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***Alternative Retirement  
Plan Mitigating Rate  
Report on Rate History  
and Operation, as  
Required by Am. H.B. 483  
of the 130<sup>th</sup> General  
Assembly***

**December 8, 2014  
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ORSC Staff Report**

## **Am. Sub. H.B. 483**

Am. Sub. H.B. 483 required, no later than December 31, 2014, the ORSC to study the applicability, operation, and efficacy of the percentage of an electing employee's compensation contributed by a public institution of higher education to mitigate any financial impact of an alternative retirement program (ARP) on the Public Employees Retirement System (PERS), State Teachers Retirement System (STRS), and School Employees Retirement System (SERS).<sup>1</sup> This rate, often referred to as the "mitigating rate" or "supplemental contribution rate" is required under R.C. 3305.06. H.B. 483 also mandated that the study research the historical impact of the mitigating rate and whether its purpose is being served.

### **Summary**

After a review of relevant Revised Code statutes, actuarial studies, and system and ORSC minutes, ORSC staff finds that the applicability, operation, and efficacy of the mitigating rate has not been appropriately implemented pursuant to R.C. 3305.06. While it is clear that previous studies do not reflect statutory language, the precise objective of the General Assembly is not clear to ORSC staff and could use clarification. ORSC staff finds that:

- 1) The ARP program does have a negative financial impact on the retirement systems;
- 2) Calculations completed by the previous ORSC actuary determined the compensatory rate, rather than mitigating rate, and therefore deviated from the intent of R.C. 3305.06;
- 3) The compensatory rate calculations, though consistent, were difficult to understand or express to interested parties;
- 4) The failure to complete statutorily required mitigating rate analyses in 2008 and 2011 by ORSC staff and the failure of PERS and STRS to complete required annual mitigating rate studies that establish an ARP cap has resulted in an uneven application of statute. The varied application of rates determined by PERS, STRS, and SERS when those studies were completed created further inconsistency;
- 5) While the code clearly requires a mitigating, rather than compensatory, rate, the code does not provide specific guidance on the extent of mitigation. As a result, wildly different but equally legitimate rates could be proposed by interested parties. Without further guidance from the General Assembly, this will continue to be the case.

That there is a negative effect caused by ARP participation is without disagreement. However, how this negative financial effect is mitigated, and for how long, is not adequately specified. ORSC staff cannot make a recommendation on the appropriate percentage and duration of a mitigating rate to relieve, to the extent envisioned by the General Assembly, this negative financial effect. However, after

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<sup>1</sup> Section 752.20 of Am. Sub. H.B. 483 of the 130<sup>th</sup> General Assembly.

review of the relevant history, ORSC staff would recommend the following be considered:

- 1) That a consistent formula be established in statute to provide clarity and consistency for employees, employers, and the retirement systems;
- 2) That the formula use as its central data point the most recent unfunded accrued liability rate for the relevant system;
- 3) That the General Assembly consider and specify the extent of the mitigation provided by ARP employers, and whether it would be appropriate to establish a cap on that amount;
- 4) Whether the mitigation of the unfunded accrued liability owed by employers has a termination date;
- 5) Whether adjustments to the unfunded accrued liability should be made to account for benefit increases, benefit decreases, 13<sup>th</sup> check provisions (in the case of STRS), and health care contributions made in the post-1999 period for the defined benefit plan, and how that would be expressed.

The above are items of consideration in clarifying the mitigating rate. Above all, ORSC staff would suggest that the mitigating rate be based on a statutory formula, be empirically and clearly defined, be one that can be replicated by interested parties, and be generally consistent and predictable. This would make the rate methodology consistent and explainable to retirement system members, ARP participants, the General Assembly, and the public at large. Currently this is not the case and has prevented the intent of the General Assembly from being properly expressed.

## **Background: Alternative Retirement Plans**

Current law provides that a full-time employee of a public institution of higher education<sup>2</sup> may elect to participate in an ARP rather than the state retirement system to which their service would normally be covered. An ARP is a defined contribution (DC) plan<sup>3</sup> offered by an entity designated by the Ohio Board of Regents as authorized to provide investment options to ARP participants. ARP participation is possible in PERS, STRS, and SERS, but because of eligibility requirements, STRS has the greatest number of potential ARP participants.

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<sup>2</sup> R.C. 3305.01 defines “public institution of higher education as a state university, the Northeast Ohio Medical university, or a university branch, technical college, state community college, or municipal university.

<sup>3</sup> A DC plan is one in which a member controls their investment decisions and receives a retirement based off the amounts deposited in the DC account and any investment earnings on that amount. This is different from the traditional plan of the retirement systems, which is a defined benefit (DB) plan in which a member does not control investment options and is instead provided a guaranteed benefit based off a formula (typically based on salary and years of service). Under a DB plan, the investment risk is typically borne by the employer or DB plan sponsor, while in a DC plan the risk is borne by the employee DC participant.

