PRINCETON UNIVERSITY

Where Have All the Workers Gone?

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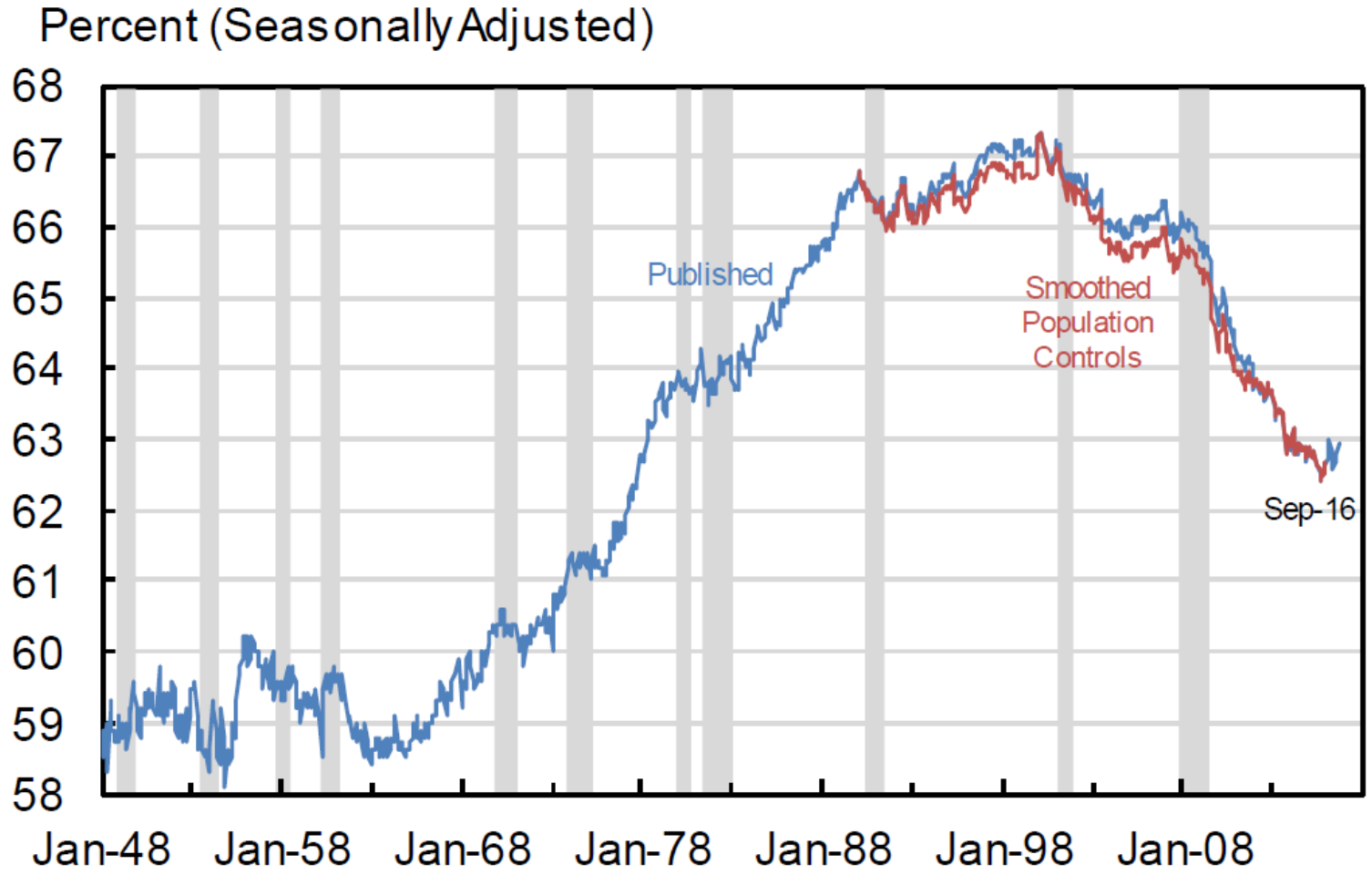
Bottom Lines

- LFPR in the U.S. has declined since 2007 primarily because of population aging and ongoing trends that preceded the recession.
- LFPR is only moderately procyclical, and the 0.5 pp rise since Sept. 2015 occurred mainly because long-term unemployed stayed in the labor force.
- Decline in LFPR of young people primarily offset by schooling increase
- LFPR has been declining for prime age men for decades, and about half of prime age men who are not in the labor force (NLF) may have a serious health condition.
- Prime age men who are out of the labor force report notably low levels of emotional well-being throughout their days, and low satisfaction.
- Participation rate stopped rising for cohorts of women born after 1960. Employed and NLF women report similar levels of SWB
- Population aging will be a continued drag on participation. A rise in participation will require a reversal of secular trends.

Note on Adjustment to Labor Force and Pop'n for Decennial and Annual Pop'n Controls

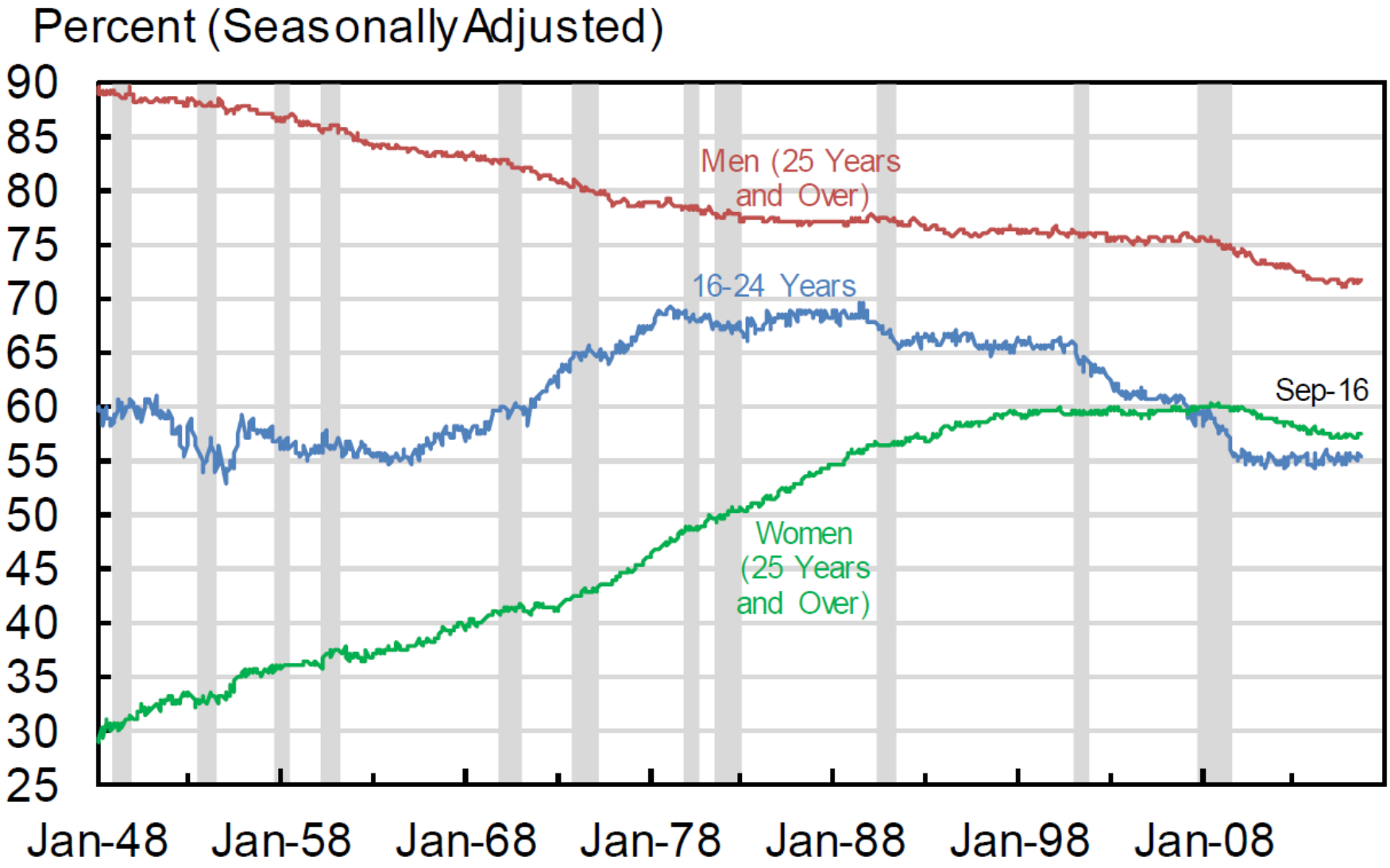
- Labor force and population data were adjusted for introduction of 2000 and 2010 decennial Census pop'n controls in the Current Population Survey in 2003 and 2012, respectively.
- Population controls introduced in 2012 caused an abrupt 0.3 pp drop in LFPR in January 2012, largely because population of older individuals exceeded assumed intercensal value.
- Intercensal updates also can have abrupt effects.
- Follow BLS research series and smoothly distribute effect of new population controls back to previous Census.
- Compared to the published series, the adjusted series indicates that LFPR rose a bit less in the 1990s recovery, declined a bit more in the 2001-07 recovery, and fell a bit less in the current recovery, but overall the trends are similar.

Figure 1: Labor Force Participation Rate Monthly Data



Note: Data for January 1990 to December 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Figure 2: Labor Force Participation Rates, by Age and Gender



Demographic Groups (i=1,...,16) Participation Rates and Population Shares

Table 1: Labor Force Participation Rates and Population Shares for Selected Demographic Groups

	Labor Force Participation Rate (%)			Share of Population (%)		
	1997	2007	2016	1997	2007	2016
Total	67.1	65.6	62.8	100.0	100.0	100.0
Men						
16-17 Years	41.3	28.7	23.6	2.0	2.1	1.8
18-19 Years	63.9	55.2	49.7	1.9	1.8	1.6
20-24 Years	82.5	78.5	73.2	4.3	4.5	4.3
25-34 Years	92.9	92.2	88.9	9.6	8.2	8.5
35-44 Years	92.5	92.2	90.6	10.7	8.8	7.7
45-54 Years	89.4	88.2	86.3	8.0	9.1	8.2
55-64 Years	67.6	69.6	70.1	5.1	6.8	7.8
65 Years & Over	17.1	20.5	24.1	6.6	6.9	8.4
Women						
16-17 Years	41.0	30.7	25.1	1.9	2.0	1.8
18-19 Years	61.2	53.7	48.6	1.8	1.7	1.5
20-24 Years	72.6	70.0	68.0	4.3	4.4	4.3
25-34 Years	76.0	74.4	74.3	9.9	8.5	8.7
35-44 Years	77.7	75.5	74.5	10.9	9.2	8.0
45-54 Years	76.0	76.0	73.7	8.4	9.6	8.6
55-64 Years	50.9	58.3	58.4	5.5	7.4	8.5
65 Years & Over	8.6	12.6	15.5	9.1	9.1	10.5

Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September.

