

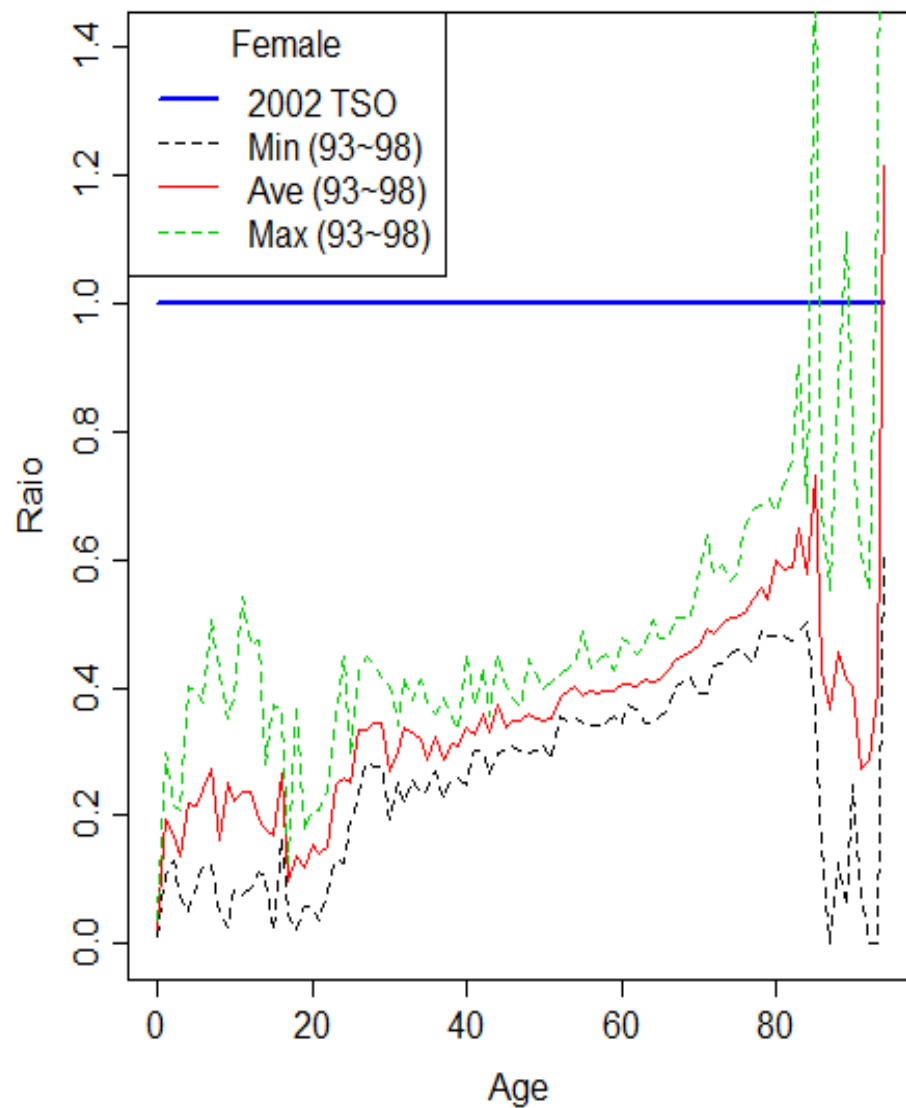
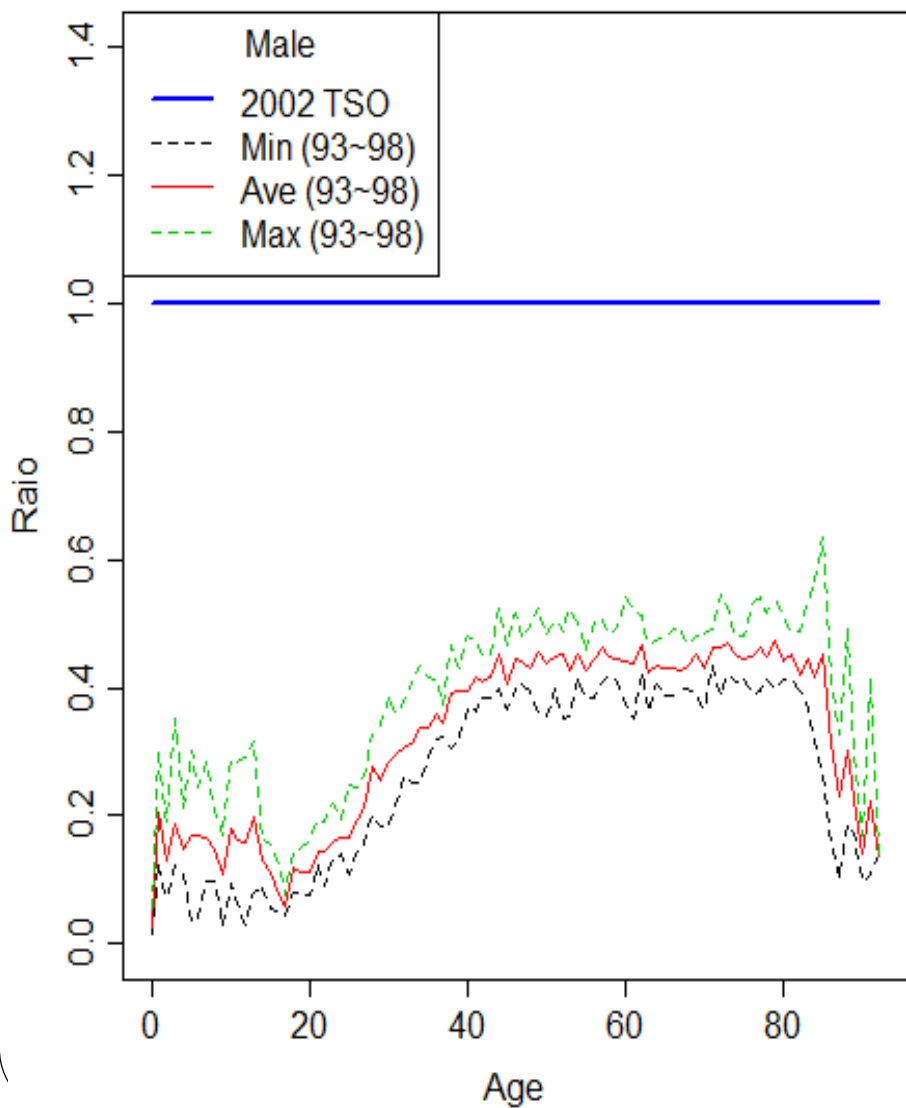
我國壽險業經驗生命表編製歷程

名稱	採用經驗資料	編製時間	編製單位	主管機關核准時間及函釋
臺灣壽險業經驗生命表	民國58~61	民國62~63	台北市人壽保險商業同業公	民國64年2月5日 台財錢字第11200號
臺灣壽險業第二回經驗生命表	民國66~70	民國70~72	台北市人壽保險商業同業公	民國73年12月28日 台財融字第24549號
臺灣壽險業第三回經驗生命表	民國71~75	民國77~78	台北市人壽保險商業同業公	民國78年6月19日 台財融字第780163364號
臺灣壽險業第四回經驗生命表	民國84~88	民國91	中華民國人壽保險商業同業	民國91年12月27日 台財保字第0910074199號