An employee participant in an ARP is required to contribute the same amount under the ARP as they would have to the retirement system in which they would otherwise be covered. For PERS and SERS this is 10% and for STRS the current rate is 12%.<sup>4</sup> The entirety of this amount accrues to the member's benefit in accordance with federal law. In addition, the employer of a participant employee is to contribute an amount they would otherwise contribute to the retirement system. This is 14% in PERS, STRS, and SERS. Likewise with members of a retirement system defined benefit (DB) plan, the employer contribution does not accrue entirely to the benefit of the participating employee. In the ARP, a portion of the employer rate is diverted to the retirement system in accordance with R.C. 3305.06 to "mitigate any negative financial impact of the alternative retirement program on the state retirement system."<sup>5</sup> As of November 1, 2014, the allocation of the employer contribution rate is as follows:

	Mitigating rate to system	Contribution to employee
PERS	0.77%	13.23%
STRS	4.50%	9.50%
SERS	6.00%	8.00%

Appendix A provides a year-by-year accounting of the rate diverted to the retirement systems since the establishment of the ARP.

R.C. 3305.06 provides that this rate is to continue until all benefits, except health care benefits and any pension benefit increases after March 31, 1997, are fully amortized.

### **Background: Mitigating Rate under R.C. 3305.06 and 3305.061**

An appropriate mitigating rate and calculation has been contested since before ARPs were implemented in Ohio. R.C. 3305.06 specifies that the mitigating rate "shall be six per cent, except that the percentage may be adjusted by the Ohio Retirement Study Council to reflect the determinations made by actuarial studies" conducted triennially by ORSC.<sup>6</sup> This rate is limited by R.C. 3305.061 to "not exceed the percentage of compensation transferred" by PERS, STRS, or SERS members who participate in the retirement system's own internal DC plans. Currently, the percentage being diverted to the PERS DC plan is .77%, and in STRS it is 4.5%. While SERS is authorized to establish a DC plan, it has not yet done so. Therefore, a calculation made pursuant to a study of the ORSC can be automatically reduced by an action under R.C. 3305.061. This study, therefore, must look at calculations both by the ORSC and the systems to determine if the intent of the General Assembly is being appropriately expressed. Appendix C provides a legislative history of the ARP program.

<sup>4</sup> STRS members will be paying 14% of salary starting July 1, 2016.

<sup>5</sup> R.C. 3305.06(D).

<sup>6</sup> R.C. 3305.06 and R.C. 171.07.

### **Establishment and purpose of ARPs and initial projected mitigating rate**

Prior to the late 1990s, no mechanism in state law permitted portability of state retirement funds. The retirement systems did not have an internal DC plan, which provides greater portability, and did not provide interest or employer amounts on withdraw of an account.<sup>7</sup> This meant that those working for a limited time in a position covered by one of the systems and then leaving for other employment received minimal benefits from the retirement system. This was seen as particularly problematic for universities attempting to attract mobile and competitive faculty. Some administrators of the state's universities supported the adoption of an alternative retirement plan because it would provide faculty and administrators with pension portability, and thus would add to Ohio's attractiveness as an academic employer.

The adoption of an ARP was in keeping with trends in other states. By 1994, 42 states had some sort of alternative retirement plan for higher education institutions.<sup>8</sup> ARPs were originally proposed in H.B. 715 of the 120<sup>th</sup> General Assembly, but after significant debate regarding the financial effect an ARP would have on the state retirement systems, the requirement to establish the ARP was replaced with a requirement for the Legislative Budget Office (LBO) to study the issue.

LBO contracted with Milliman & Robertson for an actuarial analysis to determine if additional costs would be incurred by the establishment of an ARP. The study was limited to STRS and found that there would be additional liabilities for three reasons:

- 1) Existing unfunded liabilities are amortized based on current demographics. As some members elect to instead participate in an ARP, the funding base on which the amortization was made is eroded;
- 2) Those anticipated to participate in the ARP are those who would expect to receive a lesser benefit under STRS than an ARP, and those who stay in STRS are those who expect to receive a higher benefit under STRS than in an ARP. To the extent this *anti-selection* occurs, it would increase costs;
- 3) University employees are higher paid employees and contribute a higher amount to health care. However, health care *costs* do not vary according to salary. As high income employees participate in an ARP, health care funding is reduced.

Put differently for (1) above, the retirement system has existing liabilities for prior service. This is actuarially funded through continuing employer contributions. Yet, the payroll on which that assumption is built would suddenly erode with the establishment of an ARP and cessation of those employer contributions, leaving the existing liabilities to be borne by the remaining, non-ARP members and employers.

