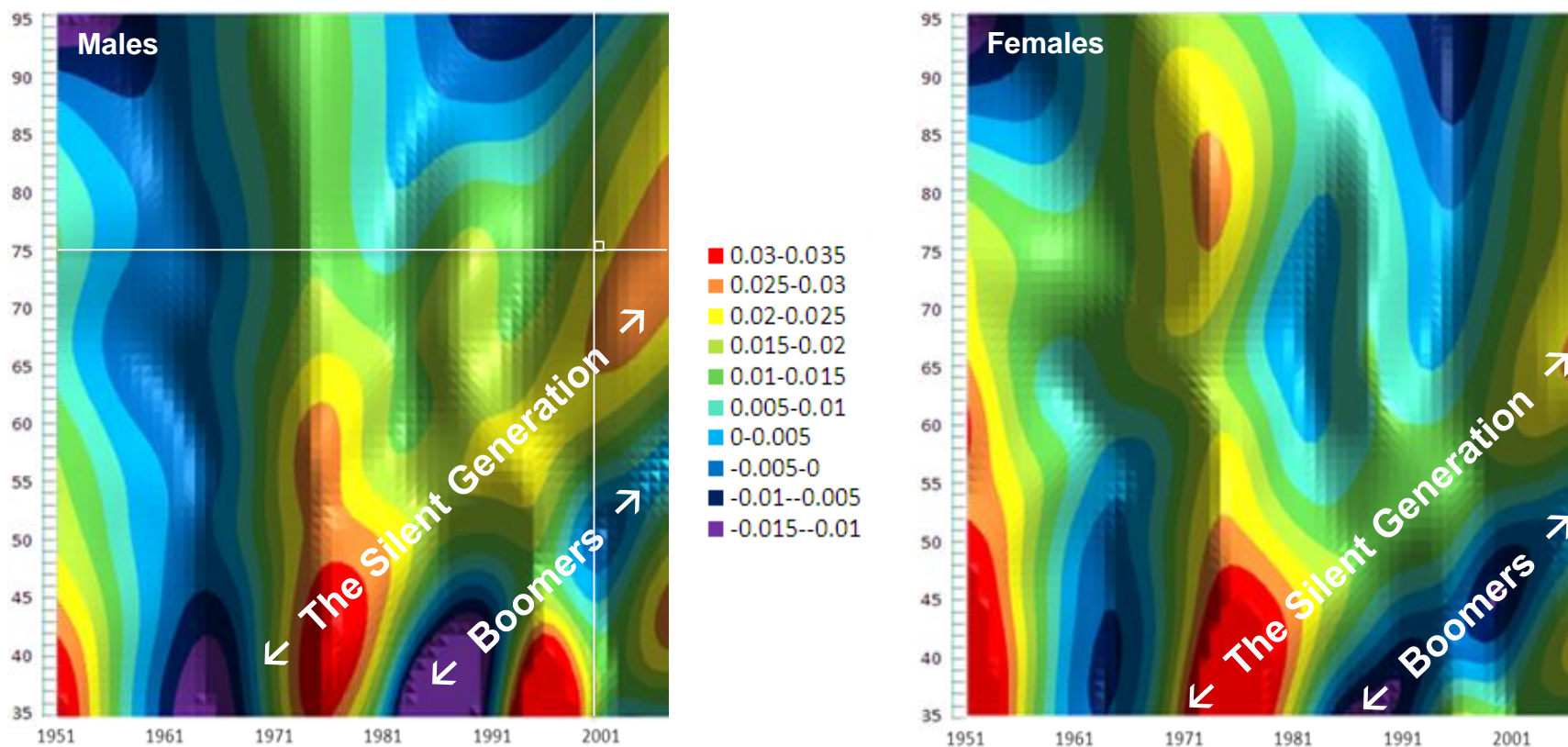


7

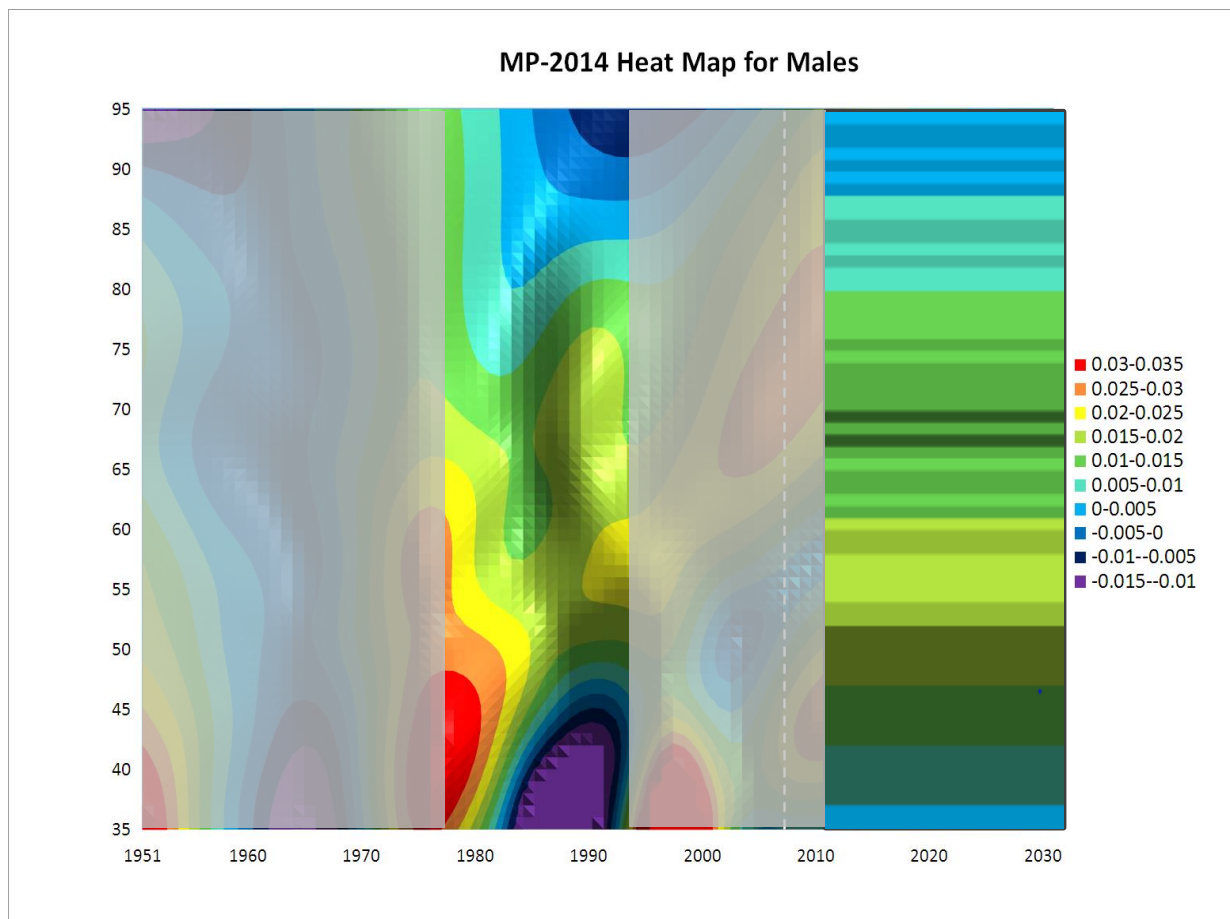


Basics of Scale MP-2014