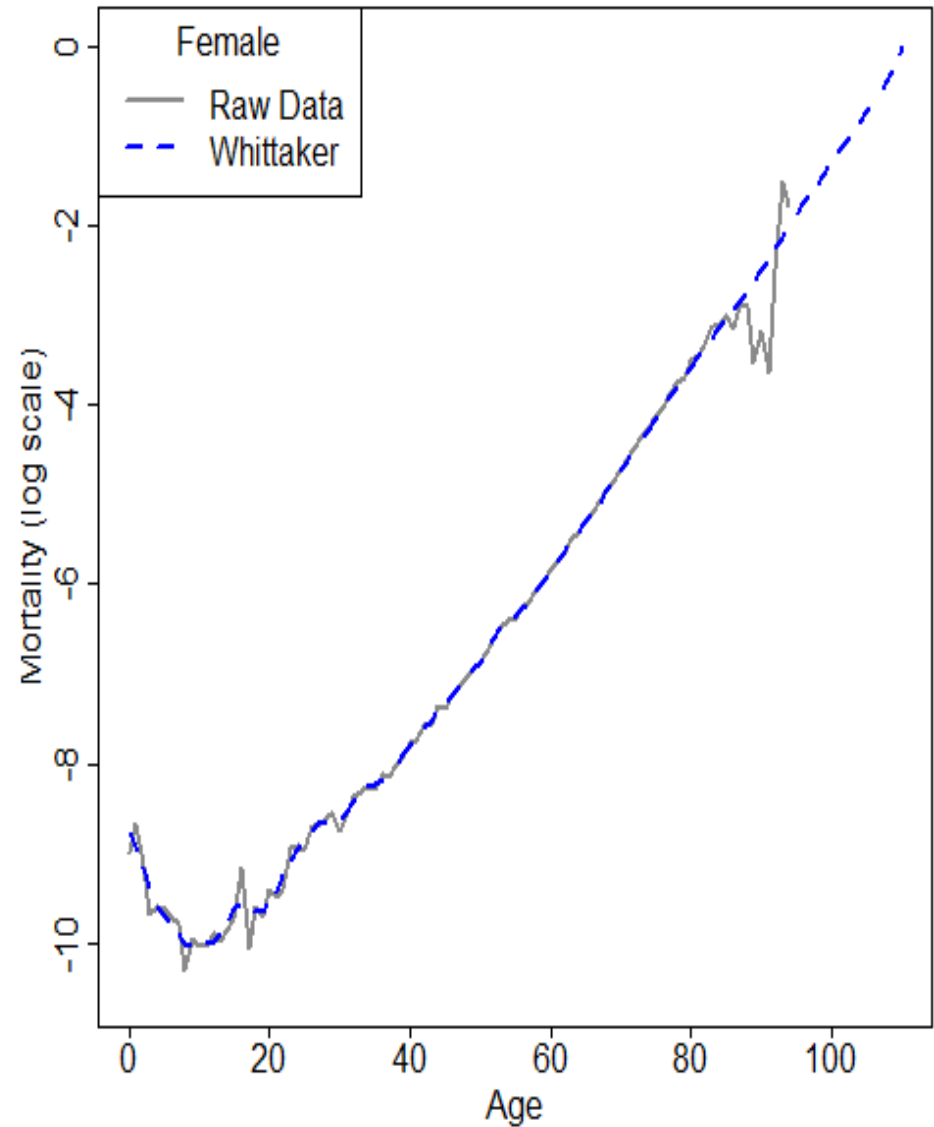
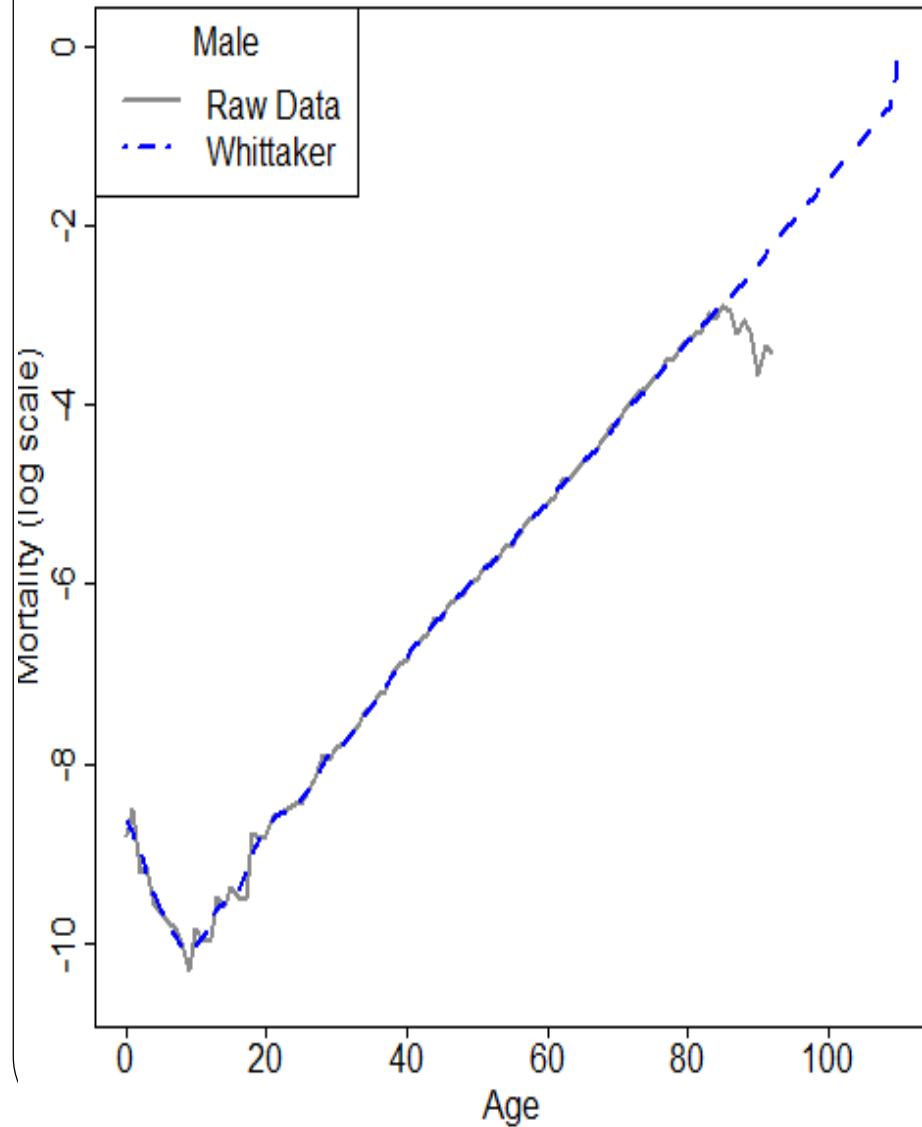
93~98年保單暴露數

年齡	男性	女性
14歲以下	15,408,739	13,609,158
15-19歲	6,613,675	5,581,651
20-24歲	7,656,467	7,317,657
25-29歲	10,286,714	11,452,783
30-34歲	10,373,279	12,231,167
35-39歲	9,983,138	11,698,008
40-44歲	9,791,710	10,890,480
45-49歲	8,936,286	9,544,437
50-54歲	7,210,635	7,779,551
55-59歲	4,582,542	5,183,963
60-64歲	2,196,927	2,687,323
65-69歲	1,343,891	1,801,842
70-74歲	711,001	971,053
75-79歲	336,167	421,417
80歲以上	110,711	128,587