Decompose Change in Labor Force Participation Rate Example: Reweight 1997 LFPR with 2016 Pop'n Shares

$$\ell = \sum \ell_{i,1997}\, w_{i,1997} = 67.1\%$$

$$\hat{\ell} = \sum \ell_{i,1997}\, w_{i,2016} = 63.7\%$$

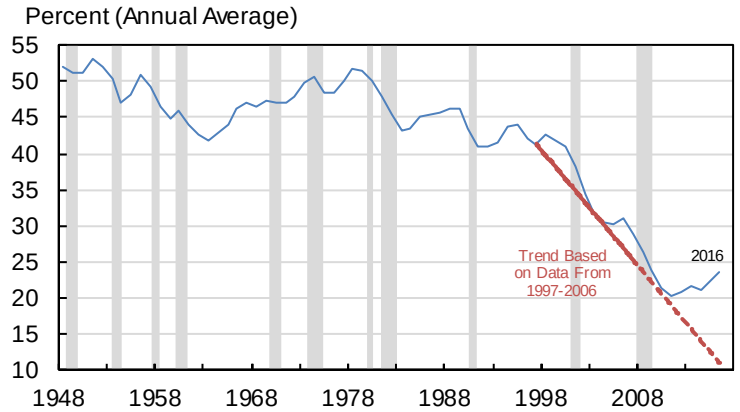
The labor force participation rate fell by 4.2 percentage points from 1997 to 2016, so this calculation implies that 3.4/4.2 = 81 percent of the decline could have resulted from the shift in population shares.

Second Approach

- Take into account 1997-2007 linear trends for each group – pre-Great Recession
- And shifting population shares

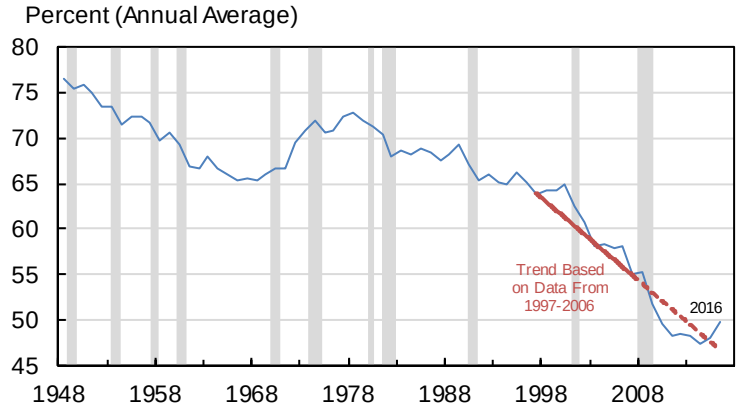
Fit Linear Trend 1997-2006 – Men

Appendix Figure A1: Labor Force Participation Rate for Men Ages 16-17



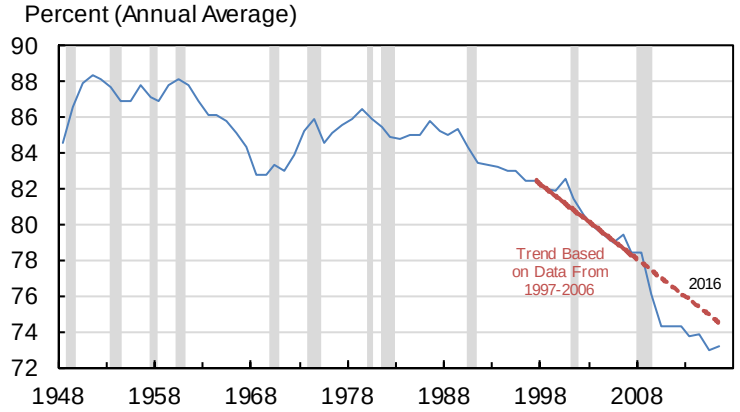
Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Appendix Figure A2: Labor Force Participation Rate for Men Ages 18-19



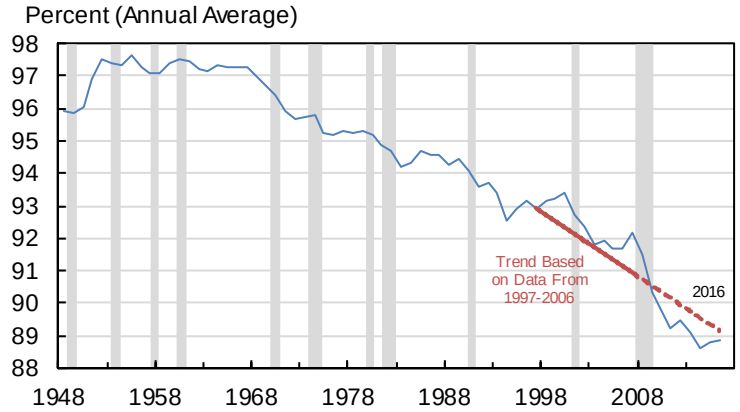
Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Appendix Figure A3: Labor Force Participation Rate for Men Ages 20-24



Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

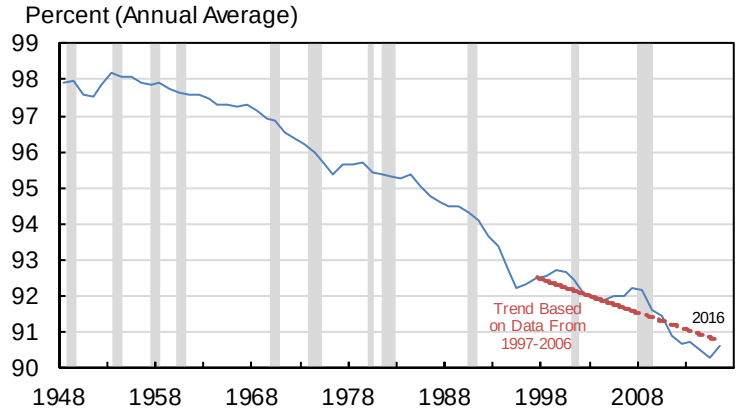
Appendix Figure A4: Labor Force Participation Rate for Men Ages 25-34



Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

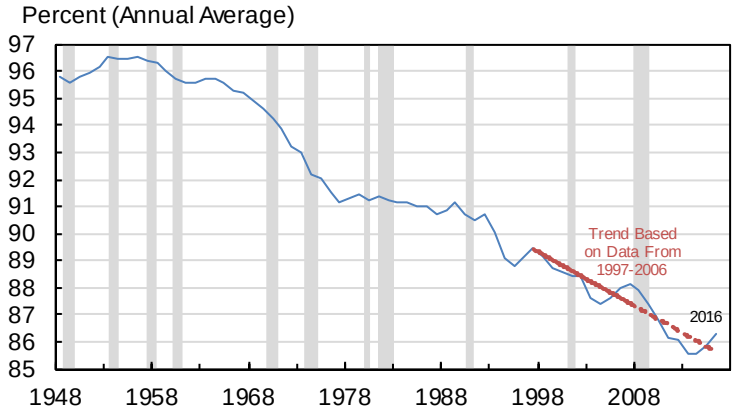
Men

Appendix Figure A5: Labor Force Participation Rate for Men Ages 35-44



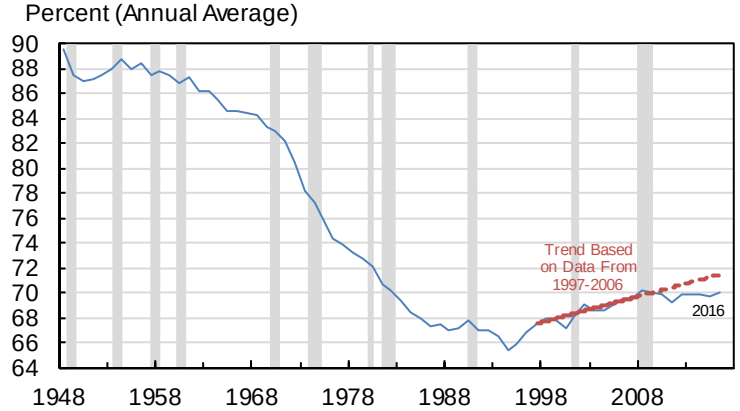
Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Appendix Figure A6: Labor Force Participation Rate for Men Ages 45-54



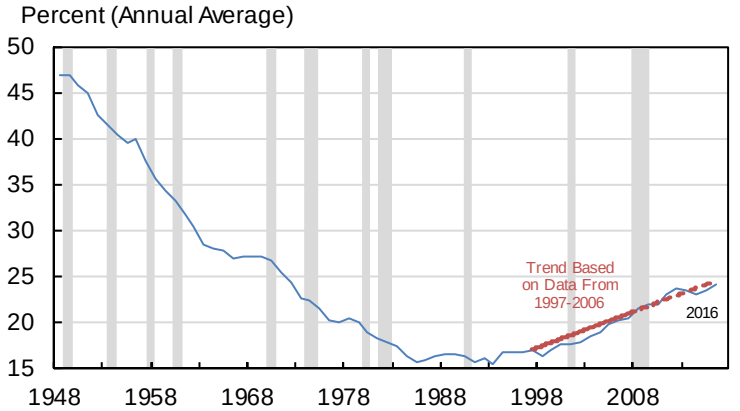
Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Appendix Figure A7: Labor Force Participation Rate for Men Ages 55-64



Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

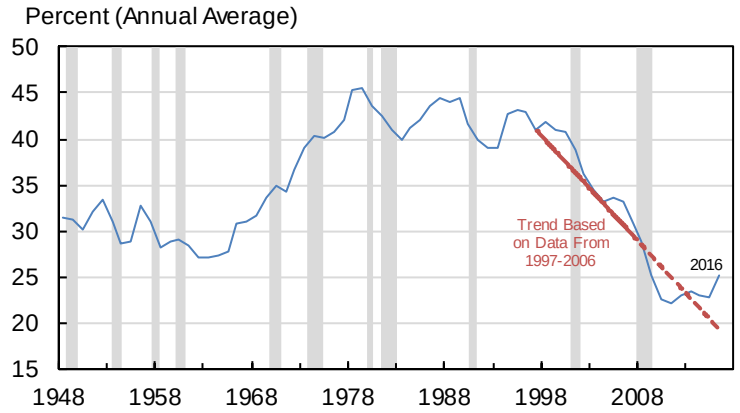
Appendix Figure A8: Labor Force Participation Rate for Men Ages 65 and Older



Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

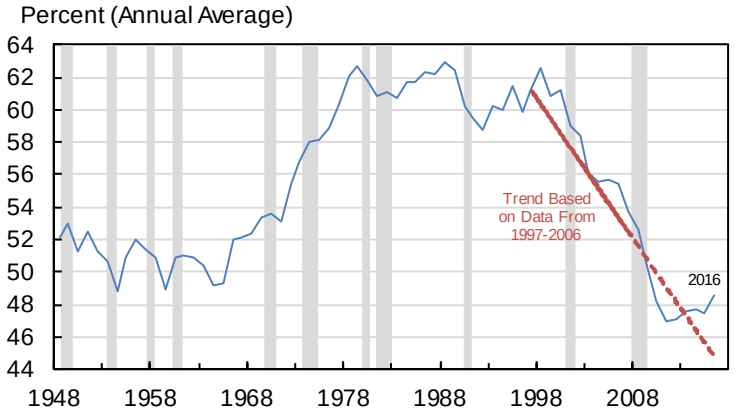
Women

Appendix Figure A9: Labor Force Participation Rate for Women Ages 16-17



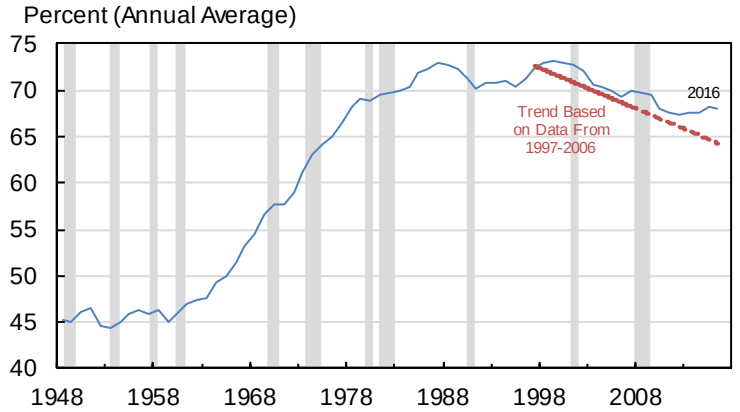
Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Appendix Figure A10: Labor Force Participation Rate for Women Ages 18-19