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<sup>7</sup> Interest and employer amounts were added under S.B. 144 of the 123<sup>rd</sup> General Assembly in 2000 and the DC plans were required in 1999-2000 under H.B. 628 (PERS), S.B. 190 (STRS), and S.B. 270 (SERS) of the 123<sup>rd</sup> General Assembly. S.B. 341 of the 129<sup>th</sup> General Assembly removed the requirement that SERS establish a DC plan.

<sup>8</sup> Pelley, Debra, "A Study of the Feasibility of Implementing an Alternative Retirement Program for Certain Employees of Ohio's Universities and Colleges: A Report Mandated by Sub. H.B. 715 of the 120<sup>th</sup> General Assembly," (Ohio Legislative Budget Office: December 27, 1994), 2.

PTA/KMS, ORSC's current actuary, concurred with the classification of these negative financial effects of an ARP. They commented that, by far, the amortization of existing liabilities (i.e., the loss of the employer unfunded actuarial liability, or UAL, rate) comprised the most significant negative effect at this time.

LBO found that the solution in many states, though not all, is to require a portion of the employer contribution to be diverted from the ARP participant and provided to the retirement system to pay these existing liabilities (these ranged from 0.0% in Texas to 9.33% in Louisiana).

Milliman & Robertson then outlined the variables that would affect what the mitigating rate would be and their assumptions on those variables. They specified that the following would determine the rate:

1) Election rates: the more people eligible to elect the ARP who do so, the greater the actuarial impact would be.

2) Health care coverage: health care coverage has two pieces. The first is that Milliman & Robertson stated that the more health care coverage was provided under the ARP, the greater the election rate. Second, it was not clear if the ARP mitigating rate should include the employer contribution to health care for traditional members or not. If it did, the mitigating rate would be higher.

3) Election eligibility: the more people eligible to elect an ARP, the higher the election rates, and therefore the higher the actuarial impact.

4) Vesting schedule: Milliman & Robertson assumed that an employee who did not stay in Ohio public employment for five years would lose a portion of their employer rate, and this would default to the retirement system (this actuarial gain is assumed in calculating funding periods). If those amounts did not remain in the retirement system, the actuarial impact would be greater.

At the time, ARP election rates were considered essential to determining the actuarial impact of the ARP and ultimately the appropriate mitigating rate. In considering these variables, Milliman & Robertson assumed that health care would be provided and election rates would be over 40% for existing members and nearly 100% for new members. Depending on the vesting schedule, Milliman and Robertson provided a supplemental contribution rate range of 3.46% to 5.68% for existing members and 5.48% to 6.75% range for new members.<sup>9</sup> Milliman & Robertson provided a dollar-for-dollar replacement rate, a compensatory rate, as they were requested by LBO to analyze the entire fiscal impact of an ARP.

## **Calculations and Methods of Determining Mitigating Rate, 1995-1999**

### **H.B. 482 and H.B. 586 of the 121<sup>st</sup> General Assembly and the initial mitigating rate**

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<sup>9</sup> Pelley, Debra, "A Study of the Feasibility of Implementing an Alternative Retirement Program for Certain Employees of Ohio's Universities and Colleges: A Report Mandated by Sub. H.B. 715 of the 120<sup>th</sup> General Assembly," (Ohio Legislative Budget Office: December 27, 1994), 34.

The LBO analysis created a flurry of contesting analyses. These analyses were produced during the time that H.B. 482 and 586, which would eventually require the establishment of ARPs, moved through the legislative process.

When H.B. 482 was introduced, it proposed a 3% mitigating rate. In 1995, the STRS Board commissioned Buck Consultants to provide an analysis of the bill's financial impact. Kim Nicholl, the analyst assigned by Buck, stated that "the cost to STRS of the Alternative Retirement Plan will depend upon the number of members who elect the Plan."<sup>10</sup> As with Milliman & Robertson, Buck assumed that "all eligible members will choose the Alternative Retirement Plan" and, based on that assumption, provided that "the supplemental contribution required to *keep STRS financially whole* is 6.75% of the membership payroll of those members who elect into the Alternative Retirement Plan" (emphasis added).<sup>11</sup> From the Nicholl letter, it appears the analysis completed by Buck was of the compensatory rate needed to replace the lost funds resulting from ARP participation.