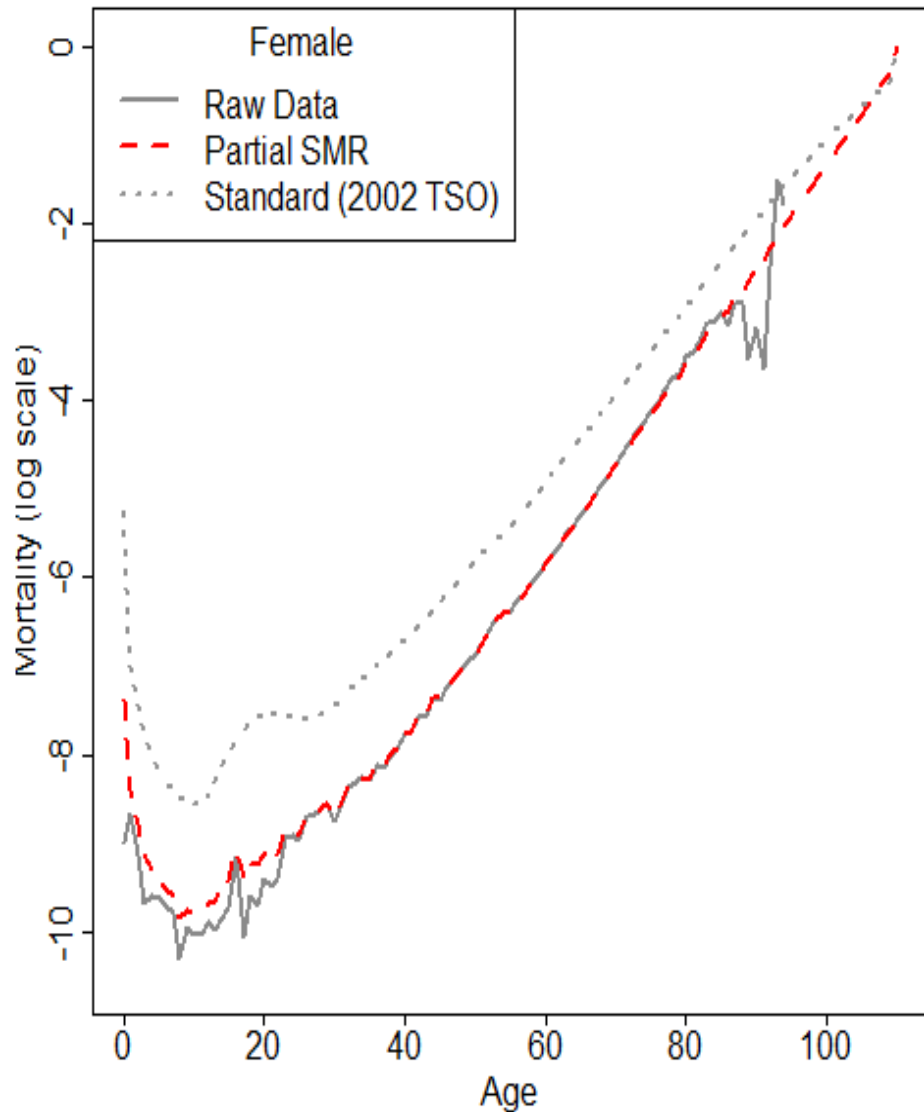
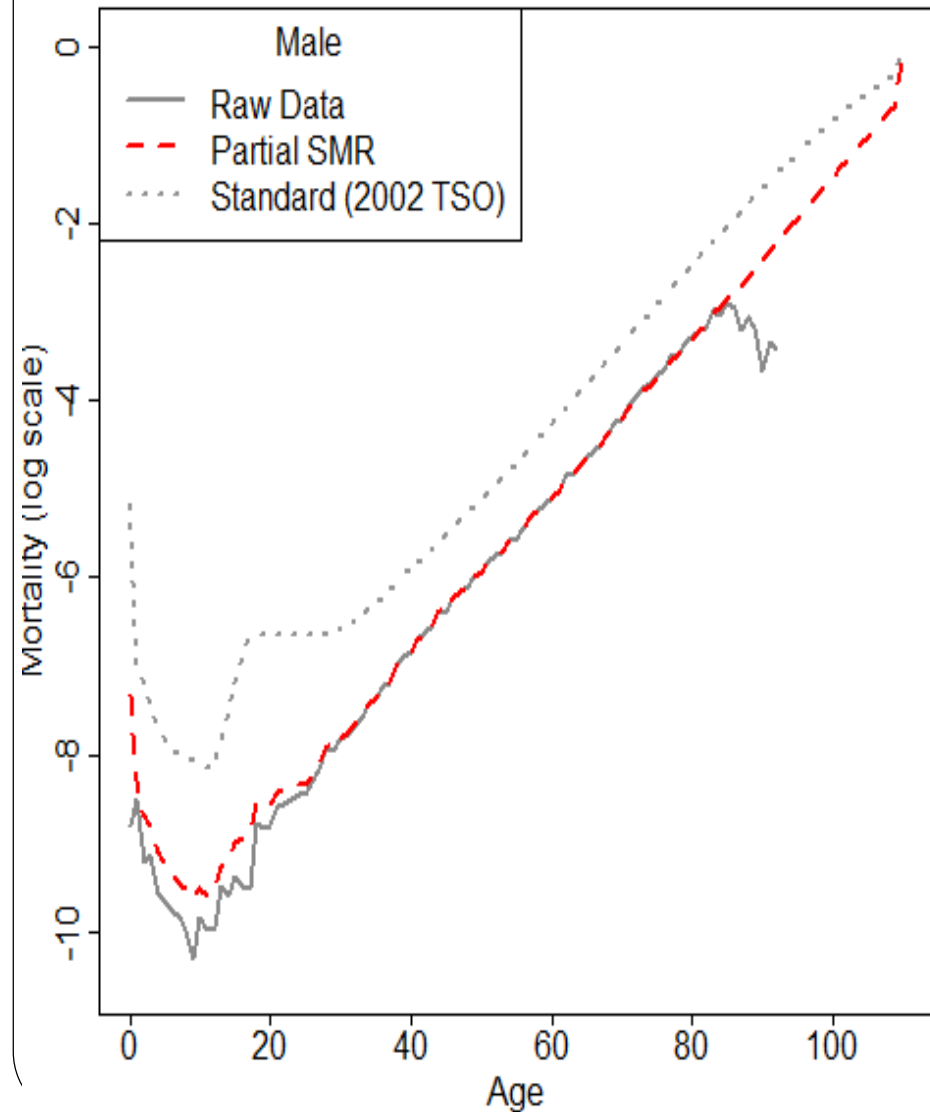
93~98觀察值與第四回經驗生命表比較



Whittaker修勻 ($z=3$, h =各年齡平均暴露數)

