Researchers at the Equable Institute recently published a report titled “State of Pensions 2020.” The report consists of a narrative and graphical analysis using current and trending financial, actuarial, and demographic data to comment and draw conclusions on the status of statewide public pension plans.

The report contains helpful information, interesting analysis, and abundant presentation of trends and developments affecting public pension plans. Unfortunately, the report also includes some misleading conclusions that have received media attention. In particular, the report’s simplistic classification system for assessing plan solvency may cause readers to misunderstand the true condition of many public pension plans and the size of the threat these plans actually present to states.¹

This classification system groups plans according to their actuarial funded ratio into one of three categories: **Resilient**, for plans funded at or above 90 percent for at least two or three consecutive years; **Fragile**, for plans funded between 60 and 90 percent; and **Distressed**, for plans funded below 60 percent.

Although organizing public pension plans into groups can be helpful, the value of such a grouping effort lies in the reliability and integrity of the metrics that form the basis of the classification system. The Equable report relies on a single metric—each plan’s actuarial funding ratio—as the basis of its classification system. Although the actuarial funded ratio is the most cited and well-known metric of a pension plan’s condition, this metric, by itself, is not a reliable indicator. Gauging the condition of a pension plan by its funding ratio alone is akin to assessing a person’s health solely by their heart rate, when, in fact, multiple other factors should also be considered.

Other key considerations of a public pension plan’s condition include the directional trend of the funded ratio, the required cost of the plan, the reasonableness of the plan’s actuarial assumptions and methods, the plan’s demographics, the fiscal condition of the plan sponsor, the sustainability of the sponsor’s benefits policy, and the sponsor’s commitment and ability to pay required costs. These and other factors indicate whether or not a pension plan represents a threat or a source of stress for its sponsoring government, and the likelihood that the plan will be able to maintain or improve its funded status over time.

Equable’s classification structure results in fewer than one-fourth of the plans in the study considered to be **Resilient**, with the remainder labeled as either **Fragile** or **Distressed**. Equable describes plans in the **Fragile** category as follows:

A fragile pension fund is consistently between 60% and 90% funded. While these plans aren’t going insolvent any time soon, they will be building up unfunded liabilities that will gradually become a strain on budgets and government revenues. A plan that is 85% funded for several years in a row is healthier than one 65% funded but is still exposed to risk. One or two asset shocks could send the plan into a downward spiral.

¹ This critique focuses on a specific portion of the Equable report, namely, the report’s method for classifying certain plans as **Fragile**, and does not address other report components.
This description of plans in the Fragile category, that they “will be building up unfunded liabilities that will gradually become a strain on budgets and government revenues,” simply does not comport with the reality of many or most public pension plans: numerous examples exist of public pension plans with a funding level in the Fragile category that have operated for years with a funding ratio that is within Equable’s Fragile group, including through periods of economic recession and extreme volatility of investment markets, with no apparent threat to their solvency. Considering the many states and cities that are committed (or legally required) to paying their full actuarially determined contribution to plans whose actuarial methods and assumptions are reasonable, classifying such plans as Fragile, is simply a misnomer.

This experience is illustrated in Figure A, which plots the actuarial funding level of five plans that presumably are in Equable’s Fragile category, from 2001 to 2018, a period that includes two economic recessions and two sharp market declines. Despite these shocks, these plans have maintained both a healthy funding level and a fairly stable contribution rate. The experience of these selected plans belies the Equable report’s characterization of plans that could be sent “into a downward spiral,” as the actuarial funding ratio of these plans has remained relatively steady in the wake of two recessions and two sharp market declines since 2001. Other public pension plans are characterized by a similar experience, and funding levels for some other plans have stabilized at even lower levels without presenting anything close to a near-term insolvency risk.

Another concern about Equable’s classification arrangement is that the wide range of the Fragile grouping—plans funded between 60 percent and 90 percent—results in plans with vastly different funding conditions being placed into the same category. Other factors equal, a plan that is funded at 88 percent, for example, is in a far different actuarial condition than one with a funding level of, say, 62 percent. Placing both plans into the same group implies that the plans face a similar funding challenge. Yet, on a relative basis, the unfunded liability of the lower-funded plan is more than three times greater than that of the higher-funded plan. Moreover, both plans are characterized as Fragile: “one or two asset shocks from a downward spiral.”
To illustrate the limitations of relying solely on the actuarial funding ratio as an indication of plan’s financial or actuarial condition, the charts and tables below present selected factors for a representative sample of 63 public pension plans with FY 18 funded ratios, classified by Equable as *Fragile*.

![Figure 2. Funded ratio, actuarially determined employer contribution rate, and investment return assumption](chart1.png)

![Figure 3. Funded ratio, actuarially determined employer contribution rate, and remaining amortization period](chart2.png)

Both charts reveal little correlation between funded ratio and other factors used to measure the plans’ condition. Despite the *Fragile* designation, plans in this group are characterized by a wide range of required costs, investment return assumptions and amortization periods, each of which are indicators of the plans’ condition, sustainability, their vulnerability to asset shocks and other risks, and their ability to maintain or improve their funded status. These charts illustrate the importance of relying on multiple factors to discern each plan’s true condition.

Another way to illustrate the peril of relying on the actuarial funding ratio to characterize the condition of a public pension plan is the example of the North Carolina Teachers and State Employees Retirement System (TSERS). This plan prudently updated its actuarial methods and assumptions in order to promote the plan’s sustainability. But this change came at the cost of negatively affecting the plan’s funded ratio in the near term. In FY 17, TSERS reduced its investment return assumption from 7.2 percent to 7.0 percent. This change caused the plan’s funding ratio to decline from 90.4 percent in FY 17 to 87.8 percent in FY 18.2 Using Equable’s funded ratio classification system, the North Carolina TSERS status switched from *Resilient* to *Fragile*, a classification that is at odds with the plan’s solid actuarial condition, the plan sponsor’s long-standing commitment to making its full required contribution, and the fund’s prudent asset allocation and strong and stable long-term investment performance.

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**Conclusion**

Designating as *Fragile* many plans that are actually in reasonably sound actuarial condition serves to distract attention from those plans that truly face funding challenges. Contending that most public pension plans are either in a fragile or distressed condition, including many that actually are in sound actuarial condition, that rely on reasonable actuarial methods and assumptions, and that are backed by plan sponsors that consistently pay their full required contribution, reduces the level of attention and legitimate concern given to those plans that truly are in need of assistance.

Amid a wealth of interesting public pension data and analysis, while acknowledging the importance of other factors in assessing a pension plan’s condition, the Equable report gives prominent placement to a flawed finding based on a simplistic methodology that results in misleading conclusions. This finding also is the focus of much of the media attention the report has received, and obscures other important realities that characterize public pension plans and their condition. As a result, many public pension plan stakeholders, including policymakers, may develop a misguided view of the actual condition of pension plans.

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