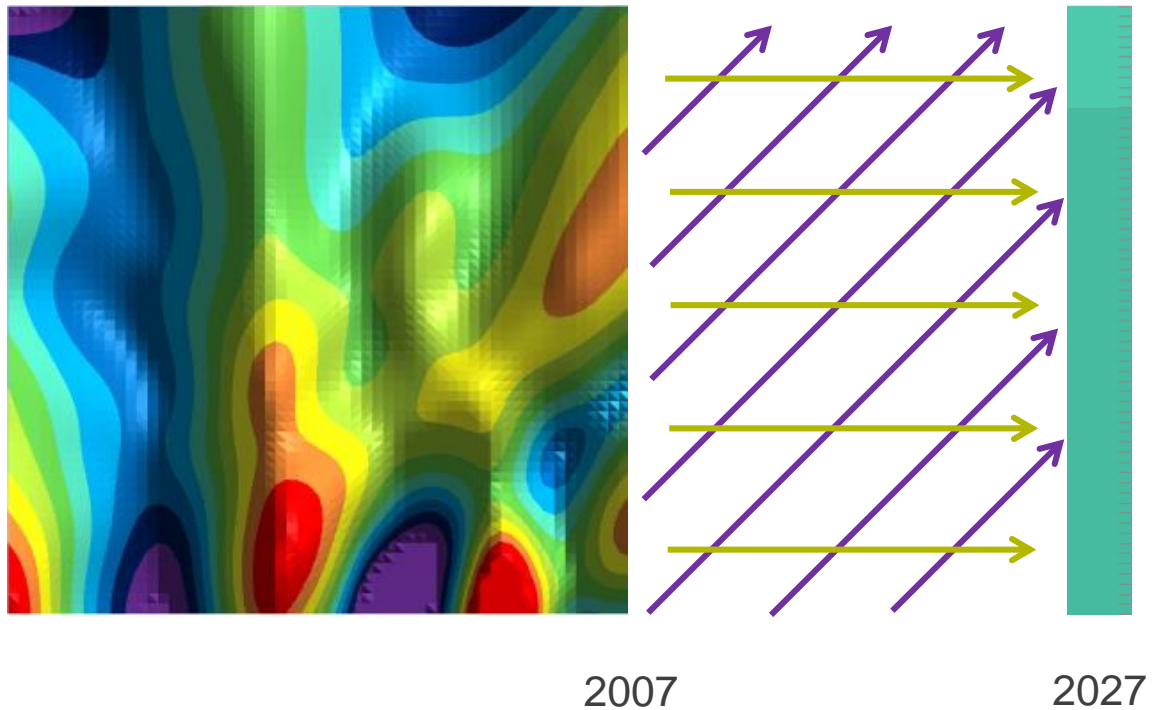
- Historical MI rates develop from SSA mortality data