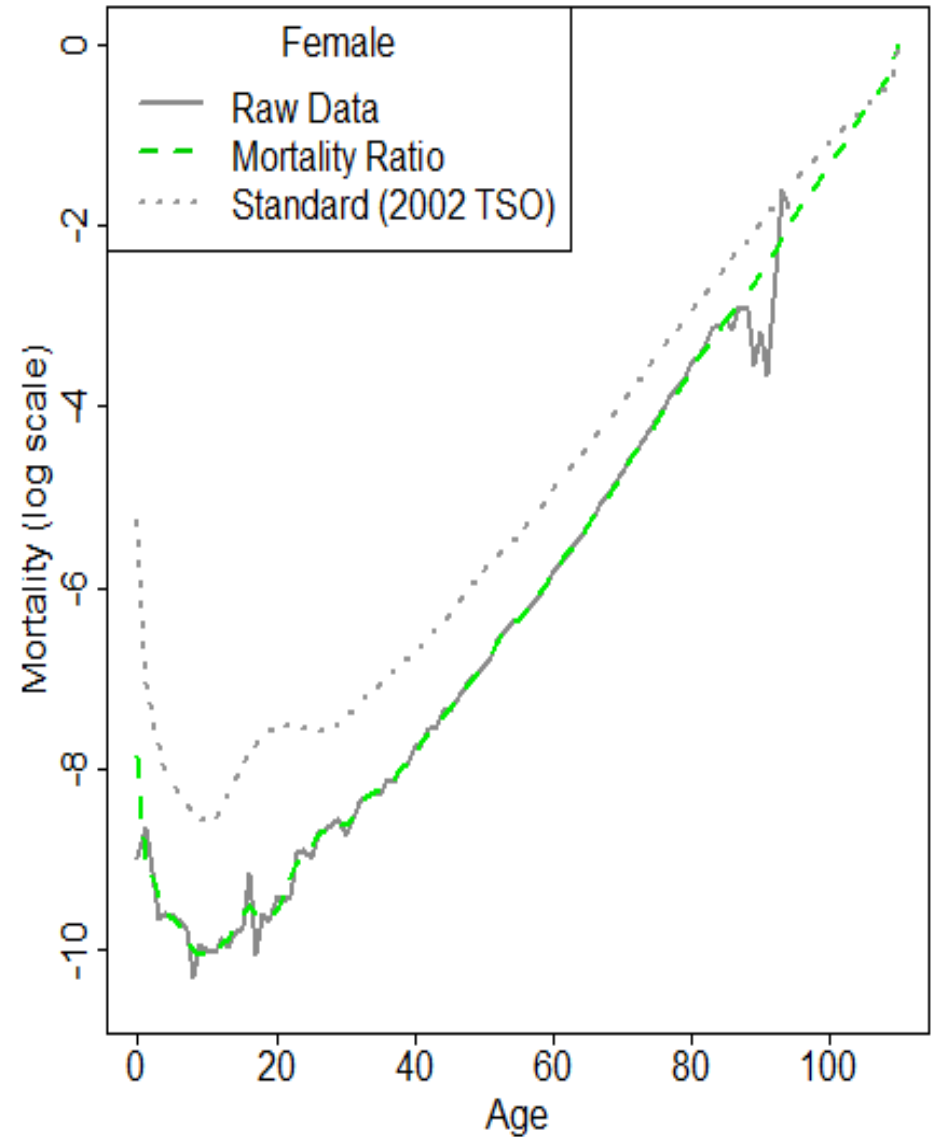
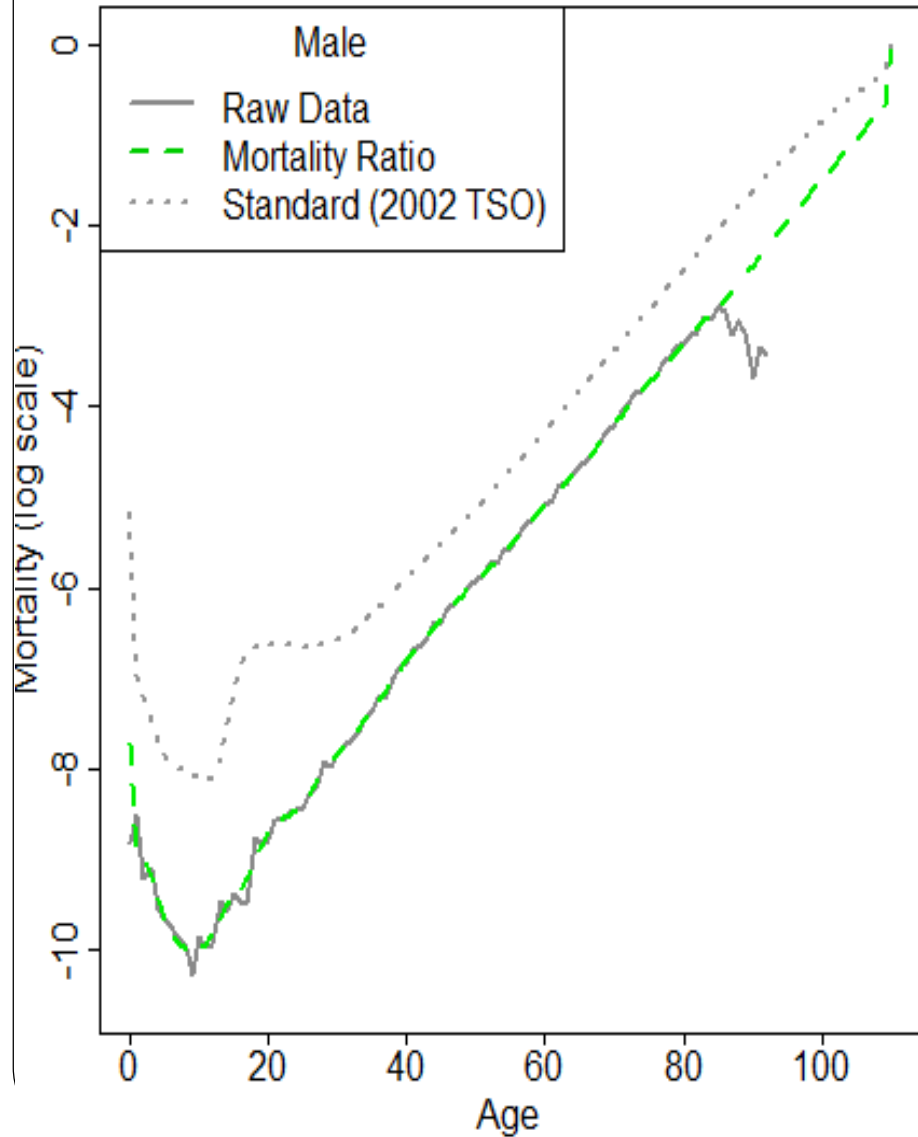


Partial SMR修匀 (standard=2002 TSO)

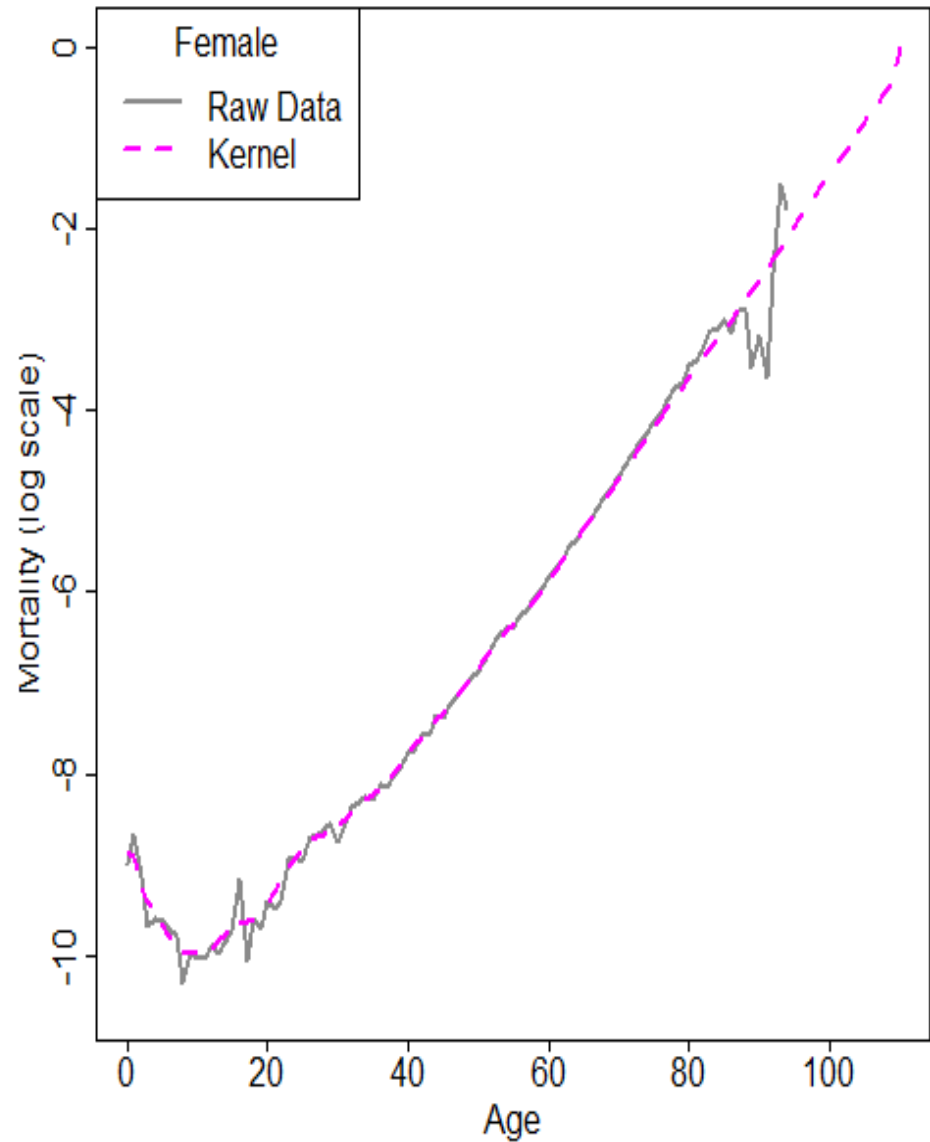
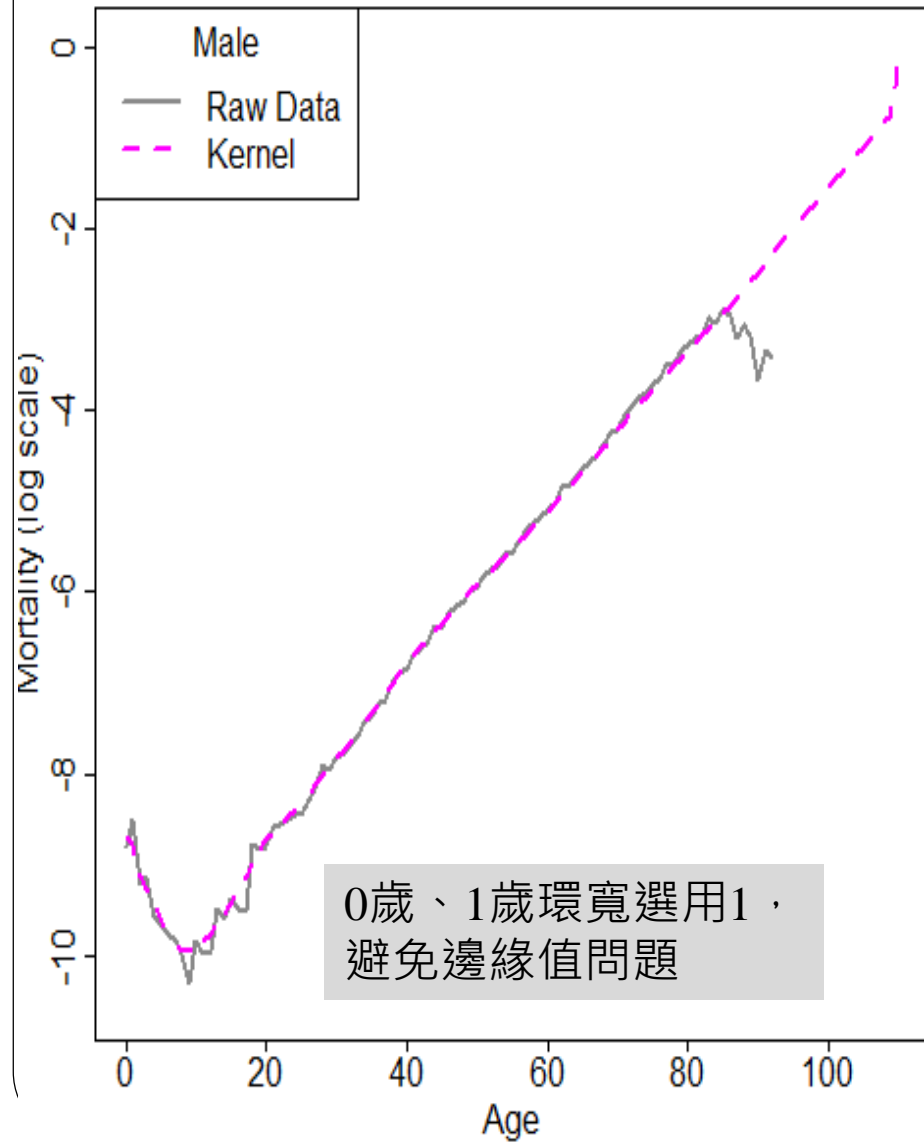