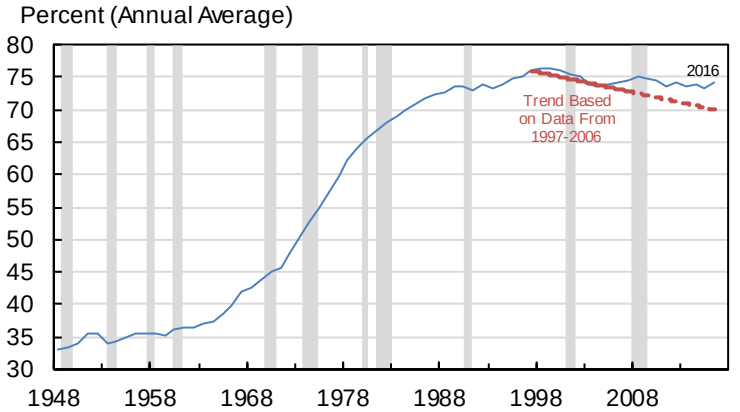
Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Appendix Figure A11: Labor Force Participation Rate for Women Ages 20-24



Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

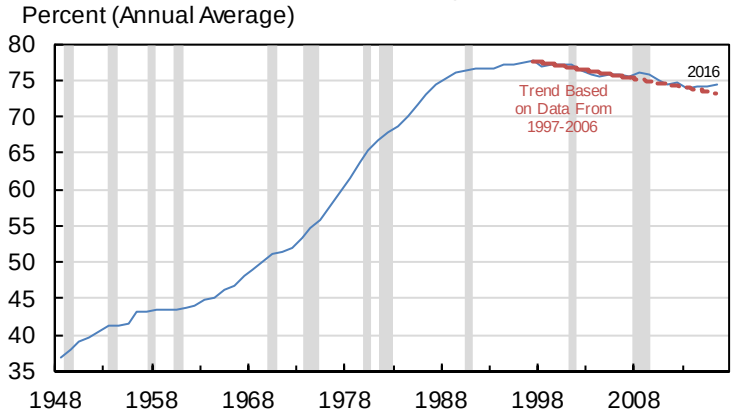
Appendix Figure A12: Labor Force Participation Rate for Women Ages 25-34



Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

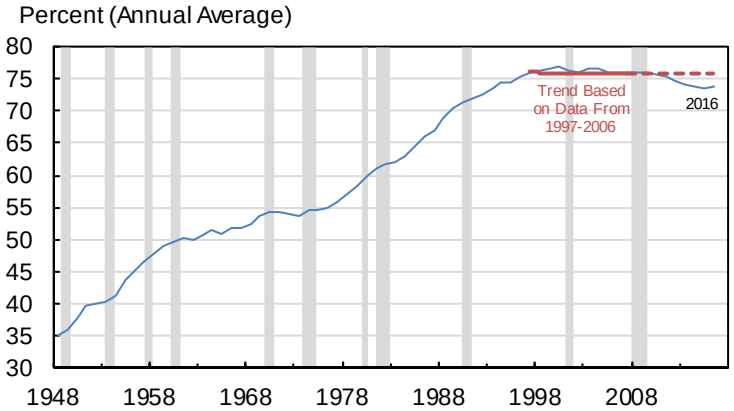
Women

Appendix Figure A13: Labor Force Participation Rate for Women Ages 35-44



Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Appendix Figure A14: Labor Force Participation Rate for Women Ages 45-54



Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
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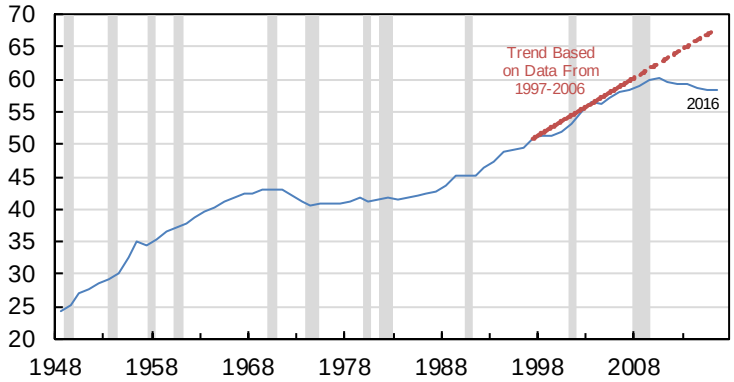
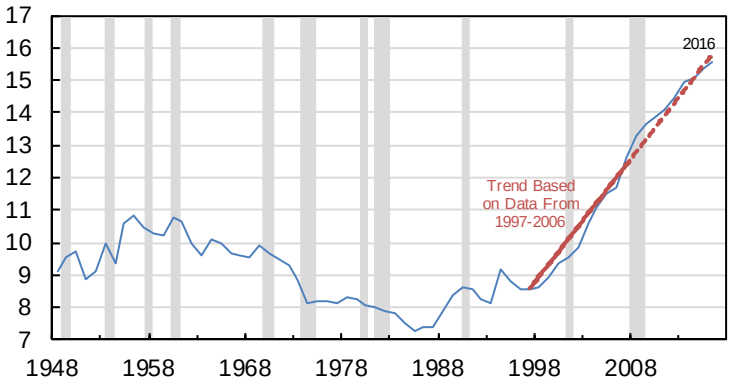
Appendix Figure A15: Labor Force Participation Rate for Women Ages 55-64



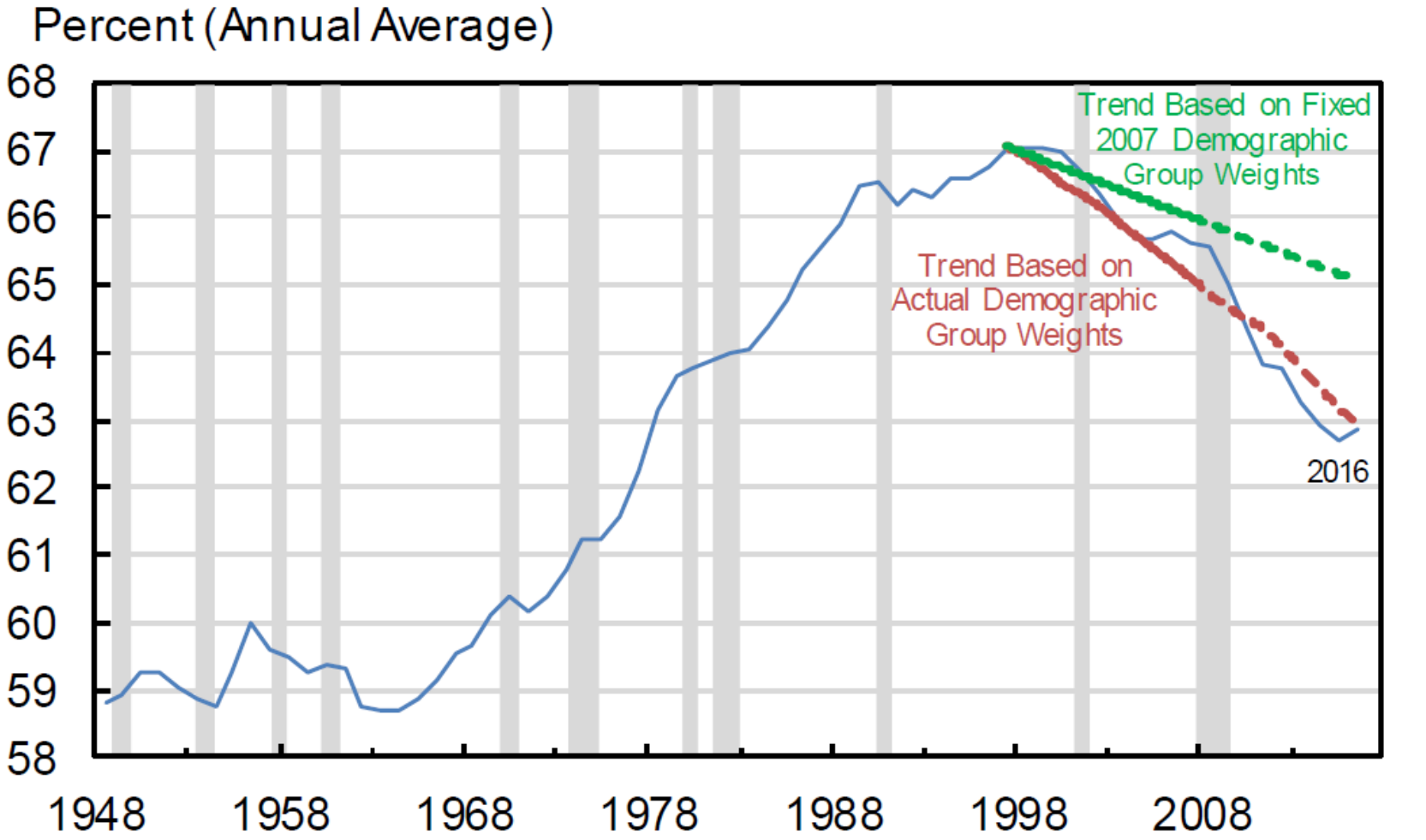
Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Appendix Figure A16: Labor Force Participation Rate for Women Ages 65 and Older



Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research; author's calculations.

Figure 3: Labor Force Participation Rate



Note: Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. 2016 represents the average of data from January through September. Shading denotes recession.

