VI

Summary of Findings

Summary findings for key actuarial assumptions include the following.

A. Active Mortality

The average ratio of actual to expected experience (A/E ratio) was 71% with wide variation. This assumption does not have a major impact on plan costs and can affect costs positively or negatively depending on plan design. However, a large number of experience studies recommended decreases in active mortality rates.

B. Disablement Rates

The average A/E ratio was 92% with wide variation. It is difficult to assess the impact of disability rates on plan costs because of drastic differences in the definition of disability and plan provisions related to disability. It is interesting that actual occurrences of disability vary during the economic cycle, with many systems experiencing large occurrences during tough economic times.

C. Withdrawal Rates

The average A/E ratio was 94% with moderate variation. This is a very important assumption because vested benefits for terminating members carry little liability compared to retirement benefits and terminating members often take a refund of their contributions in lieu of retirement benefit.

D. Retirement Rates

The average A/E ratio was 94% with moderate variation. This is a critical assumption because age at retirement is a key factor in costs of retirement (the earlier people retire, the higher the costs). However, further study is needed to better assess the actual experience of plans with regard to age at retirement.

E. Retiree Mortality

The average A/E ratio was 98% with moderate variation. This is a critical assumption, because the longer people live, the higher the costs of providing them benefits (especially if the benefits are indexed to inflation). The current accuracy of the ratio is diluted by fact that the assumption must also reflect future mortality improvements. Consequently, this assumption may slightly underestimate costs.

F. Disabled Mortality

The average A/E ratio was 107% with wide variation. The data for this assumption are too thin to draw conclusions.

G. Interest Rates

More than 50% of the plans had interest rate assumptions between 7.75% and 8.0%. Assumptions about the real rate of return are modest; 70% of systems use a real rate of 3.5% or lower. The number of studies recommending increases in interest rate assumptions is negligible.

H. Salary Scales

Average salary scales range from 5.5% to 7.5%. This is slightly in excess of anticipated rates in the private sector, which generally range from 5% to 6%. About three-fourths of the PERS studied use an inflation assumption of at least 5%. There is some activity with regard to lowering assumed salary scales. This change may indicate a "leaner and meaner" public sector labor market and more rapid turnover of staff.

I. Actuarial Cost Methods

Entry age is the most popular method. It is typically considered a conservative funding method.

J. Asset Valuation Methods

1. *Equities.* Asset-smoothing techniques are useful for muting the impact of market oscillations. Asset-smoothing techniques are popular for the valuation of equities; two-thirds of systems using some form of smoothing method.
2. *Fixed Income.* Asset-smoothing techniques are popular and useful for muting bond price fluctuations. It is unlikely that PERS allocations to fixed-income securities will decline in the future, because most plans are mature and consequently have substantial cash-flow requirements. In addition, policy and statutory restrictions often set a maximum on investments in equities.