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Cohort Working Life Tables for Older Canadians

Frank T. Denton
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SEDAP Research Paper No. 247

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Abstract

We construct cohort working life tables for Canadian men and women aged 50 and older and, for comparison, corresponding period tables. The tables are derived using annual single age time series of participation rates for 1976-2006 from the master files of the Statistics Canada Labour Force Survey. The cohort calculations are based on stochastic projections of mortality coupled with alternative assumptions about future participation rates. Separate tables are provided for the years 1976, 1991, and 2006, thus spanning a period of substantial gains in life expectancy and strong upward trends in female participation.

Résumé

Nous avons construit des tables de mortalité pour des cohortes de travailleurs (hommes et femmes) âgés de 50 ans et plus et, pour comparaison, les tables des périodes correspondantes. Les tables ont été établies à partir de séries chronologiques annuelles de taux de participation en fonction de l'âge des fichiers principaux de l'Enquête sur la population active de Statistique Canada couvrant la période 1976-2006. Les calculs de cohorte sont basés sur des projections stochastiques de mortalité associés à différents scénarios de taux de participation futurs. Nous présentons des tables pour les années 1976, 1991 et 2006, couvrant ainsi une période qui a enregistré d'importants gains d'espérance de vie et une forte augmentation du taux de participation des femmes.

Key Words: Cohort working life tables

JEL Classification: J10, J26

COHORT WORKING LIFE TABLES FOR OLDER CANADIANS

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1. INTRODUCTION

Patterns of retirement – age-related permanent exit from the labour force, other than by death – are of interest from an actuarial perspective, and more generally as an important characteristic of economic and social life cycle behaviour. In the aggregate they bear on the availability of workers in the creation of national income, on the one hand, and on the share of that income going to support those who have retired, on the other. These considerations have special relevance for public policy at a time when the baby boom generation in North America and elsewhere is moving into the retirement zone while life expectancy continues on its long-run upward path. In that context, especially, working life tables provide a useful framework for exploring the demographic aspects of retirement. We develop working life tables for older Canadian cohorts in this paper and associated measures of work and retirement expectancy – average numbers of years in the labour force remaining, and then out of it, at different ages.

The basic life table, with its probabilities of death and survival, has a long history in demography as a device for drawing out the implications of a given age schedule of mortality rates, and its extension to include probabilities relating to the labour force – the working life table – goes back several decades (see Keyfitz, 1968, Shryock and Siegel, 1971, and Keyfitz and Carswell, 2005 for descriptions of the formal framework). The working population is the population of prime interest for our purposes. In a closed population (no migration in or out) there is one way of entering that population and there are two ways of

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exiting it, death and the cessation of work while still alive. Cessation of work may be permanent (retirement, in the usual sense of that word) or temporary. Overall there is considerable movement back and forth between the working and nonworking populations (see Jones and Riddell, 1998, for example). However, our interest is in the population 50 years of age or older, and for that group the amount of temporary movement is much smaller. Just how one defines retirement is of course important. (When is a "permanent" withdrawal from the labour force really permanent? See Denton and Spencer, 2009, for a survey and discussion of alternative definitions of retirement.) For present purposes we take declines in the rate of labour force participation at older ages as representing average retirement rates, implying that net changes from year to year are equal to gross changes, at older ages, so that retirement (like death) becomes an absorbing state, a state from which there is no return. That assumption would be quite unrealistic for younger ages but we think it a reasonable approximation for the population in the retirement or near-retirement age range, especially with the type of labour force data with which we are working (annual averages, which eliminate seasonal and much of other kinds of short term monthly movement) . Indeed, it is a necessary approximation, given the data availability.[1]

Working life tables have been developed for various countries and various times. Most have been period tables – tables based on the mortality and labour force participation rates of a single period, usually a year or an average of a few years. Period tables published by Statistics Canada (or its predecessor, the Dominion Bureau of Statistics) include the tables for males in Denton and Ostry (1969) and in Gnanasekaran and Montigny (1975). Canadian period tables were constructed for females by Chow, Krishnan, and Lalu (1986) and for both sexes by Bélanger and Larrivée (1992), using, in the latter case, a multistate

[1]One implication of the assumption is that the participation rate for older workers must be a nonincreasing function of age. Note that this does not imply a unimodal pattern of participation over the full working age span; a bimodal pattern is quite possible, especially for females, as long as the second mode does not occur after the age of 50. That the nonincreasing implication is realistic is supported by an examination of cohort age series back to 1982 for income taxfilers reporting earned income, based on other work that we have done using the Statistics Canada Longitudinal Administrative Data file.

model in which movements into and out of the labour force are permitted at all ages. (The tables in the earlier studies allowed only movements into the labour force prior to the age at which the peak participation rate occurred, and only movements out - “retirements” - beyond that age.) For period tables produced for the U.S. by the Bureau of Labor Statistics, see Smith (1982, 1986) and references to earlier work therein, and in the studies just noted. There is also considerable interest in the use of working life tables for purposes of insurance contracts, litigation for injury-related compensation, the calculation of occupational hazard rates, and the like, and much of the more recent work on such tables has been carried out in that context. (Examples: Markku, 2005, Pflaum and McCollister, 2007, Skoog and Ciecka, 2006.) Cohort tables – tables for people with a common date of birth – are more difficult to construct and rarer than period tables. For Canada, cohort calculations were made by Wolfson and Rowe (2001), using a multistate microsimulation framework, although it appears that the working life tables themselves were not actually published; for the U.S., a cohort table for males was constructed by Lee (2001). We make no pretense of being exhaustive but note also the following relevant cohort studies: Booth and Tickle (2004), Wilmoth (2005), Statistics New Zealand (2006), and Babel, Bomsdorf, and Schmidt (2007).

The difficulty in constructing a table for a cohort of which some members are still living is that its life history is incomplete, requires forecasting, and is therefore subject to uncertainty. Our contribution in this paper is the construction of a new set of cohort tables, drawing on stochastic forecasting methods for life expectancy developed earlier (Denton, Feaver, and Spencer, 2005) and making alternative assumptions about future labour force participation rates. We construct period tables also, for selected years, and compare them with the cohort tables.

We are fortunate in being able to take advantage of micro data files that have become available only recently for general research purposes, the master files of Statistics Canada’s monthly Labour Force Survey (LFS), which are accessible now at the Statistics Canada Research Data Centre at McMaster University as well as at a number of other Canadian universities. (All personal identification is removed from the files and strict security regulations are enforced so as to maintain the confidentiality of individual survey responses.) The LFS files allow us to obtain estimates of annual average labour force participation rates

for males and females by single years of age up to ages beyond which participation rates are so low as to be of little consequence. (The estimates are subject to random sampling error and we therefore smooth the age profiles using a nonparametric smoother, as discussed below.) The files go back to 1976 and we are thus able to construct a complete matrix of single-age annual participation rates for the 31-year period 1976-2006. From that we are able to derive the completed portions of cohort series for people aged 50 in 1976 (31 age observations), aged 50 in 1977 (30 observations), and so on, up to 2006 (a single observation, for age 50).

We have been referring to the series thus constructed as cohort series and will continue, for convenience, to refer to them in that way. However, strictly speaking they should be regarded as pseudo-cohort series. Unlike true cohort series they do not represent exactly the same individuals tracked from year to year over the course of their (later adult) lives. The LFS is not a longitudinal sample survey; it retains respondents for only six months and the composition of what we are referring to as a cohort thus changes over time. From that point of view the series should be regarded as sample estimates of the true cohort series. But the composition would change also (aside from mortality) as a result of immigration and emigration even if the LFS sample could somehow be replaced by a complete census in every period. Most of the 60-year-olds in 1990, say, would be people who had been present as 50-year-olds in the (hypothetical) census of 1980 but there would also be some who had come to Canada in the intervening decade, and some of the original number would have left the country. Nevertheless, the (pseudo) cohort series that we are able to construct can reasonably be assumed to provide a useful (albeit approximate) record of how cohorts' participation rates changed with age, and a suitable basis for the construction of working life tables.

We discuss the framework for working life tables in the next section and the data underlying the tables in the one following. We then describe the procedures we have used for making stochastic mortality projections and our alternative assumptions about future participation rates, as required for filling out the incomplete portions of cohort life paths. We present period tables for selected years, and then the cohort tables, discuss and compare the tables, note the changes in patterns that occur in going from older to younger cohorts,

and explore the sensitivity of the calculations to differences in projections and assumptions. A final section provides some concluding comments.

2. FRAMEWORK

The basic life table constructed from annual data incorporates a number of variables, all of which derive from a given set of death probabilities. The theoretical life table population is closed and stationary: there is no immigration or emigration and the population never changes in size or age distribution. For the population as a whole there is only one means of entry each year, by birth, and one means of exit, by death. We are concerned only with the population 50 and older, and for that, entrants are the previous year's 49-year-olds (or the survivors of births half a century ago).

We define the life table variables of interest using more or less standard notation, where relevant, except that we find it convenient to write l(x) rather than the more conventional l_x, and similarly for other variables. Formal definitions are as follows:

x	–	exact age x (x = 0 on the date of birth, 1 on the first anniversary of that date, and so on)
x*	–	oldest age at which there are any survivors (we set this to 109)
l(x)	–	population alive at age x
q(x)	–	death rate, or probability that an individual of age x will die before x+1
s(x)	–	survival rate (equal to 1-q(x)), or probability that an individual of age x will not die before x+1
L(x)	–	total number of person-years lived during the interval x to x+1
T(x)	–	total number of person-years yet to be lived, at age x, over the remaining life span (the sum of the L(x) values from x to x*)
e(x)	–	life expectancy: mean years of life remaining to individuals of age x

The initial population in a life table is set at some arbitrarily large number – 100,000, say, as in our tables at age 50 – and the surviving population is calculated at subsequent ages by applying survival probabilities: $l(x+1) = s(x)l(x)$, for x = 51, 52, ..., x*. (Note that s(x*)

= 0.) It is assumed (as a close approximation for the age range of interest to us) that deaths occur uniformly throughout a year, allowing us to write L(x) = 1/2(l(x) + l(x+1)). Average life expectancy at age x is then given by e(x) = T(x)/l(x).

The foregoing definitions and relations apply to the standard life table framework. We extend the framework now to incorporate the working life table by adding a number of other variables, with symbols chosen to give them some mnemonic relevance:

f(x) – population in the labour force at age x

n(x) – population not in the labour force at age x

p(x) – participation rate, or probability that an individual of age x will be in the labour force

F(x) – total number of labour force person-years during the interval x to x+1

TF(x) – total number of labour force person-years yet to be lived, at age x, over the remaining life span (the sum of the F(x) values from x to x*)

N(x) – total number of nonlabour force person-years during the interval x to x+1

TN(x) – total number of nonlabour force person-years yet to be lived, at age x, over the remaining life span (the sum of the N(x) values from x to x*)

ewl(x) – working life expectancy of individuals in the population: mean years in the labour force remaining to individuals of age x, *whether or not they are in the labour force at that age*

enl(x) – nonworking life expectancy of individuals in the population: mean years not in the labour force remaining to individuals of age x, *whether or not they are in the labour force at that age*

r(x) – retirement rate, or probability that an individual member of the labour force of age x will have left the labour force by x+1, other than because of death

ewf(x) – working life expectancy of individuals in the labour force: mean years in the labour force remaining to individuals who are in the labour force at age x

enf(x) – nonworking life expectancy of individuals in the labour force: mean years not in the labour force remaining to individuals who are in the labour force at age x

The ways in which these additional variables fit into the expanded framework are as follows. The total population is divided into two component populations at each age, labour force and nonlabour force: $l(x) = f(x) + n(x)$, with average participation rate $p(x) = f(x)/l(x)$. (Note that our definition of participation rate in the working life table context differs from that used in the Labour Force Survey. Our rate applies to the total population of a given age whereas the LFS rate applies to a more restricted population; see below for discussion.) As with T(x), we assume (again, as a close approximation) that changes in the labour force occur evenly over the year, so that $F(x) = 1/2(f(x) + f(x+1))$.

The retirement rate, r(x), is defined as the difference between the number in the labour force at age x+1 and the number in the labour force at age x who survive to x+1, expressed as a ratio to the labour force at age x; that is, $r(x) = [s(x)f(x) - f(x+1)]/f(x) = s(x) - f(x+1)/f(x)$.

There are two pairs of working/nonworking life expectancies; the distinctions are simple, but important. The first pair, ewl(x) and enl(x), relates to the combined population at each age, the labour force plus the nonlabour force. Thus $ewl(x) = TF(x)/l(x)$ and $enl(x) = TN(x)/l(x)$ are averages over the whole population, including people who are not in the labour force. Since the only two activity states are labour force and nonlabour force the two expectancies partition overall life expectancy at each age into working and nonworking components: $ewl(x) + enl(x) = e(x)$. The working life expectancy in the second pair, on the other hand, relates specifically to people in the labour force: $ewf(x) = TF(x)/f(x)$. Assuming the same life expectancy for people in the labour force and those not in the labour force, enf(x) is then equal to $e(x) - ewf(x)$, and can be interpreted as the expected number of years of retirement for members of the labour force in a population cohort of age x. The assumption that life expectancy is the same for the labour force and nonlabour force must be regarded as an approximation but it is commonly made in the calculation of retirement expectancies at the aggregate level (as opposed to occupation-specific expectancies, for example, where more specific mortality information may be available from actuarial or other

sources).

The ewf(x) variable requires further comment. If movements relating to the labour force after age 50 were in one direction only, out, it could be regarded as exactly the average working life expectancy of people in the labour force at age x, and enf(x) as exactly the expected number of years in retirement of those people. However there may still be some movement into the labour force as well as out of it in the 50+ age range, and this implies some imprecision in interpretation. A small proportion of those present in the labour force at age x+1 or older ages, and thus contributors to TF(x), might not have been in the labour force at age x, and some of those who were in the labour force might subsequently have withdrawn temporarily. To associate TF(x) entirely with f(x) in the calculation of ewf(x), while convenient, is therefore not exactly correct. Nevertheless the calculations of ewf(x) and enf(x) provide good practical approximations to what are commonly thought of as remaining average years of work and retirement, and we shall treat them, and refer to them, in that way. (One would expect the error to diminish with age over the 50+ range – to be smaller at 60 than at 50, and smaller still at 70, with corresponding increases in the accuracy of ewf(x).)

3. DATA

Complete life tables are available from Statistics Canada for 1976 to 2001, at five-year intervals, and we have incorporated those into our own working life tables. Life tables for 2006 were created by us using procedures built into the MEDS population projection software (Denton, Feaver, and Spencer, 1994, 2005a). We estimated life tables for years within the five year intervals using linearly interpolated values of q(x). For years beyond 2006 (required for completing incomplete cohort histories) we used the stochastic forecasting methods described below.

The labour force participation rates needed for the working life tables were derived from the Labour Force Survey master files housed in the Statistics Canada Research Data Centre at McMaster University. Participation rates are published by Statistics Canada only for five-year age groups, with an open-ended 70+ group. However, using the master files it was possible to calculate annual rates (for males and females) by single years of age for

every year from 1976 to 2006, and to do so for ages beyond 70. Confidentiality restrictions came into play at very old ages but at those ages the participation rates were close enough to zero to be of negligible importance.

We adjusted the original participation rates in three ways. The first adjustment had to do with the population to which the rates pertain. The LFS excludes four categories from the population that it covers, at the national level: residents of the Yukon, Northwest Territories, and Nunavut; persons living on reserves or other Aboriginal settlements; full-time members of the Canadian armed forces; and inmates of institutions. We have adjusted the original rates to make them apply to the whole population by multiplying the rate at each age by the ratio of the LFS target population to the total annual (mid-year) population at that age, leaving out the three territories. That means that our adjusted rates are intended to apply to a population that excludes the territories but includes reserves, the armed forces, and institutions. To the extent that people in the excluded categories have participation rates different from those of the same age in the rest of the population, using common rates for both will be in error. But the numbers indicate that the errors must be small; it would take extremely large differences to produce errors of significant magnitude at the aggregate level to which our tables apply. We are thus satisfied with the use of an undifferentiated set of rates, and indeed have no realistic alternative, given the lack of sufficient information to permit us to do otherwise.

The second adjustment involves what we may call age centering. The LFS rates for males aged 50 relate to people who have had their 50th birthday but not yet their 51st. In accordance with the life table definitions, though, age x is taken to mean exact age x; 50 is taken to be exactly 50. Assuming that birthdays are distributed evenly over the year, 50 in the LFS actually means 50.5, on average. We therefore shift the rates half a year by averaging the rates for consecutive pairs of ages – by averaging the rates for ages 49 and 50 to get the exact-age rate for 50-year-olds, the rates for ages 50 and 51 to get the exact-age rate for 51-year-olds, and so on.

The third adjustment involves smoothing. After modifying the LFS participation rates to take account of population coverage, and centering them, we plotted each of the single-age series over the 1976-2006 period (separately for males and females, as always). The

LFS is a sample survey and the effects of random sampling error were apparent in the year-to-year fluctuations in the plotted series (as one would expect of estimates for relatively small groups, such as male or female single-age groups). We therefore smoothed each of the series using a nonparametric smoothing procedure implemented in the SHAZAM econometric software (Whistler et al., 2004), while being careful (as best we could) not to smooth out "meaningful" variations. We used, for that purpose, a Gaussian kernel smoothing method (see Härdle, 1990, for example). Kernel methods require the choice of a bandwidth parameter value. We made a separate choice for each single-age series, based in most cases on the commonly used criterion of minimum cross-validation mean square error, coupled with visual inspection of plots of the smoothed and unsmoothed series to make sure that the smoothing results appeared sensible to the eye.

It is perhaps worth noting that we interpret the labour force as the working population, thus including both the employed and unemployed. (This is consistent with the interpretation in earlier work on working life tables.) We use "working" and "being in the labour force" to mean the same thing for our purposes.

4. STOCHASTIC MORTALITY PROJECTIONS

Future q(x) values as far out as 2064 are needed to fill out completely the mortality experiences of incomplete cohorts (cohorts of age 50 or more in 2006), implying a projection period of 58 years, with 2006 as starting point. To state the obvious, there is uncertainty about future mortality, and with that in mind we employ a method developed by us in earlier work for generating projections of the *probability distribution* of future q(x) values, rather than single projections – stochastic projections, to use the term that is common in the literature. The earlier work is reported in Denton, Feaver, and Spencer (2005). A detailed description is available in that publication; we provide here an abbreviated version.

The stochastic projection of mortality rates was pioneered by Ronald Lee of the University of California at Berkeley and his associates. The Lee-Carter method, as it is called, has been used in various projections for the U.S. and other countries. (See Lee and Carter, 1992, Lee and Tuljapurkar, 1994, and other studies cited in Denton, Feaver, and Spencer, 2005.) Our method is similar "in spirit" to the Lee-Carter method – it infers

probability distributions from historical time series – and appears to deliver similar projection results, but it is different in procedure. It draws its inspiration from the broad class of resampling methods now in widespread use in the theoretical and applied statistical literature. It is an overlapping block bootstrap method, in the sense in which those words are used in the literature (Hall, 1985, Künsch, 1989).

The method that we use is one of three described in our article noted above. All three methods involve bootstrap procedures and all three have been found to deliver similar projection results. Our choice for present purposes is a fully nonparametric technique, meaning that it requires no formal model and no assumption of a specific type of probability distribution (a normal distribution, for example). As a bootstrapping procedure it involves resampling the historical series of mortality rates (more correctly, the differences in the logarithms of those rates) and the generation of a very large number of possible, randomly determined future time paths of mortality rates and life expectancies.

A summary description of the method is as follows. We start with time series of annual mortality rates for the period 1926-2001 calculated from Statistics Canada historical numbers of deaths and census or estimated intercensal population figures. Separate series are derived for males and females in each of 19 age groups, yielding 38 in total. The first differences of the logarithms are then calculated for each of these 38 series, yielding 75 annual log differences. The bootstrapping procedure commences by selecting randomly from the 75-year log-difference series (with equiprobable starting points) a block (or sequence) of 25 years, converting the log differences in the block to age-sex-specific q(x) values, and using those values to move the 2006 life table population (l(x)) forward, one year at a time, for the first 25 years of the projection period. A new block of log differences is then selected (or possibly, by chance, the same block, since the random sampling is with replacement) and the population is moved forward another 25 years. Finally, a third block is selected, and the population is moved forward again, for the remaining number of years required to fill out the balance of the 58-year projection period. (Only the first eight years of the 25 are required at this point; the remaining 17 are ignored.) With the q(x) and l(x) values then given, the period life expectancy (e(x)) can be calculated at each age; the first set of “observations” on future life expectancies is now in place. The process then starts all over.

New 25-year blocks of log differences are selected and used to move the population forward to the end of the projection period, as before, and a second set of life expectancies is calculated. In total the process is repeated 10,000 times, giving 10,000 possible future sets of e(x) values for every year. For any given year in the projection period one can derive summary measures of the distributions, including an estimate of the probability that life expectancy at any given age will lie in some specified range. We choose three sets of summary measures for presentation purposes: median life expectancy (the value that cuts off 50 percent of the 10,000-item distribution on each side), the 5th percentile (the value that cuts off the lower 5 percent), and the 95th percentile (cuts off the upper 5 percent). The differences between the 5th and 95th percentiles can be viewed as similar to 90 percent confidence intervals in standard statistical inference.

Two other aspects of the procedure should be noted. First, when a 25-year block is selected randomly the annual log differences for the 38 age-sex groups within the block are all included, and used jointly in the projection calculations. This preserves the structure of correlations among the group mortality rates, which would not be the case if each group were treated independently. (One would expect that mortality rates for consecutive age groups would be highly correlated, or rates for males and females in the same age group, for example.) Thus one can think of the sampling unit as being a 38 x 25 matrix of the log differences – 38 groups, 25 years. Secondly, a feature of the block bootstrapping method (especially of note with comparatively long blocks, as here) is that it preserves serial correlation in the time series of mortality rates within a block – correlation between consecutive annual rates, in particular. (There may be discontinuities at the point where one sample block meets another but that is an unavoidable feature of the block bootstrap method.)

5. ALTERNATIVE FUTURE PARTICIPATION RATES

The choices of alternative assumptions about future changes in participation rates are made somewhat arbitrarily but based on our judgement as to reasonable ranges, in light

of past history. We obviously do not know what the changes will be and we know of no theory that would provide reliable guidance. The rates for older males declined consistently for a long time and one spoke with confidence about the long-run trend towards earlier retirement. But the rates stopped declining rather suddenly and started to rise in the mid-to-late 1990s. As far as we know, no one predicted the turnaround (at least not publicly, with any prominence) and we would be sceptical today of any confident assertions about what will happen in the next few years or decades. Our approach in this study is simply to examine (from plots) the time series patterns of age-specific rates, make what seem to be reasonable assumptions about future ranges, and use those to establish alternative bounds for the future experience of incomplete cohorts. The aim is to explore the sensitivity of the cohort working life tables to alternative assumptions about participation rates, as well as to the alternative projections of mortality rates discussed in the previous section.

We make medium, high, and low assumptions. The medium assumption is the same for males and females at every age – continuation of participation rates at their 2006 levels. The high and low assumptions are as follows (the rates are in percentage form):

Males in the range 50-65: high assumption – the rate at each age increases, by 2026, to the highest level observed (after smoothing) in the 1976-2006 data period; low assumption – the rate at each age decreases by same amount that it increases under the high assumption.

Males in the range 66-70: high assumption – the rate at each age increases so as to be 5 percentage points above the 2006 rate by 2026; low assumption – the rate at each age decreases so as to be 5 percentage points below the 2006 rate by 2026.

Females in the range 50-70: high assumption – the rate at each age increases so as to be the same as the 2006 male rate by 2026; low assumption – no change (same as the medium assumption).

Males and females aged 71: high assumption – the rate for each sex increases so as to be

4 percentage points above the 2006 rate by 2026; low assumption – the rate for each sex decreases so as to be 4 percentage points below the 2006 rate by 2026.

Males and females aged 72: high assumption – the rate for each sex increases so as to be 3 percentage points above the 2006 rate by 2026; low assumption – the rate for each sex decreases so as to be 3 percentage points below the 2006 rate by 2026.

Males and females aged 73: high assumption – the rate for each sex increases so as to be 2 percentage points above the 2006 rate by 2026; low assumption – the rate for each sex decreases so as to be 2 percentage points below the 2006 rate by 2026.

Males and females aged 74: high assumption – the rate for each sex increases so as to be 1 percentage point above the 2006 rate by 2026; low assumption – the rate for each sex decreases so as to be 1 percentage point below the 2006 rate by 2026.

Males and females 75 and over: no high/low differentiation; the rate for each sex at each age remains constant at the 2006 level.

Where changes occur, rates are assumed to move linearly between 2006 and 2026, and then to remain constant thereafter. Note that the high and low assumptions for 71 and above are set so as to maintain reasonable continuity from one age to the next: 4 percent increase at age 71, 3 percent at 72, and so on, to 0 percent increases at ages 75 and older.

6. PERIOD TABLES

We have constructed period tables for selected years, for comparison with the cohort tables, and we discuss these first. Table 1 presents period results for males and females of ages 50 to 75, at five-year age intervals, for the years 1976, 1991, and 2006. (Results are presented in more detail in an appendix, by single years of age, for calendar years from 1976 to 2006, at five-year intervals.)

The initial age-50 population in Table 1 (as in other tables) is set at 100,000. The

table displays the surviving population at subsequent ages, l(x), the associated death probabilities, q(x), and the average life expectancies, e(x). From the working life extension of the basic life table it displays the numbers in and not in the labour force, f(x) and n(x), and the participation rate (probability of being in the labour force), p(x). The two sets of working/nonworking life expectancies are shown: ewl(x) and enl(x) for the age x population as a whole and ewf(x) and enf(x) for the working (labour force) population. Also shown are the ratios of nonworking life expectancy to total life expectancy, enl/e(x) and enf/e(x). In the case of enf/e(x) the ratio can be interpreted as the fraction of the remaining years of life that will be spent in retirement by those who are still working at age x.

A period working life table is based entirely on the death probabilities and participation rates of a given period, in our case a year. It can be interpreted as depicting a stationary population in which those rates never change and in which the size and age distribution of the population and labour force never change either. Comparing the table for one year with that of another then amounts to comparing two different stationary populations. With that in mind we can note a few of the more interesting features of the tables for males and females in Table 1. First the changing life expectancy for males: 24.9 years at age 50 in 1976, 27.6 in 1991, 30.5 in 2006, with corresponding increases at older ages. Associated with these changes, about 52 percent of the age-50 population would still be living at age 75, based on the 1976 survival rates, 62 percent based on the 1991 rates, and 72 percent based on the 2006 rates. The rate of survival from age 50 to age 75 thus increased by almost two-fifths over the three decades.