Annual First-Difference Regression Model of LFPR

Table 3: Time-Series Regression Models of the Labor Force Participation Rate in Annual First Differences

	Dependent Variable: Change in Labor Force Participation Rate							
	1949 to 2016				1997 to 2016			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	0.251	-0.099	0.165	-0.107	0.000	0.149	-0.012	0.132
	(0.115)**	(0.125)	(0.109)	(0.133)	(0.090)	(0.096)	(0.112)	(0.085)
Change in Unemployment Rate	-0.082	-0.085	-0.076	-0.086	-0.104	-0.072	-1.000	-0.060
	(0.032)**	(0.026)***	(0.028)***	(0.028)***	(0.027)***	(0.040)*	(0.041)**	(0.051)
Time	-0.006	0.025	-0.001	0.026	-0.020	-0.071	-0.016	-0.065
	(0.003)**	(0.008)***	(0.003)	(0.009)***	(0.010)*	(0.043)	(0.021)	(0.040)
Time Squared / 1000		-0.436		-0.456		2.737		2.892
		(0.108)***		(0.152)***		(2.369)		(2.453)
Indicator Variable for 2007 to 2016			-0.365	0.036			-0.052	-0.108
			(0.143)**	(0.154)			(0.218)	(0.208)
Adjusted R-Squared	0.142	0.343	0.227	0.333	0.197	0.234	0.149	0.194
Number of Observations	68	68	68	68	20	20	20	20

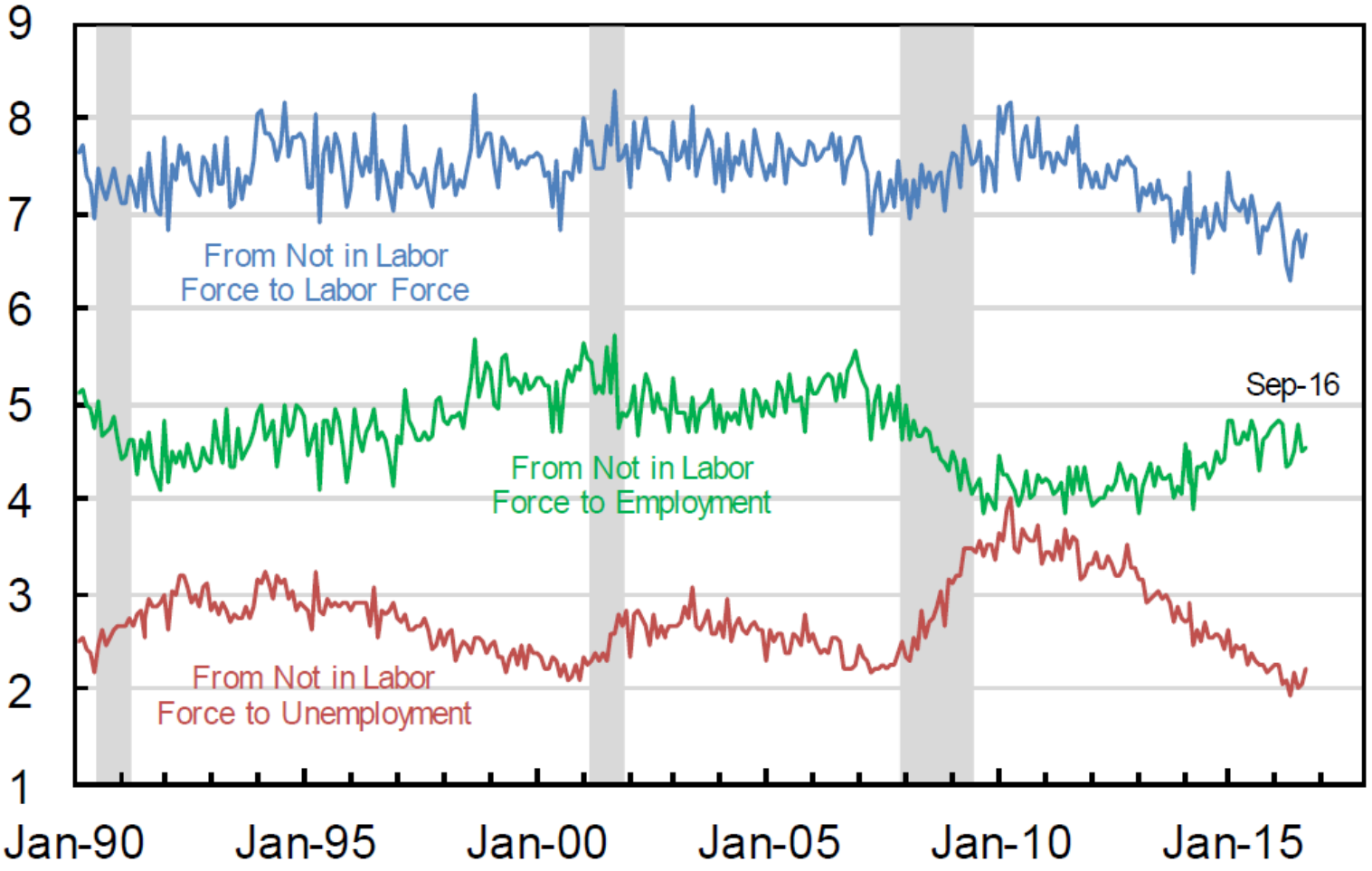
Notes: Newey-West standard errors with 3 years of lags shown in parentheses. Data for 1990 to 2015 have been adjusted to account for the effects of the annual population control adjustments to the Current Population Survey. See text for more details. Source: Bureau of Labor Statistics; National Bureau of Economics Research; author's calculations. Levels of significance: *** = 0.01, ** = 0.05, * = 0.10.

Cyclical Drop in LFPR: -0.085 x 5% = -0.425%

No Increase in Movement from NLF to LF, NLF-E Rising and NLF-U Falling

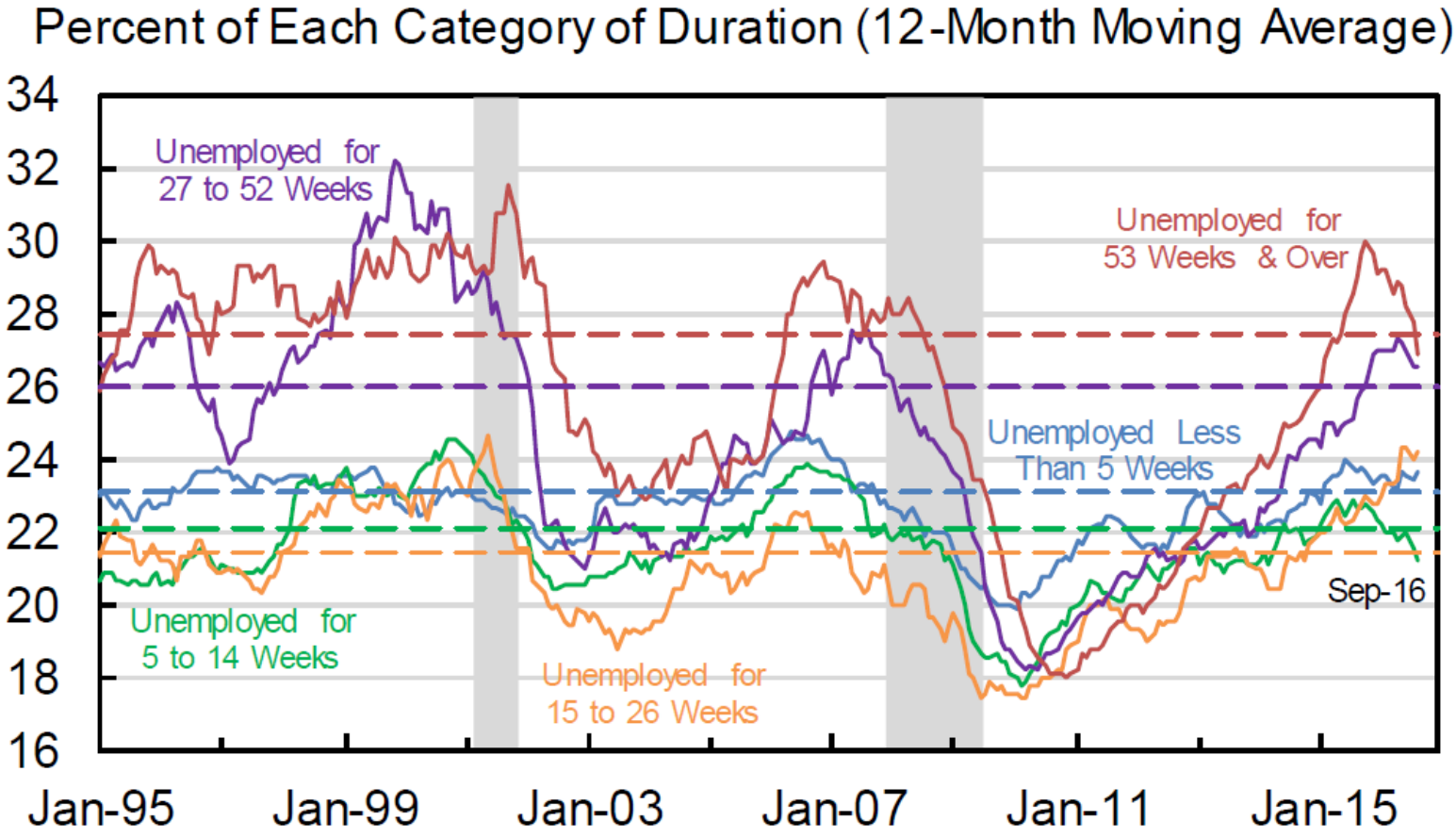
Figure 4: Transition Rate From Not in Labor Force

Percent of Previous Month's Not in Labor Force (Seasonally Adjusted)



Recent Rebound in LFPR Mainly Due to Dip in Labor Force Withdrawal by Long-Term Unemployed

Figure 5: Monthly Probability of Transitioning From Unemployment to Not in Labor Force by Duration of Unemployment



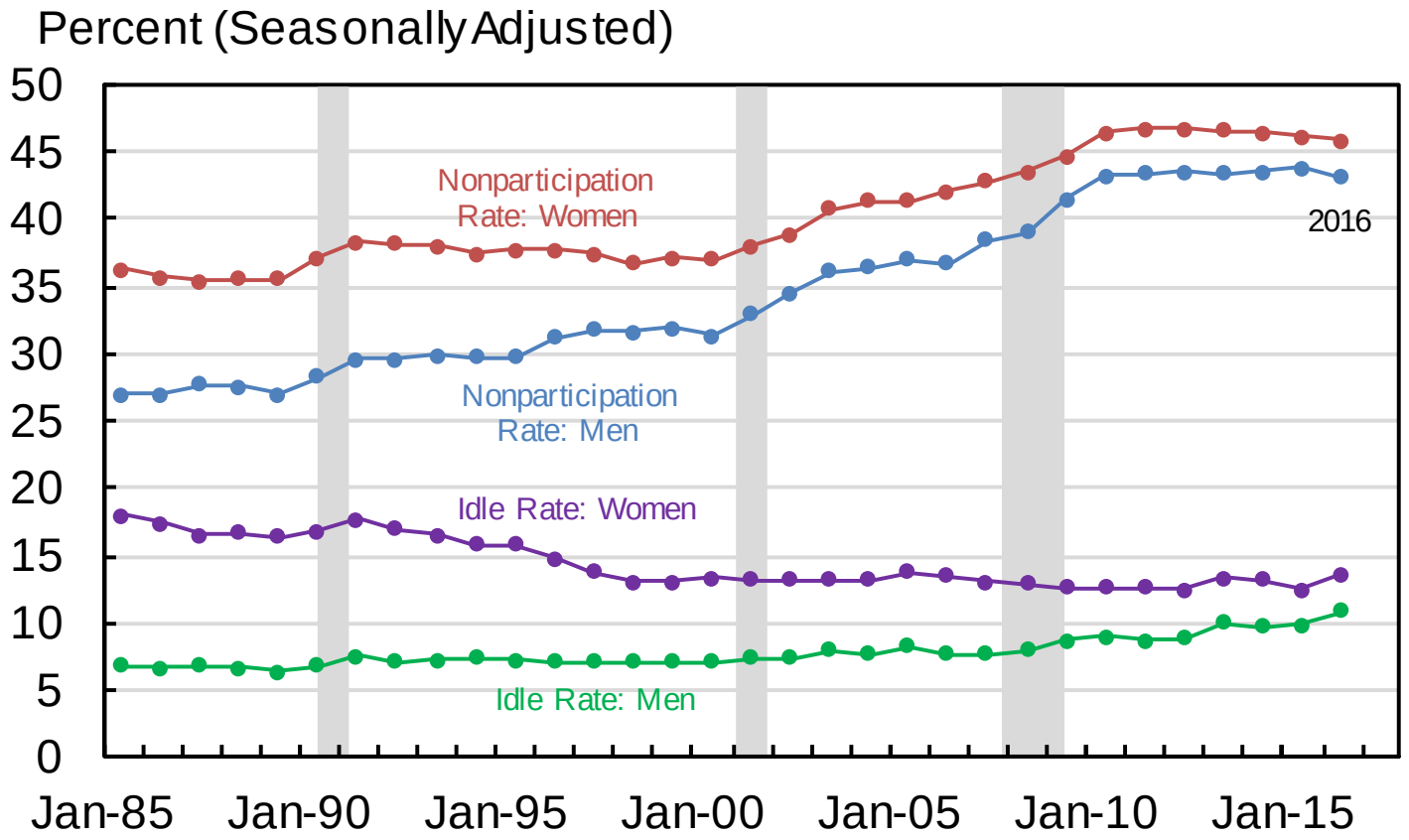
Understanding Trends for Subgroups

- Young Workers
- Prime Age Men
- Women
- Retirement Rate

- Subjective Well-Being

Rise in School Enrollment Offset Most of Decline in LFPR for Young Men, and All of it for Young Women

Figure 6: Nonparticipation and Idle Rates by Gender for Ages 16-24



Note: Idle refers to neither enrolled in school nor participating in labor force. 2016 represents the average of data from January through September. Shading denotes recession.
Source: Bureau of Labor Statistics; National Bureau of Economic Research.

