Summary of Actuarial Assumptions and Methods

1. The investment return rate used in the valuation was 7.5 percent per year, net of investment expenses, compounded annually. This rate of return is not the assumed real rate of return. The real rate of return is the rate of return in excess of the inflation rate. Considering other financial assumptions, the 7.5 percent investment return rate translates to an assumed real rate of return of 4.5 percent.

2. The RP-2000 Mortality Table projected to 2010 using Scale AA for males and females with a one-year age setback is used for preretirement and postretirement mortality.

3. The probability of withdrawal from service is 2% for all years of service. The individual pay increase assumption is 5.25% per year.

4. The probabilities of retirement are shown in Schedule 1.

5. Because of the passage of House Bill 2132, benefits are not assumed to increase due to future ad hoc cost-of-living increases.

6. The individual entry-age normal actuarial cost method of valuation was used in determining actuarial accrued liability and normal cost. Actuarial gains and losses reduce or increase the unfunded actuarial accrued liability and are amortized over the remaining amortization period (15 years as of July 1, 2012).

7. The actuarial value of assets is based on a five-year moving average of expected actuarial values and market values. A preliminary expected value is determined equal to the prior year's actuarial value of assets plus net cash flow for the year ending on the valuation date, assuming the valuation investment return. The expected actuarial asset value is equal to the preliminary expected actuarial value plus the unrecognized investment gains and losses as of the beginning of the previous fiscal year. Twenty percent (20%) of the gain/loss as measured by the difference between the expected actuarial value and the market value at the valuation date is added to the preliminary expected actuarial value plus twenty percent (20%) of the unrecognized gains or losses for the four preceding fiscal years. The final result is constrained to a value no less than 80% and no more than 120% of the market value at the valuation date.

8. Except for the investment return assumption, the actuarial assumptions and methods used in the valuation were adopted by the Board on July 21, 2011 based upon the recommendations of the actuary. The investment return assumption was not changed from 7.5% which was adopted by the Board on May 15, 2008. The remaining assumptions and methods used for the July 1, 2011 valuation were adopted by the Board based on System experience from July 1, 2007 through June 30, 2010.