Online Resource 1

Working Life Expectancy at Age 50 in the US and the Impact of
the Great Recession

Descriptives on numbers of transitions by race/ethnicity and education

Table A1 shows counts of transitions from starting state j at t to outcome state i at $t+1$ by gender, race/ethnicity, and education. Starting states i are given in rows, while outcome states j are given in columns. For instance, for white males, 1317 transitions from the state "Out of the labor force/unemployed" to the state "Retired" are observed.

Table A1: Number of transitions from starting state at t to outcome state at $t+1$ by gender, race/ethnicity, and education.

		Out of labor force	Retired	Employed	Dead
White, male	Out of labor force	4230	1317	1199	155
	Retired	328	44083	1113	2359
	Employed	1854	2530	35331	450
White, female	Out of labor force	13787	2532	1450	196
	Retired	854	62475	823	2736
	Employed	2150	2320	32788	194
Black, male	Out of labor force	1660	317	221	78
	Retired	105	6792	155	445
	Employed	332	374	4847	72
Black, female	Out of labor force	3770	649	329	117
	Retired	252	11581	212	555
	Employed	504	548	7179	61
Hispanic, male,	Out of labor force	973	179	200	31
	Retired	42	4061	90	193
	Employed	288	244	3494	24
Hispanic, female	Out of labor force	3387	436	236	51
	Retired	147	5647	40	196
	Employed	298	160	2988	12
No degree, male	Out of labor force	2550	566	366	112
	Retired	150	17003	289	1231
	Employed	578	679	7506	128
No degree, female	Out of labor force	7911	1183	407	174
	Retired	401	23742	194	1475
	Employed	609	515	6299	70
High school, male	Out of labor force	3433	898	831	123
	Retired	235	26904	704	1343
	Employed	1282	1620	21401	285
High school, female	Out of labor force	11215	1985	1263	169
	Retired	716	44165	618	1684
	Employed	1778	1801	25420	154
College, male	Out of labor force	1106	385	472	35
	Retired	98	12057	382	472
	Employed	676	911	15782	151
College, female	Out of labor force	2412	533	416	29
	Retired	166	13106	278	373
	Employed	646	755	12175	51

Results of the multinomial logistic regressions

Tables A2 to A9 show estimates of the coefficients of the multinomial logistic regressions. Results for the male and female total population are given in tables A2 and A3, estimates for white males and females are included in tables A4 and A5, results for blacks are given in tables A6 (males) and A7 (females), and results for Hispanics are shown in tables A8 and A9. Note that in all models age is included as a smoothing spline. More detailed results are available upon request from the authors.

The estimates presented in the tables are used to calculate transition probabilities. These probabilities are then adjusted to match CDC life tables (see next section) and collected in transition matrices, which are used to estimate working life expectancy and other quantities. The transition matrices are available online. Figures A1 and A2 show some transition probabilities for males and females by age and period. More specifically, in both figures the leftmost panel shows the probability of staying employed; the middle panel shows the probability of retiring, combining both employed individuals and individuals who are unemployed or out of the labor force; and the rightmost panel shows the probability of returning to employment if retired.

Table A2: Coefficients of the multinomial logistic regression for males

	Dead	Inactive	Retired
Intercept	-10.217	5.129	-5.618
i=Retired	1.129	-1.883	2.712
i=Employed	-3.071	-4.242	-3.035
Age (spline)	—	—	—
Period 1998-2002	0.433	0.142	0.029
Period 2003-2007	0.338	0.285	0.004
Period 2008-2010	0.426	0.480	0.163
Age 62	0.018	0.283	0.955
Age 65	0.305	-0.065	1.232
Age 66	-0.456	0.017	0.962
Age >66	-0.102	-0.041	0.548
No degree	-0.558	-0.455	0.180
High school degree	-1.077	-0.912	-0.017
No degree/1998-2002	-0.026	0.091	0.145
No degree/2003-2007	-0.104	-0.039	0.044
No degree/2008-2010	-0.337	-0.032	-0.076
High school degree/1998-2002	-0.045	0.213	0.282
High school degree/2003-2007	-0.318	-0.200	-0.099
High school degree/2008-2010	-0.456	0.032	0.028
No degree/age 62	0.447	-0.007	-0.33
No degree/age 65	0.322	0.111	-0.536
No degree/age 66	0.776	0.047	-0.395
No degree/age >66	0.425	0.365	-0.296
High school degree/age 62	0.297	-0.128	-0.562
High school degree/age 65	0.672	0.489	-0.809
High school degree/age 66	1.128	0.379	-0.566
High school degree/age >66	0.522	0.705	-0.392

Table A3: Coefficients of the multinomial logistic regression for females

	Dead	Inactive	Retired
Intercept	-13.646	0.036	-0.313
i=Retired	7.255	0.175	-0.131
i=Employed	-7.228	0.936	-0.139
Age (spline)	—	—	—
Period 1998-2002	-1.681	0.411	-0.028
Period 2003-2007	2.680	0.374	0.022
Period 2008-2010	-3.706	-0.332	-0.527
Age 62	-4.824	-0.395	0.076
Age 65	-3.414	0.060	-0.617
Age 66	0.188	-0.735	0.091
Age >66	-0.082	-0.772	0.644
No degree	0.119	0.241	-0.265
High school degree	0.491	-0.234	0.006
No degree/1998-2002	0.324	-0.279	0.390
No degree/2003-2007	0.218	-0.104	-0.227
No degree/2008-2010	0.466	-0.288	-0.578
High school degree/1998-2002	0.368	-0.369	0.039
High school degree/2003-2007	0.027	-0.081	-0.275
High school degree/2008-2010	0.352	-0.157	-1.058
No degree/age 62	0.175	-0.129	0.652
No degree/age 65	0.113	-0.014	-0.363
No degree/age 66	0.245	-0.240	-0.904
No degree/age >66	0.440	-0.350	0.390
High school degree/age 62	0.559	-0.195	-0.751
High school degree/age 65	0.580	-0.413	0.259
High school degree/age 66	0.395	-0.404	0.411
High school degree/age >66	1.142	-0.289	-0.373

Table A4: Coefficients of the multinomial logistic regression for white males

	Dead	Inactive	Retired
Intercept	-10.534	-0.517	-0.607
i=Retired	5.080	-0.016	-0.099
i=Employed	-5.508	0.763	-0.146
Age (spline)	—	—	—
Period 1998-2002	-1.856	-0.123	-0.045
Period 2003-2007	2.716	0.262	-0.210
Period 2008-2010	-2.946	-0.684	0.412
Age 62	-4.176	-0.425	0.314
Age 65	-3.025	0.052	-0.122
Age 66	0.141	-1.255	0.738
Age >66	-0.060	-0.842	0.097
No degree	0.086	-0.097	-0.209
High school degree	0.507	-0.110	0.724
No degree/1998-2002	0.196	0.024	0.496
No degree/2003-2007	0.102	0.096	-0.006
No degree/2008-2010	0.416	-0.171	0.353
High school degree/1998-2002	0.297	-0.048	-0.257
High school degree/2003-2007	0.124	-0.051	-0.517
High school degree/2008-2010	0.604	-0.514	0.633
No degree/age 62	0.619	-0.207	0.527
No degree/age 65	0.344	-0.266	-0.490
No degree/age 66	0.070	-0.055	1.304
No degree/age >66	0.376	0.154	0.418
High school degree/age 62	0.868	0.195	-0.395
High school degree/age 65	0.211	-0.37	0.851
High school degree/age 66	-0.26	-0.190	0.777
High school degree/age >66	0.794	-0.215	-0.123