Life expectancy has been higher for females than for males, historically, for a very long time, and the continuation of the difference can be seen in Table 1: average years of life remaining at age 50 increased for women from 30.5 in 1976 to 34.4 in 2006, and the 25 year survival rate from about 72 percent to 82 percent, an increase of some 13 percent – notably smaller than the increase in the male rate, reflecting some narrowing of the male/female life expectancy gap, but the gap persists. Overall, the basic demographic background to the analysis of changing work/retirement patterns is thus declining mortality rates, increased life expectancies, and higher survival proportions among the older population.

The historic shift in the labour force participation rates of women is reflected also in Table 1. About 50 percent of all women were in the labour force at age 50 in 1976 (p(x) = 0.503 at x = 50); by 2006 the proportion had risen to 80 percent. The expected number of years of work remaining for those in the labour force (ewf(x)) was somewhat lower than for men in all three years shown in the table, the expected number of years of retirement higher, and the ratio of retirement years to years of life remaining correspondingly higher too, by virtue of lower participation rates combined with greater life expectancy.

The participation rates shown at five-year intervals in Table 1 decline monotonically from age 50 through to age 75, with the path of decline steeper for women than for men. Comparing the 2006 patterns, the male participation rate was 0.910 at age 50, 0.659 at 60 , and 0.368 at 65; the corresponding female rates were 0.803, 0.478, and 0.209. In sum, women had lower participation rates and tended to retire earlier, based on the period tables.

7. COHORT TABLES

We have constructed cohort tables in a fashion similar to the period ones. The three that we focus on are for males and females who were 50 years of age in 1976, 1991, and 2006, and the results for those are presented in Table 2. (As with the period tables, additional and more detailed ones are provided in an appendix.) The format for Table 2 is identical to that of Table 1. As there, the variables of interest are reported at ages 50 to 75, at five-year age intervals. Further results for male and female cohorts that were 50 in 1976, hence 80 in 2006, and thus the longest ones for which actual histories are available – indeed available for virtually all of their working lives – are shown in the form of plots in Figure 1.

The age paths of the 50-in-1976 cohorts in the figure give a good summary picture of the average late-adult-life patterns. Life expectancies, e(x), decline smoothly with age, the female path being everywhere above that of the male path. The labour force participation rates, p(x), decline continuously in both cases, aside from one or two minor aberrations caused almost certainly by sampling fluctuations in the underlying data. The expected length of working life for males in the labour force, ewf(x), declines to the mid-60s, rises somewhat (for those who are still active), remains roughly constant for a few years,

and then starts to decline again. The corresponding expectancies for females are quite similar over most of the age range. (The participation rates are so small at the very oldest ages, and subject to such proportionately large sampling variability, that differences in the calculated expectancies there are much less reliable.) The corresponding retirement expectancies, enf(x), show only small changes until the early to mid-60s and then fall off sharply, with the expectancies markedly greater for females at most ages. The ratio of expected retirement years to expected life years, enf/e(x), rises for those in the labour force until the mid-60s and then declines, with the female ratios again consistently higher than the male ratios at most ages.

The differential effects of life expectancies on male and female retirement expectancies stand out clearly. A 50-in-1976 male who was still in the labour force at age 60 (in 1986), for example, could have looked forward, on average, to 5.4 more years of work and 14.8 years of retirement, based on the cohort calculations. A female in the labour force at the same age could have looked forward to 5.1 years of work and 19.9 years of retirement.

The remaining series shown in Figure 1 are the year-to-year retirement rates, r(x), and they require some special comment. The definition of r(x) is the number of people who are in the labour force at age x, survive to x+1, and are not in the labour force at x+1, evaluated as a proportion of the labour force at x. This is equivalent to $r(x) = s(x) - f(x+1)/f(x)$, as noted earlier. Making substitutions based on $f(x) = p(x)l(x)$ and $l(x+1) = s(x)l(x)$, and rearranging terms, we can also write $r(x) = - s(x)[p(x+1) - p(x)]/p(x)$ or, to a close approximation, $r(x) = -s(x)\ln p'(x)$, where $\ln p'(x)$ is the first derivative of the log of p(x) with respect to x. The *change* in r(x), represented by its first derivative, is then $r'(x) = -[s(x)\ln p''(x) + \ln p'(x)s'(x)]$, where $''$ represents a second derivative. Thus the change is a function of the first and second derivatives of the log participation rate and the first derivative of the survival rate. The point of all this is that changes in r(x) are extremely sensitive to changes in those rates, and the more so to changes in the changes of the participation rate.

The calculated single-age r(x) series reflect this sensitivity; they are subject to erratic fluctuations from one age to the next. However there are discernible underlying patterns. To bring out those patterns we have smoothed the r(x) series and it is the smoothed series that

are shown in Figure 1 (though not in table 2). A nonparametric function was again used, supplemented by judgmental smoothing at the oldest ages, where the numbers are very small. The smoothed series indicate that the rate of retirement for each of the 50-in-1976 cohorts rises to a peak at about 65 and then falls off. There are minor differences between males and females but the patterns are essentially similar.

Comparisons of the cohort and period working life tables are of particular interest. Imagine an average 50-year-old in 1976, say, who is considering his/her work, life, and retirement future. The period tables assume fixed death and participation rates whereas the cohort tables allow for changes. How much difference would it make to the perceived future of our hypothetical 50-year-old whether he/she used the period table for 1976 or a table that related specifically to his/her cohort?

The comparisons can be made by matching the results in Table 2 with those in Table 1 and by looking at Figures 2 and 3. Figure 2 compares life expectancies by matching each of the three male and female period series (1976, 1991, 2006) with the corresponding cohort series; Figure 3 compares retirement expectancies. As one would anticipate, the cohort life expectancies are greater than the period ones over the whole of the age range for both males and females, and for all three period/cohort comparisons. (By comparing Tables 1 and 2 our hypothetical 1976 50-year-old would find that life expectancy was three years greater if he/she used the cohort calculation.)

The period/cohort differences in life expectancies are greater for women than for men in 2006, implying some future reversal of the narrowing trend in the male/female gap shown in the period tables. That result is based, of course, on the medians of the projected probability distributions, as described earlier. We think it credible but emphasize that actual future male and female expectancies could lie elsewhere in their distributions, with corresponding alternative effects on the gap.

Similar results hold for retirement expectancies. The 50-in-2006 cohort series are based entirely on the medium projections of life expectancy and the assumption of constant participation rates. On that basis, women could expect a greater increase in retirement expectancy than men by virtue of their larger increases in life expectancy; the differences between the period and cohort series are greater for women, as seen in Figure 3.

“Assumption” is of course a key word here. It is possible that future participation rates of women will change, and patterns of retirement accordingly, although they would have to change greatly in order for this result to be overturned in any major way, as the discussion below suggests.

8. SENSITIVITY TO PROJECTIONS

An obvious question is how sensitive are the male and female cohort working life tables to differences in projection assumptions. The 50-in-1976 cohorts are necessarily quite insensitive since they are already 80 by the time projections are needed to complete their life paths. One would expect the 50-in-1991 cohorts to be more sensitive and the 50-in-2006 cohorts to be the most sensitive of all, since the whole of their post-50 life paths must be based on projections. We explore the issue of sensitivity in Tables 3 and 4 by recalculating the working life tables for the latter two pairs of cohorts using different combinations of life expectancy and participation rate assumptions for the years after 2006. The alternatives are coded M for medium, H and L for high and low, with definitions as given above in sections 4 and 5. (Combinations are coded with two letters, the first standing for life expectancy, the second for participation rate; MH stands for medium life expectancy projection combined with high participation, for example.) Six variables are shown in the tables at ages 50, 55, etc., up to 75, as in the previous ones. We focus mainly on the 50-in-2006 cohort results in Table 4.

The high/low range of life expectancy at age 50 in Table 4 is 1.9 years for males (30.9 to 32.8) and 2.4 years for females (36.3 to 38.7). The results reflect the slightly greater uncertainty about the future mortality rates of women but a difference of half a year must be viewed as small, given that the projections must go out as far as 2064 in order to complete the 50-in-2006 cohort life spans. A rough generalization for both sexes would be that using the high projection adds about two years to life expectancy at age 50 compared with the low projection, and about a year compared with the medium projection.

Holding life expectancy at its medium level and allowing the participation rate assumptions to be at one extreme or the other (MH compared with ML) makes a difference of 1.7 years in both working life expectancy and retirement expectancy (ewf(x) and enf(x))

for males who were in the labour force at age 50, and a year for those still in the labour force at age 60. For females the difference is about a year and a half at 50, a year at 60. Combining high life expectancy with high participation or low life expectancy with low participation has only a small further effect on the ranges. The projection assumptions do make some difference in going from one extreme to another but the differences in work/retirement patterns are generally small. Keep in mind that we are considering here the 50-in-2006 cohorts, the ones for which all of the post-50 life paths must be projected. For the 50-in-1991 cohorts the differences resulting from the choice of participation assumptions range from small to negligible, as shown in Table 3.

Our overall assessment of the sensitivity of the working life tables to projection assumptions is that the choice of assumptions does make some difference but the differences are generally of small order. Patterns of life expectancy, and more especially work/retirement patterns, are fairly robust to the choice.

9. CONCLUSION

We have constructed period working life tables and what we believe to be the first published set of cohort working life tables for older Canadian men and women. In doing so we have made use of recently available Labour Force Survey master files, containing data by single years of age, and methods of stochastic mortality projection developed by us in earlier work. Our population of interest has been the population 50 years of age and older and our focus the life expectancy and retirement patterns of that population. We have given special attention to tables for the years 1976, 1991, and 2006, thus spanning a period of three decades. These tables reflect the gains in length of life that have taken place over that period, the historic rise in the labour force participation rates of women, and the associated trends in work and retirement. The effects of increased life expectancy on the number of years after withdrawal from the labour force are evident from the period tables but more accurately, we believe, from the cohort tables. The differential effects of life expectancy on male and female retirement expectancies are of particular note.

Consistent with other research, and reflecting the continued declines in mortality rates, we find that cohort life expectancy exceeds period life expectancy. The difference

varies somewhat from one cohort to another, but for both males and females it is approximately three years for those aged 50 in 1976 and in 1991, the years for which observed mortality rates are most complete. A novel finding in the present analysis relates to retirement expectancies, and the difference between the cohort and period estimates. We find that at age 50 the difference ranges from almost 4 years (for males aged 50 in 1976) to as little as 1 year (for males aged 50 in 2006). Such results have implications for public policy, especially in relation to pensions: the cohort calculations tell us that continued reductions in mortality, and consequent gains in life expectancy, will result in people living longer than is suggested by the period life tables, and that almost all of that gain will be spent in retirement.

The construction of a working life table for a cohort some members of which are still living requires inputs of future mortality and participation rates. Much of their after-50 history was known to us for cohorts aged 50 in 1976, none at all for cohorts aged 50 in 2006, and so for the latter the results necessarily depend entirely on projections. What we have done is to provide results based on what we term “medium” projections but also redo the calculations using various combinations of “high” and “low” assumptions; in general we find the results to be fairly robust to the choice of assumptions. Period tables – tables based on the rates for a given year – have the advantage that the rates are all known but the disadvantage that they ignore future changes in the rates. Cohort tables allow for changes but at the cost of introducing some forecasting uncertainty. There is thus a tradeoff. We think that the tradeoff favours the cohort tables.

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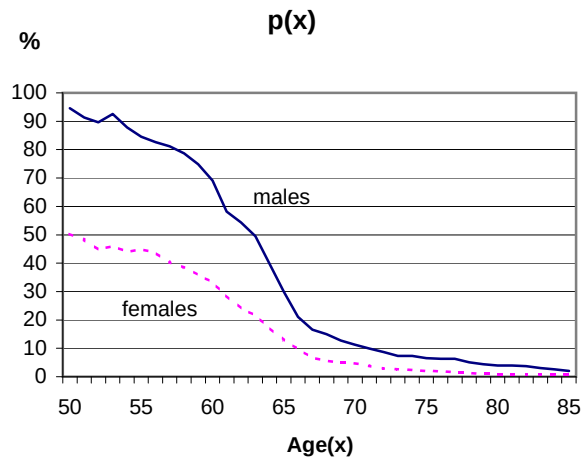
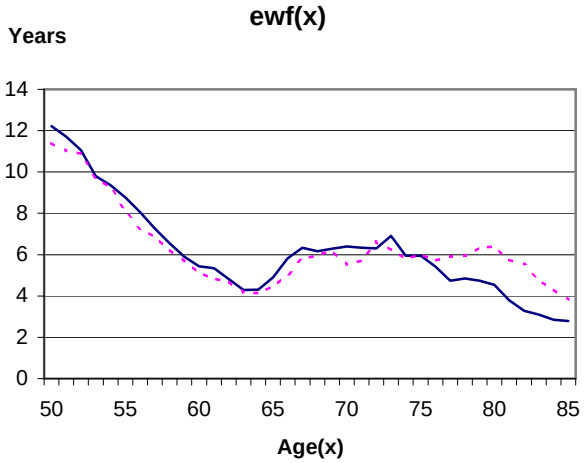
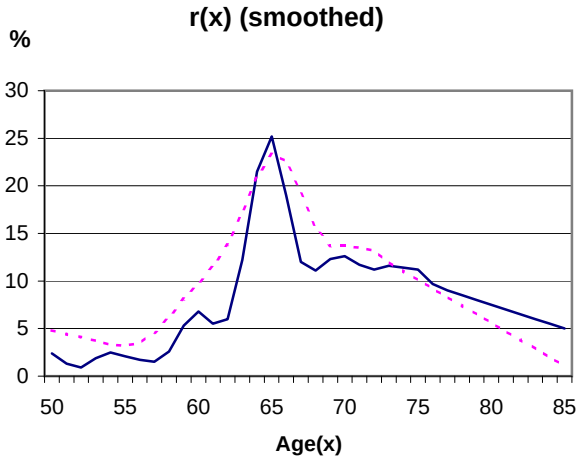
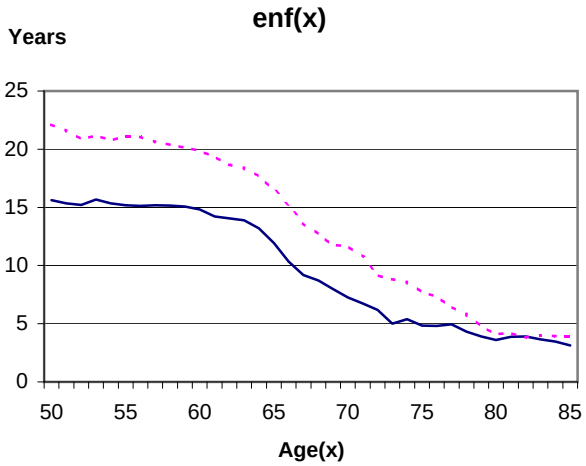
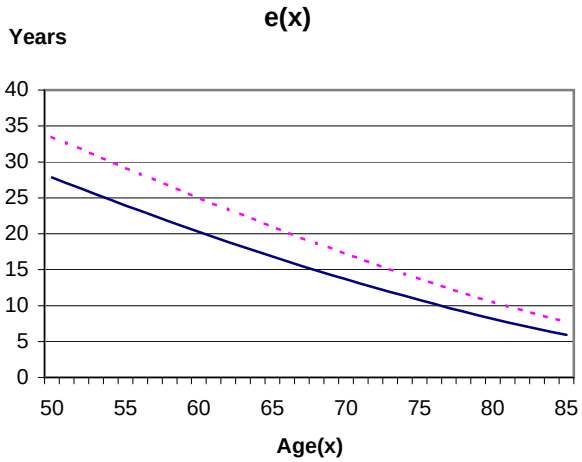
Figure 1: Selected Life and Working Life Characteristics of Male and Female Cohorts of Age 50 in 1976 (medium projection assumptions)











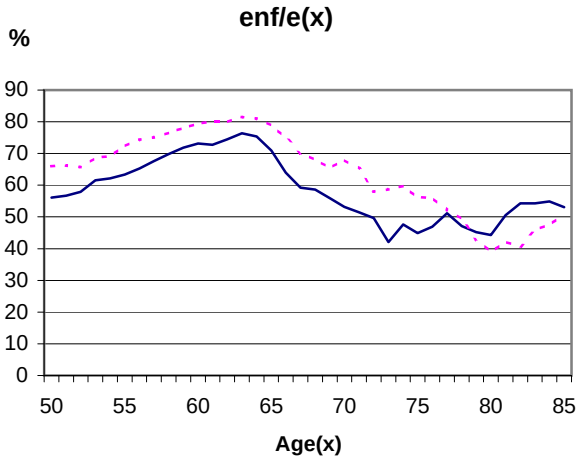


Figure 2: Comparisons of Period Life Expectancies (e(x)) in 1976, 1991, 2006 with Cohort Life Expectancies for Cohorts of Age 50 in the Corresponding Years (medium projection assumptions)

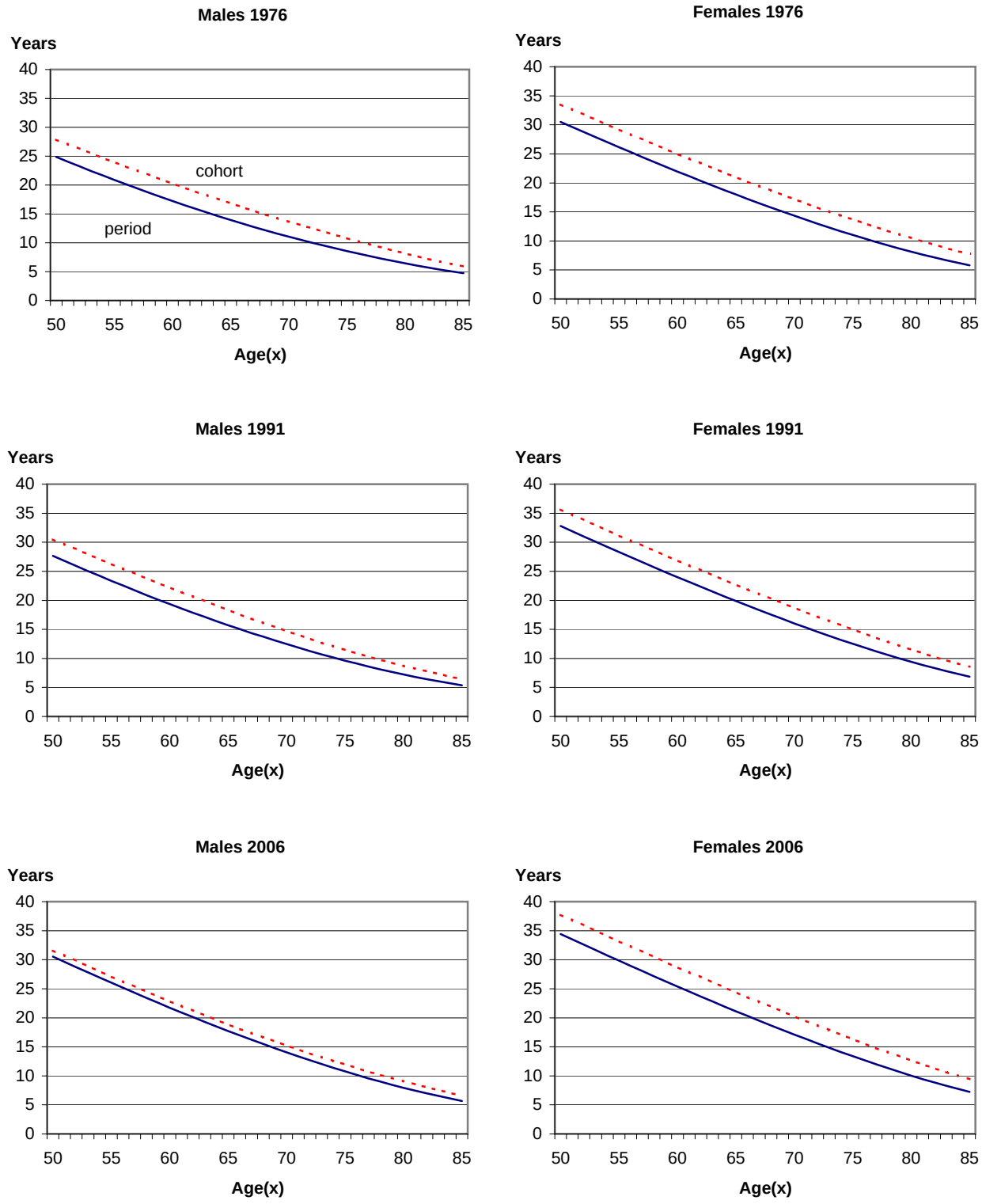
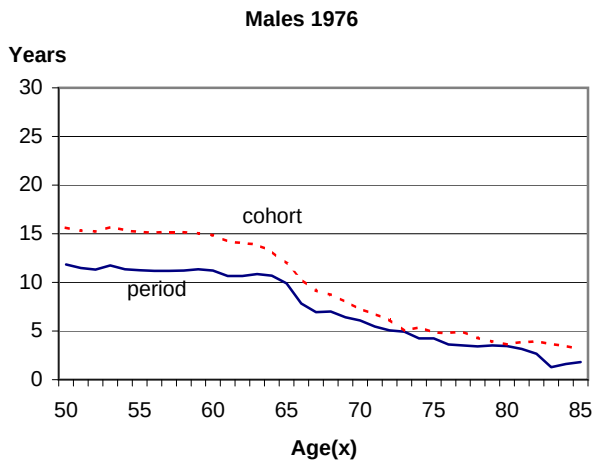
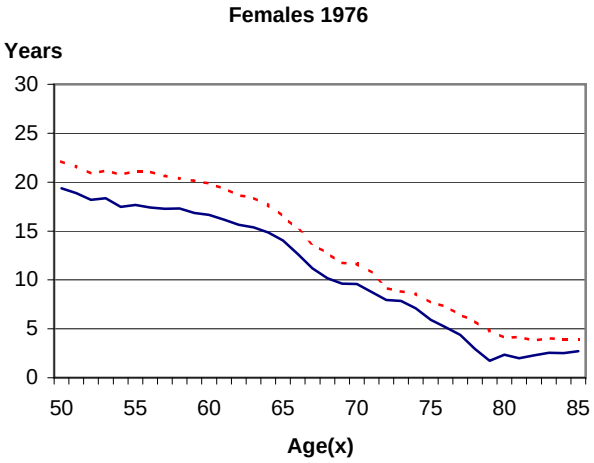
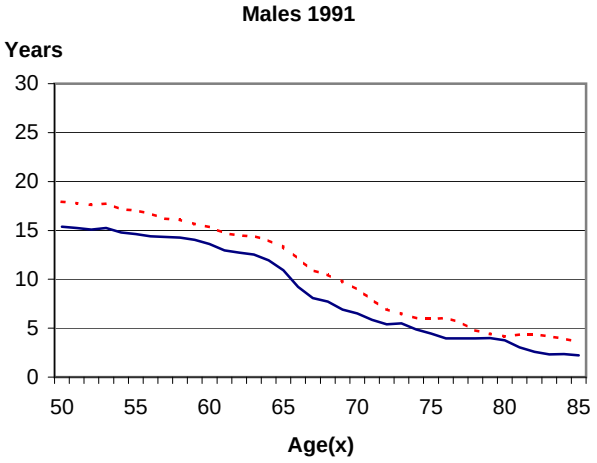
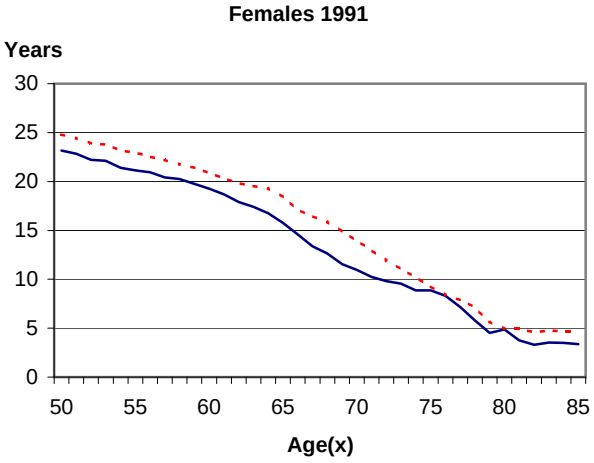


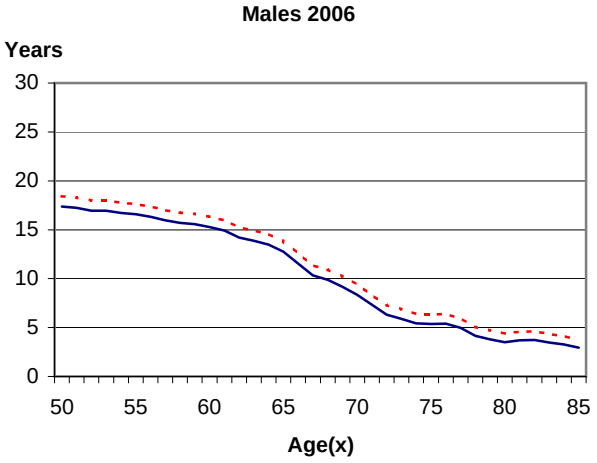
Figure 3: Comparisons of Period Retirement Expectancies (enf(x)) in 1976, 1991, 2006 with Cohort Retirement Expectancies for Cohorts of Age 50 in the Corresponding Years (medium projection assumptions)











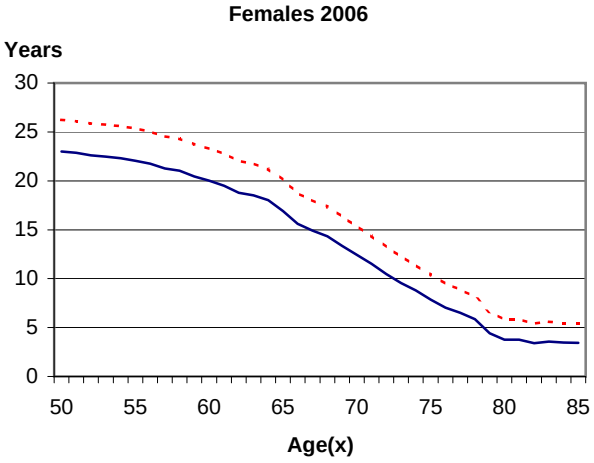


Table 1: Period Working Life Tables, Selected Ages: Males and Females, 1976, 1991, 2006