Whittaker死亡率比值修勻

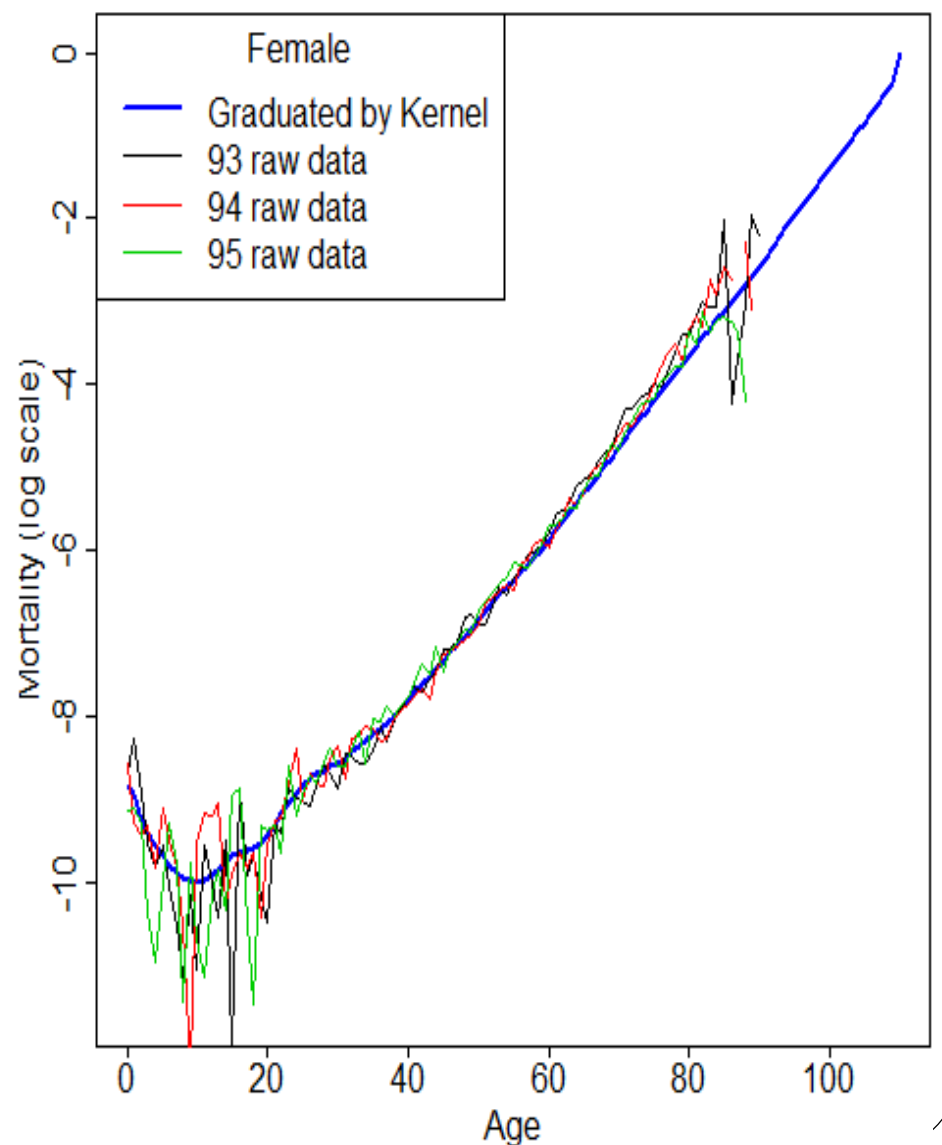
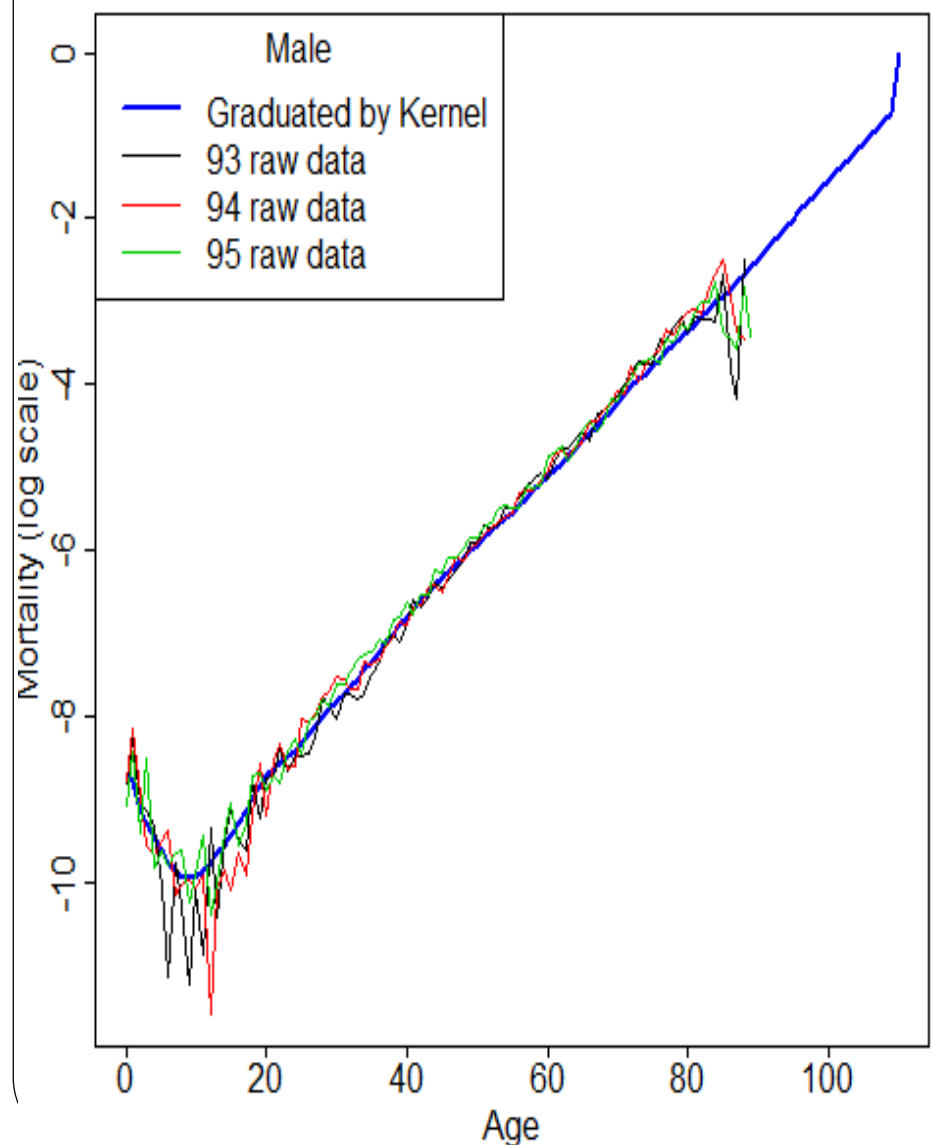
($z=3$, h =各年齡平均暴露數, standard=2002 TSO)