Table 4 – Time Use Age 21-30

Activity	Time Use, Hours Per Week			
	2004-2007	2008-2011	2012-2015	Change from 04-07 to 12-15
Sleeping	60.62	60.54	61.40	0.78
Work (incl. commuting)	34.02	33.02	30.89	-3.13
Watching TV	17.20	16.71	16.99	-0.21
Eating and Drinking	7.42	7.48	7.39	-0.03
Grooming	3.91	4.07	4.05	0.14
Socializing	4.66	4.71	5.16	0.50
Food/Drink Preparation	1.13	1.42	1.64	0.51
Cleaning	1.41	1.57	1.37	-0.05
Reading	0.85	0.74	0.95	0.10
Shopping	2.04	1.85	1.79	-0.25
Laundry	0.40	0.45	0.56	0.16
Relaxing/Thinking	1.44	1.38	1.51	0.07
Gardening	0.67	0.72	0.74	0.08
Child Care	2.25	2.39	1.95	-0.30
Education	3.35	3.79	4.66	1.32
Adult Care	0.78	0.67	0.63	-0.14
Computer Use	1.25	1.56	1.86	0.60
Playing Games	2.05	3.28	3.72	1.67
N	*2,705*	*2,638*	*2,308*	

Notes: Table shows average number of hours per week spent on each activity. Sample is ATUS data, 2003-2015. Weighted using final ATUS person weights. Averages include people who report no time spent on an activity. N is total number of respondents.

+5.3 hrs if NLF

Aguiar, et al. are right: Video Games are Fun (More Fun than TV and Computer Time)

Table 5: Regressions of Various Affect Measures on Activity Indicator Variables and Person Fixed Effects for Men Ages 16-35

	Dependent Variable: Affect Measure					
	Happy	**Sad**	**Stress**	**Tired**	**Pain**	**Meaning**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Constant	4.168	0.523	1.540	2.208	0.582	4.209
	(0.021) ***	(0.017) ***	(0.023) ***	(0.024) ***	(0.013) ***	(0.027) ***
Gaming Indicator Variable	0.567	-0.215	-0.235	-0.022	0.014	-0.860
	(0.104) ***	(0.109) **	(0.123) *	(0.209)	(0.052)	(0.231) ***
TV Indicator Variable	0.085	-0.100	-0.627	0.359	-0.052	-0.921
	(0.070)	(0.064)	(0.086) ***	(0.084) ***	(0.047)	(0.095) ***
Computer Indicator Variable	-0.413	0.016	-0.321	0.218	-0.252	-1.112
	(0.154) ***	(0.078)	(0.152) **	(0.181)	(0.120) **	(0.225) ***
Person Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	12,603	12,618	12,621	12,618	12,621	12,594
Test of Equality of Indicator Variables:						
p-value: Gaming = TV	0.000	0.297	0.005	0.075	0.255	0.809
p-value: Gaming = Computer	0.000	0.067	0.651	0.365	0.030	0.421

Levels of significance: *** = 0.01, ** = 0.05, * = 0.10.

Note: Sample is Well-Being Module pooled over 2010, 2012, and 2013. Regressions are weighted using Well-Being Module adjusted annual activity weights.

Source: Bureau of Labor Statistics (American Time Use Survey); author's calculations.

Prime Age Men

NLF Prime Age Men Report Poor Health (and Look Different from Unemployed)

Table 6: Self-Reported Health Status for Workers Ages 25-54 by Labor Force Status

	Employed (%)	Unemployed (%)	Not in Labor Force (%)
Men			
Excellent	20.0	19.5	12.3
Very Good	36.3	29.2	20.6
Good	31.9	35.1	24.4
Fair	10.7	13.9	25.4
Poor	1.2	2.3	17.3
Number of Respondents	7,277	468	683
Women			
Excellent	20.9	16.3	16.6
Very Good	37.0	25.6	24.0
Good	30.9	36.3	28.0
Fair	10.0	18.1	19.3
Poor	1.1	3.7	12.1
Number of Respondents	7,453	637	2,265

Note: Sample is Well-Being Module pooled over 2010, 2012, and 2013 for individuals ages 25-54. Data are weighted using Well-Being Module final weights.

Source: Bureau of Labor Statistics (American Time Use Survey); author's calculations.

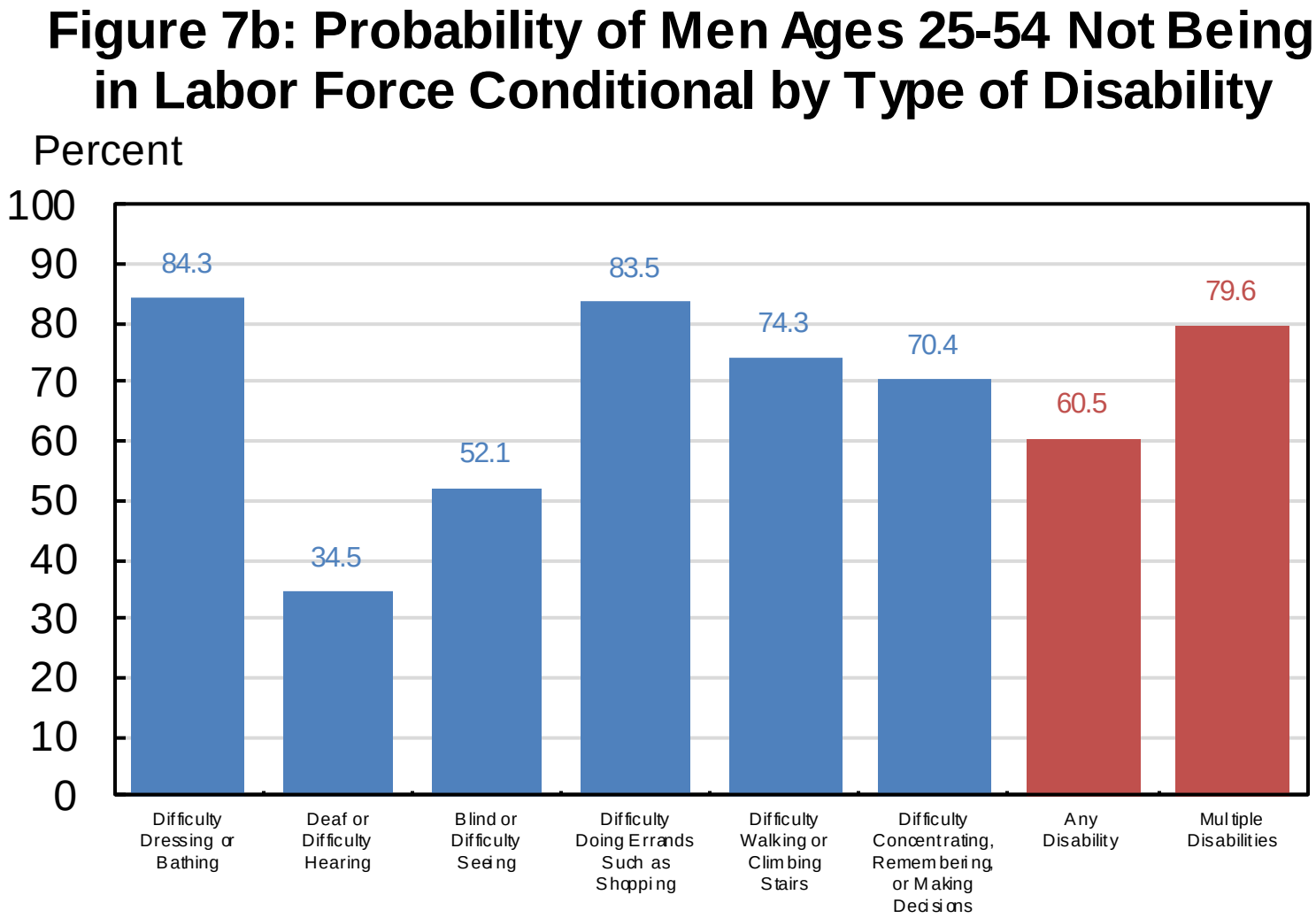
Table 7: Disability Rate for Men Ages 25-54 by Labor Force Status

	Employed (%)	Unemployed (%)	Not in Labor Force (%)
Specific Disability:			
Difficulty Dressing or Bathing	0.2	0.4	7.5
Deaf or Difficulty Hearing	0.9	1.5	4.0
Blind or Difficulty Seeing	0.4	0.9	4.0
Difficulty Doing Errands Such as Shopping	0.3	0.9	15.0
Difficulty Walking or Climbing Stairs	0.8	2.1	19.8
Difficulty Concentrating, Remembering, or Making Decisions	0.8	2.5	16.3
Any Disability	2.6	5.9	33.8
Multiple Disabilities	0.5	1.5	18.7
Number of Respondents	1,947,027	135,904	256,068

Note: Sample is monthly Current Population Survey data pooled from January 2009 to August 2016 for men ages 25-54. Specific disabilities are not mutually exclusive.

Source: Bureau of Labor Statistics (Current Population Survey).

Figure 7b: Probability of Men Ages 25-54 Being NLF, by Type of Disability, 2009-16



Note: Average of data from January 2009 through August 2016.
Source: Current Population Survey; author's calculations.