Year and variable	Males						Females					
	x=50	x=55	x=60	x=65	x=70	x=75	x=50	x=55	x=60	x=65	x=70	x=75
1976												
l(x)	100,000	95,604	88,980	79,613	67,206	51,895	100,000	97,803	94,511	89,661	82,493	72,054
q(x)	0.0073	0.0118	0.0184	0.0280	0.0425	0.0636	0.0038	0.0057	0.0087	0.0136	0.0217	0.0354
e(x)	24.9	20.9	17.2	14.0	11.0	8.6	30.5	26.1	22.0	18.0	14.3	11.0
f(x)	94,625	82,023	68,250	35,276	10,902	4,423	50,314	40,063	30,308	13,120	4,015	1,293
n(x)	5,375	13,580	20,730	44,336	56,304	47,472	49,686	57,740	64,203	76,541	78,478	70,761
p(x)	0.946	0.858	0.767	0.443	0.162	0.085	0.503	0.410	0.321	0.146	0.049	0.018
ewl(x)	12.3	8.3	4.6	1.8	0.8	0.4	5.6	3.5	1.7	0.6	0.2	0.1
enl(x)	12.5	12.6	12.6	12.2	10.2	8.2	24.9	22.7	20.3	17.4	14.1	10.9
enl/e(x)	0.504	0.604	0.732	0.871	0.927	0.957	0.816	0.867	0.922	0.968	0.984	0.992
r(x)	0.033	0.021	0.117	0.378	0.150	0.173	0.050	0.041	0.116	0.303	0.188	0.161
ewf(x)	13.0	9.6	6.0	4.1	5.0	4.3	11.1	8.5	5.3	4.0	4.7	5.1
enf(x)	11.8	11.2	11.2	9.9	6.1	4.2	19.4	17.7	16.6	14.0	9.6	5.9
enf/e(x)	0.476	0.538	0.650	0.709	0.549	0.496	0.635	0.676	0.758	0.779	0.669	0.536
1991												
l(x)	100,000	97,245	92,759	85,728	75,673	62,095	100,000	98,358	95,811	91,948	86,187	77,645
q(x)	0.0045	0.0075	0.0128	0.0204	0.0320	0.0506	0.0027	0.0043	0.0068	0.0106	0.0167	0.0278
e(x)	27.6	23.4	19.4	15.7	12.5	9.6	32.8	28.3	24.0	19.9	16.0	12.5
f(x)	91,133	78,866	58,610	25,619	8,811	4,135	71,923	53,111	33,754	11,818	3,370	1,548
n(x)	8,867	18,378	34,149	60,109	66,862	57,960	28,077	45,247	62,056	80,130	82,817	76,096
p(x)	0.911	0.811	0.632	0.299	0.116	0.067	0.719	0.540	0.352	0.129	0.039	0.020
ewl(x)	11.2	7.1	3.6	1.4	0.7	0.3	6.9	3.9	1.7	0.5	0.2	0.1
enl(x)	16.5	16.3	15.7	14.3	11.8	9.3	25.9	24.4	22.3	19.4	15.8	12.4
enl/e(x)	0.595	0.697	0.813	0.909	0.944	0.964	0.789	0.863	0.931	0.973	0.988	0.994
r(x)	0.018	0.038	0.133	0.296	0.129	0.124	0.040	0.044	0.146	0.265	0.158	0.190
ewf(x)	12.3	8.7	5.7	4.8	6.0	5.2	9.6	7.2	4.7	4.1	5.1	3.7
enf(x)	15.4	14.6	13.6	10.9	6.5	4.5	23.2	21.1	19.3	15.8	11.0	8.9
enf/e(x)	0.556	0.626	0.704	0.695	0.522	0.464	0.706	0.747	0.804	0.793	0.683	0.708
2006												
l(x)	100,000	98,265	95,378	90,662	83,346	72,477	100,000	98,772	96,777	93,702	88,945	81,734
q(x)	0.0029	0.0047	0.0081	0.0135	0.0222	0.0373	0.0020	0.0033	0.0053	0.0085	0.0136	0.0225
e(x)	30.5	26.0	21.7	17.7	14.1	10.8	34.4	29.8	25.4	21.1	17.1	13.4
f(x)	91,007	81,153	62,847	33,354	11,753	5,390	80,290	69,636	46,289	19,550	5,756	1,822
n(x)	8,993	17,112	32,532	57,309	71,593	67,087	19,710	29,136	50,489	74,152	83,190	79,912
p(x)	0.910	0.826	0.659	0.368	0.141	0.074	0.803	0.705	0.478	0.209	0.065	0.022
ewl(x)	12.0	7.8	4.3	1.8	0.8	0.4	9.2	5.5	2.6	0.9	0.3	0.1
enl(x)	18.6	18.2	17.5	15.9	13.2	10.4	25.2	24.3	22.8	20.3	16.8	13.3
enl/e(x)	0.608	0.700	0.804	0.897	0.943	0.963	0.733	0.816	0.899	0.959	0.982	0.991
r(x)	0.014	0.036	0.073	0.232	0.180	0.034	0.015	0.051	0.113	0.280	0.201	0.159
ewf(x)	13.2	9.4	6.5	5.0	5.7	5.4	11.4	7.8	5.4	4.2	4.7	5.5
enf(x)	17.4	16.6	15.3	12.8	8.3	5.4	23.0	22.1	20.0	16.9	12.4	7.9
enf/e(x)	0.569	0.637	0.703	0.720	0.594	0.499	0.668	0.740	0.789	0.801	0.727	0.586

Table 2: Cohort Working Life Tables, Selected Ages: Male and Female Cohorts of Age 50 in 1976, 1991, 2006 (medium projection assumptions)

Cohort and variable	Males						Females					
	x=50	x=55	x=60	x=65	x=70	x=75	x=50	x=55	x=60	x=65	x=70	x=75
Age 50 in 1976												
l(x)	100,000	95,854	90,272	82,898	73,460	61,687	100,000	97,870	94,918	90,867	85,249	77,328
q(x)	0.0073	0.0103	0.0147	0.0204	0.0300	0.0417	0.0038	0.0053	0.0075	0.0106	0.0162	0.0247
e(x)	27.9	23.9	20.3	16.8	13.7	10.8	33.5	29.2	25.0	21.0	17.2	13.7
f(x)	94,625	81,435	63,232	24,375	8,074	3,939	50,314	43,140	31,217	11,766	3,833	1,528
n(x)	5,375	14,419	27,040	58,523	65,386	57,748	49,686	54,730	63,701	79,100	81,417	75,800
p(x)	0.946	0.845	0.691	0.299	0.113	0.066	0.503	0.449	0.332	0.129	0.047	0.020
ewl(x)	11.6	7.4	3.8	1.4	0.7	0.4	5.7	3.6	1.7	0.6	0.2	0.1
enl(x)	16.3	16.5	16.5	15.4	13.0	10.4	27.8	25.6	23.3	20.4	17.0	13.6
enl/e(x)	0.585	0.689	0.812	0.915	0.948	0.965	0.829	0.878	0.933	0.972	0.986	0.991
r(x)	0.033	0.023	0.141	0.285	0.106	0.040	0.050	0.020	0.126	0.271	0.176	0.090
ewf(x)	12.2	8.8	5.4	4.9	6.4	5.9	11.4	8.1	5.1	4.5	5.5	6.0
enf(x)	15.6	15.2	14.8	11.9	7.3	4.8	22.1	21.1	19.9	16.5	11.7	7.7
enf/e(x)	0.561	0.634	0.732	0.709	0.531	0.449	0.660	0.723	0.795	0.787	0.679	0.561
Age 50 in 1991												
l(x)	100,000	97,359	93,591	88,454	81,306	70,998	100,000	98,406	96,071	92,839	88,315	81,859
q(x)	0.0045	0.0067	0.0098	0.0135	0.0220	0.0355	0.0027	0.0041	0.0059	0.0085	0.0127	0.0198
e(x)	30.5	26.2	22.2	18.3	14.7	11.5	35.6	31.2	26.9	22.7	18.7	15.0
f(x)	91,133	77,821	56,015	32,146	11,465	5,280	71,923	55,968	37,585	19,087	5,715	1,825
n(x)	8,867	19,538	37,576	56,308	69,841	65,718	28,077	42,439	58,486	73,752	82,600	80,034
p(x)	0.911	0.800	0.603	0.368	0.141	0.074	0.719	0.574	0.403	0.209	0.065	0.022
ewl(x)	11.4	7.4	4.1	1.8	0.8	0.4	7.8	4.7	2.3	0.9	0.3	0.1
enl(x)	19.0	18.9	18.1	16.5	13.9	11.1	27.8	26.5	24.5	21.8	18.4	14.9
enl/e(x)	0.625	0.719	0.815	0.900	0.945	0.964	0.782	0.850	0.913	0.961	0.984	0.991
r(x)	0.018	0.047	0.108	0.223	0.180	0.034	0.040	0.059	0.111	0.269	0.201	0.160
ewf(x)	12.6	9.2	6.8	5.0	5.8	5.5	10.8	8.2	6.0	4.3	4.8	5.7
enf(x)	17.9	17.0	15.4	13.3	9.0	6.0	24.8	22.9	20.9	18.4	14.0	9.2
enf/e(x)	0.588	0.649	0.692	0.725	0.609	0.522	0.696	0.736	0.778	0.811	0.745	0.617
Age 50 in 2006												
l(x)	100,000	98,277	95,434	90,832	83,727	73,637	100,000	98,781	97,003	94,522	90,983	85,809
q(x)	0.0029	0.0047	0.0078	0.0128	0.0208	0.0334	0.0020	0.0029	0.0043	0.0067	0.0096	0.0149
e(x)	31.6	27.1	22.8	18.9	15.2	12.0	37.7	33.2	28.7	24.4	20.3	16.3
f(x)	91,007	81,163	62,883	33,416	11,806	5,476	80,290	69,643	46,397	19,721	5,888	1,913
n(x)	8,993	17,114	32,550	57,416	71,920	68,160	19,710	29,138	50,606	74,801	85,096	83,896
p(x)	0.910	0.826	0.659	0.368	0.141	0.074	0.803	0.705	0.478	0.209	0.065	0.022
ewl(x)	12.0	7.8	4.3	1.8	0.8	0.4	9.2	5.5	2.6	0.9	0.3	0.1
enl(x)	19.6	19.3	18.6	17.0	14.4	11.5	28.5	27.6	26.1	23.5	19.9	16.2
enl/e(x)	0.620	0.711	0.813	0.902	0.946	0.965	0.756	0.834	0.910	0.963	0.984	0.992
r(x)	0.014	0.036	0.073	0.232	0.181	0.035	0.015	0.051	0.113	0.280	0.202	0.160
ewf(x)	13.2	9.5	6.5	5.0	5.8	5.6	11.5	7.8	5.4	4.3	4.9	5.9
enf(x)	18.4	17.6	16.3	13.8	9.4	6.4	26.2	25.3	23.3	20.1	15.4	10.4
enf/e(x)	0.583	0.651	0.716	0.734	0.617	0.532	0.696	0.764	0.811	0.824	0.759	0.637

Table 3: Cohort Working Life Expectancies Under Alternative Projection Assumptions, Selected Ages: Male and Female Cohorts of Age 50 in 1991

Projection		Males						Females					
assumption	Variable	x=50	x=55	x=60	x=65	x=70	x=75	x=50	x=55	x=60	x=65	x=70	x=75
MM	e(x)	30.5	26.2	22.2	18.3	14.7	11.5	35.6	31.2	26.9	22.7	18.7	15.0
	p(x)	0.911	0.800	0.603	0.368	0.141	0.074	0.719	0.574	0.403	0.209	0.065	0.022
	ewl(x)	11.4	7.4	4.1	1.8	0.8	0.4	7.8	4.7	2.3	0.9	0.3	0.1
	enl(x)	19.0	18.9	18.1	16.5	13.9	11.1	27.8	26.5	24.5	21.8	18.4	14.9
	ewf(x)	12.6	9.2	6.8	5.0	5.8	5.5	10.8	8.2	6.0	4.3	4.8	5.7
	enf(x)	17.9	17.0	15.4	13.3	9.0	6.0	24.8	22.9	20.9	18.4	14.0	9.2
MH	e(x)	30.5	26.2	22.2	18.3	14.7	11.5	35.6	31.2	26.9	22.7	18.7	15.0
	p(x)	0.911	0.800	0.603	0.368	0.154	0.074	0.719	0.574	0.403	0.209	0.084	0.022
	ewl(x)	11.5	7.4	4.1	1.9	0.8	0.4	7.8	4.7	2.4	0.9	0.3	0.1
	enl(x)	19.0	18.8	18.1	16.5	13.9	11.1	27.8	26.4	24.4	21.7	18.4	14.9
	ewf(x)	12.6	9.3	6.9	5.2	5.6	5.5	10.9	8.3	6.1	4.6	4.3	5.8
	enf(x)	17.9	17.0	15.3	13.2	9.1	6.0	24.7	22.8	20.7	18.1	14.4	9.2
ML	e(x)	30.5	26.2	22.2	18.3	14.7	11.5	35.6	31.2	26.9	22.7	18.7	15.0
	p(x)	0.911	0.800	0.603	0.368	0.128	0.074	0.719	0.574	0.403	0.209	0.065	0.022
	ewl(x)	11.4	7.3	4.0	1.8	0.8	0.4	7.8	4.7	2.3	0.9	0.3	0.1
	enl(x)	19.1	18.9	18.1	16.6	13.9	11.1	27.8	26.5	24.5	21.8	18.4	14.9
	ewf(x)	12.5	9.2	6.8	4.9	5.9	5.5	10.8	8.2	6.0	4.3	4.8	5.8
	enf(x)	18.0	17.1	15.4	13.4	8.8	6.0	24.8	22.9	20.9	18.4	14.0	9.2
HM	e(x)	30.7	26.5	22.5	18.6	14.9	11.6	36.3	31.9	27.6	23.5	19.5	15.8
	p(x)	0.911	0.800	0.603	0.368	0.141	0.074	0.719	0.574	0.403	0.209	0.065	0.022
	ewl(x)	11.5	7.4	4.1	1.8	0.8	0.4	7.8	4.7	2.3	0.9	0.3	0.1
	enl(x)	19.3	19.1	18.3	16.8	14.1	11.2	28.6	27.2	25.3	22.6	19.2	15.7
	ewf(x)	12.6	9.2	6.9	5.1	5.8	5.6	10.8	8.2	6.0	4.3	4.8	5.8
	enf(x)	18.2	17.3	15.6	13.5	9.1	6.0	25.5	23.7	21.6	19.2	14.7	10.0
LM	e(x)	30.0	25.7	21.7	17.8	14.1	10.9	34.6	30.2	25.8	21.6	17.7	14.0
	p(x)	0.911	0.800	0.603	0.368	0.141	0.074	0.719	0.574	0.403	0.209	0.065	0.022
	ewl(x)	11.4	7.4	4.1	1.8	0.8	0.4	7.8	4.7	2.3	0.9	0.3	0.1
	enl(x)	18.6	18.4	17.6	16.0	13.3	10.5	26.9	25.5	23.5	20.8	17.4	13.8
	ewf(x)	12.6	9.2	6.8	5.0	5.7	5.4	10.8	8.2	6.0	4.3	4.7	5.6
	enf(x)	17.5	16.5	14.8	12.8	8.4	5.5	23.8	22.0	19.9	17.4	13.0	8.3
HH	e(x)	30.7	26.5	22.5	18.6	14.9	11.6	36.3	31.9	27.6	23.5	19.5	15.8
	p(x)	0.911	0.800	0.603	0.368	0.154	0.074	0.719	0.574	0.403	0.209	0.084	0.022
	ewl(x)	11.5	7.4	4.2	1.9	0.9	0.4	7.8	4.7	2.4	1.0	0.3	0.1
	enl(x)	19.2	19.1	18.3	16.7	14.1	11.2	28.5	27.2	25.2	22.5	19.2	15.7
	ewf(x)	12.6	9.3	6.9	5.2	5.7	5.6	10.9	8.3	6.1	4.6	4.4	5.9
	enf(x)	18.1	17.2	15.5	13.4	9.3	6.0	25.4	23.6	21.5	18.8	15.2	9.9
LL	e(x)	30.0	25.7	21.7	17.8	14.1	10.9	34.6	30.2	25.8	21.6	17.7	14.0
	p(x)	0.911	0.800	0.603	0.368	0.128	0.074	0.719	0.574	0.403	0.209	0.065	0.022
	ewl(x)	11.4	7.3	4.0	1.8	0.8	0.4	7.8	4.7	2.3	0.9	0.3	0.1
	enl(x)	18.6	18.4	17.6	16.0	13.4	10.5	26.9	25.5	23.5	20.8	17.4	13.8
	ewf(x)	12.5	9.1	6.7	4.9	5.9	5.4	10.8	8.2	6.0	4.3	4.7	5.7
	enf(x)	17.5	16.6	14.9	12.9	8.3	5.5	23.8	22.0	19.9	17.4	13.0	8.3

Note: Life expectancy and participation rate projection assumptions are coded M for medium, H for high, L for low, with life expectancy given first, participation rate second. For example, MH stands for medium life expectancy, high participation rate.

Table 4: Cohort Working Life Expectancies Under Alternative Projection Assumptions, Selected Ages: Male and Female Cohorts of Age 50 in 2006

Projection		Males						Females					
assumption	Variable	x=50	x=55	x=60	x=65	x=70	x=75	x=50	x=55	x=60	x=65	x=70	x=75
MM	e(x)	31.6	27.1	22.8	18.9	15.2	12.0	37.7	33.2	28.7	24.4	20.3	16.3
	p(x)	0.910	0.826	0.659	0.368	0.141	0.074	0.803	0.705	0.478	0.209	0.065	0.022
	ewl(x)	12.0	7.8	4.3	1.8	0.8	0.4	9.2	5.5	2.6	0.9	0.3	0.1
	enl(x)	19.6	19.3	18.6	17.0	14.4	11.5	28.5	27.6	26.1	23.5	19.9	16.2
	ewf(x)	13.2	9.5	6.5	5.0	5.8	5.6	11.5	7.8	5.4	4.3	4.9	5.9
	enf(x)	18.4	17.6	16.3	13.8	9.4	6.4	26.2	25.3	23.3	20.1	15.4	10.4
MH	e(x)	31.6	27.1	22.8	18.9	15.2	12.0	37.7	33.2	28.7	24.4	20.3	16.3
	p(x)	0.910	0.834	0.713	0.425	0.191	0.074	0.803	0.736	0.569	0.329	0.141	0.022
	ewl(x)	12.8	8.6	4.9	2.2	0.9	0.4	10.5	6.7	3.6	1.4	0.4	0.1
	enl(x)	18.8	18.5	17.9	16.7	14.3	11.5	27.2	26.4	25.1	23.0	19.8	16.2
	ewf(x)	14.0	10.3	7.0	5.1	5.0	5.6	13.1	9.2	6.4	4.5	3.3	6.0
	enf(x)	17.6	16.8	15.9	13.7	10.2	6.3	24.7	23.9	22.3	19.9	17.0	10.3
ML	e(x)	31.6	27.1	22.8	18.9	15.2	12.0	37.7	33.2	28.7	24.4	20.3	16.3
	p(x)	0.910	0.818	0.605	0.311	0.091	0.074	0.803	0.705	0.478	0.209	0.065	0.022
	ewl(x)	11.2	7.1	3.6	1.5	0.7	0.4	9.2	5.5	2.6	0.9	0.3	0.1
	enl(x)	20.4	20.0	19.2	17.3	14.5	11.5	28.5	27.6	26.1	23.5	19.9	16.2
	ewf(x)	12.3	8.6	6.0	4.8	7.5	5.6	11.5	7.8	5.4	4.3	4.9	6.0
	enf(x)	19.3	18.5	16.9	14.0	7.7	6.3	26.2	25.3	23.3	20.1	15.4	10.3
HM	e(x)	32.8	28.4	24.0	19.9	16.0	12.4	38.7	34.1	29.7	25.4	21.4	17.5
	p(x)	0.910	0.826	0.659	0.368	0.141	0.074	0.803	0.705	0.478	0.209	0.065	0.022
	ewl(x)	12.1	7.9	4.3	1.9	0.8	0.4	9.2	5.5	2.6	0.9	0.3	0.1
	enl(x)	20.7	20.4	19.7	18.0	15.2	12.0	29.5	28.6	27.1	24.6	21.0	17.3
	ewf(x)	13.3	9.6	6.6	5.1	6.0	5.7	11.5	7.8	5.4	4.3	4.9	6.0
	enf(x)	19.6	18.8	17.4	14.8	10.0	6.7	27.2	26.3	24.3	21.2	16.4	11.4
LM	e(x)	30.9	26.4	22.2	18.2	14.6	11.3	36.3	31.7	27.3	23.0	18.9	15.0
	p(x)	0.910	0.826	0.659	0.368	0.141	0.074	0.803	0.705	0.478	0.209	0.065	0.022
	ewl(x)	12.0	7.8	4.3	1.8	0.8	0.4	9.2	5.5	2.6	0.9	0.3	0.1
	enl(x)	19.0	18.6	17.9	16.4	13.8	10.9	27.1	26.2	24.7	22.1	18.6	14.9
	ewf(x)	13.2	9.4	6.5	5.0	5.8	5.5	11.5	7.8	5.4	4.3	4.8	5.8
	enf(x)	17.8	17.0	15.7	13.2	8.8	5.8	24.8	23.9	21.9	18.7	14.1	9.2
HH	e(x)	32.8	28.4	24.0	19.9	16.0	12.4	38.7	34.1	29.7	25.4	21.4	17.5
	p(x)	0.910	0.834	0.713	0.425	0.191	0.074	0.803	0.736	0.569	0.329	0.141	0.022
	ewl(x)	12.9	8.7	5.0	2.2	1.0	0.4	10.5	6.7	3.6	1.4	0.5	0.1
	enl(x)	20.0	19.7	19.0	17.7	15.1	12.0	28.2	27.4	26.1	24.0	20.9	17.3
	ewf(x)	14.1	10.4	7.1	5.3	5.1	5.8	13.1	9.2	6.4	4.5	3.3	6.1
	enf(x)	18.7	17.9	17.0	14.7	10.9	6.7	25.6	24.9	23.3	21.0	18.1	11.4
LL	e(x)	30.9	26.4	22.2	18.2	14.6	11.3	36.3	31.7	27.3	23.0	18.9	15.0
	p(x)	0.910	0.818	0.605	0.311	0.091	0.074	0.803	0.705	0.478	0.209	0.065	0.022
	ewl(x)	11.2	7.0	3.6	1.5	0.7	0.4	9.2	5.5	2.6	0.9	0.3	0.1
	enl(x)	19.7	19.4	18.6	16.7	13.9	10.9	27.1	26.2	24.7	22.1	18.6	14.9
	ewf(x)	12.3	8.6	5.9	4.8	7.4	5.5	11.5	7.8	5.4	4.2	4.8	5.9
	enf(x)	18.6	17.9	16.3	13.4	7.2	5.8	24.8	23.9	21.8	18.7	14.1	9.1

Note: See note to Table 3.

Table A1: Period Working Life Table, All Ages 50-85: Males, 1976

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00733	99,634	24.86	94,625	5,375	0.94625	92,733	12.33	12.53	0.033	13.03	11.83
51	99,267	0.00805	98,867	24.04	90,841	8,426	0.91512	89,492	11.49	12.55	0.022	12.55	11.49
52	98,468	0.00887	98,031	23.23	88,143	10,324	0.89515	89,067	10.67	12.56	-0.030	11.92	11.31
53	97,594	0.00977	97,118	22.43	89,991	7,604	0.92209	87,425	9.85	12.58	0.047	10.69	11.75
54	96,641	0.01073	96,122	21.65	84,860	11,782	0.87809	83,441	9.05	12.60	0.023	10.30	11.35
55	95,604	0.01178	95,040	20.88	82,023	13,580	0.85795	80,658	8.27	12.61	0.021	9.64	11.24
56	94,477	0.01292	93,867	20.12	79,294	15,183	0.83929	78,138	7.52	12.61	0.016	8.96	11.17
57	93,256	0.01417	92,596	19.38	76,981	16,275	0.82548	75,956	6.78	12.60	0.012	8.21	11.17
58	91,935	0.01550	91,223	18.65	74,930	17,005	0.81503	74,084	6.05	12.60	0.007	7.42	11.23
59	90,510	0.01691	89,745	17.93	73,237	17,273	0.80916	70,744	5.32	12.61	0.051	6.58	11.35
60	88,980	0.01843	88,160	17.23	68,250	20,730	0.76703	63,640	4.62	12.61	0.117	6.02	11.21
61	87,340	0.02007	86,464	16.55	59,030	28,310	0.67586	57,379	3.98	12.57	0.036	5.89	10.66
62	85,587	0.02188	84,651	15.88	55,728	29,859	0.65113	54,765	3.39	12.49	0.013	5.21	10.67
63	83,715	0.02380	82,719	15.22	53,803	29,912	0.64269	50,652	2.81	12.41	0.093	4.37	10.85
64	81,722	0.02582	80,668	14.58	47,502	34,220	0.58126	41,389	2.26	12.32	0.232	3.89	10.69
65	79,613	0.02800	78,498	13.95	35,276	44,336	0.44310	28,113	1.80	12.15	0.378	4.06	9.89
66	77,384	0.03039	76,208	13.34	20,950	56,434	0.27073	18,766	1.49	11.85	0.178	5.50	7.84
67	75,032	0.03306	73,792	12.74	16,581	58,451	0.22099	16,106	1.29	11.46	0.024	5.82	6.93
68	72,551	0.03598	71,246	12.16	15,631	56,920	0.21545	14,189	1.11	11.05	0.149	5.14	7.02
69	69,941	0.03910	68,573	11.60	12,747	57,194	0.18226	11,825	0.95	10.65	0.106	5.19	6.41
70	67,206	0.04248	65,779	11.05	10,902	56,304	0.16222	9,853	0.81	10.24	0.150	4.98	6.07
71	64,351	0.04614	62,867	10.52	8,803	55,548	0.13680	8,081	0.69	9.83	0.118	5.05	5.46
72	61,382	0.05012	59,844	10.00	7,359	54,023	0.11989	6,911	0.59	9.41	0.072	4.95	5.06
73	58,305	0.05435	56,721	9.50	6,463	51,842	0.11085	5,723	0.51	9.00	0.175	4.56	4.94
74	55,136	0.05879	53,516	9.02	4,982	50,154	0.09036	4,703	0.43	8.59	0.053	4.77	4.25
75	51,895	0.06357	50,246	8.55	4,423	47,472	0.08523	3,900	0.37	8.19	0.173	4.31	4.24
76	48,596	0.06882	46,924	8.10	3,377	45,219	0.06950	3,144	0.31	7.79	0.069	4.49	3.61
77	45,252	0.07466	43,563	7.66	2,911	42,341	0.06433	2,675	0.27	7.40	0.087	4.13	3.53
78	41,874	0.08102	40,177	7.24	2,440	39,434	0.05826	2,289	0.22	7.02	0.042	3.83	3.41
79	38,481	0.08780	36,792	6.83	2,139	36,342	0.05559	1,931	0.18	6.65	0.107	3.30	3.53
80	35,102	0.09514	33,433	6.44	1,722	33,380	0.04906	1,486	0.15	6.30	0.179	2.98	3.47
81	31,763	0.10315	30,125	6.07	1,250	30,513	0.03936	1,050	0.11	5.95	0.217	2.91	3.15
82	28,486	0.11198	26,891	5.71	850	27,637	0.02983	661	0.09	5.62	0.331	3.05	2.66
83	25,296	0.12153	23,759	5.36	473	24,823	0.01870	452	0.08	5.29	-0.034	4.08	1.29
84	22,222	0.13172	20,759	5.04	432	21,790	0.01943	400	0.07	4.97	0.014	3.42	1.62
85	19,295	0.14268	17,918	4.73	369	18,926	0.01911	336	0.06	4.67	0.033	2.92	1.81

