

Office of the Chief Actuary
Perspective on the Report of the
Technical Panel on Labor Supply to
Inform the Trustees' Projections

June 30, 2017

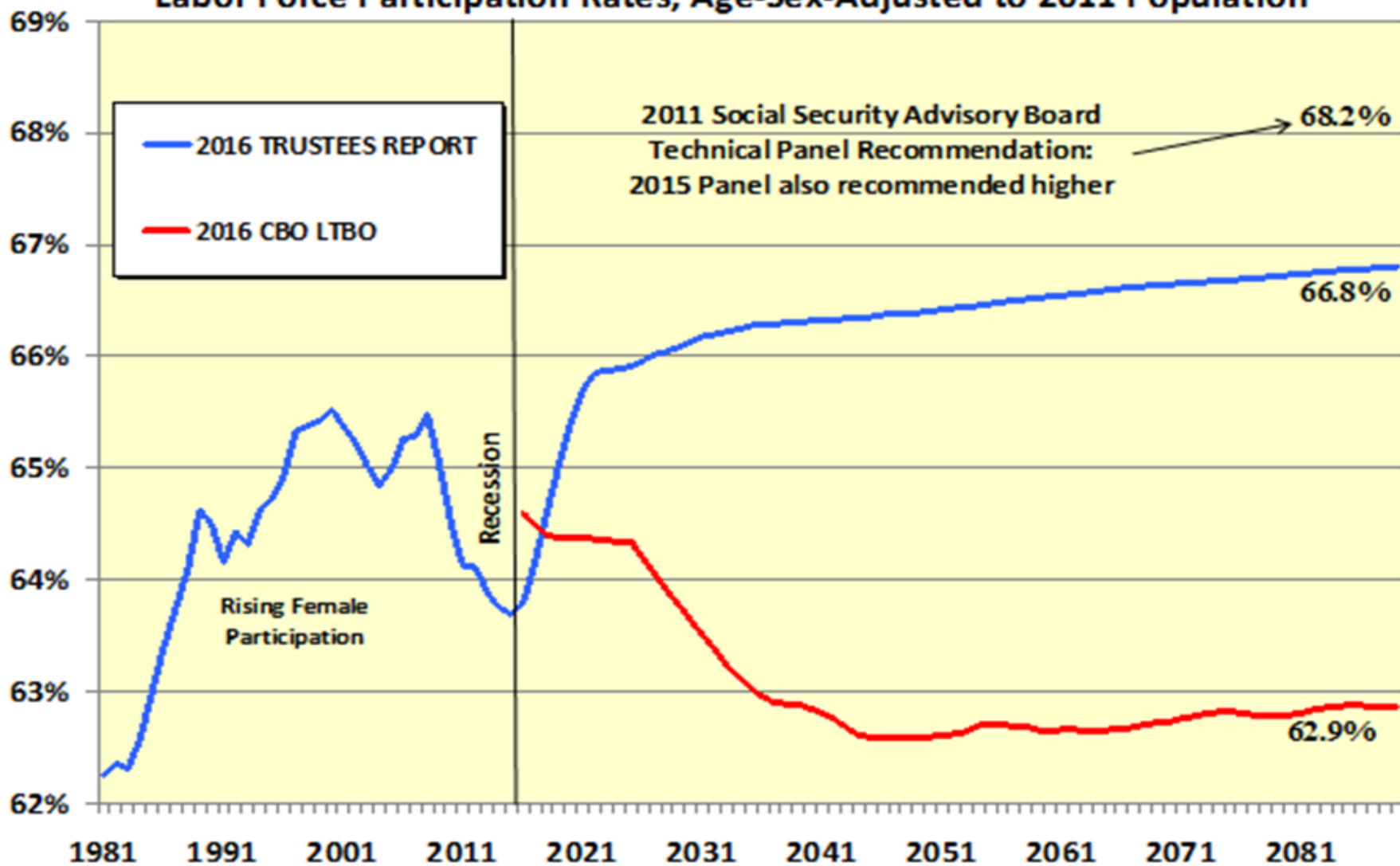
Technical Panel Reports

- Highly valuable additional advice
- But rationale for recommendations is paramount
- The opportunity to discuss views and the potential range of possibilities with panel experts is highly important
- This panel recommends lower LFPR
 - The 2011 and 2015 panels recommended higher ultimate LFPR

Long-Term Implications of Near-Term Changes

- Perspective on long-term projections
 - Incremental changes
 - Requires an understanding of a “permanent” change
 - Example: mortality 2000-2009, and more recently
- “Permanence” of recent recession effect
 - Recovery has been slow, but not necessarily over
 - We have assumed permanent effects on productivity
 - But labor force participation and employment are different
 - We do not yet have a convincing rationale for permanent lower employment