NLF Men Report High Incidence of Pain and Pain Medication

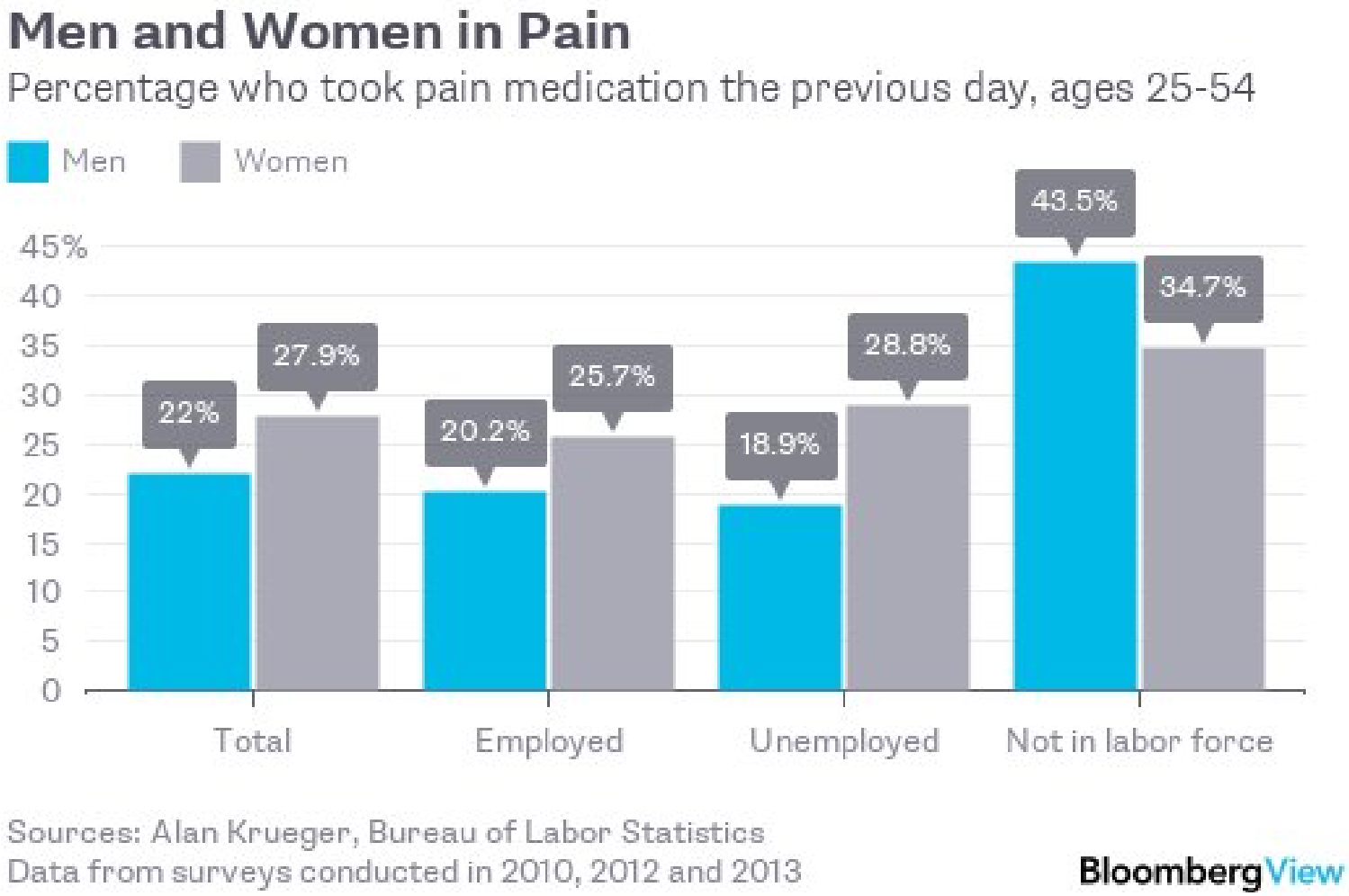
Table 8: Prevalence of Pain and Pain Medication for Men Ages 25-54 by Labor Force Status

	Employed	Unemployed	Not in Labor Force
All Men Ages 25-54			
Average Pain Rating (0-6)	0.76	0.82	1.92
Time Spent With Pain > 0	29.6 %	26.3 %	51.6 %
Took Pain Medication Yesterday	20.2 %	18.9 %	43.5 %
Number of Respondents	7,277	468	683
Disabled Men Ages 25-54			
Average Pain Rating (0-6)	1.49	1.25	2.81
Time Spent With Pain > 0	52.3 %	42.1 %	70.9 %
Took Pain Medication Yesterday	32.4 %	12.4 %	57.7 %
Number of Respondents	191	25	276

Note: Sample is Well-Being Module pooled over 2010, 2012, and 2013 for men ages 25-54. Data are weighted using Well-Being Module adjusted annual activity weights.

Source: Bureau of Labor Statistics (American Time Use Survey).

Pain Medication by Gender and Labor Force Status

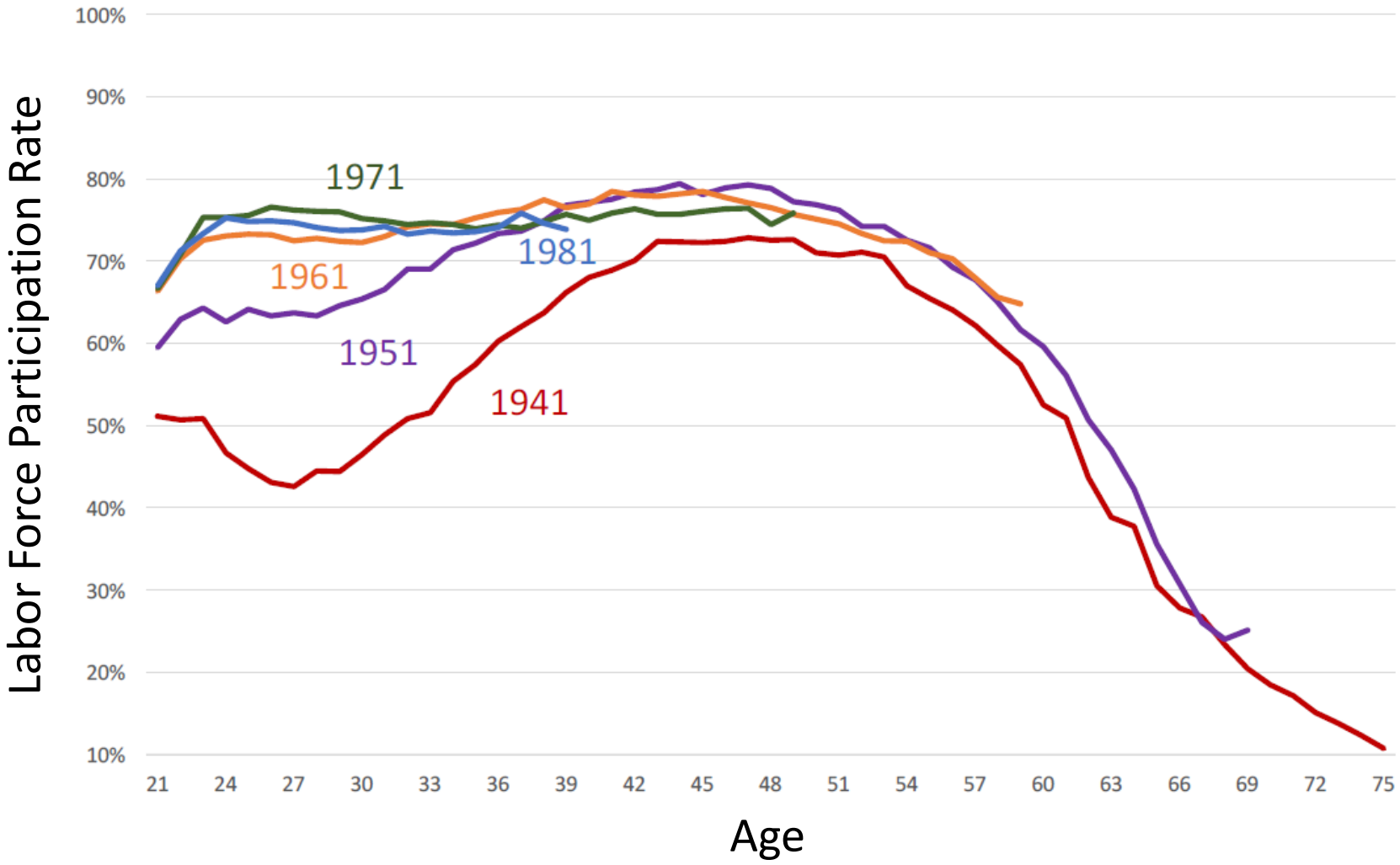


Follow-up AK Pain Survey – Sept. 30-Oct 2, 2016

- Survey of 571 NLF prime age men using an internet panel provided by Survey Sampling Inc. Weights developed to match CPS in terms of age, race and Hispanic ethnicity.
- 47% of NLF prime age men responded that they took pain medication on the previous day, similar to ATUS-WB
- 65% of those who took pain medication reported that they took prescription pain medication (in 36 percent of these cases they took both over-the-counter *and* prescription pain medication).
- 40% responded "Yes" when asked, "Does pain prevent you from working on a full-time job for which you are qualified?"
- 66% reported a disability. The higher disability rate than in CPS partly resulted because 16% wrote in "Other" in addition to the BLS's six conditions. Also possible that men participate in Internet surveys are more likely to suffer a disability, or that the CPS understates the number of prime age men with a disability.
- 35% reported receiving SSDI