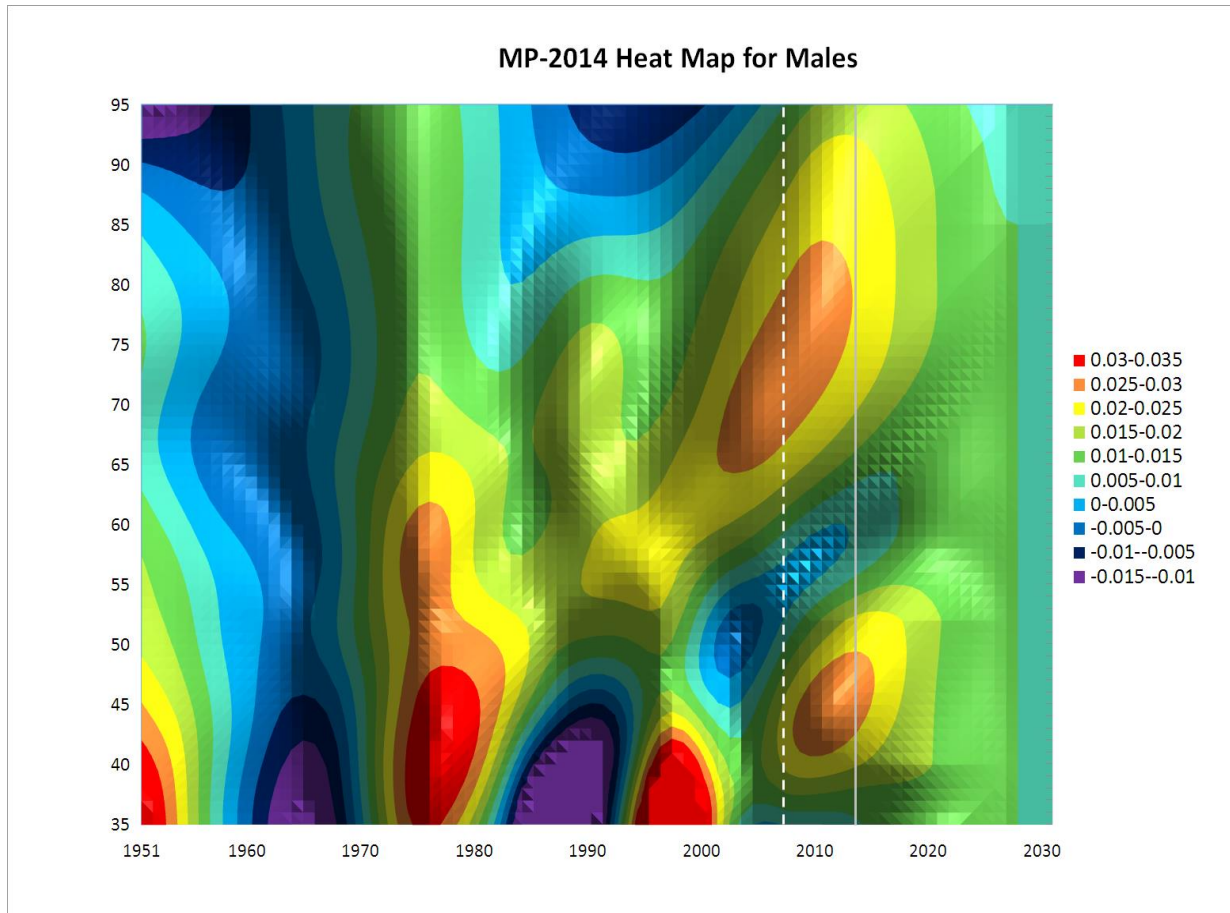
Historical Through 2000; Then Scale AA



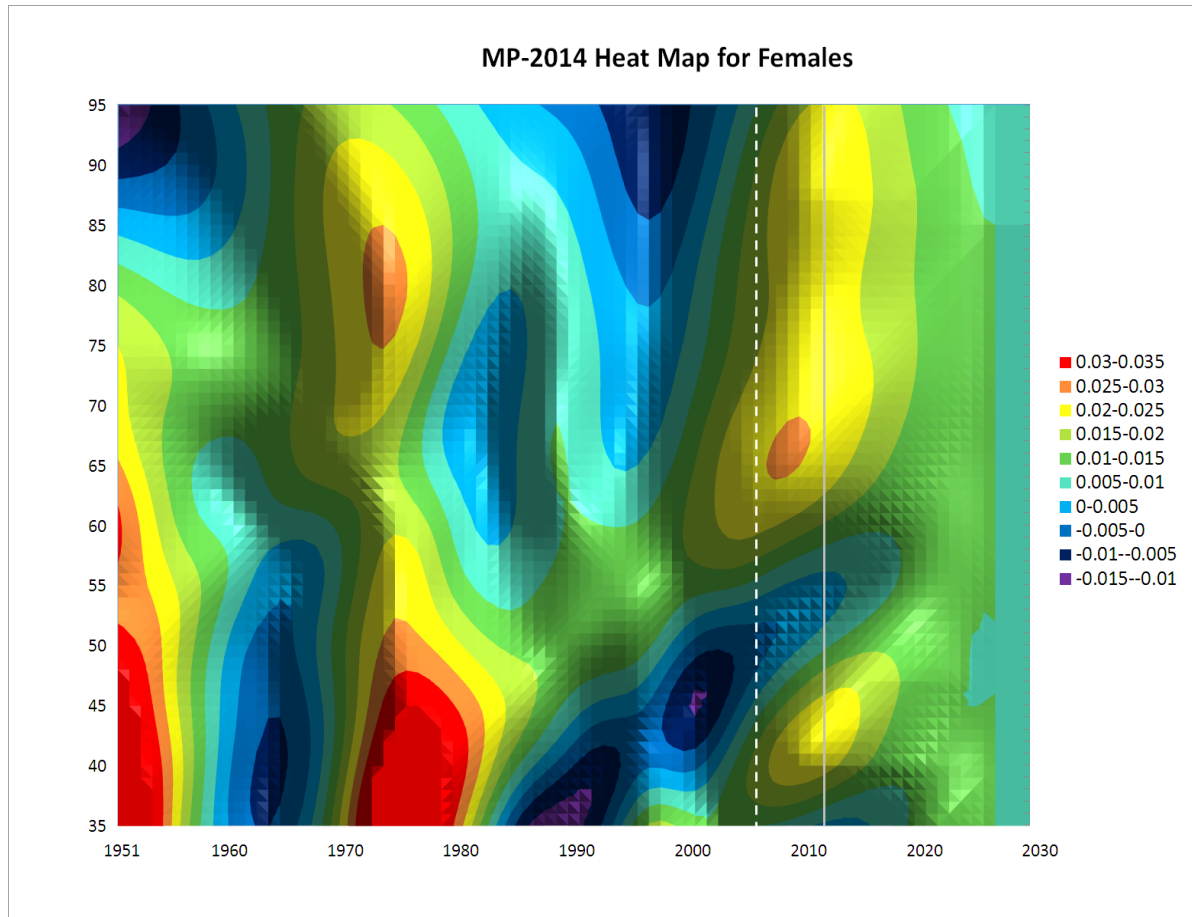
MP-2014: Interpolation



Scale MP-2014: Heat Maps