Labor Force Participation Rates, Age-Sex-Adjusted to 2011 Population

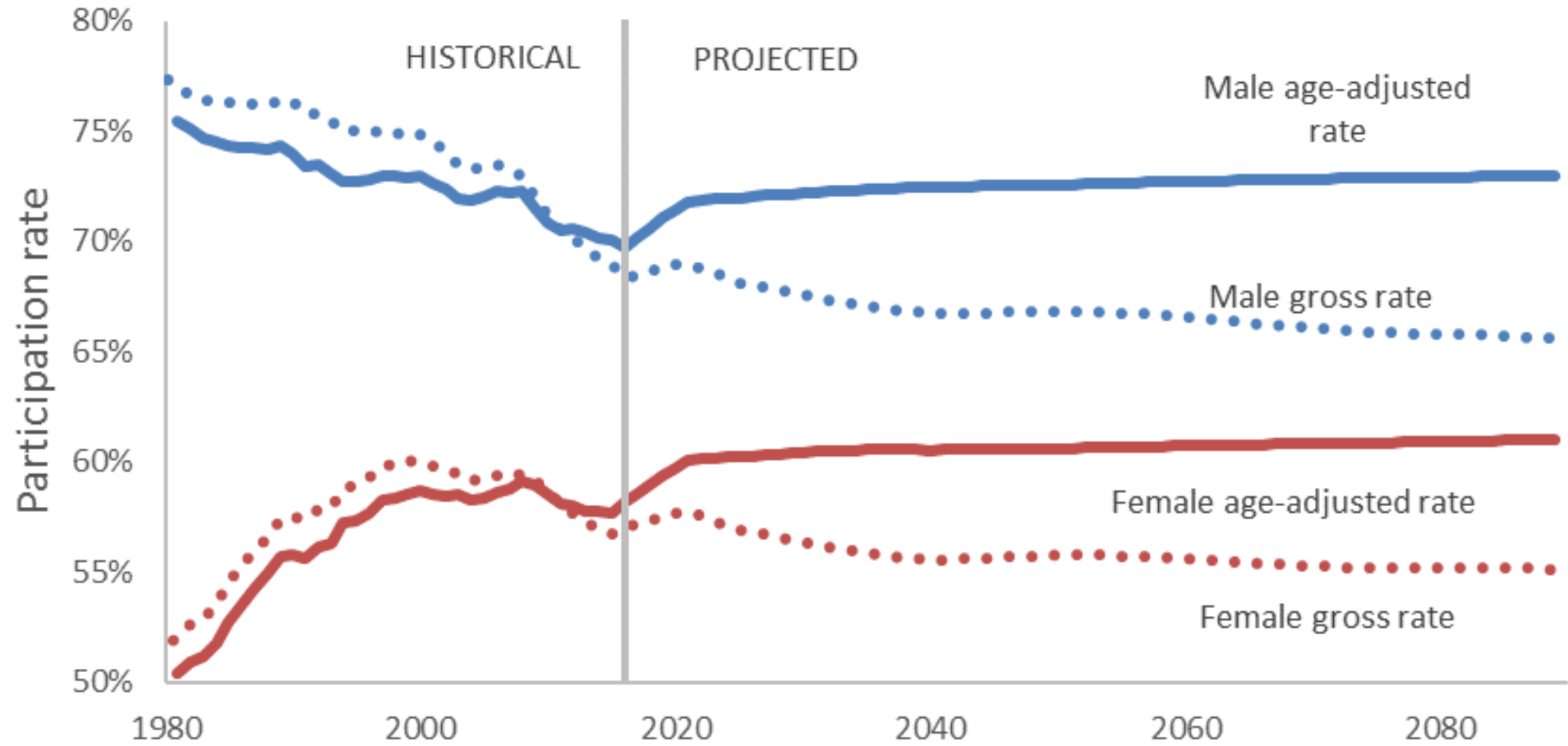


Note: CBO values are high early as they are "full-employment" rates. Actual rates would be lower.