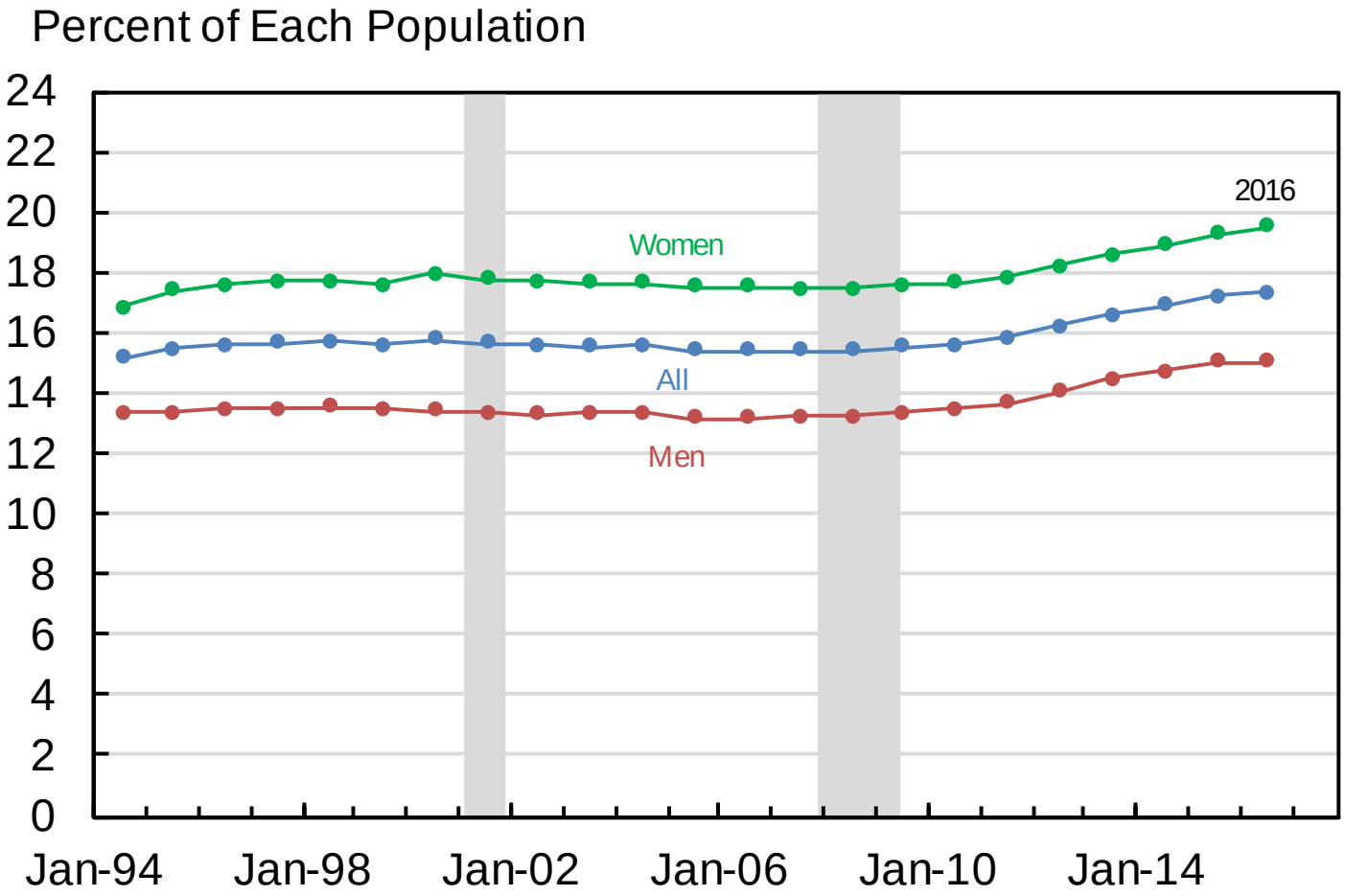
Women

Figure 8: Labor Force Participation Rate for Women, by Age and Birth Cohort



Retirement Rate Rose 2.6 pp 2007-16
LFPR Fell 2.8 pp 2007-16

Figure 9: Retirement Rates by Gender for Ages 16+



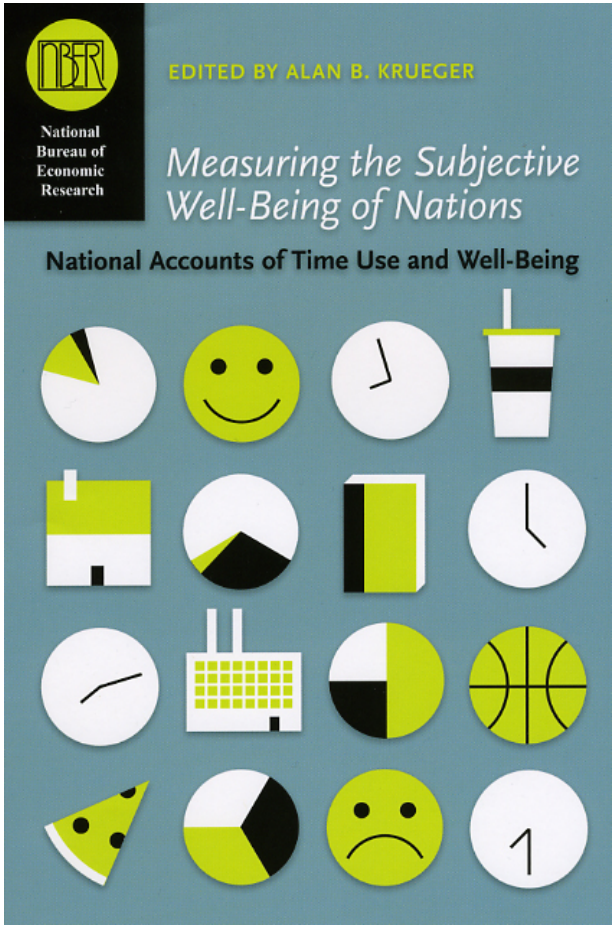
Note: 2016 represents the average of data from January through August. Shading denotes recession.
Source: Current Population Survey; National Bureau of Economic Research; author's calculations.

Subjective Well-Being – ATUS-WB 2010, 2012-13

- Experienced Well-Being
- Overall Evaluation

Cantril Ladder: “Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you.

If the top step is 10 and the bottom step is 0, on which step of the ladder do you feel you personally stand at the present time?”



Subjective Well-Being of Young Men, by Labor Force Status

Table 9b: Subjective Well-Being for Men Ages 16-24

	All	Employed	Unemployed	Not in Labor Force	p-value
Happy	4.23	4.25	4.30	4.16	0.570
Tired	2.24	2.23	2.23	2.27	0.935
Stressed	1.19	1.24	1.18	1.12	0.492
Sad	0.42	0.39	0.59	0.38	0.087
Pain	0.46	0.44	0.58	0.43	0.303
Meaningful	3.75	3.85	3.69	3.60	0.155
U-Index	0.11	0.12	0.09	0.10	0.314
Cantril Ladder	7.06	6.94	6.81	7.36	0.028
Total Number of Activities	4,723	2,294	842	1,587	

Note: Sample is Well-Being Module pooled over 2010, 2012, and 2013. Emotional affects and U-Index weighted using Well-Being Module adjusted annual activity weights. Cantril Ladder question was asked in 2012 and 2013 and was weighted using Well-Being Module final weights. Each respondent was asked about three activities in Well-Being Module. p-value is from an F-test that the means for all three labor force statuses are equal.

Source: Bureau of Labor Statistics (American Time Use Survey).

Subjective Well-Being of Prime Age Men, By Labor Force Status

Table 9c: Subjective Well-Being for Men Ages 25-54

	All	Employed	Unemployed	Not in Labor Force	p-value
Happy	4.18	4.20	4.25	3.95	0.010
Tired	2.23	2.25	1.51	2.52	0.000
Stressed	1.59	1.57	1.56	1.81	0.038
Sad	0.62	0.55	0.74	1.15	0.000
Pain	0.87	0.76	0.82	1.92	0.000
Meaningful	4.24	4.27	4.23	3.92	0.002
U-Index	0.15	0.14	0.17	0.22	0.002
Cantril Ladder	6.87	7.03	5.69	6.08	0.000
Total Number of Activities	25,079	21,661	1,393	2,025	

Note: Sample is Well-Being Module pooled over 2010, 2012, and 2013. Emotional affects and U-Index weighted using Well-Being Module adjusted annual activity weights. Cantril Ladder question was asked in 2012 and 2013 and was weighted using Well-Being Module final weights. Each respondent was asked about three activities in Well-Being Module. p-value is from an F-test that the means for all three labor force statuses are equal.

Source: Bureau of Labor Statistics (American Time Use Survey).

Subjective Well-Being of Mature Men, By Labor Force Status

Table 9d: Subjective Well-Being for Men Ages 55-70

	All	Employed	Unemployed	Not in Labor Force	p-value
Happy	4.31	4.36	4.06	4.27	0.086
Tired	1.95	1.99	1.78	1.92	0.373
Stressed	1.27	1.37	1.38	1.12	0.002
Sad	0.70	0.60	0.81	0.83	0.001
Pain	1.19	0.85	1.81	1.60	0.000
Meaningful	4.41	4.50	4.57	4.26	0.001
U-Index	0.11	0.12	0.14	0.10	0.348
Cantril Ladder	6.84	6.98	5.55	6.19	0.000
Total Number of Activities	10,796	5,812	538	4,446	

Note: Sample is Well-Being Module pooled over 2010, 2012, and 2013. Emotional affects and U-Index weighted using Well-Being Module adjusted annual activity weights. Cantril Ladder question was asked in 2012 and 2013 and was weighted using Well-Being Module final weights. Each respondent was asked about three activities in Well-Being Module. p-value is from an F-test that the means for all three labor force statuses are equal.

Source: Bureau of Labor Statistics (American Time Use Survey).

Subjective Well-Being of Young Women, By Labor Force Status

Table 10b: Subjective Well-Being for Women Ages 16-24

	All	Employed	Unemployed	Not in Labor Force	p-value
Happy	4.37	4.29	4.52	4.40	0.211
Tired	2.63	2.80	2.28	2.57	0.017
Stressed	1.48	1.50	1.52	1.45	0.897
Sad	0.45	0.38	0.63	0.47	0.047
Pain	0.62	0.56	0.91	0.55	0.255
Meaningful	3.97	3.88	4.17	4.00	0.271
U-Index	0.13	0.14	0.13	0.13	0.876
Cantril Ladder	7.06	6.97	6.92	7.29	0.116
Total Number of Activities	4,672	2,283	780	1,609	

Note: Sample is Well-Being Module pooled over 2010, 2012, and 2013. Emotional affects and U-Index weighted using Well-Being Module adjusted annual activity weights. Cantril Ladder question was asked in 2012 and 2013 and was weighted using Well-Being Module final weights. Each respondent was asked about three activities in Well-Being Module. p-value is from an F-test that the means for all three labor force statuses are equal.

Source: Bureau of Labor Statistics (American Time Use Survey).

Subjective Well-Being of Prime Age Women, By Labor Force Status

Table 10c: Subjective Well-Being for Women Ages 25-54

	All	Employed	Unemployed	Not in Labor Force	p-value
Happy	4.31	4.28	4.30	4.40	0.037
Tired	2.57	2.58	2.32	2.60	0.028
Stressed	1.72	1.77	1.69	1.57	0.001
Sad	0.66	0.60	0.85	0.78	0.000
Pain	0.98	0.83	1.05	1.43	0.000
Meaningful	4.43	4.40	4.64	4.49	0.007
U-Index	0.16	0.17	0.17	0.14	0.028
Cantril Ladder	7.13	7.24	6.23	7.03	0.000
Total Number of Activities	30,825	22,192	1,897	6,736	

Note: Sample is Well-Being Module pooled over 2010, 2012, and 2013. Emotional affects and U-Index weighted using Well-Being Module adjusted annual activity weights. Cantril Ladder question was asked in 2012 and 2013 and was weighted using Well-Being Module final weights. Each respondent was asked about three activities in Well-Being Module. p-value is from an F-test that the means for all three labor force statuses are equal.

Source: Bureau of Labor Statistics (American Time Use Survey).

Subjective Well-Being of Mature Women, By Labor Force Status

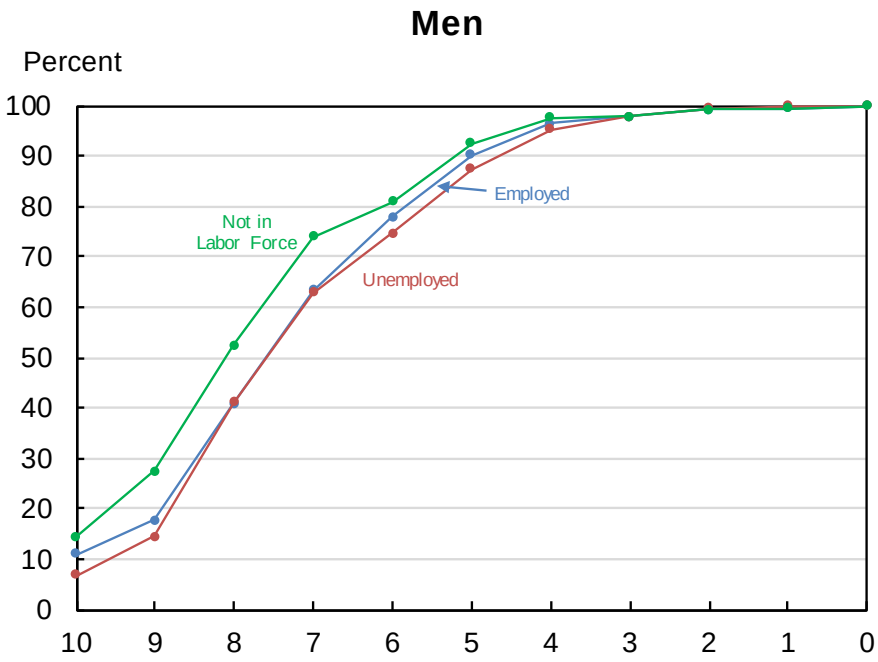
Table 10d: Subjective Well-Being for Women Ages 55-70