Table A2: Period Working Life Table, All Ages 50-85: Females, 1976

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00376	99,812	30.51	50,314	49,686	0.50314	48,955	5.61	24.91	0.050	11.15	19.37
51	99,624	0.00404	99,423	29.63	47,596	52,028	0.47776	45,871	5.14	24.49	0.068	10.76	18.87
52	99,222	0.00438	99,005	28.75	44,146	55,076	0.44492	44,249	4.70	24.05	-0.009	10.56	18.19
53	98,787	0.00477	98,552	27.87	44,352	54,436	0.44896	42,075	4.27	23.60	0.098	9.51	18.36
54	98,316	0.00521	98,060	27.00	39,799	58,517	0.40481	39,931	3.86	23.14	-0.012	9.54	17.46
55	97,803	0.00569	97,525	26.14	40,063	57,740	0.40963	39,130	3.47	22.67	0.041	8.48	17.66
56	97,247	0.00622	96,945	25.29	38,197	59,050	0.39278	37,441	3.09	22.19	0.033	7.87	17.41
57	96,642	0.00679	96,314	24.44	36,685	59,957	0.37960	36,392	2.72	21.72	0.009	7.17	17.27
58	95,986	0.00740	95,631	23.60	36,099	59,887	0.37609	34,316	2.36	21.24	0.091	6.28	17.32
59	95,276	0.00803	94,893	22.78	32,532	62,744	0.34145	31,420	2.02	20.76	0.060	5.92	16.86
60	94,511	0.00872	94,099	21.96	30,308	64,203	0.32068	28,422	1.70	20.25	0.116	5.31	16.64
61	93,686	0.00950	93,242	21.15	26,536	67,151	0.28324	24,717	1.42	19.73	0.128	5.00	16.15
62	92,797	0.01039	92,315	20.34	22,898	69,898	0.24676	21,791	1.16	19.18	0.086	4.71	15.63
63	91,833	0.01137	91,311	19.55	20,684	71,148	0.22524	18,928	0.94	18.61	0.158	4.17	15.39
64	90,789	0.01242	90,225	18.77	17,171	73,618	0.18913	15,145	0.74	18.03	0.223	3.92	14.86
65	89,661	0.01357	89,053	18.00	13,120	76,541	0.14633	11,042	0.58	17.42	0.303	3.97	14.03
66	88,445	0.01488	87,787	17.24	8,963	79,482	0.10134	7,624	0.46	16.78	0.284	4.58	12.66
67	87,129	0.01638	86,415	16.49	6,285	80,843	0.07214	5,628	0.38	16.11	0.193	5.32	11.18
68	85,702	0.01802	84,930	15.76	4,970	80,732	0.05799	4,621	0.32	15.44	0.122	5.59	10.17
69	84,158	0.01978	83,326	15.04	4,273	79,885	0.05077	4,144	0.28	14.77	0.041	5.42	9.62
70	82,493	0.02172	81,597	14.33	4,015	78,478	0.04867	3,595	0.23	14.10	0.188	4.74	9.60
71	80,701	0.02393	79,736	13.64	3,175	77,527	0.03934	2,839	0.19	13.45	0.187	4.86	8.78
72	78,771	0.02646	77,729	12.96	2,504	76,266	0.03179	2,397	0.16	12.80	0.059	5.03	7.94
73	76,687	0.02921	75,567	12.30	2,291	74,396	0.02987	2,037	0.13	12.17	0.192	4.45	7.85
74	74,447	0.03214	73,250	11.66	1,784	72,663	0.02396	1,539	0.11	11.55	0.243	4.57	7.09
75	72,054	0.03540	70,779	11.03	1,293	70,761	0.01795	1,167	0.09	10.94	0.161	5.11	5.91
76	69,503	0.03915	68,143	10.41	1,040	68,463	0.01496	934	0.08	10.34	0.164	5.24	5.18
77	66,782	0.04353	65,329	9.82	829	65,953	0.01241	717	0.07	9.75	0.227	5.45	4.37
78	63,875	0.04846	62,327	9.24	604	63,271	0.00946	537	0.06	9.18	0.175	6.28	2.96
79	60,780	0.05381	59,144	8.69	469	60,310	0.00772	475	0.05	8.63	-0.077	6.95	1.74
80	57,509	0.05976	55,791	8.15	480	57,029	0.00835	448	0.05	8.11	0.076	5.80	2.35
81	54,072	0.06644	52,276	7.64	415	53,657	0.00768	407	0.04	7.60	-0.026	5.63	2.01
82	50,480	0.07403	48,611	7.15	398	50,081	0.00789	386	0.04	7.11	-0.013	4.85	2.30
83	46,743	0.08240	44,817	6.68	374	46,369	0.00800	348	0.03	6.65	0.057	4.13	2.55
84	42,891	0.09147	40,929	6.23	322	42,569	0.00751	305	0.03	6.21	0.011	3.72	2.52
85	38,968	0.10138	36,993	5.81	289	38,679	0.00741	265	0.02	5.79	0.066	3.09	2.73

Table A3: Period Working Life Table, All Ages 50-85: Males, 1981

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00628	99,686	25.81	92,943	7,057	0.92943	91,531	12.12	13.69	0.024	13.04	12.77
51	99,372	0.00694	99,027	24.97	90,119	9,253	0.90689	89,246	11.28	13.69	0.012	12.44	12.53
52	98,682	0.00768	98,303	24.14	88,373	10,309	0.89553	89,434	10.45	13.69	-0.032	11.67	12.47
53	97,924	0.00848	97,509	23.33	90,496	7,429	0.92414	87,700	9.62	13.70	0.053	10.41	12.92
54	97,094	0.00933	96,641	22.52	84,904	12,190	0.87445	83,111	8.80	13.72	0.033	10.06	12.46
55	96,188	0.01026	95,695	21.73	81,318	14,870	0.84541	80,153	8.02	13.71	0.018	9.49	12.24
56	95,201	0.01127	94,665	20.95	78,988	16,214	0.82969	78,138	7.26	13.69	0.010	8.75	12.20
57	94,128	0.01239	93,545	20.18	77,288	16,841	0.82109	75,924	6.51	13.67	0.023	7.93	12.25
58	92,962	0.01360	92,330	19.43	74,559	18,403	0.80204	72,902	5.78	13.65	0.031	7.20	12.22
59	91,698	0.01488	91,016	18.69	71,246	20,452	0.77696	69,157	5.06	13.63	0.044	6.52	12.17
60	90,333	0.01628	89,598	17.96	67,069	23,264	0.74246	63,928	4.37	13.59	0.077	5.89	12.07
61	88,863	0.01781	88,071	17.25	60,787	28,075	0.68406	57,897	3.73	13.53	0.077	5.45	11.81
62	87,280	0.01951	86,429	16.56	55,006	32,274	0.63022	53,132	3.13	13.43	0.049	4.97	11.59
63	85,577	0.02138	84,662	15.88	51,259	34,318	0.59898	48,095	2.57	13.30	0.102	4.29	11.58
64	83,748	0.02339	82,768	15.21	44,931	38,816	0.53651	38,710	2.05	13.16	0.254	3.83	11.38
65	81,789	0.02556	80,744	14.57	32,488	49,301	0.39722	25,863	1.63	12.94	0.382	4.10	10.46
66	79,698	0.02790	78,586	13.93	19,238	60,460	0.24139	17,454	1.35	12.59	0.158	5.59	8.35
67	77,475	0.03046	76,295	13.32	15,669	61,805	0.20225	14,661	1.16	12.16	0.098	5.74	7.58
68	75,115	0.03317	73,869	12.72	13,653	61,462	0.18176	12,571	1.00	11.72	0.125	5.52	7.20
69	72,623	0.03601	71,316	12.14	11,490	61,134	0.15821	10,694	0.86	11.28	0.102	5.46	6.68
70	70,008	0.03907	68,640	11.58	9,899	60,109	0.14140	9,036	0.74	10.83	0.135	5.26	6.32
71	67,273	0.04243	65,846	11.03	8,173	59,100	0.12149	7,539	0.64	10.39	0.113	5.27	5.76
72	64,418	0.04617	62,931	10.49	6,906	57,513	0.10720	6,418	0.55	9.94	0.095	5.14	5.35
73	61,444	0.05024	59,901	9.98	5,931	55,513	0.09653	5,477	0.47	9.50	0.103	4.90	5.07
74	58,357	0.05460	56,764	9.48	5,023	53,334	0.08608	4,657	0.40	9.07	0.091	4.70	4.78
75	55,171	0.05930	53,535	9.00	4,291	50,880	0.07778	3,822	0.34	8.65	0.159	4.41	4.58
76	51,899	0.06442	50,228	8.53	3,353	48,546	0.06461	2,972	0.29	8.24	0.163	4.51	4.02
77	48,556	0.07002	46,856	8.09	2,590	45,966	0.05335	2,498	0.25	7.84	0.002	4.69	3.40
78	45,156	0.07607	43,439	7.66	2,405	42,751	0.05326	2,243	0.21	7.44	0.058	4.01	3.64
79	41,721	0.08251	40,000	7.25	2,082	39,639	0.04990	1,887	0.18	7.07	0.104	3.56	3.69
80	38,279	0.08941	36,567	6.85	1,693	36,586	0.04422	1,534	0.14	6.71	0.098	3.26	3.59
81	34,856	0.09683	33,169	6.48	1,376	33,480	0.03947	1,121	0.11	6.36	0.274	2.90	3.58
82	31,481	0.10483	29,831	6.12	865	30,616	0.02749	696	0.09	6.03	0.286	3.31	2.81
83	28,181	0.11338	26,583	5.78	527	27,654	0.01871	491	0.08	5.70	0.023	4.11	1.66
84	24,986	0.12243	23,456	5.45	455	24,530	0.01822	423	0.07	5.38	0.021	3.68	1.77
85	21,927	0.13203	20,479	5.14	390	21,537	0.01779	381	0.06	5.08	-0.087	3.22	1.92

Table A4: Period Working Life Table, All Ages 50-85: Females, 1981

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00338	99,831	31.47	56,797	43,203	0.56797	55,298	5.99	25.48	0.049	10.55	20.92
51	99,662	0.00371	99,477	30.57	53,799	45,863	0.53981	51,473	5.46	25.12	0.083	10.11	20.47
52	99,292	0.00407	99,090	29.68	49,147	50,146	0.49497	48,482	4.96	24.73	0.023	10.01	19.67
53	98,888	0.00445	98,668	28.80	47,816	51,072	0.48354	45,974	4.49	24.32	0.073	9.28	19.52
54	98,448	0.00485	98,209	27.93	44,131	54,317	0.44827	44,056	4.04	23.89	-0.001	9.01	18.92
55	97,971	0.00528	97,712	27.06	43,981	53,990	0.44892	43,042	3.61	23.45	0.037	8.04	19.02
56	97,453	0.00575	97,173	26.21	42,103	55,351	0.43203	40,280	3.19	23.02	0.081	7.38	18.83
57	96,893	0.00627	96,589	25.35	38,458	58,435	0.39691	37,109	2.79	22.56	0.064	7.03	18.32
58	96,285	0.00682	95,957	24.51	35,759	60,526	0.37139	34,329	2.42	22.09	0.073	6.52	17.99
59	95,629	0.00740	95,275	23.68	32,899	62,730	0.34403	32,176	2.08	21.60	0.037	6.05	17.63
60	94,921	0.00804	94,540	22.85	31,452	63,469	0.33135	29,796	1.76	21.09	0.097	5.30	17.55
61	94,158	0.00875	93,746	22.03	28,140	66,018	0.29886	25,775	1.45	20.57	0.159	4.87	17.16
62	93,334	0.00957	92,887	21.22	23,410	69,924	0.25082	21,960	1.19	20.03	0.114	4.75	16.47
63	92,441	0.01049	91,956	20.42	20,511	71,930	0.22188	18,858	0.97	19.45	0.151	4.35	16.07
64	91,471	0.01147	90,947	19.63	17,205	74,266	0.18809	15,070	0.77	18.86	0.237	4.09	15.54
65	90,422	0.01256	89,854	18.85	12,936	77,486	0.14306	10,795	0.61	18.24	0.318	4.27	14.58
66	89,286	0.01376	88,672	18.09	8,654	80,633	0.09692	7,348	0.50	17.59	0.288	5.14	12.94
67	88,058	0.01512	87,392	17.33	6,043	82,015	0.06862	5,581	0.42	16.91	0.138	6.15	11.18
68	86,726	0.01658	86,007	16.59	5,119	81,607	0.05903	4,697	0.36	16.23	0.148	6.17	10.42
69	85,288	0.01813	84,515	15.86	4,276	81,013	0.05013	3,957	0.32	15.55	0.131	6.29	9.58
70	83,742	0.01983	82,912	15.14	3,639	80,103	0.04346	3,369	0.27	14.87	0.129	6.30	8.85
71	82,081	0.02177	81,188	14.44	3,099	78,983	0.03775	2,820	0.24	14.20	0.158	6.31	8.13
72	80,295	0.02402	79,330	13.75	2,542	77,752	0.03166	2,438	0.21	13.54	0.058	6.58	7.17
73	78,366	0.02649	77,328	13.08	2,334	76,032	0.02978	2,058	0.18	12.90	0.210	6.12	6.95
74	76,290	0.02913	75,179	12.42	1,781	74,509	0.02335	1,620	0.16	12.26	0.152	6.87	5.55
75	74,068	0.03208	72,880	11.78	1,459	72,609	0.01970	1,336	0.14	11.63	0.137	7.27	4.51
76	71,692	0.03545	70,421	11.15	1,213	70,479	0.01692	1,094	0.13	11.02	0.161	7.65	3.50
77	69,150	0.03939	67,788	10.54	974	68,176	0.01409	928	0.12	10.42	0.057	8.40	2.15
78	66,426	0.04382	64,971	9.95	881	65,545	0.01326	793	0.11	9.85	0.156	8.24	1.72
79	63,515	0.04867	61,970	9.39	704	62,811	0.01109	647	0.10	9.29	0.115	9.17	0.21
80	60,424	0.05401	58,792	8.84	589	59,835	0.00975	786	0.10	8.75	-0.724	9.87	-1.03
81	57,161	0.05995	55,447	8.32	984	56,177	0.01721	919	0.09	8.23	0.072	5.11	3.21
82	53,734	0.06656	51,946	7.82	854	52,880	0.01590	812	0.08	7.74	0.032	4.81	3.01
83	50,157	0.07378	48,307	7.34	770	49,387	0.01536	718	0.07	7.27	0.062	4.28	3.06
84	46,457	0.08156	44,562	6.88	666	45,791	0.01433	631	0.06	6.83	0.023	3.87	3.01
85	42,668	0.08999	40,748	6.45	596	42,071	0.01398	560	0.05	6.41	0.033	3.27	3.18

Table A5: Period Working Life Table, All Ages 50-85: Males, 1986

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00532	99,734	26.47	92,468	7,532	0.92468	91,380	11.58	14.88	0.018	12.53	13.94
51	99,468	0.00594	99,173	25.60	90,291	9,177	0.90774	89,074	10.73	14.88	0.021	11.82	13.79
52	98,877	0.00662	98,550	24.75	87,856	11,021	0.88854	88,290	9.89	14.87	-0.017	11.13	13.63
53	98,223	0.00738	97,860	23.92	88,724	9,498	0.90330	86,390	9.06	14.86	0.045	10.02	13.89
54	97,498	0.00819	97,098	23.09	84,056	13,442	0.86213	82,492	8.24	14.85	0.029	9.55	13.54
55	96,699	0.00908	96,260	22.28	80,928	15,772	0.83690	79,212	7.45	14.83	0.033	8.90	13.37
56	95,821	0.01005	95,340	21.48	77,496	18,325	0.80876	75,850	6.69	14.78	0.032	8.28	13.20
57	94,858	0.01111	94,331	20.69	74,203	20,655	0.78225	73,308	5.96	14.73	0.013	7.62	13.07
58	93,804	0.01223	93,231	19.92	72,412	21,392	0.77195	70,453	5.25	14.67	0.042	6.80	13.12
59	92,657	0.01340	92,036	19.16	68,493	24,164	0.73921	65,839	4.55	14.61	0.064	6.16	13.00
60	91,415	0.01468	90,744	18.41	63,185	28,230	0.69119	58,624	3.89	14.52	0.130	5.63	12.78
61	90,073	0.01609	89,349	17.68	54,062	36,011	0.60020	52,270	3.30	14.38	0.050	5.50	12.18
62	88,624	0.01770	87,840	16.96	50,478	38,147	0.56957	48,686	2.76	14.19	0.053	4.85	12.10
63	87,056	0.01947	86,208	16.25	46,893	40,162	0.53866	42,645	2.26	14.00	0.162	4.19	12.07
64	85,361	0.02139	84,448	15.57	38,396	46,965	0.44981	32,173	1.80	13.77	0.303	4.00	11.56
65	83,535	0.02347	82,554	14.90	25,951	57,584	0.31066	20,817	1.45	13.44	0.372	4.68	10.21
66	81,574	0.02574	80,524	14.24	15,683	65,891	0.19226	14,866	1.23	13.01	0.079	6.42	7.82
67	79,474	0.02824	78,352	13.61	14,048	65,427	0.17676	13,594	1.08	12.53	0.036	6.11	7.50
68	77,230	0.03089	76,037	12.99	13,140	64,090	0.17014	11,990	0.94	12.05	0.144	5.50	7.49
69	74,844	0.03370	73,583	12.38	10,840	64,004	0.14484	10,144	0.81	11.58	0.095	5.56	6.83
70	72,322	0.03673	70,994	11.80	9,448	62,874	0.13064	8,661	0.69	11.11	0.130	5.30	6.50
71	69,666	0.04006	68,270	11.23	7,873	61,793	0.11301	7,244	0.59	10.64	0.120	5.26	5.97
72	66,875	0.04377	65,411	10.68	6,616	60,259	0.09893	6,051	0.51	10.17	0.127	5.17	5.51
73	63,948	0.04781	62,419	10.14	5,485	58,462	0.08578	5,161	0.44	9.70	0.071	5.13	5.01
74	60,891	0.05212	59,304	9.63	4,836	56,055	0.07942	4,422	0.38	9.25	0.119	4.75	4.87
75	57,717	0.05679	56,078	9.13	4,007	53,710	0.06943	3,623	0.32	8.81	0.135	4.63	4.50
76	54,439	0.06188	52,755	8.65	3,238	51,201	0.05948	3,106	0.27	8.37	0.020	4.62	4.03
77	51,070	0.06745	49,348	8.19	2,974	48,097	0.05823	2,790	0.23	7.96	0.056	3.98	4.20
78	47,626	0.07344	45,877	7.74	2,606	45,020	0.05471	2,412	0.19	7.55	0.075	3.47	4.27
79	44,128	0.07981	42,367	7.32	2,218	41,910	0.05026	1,971	0.15	7.17	0.143	2.99	4.32
80	40,606	0.08665	38,847	6.91	1,725	38,882	0.04247	1,346	0.12	6.79	0.352	2.71	4.20
81	37,088	0.09407	35,343	6.52	967	36,120	0.02609	753	0.09	6.43	0.349	3.44	3.08
82	33,599	0.10219	31,882	6.14	539	33,060	0.01605	532	0.08	6.06	-0.075	4.77	1.37
83	30,165	0.11094	28,492	5.78	525	29,641	0.01739	505	0.07	5.72	-0.035	3.89	1.90
84	26,819	0.12023	25,207	5.44	485	26,334	0.01808	447	0.06	5.39	0.036	3.17	2.28
85	23,594	0.13018	22,059	5.12	409	23,185	0.01735	367	0.05	5.07	0.079	2.66	2.46

Table A6: Period Working Life Table, All Ages 50-85: Females, 1986

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00312	99,844	31.87	65,256	34,744	0.65256	62,789	6.37	25.50	0.072	9.77	22.11
51	99,688	0.00343	99,517	30.97	60,322	39,366	0.60511	57,742	5.76	25.21	0.082	9.52	21.45
52	99,346	0.00376	99,159	30.08	55,162	44,184	0.55525	55,020	5.20	24.88	0.001	9.37	20.71
53	98,973	0.00411	98,769	29.19	54,877	44,095	0.55447	52,226	4.66	24.52	0.092	8.41	20.78
54	98,566	0.00447	98,345	28.31	49,576	48,990	0.50297	49,270	4.15	24.15	0.008	8.26	20.05
55	98,125	0.00487	97,886	27.43	48,963	49,162	0.49899	47,633	3.67	23.76	0.049	7.36	20.08
56	97,647	0.00530	97,389	26.56	46,303	51,344	0.47419	43,648	3.20	23.36	0.109	6.75	19.81
57	97,130	0.00579	96,849	25.70	40,993	56,137	0.42204	39,843	2.77	22.93	0.050	6.56	19.14
58	96,567	0.00632	96,262	24.85	38,694	57,874	0.40069	36,867	2.37	22.48	0.088	5.92	18.93
59	95,957	0.00689	95,627	24.00	35,040	60,917	0.36516	33,349	2.00	22.00	0.090	5.49	18.52
60	95,296	0.00751	94,938	23.17	31,659	63,637	0.33222	29,406	1.67	21.50	0.135	5.02	18.15
61	94,580	0.00821	94,192	22.34	27,153	67,427	0.28709	24,965	1.37	20.97	0.153	4.77	17.57
62	93,804	0.00899	93,382	21.52	22,777	71,026	0.24282	21,765	1.11	20.41	0.080	4.59	16.93
63	92,960	0.00985	92,503	20.71	20,753	72,207	0.22325	18,981	0.89	19.82	0.161	3.99	16.72
64	92,045	0.01076	91,550	19.91	17,208	74,837	0.18695	14,842	0.69	19.22	0.264	3.70	16.21
65	91,054	0.01176	90,519	19.12	12,475	78,579	0.13701	10,272	0.54	18.59	0.341	3.92	15.20
66	89,984	0.01288	89,404	18.34	8,069	81,915	0.08967	6,840	0.43	17.91	0.292	4.79	13.56
67	88,825	0.01417	88,195	17.58	5,611	83,214	0.06317	5,168	0.36	17.22	0.144	5.66	11.91
68	87,566	0.01556	86,885	16.82	4,725	82,841	0.05396	4,428	0.30	16.52	0.110	5.63	11.19
69	86,203	0.01703	85,469	16.08	4,131	82,073	0.04792	3,786	0.26	15.82	0.150	5.37	10.71
70	84,735	0.01867	83,944	15.35	3,441	81,294	0.04061	3,026	0.22	15.13	0.223	5.35	10.00
71	83,153	0.02055	82,299	14.63	2,611	80,542	0.03140	2,530	0.18	14.45	0.042	5.89	8.74
72	81,445	0.02275	80,518	13.93	2,448	78,996	0.03006	2,371	0.16	13.77	0.040	5.25	8.68
73	79,592	0.02522	78,588	13.24	2,295	77,297	0.02883	1,970	0.13	13.11	0.258	4.57	8.68
74	77,584	0.02789	76,503	12.57	1,646	75,939	0.02121	1,548	0.11	12.46	0.091	5.17	7.40
75	75,421	0.03087	74,256	11.92	1,450	73,971	0.01922	1,354	0.09	11.83	0.101	4.80	7.12
76	73,092	0.03423	71,841	11.28	1,258	71,834	0.01721	1,134	0.08	11.21	0.162	4.46	6.83
77	70,590	0.03807	69,247	10.66	1,011	69,580	0.01432	892	0.06	10.60	0.197	4.42	6.24
78	67,903	0.04226	66,468	10.07	773	67,130	0.01139	666	0.05	10.01	0.235	4.63	5.44
79	65,033	0.04676	63,513	9.49	559	64,474	0.00860	530	0.04	9.44	0.059	5.21	4.28
80	61,992	0.05173	60,389	8.93	500	61,492	0.00807	446	0.04	8.89	0.165	4.76	4.17
81	58,786	0.05735	57,100	8.39	392	58,394	0.00667	357	0.03	8.36	0.119	4.94	3.45
82	55,414	0.06377	53,647	7.87	323	55,092	0.00582	312	0.03	7.84	0.001	4.89	2.98
83	51,880	0.07090	50,041	7.37	302	51,579	0.00582	289	0.02	7.35	0.014	4.20	3.17
84	48,202	0.07861	46,308	6.90	276	47,926	0.00573	261	0.02	6.88	0.033	3.54	3.35
85	44,413	0.08708	42,479	6.44	245	44,168	0.00553	228	0.02	6.42	0.057	2.92	3.52