Table A5: Coefficients of the multinomial logistic regression for white females

	Dead	Inactive	Retired
Intercept	-13.94	0.047	-0.564
i=Retired	7.212	0.280	-0.300
i=Employed	-7.063	0.659	-0.389
Age (spline)	—	—	—
Period 1998-2002	-1.738	0.283	0.002
Period 2003-2007	2.704	0.223	0.038
Period 2008-2010	-3.611	-0.346	-0.488
Age 62	-4.794	-0.377	0.302
Age 65	-3.390	0.020	-0.368
Age 66	0.189	-0.992	0.140
Age >66	-0.082	-0.730	0.559
No degree	0.117	0.162	0.036
High school degree	0.521	-0.305	0.158
No degree/1998-2002	0.344	-0.335	0.517
No degree/2003-2007	0.297	-0.212	-0.041
No degree/2008-2010	0.583	-0.442	-0.059
High school degree/1998-2002	0.336	-0.361	0.131
High school degree/2003-2007	0.146	-0.206	-0.181
High school degree/2008-2010	0.596	-0.432	-0.626
No degree/age 62	0.262	-0.248	0.874
No degree/age 65	0.324	-0.243	-0.015
No degree/age 66	0.140	-0.335	-0.476
No degree/age >66	0.405	-0.404	0.395
High school degree/age 62	0.532	-0.265	-0.414
High school degree/age 65	0.555	-0.554	0.607
High school degree/age 66	0.199	-0.433	0.519
High school degree/age >66	0.944	-0.415	-0.172

Table A6: Coefficients of the multinomial logistic regression for black males

	Dead	Inactive	Retired
Intercept	-7.553	-0.802	-1.262
i=Retired	5.651	-0.867	-0.228
i=Employed	-4.306	0.827	0.092
Age (spline)	—	—	—
Period 1998-2002	-1.870	-0.202	-0.082
Period 2003-2007	2.544	0.581	-0.135
Period 2008-2010	-3.842	-0.325	-0.066
Age 62	-4.843	-0.510	-0.182
Age 65	-3.347	-0.018	-0.476
Age 66	0.104	0.189	1.432
Age >66	-0.057	-0.852	0.293
No degree	0.074	-0.500	-0.441
High school degree	0.461	0.079	0.298
No degree/1998-2002	0.119	0.336	0.228
No degree/2003-2007	-0.007	0.131	-0.205
No degree/2008-2010	0.447	-0.414	-1.129
High school degree/1998-2002	0.350	-0.098	-0.371
High school degree/2003-2007	-0.117	-0.025	-0.655
High school degree/2008-2010	0.641	-0.655	1.204
No degree/age 62	0.347	0.374	1.608
No degree/age 65	-0.024	0.331	0.024
No degree/age 66	0.023	-0.638	0.281
No degree/age >66	0.280	0.637	1.598
High school degree/age 62	0.755	1.185	-0.229
High school degree/age 65	0.194	-1.069	-0.468
High school degree/age 66	0.028	-0.838	0.098
High school degree/age >66	1.410	0.135	-0.358

**Table A7:** Coefficients of the multinomial logistic regression for black females

	Dead	Inactive	Retired
Intercept	-11.023	-0.375	-0.088
i=Retired	7.765	-0.465	0.107
i=Employed	-6.127	1.085	0.423
Age (spline)	—	—	—
Period 1998-2002	-1.723	0.238	-0.010
Period 2003-2007	2.336	0.457	0.226
Period 2008-2010	-4.279	-0.266	-0.564
Age 62	-5.089	-0.487	-0.435
Age 65	-3.531	-0.088	-0.930
Age 66	0.164	0.110	0.323
Age >66	-0.088	-0.982	1.073
No degree	0.107	0.329	-0.173
High school degree	0.550	0.036	-0.477
No degree/1998-2002	0.268	-0.111	0.377
No degree/2003-2007	0.046	0.130	-0.228
No degree/2008-2010	0.340	0.332	-2.260
High school degree/1998-2002	0.509	-0.319	-0.204
High school degree/2003-2007	-0.260	0.185	-0.442
High school degree/2008-2010	0.222	0.282	-19.330
No degree/age 62	0.388	-0.041	0.144
No degree/age 65	-0.034	0.082	-1.789
No degree/age 66	-0.131	0.026	-1.930
No degree/age >66	0.415	0.173	0.112
High school degree/age 62	0.335	0.131	-0.843
High school degree/age 65	0.292	-0.279	-0.355
High school degree/age 66	0.475	-0.187	0.626
High school degree/age >66	1.403	0.080	-0.638

**Table A8:** Coefficients of the multinomial logistic regression for Hispanic males

	Dead	Inactive	Retired
Intercept	-12.066	-0.776	0.278
i=Retired	5.216	0.930	0.261
i=Employed	-9.564	1.079	0.024
Age (spline)	—	—	—
Period 1998-2002	-2.397	0.476	-0.378
Period 2003-2007	2.584	1.107	-1.243
Period 2008-2010	-3.874	-0.604	1.105
Age 62	-4.161	-0.282	-0.637
Age 65	-2.931	0.999	-1.855
Age 66	0.175	-1.866	0.901
Age >66	-0.061	-1.189	-0.002
No degree	0.143	0.070	-1.571
High school degree	0.216	0.462	0.000
No degree/1998-2002	0.028	0.056	-0.009
No degree/2003-2007	-0.158	0.104	-1.376
No degree/2008-2010	0.097	0.201	0.984
High school degree/1998-2002	0.170	-0.251	0.921
High school degree/2003-2007	-0.197	0.107	-0.132
High school degree/2008-2010	0.121	0.073	-12.097
No degree/age 62	0.382	0.215	0.502
No degree/age 65	-0.020	-0.162	-0.742
No degree/age 66	-0.847	-0.447	-12.053
No degree/age >66	0.152	0.101	-0.306
High school degree/age 62	1.386	-0.132	-1.116
High school degree/age 65	0.002	0.456	1.065
High school degree/age 66	0.322	-0.149	1.564
High school degree/age >66	2.133	-0.531	-0.512

Table A9: Coefficients of the multinomial logistic regression for Hispanic females