The Buck study elicited a response from Foster Higgins & Company, retained by the Teachers Insurance and Annuity Association/College Retirement Equities Fund ("TIAA-CREF"), Variable Annuity Life Insurance Company (VALIC), and Aetna Life Insurance Company at the request of the Ohio Inter-University Council. That study's major point was to contest the assumptions used by both the LBO study and Buck that anywhere from 55% (LBO low) to 100% (Buck and LBO high) of eligible members would participate in the ARP. Foster Higgins instead looked at information provided by public institutions in seven other states to show that the median election rate for ARPs in those states was 22% and that the assumptions used by LBO and Buck were substantially overstated based on actual experience in other states.<sup>12</sup>

Subsequent to this dispute, the ORSC Director, Aristotle L. Hutras, commissioned Milliman & Robertson to analyze the Foster Higgins & Company Study, (which was itself a study of the initial Milliman & Robertson study done for LBO). Milliman & Robertson looked at rates in Montana to validate their assumptions used in the LBO study, and again stated that "a 3% supplemental contribution would fall well short of the contribution required to maintain the actuarial status of STRS." They also stated that the rate under H.B. 482 will have to be between 5.6% and 7.4% assuming health insurance is not offered to ARP members and 6.3% and 8.7% if health insurance is offered. Milliman & Robertson did agree that it would be appropriate to review actual election experience over time to determine a more appropriate rate.<sup>13</sup>

It was in this context of extreme disagreement on participation rates and appropriate mitigating rates that H.B. 586 became law and established ARPs. Under H.B. 586, an initial mitigating rate of 6% was established with a requirement that the

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<sup>10</sup> Letter from Kim M. Nicholl, Buck Consultants Actuary to Herbert L. Dyer, STRS Executive Director dated November 20, 1995, page 2.

<sup>11</sup> Letter from Kim M. Nicholl, Buck Consultants Actuary to Herbert L. Dyer, STRS Executive Director dated November 20, 1995, page 3.

<sup>12</sup> Letter from Andrew C. Stratton and K. Eric Freden, Actuaries of Foster Higgins to Representative Rayond E. Sines dated January 5, 1996, page 2.

<sup>13</sup> Letter from William A. Reimert to Aristotle L. Hutras dated March 22, 1996, page 6.

ORSC complete a study to adjust that rate as necessary. That bill took effect March 31, 1997.

In actual experience, in 2014, 22.6% of STRS university members participate in an ARP, and 15.9% of community college employees participate in an ARP. As a grand total of all STRS members, 3.1% participate in an ARP. These numbers suggest that the 22% participation assumptions of Foster Higgins were more accurate than the 50% to 100% range provided by Buck and Milliman & Robertson. Looking at the more specific “new eligible member,” actual experience for STRS in FY 2014 was 38% electing an ARP. This number is slightly higher than Foster Higgins assumption of 22% but significantly less than the 100% anticipated by Buck.

ORSC staff would note that, practically speaking, the emphasis and disagreement on population figures appears to be effectively irrelevant in the actual calculations made by the ORSC actuary and system actuaries. As seen in Appendix B and discussed further below, the rate determined by actuaries over time more closely matched the unfunded accrued liability rate rather than being controlled by population figures.

### **Initial ORSC analyses of ARP mitigating rate**

As the law was initially crafted, the analysis completed by the ORSC resulted in an automatic change in the mitigating rate. The method used by Milliman & Robertson in all of their studies was to calculate the excess of total contributions which would have been made by the member and employer over the employee’s entire career over the portion of those future contributions which would be provided as a benefit in the future. Added to this was a health care cost, which was the additional health care rate based on salary of ARP employees in excess of average pay. This was the amount that was to be compensated through a supplemental<sup>14</sup> contribution rate. The first analysis was completed in 1999, but because of the time needed for universities to initiate their ARP programs the rate calculation was severely limited by data. Therefore, the ORSC actuary recommended that any adjustments to the 6% contribution rate be delayed until further data was available. The rate remained at 6%.<sup>15</sup>

### **Establishment of retirement system DC plans**

At the same time that the ARPs were established and the initial ORSC calculation was made, the General Assembly required PERS, STRS, and SERS to establish an internal alternative retirement plan to provide retirement portability options for all members. DC plans were required in 1999-2000 under H.B. 628 (PERS), S.B. 190 (STRS), and S.B. 270 (SERS).<sup>16</sup> As these plans would have a similar negative financial effect as ARPs, they were likewise required to provide a mitigating rate to the system. Again this was to end when liabilities were fully amortized and not to include benefit increases

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<sup>14</sup> Milliman’s analyses refer to the “supplemental rate,” it is the same as the “mitigating rate” used in this report.

<sup>15</sup> Letter from Aristotle L. Hutras to Roderick G. W. Chu, Chancellor Ohio Board of Regents dates July 7, 1999.

<sup>16</sup> The requirement for SERS to establish a DC was later removed by S.B. 341 of the 129<sup>th</sup> General Assembly.



after its enactment. S.B. 190, in addition to requiring STRS to establish a STRS DC plan, also provided for an increase in benefits provided to STRS members. ORSC asked Milliman & Robertson to analyze the fiscal impact of that bill. That 1999 analysis raised three questions that further complicated the development of an appropriate mitigating rate and intent of the General Assembly:<sup>17</sup>

1) As initially drafted, the DC rate was to equal the ARP rate. Milliman & Robertson advised not tying these rates, as they reflect different groups with different populations.