Table A7: Period Working Life Table, All Ages 50-85: Males, 1991

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00449	99,776	27.65	91,133	8,867	0.91133	90,129	11.19	16.46	0.018	12.28	15.37
51	99,551	0.00496	99,304	26.77	89,124	10,427	0.89526	88,056	10.33	16.43	0.019	11.54	15.23
52	99,057	0.00551	98,784	25.90	86,988	12,069	0.87816	87,150	9.50	16.40	-0.009	10.81	15.09
53	98,511	0.00612	98,210	25.04	87,313	11,199	0.88632	84,607	8.66	16.38	0.056	9.78	15.26
54	97,909	0.00678	97,577	24.19	81,900	16,008	0.83650	80,383	7.85	16.34	0.030	9.39	14.80
55	97,245	0.00752	96,879	23.35	78,866	18,378	0.81101	77,079	7.08	16.27	0.038	8.73	14.62
56	96,513	0.00835	96,110	22.53	75,291	21,222	0.78011	74,044	6.34	16.19	0.025	8.12	14.40
57	95,708	0.00929	95,263	21.71	72,796	22,911	0.76061	71,425	5.61	16.10	0.028	7.38	14.33
58	94,818	0.01034	94,328	20.91	70,054	24,765	0.73882	67,707	4.91	16.00	0.057	6.65	14.26
59	93,838	0.01150	93,298	20.12	65,361	28,477	0.69653	61,985	4.24	15.88	0.092	6.09	14.03
60	92,759	0.01275	92,168	19.35	58,610	34,149	0.63185	54,337	3.63	15.73	0.133	5.74	13.61
61	91,576	0.01411	90,930	18.59	50,064	41,512	0.54669	47,811	3.08	15.52	0.076	5.63	12.96
62	90,284	0.01557	89,581	17.85	45,557	44,727	0.50460	43,485	2.59	15.26	0.075	5.14	12.71
63	88,878	0.01709	88,119	17.13	41,412	47,466	0.46594	37,763	2.14	14.98	0.159	4.60	12.53
64	87,359	0.01868	86,543	16.42	34,115	53,245	0.39051	29,867	1.75	14.67	0.230	4.48	11.94
65	85,728	0.02040	84,853	15.72	25,619	60,109	0.29884	21,560	1.43	14.29	0.296	4.80	10.92
66	83,979	0.02230	83,042	15.04	17,501	66,478	0.20840	15,582	1.21	13.83	0.197	5.80	9.24
67	82,106	0.02444	81,103	14.37	13,663	68,443	0.16641	12,907	1.05	13.32	0.086	6.28	8.09
68	80,099	0.02678	79,027	13.72	12,151	67,948	0.15170	11,085	0.91	12.81	0.149	6.00	7.71
69	77,954	0.02927	76,813	13.08	10,019	67,936	0.12852	9,415	0.79	12.29	0.091	6.17	6.91
70	75,673	0.03199	74,462	12.46	8,811	66,862	0.11643	8,103	0.69	11.77	0.129	5.95	6.51
71	73,252	0.03502	71,969	11.85	7,396	65,856	0.10097	6,886	0.61	11.25	0.103	6.00	5.86
72	70,686	0.03844	69,328	11.27	6,375	64,311	0.09019	6,189	0.53	10.74	0.020	5.88	5.39
73	67,969	0.04218	66,536	10.70	6,004	61,966	0.08833	5,445	0.46	10.24	0.144	5.21	5.49
74	65,102	0.04620	63,598	10.15	4,886	60,216	0.07505	4,510	0.40	9.75	0.108	5.29	4.86
75	62,095	0.05058	60,524	9.61	4,135	57,960	0.06659	3,774	0.34	9.27	0.124	5.15	4.46
76	58,954	0.05542	57,320	9.10	3,412	55,542	0.05788	3,243	0.30	8.80	0.044	5.14	3.96
77	55,687	0.06080	53,994	8.60	3,074	52,612	0.05521	2,900	0.26	8.35	0.053	4.65	3.95
78	52,301	0.06670	50,557	8.13	2,725	49,575	0.05211	2,559	0.22	7.91	0.056	4.18	3.95
79	48,812	0.07305	47,030	7.67	2,392	46,420	0.04901	2,154	0.18	7.49	0.127	3.69	3.98
80	45,247	0.07991	43,439	7.24	1,915	43,332	0.04232	1,625	0.15	7.09	0.223	3.49	3.75
81	41,631	0.08732	39,813	6.82	1,335	40,296	0.03207	1,173	0.12	6.70	0.155	3.79	3.03
82	37,996	0.09534	36,185	6.43	1,011	36,985	0.02661	906	0.10	6.33	0.113	3.84	2.58
83	34,373	0.10394	32,587	6.05	801	33,572	0.02330	738	0.09	5.97	0.054	3.72	2.33
84	30,801	0.11308	29,059	5.70	674	30,126	0.02189	598	0.07	5.62	0.113	3.33	2.37
85	27,318	0.12282	25,640	5.36	522	26,796	0.01911	476	0.06	5.30	0.055	3.15	2.21

Table A8: Period Working Life Table, All Ages 50-85: Females, 1991

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00272	99,864	32.80	71,923	28,077	0.71923	70,373	6.93	25.87	0.040	9.63	23.17
51	99,728	0.00298	99,579	31.89	68,822	30,906	0.69010	66,059	6.24	25.65	0.077	9.04	22.85
52	99,431	0.00328	99,268	30.98	63,297	36,134	0.63659	62,678	5.59	25.39	0.016	8.79	22.20
53	99,105	0.00360	98,926	30.08	62,058	37,046	0.62619	58,844	4.98	25.10	0.100	7.95	22.13
54	98,748	0.00395	98,553	29.19	55,629	43,119	0.56334	54,370	4.40	24.79	0.041	7.81	21.38
55	98,358	0.00432	98,145	28.30	53,111	45,247	0.53998	51,827	3.87	24.44	0.044	7.16	21.14
56	97,933	0.00474	97,701	27.42	50,542	47,391	0.51609	48,167	3.35	24.07	0.089	6.50	20.93
57	97,469	0.00520	97,215	26.55	45,792	51,677	0.46981	44,584	2.88	23.68	0.048	6.12	20.43
58	96,962	0.00569	96,686	25.69	43,377	53,585	0.44736	40,922	2.43	23.26	0.107	5.43	20.25
59	96,410	0.00622	96,110	24.83	38,468	57,943	0.39900	36,111	2.02	22.81	0.116	5.06	19.77
60	95,811	0.00679	95,485	23.99	33,754	62,056	0.35230	31,179	1.66	22.33	0.146	4.70	19.28
61	95,160	0.00742	94,807	23.15	28,604	66,556	0.30059	25,772	1.34	21.81	0.191	4.46	18.69
62	94,454	0.00814	94,069	22.32	22,939	71,515	0.24286	21,346	1.08	21.24	0.131	4.44	17.88
63	93,685	0.00891	93,268	21.49	19,753	73,932	0.21085	17,825	0.86	20.64	0.186	4.07	17.42
64	92,850	0.00972	92,399	20.68	15,896	76,954	0.17120	13,857	0.67	20.01	0.247	3.94	16.75
65	91,948	0.01061	91,460	19.88	11,818	80,130	0.12853	10,188	0.53	19.35	0.265	4.12	15.76
66	90,972	0.01162	90,444	19.09	8,559	82,414	0.09408	7,427	0.42	18.67	0.253	4.50	14.59
67	89,915	0.01276	89,341	18.31	6,296	83,619	0.07002	5,728	0.35	17.96	0.168	4.94	13.37
68	88,768	0.01400	88,146	17.54	5,160	83,608	0.05813	4,575	0.29	17.25	0.213	4.92	12.62
69	87,525	0.01529	86,856	16.78	3,989	83,536	0.04558	3,680	0.24	16.54	0.140	5.21	11.56
70	86,187	0.01674	85,465	16.03	3,370	82,817	0.03910	3,076	0.20	15.83	0.158	5.08	10.95
71	84,744	0.01842	83,964	15.30	2,782	81,962	0.03283	2,597	0.17	15.13	0.115	5.05	10.25
72	83,183	0.02040	82,335	14.57	2,411	80,772	0.02899	2,272	0.14	14.44	0.095	4.75	9.83
73	81,486	0.02264	80,564	13.87	2,133	79,353	0.02618	1,910	0.11	13.75	0.187	4.30	9.56
74	79,641	0.02507	78,643	13.18	1,686	77,955	0.02117	1,617	0.09	13.09	0.057	4.31	8.87
75	77,645	0.02779	76,566	12.50	1,548	76,096	0.01994	1,380	0.07	12.43	0.190	3.65	8.85
76	75,487	0.03089	74,321	11.85	1,212	74,275	0.01605	1,010	0.06	11.79	0.303	3.53	8.32
77	73,155	0.03445	71,895	11.21	808	72,348	0.01104	673	0.04	11.16	0.298	4.04	7.17
78	70,635	0.03839	69,279	10.59	539	70,096	0.00763	464	0.04	10.55	0.239	4.80	5.79
79	67,923	0.04265	66,475	9.99	389	67,534	0.00573	385	0.03	9.96	-0.023	5.46	4.53
80	65,026	0.04735	63,487	9.42	382	64,645	0.00587	329	0.03	9.39	0.229	4.56	4.86
81	61,947	0.05265	60,317	8.86	276	61,671	0.00446	254	0.02	8.84	0.110	5.11	3.75
82	58,686	0.05865	56,965	8.32	231	58,455	0.00394	224	0.02	8.30	0.002	5.00	3.32
83	55,244	0.06528	53,441	7.81	217	55,027	0.00393	204	0.02	7.79	0.058	4.29	3.52
84	51,638	0.07246	49,767	7.32	191	51,447	0.00369	175	0.01	7.31	0.091	3.83	3.49
85	47,896	0.08030	45,973	6.85	159	47,737	0.00333	151	0.01	6.84	0.019	3.48	3.38

Table A9: Period Working Life Table, All Ages 50-85: Males, 1996

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00408	99,796	28.26	89,955	10,045	0.89955	89,130	10.80	17.46	0.014	12.00	16.25
51	99,592	0.00453	99,366	27.37	88,304	11,288	0.88666	87,087	9.95	17.42	0.023	11.22	16.15
52	99,141	0.00503	98,892	26.49	85,870	13,271	0.86614	85,398	9.11	17.38	0.006	10.52	15.97
53	98,642	0.00555	98,368	25.62	84,926	13,716	0.86095	82,613	8.29	17.33	0.049	9.63	15.99
54	98,095	0.00610	97,796	24.76	80,300	17,794	0.81860	79,140	7.50	17.26	0.023	9.16	15.60
55	97,496	0.00670	97,170	23.91	77,980	19,517	0.79982	75,881	6.73	17.18	0.047	8.42	15.49
56	96,843	0.00739	96,485	23.07	73,783	23,060	0.76188	71,175	5.99	17.08	0.063	7.87	15.20
57	96,127	0.00818	95,734	22.24	68,567	27,561	0.71329	67,450	5.30	16.94	0.024	7.43	14.81
58	95,341	0.00906	94,909	21.42	66,333	29,008	0.69574	63,803	4.63	16.78	0.067	6.66	14.76
59	94,477	0.01001	94,004	20.61	61,273	33,204	0.64855	58,466	4.00	16.61	0.082	6.17	14.44
60	93,532	0.01105	93,015	19.81	55,658	37,874	0.59507	51,090	3.42	16.39	0.153	5.74	14.07
61	92,498	0.01224	91,932	19.03	46,523	45,975	0.50296	44,078	2.90	16.12	0.093	5.77	13.26
62	91,366	0.01359	90,745	18.26	41,634	49,732	0.45568	39,842	2.46	15.80	0.072	5.39	12.87
63	90,124	0.01508	89,445	17.50	38,051	52,073	0.42221	35,741	2.05	15.45	0.106	4.85	12.65
64	88,765	0.01671	88,024	16.76	33,430	55,335	0.37661	28,839	1.68	15.09	0.258	4.45	12.31
65	87,282	0.01848	86,475	16.04	24,249	63,033	0.27782	20,655	1.38	14.66	0.278	4.95	11.09
66	85,669	0.02044	84,793	15.33	17,062	68,607	0.19916	15,519	1.16	14.17	0.160	5.82	9.51
67	83,918	0.02259	82,970	14.64	13,976	69,942	0.16654	12,909	1.00	13.64	0.130	6.00	8.64
68	82,022	0.02490	81,001	13.97	11,842	70,180	0.14438	11,080	0.86	13.10	0.104	5.99	7.98
69	79,980	0.02735	78,886	13.31	10,318	69,662	0.12901	9,550	0.75	12.56	0.122	5.80	7.51
70	77,792	0.03000	76,625	12.67	8,781	69,011	0.11288	8,082	0.65	12.02	0.129	5.73	6.94
71	75,459	0.03295	74,215	12.05	7,384	68,075	0.09785	6,879	0.56	11.49	0.104	5.72	6.33
72	72,972	0.03626	71,649	11.44	6,375	66,597	0.08736	5,979	0.48	10.96	0.088	5.55	5.90
73	70,326	0.03984	68,925	10.85	5,582	64,744	0.07938	5,250	0.42	10.44	0.079	5.26	5.59
74	67,524	0.04364	66,051	10.28	4,918	62,607	0.07283	4,442	0.36	9.93	0.150	4.90	5.38
75	64,578	0.04781	63,034	9.73	3,966	60,611	0.06142	3,650	0.30	9.42	0.111	4.96	4.77
76	61,490	0.05248	59,877	9.19	3,335	58,156	0.05423	3,154	0.26	8.93	0.056	4.81	4.39
77	58,263	0.05779	56,580	8.67	2,974	55,289	0.05105	2,767	0.22	8.45	0.082	4.33	4.35
78	54,896	0.06370	53,148	8.18	2,560	52,336	0.04663	2,395	0.18	7.99	0.065	3.95	4.23
79	51,399	0.07011	49,598	7.70	2,230	49,170	0.04338	2,030	0.15	7.55	0.109	3.46	4.24
80	47,796	0.07710	45,953	7.24	1,831	45,965	0.03831	1,577	0.12	7.12	0.201	3.10	4.14
81	44,111	0.08474	42,242	6.80	1,322	42,788	0.02998	1,113	0.09	6.71	0.232	3.10	3.70
82	40,373	0.09313	38,493	6.39	904	39,469	0.02239	728	0.07	6.31	0.296	3.31	3.08
83	36,613	0.10224	34,741	5.99	553	36,060	0.01509	513	0.06	5.93	0.041	4.10	1.90
84	32,870	0.11203	31,028	5.62	473	32,396	0.01440	465	0.05	5.56	-0.075	3.70	1.92
85	29,187	0.12251	27,399	5.26	456	28,731	0.01562	423	0.04	5.22	0.020	2.82	2.44

Table A10: Period Working Life Table, All Ages 50-85: Females, 1996

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00250	99,875	32.94	73,394	26,606	0.73394	72,164	7.20	25.74	0.031	9.80	23.13
51	99,750	0.00274	99,613	32.02	70,934	28,816	0.71112	68,257	6.49	25.53	0.073	9.13	22.89
52	99,477	0.00303	99,326	31.10	65,580	33,897	0.65925	64,859	5.82	25.28	0.019	8.83	22.27
53	99,175	0.00335	99,009	30.20	64,138	35,038	0.64671	61,906	5.19	25.01	0.066	8.02	22.18
54	98,843	0.00371	98,660	29.30	59,674	39,170	0.60372	58,120	4.58	24.72	0.048	7.58	21.71
55	98,476	0.00410	98,274	28.40	56,566	41,911	0.57441	54,507	4.00	24.40	0.069	6.97	21.43
56	98,073	0.00453	97,850	27.52	52,448	45,624	0.53479	50,517	3.46	24.05	0.069	6.48	21.04
57	97,628	0.00498	97,385	26.64	48,587	49,042	0.49767	46,601	2.96	23.68	0.077	5.95	20.69
58	97,142	0.00543	96,878	25.77	44,614	52,528	0.45927	42,334	2.50	23.27	0.097	5.44	20.33
59	96,615	0.00590	96,330	24.91	40,054	56,560	0.41458	37,420	2.07	22.84	0.126	5.00	19.91
60	96,045	0.00641	95,737	24.05	34,786	61,258	0.36219	31,184	1.70	22.36	0.201	4.68	19.37
61	95,429	0.00699	95,095	23.21	27,582	67,847	0.28903	25,495	1.38	21.83	0.144	4.78	18.43
62	94,762	0.00767	94,399	22.37	23,408	71,354	0.24702	21,897	1.12	21.25	0.121	4.54	17.83
63	94,035	0.00843	93,639	21.54	20,387	73,648	0.21680	18,377	0.90	20.64	0.189	4.14	17.40
64	93,242	0.00926	92,811	20.71	16,368	76,875	0.17554	14,404	0.71	20.01	0.231	4.03	16.68
65	92,379	0.01018	91,909	19.90	12,440	79,939	0.13466	10,680	0.56	19.35	0.273	4.15	15.76
66	91,439	0.01121	90,926	19.10	8,920	82,519	0.09755	7,861	0.45	18.66	0.226	4.58	14.52
67	90,414	0.01235	89,855	18.31	6,803	83,611	0.07524	5,961	0.37	17.95	0.235	4.85	13.46
68	89,297	0.01356	88,691	17.54	5,119	84,178	0.05733	4,767	0.30	17.23	0.124	5.29	12.25
69	88,086	0.01483	87,433	16.77	4,414	83,672	0.05011	4,259	0.25	16.52	0.055	5.05	11.72
70	86,780	0.01623	86,076	16.02	4,105	82,675	0.04730	3,629	0.21	15.81	0.216	4.39	11.62
71	85,371	0.01785	84,609	15.27	3,153	82,219	0.03693	2,725	0.17	15.10	0.254	4.57	10.70
72	83,847	0.01979	83,018	14.54	2,297	81,551	0.02739	2,181	0.14	14.40	0.081	5.09	9.45
73	82,188	0.02196	81,286	13.82	2,065	80,124	0.02512	1,966	0.12	13.71	0.074	4.60	9.22
74	80,383	0.02429	79,407	13.12	1,866	78,517	0.02322	1,723	0.09	13.03	0.130	4.04	9.09
75	78,431	0.02693	77,375	12.44	1,579	76,852	0.02013	1,335	0.07	12.36	0.281	3.68	8.76
76	76,319	0.02997	75,175	11.77	1,092	75,226	0.01431	928	0.06	11.71	0.270	4.10	7.67
77	74,031	0.03354	72,790	11.12	765	73,267	0.01033	667	0.05	11.07	0.222	4.64	6.47
78	71,548	0.03754	70,205	10.48	570	70,979	0.00796	518	0.04	10.44	0.145	5.06	5.42
79	68,862	0.04188	67,420	9.87	466	68,397	0.00676	449	0.03	9.84	0.028	5.08	4.79
80	65,978	0.04672	64,437	9.28	433	65,546	0.00656	351	0.03	9.25	0.330	4.43	4.86
81	62,896	0.05223	61,253	8.71	270	62,626	0.00429	256	0.02	8.69	0.047	5.80	2.91
82	59,611	0.05857	57,865	8.17	243	59,368	0.00407	238	0.02	8.14	-0.019	5.38	2.78
83	56,119	0.06560	54,279	7.64	233	55,886	0.00416	223	0.02	7.62	0.018	4.59	3.06
84	52,438	0.07324	50,518	7.14	214	52,224	0.00407	211	0.02	7.13	-0.044	3.96	3.18
85	48,597	0.08165	46,613	6.67	207	48,390	0.00427	193	0.01	6.66	0.052	3.07	3.60

Table A11: Period Working Life Table, All Ages 50-85: Males, 2001

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00360	99,820	29.41	89,780	10,220	0.89780	89,234	11.14	18.27	0.009	12.41	17.00
51	99,640	0.00394	99,444	28.51	88,688	10,952	0.89008	87,839	10.29	18.23	0.015	11.56	16.96
52	99,247	0.00434	99,032	27.63	86,990	12,257	0.87650	86,053	9.44	18.18	0.017	10.77	16.85
53	98,817	0.00481	98,579	26.74	85,115	13,702	0.86134	83,289	8.61	18.13	0.038	10.00	16.74
54	98,341	0.00533	98,079	25.87	81,464	16,877	0.82838	80,306	7.81	18.06	0.023	9.43	16.44
55	97,817	0.00590	97,529	25.01	79,149	18,668	0.80915	77,305	7.03	17.98	0.041	8.69	16.32
56	97,240	0.00654	96,922	24.15	75,460	21,780	0.77602	73,727	6.28	17.88	0.039	8.09	16.06
57	96,604	0.00726	96,253	23.31	71,994	24,610	0.74525	69,353	5.55	17.75	0.066	7.45	15.85
58	95,903	0.00805	95,517	22.47	66,712	29,191	0.69562	63,752	4.87	17.60	0.081	7.00	15.47
59	95,131	0.00890	94,707	21.65	60,792	34,338	0.63904	58,830	4.24	17.41	0.056	6.64	15.02
60	94,284	0.00982	93,821	20.84	56,868	37,416	0.60316	53,326	3.66	17.19	0.115	6.06	14.78
61	93,358	0.01085	92,852	20.04	49,784	43,574	0.53326	47,495	3.12	16.92	0.081	5.85	14.19
62	92,345	0.01198	91,792	19.26	45,206	47,140	0.48953	43,341	2.64	16.62	0.071	5.39	13.87
63	91,239	0.01321	90,636	18.49	41,475	49,764	0.45458	38,844	2.20	16.29	0.114	4.83	13.65
64	90,034	0.01451	89,381	17.73	36,212	53,822	0.40220	30,958	1.80	15.93	0.276	4.46	13.26
65	88,727	0.01593	88,021	16.98	25,704	63,023	0.28970	21,732	1.47	15.51	0.293	5.08	11.90
66	87,314	0.01752	86,549	16.25	17,761	69,553	0.20341	16,771	1.25	15.00	0.094	6.13	10.11
67	85,784	0.01930	84,956	15.53	15,781	70,003	0.18396	14,088	1.07	14.45	0.195	5.84	9.69
68	84,129	0.02124	83,235	14.82	12,395	71,734	0.14733	11,550	0.93	13.90	0.115	6.30	8.52
69	82,342	0.02329	81,383	14.14	10,706	71,636	0.13002	10,053	0.81	13.33	0.099	6.22	7.92
70	80,424	0.02555	79,397	13.46	9,401	71,023	0.11689	8,760	0.70	12.76	0.111	6.01	7.45
71	78,369	0.02810	77,268	12.80	8,118	70,251	0.10359	7,445	0.61	12.19	0.138	5.88	6.92
72	76,167	0.03104	74,985	12.16	6,772	69,395	0.08891	6,207	0.53	11.63	0.136	5.95	6.21
73	73,803	0.03429	72,537	11.53	5,642	68,161	0.07645	5,446	0.46	11.07	0.035	6.04	5.49
74	71,272	0.03779	69,925	10.92	5,250	66,022	0.07366	4,877	0.40	10.52	0.104	5.46	5.47
75	68,579	0.04165	67,151	10.33	4,504	64,075	0.06567	4,263	0.35	9.98	0.065	5.28	5.05
76	65,722	0.04599	64,211	9.76	4,022	61,701	0.06119	3,757	0.30	9.46	0.086	4.85	4.91
77	62,700	0.05091	61,104	9.20	3,492	59,207	0.05570	3,210	0.25	8.95	0.111	4.51	4.70
78	59,508	0.05631	57,832	8.67	2,928	56,580	0.04920	2,677	0.21	8.46	0.115	4.28	4.39
79	56,157	0.06210	54,413	8.16	2,427	53,730	0.04321	2,208	0.18	7.98	0.118	4.06	4.10
80	52,670	0.06846	50,867	7.67	1,989	50,680	0.03777	1,819	0.15	7.52	0.102	3.84	3.82
81	49,064	0.07555	47,210	7.19	1,649	47,414	0.03362	1,394	0.12	7.07	0.234	3.53	3.66
82	45,357	0.08353	43,463	6.74	1,140	44,217	0.02512	1,021	0.10	6.64	0.124	3.89	2.85
83	41,568	0.09214	39,653	6.31	903	40,665	0.02173	807	0.08	6.23	0.122	3.78	2.53
84	37,738	0.10129	35,827	5.90	710	37,028	0.01881	680	0.07	5.83	-0.016	3.67	2.23
85	33,916	0.11135	32,027	5.50	649	33,267	0.01914	605	0.06	5.45	0.025	2.97	2.54

Table A12: Period Working Life Table, All Ages 50-85: Females, 2001

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00229	99,886	33.67	79,282	20,718	0.79282	78,414	8.04	25.63	0.020	10.14	23.53
51	99,771	0.00251	99,646	32.75	77,546	22,225	0.77724	75,151	7.27	25.48	0.059	9.36	23.39
52	99,521	0.00276	99,383	31.83	72,757	26,764	0.73107	71,205	6.54	25.29	0.040	8.94	22.89
53	99,246	0.00305	99,095	30.92	69,653	29,593	0.70182	67,890	5.84	25.08	0.048	8.32	22.60
54	98,943	0.00337	98,776	30.01	66,127	32,816	0.66833	64,654	5.17	24.84	0.041	7.73	22.28
55	98,610	0.00372	98,426	29.11	63,181	35,429	0.64072	61,294	4.53	24.58	0.056	7.07	22.04
56	98,243	0.00410	98,042	28.21	59,408	38,835	0.60470	56,723	3.92	24.29	0.086	6.49	21.73
57	97,840	0.00451	97,620	27.33	54,038	43,802	0.55231	51,443	3.36	23.97	0.092	6.08	21.25
58	97,399	0.00494	97,158	26.45	48,847	48,551	0.50152	46,630	2.85	23.60	0.086	5.67	20.78
59	96,918	0.00538	96,657	25.58	44,412	52,506	0.45824	41,639	2.38	23.20	0.119	5.19	20.39
60	96,396	0.00587	96,113	24.71	38,866	57,530	0.40319	36,076	1.96	22.76	0.138	4.86	19.85
61	95,830	0.00641	95,523	23.86	33,287	62,544	0.34735	30,627	1.59	22.26	0.153	4.59	19.27
62	95,216	0.00704	94,881	23.01	27,968	67,248	0.29373	25,780	1.28	21.73	0.149	4.37	18.64
63	94,546	0.00774	94,180	22.17	23,592	70,954	0.24953	21,500	1.02	21.15	0.170	4.09	18.08
64	93,814	0.00850	93,415	21.34	19,408	74,406	0.20688	16,899	0.80	20.54	0.250	3.86	17.48
65	93,017	0.00933	92,583	20.52	14,391	78,626	0.15471	12,120	0.62	19.89	0.306	4.03	16.48
66	92,149	0.01026	91,676	19.70	9,850	82,299	0.10689	8,594	0.50	19.21	0.245	4.66	15.04
67	91,203	0.01131	90,688	18.90	7,339	83,864	0.08047	6,765	0.41	18.49	0.145	5.08	13.82
68	90,172	0.01243	89,611	18.11	6,190	83,982	0.06865	5,509	0.34	17.78	0.208	4.93	13.18
69	89,051	0.01362	88,445	17.34	4,828	84,223	0.05422	4,412	0.28	17.05	0.159	5.19	12.15
70	87,838	0.01493	87,182	16.57	3,997	83,842	0.04550	3,557	0.23	16.33	0.205	5.16	11.41
71	86,527	0.01645	85,815	15.81	3,118	83,409	0.03603	2,829	0.20	15.61	0.169	5.47	10.34
72	85,103	0.01823	84,328	15.07	2,539	82,564	0.02984	2,425	0.17	14.90	0.072	5.61	9.46
73	83,552	0.02019	82,708	14.34	2,310	81,242	0.02765	2,090	0.14	14.20	0.171	5.11	9.22
74	81,865	0.02230	80,952	13.62	1,869	79,996	0.02283	1,740	0.12	13.50	0.115	5.20	8.42
75	80,039	0.02467	79,052	12.92	1,612	78,427	0.02014	1,506	0.10	12.82	0.107	4.95	7.97
76	78,065	0.02742	76,995	12.24	1,400	76,664	0.01794	1,250	0.08	12.15	0.188	4.63	7.61
77	75,924	0.03066	74,760	11.57	1,099	74,825	0.01448	1,007	0.07	11.50	0.138	4.75	6.81
78	73,596	0.03424	72,337	10.92	914	72,682	0.01242	826	0.06	10.86	0.158	4.62	6.30
79	71,077	0.03807	69,724	10.29	738	70,338	0.01039	673	0.05	10.24	0.140	4.60	5.69
80	68,371	0.04240	66,921	9.67	607	67,764	0.00888	570	0.04	9.63	0.081	4.48	5.19
81	65,472	0.04748	63,917	9.08	532	64,940	0.00813	428	0.03	9.05	0.345	4.04	5.04
82	62,363	0.05354	60,694	8.51	323	62,040	0.00518	309	0.03	8.48	0.035	5.34	3.17
83	59,024	0.06068	57,233	7.96	295	58,730	0.00499	289	0.02	7.94	-0.023	4.80	3.16
84	55,443	0.06872	53,538	7.44	284	55,159	0.00511	270	0.02	7.42	0.024	3.97	3.47
85	51,633	0.07755	49,631	6.96	257	51,375	0.00498	242	0.02	6.94	0.037	3.33	3.63