	Dead	Inactive	Retired
Intercept	-18.828	0.159	-2.782
i=Retired	5.372	0.286	0.110
i=Employed	-12.683	0.839	-1.036
Age (spline)	—	—	—
Period 1998-2002	-1.293	0.753	0.396
Period 2003-2007	2.772	0.194	0.948
Period 2008-2010	-3.892	-0.164	-31.931
Age 62	-4.805	-0.633	0.139
Age 65	-3.464	-0.121	-0.502
Age 66	0.261	1.567	0.643
Age >66	-0.048	-0.799	0.964
No degree	0.207	1.035	-0.235
High school degree	0.782	-1.241	0.354
No degree/1998-2002	0.240	0.075	0.292
No degree/2003-2007	0.289	-0.086	0.070
No degree/2008-2010	0.749	-1.340	-1.214
High school degree/1998-2002	0.331	-0.352	-0.361
High school degree/2003-2007	0.289	-0.359	-0.242
High school degree/2008-2010	0.629	-1.274	-0.860
No degree/age 62	-0.037	0.002	0.289
No degree/age 65	0.116	0.057	-2.359
No degree/age 66	0.773	-1.449	-32.750
No degree/age >66	0.446	-0.416	0.850
High school degree/age 62	0.473	-1.431	-1.082
High school degree/age 65	0.733	-1.406	0.386
High school degree/age 66	0.581	0.025	0.479
High school degree/age >66	0.975	-0.874	0.548
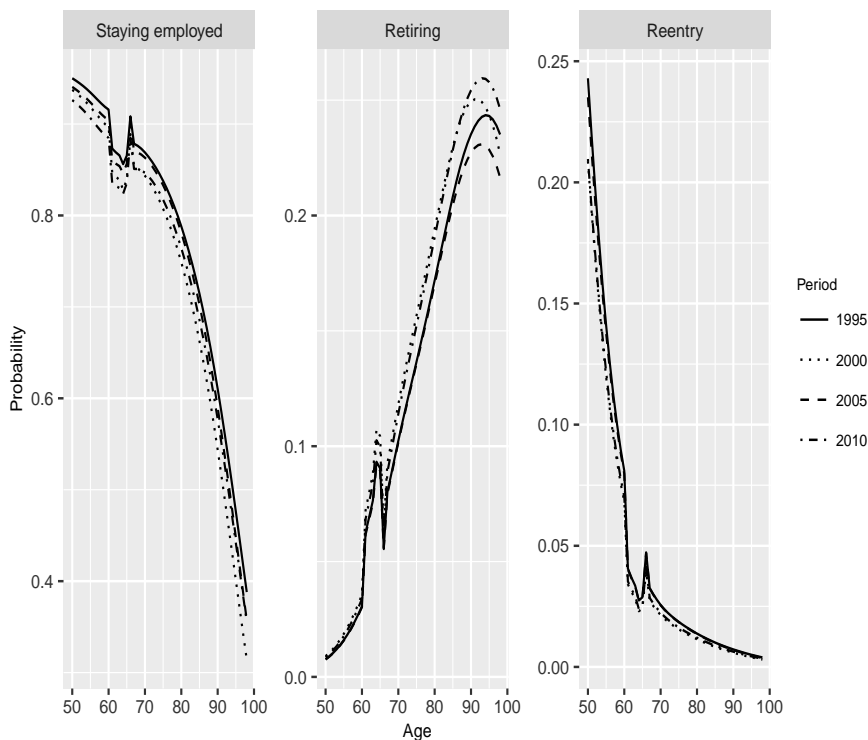
Fig. A1 Age-specific probabilities of staying employed, retiring, and reentry to the labor market for males by period. Source: Own calculations based on the Health and Retirement Study, years 1992-2012.
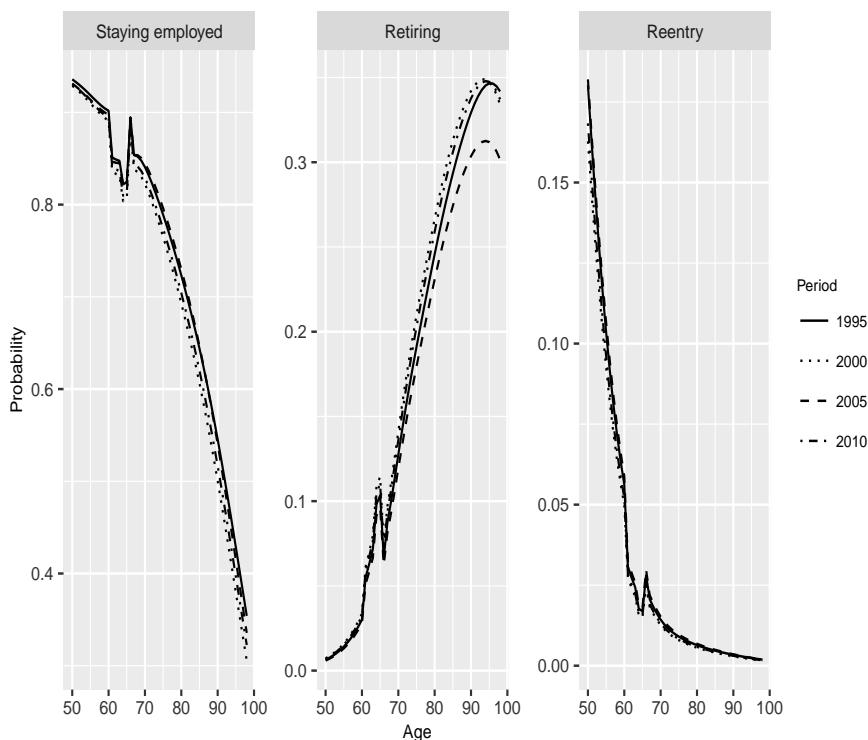
Fig. A2 Age-specific probabilities of staying employed, retiring, and reentry to the labor market for females by period. Source: Own calculations based on the Health and Retirement Study, years 1992-2012.

Mortality estimation and correction

Mortality estimation for Hispanics

To adjust our survival estimates, we use CDC life tables for the years 1995 (National Center for Health Statistics 1998), 2000 (Arias 2002), 2005 (Arias et al. 2010), and 2010 (Arias 2014) for the periods of 1993-1997, 1998-2002, 2003-2007, and 2008-2011, respectively. Because the CDC does not supply life tables for Hispanics for the years 1995, 2000, and 2005, we used the life tables for Hispanics for the years 2006 and 2010, and estimated the missing years by assuming that mortality differentials between Hispanics and whites and blacks for 2005/2006 and 2010 also prevailed in 1995 and 2000. More technically, the logarithm of age-specific probabilities of dying for the years 2005 and 2010 were used as a dependent variable in a linear regression, with a cubic age polynomial and log probabilities of dying of whites and blacks as explanatory variables. Regressions were run separately for males and females. These models exhibit good predictive qualities. For example, in the regression model for women R^2 is close to 1 and the relative prediction error is less than 0.01. Parameter estimates were used to estimate log probabilities of dying for the years 1995 and 2000.

Before the regression approach outlined above could be applied another estimation step was needed, as the CDC life tables for whites and blacks for 1995 end with age 85. In this case also a regression approach was used to estimate probabilities of dying for ages 85 to 99. Log probabilities of dying for ages 85 to 99 of the years 2000, 2005, and 2010 were used as dependent variables. Explanatory variables included a cubic age polynomial and survival at age 85. Parameter estimates were used to estimate log probabilities of dying for 1995.