2) As the bill also contained benefit increases, Milliman & Robertson raised the policy issue of whether STRS DC and ARP plan participants should be assessed a rate that funded a benefit increase to a different population.

3) The analysis questioned if the rate is to terminate after a period of time. In this analysis, Milliman & Robertson compared the mitigating rate to a mortgage—where the amount of liability owed by employers of STRS DC or ARP participants should be calculated, and the mitigating rate contributed for a period of time, until termination, to reflect the owed liability. This appears to be the intent of the General Assembly in the language specified in statute when requiring that the mitigating rate is to continue until all benefits, except health care benefits and any pension benefit increases after March 31, 1997, are fully amortized.

Simultaneously in 2000, Milliman & Robertson was completing the mitigating rate study based on election patterns for PERS, STRS, and SERS. Based on election patterns and their methodology, the mitigating rate was determined to be 5.6% for pension benefits and .16% for health care benefits for STRS for a total of 5.76%, -1.26% pension benefits and 4.36% for health care for SERS, for a total of 3.10%, and 0.0% for PERS. The number was 0.0% for PERS as it was fully funded at that time. The SERS number was negative for pension benefits as the members who elected the ARP had a present value of future benefits that was less than their contribution, but Milliman & Robertson noted that this population was very small. Again in that analysis, Milliman & Robertson raised the question of how long the mitigating rate was to last, and whether new benefits for the defined benefit plan were to be financed by the mitigating rate.<sup>18</sup> Again according to statute, the mitigating rate automatically changed to 5.76% for STRS and 3.10% for SERS.

In July of 2000, S.B. 190 became effective, and STRS established a DC plan. As enacted and recommended by Milliman & Robertson, the bill did not tie the STRS DC and ARP rates together. After enactment, STRS set the STRS DC mitigating rate to 3.5%. According to STRS staff, the DC mitigating rate was set as the unfunded accrued liability rate of the most recent valuation (3.48%), rounded to the nearest half-percent. This method of measuring the mitigating rate was a much simpler way to calculate the rate but differed from the methodology, if not general result, used by Milliman &

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<sup>17</sup> Letter from Katherine A. Dill and William A. Reimert to Aristotle Hutras dated December 23, 1999.

<sup>18</sup> Letter from Aristotle Hutras to Roderick G. W. Chu, Chancellor Ohio Board of Regents dated March 10, 2000.

Robertson for ORSC and STRS's own actuary, Buck Consultants, in its 1995 study of H.B. 482.

### **Legislative response to STRS DC rate of 3.5% and enactment of R.C. 3305.061**

The legislative response to STRS setting their own DC rate to 3.5% was swift. By September of 2001, H.B. 94 enacted R.C. 3305.061 and provided that the ARP rate could never exceed the rate set by the retirement systems for their own DC plan. During the legislative process, the ORSC commissioned Milliman & Robertson to analyze the effect of H.B. 94. In this analysis, Milliman & Robertson reiterated their analysis of why the mitigating rate was necessary, and though they did not contest the reduction to 3.5%, they did question if tying the ARP to the DC rate was appropriate, considering the divergent populations.<sup>19</sup>

Irrespective of the concerns of the actuary, H.B. 94 became effective September 5, 2001, and the STRS ARP mitigating rate decreased to 3.5% by operation of law. *This is the last date on which the General Assembly took any affirmative action on the mitigating rate prior to the June 2014 moratorium being issued under H.B. 483 of the 130<sup>th</sup> General Assembly.*

2001 saw one other change to the ARP calculation. Previous to 2001, the rate under the actuarial study completed by the ORSC automatically became the mitigating rate. Under H.B. 535 of the 123<sup>rd</sup> General Assembly, the automatic adjustment was removed, and instead the ORSC was *authorized* to change the ARP based on that study. This change was effective March 15, 2001. It should be noted that this change occurred *before* H.B. 94 became effective and set the mitigating rate to 3.5%. The General Assembly effectively took control of changes to the rate by removing the automatic change, and then actively reduced the rates pursuant to R.C. 3305.061.

## **Calculations and Methods of Determining Mitigating Rate, 2002-2005**

In 2002, Milliman completed its first triennial review of the mitigating rate required under R.C. 171.07. The results included only STRS. Based on the methods discussed previously, they calculated a supplemental contribution rate of 4.2% with 3.33% attributed to pensions and .87% for healthcare. Milliman noted that based on the provisions of R.C. 3305.06, a 3.5% rate was appropriate.<sup>20</sup> PERS and SERS were excluded from the calculation as those systems were fully amortized as of that date. ORSC minutes of the time indicate that neither the 3.5% nor 4.2% rate were formally accepted by the ORSC.

In 2005, Milliman completed the next triennial review of the mitigating rate for STRS. Again using the methods specified previously, that study calculated a supplemental rate of 8.64% with 8.48% attributed to pensions and .16% for health care. Again, ORSC minutes of the time indicate that neither the 8.64% nor the reduced 3305.61 rate of 3.5% was formally accepted by the ORSC.