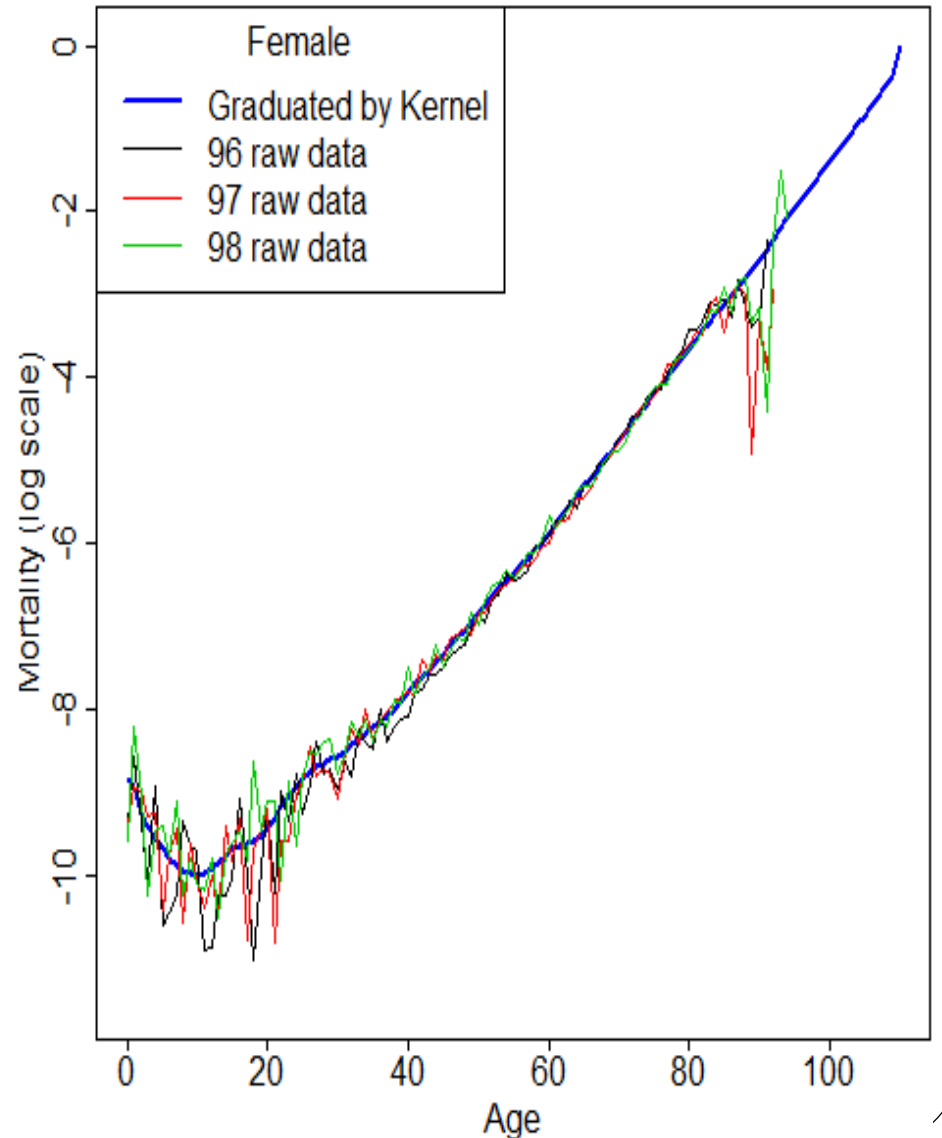
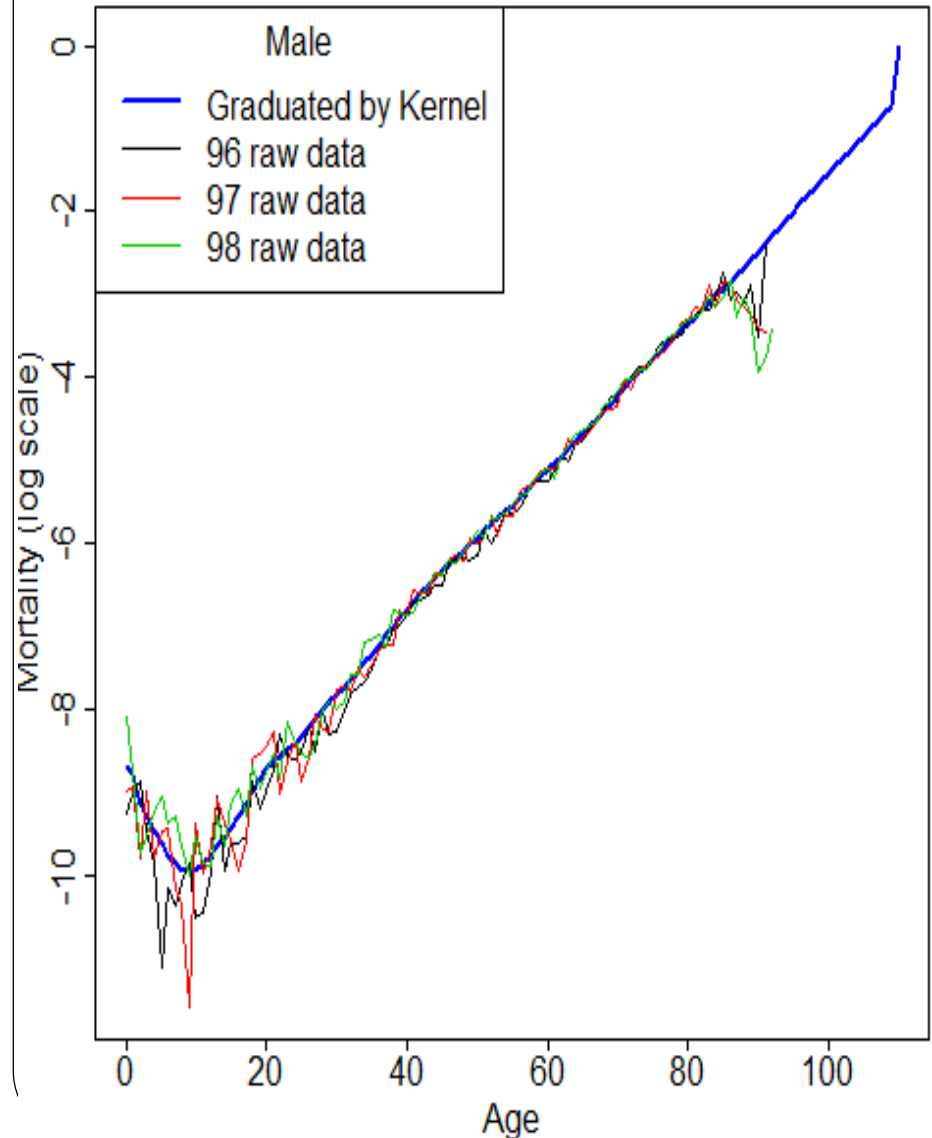
Kernel修勻 (環寬=2, 核函數=Normal)



