## Is Raising the Age of Eligibility Fair to all? An Investigation of Socio-Economic Differences in Mortality Using Population Data

Geoff Rashbrooke

Presented at the Living to 100 Symposium Orlando, Fla. January 5–7, 2011

Copyright 2011 by the Society of Actuaries.

All rights reserved by the Society of Actuaries. Permission is granted to make brief excerpts for a published review. Permission is also granted to make limited numbers of copies of items in this monograph for personal, internal, classroom or other instructional use, on condition that the foregoing copyright notice is used so as to give reasonable notice of the Society's copyright. This consent for free limited copying without prior consent of the Society does not extend to making copies for general distribution, for advertising or promotional purposes, for inclusion in new collective works or for resale.

## **Abstract**

Constraining the cost of pay-as-you-go financing of social security age pensions is becoming an increasingly important issue as population's age. One option, increasing the age of eligibility, raises the issue of the impact of differential mortality by socio-economic status on the fairness of such a change. Analysis using panel data may not be fully reliable due to definitional issues. Population mortality data by ethnicity is available but subdivision by socio-economic status is more problematic.

This paper draws on New Zealand research that has matched individual death records to census records. Using this research, the paper derives mortality tables by adapting New Zealand Māori and non-Māori population mortality data to reflect differences in socio-economic status. This adapted data is used as a basis to explore the implications of differential mortality in assessing the equity of increase in the pension age of eligibility.

As convergence of mortality rates over time would remove the impact of differential mortality, a brief discussion is included on the prospects for convergence, and some conditions considered necessary for this to occur described. The paper concludes with suggestions as to how the imperatives for fiscal sustainability might be tempered with actions designed to mitigate the equity shortcomings indicated by the paper's analysis.