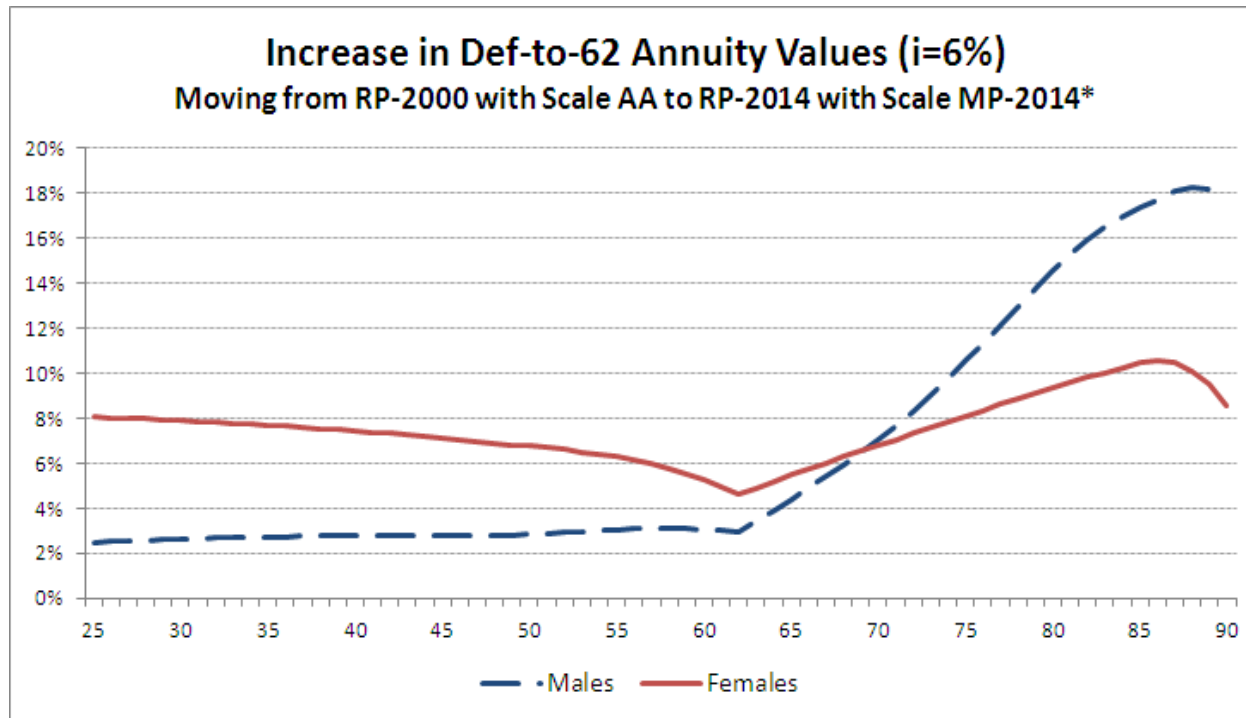


Scale MP-2014: Heat Maps



Estimated Financial Impact

- Monthly 2014 deferred-to-62 annuity values (6% interest)



* RP-2014 **Employee** rates through age 61 and RP-2014 **Healthy Annuitant** rates at ages 62 and older; all mortality projection applied generationally.