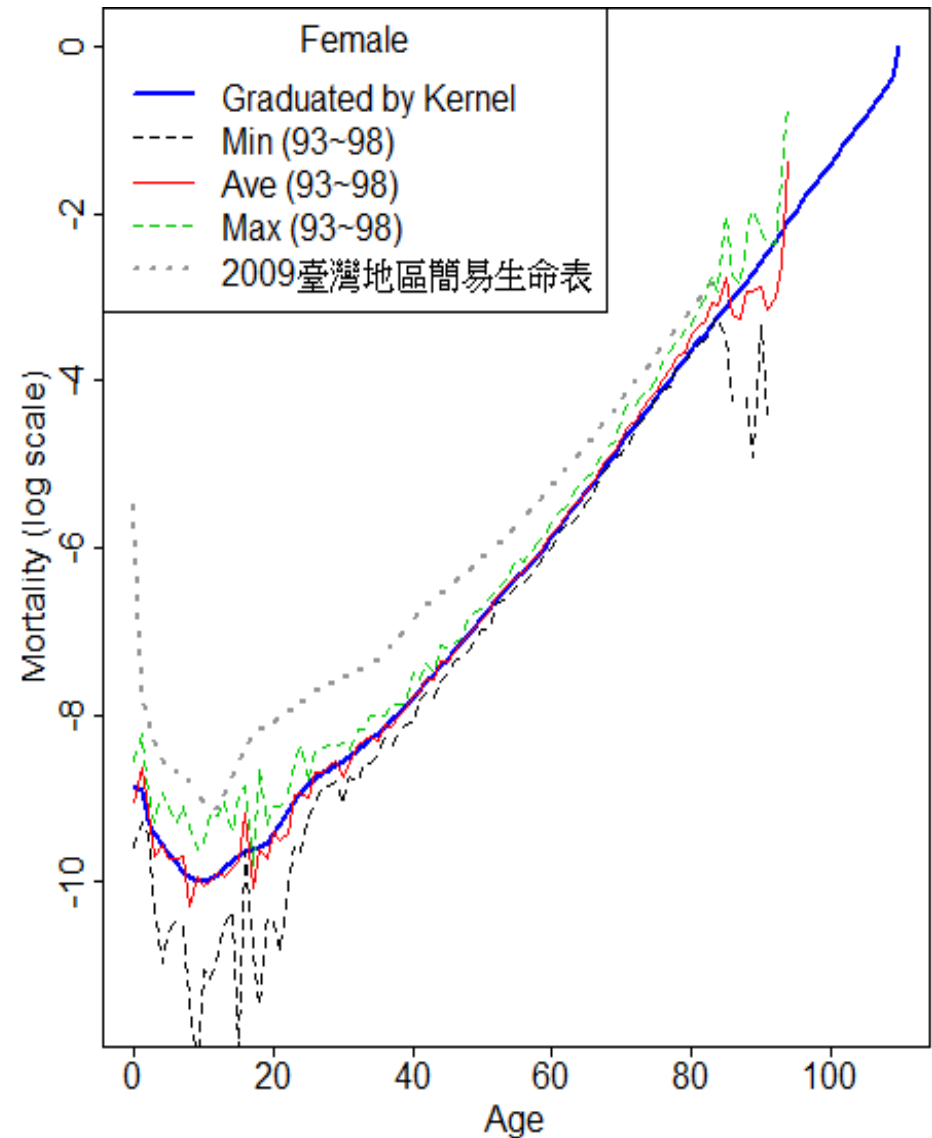
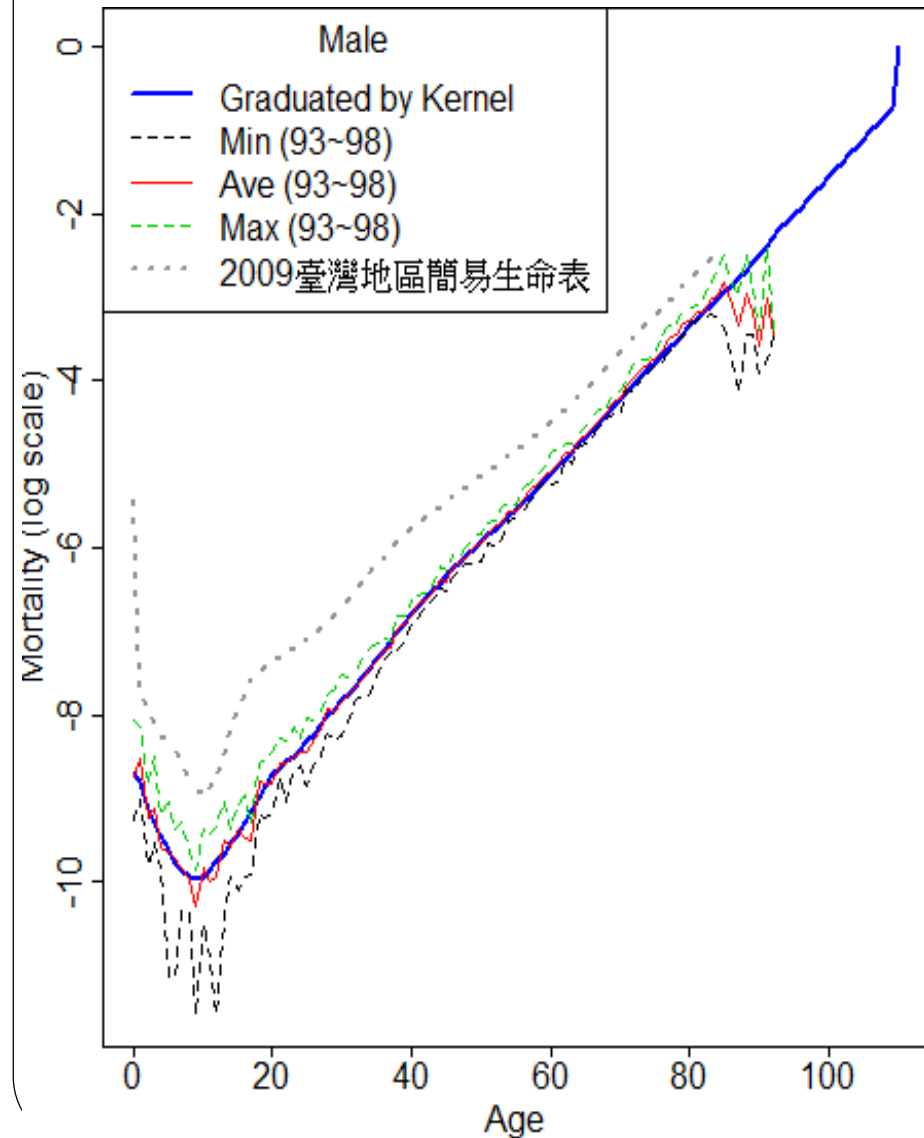
整補死亡率(Kernel,環寬=2)與原始死亡率比較，93-95年