Drivers of Past Trends and Future Projections

- Must understand the drivers of past changes and make assumptions about their persistence
- Male LFPR has declined for several decades, and female increased
- Female LFPR has moved much closer to male

Figure 2: Labor Force participation rate by sex, ages 16 and over: Historical and Trustees' projected (2016-2089) based on 2016 intermediate assumptions



OCACT Model Explains Decline in Male LFPRs

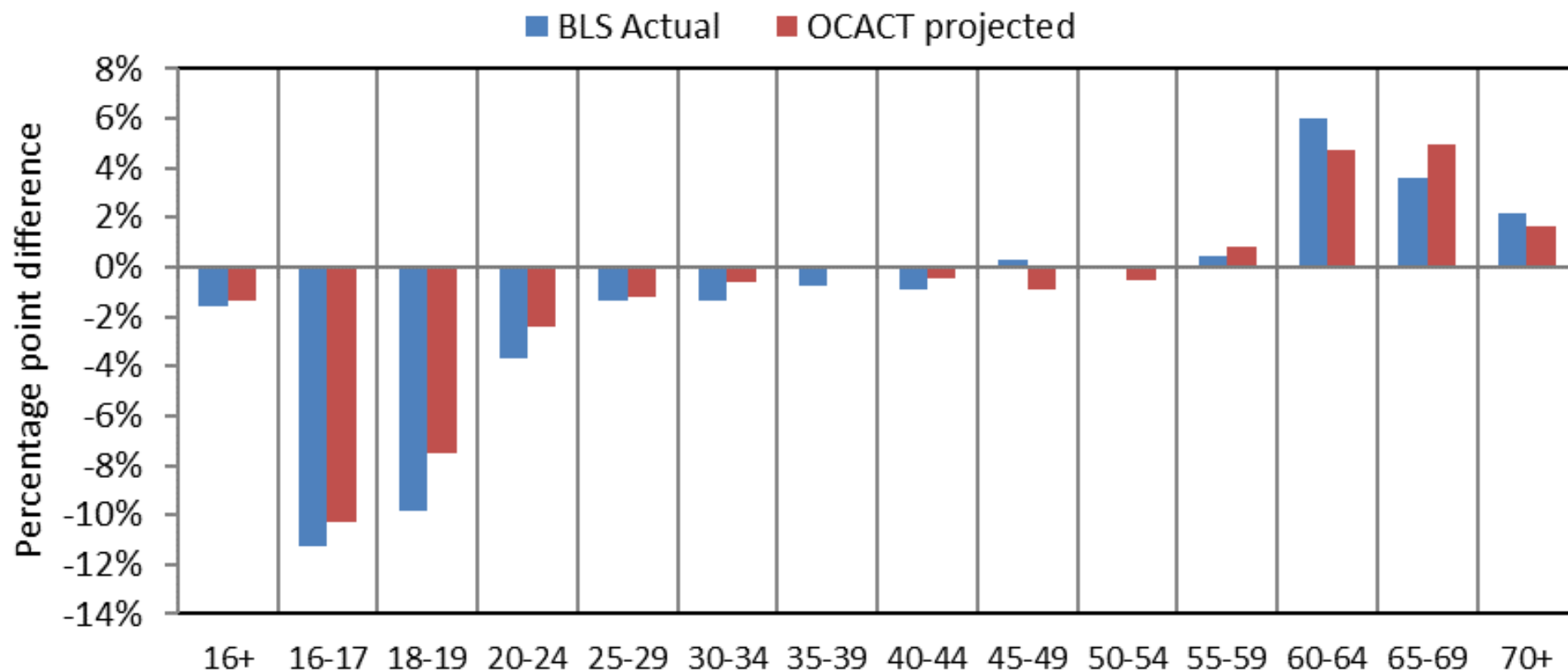
- OCACT has examined factors influencing pre-recession LFPR trends
- For males ages 25-54, two factors are the primary drivers:
 - Marital status: increase in single never married has reduced LFPRs
 - Disability prevalence: increase in disability prevalence has reduced LFPRs
 - OCACT does not expect these two trends to continue in the future
- Panel's Figure 6 shows OCACT model a good fit for males
 - Focus on 2000-2007 period
 - Discrepancies are small for each age group and are offsetting in total

Males	Change in Male LFPRs from 1973 to 2007 (34 years)						
Age	Actual	OCACT Model Estimated Change					Percent
	Change	Total	Components				'Explained'
			Marital	Disability	Business	CPS 1994	by Model
			Status		Cycle	Redesign	
		sum(d:g)					(c / b) *100
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
25 to 29	-0.026	-0.036	-0.028	-0.005	-0.003		140%
30 to 34	-0.038	-0.033	-0.023	-0.007	-0.003		87%
35 to 39	-0.037	-0.026	-0.016	-0.010	-0.001		71%
40 to 44	-0.043	-0.037	-0.021	-0.014	-0.002		87%
45 to 49	-0.048	-0.043	-0.022	-0.019	-0.002		89%
50 to 54	-0.054	-0.054	-0.031	-0.021	-0.001		101%
25 to 54	-0.041	-0.040	-0.019	-0.015	-0.002	-0.004	97%