Table A13: Period Working Life Table, All Ages 50-85: Males, 2006

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00285	99,857	30.54	91,007	8,993	0.91007	90,250	11.98	18.56	0.014	13.16	17.38
51	99,715	0.00312	99,559	29.63	89,493	10,222	0.89749	88,088	11.11	18.52	0.028	12.38	17.25
52	99,404	0.00343	99,233	28.72	86,684	12,720	0.87204	86,261	10.26	18.46	0.006	11.76	16.96
53	99,062	0.00382	98,873	27.81	85,839	13,224	0.86651	84,554	9.42	18.39	0.026	10.87	16.94
54	98,684	0.00425	98,474	26.92	83,270	15,414	0.84380	82,211	8.60	18.32	0.021	10.19	16.73
55	98,265	0.00472	98,033	26.03	81,153	17,112	0.82586	79,515	7.80	18.23	0.036	9.44	16.59
56	97,801	0.00526	97,543	25.15	77,877	19,924	0.79628	75,667	7.02	18.13	0.051	8.82	16.33
57	97,286	0.00588	97,000	24.28	73,457	23,829	0.75506	71,613	6.28	18.00	0.044	8.32	15.96
58	96,714	0.00656	96,397	23.42	69,769	26,944	0.72140	68,487	5.58	17.84	0.030	7.73	15.69
59	96,079	0.00730	95,729	22.58	67,204	28,876	0.69946	65,025	4.90	17.67	0.058	7.01	15.57
60	95,378	0.00810	94,992	21.74	62,847	32,532	0.65892	60,288	4.26	17.48	0.073	6.46	15.28
61	94,606	0.00901	94,180	20.91	57,728	36,877	0.61020	53,587	3.65	17.26	0.134	5.99	14.92
62	93,754	0.01000	93,285	20.10	49,446	44,308	0.52740	47,239	3.12	16.98	0.079	5.91	14.19
63	92,816	0.01109	92,301	19.29	45,033	47,784	0.48518	42,664	2.64	16.66	0.094	5.44	13.86
64	91,787	0.01225	91,225	18.51	40,295	51,491	0.43901	36,825	2.20	16.30	0.160	5.02	13.49
65	90,662	0.01352	90,050	17.73	33,354	57,309	0.36789	29,263	1.82	15.90	0.232	4.96	12.77
66	89,437	0.01495	88,769	16.96	25,172	64,265	0.28145	22,289	1.52	15.44	0.214	5.41	11.55
67	88,100	0.01655	87,371	16.21	19,406	68,694	0.22027	18,226	1.29	14.92	0.105	5.87	10.34
68	86,642	0.01829	85,850	15.48	17,047	69,596	0.19675	15,662	1.10	14.37	0.144	5.61	9.87
69	85,058	0.02013	84,202	14.76	14,277	70,781	0.16785	13,015	0.94	13.82	0.157	5.60	9.15
70	83,346	0.02216	82,422	14.05	11,753	71,593	0.14101	10,563	0.80	13.25	0.180	5.70	8.35
71	81,498	0.02449	80,500	13.36	9,373	72,125	0.11501	8,455	0.69	12.67	0.171	6.02	7.34
72	79,502	0.02722	78,420	12.68	7,538	71,965	0.09481	7,100	0.60	12.08	0.089	6.37	6.31
73	77,338	0.03028	76,167	12.02	6,662	70,676	0.08614	6,235	0.53	11.49	0.098	6.14	5.88
74	74,996	0.03359	73,737	11.38	5,808	69,188	0.07745	5,599	0.46	10.92	0.038	5.96	5.42
75	72,477	0.03727	71,127	10.76	5,390	67,087	0.07437	5,197	0.40	10.36	0.034	5.39	5.37
76	69,776	0.04142	68,331	10.16	5,004	64,773	0.07171	4,591	0.34	9.81	0.124	4.77	5.39
77	66,886	0.04616	65,342	9.57	4,178	62,707	0.06247	3,688	0.29	9.29	0.189	4.61	4.96
78	63,798	0.05137	62,160	9.01	3,198	60,601	0.05012	2,948	0.24	8.77	0.105	4.87	4.14
79	60,521	0.05696	58,797	8.47	2,698	57,823	0.04458	2,485	0.21	8.27	0.101	4.68	3.80
80	57,074	0.06312	55,272	7.96	2,272	54,802	0.03980	2,190	0.18	7.78	0.008	4.46	3.49
81	53,471	0.07003	51,599	7.46	2,109	51,362	0.03944	1,971	0.15	7.31	0.061	3.77	3.69
82	49,726	0.07784	47,791	6.98	1,833	47,893	0.03687	1,627	0.12	6.86	0.147	3.26	3.72
83	45,856	0.08626	43,878	6.53	1,420	44,436	0.03097	1,257	0.09	6.43	0.143	3.06	3.47
84	41,900	0.09520	39,906	6.10	1,095	40,806	0.02612	938	0.07	6.02	0.190	2.83	3.27
85	37,911	0.10508	35,919	5.69	782	37,129	0.02062	691	0.06	5.63	0.128	2.76	2.93

Table A14: Period Working Life Table, All Ages 50-85: Females, 2006

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00200	99,900	34.43	80,290	19,710	0.80290	79,590	9.19	25.24	0.015	11.44	22.99
51	99,800	0.00220	99,690	33.50	78,889	20,911	0.79047	77,622	8.41	25.09	0.030	10.64	22.86
52	99,580	0.00244	99,459	32.57	76,355	23,225	0.76677	75,603	7.65	24.93	0.017	9.97	22.60
53	99,338	0.00271	99,203	31.65	74,850	24,488	0.75349	73,745	6.90	24.75	0.027	9.16	22.49
54	99,069	0.00300	98,920	30.73	72,640	26,429	0.73323	71,138	6.18	24.56	0.038	8.43	22.31
55	98,772	0.00333	98,607	29.83	69,636	29,136	0.70502	67,744	5.48	24.35	0.051	7.77	22.06
56	98,443	0.00368	98,262	28.92	65,852	32,592	0.66893	63,261	4.81	24.12	0.075	7.19	21.74
57	98,081	0.00405	97,882	28.03	60,671	37,410	0.61858	59,034	4.18	23.85	0.050	6.76	21.27
58	97,684	0.00445	97,466	27.14	57,396	40,288	0.58757	54,191	3.59	23.55	0.107	6.11	21.03
59	97,249	0.00485	97,013	26.26	50,987	46,262	0.52429	48,638	3.05	23.21	0.087	5.82	20.44
60	96,777	0.00530	96,521	25.38	46,289	50,489	0.47830	43,548	2.56	22.82	0.113	5.36	20.03
61	96,265	0.00579	95,986	24.52	40,808	55,457	0.42391	37,566	2.12	22.39	0.153	5.01	19.51
62	95,707	0.00637	95,402	23.66	34,325	61,382	0.35865	32,809	1.74	21.91	0.082	4.86	18.79
63	95,097	0.00701	94,764	22.81	31,293	63,805	0.32906	28,990	1.41	21.40	0.140	4.29	18.52
64	94,430	0.00772	94,066	21.96	26,688	67,742	0.28262	23,119	1.11	20.85	0.260	3.94	18.02
65	93,702	0.00848	93,304	21.13	19,550	74,152	0.20864	16,733	0.88	20.25	0.280	4.20	16.93
66	92,907	0.00934	92,473	20.31	13,917	78,990	0.14979	12,706	0.70	19.60	0.165	4.69	15.62
67	92,039	0.01030	91,565	19.49	11,495	80,545	0.12489	10,560	0.57	18.92	0.152	4.57	14.92
68	91,092	0.01131	90,576	18.69	9,625	81,467	0.10566	8,505	0.46	18.23	0.221	4.37	14.33
69	90,061	0.01239	89,503	17.90	7,385	82,676	0.08200	6,570	0.37	17.53	0.208	4.54	13.36
70	88,945	0.01357	88,342	17.12	5,756	83,190	0.06471	5,138	0.30	16.81	0.201	4.68	12.44
71	87,738	0.01495	87,082	16.35	4,520	83,218	0.05152	3,996	0.25	16.10	0.217	4.82	11.52
72	86,426	0.01658	85,710	15.59	3,471	82,955	0.04016	3,126	0.21	15.38	0.182	5.13	10.46
73	84,993	0.01839	84,212	14.84	2,781	82,212	0.03272	2,533	0.17	14.67	0.160	5.28	9.56
74	83,430	0.02033	82,582	14.11	2,285	81,145	0.02739	2,053	0.15	13.96	0.182	5.32	8.79
75	81,734	0.02252	80,813	13.39	1,822	79,912	0.02229	1,656	0.12	13.27	0.159	5.54	7.85
76	79,893	0.02507	78,891	12.69	1,491	78,402	0.01866	1,388	0.11	12.58	0.113	5.66	7.03
77	77,890	0.02809	76,796	12.00	1,284	76,605	0.01649	1,177	0.09	11.91	0.140	5.49	6.51
78	75,702	0.03140	74,514	11.33	1,069	74,633	0.01412	930	0.08	11.26	0.229	5.50	5.84
79	73,325	0.03492	72,045	10.69	790	72,535	0.01078	730	0.07	10.62	0.118	6.26	4.43
80	70,765	0.03893	69,387	10.05	669	70,095	0.00946	649	0.06	10.00	0.023	6.30	3.76
81	68,010	0.04369	66,524	9.44	628	67,382	0.00923	587	0.05	9.39	0.087	5.68	3.76
82	65,039	0.04944	63,431	8.85	545	64,493	0.00839	533	0.05	8.80	-0.003	5.46	3.39
83	61,823	0.05634	60,082	8.28	520	61,303	0.00841	489	0.04	8.25	0.062	4.71	3.58
84	58,340	0.06417	56,468	7.75	458	57,882	0.00786	431	0.03	7.72	0.057	4.27	3.48
85	54,597	0.07278	52,610	7.25	403	54,193	0.00738	400	0.03	7.22	-0.056	3.79	3.45

Table A15: Cohort Working Life Table, All Ages 50-85: Male Cohort of Age 50 in 1976
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00733	99,634	27.85	94,625	5,375	0.94625	92,733	11.57	16.29	0.033	12.22	15.63
51	99,267	0.00783	98,879	27.05	90,841	8,426	0.91334	89,528	10.72	16.34	0.021	11.71	15.34
52	98,490	0.00839	98,076	26.26	88,214	10,275	0.89598	89,266	9.89	16.37	-0.032	11.05	15.22
53	97,663	0.00900	97,224	25.48	90,318	7,345	0.92567	87,782	9.06	16.42	0.047	9.80	15.68
54	96,785	0.00961	96,320	24.71	85,246	11,539	0.87866	83,340	8.24	16.47	0.035	9.35	15.36
55	95,854	0.01026	95,363	23.94	81,435	14,419	0.84541	80,074	7.45	16.50	0.023	8.77	15.18
56	94,871	0.01103	94,348	23.19	78,713	16,157	0.82587	77,663	6.68	16.51	0.016	8.05	15.13
57	93,825	0.01188	93,268	22.44	76,613	17,212	0.81178	75,053	5.93	16.51	0.029	7.26	15.18
58	92,710	0.01278	92,118	21.70	73,493	19,217	0.78651	71,479	5.19	16.51	0.042	6.55	15.16
59	91,526	0.01370	90,899	20.98	69,464	22,061	0.74870	66,348	4.48	16.50	0.076	5.90	15.08
60	90,272	0.01468	89,610	20.26	63,232	27,040	0.69119	58,309	3.80	16.46	0.141	5.43	14.83
61	88,947	0.01569	88,249	19.56	53,386	35,561	0.58123	51,039	3.20	16.35	0.072	5.34	14.22
62	87,551	0.01685	86,814	18.86	48,692	38,860	0.54337	46,231	2.67	16.19	0.084	4.81	14.05
63	86,076	0.01804	85,300	18.18	43,771	42,306	0.49496	39,127	2.18	15.99	0.194	4.29	13.89
64	84,523	0.01922	83,711	17.50	34,483	50,040	0.39819	29,429	1.76	15.74	0.274	4.31	13.19
65	82,898	0.02040	82,053	16.83	24,375	58,523	0.29884	20,650	1.44	15.39	0.285	4.89	11.94
66	81,207	0.02193	80,317	16.17	16,924	64,284	0.21092	15,049	1.21	14.96	0.200	5.82	10.35
67	79,427	0.02370	78,485	15.52	13,175	66,251	0.16563	12,365	1.05	14.47	0.099	6.34	9.19
68	77,544	0.02565	76,550	14.89	11,555	65,989	0.14950	10,591	0.92	13.97	0.141	6.16	8.73
69	75,555	0.02773	74,507	14.27	9,628	65,927	0.12740	8,851	0.80	13.47	0.134	6.29	7.98
70	73,460	0.03000	72,358	13.66	8,074	65,386	0.11288	7,523	0.70	12.96	0.106	6.40	7.26
71	71,256	0.03198	70,116	13.07	6,972	64,283	0.09882	6,480	0.62	12.45	0.109	6.34	6.73
72	68,977	0.03417	67,798	12.48	5,987	62,990	0.08661	5,339	0.55	11.94	0.182	6.30	6.19
73	66,620	0.03651	65,404	11.91	4,691	61,929	0.07272	4,678	0.49	11.42	-0.031	6.90	5.01
74	64,188	0.03896	62,937	11.34	4,664	59,524	0.07307	4,302	0.43	10.91	0.116	5.94	5.40
75	61,687	0.04165	60,402	10.78	3,939	57,748	0.06567	3,778	0.38	10.40	0.040	5.94	4.84
76	59,118	0.04508	57,785	10.23	3,617	55,500	0.06366	3,508	0.33	9.89	0.015	5.42	4.80
77	56,453	0.04901	55,069	9.68	3,398	53,054	0.06306	3,049	0.29	9.40	0.157	4.74	4.95
78	53,686	0.05335	52,254	9.16	2,699	50,987	0.05040	2,466	0.24	8.91	0.119	4.84	4.32
79	50,822	0.05799	49,349	8.65	2,234	48,588	0.04426	2,056	0.21	8.44	0.101	4.74	3.91
80	47,875	0.06312	46,364	8.15	1,879	45,996	0.03980	1,824	0.18	7.97	-0.005	4.54	3.61
81	44,853	0.06939	43,297	7.66	1,769	43,084	0.03944	1,654	0.15	7.51	0.061	3.79	3.87
82	41,740	0.07789	40,115	7.20	1,539	40,202	0.03687	1,365	0.12	7.08	0.147	3.28	3.91
83	38,489	0.08215	36,908	6.76	1,192	37,297	0.03097	1,057	0.10	6.67	0.144	3.09	3.67
84	35,327	0.09371	33,672	6.32	923	34,405	0.02612	792	0.07	6.25	0.191	2.85	3.47
85	32,017	0.10284	30,371	5.92	660	31,357	0.02062	584	0.06	5.87	0.128	2.78	3.14

Table A16: Cohort Working Life Table, All Ages 50-85: Female Cohort of Age 50 in 1976
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00376	99,812	33.50	50,314	49,686	0.50314	48,955	5.73	27.76	0.050	11.40	22.10
51	99,624	0.00397	99,426	32.62	47,596	52,028	0.48400	45,780	5.26	27.36	0.072	11.02	21.60
52	99,228	0.00426	99,017	31.75	43,964	55,264	0.44766	44,361	4.82	26.93	-0.022	10.89	20.86
53	98,806	0.00458	98,580	30.88	44,758	54,048	0.46010	43,489	4.40	26.49	0.052	9.70	21.18
54	98,354	0.00492	98,112	30.02	42,220	56,133	0.43914	42,680	3.97	26.05	-0.027	9.26	20.77
55	97,870	0.00528	97,611	29.17	43,140	54,730	0.44892	42,600	3.56	25.61	0.020	8.07	21.10
56	97,353	0.00566	97,077	28.32	42,059	55,293	0.43758	40,420	3.14	25.18	0.072	7.26	21.06
57	96,802	0.00608	96,508	27.48	38,780	58,022	0.40411	37,580	2.74	24.74	0.056	6.84	20.64
58	96,213	0.00652	95,900	26.64	36,380	59,833	0.38389	35,096	2.36	24.28	0.064	6.25	20.39
59	95,586	0.00699	95,252	25.82	33,812	61,774	0.35878	32,514	2.01	23.80	0.070	5.69	20.13
60	94,918	0.00751	94,561	24.99	31,217	63,701	0.33222	29,131	1.68	23.31	0.126	5.12	19.87
61	94,205	0.00805	93,826	24.18	27,045	67,160	0.28664	24,779	1.39	22.79	0.160	4.83	19.35
62	93,446	0.00865	93,042	23.37	22,513	70,933	0.24017	21,379	1.13	22.24	0.092	4.71	18.67
63	92,638	0.00929	92,208	22.57	20,244	72,394	0.21502	18,167	0.91	21.66	0.196	4.18	18.39
64	91,778	0.00993	91,322	21.78	16,090	75,687	0.17361	13,928	0.72	21.05	0.259	4.13	17.65
65	90,867	0.01061	90,385	20.99	11,766	79,100	0.12853	10,112	0.58	20.41	0.271	4.46	16.53
66	89,903	0.01154	89,384	20.21	8,458	81,445	0.09674	7,255	0.47	19.74	0.273	5.01	15.20
67	88,865	0.01260	88,306	19.44	6,053	82,813	0.06767	5,507	0.40	19.05	0.168	5.80	13.64
68	87,746	0.01374	87,143	18.68	4,962	82,784	0.05652	4,509	0.34	18.35	0.169	5.97	12.71
69	86,541	0.01492	85,895	17.94	4,055	82,485	0.04799	3,944	0.29	17.65	0.040	6.19	11.74
70	85,249	0.01623	84,558	17.20	3,833	81,417	0.04730	3,465	0.25	16.95	0.176	5.52	11.68
71	83,866	0.01757	83,129	16.48	3,097	80,769	0.03874	2,685	0.21	16.27	0.249	5.72	10.76
72	82,392	0.01917	81,603	15.76	2,272	80,120	0.02778	2,169	0.18	15.58	0.071	6.61	9.15
73	80,813	0.02090	79,969	15.06	2,066	78,747	0.02605	1,972	0.16	14.90	0.070	6.22	8.84
74	79,124	0.02270	78,226	14.37	1,878	77,247	0.02326	1,703	0.14	14.23	0.164	5.79	8.58
75	77,328	0.02467	76,374	13.69	1,528	75,800	0.02014	1,441	0.12	13.57	0.090	6.01	7.69
76	75,421	0.02695	74,404	13.03	1,353	74,068	0.01862	1,227	0.10	12.92	0.160	5.72	7.31
77	73,388	0.02963	72,301	12.37	1,100	72,288	0.01541	1,012	0.09	12.29	0.130	5.92	6.46
78	71,213	0.03253	70,055	11.74	924	70,289	0.01319	830	0.08	11.66	0.171	5.95	5.79
79	68,897	0.03555	67,672	11.11	737	68,160	0.01071	680	0.07	11.05	0.119	6.34	4.78
80	66,447	0.03893	65,154	10.51	623	65,825	0.00946	606	0.06	10.45	0.014	6.40	4.10
81	63,861	0.04349	62,472	9.91	589	63,271	0.00923	551	0.05	9.86	0.087	5.74	4.17
82	61,083	0.04718	59,642	9.34	512	60,571	0.00839	501	0.05	9.29	-0.003	5.53	3.81
83	58,201	0.05366	56,640	8.78	489	57,712	0.00841	461	0.04	8.74	0.062	4.76	4.02
84	55,078	0.06104	53,397	8.25	433	54,646	0.00786	407	0.03	8.21	0.057	4.32	3.93
85	51,717	0.07160	49,865	7.75	382	51,335	0.00738	379	0.03	7.72	-0.056	3.83	3.92

Table A17: Cohort Working Life Table, All Ages 50-85: Male Cohort of Age 50 in 1981
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00628	99,686	28.84	92,943	7,057	0.92943	91,531	11.31	17.52	0.024	12.17	16.66
51	99,372	0.00674	99,037	28.02	90,119	9,253	0.90664	89,209	10.46	17.55	0.013	11.54	16.48
52	98,702	0.00726	98,344	27.20	88,299	10,403	0.89316	89,067	9.63	17.57	-0.025	10.77	16.44
53	97,986	0.00782	97,603	26.40	89,835	8,151	0.91198	86,805	8.79	17.60	0.060	9.59	16.81
54	97,220	0.00842	96,811	25.60	83,775	13,445	0.86141	82,244	7.97	17.63	0.028	9.25	16.35
55	96,401	0.00908	95,964	24.81	80,712	15,689	0.83690	78,985	7.18	17.63	0.034	8.58	16.23
56	95,526	0.00971	95,062	24.04	77,258	18,268	0.80390	75,250	6.42	17.61	0.042	7.94	16.10
57	94,599	0.01038	94,107	23.27	73,242	21,357	0.77244	72,118	5.69	17.58	0.020	7.35	15.92
58	93,616	0.01110	93,097	22.51	70,994	22,622	0.75224	68,987	4.98	17.53	0.045	6.57	15.94
59	92,578	0.01188	92,028	21.75	66,981	25,597	0.71200	63,007	4.29	17.46	0.107	5.93	15.82
60	91,478	0.01275	90,895	21.01	59,032	32,445	0.63185	54,202	3.65	17.36	0.151	5.66	15.35
61	90,311	0.01374	89,691	20.27	49,372	40,939	0.53444	46,550	3.10	17.17	0.101	5.67	14.60
62	89,071	0.01478	88,413	19.55	43,728	45,343	0.47798	41,220	2.62	16.93	0.100	5.34	14.21
63	87,755	0.01588	87,058	18.84	38,712	49,043	0.43208	35,673	2.19	16.65	0.141	4.96	13.87
64	86,361	0.01710	85,622	18.13	32,635	53,726	0.37656	28,600	1.81	16.32	0.230	4.80	13.34
65	84,884	0.01848	84,099	17.44	24,564	60,319	0.27782	20,579	1.51	15.93	0.306	5.21	12.23
66	83,315	0.01986	82,488	16.76	16,593	66,722	0.19990	15,134	1.29	15.47	0.156	6.47	10.29
67	81,661	0.02127	80,792	16.09	13,674	67,987	0.16911	12,757	1.13	14.96	0.113	6.74	9.34
68	79,923	0.02270	79,016	15.42	11,840	68,084	0.14323	11,128	0.99	14.43	0.098	6.71	8.72
69	78,109	0.02410	77,168	14.77	10,417	67,692	0.12967	9,629	0.87	13.90	0.127	6.56	8.21
70	76,226	0.02555	75,253	14.12	8,842	67,384	0.11689	8,268	0.77	13.35	0.104	6.64	7.49
71	74,279	0.02738	73,262	13.48	7,695	66,584	0.10598	7,108	0.68	12.80	0.125	6.55	6.93
72	72,245	0.02951	71,179	12.85	6,522	65,723	0.09165	6,349	0.60	12.25	0.024	6.64	6.21
73	70,113	0.03188	68,995	12.22	6,175	63,938	0.09013	5,667	0.53	11.70	0.133	5.99	6.24
74	67,877	0.03443	66,709	11.61	5,159	62,718	0.07677	4,975	0.46	11.15	0.037	6.06	5.54
75	65,540	0.03727	64,319	11.00	4,791	60,749	0.07437	4,658	0.40	10.60	0.018	5.49	5.51
76	63,098	0.04057	61,818	10.41	4,525	58,573	0.07171	4,153	0.34	10.07	0.124	4.79	5.62
77	60,538	0.04633	59,136	9.83	3,782	56,756	0.06247	3,338	0.29	9.54	0.189	4.63	5.20
78	57,733	0.05195	56,234	9.28	2,894	54,840	0.05012	2,667	0.25	9.04	0.105	4.90	4.39
79	54,734	0.05534	53,220	8.76	2,440	52,294	0.04458	2,249	0.21	8.55	0.101	4.71	4.05
80	51,705	0.06247	50,090	8.25	2,058	49,647	0.03980	1,985	0.18	8.07	0.008	4.50	3.75
81	48,475	0.06860	46,812	7.77	1,912	46,563	0.03944	1,788	0.15	7.62	0.061	3.80	3.96
82	45,150	0.07560	43,443	7.30	1,665	43,485	0.03687	1,479	0.12	7.18	0.148	3.29	4.01
83	41,737	0.08459	39,971	6.86	1,293	40,444	0.03097	1,145	0.10	6.76	0.143	3.09	3.76
84	38,206	0.09225	36,444	6.44	998	37,208	0.02612	857	0.07	6.37	0.191	2.86	3.58
85	34,682	0.10398	32,878	6.05	715	33,966	0.02062	632	0.06	5.99	0.128	2.79	3.26