Mortality correction: Matching with CDC life tables

Matching mortality with CDC life tables works as follows. Let $p(x, e) = p(e|x, e) + p(o|x, e) + p(r|x, e)$ denote the probability that an employed individual aged x survives, where e represents the labor force status employed, o represents the status out of the labor force or unemployed, and r represents the status retired. Then, for instance, $p(r|x, e)$ is the probability of being in the state retired at age $x + 1$ conditional on being employed at age x. $p(x, o)$ and $p(x, r)$ denote the survival probabilities for individuals who are, respectively, out of the labor force and retired, and can be decomposed in a similar manner. These probabilities are estimated using HRS data as described in the main text. $p_{\mathrm{CDC}}(x)$ denotes the survival probability for age x reported by the CDC. $d(x, e)$, $d(x, o)$, and $d(x, r)$ denote the proportion of individuals at age x who are, respectively, employed, out of the labor force or unemployed, and retired. Given a starting distribution for the youngest age $d_S(50, j)$, the proportions $d(x, j)$ for any age x can be calculated by the repeated application of the transition probabilities.

Ensuring that the working life tables imply the same life expectancy as the life tables of the CDC requires that

$$p(x, e)d(x, e) + p(x, o)d(x, o) + p(x, r)d(x, r) = p_{\mathrm{CDC}}(x) \tag{1}$$

holds. This simply means that average survival follows the CDC life table. To achieve this, the following algorithm was applied, where p_{est} is used to indicate estimated probabilities

derived from the multinomial logit model, and p_{adj} is used to denote adjusted values; e.g., $p_{est}(x, o)$ is the survival probabilities for individuals out of the labor force and aged x as derived from the multinomial logistic regression (see previous section). The algorithm works as follows:

1. Set $d(50, e) = w_e(50)$, $d(50, o) = w_o(50)$, $d(50, r) = w_r(50)$, where $w_j(50)$ denotes the weights described in the methods section.

2. For each $x = 50, \cdots, 98$:

   (a) Calculate

   $$a(x) = \frac{p_{est}(x, e)d(x, e) + p_{est}(x, o)d(x, o) + p_{est}(x, r)d(x, r)}{p_{CDC}(x)}$$

   (b) Calculate $p'(x, j) = p_{est}(x, j)/a(x)$ for $j = e, o, r$

      i. If any $p'(x, j) > 1$ set $p_{adj}(x, j) = p_{CDC}(x)$ for $j = e, o, r$
      ii. Else set $p_{adj}(x, j) = p'(x, j)$ for $j = e, o, r$

   (c) Calculate

   $$b(x, j) = \frac{p_{est}(e|x, j) + p_{est}(o|x, j) + p_{est}(r|x, j)}{p_{adj}(x, j)}$$

   for $j = e, o, r$

   (d) Set $p_{adj}(e|x, j) = p_{est}(e|x, j)/b(x, j)$, $p_{adj}(o|x, j) = p_{est}(o|x, j)/b(x, j)$, and $p_{adj}(r|x, j) = p_{est}(r|x, \cdot)/b(x, j)$ for $j = e, o, r$

   (e) Set $d(x + 1, j) = d(x, e)p_{adj}(j|x, e) + d(x, o)p_{adj}(j|x, o) + d(x, r)p_{adj}(j|x, r)$ for $j = e, o, r$

3. Set $p_{adj}(99, j) = 0$ for $j = e, o, r$

Essentially, this algorithm guarantees that equation (1) is fulfilled by scaling survival probability estimates $p_{est}(x, e)$, $p_{est}(x, r)$, and $p_{est}(x, o)$ up or down by a multiplicative age-specific scaling factor $a(x)$. The remaining age-specific transition probabilities, e.g., the probability of retiring, are scaled up or down accordingly. More specifically, the single steps do the following:

- Step 1 states that the algorithm starts with age 50 and sets the weights of each of the three states equal to its empirical proportion.

- $a(x)$ as calculated in step 2.a) is the ratio of the survival probability at age x estimated from the HRS to the survival probability obtained from the CDC. For instance, if the survival probability obtained from the the CDC equals 0.95 and the survival estimate of the HRS equals 0.96, $a(x)$ will be around 1.011. This means that the HRS estimate is roughly 1% higher than the CDC value.

- Step 2.b) rescales survival probabilities from the HRS using the inverse of $a(x)$. Continuing the example from above where $a(x) \approx 1.011$, the inverse of $a(x)$ equals 0.99, meaning that the state-specific survival estimates of the HRS will be scaled down.

- Because in a few cases step $2.b)$ may result in state-specific survival probabilities above one, step $2.b)i$ is introduced. For instance, assume that the probability for survival according to the CDC is 0.98, while the HRS estimate equals 0.95, such that $a(x) \approx 0.969$ and $1/a(x) \approx 1.032$. Further assume that the survival probability conditional on being employed equals 0.99. In this case $p'(x, e) \approx 0.99/0.969 \approx 1.022$. Step $2.b)i$ then sets all state specific survival probabilities equal to the CDC value.

- Steps $2.c)$ and $2.d)$ are needed because survival can be broken down into the transition probabilities of moving to the employed state, moving to retirement, and moving to "out of the labor force or unemployed". Step $2.c)$ calculates a scaling factor similar to that of step $2.a)$, which adjusts the just mentioned transition probabilities such that adding them up with the adjusted survival probability yields 1. This is implemented in step $2.d)$, similar to step $2.b)$.

- Step $2.e)$ updates the distribution of states according to adjusted transition probabilities. The algorithm then moves to the next age, and the updated distribution is used in step 2. The updating of the distribution thus ensures that the algorithm keeps track of the composition of the population.

- The final step 3 implements the assumption that age 99 is the oldest possible age.

Table A10: Results of the decomposition of gender gaps by race/ethnicity, racial/ethnic differences by gender, and educational differences by gender; 2008-2011.

		Total	Same weights	Mortality	Transitions
Male/female	White	1.8	1.3	-0.5	1.8
	Black	0.3	0.1	-0.4	0.5
	Hispanic	1.1	0.2	-0.3	0.5
White/black	Males	4.1	3.2	0.6	2.6
	Females	2.6	2.0	0.3	1.7
White/Hispanic	Males	2.8	2.4	-0.2	2.5
	Females	2.1	1.2	-0.1	1.3
College/less than HS	Males	6.8	6.4	1.4	5.0
	Females	5.4	4.9	0.5	4.5
College/HS	Males	3.4	3.1	0.7	2.5
	Females	2.1	2.1	0.2	1.8

Notes: HS=High school.
Source: Own calculations based on the Health and Retirement Study, years 1992-2012.

The differential contributions of mortality and employment to differences in WLE

We assessed the contribution of mortality and employment to selected differences in WLE using decomposition techniques, focusing on the period of 2008-2011 and on comparisons across sub-populations. As our results on WLE depend not only on survival and transition probabilities, but also on the weights described in the methods section, we proceeded in the following fashion. For each comparison one set of weights was used for all sub-populations, and the differences between groups were recalculated. These recalculated differences showed to what degree the labor force state composition of each group at age 50 influenced these differences. In a second step, using the method developed by Kitagawa (1955), we decomposed the differences based on the same weights into two parts: the contribution of transition probabilities and the contribution of survival probabilities.