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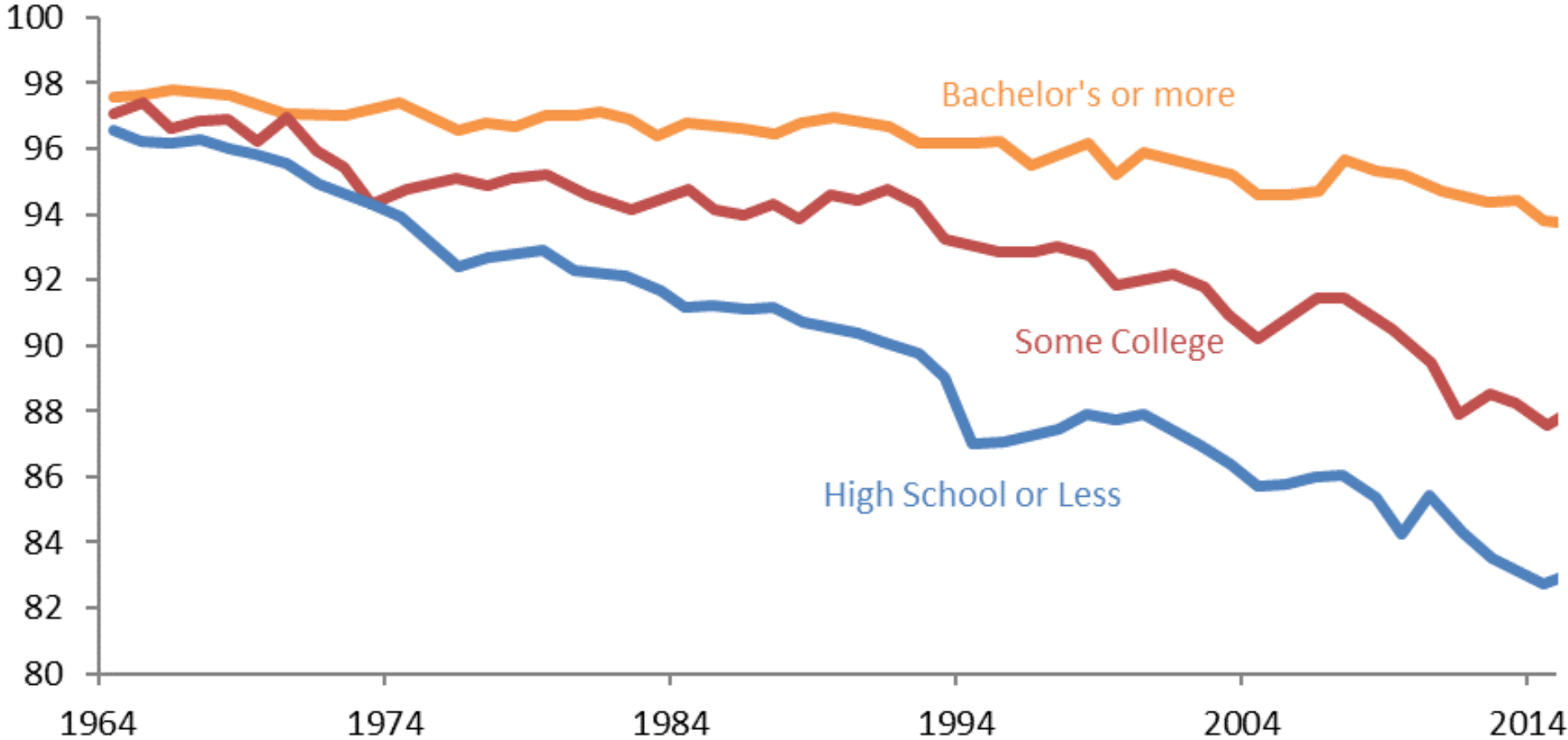
Figure 6: Changes in male labor force participation rates 2000-2007:
 BLS Estimate and OCACT projected , by age group



Education Effect

- We must do more
- But caution is required in interpreting trends
- Distribution by educational attainment has been changing and has undoubtedly affected the trends by category
 - Consideration by percentile of educational attainment is better

Figure 7: Prime age (25-54) male labor force participation rates by educational attainment, 1964-2015



Bottom Line

- Some good suggestions from this panel
 - Education, employment rates rather than LFPR
- But we believe it is too early to assume recovery in LFPR is over
 - The recent recession was extreme and so recovery might be slower
 - Frequent swings in projections are not desirable (75 year horizon)
 - Might be too early for model re-estimation due to incomplete business cycle
- If LFPR and employment are permanently lowered, what basis?
 - Is economy permanently restructured? Less demand for labor?
 - Will workers/population decline in the face of population aging?
 - While this is possible, no firm basis for justifying change at this point