Table A18: Cohort Working Life Table, All Ages 50-85: Female Cohort of Age 50 in 1981
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00338	99,831	34.19	56,797	43,203	0.56797	55,298	6.29	27.90	0.049	11.07	23.12
51	99,662	0.00365	99,480	33.31	53,799	45,863	0.55300	52,042	5.76	27.55	0.062	10.66	22.65
52	99,298	0.00395	99,102	32.43	50,286	49,011	0.51434	50,447	5.25	27.18	-0.010	10.37	22.06
53	98,906	0.00425	98,696	31.55	50,607	48,299	0.52597	49,370	4.76	26.79	0.045	9.31	22.25
54	98,486	0.00455	98,262	30.69	48,133	50,353	0.49648	48,023	4.28	26.41	0.000	8.76	21.93
55	98,038	0.00487	97,800	29.83	47,913	50,125	0.49899	47,088	3.81	26.01	0.030	7.80	22.03
56	97,561	0.00519	97,308	28.97	46,262	51,298	0.48509	44,085	3.35	25.62	0.089	7.06	21.91
57	97,055	0.00555	96,785	28.12	41,907	55,147	0.44211	41,109	2.91	25.21	0.033	6.74	21.38
58	96,516	0.00594	96,229	27.27	40,310	56,206	0.42650	38,795	2.50	24.77	0.069	5.99	21.28
59	95,942	0.00635	95,637	26.43	37,280	58,662	0.39448	35,266	2.11	24.32	0.102	5.44	21.00
60	95,333	0.00679	95,009	25.60	33,251	62,082	0.35230	30,856	1.76	23.84	0.137	5.03	20.56
61	94,685	0.00733	94,338	24.77	28,461	66,224	0.30033	25,751	1.44	23.33	0.183	4.80	19.97
62	93,991	0.00795	93,617	23.95	23,040	70,951	0.24712	21,742	1.18	22.77	0.105	4.81	19.14
63	93,243	0.00862	92,841	23.14	20,444	72,800	0.22110	18,468	0.95	22.18	0.185	4.35	18.78
64	92,440	0.00935	92,007	22.33	16,493	75,946	0.17501	14,478	0.76	21.57	0.235	4.28	18.06
65	91,575	0.01018	91,109	21.54	12,462	79,113	0.13466	10,652	0.61	20.93	0.280	4.50	17.04
66	90,643	0.01102	90,143	20.76	8,842	81,801	0.09741	7,720	0.50	20.25	0.243	5.14	15.62
67	89,644	0.01193	89,109	19.98	6,598	83,046	0.07214	5,939	0.42	19.56	0.188	5.71	14.27
68	88,574	0.01288	88,004	19.22	5,281	83,293	0.05809	4,773	0.36	18.86	0.179	6.01	13.20
69	87,433	0.01386	86,827	18.46	4,265	83,168	0.05012	4,080	0.31	18.15	0.073	6.33	12.13
70	86,221	0.01493	85,577	17.71	3,895	82,326	0.04550	3,478	0.27	17.45	0.199	5.88	11.83
71	84,934	0.01615	84,248	16.97	3,060	81,874	0.03660	2,879	0.23	16.75	0.102	6.35	10.63
72	83,562	0.01757	82,828	16.24	2,698	80,864	0.03499	2,573	0.20	16.05	0.075	6.13	10.11
73	82,094	0.01911	81,309	15.53	2,448	79,646	0.03090	2,232	0.17	15.36	0.157	5.71	9.82
74	80,525	0.02073	79,691	14.82	2,016	78,509	0.02641	1,883	0.15	14.67	0.111	5.82	9.00
75	78,856	0.02252	77,968	14.12	1,750	77,106	0.02229	1,594	0.13	14.00	0.155	5.63	8.49
76	77,080	0.02499	76,117	13.44	1,438	75,642	0.01866	1,339	0.11	13.33	0.113	5.75	7.69
77	75,154	0.02652	74,158	12.77	1,239	73,915	0.01649	1,136	0.09	12.67	0.140	5.59	7.18
78	73,161	0.03010	72,060	12.10	1,033	72,128	0.01412	899	0.08	12.02	0.229	5.60	6.50
79	70,959	0.03271	69,798	11.46	765	70,194	0.01078	707	0.07	11.39	0.118	6.39	5.07
80	68,638	0.03518	67,431	10.83	649	67,989	0.00946	630	0.06	10.77	0.024	6.44	4.39
81	66,223	0.04016	64,893	10.21	611	65,612	0.00923	572	0.05	10.16	0.088	5.81	4.39
82	63,564	0.04497	62,134	9.61	533	63,031	0.00839	522	0.05	9.57	-0.003	5.59	4.02
83	60,705	0.05076	59,165	9.04	510	60,195	0.00841	482	0.04	9.00	0.062	4.82	4.23
84	57,624	0.05421	56,062	8.50	453	57,171	0.00786	428	0.03	8.47	0.057	4.37	4.13
85	54,500	0.06812	52,644	7.96	402	54,098	0.00738	400	0.03	7.93	-0.056	3.85	4.11

Table A19: Cohort Working Life Table, All Ages 50-85: Male Cohort of Age 50 in 1986
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00532	99,734	29.83	92,468	7,532	0.92468	91,380	11.22	18.61	0.018	12.13	17.70
51	99,468	0.00574	99,182	28.99	90,291	9,177	0.90654	89,027	10.36	18.63	0.022	11.41	17.57
52	98,897	0.00618	98,591	28.15	87,763	11,134	0.88610	87,951	9.52	18.63	-0.010	10.73	17.42
53	98,286	0.00662	97,960	27.32	88,139	10,147	0.89367	85,697	8.68	18.64	0.049	9.68	17.64
54	97,635	0.00706	97,290	26.50	83,256	14,379	0.84466	81,280	7.86	18.64	0.040	9.22	17.28
55	96,945	0.00752	96,581	25.69	79,304	17,641	0.81101	77,182	7.08	18.60	0.046	8.66	17.03
56	96,216	0.00816	95,824	24.88	75,059	21,157	0.77413	73,476	6.33	18.54	0.034	8.12	16.76
57	95,431	0.00885	95,009	24.08	71,893	23,538	0.74621	70,086	5.62	18.46	0.041	7.45	16.62
58	94,587	0.00957	94,134	23.29	68,280	26,308	0.71257	65,034	4.92	18.36	0.086	6.82	16.47
59	93,682	0.01031	93,199	22.51	61,788	31,894	0.65270	58,605	4.28	18.23	0.093	6.49	16.02
60	92,716	0.01105	92,204	21.74	55,422	37,294	0.59507	50,770	3.69	18.05	0.157	6.17	15.56
61	91,692	0.01196	91,143	20.97	46,117	45,574	0.50512	43,725	3.18	17.80	0.092	6.32	14.66
62	90,595	0.01295	90,008	20.22	41,333	49,262	0.46075	39,665	2.73	17.49	0.068	5.99	14.23
63	89,422	0.01396	88,798	19.48	37,997	51,425	0.43056	36,031	2.33	17.15	0.090	5.47	14.01
64	88,174	0.01495	87,515	18.75	34,065	54,109	0.39338	29,608	1.95	16.80	0.247	5.05	13.70
65	86,856	0.01593	86,164	18.03	25,151	61,705	0.28970	21,268	1.64	16.39	0.293	5.66	12.37
66	85,472	0.01701	84,745	17.31	17,386	68,086	0.22806	16,767	1.42	15.89	0.054	6.96	10.35
67	84,019	0.01820	83,254	16.60	16,148	67,870	0.20077	15,222	1.24	15.36	0.097	6.46	10.14
68	82,489	0.01947	81,686	15.90	14,295	68,194	0.18584	13,394	1.08	14.82	0.107	6.23	9.67
69	80,883	0.02076	80,044	15.20	12,492	68,392	0.16258	11,726	0.94	14.27	0.102	6.06	9.14
70	79,204	0.02216	78,326	14.52	10,959	68,245	0.14101	9,933	0.81	13.71	0.165	5.84	8.68
71	77,449	0.02445	76,502	13.83	8,907	68,541	0.11501	8,035	0.70	13.14	0.171	6.07	7.77
72	75,555	0.02731	74,523	13.17	7,163	68,392	0.09481	6,747	0.61	12.56	0.089	6.42	6.75
73	73,492	0.03022	72,381	12.52	6,331	67,161	0.08614	5,925	0.53	11.99	0.098	6.20	6.32
74	71,271	0.03338	70,081	11.90	5,520	65,751	0.07745	5,322	0.47	11.43	0.038	6.04	5.86
75	68,891	0.03631	67,641	11.29	5,123	63,768	0.07437	4,942	0.41	10.89	0.034	5.47	5.82
76	66,390	0.03898	65,096	10.70	4,761	61,629	0.07171	4,373	0.35	10.35	0.124	4.85	5.85
77	63,802	0.04296	62,432	10.11	3,986	59,817	0.06247	3,523	0.29	9.82	0.189	4.69	5.42
78	61,061	0.04872	59,574	9.54	3,060	58,001	0.05012	2,825	0.25	9.30	0.105	4.96	4.59
79	58,087	0.05562	56,471	9.01	2,589	55,497	0.04458	2,386	0.21	8.79	0.101	4.77	4.24
80	54,856	0.05490	53,350	8.51	2,183	52,672	0.03980	2,114	0.18	8.33	0.009	4.56	3.94
81	51,844	0.06564	50,142	7.97	2,045	49,799	0.03944	1,915	0.15	7.82	0.061	3.84	4.13
82	48,441	0.07236	46,688	7.50	1,786	46,655	0.03687	1,589	0.12	7.38	0.148	3.32	4.18
83	44,936	0.08074	43,122	7.04	1,392	43,544	0.03097	1,235	0.10	6.95	0.144	3.12	3.92
84	41,308	0.08704	39,510	6.62	1,079	40,229	0.02612	928	0.08	6.54	0.192	2.88	3.74
85	37,713	0.10102	35,808	6.20	778	36,935	0.02062	688	0.06	6.14	0.129	2.80	3.40

Table A20: Cohort Working Life Table, All Ages 50-85: Female Cohort of Age 50 in 1986
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00312	99,844	34.91	65,256	34,744	0.65256	62,789	6.96	27.95	0.072	10.67	24.24
51	99,688	0.00334	99,522	34.01	60,322	39,366	0.62273	58,684	6.35	27.66	0.051	10.50	23.52
52	99,355	0.00357	99,178	33.13	57,046	42,309	0.59360	57,435	5.78	27.34	-0.017	10.07	23.05
53	99,001	0.00380	98,812	32.24	57,824	41,176	0.59959	55,629	5.22	27.02	0.072	8.94	23.30
54	98,624	0.00405	98,424	31.36	53,434	45,189	0.55205	52,806	4.68	26.68	0.019	8.64	22.73
55	98,224	0.00432	98,012	30.49	52,177	46,047	0.53998	51,325	4.16	26.33	0.028	7.83	22.66
56	97,800	0.00470	97,570	29.62	50,473	47,326	0.52017	48,425	3.65	25.97	0.076	7.08	22.54
57	97,340	0.00511	97,092	28.76	46,377	50,964	0.48215	45,682	3.17	25.58	0.025	6.66	22.10
58	96,843	0.00553	96,575	27.90	44,986	51,856	0.46662	42,217	2.72	25.18	0.118	5.85	22.05
59	96,307	0.00596	96,020	27.05	39,448	56,859	0.41210	37,061	2.29	24.76	0.115	5.60	21.45
60	95,732	0.00641	95,426	26.21	34,674	61,058	0.36219	31,083	1.92	24.29	0.201	5.31	20.91
61	95,119	0.00687	94,792	25.38	27,492	67,627	0.29484	25,664	1.61	23.77	0.126	5.56	19.82
62	94,465	0.00742	94,115	24.55	23,835	70,630	0.26006	22,379	1.35	23.21	0.115	5.34	19.21
63	93,764	0.00802	93,388	23.73	20,923	72,841	0.22978	19,573	1.12	22.61	0.121	5.01	18.72
64	93,013	0.00865	92,610	22.92	18,223	74,790	0.20028	16,064	0.92	22.00	0.228	4.68	18.24
65	92,208	0.00933	91,778	22.11	13,906	78,302	0.15471	11,835	0.75	21.36	0.289	4.98	17.14
66	91,348	0.01008	90,887	21.32	9,764	81,583	0.11491	9,155	0.63	20.69	0.115	5.87	15.44
67	90,427	0.01090	89,934	20.53	8,546	81,881	0.10804	8,298	0.53	20.00	0.047	5.64	14.89
68	89,441	0.01176	88,915	19.75	8,050	81,391	0.09667	7,312	0.45	19.31	0.172	4.96	14.79
69	88,389	0.01263	87,831	18.98	6,574	81,816	0.07883	5,996	0.37	18.61	0.163	4.96	14.02
70	87,273	0.01357	86,680	18.22	5,418	81,855	0.06471	4,927	0.30	17.91	0.168	4.91	13.31
71	86,088	0.01425	85,475	17.46	4,435	81,653	0.05152	3,922	0.25	17.21	0.217	4.89	12.57
72	84,861	0.01645	84,164	16.71	3,408	81,453	0.04016	3,070	0.21	16.50	0.182	5.21	11.50
73	83,466	0.01759	82,732	15.98	2,731	80,735	0.03272	2,488	0.18	15.80	0.160	5.38	10.60
74	81,998	0.01991	81,181	15.25	2,246	79,752	0.02739	2,019	0.15	15.11	0.182	5.43	9.82
75	80,365	0.02027	79,551	14.55	1,791	78,574	0.02229	1,630	0.13	14.43	0.160	5.68	8.87
76	78,736	0.02284	77,837	13.84	1,469	77,267	0.01866	1,369	0.11	13.74	0.114	5.82	8.03
77	76,938	0.02508	75,974	13.16	1,269	75,669	0.01649	1,164	0.09	13.06	0.140	5.66	7.50
78	75,009	0.02777	73,967	12.48	1,059	73,950	0.01412	923	0.08	12.40	0.230	5.68	6.81
79	72,926	0.03005	71,830	11.82	786	72,140	0.01078	728	0.07	11.75	0.119	6.47	5.35
80	70,735	0.03494	69,499	11.17	669	70,065	0.00946	650	0.06	11.11	0.024	6.52	4.66
81	68,263	0.03639	67,021	10.56	630	67,633	0.00923	591	0.05	10.51	0.088	5.89	4.67
82	65,779	0.04105	64,429	9.94	552	65,227	0.00839	541	0.05	9.89	-0.003	5.66	4.28
83	63,079	0.04889	61,537	9.35	530	62,548	0.00841	501	0.04	9.30	0.062	4.86	4.48
84	59,995	0.05010	58,492	8.80	471	59,524	0.00786	446	0.03	8.77	0.057	4.41	4.39
85	56,989	0.06350	55,180	8.24	421	56,568	0.00738	419	0.03	8.21	-0.057	3.88	4.36

Table A21: Cohort Working Life Table, All Ages 50-85: Male Cohort of Age 50 in 1991
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00449	99,776	30.49	91,133	8,867	0.91133	90,129	11.45	19.05	0.018	12.56	17.93
51	99,551	0.00487	99,308	29.63	89,124	10,427	0.89243	87,876	10.59	19.04	0.023	11.83	17.80
52	99,066	0.00532	98,802	28.77	86,627	12,439	0.87082	86,488	9.76	19.01	-0.002	11.16	17.61
53	98,539	0.00578	98,254	27.92	86,350	12,189	0.87066	83,466	8.93	18.99	0.061	10.19	17.73
54	97,970	0.00624	97,664	27.08	80,583	17,387	0.82033	79,202	8.13	18.95	0.028	9.89	17.19
55	97,359	0.00670	97,033	26.25	77,821	19,538	0.79982	75,750	7.37	18.88	0.047	9.22	17.03
56	96,706	0.00722	96,357	25.42	73,679	23,028	0.76266	70,794	6.64	18.79	0.071	8.71	16.71
57	96,008	0.00781	95,633	24.60	67,908	28,100	0.71332	66,676	5.95	18.66	0.028	8.41	16.20
58	95,258	0.00845	94,855	23.79	65,444	29,814	0.68718	62,724	5.29	18.50	0.075	7.70	16.09
59	94,453	0.00912	94,022	22.99	60,004	34,449	0.63246	58,010	4.67	18.32	0.057	7.36	15.63
60	93,591	0.00982	93,132	22.20	56,015	37,576	0.60316	52,717	4.10	18.10	0.108	6.85	15.35
61	92,672	0.01048	92,187	21.41	49,418	43,254	0.54609	47,644	3.57	17.84	0.061	6.69	14.72
62	91,701	0.01119	91,188	20.63	45,871	45,830	0.50962	44,841	3.09	17.55	0.034	6.17	14.46
63	90,675	0.01194	90,134	19.86	43,812	46,863	0.48868	41,138	2.63	17.23	0.110	5.44	14.42
64	89,592	0.01270	89,023	19.10	38,463	51,129	0.43521	35,304	2.20	16.90	0.152	5.13	13.97
65	88,454	0.01352	87,857	18.34	32,146	56,308	0.36789	28,353	1.83	16.51	0.223	5.03	13.30
66	87,259	0.01487	86,610	17.58	24,559	62,700	0.28145	21,747	1.53	16.05	0.214	5.44	12.14
67	85,961	0.01665	85,246	16.84	18,935	67,027	0.22027	17,783	1.30	15.54	0.105	5.90	10.94
68	84,530	0.01860	83,744	16.11	16,631	67,899	0.19675	15,278	1.11	15.00	0.144	5.65	10.46
69	82,958	0.01991	82,132	15.41	13,924	69,033	0.16785	12,695	0.95	14.46	0.157	5.65	9.76
70	81,306	0.02197	80,413	14.71	11,465	69,841	0.14101	10,305	0.81	13.90	0.180	5.76	8.96
71	79,519	0.02422	78,556	14.03	9,146	70,374	0.11501	8,251	0.70	13.33	0.171	6.09	7.94
72	77,594	0.02576	76,594	13.37	7,357	70,237	0.09481	6,934	0.61	12.76	0.089	6.45	6.92
73	75,595	0.02968	74,473	12.71	6,512	69,083	0.08614	6,096	0.54	12.17	0.098	6.22	6.49
74	73,352	0.03209	72,175	12.08	5,681	67,670	0.07745	5,481	0.47	11.61	0.038	6.06	6.03
75	70,998	0.03553	69,736	11.47	5,280	65,718	0.07437	5,095	0.41	11.06	0.034	5.48	5.99
76	68,475	0.04076	67,079	10.87	4,910	63,565	0.07171	4,507	0.35	10.52	0.124	4.85	6.02
77	65,684	0.04345	64,257	10.31	4,103	61,581	0.06247	3,626	0.29	10.02	0.189	4.71	5.60
78	62,830	0.04916	61,286	9.76	3,149	59,681	0.05012	2,906	0.25	9.51	0.105	4.99	4.77
79	59,741	0.05484	58,103	9.24	2,663	57,078	0.04458	2,455	0.21	9.02	0.101	4.80	4.43
80	56,465	0.05803	54,827	8.74	2,247	54,218	0.03980	2,173	0.18	8.56	0.009	4.60	4.14
81	53,188	0.06261	51,523	8.25	2,098	51,090	0.03944	1,968	0.15	8.10	0.061	3.89	4.36
82	49,858	0.07013	48,110	7.77	1,838	48,020	0.03687	1,637	0.12	7.64	0.149	3.37	4.40
83	46,361	0.07294	44,670	7.32	1,436	44,925	0.03097	1,279	0.10	7.22	0.145	3.18	4.14
84	42,979	0.08500	41,153	6.85	1,123	41,857	0.02612	967	0.08	6.78	0.193	2.92	3.93
85	39,326	0.09042	37,548	6.44	811	38,515	0.02062	722	0.06	6.38	0.130	2.85	3.59

Table A22: Cohort Working Life Table, All Ages 50-85: Female Cohort of Age 50 in 1991
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00272	99,864	35.62	71,923	28,077	0.71923	70,373	7.78	27.84	0.040	10.82	24.80
51	99,728	0.00293	99,582	34.72	68,822	30,906	0.70188	66,645	7.10	27.62	0.060	10.28	24.43
52	99,436	0.00318	99,277	33.82	64,467	34,969	0.65396	63,835	6.45	27.37	0.016	9.95	23.87
53	99,119	0.00345	98,948	32.93	63,203	35,916	0.63948	60,667	5.82	27.10	0.077	9.13	23.79
54	98,777	0.00376	98,592	32.04	58,131	40,647	0.59558	57,049	5.23	26.81	0.033	8.89	23.15
55	98,406	0.00410	98,204	31.16	55,968	42,439	0.57441	54,189	4.67	26.49	0.059	8.21	22.95
56	98,003	0.00444	97,785	30.28	52,411	45,592	0.54403	50,827	4.14	26.15	0.056	7.74	22.55
57	97,567	0.00479	97,333	29.42	49,243	48,324	0.51375	47,178	3.63	25.78	0.079	7.20	22.22
58	97,100	0.00514	96,850	28.56	45,113	51,987	0.47322	43,469	3.17	25.39	0.068	6.81	21.74
59	96,601	0.00548	96,336	27.70	41,825	54,776	0.44403	39,705	2.73	24.97	0.096	6.31	21.39
60	96,071	0.00587	95,789	26.85	37,585	58,486	0.40319	35,380	2.33	24.52	0.111	5.97	20.88
61	95,507	0.00629	95,207	26.01	33,174	62,333	0.36805	31,329	1.98	24.03	0.105	5.69	20.31
62	94,907	0.00677	94,586	25.17	29,484	65,423	0.32821	28,230	1.66	23.51	0.078	5.34	19.82
63	94,264	0.00730	93,920	24.34	26,977	67,288	0.30559	25,787	1.37	22.96	0.081	4.79	19.54
64	93,576	0.00787	93,207	23.51	24,597	68,978	0.27756	21,842	1.11	22.41	0.216	4.21	19.30
65	92,839	0.00848	92,445	22.69	19,087	73,752	0.20864	16,438	0.88	21.81	0.269	4.28	18.41
66	92,051	0.00901	91,637	21.88	13,788	78,263	0.14979	12,591	0.71	21.18	0.165	4.73	17.15
67	91,222	0.00987	90,772	21.08	11,393	79,829	0.12489	10,468	0.58	20.50	0.152	4.62	16.46
68	90,322	0.01049	89,848	20.28	9,543	80,778	0.10566	8,436	0.47	19.82	0.222	4.42	15.86
69	89,374	0.01185	88,845	19.49	7,329	82,046	0.08200	6,522	0.38	19.12	0.208	4.61	14.89
70	88,315	0.01273	87,753	18.72	5,715	82,600	0.06471	5,103	0.31	18.41	0.201	4.77	13.95
71	87,191	0.01330	86,611	17.96	4,492	82,698	0.05152	3,974	0.25	17.70	0.218	4.93	13.03
72	86,031	0.01500	85,386	17.19	3,455	82,576	0.04016	3,114	0.21	16.98	0.182	5.26	11.93
73	84,741	0.01645	84,044	16.45	2,773	81,968	0.03272	2,528	0.18	16.27	0.160	5.43	11.02
74	83,347	0.01785	82,603	15.71	2,283	81,064	0.02739	2,054	0.15	15.56	0.183	5.49	10.23
75	81,859	0.01977	81,050	14.99	1,825	80,034	0.02229	1,661	0.13	14.86	0.160	5.74	9.25
76	80,241	0.02055	79,416	14.28	1,497	78,743	0.01866	1,397	0.11	14.17	0.114	5.89	8.40
77	78,591	0.02209	77,723	13.57	1,296	77,295	0.01649	1,191	0.09	13.48	0.141	5.72	7.85
78	76,855	0.02578	75,865	12.87	1,085	75,770	0.01412	946	0.08	12.78	0.230	5.74	7.13
79	74,874	0.02735	73,850	12.19	807	74,067	0.01078	748	0.07	12.12	0.119	6.54	5.65
80	72,826	0.03204	71,659	11.52	689	72,137	0.00946	670	0.06	11.46	0.024	6.58	4.95
81	70,492	0.03595	69,225	10.89	651	69,842	0.00923	610	0.05	10.83	0.088	5.93	4.95
82	67,958	0.03993	66,601	10.27	570	67,388	0.00839	559	0.05	10.23	-0.003	5.70	4.57
83	65,244	0.04465	63,788	9.68	549	64,696	0.00841	519	0.04	9.64	0.063	4.90	4.78
84	62,331	0.05046	60,759	9.11	490	61,842	0.00786	463	0.03	9.07	0.057	4.43	4.67
85	59,186	0.06199	57,351	8.57	437	58,749	0.00738	436	0.03	8.54	-0.057	3.91	4.66

Table A23: Cohort Working Life Table, All Ages 50-85: Male Cohort of Age 50 in 1996
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00408	99,796	31.00	89,955	10,045	0.89955	89,130	11.77	19.23	0.014	13.09	17.91
51	99,592	0.00441	99,372	30.13	88,304	11,288	0.88658	87,156	10.93	19.20	0.022	12.32	17.80
52	99,153	0.00475	98,917	29.26	86,007	13,146	0.86968	85,286	10.10	19.16	0.012	11.64	17.62
53	98,681	0.00511	98,429	28.40	84,565	14,116	0.85748	82,550	9.28	19.12	0.043	10.83	17.57
54	98,177	0.00548	97,908	27.54	80,536	17,641	0.82398	79,615	8.49	19.05	0.017	10.35	17.19
55	97,639	0.00590	97,351	26.69	78,694	18,945	0.80915	77,008	7.72	18.97	0.037	9.58	17.11
56	97,063	0.00628	96,758	25.84	75,323	21,740	0.78044	73,662	6.97	18.87	0.038	8.98	16.86
57	96,453	0.00671	96,129	25.00	72,002	24,451	0.74806	69,946	6.25	18.75	0.050	8.37	16.63
58	95,806	0.00716	95,463	24.17	67,890	27,916	0.71425	66,800	5.56	18.61	0.025	7.85	16.32
59	95,120	0.00762	94,758	23.34	65,709	29,411	0.69793	63,603	4.90	18.44	0.057	7.10	16.24
60	94,396	0.00810	94,013	22.52	61,496	32,900	0.65892	59,315	4.27	18.25	0.063	6.55	15.97
61	93,631	0.00895	93,212	21.70	57,134	36,497	0.61020	53,037	3.67	18.03	0.134	6.01	15.69
62	92,793	0.00990	92,334	20.89	48,939	43,854	0.52740	46,758	3.13	17.76	0.079	5.93	14.96
63	91,875	0.01081	91,379	20.09	44,576	47,299	0.48518	42,237	2.65	17.44	0.094	5.46	14.63
64	90,882	0.01314	90,285	19.30	39,898	50,984	0.43901	36,447	2.21	17.09	0.160	5.04	14.26
65	89,688	0.01315	89,098	18.55	32,995	56,693	0.36789	28,953	1.84	16.72	0.232	5.00	13.56
66	88,508	0.01543	87,825	17.80	24,911	63,598	0.28145	22,053	1.54	16.26	0.214	5.45	12.34
67	87,143	0.01603	86,444	17.07	19,195	67,948	0.22027	18,033	1.31	15.76	0.105	5.93	11.14
68	85,745	0.01747	84,997	16.34	16,870	68,875	0.19675	15,506	1.12	15.22	0.144	5.68	10.66
69	84,248	0.01990	83,409	15.62	14,141	70,107	0.16785	12,892	0.95	14.66	0.157	5.68	9.94
70	82,571	0.02054	81,723	14.92	11,643	70,928	0.14101	10,472	0.82	14.11	0.181	5.79	9.14
71	80,876	0.02442	79,888	14.23	9,301	71,574	0.11501	8,391	0.70	13.52	0.171	6.12	8.11
72	78,901	0.02608	77,872	13.57	7,481	71,420	0.09481	7,050	0.61	12.96	0.089	6.49	7.08
73	76,843	0.02888	75,733	12.92	6,619	70,224	0.08614	6,199	0.54	12.38	0.098	6.27	6.66
74	74,624	0.03283	73,399	12.29	5,780	68,844	0.07745	5,574	0.47	11.82	0.038	6.10	6.19
75	72,174	0.03452	70,928	11.69	5,368	66,806	0.07437	5,182	0.41	11.28	0.035	5.53	6.16
76	69,682	0.03778	68,366	11.09	4,997	64,685	0.07171	4,593	0.35	10.74	0.124	4.91	6.18
77	67,050	0.04245	65,627	10.51	4,189	62,861	0.06247	3,703	0.30	10.21	0.189	4.76	5.75
78	64,203	0.04576	62,735	9.95	3,218	60,986	0.05012	2,975	0.25	9.70	0.105	5.04	4.91
79	61,266	0.05200	59,673	9.40	2,731	58,535	0.04458	2,521	0.22	9.19	0.102	4.85	4.55
80	58,080	0.05541	56,471	8.89	2,312	55,768	0.03980	2,238	0.18	8.71	0.009	4.64	4.25
81	54,862	0.05931	53,235	8.38	2,164	52,698	0.03944	2,033	0.15	8.23	0.061	3.92	4.46
82	51,608	0.06575	49,911	7.88	1,903	49,705	0.03687	1,698	0.13	7.76	0.149	3.39	4.49
83	48,215	0.07288	46,458	7.40	1,493	46,721	0.03097	1,331	0.10	7.30	0.145	3.18	4.22
84	44,701	0.08365	42,831	6.94	1,168	43,533	0.02612	1,006	0.08	6.87	0.193	2.93	4.01
85	40,962	0.09049	39,109	6.53	845	40,117	0.02062	752	0.06	6.47	0.130	2.86	3.67