The results are shown in table A10. The first column gives the differences in WLE for our original analysis. For instance, the 1.8-year difference between white males and females resulted from WLEs of 13.2 years and 11.3 years, respectively. The second column gives WLE recalculated using the same weights for both of the compared groups, whereby we always used the weights of the group given first in the table. For the comparison of white males and females, the first group was made up of white males, and the recalculated difference was 1.3. Columns 3 and 4 decompose this recalculated difference into the part due to mortality and the part due to differences in the transitions between labor force states.

The decomposition of gender gaps by race/ethnicity shows that the differences for blacks and Hispanics are, at first glance, due to composition, and that the re-weighted differences are close to zero. But these results mask a negative contribution of mortality due to the higher life expectancy of women, and a positive contribution of transitions, which more or less cancel each other out. The effect of mortality is found to be qualitatively similar for whites and for blacks, but the effect of labor force transitions is shown to be

higher for whites than for blacks. If white males had the same mortality patterns as white females, the re-weighted difference would have increased from 1.3 years to 1.8 years.

The largest share of racial/ethnic differences by gender is due to differences in transition probabilities between labor force states, which in all cases made a positive contribution. A comparison of the original and the re-weighted estimates of WLE shows that there were also composition effects, whereas the contribution of mortality was small compared to the overall difference. This is attributable to the fact that for all of the groups compared, mortality was relatively low at ages with high levels of labor force attachment, and that this contribution to WLE was large.

The educational differences were also mostly driven by the contribution of transition probabilities. However, in contrast to the racial/ethnic differences within sexes, mortality made consistently positive contributions to the WLE differences, thus reinforcing the impact of labor force participation differences.

Additional tables and figures

This section includes detailed tables and additional figures, supplementing the results presented in section 3 of the paper. Table B1 shows findings for the total population. Tables B2 to B4 add to the results on racial/ethnic differences. Tables B5 to B7 show results by gender and education. Results by race/ethnicity, gender, and education are given in tables B8 to B17. Finally, tables B18 to B20 show how remaining life expectancy at age 50 is distributed among work, retirement, and being out of the labor force. Results not accounting for any of these dimensions (race/ethnicity; gender; education) and relating to the total population are available upon request from the authors. Confidence intervals are given only for a few selected quantities to keep the number of results manageable. As discussed in the main text the sample size of some groups is small, especially for blacks and Hispanics with college/university degree.

Table B1: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; total;

	1995	2000	2005	2010
Males				
Life expectancy at age 50	26.7	27.9	28.5	29.5
Working life expectancy at age 50	14.5	13.1	14.2	12.7
95% Confidence interval, lower bound	14.1	12.7	13.8	12.1
95% Confidence interval, upper bound	14.9	13.5	14.7	13.2
% of life expectancy spent working	54.1%	47.1%	50.0%	42.9%
95% Confidence interval, lower bound	52.6%	45.6%	48.4%	41.1%
95% Confidence interval, upper bound	55.9%	48.4%	51.6%	44.8%
Females				
Life expectancy at age 50	31.3	31.7	32.2	33.1
Working life expectancy at age 50	11.4	10.6	11.4	10.9
95% confidence interval, lower bound	11.0	10.2	11.0	10.4
95% confidence interval, upper bound	11.9	10.9	11.9	11.4
% of life expectancy spent working	36.5%	33.3%	35.5%	33.0%
95% confidence interval, lower bound	35.2%	32.1%	34.1%	31.4%
95% confidence interval, upper bound	38.0%	34.5%	37.1%	34.5%
Difference relative WLE male/female	17.7%	13.8%	14.5%	9.9%

Table B2: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; whites;

	1995	2000	2005	2010
White males				
Life expectancy at age 50	27.1	28.2	28.8	29.7
Working life expectancy at age 50	15.1	13.5	14.8	13.2
95% confidence interval, lower bound	14.7	13.1	14.2	12.6
95% confidence interval, upper bound	15.6	14.0	15.3	13.8
% of life expectancy spent working	56.0%	48.1%	51.3%	44.3%
95% confidence interval, lower bound	54.2%	46.6%	49.3%	42.3%
95% confidence interval, upper bound	57.8%	49.6%	53.0%	46.6%
White females				
Life expectancy at age 50	31.5	31.9	32.4	33.2
Working life expectancy at age 50	11.8	11.1	12.0	11.3
95% confidence interval, lower bound	11.3	10.7	11.5	10.7
95% confidence interval, upper bound	12.3	11.6	12.6	11.9
% of life expectancy spent working	37.3%	34.8%	37.2%	34.1%
95% confidence interval, lower bound	35.9%	33.5%	35.6%	32.1%
95% confidence interval, upper bound	38.9%	36.3%	39.0%	35.9%
Difference relative WLE male/female	18.7%	13.2%	14.1%	10.2%

Table B3: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; blacks;

	1995	2000	2005	2010
Black males				
Life expectancy at age 50	22.7	24.2	24.9	26.6
Working life expectancy at age 50	10.5	9.0	10.8	9.1
95% confidence interval, lower bound	9.3	7.9	9.4	7.7
95% confidence interval, upper bound	11.8	10.1	12.2	10.5
% of life expectancy spent working	46.3%	37.2%	43.4%	34.1%
95% confidence interval, lower bound	41.2%	32.5%	37.6%	28.8%
95% confidence interval, upper bound	52.2%	41.5%	49.0%	39.6%
Black females				
Life expectancy at age 50	28.1	28.8	29.7	31.0
Working life expectancy at age 50	10.3	9.0	9.6	8.8
95% confidence interval, lower bound	9.3	8.0	8.6	7.7
95% confidence interval, upper bound	11.4	10.0	10.7	9.9
% of life expectancy spent working	36.6%	31.1%	32.5%	28.2%
95% confidence interval, lower bound	33.2%	27.6%	28.8%	24.7%
95% confidence interval, upper bound	40.4%	34.6%	36.0%	32.0%
Difference relative WLE male/female	9.7%	6.2%	11.0%	5.9%

Table B4: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; Hispanics;

	1995	2000	2005	2010
Hispanic males				
Life expectancy at age 50	29.2	30.3	31.1	31.4
Working life expectancy at age 50	12.2	12.5	12.8	10.3
95% confidence interval, lower bound	10.8	10.9	11.5	8.7
95% confidence interval, upper bound	13.8	14.0	14.3	12.2
% of life expectancy spent working	41.7%	41.2%	41.1%	32.9%
95% confidence interval, lower bound	37.1%	35.8%	36.9%	27.9%
95% confidence interval, upper bound	47.1%	46.2%	46.0%	38.9%
Hispanic females				
Life expectancy at age 50	33.2	33.8	34.7	35.2
Working life expectancy at age 50	9.1	7.8	7.9	9.2
95% confidence interval, lower bound	7.9	6.4	6.7	7.7
95% confidence interval, upper bound	10.6	9.1	9.2	10.8
% of life expectancy spent working	27.5%	23.0%	22.7%	26.2%
95% confidence interval, lower bound	23.8%	19.1%	19.4%	21.8%
95% confidence interval, upper bound	32.0%	27.0%	26.6%	30.7%
Difference relative WLE male/female	14.2%	18.2%	18.4%	6.7%