Implications for Risk Transfer

■ Impacts

- Gender
- Age
- Previous mortality assumption

- <http://www.russell.com/documents/institutional-investors/research/how-will-the-new-rp-2014-mortality-tables-affect-my-db-strategy.pdf>

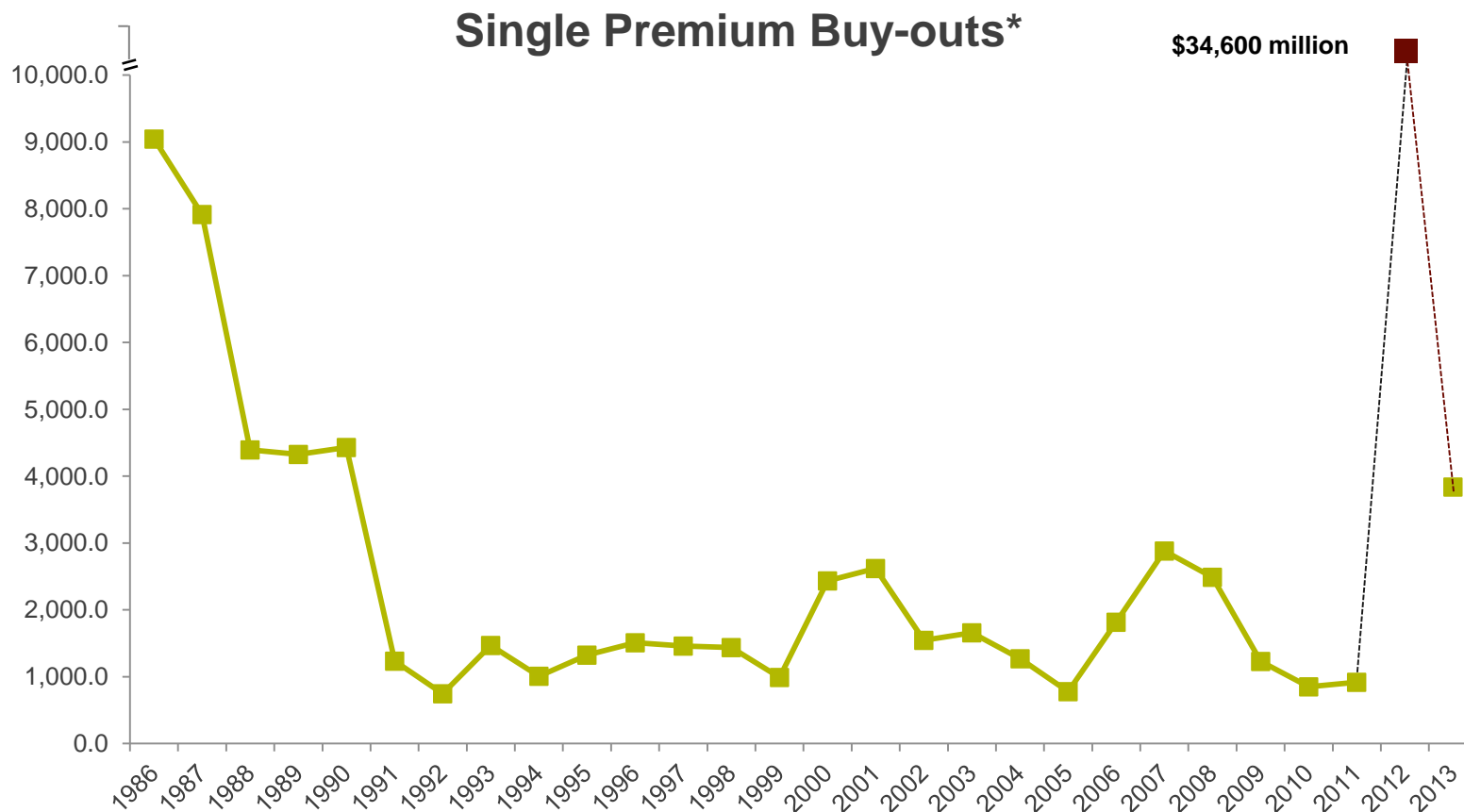
Implications for Risk Transfer

- Layers of risk transfer participants
 - Plan Participants
 - Plan Sponsors
 - Plan Valuation / Broker Intermediary
 - Insurer
 - Reinsurer

Implications for Risk Transfer

- Supply and Demand in the market
- Capacity
- Insurer / Reinsurer Strategies

Single Premium Buy-out Sales



Source: LIMRA Secure Retirement Institute, Group Annuity Risk Transfer Survey.

*Sales results based on a non-constant group of companies. For 1986 to 1992 and 1999 to 2010, sales figures based on single-premium buy-outs only; for 1993 to 1998, sales include some terminal funding products; for 2011 and 2012, sales include single-premium buy-ins.