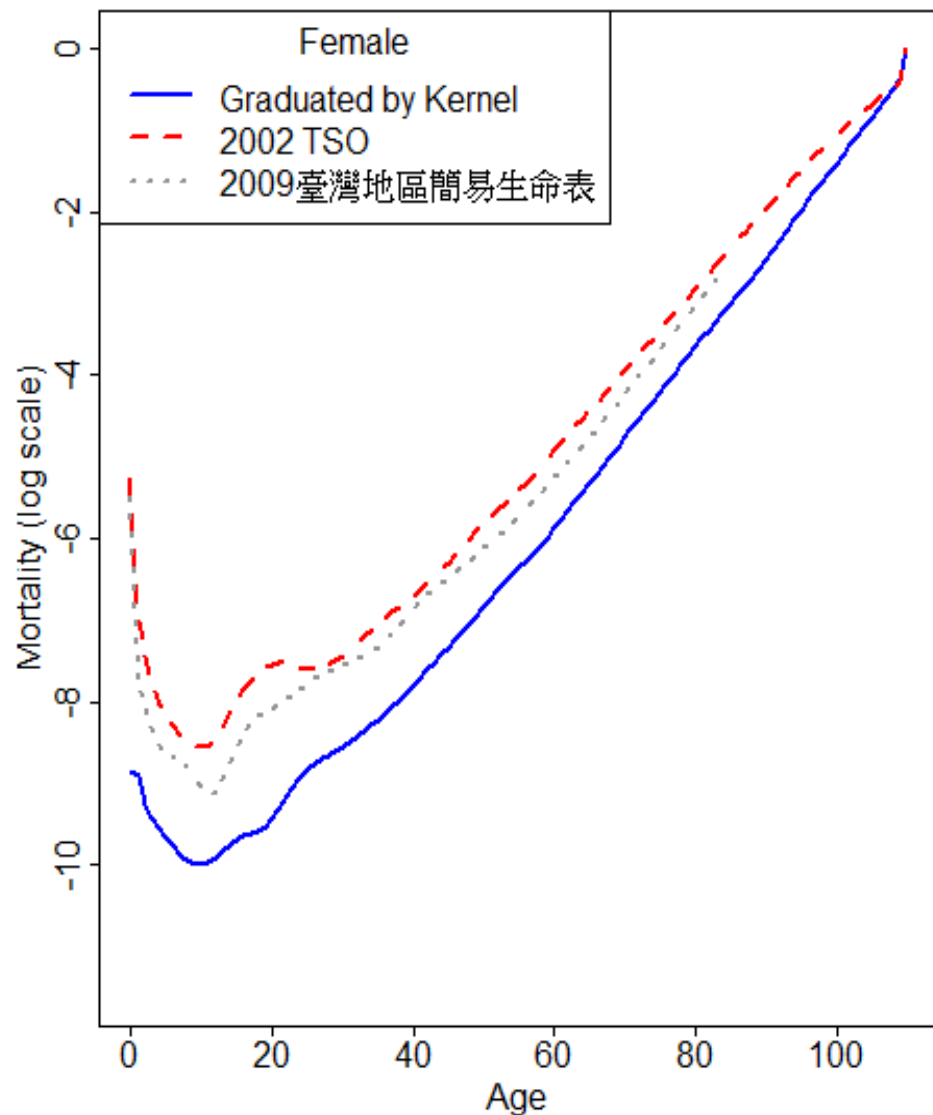
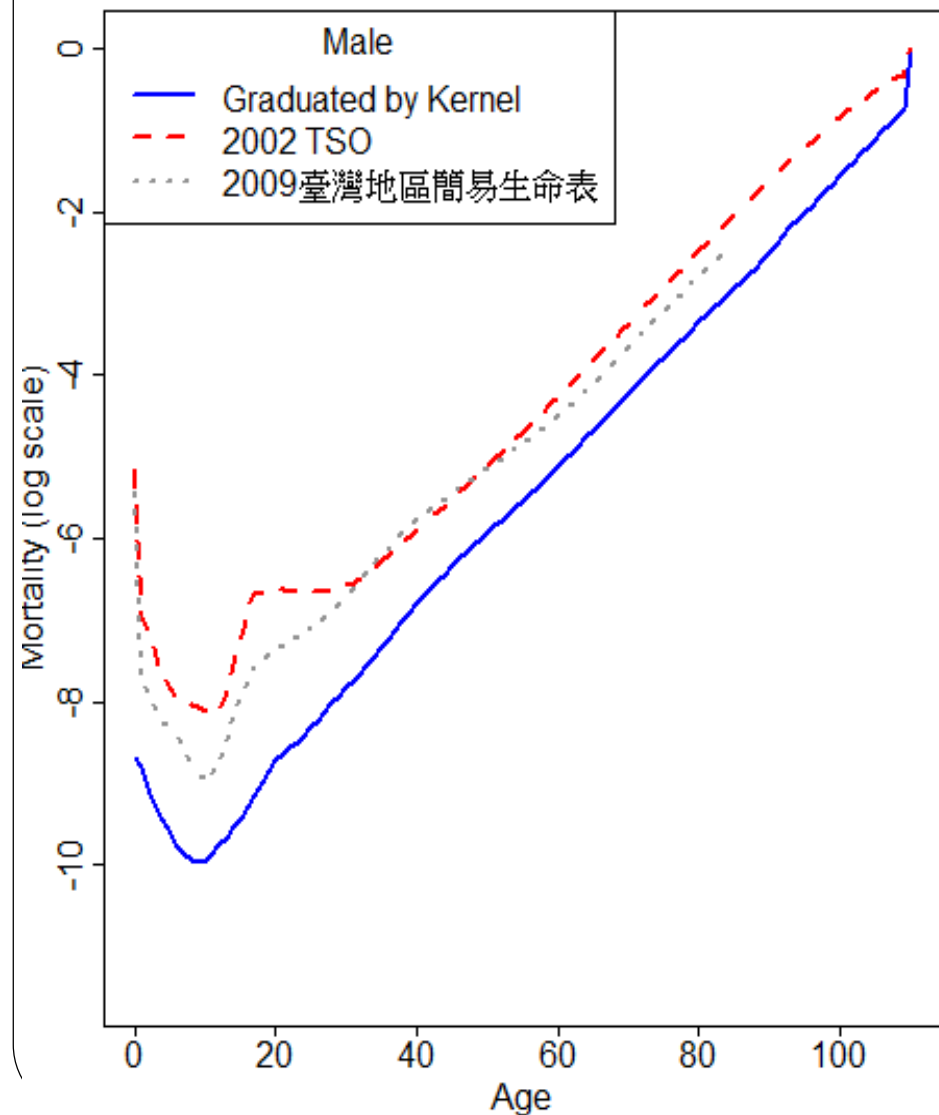
整補死亡率(Kernel,環寬=2)與原始死亡率比較，96-98年



整補死亡率(Kernel,環寬=2)、93~98年、 2009臺灣簡易生命表比較



整補死亡率(Kernel,環寬=2)、第四回經驗生命表、2009臺灣簡易生命表比較



名詞定義

■ 美國經驗生命表（以下兩者差異？）

→ Commissioners Standard Ordinary (CSO): **Margin**

→ Valuation Basic Table (VBT) : **Graduation**

註：每五年原始資料 Experience Basic Tables

■ 臺灣經驗生命表(TSO)

→ Taiwan Standard Ordinary Experience Mortality

問題：台灣與美國的差異？

TABLE INFORMATION

[Close](#)

Table Identity	1150
Provider Domain	soa.org
Provider Name	Society of Actuaries
Table Reference	American Academy of Actuaries CSO Task Force, "Final Report of the American Academy of Actuaries' Commissioners Standard Ordinary Task Force", American Academy of Actuaries, (2002). Appendix A. Accessed January, 2013 from http://dev.actuary.org/files/CSO_taskforce_appendix_a_june2002.xls
Content Type	Insured Lives Mortality
Table Name	2001 VBT Select and Ultimate - Male Smoker ANB
Table Description	2001 Valuation Basic Table (VBT) Select and Ultimate Table - Male Smoker. Basis: Age Nearest Birthday. Minimum Select Age: 0. Maximum Select Age: 100. Minimum Ultimate Age: 25. Maximum Ultimate Age: 120.
Comments	<p>Study Data: The 2001 Valuation Basic Tables (VBT) are based on the 1990-1995 Basic Tables that were developed by the Society of Actuaries' (SOA) Individual Experience Studies Committee. The 1990-1995 Basic Tables are based on the mortality experience collected annually by the SOA over the years 1990-1995 for companies that participated in the study. Additional data from other sources was used to supplement the 1990-1995 Basic Tables at young and old ages where the experience data was sparse. The mortality was projected to the year 2001 using recent mortality improvement trends. Methodology: The first step in developing the 2001 VBT utilizing the 1990-95 Basic Mortality Tables was the creation of composite (combination of smoker, nonsmoker and those with smoking status unknown) tables for each of male and female lives. A 25-year select period was chosen. At younger and older issue ages, per the data, the effect of selection wore off in less than 25 years thus mortality rates for the remainder of the select period were set equal to the ultimate mortality rates for the corresponding attained age. The 1990-1995 Basic Tables were graduated to provide the smoothness necessary for a valuation table A two-dimensional Whittaker-Henderson Type B graduation method was employed to ensure smoothness; note this graduation method is different from the Jenkins fifth-difference interpolation used in the development of the 1980 Commissioners Standard Ordinary (CSO) Table. The type of loading formula employed is however similar to that used to develop the 1980 CSO Tables: an inverse function of the curtate expectation of life. The loadings above age 100 were modified so that the load produced by the formula at age 100 was linearly graded to zero at age 120. The projection of annual male mortality improvement in the is 0.0 percent at attained ages 0-45, grading to 1.0 percent at attained ages 55-80, and grading back to 0.0 percent at attained ages 90+. The annual female mortality improvement is 0.0 percent at attained ages 0-45, grading to 0.5 percent at attained ages 55-85, and grading back to 0.0 percent at attained ages 90+. NOTE: nonsmoker and smoker splits are not applicable for juvenile ages. Accordingly, rates from the corresponding composite tables are printed for those ages. Data Transcription Errors: None: Data Certified: 01/2013.</p>