Table B5: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; less than high school degree

	1995	2000	2005	2010
Less than high school degree, males				
Life expectancy at age 50	25.2	25.0	25.4	25.8
Working life expectancy at age 50	11.1	10.5	10.0	8.6
95% confidence interval, lower bound	10.3	9.7	9.1	7.6
95% confidence interval, upper bound	12.1	11.3	11.1	9.8
% of life expectancy spent working	44.2%	42.0%	39.4%	33.4%
95% confidence interval, lower bound	41.4%	38.4%	35.3%	29.2%
95% confidence interval, upper bound	47.6%	44.5%	43.0%	38.0%
Less than high school degree, females				
Life expectancy at age 50	29.9	29.5	29.4	30.6
Working life expectancy at age 50	8.0	6.0	6.3	6.9
95% confidence interval, lower bound	8.1	6.2	6.3	6.7
95% confidence interval, upper bound	9.7	7.6	7.9	8.8
% of life expectancy spent working	26.6%	20.5%	21.3%	22.7%
95% confidence interval, lower bound	27.4%	21.2%	21.7%	22.1%
95% confidence interval, upper bound	32.5%	25.6%	27.1%	28.8%
Difference relative WLE male/female	17.6%	21.5%	18.1%	10.7%

Table B6: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; high school/GED

	1995	2000	2005	2010
High school/GED, males				
Life expectancy at age 50	26.6	27.6	28.1	29.5
Working life expectancy at age 50	13.6	12.2	12.9	12.1
95% confidence interval, lower bound	12.9	11.5	12.1	11.3
95% confidence interval, upper bound	14.3	12.7	13.4	12.8
% of life expectancy spent working	51.0%	44.1%	45.7%	40.9%
95% confidence interval, lower bound	48.6%	41.8%	43.3%	38.2%
95% confidence interval, upper bound	53.5%	46.0%	47.7%	43.6%
High school/GED, females				
Life expectancy at age 50	31.3	32.0	32.6	33.3
Working life expectancy at age 50	10.7	10.1	11.1	10.2
95% confidence interval, lower bound	10.8	10.3	11.2	10.2
95% confidence interval, upper bound	12.0	11.3	12.4	11.7
% of life expectancy spent working	34.0%	31.5%	33.9%	30.8%
95% confidence interval, lower bound	34.5%	32.3%	34.6%	30.9%
95% confidence interval, upper bound	38.5%	35.6%	38.2%	35.2%
Difference relative WLE male/female	17.0%	12.6%	11.8%	10.2%

Table B7: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; college/university

	1995	2000	2005	2010
College/university, males				
Life expectancy at age 50	28.3	30.7	31.7	32.7
Working life expectancy at age 50	17.1	14.8	18.7	15.4
95% confidence interval, lower bound	16.0	13.9	17.6	14.4
95% confidence interval, upper bound	18.3	15.6	19.5	16.4
% of life expectancy spent working	60.5%	48.3%	59.1%	47.1%
95% confidence interval, lower bound	56.5%	45.5%	56.1%	44.2%
95% confidence interval, upper bound	64.2%	51.1%	61.8%	50.3%
College/university, females				
Life expectancy at age 50	32.8	33.5	34.4	35.6
Working life expectancy at age 50	12.1	12.2	14.0	12.4
95% confidence interval, lower bound	11.7	12.0	13.6	12.1
95% confidence interval, upper bound	14.0	13.8	15.6	14.0
% of life expectancy spent working	36.9%	36.5%	40.6%	34.8%
95% confidence interval, lower bound	35.8%	35.9%	39.9%	34.3%
95% confidence interval, upper bound	42.6%	41.5%	45.7%	39.8%
Difference relative WLE male/female	23.6%	11.8%	18.5%	12.3%

Table B8: Remaining life expectancy at age 50 by race/ethnicity, gender, and education

		1995	2000	2005	2010
White males	less than high school degree	25.0	24.1	24.8	24.4
	high school degree	26.8	28.1	28.4	29.6
	college/university degree	28.7	30.7	31.8	33.0
White females	less than high school degree	30.0	29.5	28.9	29.8
	high school degree	31.4	32.0	32.7	33.4
	college/university degree	33.2	33.9	34.6	35.7
Black males	less than high school degree	23.0	23.4	22.8	23.0
	high school degree	22.7	22.8	25.4	28.8
	college/university degree	21.7	31.2	29.8	30.7
Black females	less than high school degree	27.0	27.4	28.6	30.1
	high school degree	29.1	30.3	30.1	31.3
	college/university degree	28.1	28.3	31.5	32.7
Hispanic males	less than high school degree	28.6	30.2	31.0	31.2
	high school degree	29.5	29.2	31.9	31.2
	college/university degree	31.3	33.9	29.1	32.6
Hispanic females	less than high school degree	33.9	32.3	33.3	33.1
	high school degree	32.8	37.6	37.8	38.6
	college/university degree	29.6	30.6	34.0	39.4

Table B9: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; whites, less than high school degree;

	1995	2000	2005	2010
White males, less than high school degree				
Life expectancy at age 50	25.0	24.1	24.8	24.4
Working life expectancy at age 50	11.8	10.4	10.0	7.9
95% confidence interval, lower bound	10.7	9.4	8.6	6.5
95% confidence interval, upper bound	13.1	11.7	11.6	9.8
% of life expectancy spent working	47.1%	43.3%	40.5%	32.3%
95% confidence interval, lower bound	43.3%	38.6%	34.2%	26.2%
95% confidence interval, upper bound	51.4%	47.5%	45.5%	39.4%
White females, less than high school degree				
Life expectancy at age 50	30.0	29.5	28.9	29.8
Working life expectancy at age 50	8.5	6.2	6.5	6.4
95% confidence interval, lower bound	7.4	5.3	5.5	4.9
95% confidence interval, upper bound	9.7	7.2	7.9	8.2
% of life expectancy spent working	28.3%	20.9%	22.6%	21.6%
95% confidence interval, lower bound	24.9%	18.1%	19.0%	16.3%
95% confidence interval, upper bound	32.2%	24.3%	27.1%	27.0%
Difference relative WLE male/female	18.8%	22.4%	17.9%	10.7%

Table B10: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; whites, high school degree/GED;

	1995	2000	2005	2010
White males, high school degree/GED				
Life expectancy at age 50	26.8	28.1	28.4	29.6
Working life expectancy at age 50	14.4	13.0	13.6	13.2
95% confidence interval, lower bound	13.7	12.4	12.9	12.3
95% confidence interval, upper bound	15.2	13.6	14.3	14.1
% of life expectancy spent working	53.8%	46.4%	48.0%	44.6%
95% confidence interval, lower bound	51.2%	44.2%	45.7%	41.8%
95% confidence interval, upper bound	56.4%	48.5%	50.3%	47.5%
White females, high school degree/GED				
Life expectancy at age 50	31.4	32.0	32.7	33.4
Working life expectancy at age 50	11.7	11.4	12.2	11.5
95% confidence interval, lower bound	11.0	10.8	11.5	10.6
95% confidence interval, upper bound	12.3	11.9	12.9	12.3
% of life expectancy spent working	37.1%	35.5%	37.3%	34.3%
95% confidence interval, lower bound	35.2%	33.9%	35.4%	31.8%
95% confidence interval, upper bound	39.1%	37.3%	39.4%	36.6%
Difference relative WLE male/female	16.7%	10.9%	10.7%	10.3%