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<sup>19</sup> Letter from Alan H. Perry and William A. Reimert to Aristotle L. Hutras dated May 7, 2001.

<sup>20</sup> Letter from William A. Reimert and Katherine A. Warren to Aristotle L. Hutras dated July 1, 2002.

According to the schedule required by R.C. 171.07, a study was required in 2008 and 2011, but neither was done. The next study would be due in 2014, except that the provisions of H.B. 483 indicate that the study is to be delayed for the present review and recommendations from the ORSC.<sup>21</sup>

## **Summary: ORSC rate calculations, 1994-2014**

Milliman & Robertson and subsequently Milliman consistently used the 1994-1996 methods in its analyses for its 1999, 2000, 2002, and 2005 analyses. This raises two issues.

First, when originally contracted by LBO to study the actuarial effect of an ARP, Milliman & Robertson was asked to determine the additional costs that would be incurred to STRS. The study attempted to estimate just that, "how much the employer contribution rate for [ARP] participants would have to change if it were to cover this liability."<sup>22</sup> As stated previously, Milliman stated that this calculation was the excess of total contributions which would have been made by the member and employer over the employee's entire career over the portion of those future contributions which would be provided as a benefit in the future. Added to this were health care costs, calculated as the additional health care rate based on salary of ARP employees in excess of average pay. This was expressed differently in the LBO analysis but appears to be a consistent calculation. This is a dollar-for-dollar, compensatory, calculation.

But the question of LBO was not the question eventually posed by the General Assembly in statute. Milliman & Robertson and later Milliman continued to review the *compensatory* replacement rate rather than what the General Assembly asked, which was a *mitigating* rate.

Second, the studies are frustratingly opaque. ORSC staff struggled to find a way to replicate or review the analyses to understand their results. Since the studies never showed their work with actual liability costs, staff would be unable to do so without reviewing the entirety of data provided by STRS, SERS, and PERS to Milliman & Robertson and requesting our current actuary to review the actual data. Because of the cost of such analyses (the original studies cost \$8,200, \$18,500, and \$19,400), ORSC staff instead concentrated on evaluating the methodology used by Milliman & Robertson. This opaqueness was in fact noted in a 2005 letter from ORSC member Rep. Wachtmann asking for an explanation of the methods.<sup>23</sup>

This is particularly frustrating considering that, practically speaking, the opaqueness and disagreement about population figures appears to be completely irrelevant and unnecessary. When ORSC's current actuary, PTA/KMS, was asked to evaluate the methods used by Milliman & Robertson, they indicated that their method provided a fully compensatory rate as expressed by the UAL rate. This UAL rate was

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<sup>21</sup> The November 2014 ORSC meeting indicate that the triennially review is delayed to 2015.

<sup>22</sup> Pelley, Debra, "A Study of the Feasibility of Implementing an Alternative Retirement Program for Certain Employees of Ohio's Universities and Colleges: A Report Mandated by Sub. H.B. 715 of the 120<sup>th</sup> General Assembly," (Ohio Legislative Budget Office: December 27, 1994), 23.

<sup>23</sup> Letter from Rep. Wachtmann to Director Hutras dated April 14, 2005.

then adjusted to account for anti-selection and health care costs. But by far the most dominant factor was the UAL. After this assessment from our actuary, ORSC staff compared the historical rate determined by Milliman and the relevant UAL rate of the time. Indeed, as demonstrated in Appendix B, these match up almost precisely.

*To summarize, ORSC staff finds that the rate calculated in previous ORSC studies does not match the instructions dictated by the Revised Code and appears unnecessarily opaque and confusing for interested parties to review.*

## **System mitigating rate studies and inconsistency of application of those studies**

As discussed previously, because the mitigating rate studies for the system DC plans result in a cap of ARP rates, it is necessary to review these studies to assess their role in meeting the intent of the General Assembly.

### **Other methods to measure “negative financial impact”**

PERS, STRS, and SERS have conducted their own review of the financial effect of members participating in a DC rather than DB plan. The different application of rates by the systems has resulted in an inconsistent cap placed on the ARP rate.

**Gabriel Roeder Smith & Company Studies for PERS.** Gabriel Roeder Smith & Company (GRS) discussed a number of challenges in calculating the mitigating rate.<sup>24</sup> As the PERS consulting actuary, GRS was asked to recommend a PERS DC mitigating rate in 2005 and 2006. In the first analysis, GRS initially determined the portion of the contribution rate of a DC plan participant that would have been applied to the unfunded accrued liability (UAL) had that member instead elected the traditional plan. This UAL portion was 3.5%.

