Office of the Chief Actuary (OCACT) response to questions from the Technical Panel on the Labor Force

Results of LFPR sensitivity analysis

We completed a sensitivity analysis for the labor force where we compared our 2016 Trustees Report results to an alternative that lowered the labor force ultimately by 2.3 percent (or about a 1.5 percentage-point drop in the overall LFPR). We gradually phase in the 2.3 percent reduction in the labor force relative to our projection during the short-range period. Over the long-range period, this resulted in a 2.3 percent reduction in civilian employment, about a 2.3 percent reduction in our "total at-any-time during the year" employment measure, and a 2.3 percent reduction in "at-any-time during the year" covered employment, relative to our model projections. It also reduced the projected GDP by about 2.3 percent and OASDI taxable payroll by a little over 2.2 percent.

In terms of the effect on OASDI actuarial status, lowering the labor force reduced the present value of taxable payroll over the 75-year valuation period (beginning January 1, 2016) from $455,364 billion to $445,760 billion. The present value of summarized income over the 75-year period is reduced from $63,045 billion to $51,830 billion, and the present value of summarized costs over the 75-year period is reduced from $74,401 billion to $73,834 billion. The summarized income rate (measured as the present value of non-interest income as a percentage of the present value of taxable payroll over the long-range period) slightly increased from 13.84 to 13.87 percent of taxable payroll, as the taxation-of-benefits component of non-interest income declined by just 0.7 percent over the period, far less than the decline in taxable payroll. The summarized cost rate increased from 16.50 percent to 16.73 percent of taxable payroll, as benefit cost over the long-range period declined by less than taxable payroll. (Note that reduction of taxable payroll and payroll-tax income occurs almost immediately and continues throughout the long-range period, but the resulting reduction in benefits occurs with a considerable lag.) The actuarial balance therefore decreased (worsened) from -2.66 percent of taxable payroll to -2.86 percent of taxable payroll, or by about -0.20 percentage points.

	Summarized Cost Rate	Summarized Income Rate	Actuarial Balance
2016 Trustees Report Intermediate Case:	16.50	13.84	-2.66
Sensitivity Reduction in LFPR by 1.5 ppts:	16.73	13.87	-2.86
Difference:	-0.23	0.03	-0.20