Table A24: Cohort Working Life Table, All Ages 50-85: Female Cohort of Age 50 in 1996
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00250	99,875	36.39	73,394	26,606	0.73394	72,164	8.52	27.87	0.031	11.61	24.79
51	99,750	0.00269	99,616	35.48	70,934	28,816	0.71914	69,013	7.82	27.67	0.051	10.99	24.49
52	99,481	0.00292	99,336	34.58	67,091	32,390	0.69109	66,502	7.14	27.43	0.015	10.59	23.98
53	99,191	0.00317	99,033	33.68	65,912	33,278	0.67595	64,328	6.50	27.18	0.045	9.77	23.90
54	98,876	0.00344	98,706	32.78	62,745	36,131	0.64905	62,037	5.87	26.92	0.019	9.24	23.54
55	98,536	0.00372	98,353	31.89	61,329	37,207	0.64072	60,346	5.26	26.64	0.028	8.45	23.45
56	98,170	0.00402	97,973	31.01	59,363	38,806	0.62377	57,534	4.66	26.35	0.058	7.71	23.30
57	97,775	0.00433	97,564	30.13	55,706	42,070	0.58731	54,334	4.09	26.04	0.045	7.18	22.95
58	97,352	0.00465	97,126	29.26	52,963	44,390	0.56415	51,005	3.55	25.71	0.069	6.53	22.74
59	96,900	0.00496	96,660	28.40	49,047	47,853	0.51676	47,011	3.04	25.36	0.078	6.01	22.39
60	96,420	0.00530	96,164	27.54	44,975	51,445	0.47830	42,816	2.57	24.97	0.091	5.51	22.03
61	95,909	0.00572	95,635	26.68	40,657	55,252	0.42391	37,429	2.14	24.54	0.153	5.04	21.64
62	95,360	0.00609	95,070	25.83	34,201	61,159	0.35865	32,695	1.76	24.08	0.082	4.90	20.94
63	94,780	0.00661	94,466	24.99	31,188	63,591	0.32906	28,899	1.42	23.56	0.140	4.32	20.67
64	94,153	0.00755	93,797	24.15	26,609	67,543	0.28262	23,053	1.12	23.03	0.260	3.98	20.17
65	93,442	0.00754	93,089	23.33	19,496	73,946	0.20864	16,693	0.89	22.44	0.280	4.25	19.08
66	92,737	0.00845	92,345	22.50	13,891	78,846	0.14979	12,688	0.71	21.79	0.165	4.76	17.74
67	91,953	0.00928	91,527	21.69	11,484	80,469	0.12489	10,555	0.58	21.11	0.153	4.65	17.04
68	91,100	0.00998	90,646	20.89	9,626	81,474	0.10566	8,511	0.47	20.42	0.222	4.45	16.44
69	90,191	0.01104	89,693	20.09	7,396	82,795	0.08200	6,584	0.38	19.71	0.209	4.65	15.45
70	89,196	0.01113	88,699	19.31	5,772	83,424	0.06471	5,158	0.31	19.00	0.202	4.81	14.50
71	88,203	0.01284	87,637	18.52	4,544	83,659	0.05152	4,020	0.26	18.27	0.218	4.98	13.55
72	87,071	0.01368	86,475	17.76	3,497	83,574	0.04016	3,153	0.21	17.55	0.183	5.32	12.44
73	85,879	0.01448	85,258	17.00	2,810	83,069	0.03272	2,564	0.18	16.82	0.161	5.49	11.50
74	84,636	0.01645	83,940	16.24	2,318	82,318	0.02739	2,087	0.15	16.09	0.183	5.55	10.69
75	83,244	0.01736	82,521	15.50	1,856	81,388	0.02229	1,691	0.13	15.37	0.160	5.81	9.69
76	81,799	0.01989	80,985	14.77	1,526	80,272	0.01866	1,424	0.11	14.66	0.114	5.96	8.81
77	80,172	0.02198	79,291	14.06	1,322	78,850	0.01649	1,215	0.10	13.96	0.141	5.80	8.25
78	78,410	0.02418	77,462	13.36	1,107	77,303	0.01412	966	0.08	13.28	0.231	5.83	7.53
79	76,514	0.02481	75,565	12.68	825	75,689	0.01078	765	0.07	12.61	0.119	6.66	6.02
80	74,616	0.02984	73,502	11.99	706	73,910	0.00946	687	0.06	11.93	0.024	6.70	5.29
81	72,389	0.03094	71,269	11.35	668	71,721	0.00923	628	0.06	11.29	0.088	6.05	5.30
82	70,149	0.03448	68,940	10.69	588	69,561	0.00839	579	0.05	10.64	-0.003	5.80	4.89
83	67,730	0.03873	66,419	10.06	570	67,161	0.00841	541	0.04	10.01	0.063	4.98	5.08
84	65,107	0.04650	63,593	9.44	511	64,596	0.00786	485	0.04	9.41	0.058	4.48	4.96
85	62,080	0.05691	60,313	8.88	458	61,621	0.00738	458	0.03	8.85	-0.057	3.95	4.93

Table A25: Cohort Working Life Table, All Ages 50-85: Male Cohort of Age 50 in 2001
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00360	99,820	31.38	89,780	10,220	0.89780	89,234	11.95	19.43	0.009	13.31	18.07
51	99,640	0.00378	99,452	30.49	88,688	10,952	0.89154	87,881	11.10	19.40	0.014	12.47	18.03
52	99,264	0.00398	99,066	29.61	87,074	12,190	0.87682	86,284	10.25	19.35	0.014	11.69	17.92
53	98,869	0.00422	98,661	28.72	85,494	13,375	0.86559	84,041	9.42	19.30	0.030	10.90	17.83
54	98,452	0.00447	98,232	27.84	82,589	15,864	0.84134	81,640	8.61	19.23	0.019	10.26	17.58
55	98,013	0.00472	97,781	26.97	80,692	17,321	0.82586	79,184	7.81	19.15	0.033	9.49	17.47
56	97,550	0.00533	97,290	26.09	77,677	19,873	0.79628	75,470	7.04	19.05	0.051	8.84	17.25
57	97,030	0.00581	96,748	25.23	73,263	23,766	0.75506	71,427	6.30	18.93	0.044	8.34	16.89
58	96,466	0.00661	96,147	24.37	69,590	26,875	0.72140	68,309	5.60	18.78	0.030	7.76	16.62
59	95,828	0.00731	95,478	23.53	67,028	28,800	0.69946	64,855	4.92	18.61	0.058	7.03	16.50
60	95,128	0.00796	94,749	22.70	62,682	32,446	0.65892	60,133	4.27	18.43	0.073	6.49	16.21
61	94,371	0.00859	93,966	21.88	57,585	36,786	0.61020	53,465	3.67	18.21	0.135	6.02	15.86
62	93,561	0.01029	93,079	21.06	49,344	44,217	0.52740	47,135	3.13	17.93	0.079	5.94	15.13
63	92,598	0.01137	92,071	20.28	44,926	47,671	0.48518	42,558	2.66	17.62	0.094	5.47	14.80
64	91,545	0.01174	91,008	19.51	40,189	51,356	0.43901	36,736	2.22	17.28	0.160	5.06	14.45
65	90,470	0.01390	89,842	18.73	33,283	57,187	0.36789	29,196	1.84	16.89	0.232	5.01	13.73
66	89,213	0.01494	88,546	17.99	25,109	64,104	0.28145	22,233	1.54	16.45	0.214	5.47	12.52
67	87,880	0.01603	87,176	17.25	19,357	68,523	0.22027	18,185	1.31	15.94	0.105	5.95	11.30
68	86,472	0.01813	85,688	16.53	17,013	69,458	0.19675	15,632	1.12	15.40	0.144	5.70	10.83
69	84,904	0.01956	84,074	15.82	14,251	70,653	0.16785	12,995	0.96	14.86	0.157	5.71	10.11
70	83,243	0.02076	82,379	15.13	11,738	71,505	0.14101	10,557	0.82	14.31	0.181	5.83	9.30
71	81,516	0.02307	80,575	14.44	9,375	72,140	0.11501	8,463	0.71	13.73	0.172	6.17	8.27
72	79,635	0.02455	78,658	13.77	7,550	72,085	0.09481	7,121	0.62	13.15	0.089	6.54	7.23
73	77,680	0.02698	76,632	13.10	6,691	70,989	0.08614	6,273	0.54	12.56	0.098	6.31	6.79
74	75,584	0.03148	74,394	12.45	5,854	69,730	0.07745	5,649	0.48	11.97	0.039	6.14	6.31
75	73,205	0.03384	71,966	11.84	5,444	67,760	0.07437	5,258	0.41	11.43	0.035	5.57	6.27
76	70,728	0.03421	69,518	11.24	5,072	65,656	0.07171	4,670	0.35	10.88	0.124	4.94	6.30
77	68,308	0.04034	66,930	10.62	4,267	64,041	0.06247	3,776	0.30	10.32	0.190	4.78	5.84
78	65,553	0.04692	64,015	10.04	3,286	62,267	0.05012	3,035	0.25	9.79	0.105	5.06	4.99
79	62,477	0.05192	60,855	9.51	2,785	59,692	0.04458	2,571	0.22	9.29	0.102	4.87	4.64
80	59,233	0.05456	57,617	9.01	2,357	56,876	0.03980	2,283	0.19	8.82	0.009	4.67	4.34
81	56,001	0.05833	54,368	8.50	2,209	53,793	0.03944	2,076	0.16	8.34	0.061	3.95	4.55
82	52,735	0.06492	51,023	7.99	1,944	50,791	0.03687	1,736	0.13	7.87	0.150	3.42	4.57
83	49,311	0.07095	47,562	7.51	1,527	47,784	0.03097	1,362	0.10	7.41	0.145	3.21	4.30
84	45,813	0.07857	44,013	7.05	1,197	44,616	0.02612	1,034	0.08	6.97	0.194	2.96	4.08
85	42,213	0.08489	40,421	6.60	871	41,342	0.02062	777	0.06	6.55	0.131	2.88	3.72

Table A26: Cohort Working Life Table, All Ages 50-85: Female Cohort of Age 50 in 2001
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00229	99,886	37.09	79,282	20,718	0.79282	78,414	9.12	27.97	0.020	11.50	25.59
51	99,771	0.00245	99,649	36.18	77,546	22,225	0.78489	75,744	8.35	27.82	0.044	10.75	25.43
52	99,527	0.00263	99,396	35.26	73,942	25,584	0.75372	73,266	7.61	27.65	0.016	10.25	25.02
53	99,265	0.00284	99,124	34.36	72,590	26,674	0.74308	71,998	6.89	27.46	0.013	9.43	24.93
54	98,983	0.00308	98,830	33.45	71,405	27,578	0.72795	70,168	6.19	27.27	0.032	8.58	24.88
55	98,678	0.00333	98,514	32.55	68,932	29,747	0.70502	67,360	5.50	27.06	0.042	7.87	24.69
56	98,350	0.00373	98,167	31.66	65,789	32,561	0.66893	63,200	4.83	26.83	0.075	7.22	24.44
57	97,984	0.00402	97,787	30.78	60,611	37,373	0.61858	58,976	4.20	26.58	0.050	6.79	23.99
58	97,590	0.00405	97,392	29.90	57,341	40,249	0.58757	54,149	3.61	26.29	0.107	6.15	23.75
59	97,194	0.00451	96,975	29.02	50,958	46,236	0.52429	48,618	3.07	25.95	0.087	5.86	23.16
60	96,756	0.00473	96,528	28.15	46,279	50,478	0.47830	43,550	2.58	25.57	0.113	5.40	22.75
61	96,299	0.00521	96,048	27.28	40,822	55,477	0.42391	37,590	2.14	25.14	0.153	5.06	22.22
62	95,797	0.00546	95,536	26.42	34,358	61,440	0.35865	32,854	1.76	24.66	0.082	4.91	21.51
63	95,274	0.00616	94,981	25.56	31,351	63,923	0.32906	29,056	1.43	24.14	0.140	4.34	21.23
64	94,687	0.00686	94,362	24.72	26,761	67,927	0.28262	23,190	1.13	23.59	0.260	3.99	20.72
65	94,038	0.00706	93,705	23.89	19,620	74,418	0.20864	16,803	0.89	23.00	0.280	4.27	19.62
66	93,373	0.00824	92,989	23.05	13,986	79,387	0.14979	12,776	0.72	22.34	0.165	4.78	18.27
67	92,604	0.00856	92,208	22.24	11,565	81,039	0.12489	10,633	0.58	21.65	0.153	4.68	17.56
68	91,812	0.00927	91,386	21.43	9,701	82,111	0.10566	8,580	0.47	20.95	0.222	4.48	16.94
69	90,961	0.00977	90,517	20.62	7,459	83,502	0.08200	6,644	0.38	20.24	0.209	4.68	15.94
70	90,072	0.01017	89,614	19.82	5,829	84,244	0.06471	5,211	0.31	19.51	0.202	4.85	14.97
71	89,156	0.01126	88,655	19.02	4,593	84,563	0.05152	4,067	0.26	18.76	0.218	5.02	14.00
72	88,153	0.01243	87,605	18.23	3,540	84,612	0.04016	3,194	0.22	18.02	0.183	5.37	12.86
73	87,057	0.01351	86,469	17.45	2,848	84,208	0.03272	2,600	0.18	17.27	0.161	5.55	11.91
74	85,881	0.01408	85,276	16.69	2,352	83,529	0.02739	2,120	0.15	16.53	0.184	5.61	11.07
75	84,671	0.01590	83,998	15.92	1,887	82,784	0.02229	1,721	0.13	15.79	0.160	5.87	10.04
76	83,325	0.01813	82,570	15.17	1,555	81,770	0.01866	1,452	0.11	15.05	0.114	6.02	9.14
77	81,815	0.01963	81,012	14.44	1,349	80,466	0.01649	1,241	0.10	14.34	0.141	5.86	8.57
78	80,209	0.02111	79,362	13.72	1,133	79,076	0.01412	989	0.08	13.63	0.232	5.89	7.83
79	78,515	0.02351	77,593	13.00	846	77,669	0.01078	786	0.07	12.93	0.120	6.71	6.29
80	76,670	0.02808	75,593	12.30	725	75,944	0.00946	707	0.06	12.24	0.024	6.75	5.55
81	74,517	0.03005	73,397	11.64	688	73,829	0.00923	647	0.06	11.59	0.089	6.09	5.55
82	72,278	0.03384	71,055	10.99	606	71,671	0.00839	597	0.05	10.94	-0.003	5.85	5.14
83	69,832	0.03856	68,486	10.36	587	69,245	0.00841	557	0.04	10.31	0.063	5.02	5.34
84	67,139	0.04258	65,710	9.75	527	66,612	0.00786	501	0.04	9.72	0.058	4.53	5.22
85	64,280	0.05380	62,551	9.16	474	63,806	0.00738	475	0.03	9.13	-0.057	3.98	5.18

Table A27: Cohort Working Life Table, All Ages 50-85: Male Cohort of Age 50 in 2006
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00285	99,857	31.60	91,007	8,993	0.91007	90,250	12.00	19.60	0.014	13.19	18.41
51	99,715	0.00310	99,560	30.69	89,493	10,222	0.89749	88,089	11.13	19.56	0.028	12.40	18.29
52	99,405	0.00328	99,243	29.78	86,686	12,720	0.87204	86,270	10.28	19.50	0.006	11.79	18.00
53	99,080	0.00391	98,886	28.88	85,854	13,226	0.86651	84,565	9.44	19.44	0.026	10.90	17.98
54	98,692	0.00420	98,485	27.99	83,276	15,416	0.84380	82,220	8.62	19.37	0.021	10.22	17.77
55	98,277	0.00465	98,049	27.11	81,163	17,114	0.82586	79,528	7.82	19.28	0.036	9.47	17.63
56	97,820	0.00510	97,571	26.23	77,892	19,928	0.79628	75,688	7.05	19.19	0.052	8.85	17.38
57	97,321	0.00624	97,017	25.36	73,483	23,838	0.75506	71,626	6.31	19.06	0.044	8.35	17.01
58	96,714	0.00636	96,406	24.52	69,769	26,944	0.72140	68,493	5.60	18.92	0.030	7.77	16.75
59	96,098	0.00692	95,766	23.67	67,217	28,881	0.69946	65,050	4.93	18.75	0.058	7.05	16.63
60	95,434	0.00775	95,064	22.84	62,883	32,550	0.65892	60,333	4.28	18.56	0.073	6.50	16.34
61	94,694	0.00929	94,254	22.01	57,782	36,912	0.61020	53,630	3.68	18.33	0.134	6.03	15.98
62	93,814	0.00938	93,375	21.21	49,478	44,337	0.52740	47,284	3.14	18.07	0.079	5.95	15.26
63	92,935	0.01056	92,444	20.41	45,090	47,845	0.48518	42,729	2.66	17.75	0.094	5.48	14.92
64	91,953	0.01220	91,392	19.62	40,368	51,585	0.43901	36,892	2.22	17.40	0.160	5.07	14.55
65	90,832	0.01278	90,251	18.86	33,416	57,416	0.36789	29,327	1.85	17.01	0.232	5.02	13.84
66	89,671	0.01489	89,003	18.09	25,238	64,433	0.28145	22,348	1.54	16.55	0.214	5.48	12.61
67	88,336	0.01618	87,621	17.36	19,458	68,878	0.22027	18,278	1.31	16.05	0.105	5.96	11.40
68	86,906	0.01783	86,131	16.64	17,099	69,807	0.19675	15,713	1.12	15.51	0.144	5.71	10.92
69	85,357	0.01910	84,542	15.93	14,327	71,030	0.16785	13,067	0.96	14.97	0.157	5.72	10.21
70	83,727	0.02079	82,856	15.23	11,806	71,920	0.14101	10,618	0.82	14.41	0.181	5.84	9.39
71	81,986	0.02140	81,109	14.54	9,429	72,557	0.11501	8,518	0.71	13.83	0.172	6.18	8.36
72	80,232	0.02520	79,221	13.85	7,607	72,625	0.09481	7,172	0.62	13.23	0.089	6.55	7.31
73	78,210	0.02761	77,130	13.20	6,737	71,473	0.08614	6,314	0.54	12.65	0.098	6.33	6.87
74	76,051	0.03174	74,844	12.56	5,890	70,160	0.07745	5,683	0.48	12.08	0.039	6.16	6.39
75	73,637	0.03335	72,409	11.95	5,476	68,160	0.07437	5,290	0.42	11.54	0.035	5.59	6.36
76	71,181	0.03593	69,902	11.35	5,104	66,076	0.07171	4,696	0.36	10.99	0.124	4.96	6.38
77	68,623	0.03972	67,260	10.75	4,287	64,336	0.06247	3,795	0.30	10.45	0.190	4.81	5.94
78	65,897	0.04397	64,449	10.17	3,303	62,595	0.05012	3,056	0.26	9.92	0.106	5.10	5.08
79	63,000	0.04767	61,498	9.62	2,809	60,191	0.04458	2,598	0.22	9.40	0.102	4.91	4.71
80	59,997	0.05232	58,427	9.08	2,388	57,609	0.03980	2,315	0.19	8.89	0.009	4.69	4.39
81	56,858	0.05782	55,214	8.55	2,242	54,615	0.03944	2,109	0.16	8.39	0.061	3.96	4.59
82	53,570	0.06390	51,859	8.04	1,975	51,595	0.03687	1,764	0.13	7.92	0.150	3.42	4.62
83	50,147	0.06882	48,422	7.56	1,553	48,594	0.03097	1,387	0.10	7.46	0.146	3.22	4.34
84	46,697	0.07657	44,909	7.08	1,220	45,477	0.02612	1,055	0.08	7.00	0.194	2.96	4.12
85	43,121	0.08463	41,296	6.63	889	42,231	0.02062	793	0.06	6.57	0.131	2.88	3.75

Table A28: Cohort Working Life Table, All Ages 50-85: Female Cohort of Age 50 in 2006
(medium projection assumption)

Age x	l(x)	q(x)	L(x)	e(x)	f(x)	n(x)	p(x)	F(x)	ewl(x)	enl(x)	r(x)	ewf(x)	enf(x)
50	100,000	0.00200	99,900	37.73	80,290	19,710	0.80290	79,590	9.22	28.51	0.015	11.49	26.24
51	99,800	0.00220	99,691	36.80	78,889	20,911	0.79047	77,623	8.44	28.36	0.030	10.68	26.12
52	99,581	0.00249	99,457	35.88	76,356	23,225	0.76677	75,601	7.68	28.20	0.017	10.02	25.86
53	99,334	0.00269	99,200	34.97	74,847	24,487	0.75349	73,743	6.94	28.03	0.027	9.21	25.76
54	99,066	0.00288	98,924	34.06	72,638	26,428	0.73323	71,140	6.21	27.85	0.038	8.48	25.59
55	98,781	0.00292	98,637	33.16	69,643	29,138	0.70502	67,764	5.51	27.65	0.051	7.82	25.34
56	98,493	0.00337	98,327	32.26	65,885	32,608	0.66893	63,303	4.84	27.42	0.075	7.24	25.02
57	98,161	0.00374	97,978	31.36	60,721	37,441	0.61858	59,091	4.21	27.15	0.050	6.81	24.55
58	97,794	0.00379	97,609	30.48	57,461	40,333	0.58757	54,269	3.62	26.86	0.107	6.17	24.31
59	97,423	0.00431	97,213	29.59	51,078	46,345	0.52429	48,737	3.08	26.51	0.087	5.88	23.72
60	97,003	0.00427	96,796	28.72	46,397	50,606	0.47830	43,671	2.59	26.13	0.113	5.42	23.30
61	96,588	0.00493	96,350	27.84	40,945	55,644	0.42391	37,708	2.15	25.69	0.153	5.07	22.77
62	96,112	0.00512	95,866	26.98	34,471	61,642	0.35865	32,968	1.77	25.21	0.082	4.93	22.04
63	95,621	0.00533	95,366	26.11	31,465	64,156	0.32906	29,173	1.43	24.68	0.140	4.35	21.76
64	95,111	0.00619	94,816	25.25	26,880	68,231	0.28262	23,301	1.13	24.12	0.260	4.01	21.24
65	94,522	0.00670	94,205	24.40	19,721	74,801	0.20864	16,892	0.89	23.51	0.280	4.29	20.12
66	93,889	0.00684	93,568	23.56	14,064	79,825	0.14979	12,855	0.72	22.84	0.165	4.81	18.75
67	93,247	0.00747	92,899	22.72	11,646	81,601	0.12489	10,712	0.59	22.14	0.153	4.70	18.02
68	92,550	0.00814	92,173	21.89	9,779	82,771	0.10566	8,653	0.48	21.41	0.222	4.51	17.38
69	91,797	0.00886	91,390	21.07	7,527	84,270	0.08200	6,707	0.39	20.68	0.209	4.71	16.36
70	90,983	0.00956	90,548	20.25	5,888	85,096	0.06471	5,265	0.32	19.93	0.202	4.88	15.37
71	90,113	0.01116	89,610	19.44	4,643	85,470	0.05152	4,111	0.26	19.18	0.218	5.05	14.39
72	89,108	0.01164	88,589	18.65	3,579	85,529	0.04016	3,230	0.22	18.44	0.183	5.40	13.25
73	88,071	0.01249	87,520	17.87	2,882	85,189	0.03272	2,632	0.18	17.69	0.161	5.59	12.28
74	86,970	0.01335	86,390	17.09	2,382	84,588	0.02739	2,147	0.15	16.93	0.184	5.66	11.43
75	85,809	0.01489	85,170	16.31	1,913	83,896	0.02229	1,745	0.13	16.18	0.160	5.92	10.39
76	84,531	0.01654	83,832	15.55	1,577	82,954	0.01866	1,474	0.11	15.44	0.114	6.08	9.48
77	83,133	0.01856	82,361	14.80	1,371	81,762	0.01649	1,261	0.10	14.71	0.141	5.92	8.89
78	81,590	0.02029	80,762	14.08	1,152	80,438	0.01412	1,007	0.08	13.99	0.232	5.94	8.13
79	79,934	0.02253	79,033	13.36	862	79,072	0.01078	800	0.07	13.28	0.120	6.78	6.58
80	78,133	0.02537	77,142	12.65	739	77,394	0.00946	721	0.06	12.59	0.024	6.82	5.83
81	76,151	0.02836	75,071	11.97	703	75,448	0.00923	662	0.06	11.91	0.089	6.15	5.82
82	73,991	0.03232	72,796	11.30	621	73,371	0.00839	611	0.05	11.25	-0.003	5.89	5.41
83	71,600	0.03448	70,366	10.66	602	70,998	0.00841	573	0.04	10.62	0.063	5.06	5.60
84	69,132	0.04000	67,749	10.03	543	68,589	0.00786	517	0.04	9.99	0.058	4.55	5.47
85	66,366	0.05225	64,632	9.42	490	65,876	0.00738	491	0.03	9.40	-0.057	4.00	5.43

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