Table B11: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; whites, college/university degree;

	1995	2000	2005	2010
White males, college/university degree				
Life expectancy at age 50	28.7	30.7	31.8	33.0
Working life expectancy at age 50	17.9	15.8	19.4	16.3
95% confidence interval, lower bound	16.8	14.8	18.2	15.3
95% confidence interval, upper bound	19.2	16.6	20.3	17.3
% of life expectancy spent working	62.5%	51.6%	61.0%	49.3%
95% confidence interval, lower bound	58.6%	48.7%	58.0%	46.4%
95% confidence interval, upper bound	66.3%	54.5%	64.0%	52.9%
White females, college/university degree				
Life expectancy at age 50	33.2	33.9	34.6	35.7
Working life expectancy at age 50	13.6	13.8	15.6	14.4
95% confidence interval, lower bound	12.5	12.8	14.5	13.2
95% confidence interval, upper bound	14.9	14.7	16.7	15.4
% of life expectancy spent working	40.9%	40.5%	45.3%	40.2%
95% confidence interval, lower bound	37.4%	37.6%	42.1%	37.3%
95% confidence interval, upper bound	44.8%	43.1%	48.2%	43.3%
Difference relative WLE male/female	21.6%	11.0%	15.7%	9.1%

Table B12: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; blacks, less than high school degree;

	1995	2000	2005	2010
Black males, less than high school degree				
Life expectancy at age 50	23.0	23.4	22.8	23.0
Working life expectancy at age 50	8.5	8.3	7.6	7.5
95% confidence interval, lower bound	7.0	6.6	5.9	5.6
95% confidence interval, upper bound	10.2	9.8	9.8	9.9
% of life expectancy spent working	37.2%	35.6%	33.5%	32.5%
95% confidence interval, lower bound	31.1%	27.7%	25.2%	23.2%
95% confidence interval, upper bound	44.0%	41.7%	42.0%	42.0%
Black females, less than high school degree				
Life expectancy at age 50	27.0	27.4	28.6	30.1
Working life expectancy at age 50	7.1	6.0	5.9	5.9
95% confidence interval, lower bound	5.9	4.7	4.4	4.2
95% confidence interval, upper bound	8.6	7.6	7.6	7.9
% of life expectancy spent working	26.3%	22.0%	20.6%	19.7%
95% confidence interval, lower bound	22.1%	16.9%	15.4%	13.9%
95% confidence interval, upper bound	31.6%	27.2%	26.4%	26.5%
Difference relative WLE male/female	10.8%	13.6%	12.9%	12.8%

Table B13: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; blacks, high school degree/GED;

	1995	2000	2005	2010
Black males, high school degree/GED				
Life expectancy at age 50	22.7	22.8	25.4	28.8
Working life expectancy at age 50	10.9	9.2	11.5	8.2
95% confidence interval, lower bound	9.3	7.5	9.0	6.4
95% confidence interval, upper bound	12.9	10.8	13.5	9.9
% of life expectancy spent working	48.2%	40.2%	45.2%	28.5%
95% confidence interval, lower bound	41.2%	31.9%	36.3%	22.7%
95% confidence interval, upper bound	56.3%	46.7%	53.0%	35.1%
Black females, high school degree/GED				
Life expectancy at age 50	29.1	30.3	30.1	31.3
Working life expectancy at age 50	11.3	10.0	10.9	9.9
95% confidence interval, lower bound	9.8	8.5	9.5	8.3
95% confidence interval, upper bound	13.0	11.5	12.2	11.3
% of life expectancy spent working	38.9%	33.1%	36.2%	31.5%
95% confidence interval, lower bound	33.8%	28.2%	31.7%	26.4%
95% confidence interval, upper bound	44.9%	38.3%	40.6%	36.0%
Difference relative WLE male/female	9.4%	7.1%	9.0%	-3.0%

Table B14: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; blacks, college/university degree;

	1995	2000	2005	2010
Black males, college/university degree				
Life expectancy at age 50	21.7	31.2	29.8	30.7
Working life expectancy at age 50	15.0	9.1	19.1	17.6
95% confidence interval, lower bound	10.2	6.1	15.5	13.1
95% confidence interval, upper bound	21.1	12.8	22.6	21.1
% of life expectancy spent working	69.2%	29.2%	64.1%	57.4%
95% confidence interval, lower bound	48.8%	20.3%	53.5%	45.3%
95% confidence interval, upper bound	86.2%	43.3%	75.6%	69.9%
Black females, college/university degree				
Life expectancy at age 50	28.1	28.3	31.5	32.7
Working life expectancy at age 50	13.3	11.2	13.8	10.3
95% confidence interval, lower bound	10.2	8.7	11.1	8.3
95% confidence interval, upper bound	16.8	13.9	16.9	12.4
% of life expectancy spent working	47.3%	39.5%	43.8%	31.5%
95% confidence interval, lower bound	37.3%	30.3%	35.5%	25.3%
95% confidence interval, upper bound	58.8%	49.3%	54.2%	38.2%
Difference relative WLE male/female	22.0%	-10.2%	20.3%	25.9%

Table B15: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; Hispanics, less than high school degree;

	1995	2000	2005	2010
Hispanic males, less than high school degree				
Life expectancy at age 50	28.6	30.2	31.0	31.2
Working life expectancy at age 50	10.5	10.9	10.5	8.9
95% confidence interval, lower bound	8.9	9.1	8.6	7.0
95% confidence interval, upper bound	12.6	12.5	12.5	11.4
% of life expectancy spent working	36.8%	36.2%	33.7%	28.6%
95% confidence interval, lower bound	31.0%	30.1%	27.5%	22.3%
95% confidence interval, upper bound	44.7%	42.0%	40.8%	36.7%
Hispanic females, less than high school degree				
Life expectancy at age 50	33.9	32.3	33.3	33.1
Working life expectancy at age 50	7.3	5.8	5.4	7.3
95% confidence interval, lower bound	5.8	4.3	4.2	5.3
95% confidence interval, upper bound	9.1	7.1	6.9	9.4
% of life expectancy spent working	21.7%	17.9%	16.2%	22.0%
95% confidence interval, lower bound	17.3%	13.2%	12.5%	15.9%
95% confidence interval, upper bound	27.1%	22.1%	20.7%	28.2%
Difference relative WLE male/female	15.1%	18.3%	17.5%	6.6%

Table B16: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; Hispanics, high school degree/GED;