According to GRS using this “basic mitigating contribution rate” would be problematic. GRS remarked that this rate, over time, cannot properly measure inflow and outflow of DC participants and would underfund the combined plan while having no material effect on the traditional plan. GRS then noted that in terms of R.C. 145.87, no mitigating contribution is actually “necessary” because a mitigating rate would not have a material effect on the traditional plan as long as participation figures in the combined and member directed plans remained low. GRS remarked that the Board must weigh competing factors and “determine the approach that best meets the needs of all stakeholders while fulfilling fiduciary duties to all plans.”<sup>25</sup>

In its 2006 study, GRS found that “there is no empirical, unambiguous method to determine the extent of, or even the existence of the ‘negative financial impact.’” GRS remarked that “many formulas could be developed, each producing materially different

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<sup>24</sup> ORSC staff note that the 2001 Milliman analysis of H.B. 94 provided that “Note that PERS had a UAL as of December 31, 1999 as a result of increases in benefits enacted in 2000. The Supplemental Contributions to PERS have not resumed because H.B. 586 did not provide for such a resumption”). Letter from Milliman & Robertson to Aristotle L. Hutras dated May 7, 2001, page 2.

<sup>25</sup> Gabriel Roeder Smith & Company, “Ohio Public Employees Retirement System Mitigating Contribution Report, December 31, 2005, page 3-4.

results.”<sup>26</sup> GRS discussed a number of methods to calculate the rate and noted the problems with each. GRS found that, in the case of PERS, the only true “negative financial impact” would occur if a very large percentage of new entrants enrolled in the DC plan and therefore caused the traditional plan to shrink. They also noted that the health care program was dependent on the majority of new entrants being in the traditional plan.

The PERS Board has elected to set the mitigating rate lower than that verbally recommended by GRS. Additionally, prior to pension reform, the requirement to determine a mitigating rate was an annual one, but this was not done from 2007-2012 (when the annual requirement was removed).<sup>27</sup>

**PWC and Segal Studies for STRS.** STRS asked PWC in 2012 and Segal in 2014 to calculate the mitigating rate for their DC plan. These were both presented as power point presentations to the STRS Board. One of the three PWC approaches was to set the mitigating rate equal to the full employer rate and then decrease that number to reflect the value of participation in a revised defined benefit plan. The method specified in the power point was to:

- 1) Determine the normal cost, add
- 2) The value of DB Plan asset management, add
- 3) The value of receiving annuities from the DB plan on group basis versus purchasing individual annuities from a DC plan account, add
- 4) The value of receiving disability and death benefits from a DB plan vs. purchasing individual coverage, add
- 5) The value of retiree medical benefits for retirees and dependents, subtract
- 6) The employee contribution rate.

Using this method, PWC determined a rate of 9.15% increasing 1% each year as employee contributions increase. The alternatives vary depending on the value determined under 2-5.<sup>28</sup> Two other PWC approaches resulted in mitigating rates of 7.5% increasing 1% each year and 12.57% increasing to 14% by fiscal year 2015.

Segal likewise provided alternatives. In alternative one, Segal recommended a rate that matched the UAL amortization rate. This would set the rate at 12.03%. In alternative two, Segal modified the rate to reflect the value of the DB plan. Using this method, Segal recommended a rate of 7.2%.<sup>29</sup>

In 1999 and 2001, the STRS approach to determining the DC rate was simply to take the UAL rate. According to an email dated October 2, 2014, STRS set the mitigating rate as the UAL rate when initially establishing the STRS DC plan, rounded

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<sup>26</sup> Gabriel Roeder Smith & Company, “Ohio Public Employees Retirement System Mitigating Contribution Report,” December 31, 2006, page 1.

<sup>27</sup> R.C. 145.87.

<sup>28</sup> PWC powerpoint to STRS, “State Teachers Retirement System of Ohio: Setting Section 3307.28 mitigation contribution,” November 29, 2012.

<sup>29</sup> Segal powerpoint to STRS, “State Teachers Retirement System of Ohio: Mitigation Contribution Rate for FY2015,” February 20, 2014.

up from 5.95% to 6.0% in 1999 and rounded up from 3.48% to 3.5% in 2001.<sup>30</sup> Again, the required annual study to determine the mitigating rate was not completed from 2002-2012. Again, this requirement was removed in pension reform.<sup>31</sup>

**SERS studies.** Because SERS does not have a DC plan, SERS has not completed an analysis on the mitigating rate for its DC plan. However, in 2007, H.B. 152 proposed to expand ARPs to all SERS members, and SERS analyzed the actuarial impact of losing more members to an ARP. Buck provided a range of effects depending on the number of those eligible to participate in an ARP who choose to do so. They found that, no matter the participation rate, there would be an immediate negative effect on the health care fund. This is particularly the case in SERS, as it would lose the employer surcharge for those employees. For the defined benefit funded ratio, Buck looked at the actual effect on the funded ratio and found it was highly dependent on the number of members who participate in ARP. At 1% participation, the effect was negligible and did not affect the funded ratio, regardless of even if the mitigation rate was 0%. The study indicated that the funded ratio becomes significantly effected as the participating rate increases. The funded ratio drops 9% if 75% of those eligible to participate in ARP would do so and the mitigating rate was 6%, and a drop of 10% if the rate was 0%.<sup>32</sup> In 2014, 0.2% of SERS members participate in ARP.