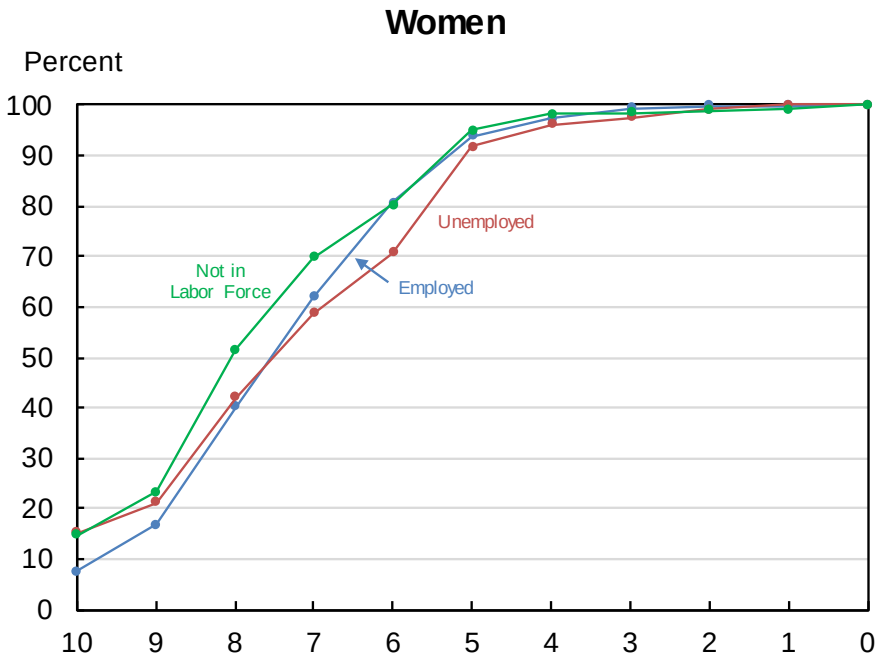
	All	Employed	Unemployed	Not in Labor Force	p-value
Happy	4.44	4.45	3.75	4.46	0.003
Tired	2.19	2.15	1.53	2.26	0.000
Stressed	1.42	1.49	1.62	1.34	0.067
Sad	0.79	0.68	1.06	0.88	0.001
Pain	1.36	0.95	1.13	1.76	0.000
Meaningful	4.61	4.70	4.15	4.54	0.004
U-Index	0.14	0.15	0.23	0.13	0.019
Cantril Ladder	7.16	7.20	6.20	7.35	0.017
Total Number of Activities	13,370	6,486	422	6,462	

Note: Sample is Well-Being Module pooled over 2010, 2012, and 2013. Emotional affects and U-Index weighted using Well-Being Module adjusted annual activity weights. Cantril Ladder question was asked in 2012 and 2013 and was weighted using Well-Being Module final weights. Each respondent was asked about three activities in Well-Being Module. p-value is from an F-test that the means for all three labor force statuses are equal.

Source: Bureau of Labor Statistics (American Time Use Survey).

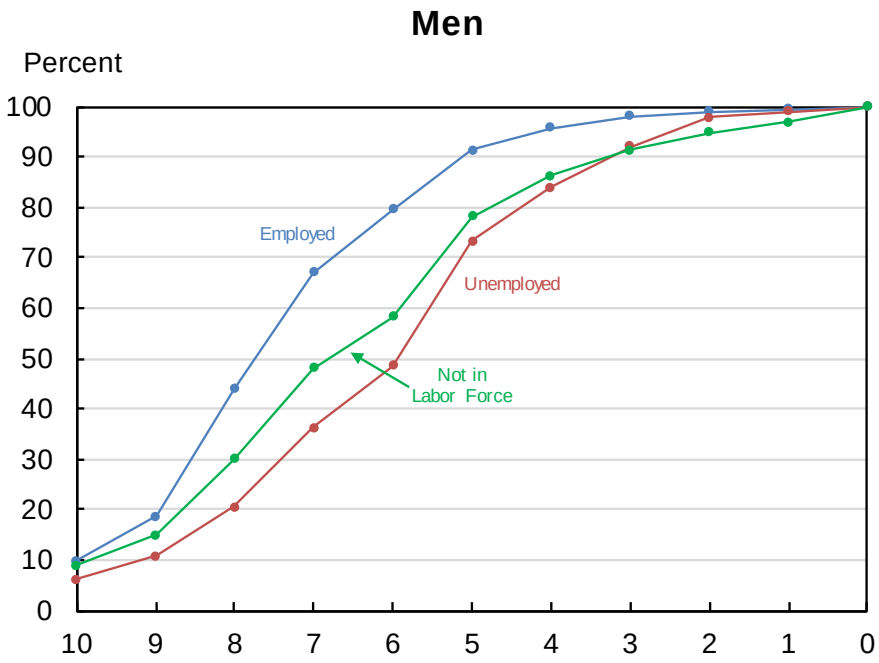
Figure 10b: Cantril Ladder for Ages 16-24

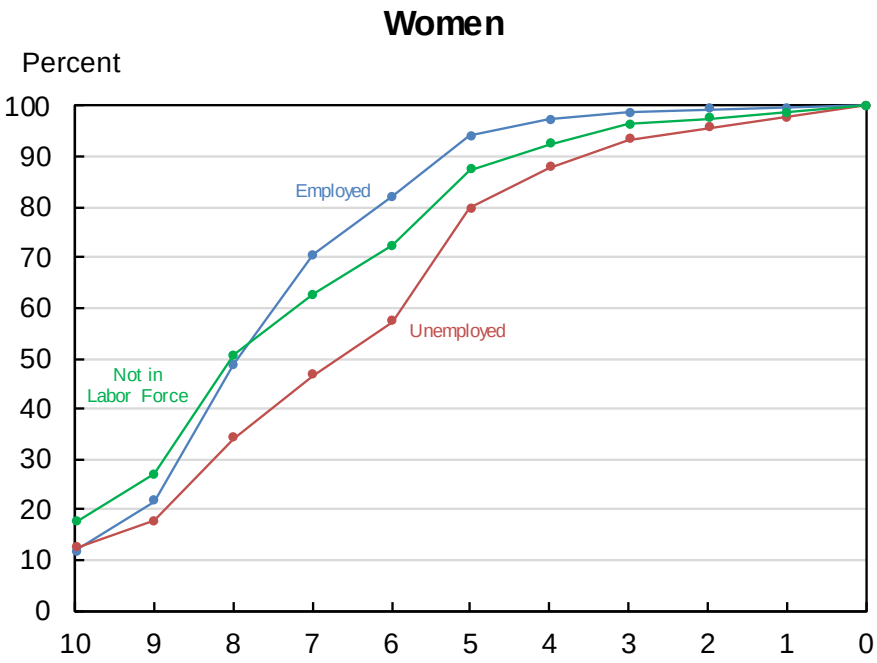




Note: Sample is Well-Being Module pooled over 2012 and 2013.
Source: Bureau of Labor Statistics (American Time Use Survey); author's calculations.

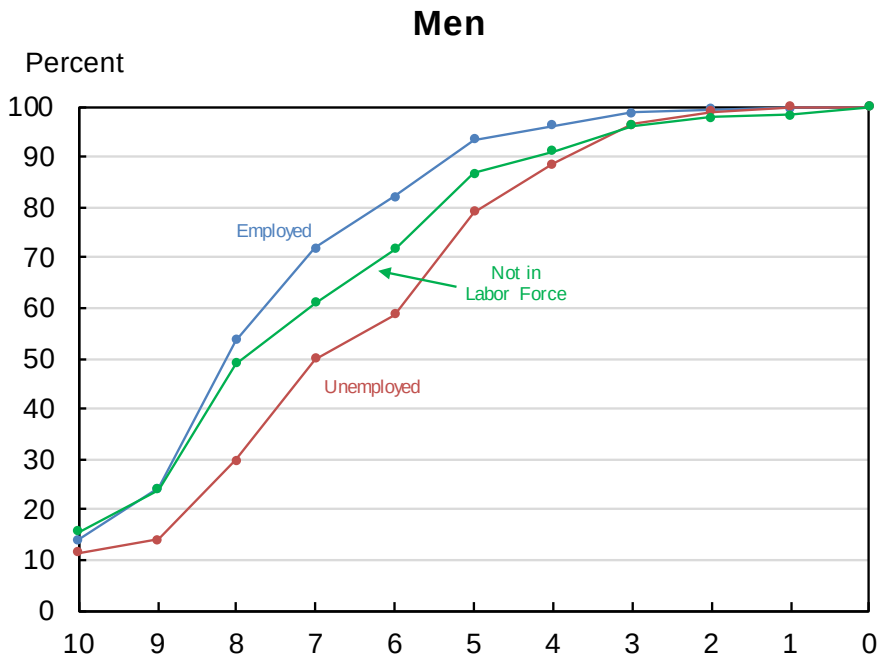
Figure 10c: Cantril Ladder for Ages 25-54

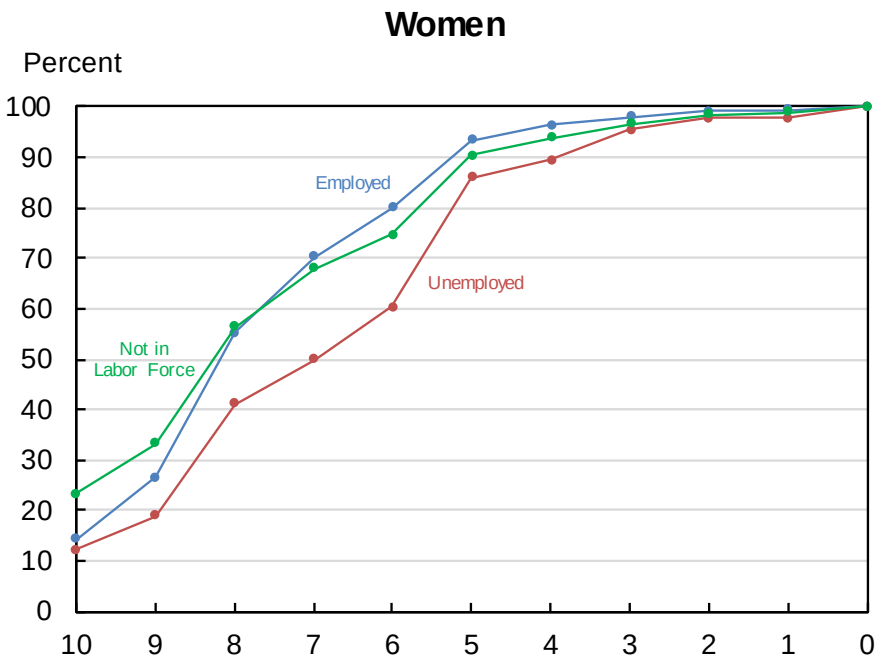




Note: Sample is Well-Being Module pooled over 2012 and 2013.
Source: Bureau of Labor Statistics (American Time Use Survey); author's calculations.

Figure 10d: Cantril Ladder for Ages 55-70





Note: Sample is Well-Being Module pooled over 2012 and 2013.
Source: Bureau of Labor Statistics (American Time Use Survey); author's calculations.

Conclusions

- Decline in LFPR primarily a result of ongoing trends for various groups (e.g., prime age men) and aging population.
- NLF youth and women do not report low SWB.
- NLF prime age men have notably low SWB, especially experienced well-being.
- Physical, mental & emotional health conditions as well as pain a severe barrier for work for many prime age NLF men. Don't know direction of causality, but it is a barrier to participation regardless.