	1995	2000	2005	2010
Hispanic males, high school degree/GED				
Life expectancy at age 50	29.5	29.2	31.9	31.2
Working life expectancy at age 50	12.5	12.5	13.5	11.0
95% confidence interval, lower bound	9.9	9.0	11.4	8.2
95% confidence interval, upper bound	15.6	15.8	15.9	13.9
% of life expectancy spent working	42.4%	42.6%	42.3%	35.3%
95% confidence interval, lower bound	33.5%	30.3%	35.3%	26.1%
95% confidence interval, upper bound	53.0%	54.6%	50.6%	45.0%
Hispanic females, high school degree/GED				
Life expectancy at age 50	32.8	37.6	37.8	38.6
Working life expectancy at age 50	11.4	9.7	11.8	11.2
95% confidence interval, lower bound	9.4	7.5	9.3	8.9
95% confidence interval, upper bound	14.2	12.0	14.4	13.6
% of life expectancy spent working	34.7%	25.6%	31.3%	29.1%
95% confidence interval, lower bound	27.6%	20.0%	24.8%	23.4%
95% confidence interval, upper bound	45.0%	32.7%	39.0%	35.9%
Difference relative WLE male/female	7.8%	17.0%	11.0%	6.2%

Table B17: Remaining life expectancy at age 50, working life expectancy at age 50, and proportion of remaining life expectancy spent working; Hispanics, college/university degree;

	1995	2000	2005	2010
Hispanic males, college/university degree				
Life expectancy at age 50	31.3	33.9	29.1	32.6
Working life expectancy at age 50	16.1	17.0	19.4	14.3
95% confidence interval, lower bound	11.8	13.1	15.8	11.7
95% confidence interval, upper bound	22.1	20.8	22.7	17.6
% of life expectancy spent working	51.4%	50.1%	66.5%	43.9%
95% confidence interval, lower bound	36.4%	37.7%	51.1%	34.4%
95% confidence interval, upper bound	69.0%	65.0%	78.4%	57.0%
Hispanic females, college/university degree				
Life expectancy at age 50	29.6	30.6	34.0	39.4
Working life expectancy at age 50	10.2	14.1	10.7	12.9
95% confidence interval, lower bound	7.3	9.8	7.9	9.1
95% confidence interval, upper bound	13.6	19.4	14.1	16.8
% of life expectancy spent working	34.4%	46.1%	31.4%	32.7%
95% confidence interval, lower bound	21.5%	28.3%	22.0%	23.2%
95% confidence interval, upper bound	48.8%	61.8%	43.6%	44.1%
Difference relative WLE male/female	16.9%	4.0%	35.1%	11.2%

Table B18: Decomposition of life expectancy into working life expectancy, life expectancy in retirement, and life expectancy out of the labor force; whites by gender and education

	1995	2000	2005	2010
Less than high school degree, white males				
Working life expectancy	11.8	10.4	10.0	7.9
Life expectancy in retirement	10.0	9.8	10.5	11.1
Life expectancy out of the labor force	3.3	3.8	4.3	5.4
Less than high school degree, white females				
Working life expectancy	8.5	6.2	6.5	6.4
Life expectancy in retirement	14.0	14.4	13.2	15.0
Life expectancy out of the labor force	7.6	8.9	9.2	8.3
High school, white males				
Working life expectancy	14.4	13.0	13.6	13.2
Life expectancy in retirement	10.7	12.9	12.4	13.5
Life expectancy out of the labor force	1.7	2.1	2.3	2.9
High school, white females				
Working life expectancy	11.7	11.4	12.2	11.5
Life expectancy in retirement	15.1	16.0	15.8	17.3
Life expectancy out of the labor force	4.7	4.6	4.7	4.7
College, white males				
Working life expectancy	17.9	15.8	19.4	16.3
Life expectancy in retirement	10.0	13.6	11.4	14.9
Life expectancy out of the labor force	0.8	1.3	1.0	1.9
College, white females				
Working life expectancy	13.6	13.8	15.6	14.4
Life expectancy in retirement	16.8	17.6	16.1	18.5
Life expectancy out of the labor force	2.8	2.5	2.8	2.8

Table B19: Decomposition of life expectancy into working life expectancy, life expectancy in retirement, and life expectancy out of the labor force; blacks by gender and education

	1995	2000	2005	2010
Less than high school degree, black males				
Working life expectancy	8.5	8.3	7.6	7.5
Life expectancy in retirement	9.9	10.0	8.9	9.3
Life expectancy out of the labor force	4.5	5.1	6.3	6.2
Less than high school degree, black females				
Working life expectancy	7.1	6.0	5.9	5.9
Life expectancy in retirement	12.7	12.8	12.1	14.6
Life expectancy out of the labor force	7.2	8.6	10.6	9.6
High school, black males				
Working life expectancy	10.9	9.2	11.5	8.2
Life expectancy in retirement	9.1	9.5	10.1	15.1
Life expectancy out of the labor force	2.7	4.1	3.8	5.5
High school, black females				
Working life expectancy	11.3	10.0	10.9	9.9
Life expectancy in retirement	13.6	15.7	14.1	15.6
Life expectancy out of the labor force	4.2	4.6	5.1	5.8
College, black males				
Working life expectancy	15.0	9.1	19.1	17.6
Life expectancy in retirement	5.3	19.3	10.0	11.0
Life expectancy out of the labor force	1.4	2.7	0.7	2.0
College, black females				
Working life expectancy	13.3	11.2	13.8	10.3
Life expectancy in retirement	13.2	14.4	14.9	19.7
Life expectancy out of the labor force	1.6	2.7	2.8	2.7

Table B20: Decomposition of life expectancy into working life expectancy, life expectancy in retirement, and life expectancy out of the labor force; Hispanics by gender and education

	1995	2000	2005	2010
Less than high school degree, Hispanic males				
Working life expectancy	10.5	10.9	10.5	8.9
Life expectancy in retirement	13.3	14.2	14.7	15.5
Life expectancy out of the labor force	4.8	5.1	5.9	6.9
Less than high school degree, Hispanic females				
Working life expectancy	7.3	5.8	5.4	7.3
Life expectancy in retirement	17.2	16.4	17.1	16.9
Life expectancy out of the labor force	9.4	10.1	10.8	8.8
High school, Hispanic males				
Working life expectancy	12.5	12.5	13.5	11.0
Life expectancy in retirement	14.4	13.8	15.9	14.7
Life expectancy out of the labor force	2.6	3.0	2.5	5.5
High school, Hispanic females				
Working life expectancy	11.4	9.7	11.8	11.2
Life expectancy in retirement	16.6	21.6	21.0	22.8
Life expectancy out of the labor force	4.8	6.4	5.0	4.5
College, Hispanic males				
Working life expectancy	16.1	17.0	19.4	14.3
Life expectancy in retirement	14.1	15.3	8.1	15.3
Life expectancy out of the labor force	1.1	1.6	1.6	3.1
College, Hispanic females				
Working life expectancy	10.2	14.1	10.7	12.9
Life expectancy in retirement	17.2	13.6	18.7	22.6
Life expectancy out of the labor force	2.2	2.9	4.7	3.9

Software and code

All of the calculations were conducted using the freely available statistical software R (R Core Team 2015) and the `VGAM` and the `Biodem` packages (Boattini and Calboli 2012; Yee 2010). The figures were created using `ggplot2` (Wickham 2009). All code is available upon request from the authors. Transition matrices on which our calculations are based are available online. For researchers HRS data is available at no costs and can be obtained from http://hrsonline.isr.umich.edu. The website also hosts an extensive documentation.

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