### **Summary of other system studies**

Much like the ORSC, PERS and STRS did not reliably complete the statutorily required analysis of mitigating rates. In addition, while each analysis in some way used the UAL, the application of that UAL to a mitigating rate and resulting cap on ARP rates has been inconsistent. PERS has a cap that their actuary has indicated does not sufficiently reduce the effect of the PERS DC plan. STRS originally had a cap that matched the financial impact, but then set a cap that was lower than the impact. SERS has no cap because they do not have a DC plan.

In addition, even the mitigating rate cap can be contested. As discussed above, the last legislative action on the mitigating rate prior to the 2014 freeze was the setting of the rate at 3.5% in 2001. Yet, STRS has advocated for a rate cap of 8.48% based on an unaccepted 2005 Milliman study. STRS has used this reasoning for requiring employers to raise the ARP mitigating rate. This places those employers in an unenviable position of arbitrator between STRS (who can assess penalties on the employer for failing to remit the proper mitigating rate) and ORSC (who actually determines the mitigating rate).

## **Conclusions**

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<sup>30</sup> Email from Marla Bump to Jeff Bernard, dated October 2, 2014 and Buck Consultants, The State Teachers Retirement System of Ohio Actuarial Valuation July 1, 1999, page 3 and Buck Consultants, The State Teachers Retirement System of Ohio Actuarial Valuation July 1, 2001, page 3.

<sup>31</sup> R.C. 3307.84.

<sup>32</sup> Letter from Philip Bonanno, Consulting Actuary to James R. Winfree, SERS Executive Director dated July 11, 2007.

## **“Applicability, operation, and efficacy of” the mitigating rate**

R.C. 3305.06(D) states:

Each public institution of higher education employing an electing employee shall contribute on behalf of that employee to the state retirement system that otherwise applies to the electing employee’s position a percentage of the electing employee’s compensation to mitigate any negative financial impact of the alternative retirement program on the state retirement system. The percentage shall be six per cent, except that the percentage may be adjusted by the Ohio retirement study council to reflect the determinations made by actuarial studies conducted under section 171.07 of the Revised Code.

Those contributions are to continue until the UAL for all benefits, except health care benefits and benefit increases provided after March 31, 1997, are fully amortized.

H.B. 483 requires the ORSC to study the applicability, operation, and efficacy of the mitigating rate. Based on a dictionary reading of applicable, operation, and efficacy, ORSC staff took this to be a command to study if the mitigating rate has been an appropriate exertion of power to achieve a desired effect. Staff then looked at the code to determine the legislative intent of the mitigating rate. As specified above, the intent is to devise a rate that mitigates any negative financial impact of the ARP on the state retirement system, to continue until the UAL, minus health care expenses and benefit increases, is fully amortized.

“Mitigate” is defined by *The Law Dictionary* as a “reduction of damages or of punishment.” Black’s Law Dictionary describes mitigate as an “alleviation; abatement or diminution of a penalty or punishment imposed by law.” These terms indicate that to mitigate is to reduce, not eliminate, an effect of law. This differs markedly from “compensatory” defined by *The Law Dictionary* as “sufficient in amount to cover the loss actually sustained.” ORSC staff assumes that the use of “mitigate” as a term was intentional in the enactment of R.C. 3305.06 and therefore assumes that the mitigating rate must be one to minimize, but not necessarily eliminate, the effect of ARP participation. However, there is no guidance in statute on *how much* mitigation is intended. Minutes from both ORSC and the retirement systems lacked comment on the ARP program and do not illuminate the intent of the General Assembly.

Because the calculation is a statutory requirement, staff would anticipate that the results would be consistent, replicable, and explainable. ORSC staff finds the applicability, operation, and efficacy of the mitigating rate has not been achieved due to the calculations being compensatory rather than mitigating, opaque to interested parties, and applied inconsistently.

### **Historical impact of the mitigating rate and whether its purpose is being served**

A much more difficult request from the General Assembly was an assessment of the historical impact of the mitigating rate and whether its purpose is being served.

Because ORSC staff was unable to determine just how much mitigation was intended by the legislature, our comments in this regard are limited.

### **PERS**

While GRS has verbally indicated to the PERS Board that the mitigating rate should be increased, GRS has also repeatedly indicated the difficulty in determining the rate. As discussed above, GRS found that, in terms of R.C. 145.87, no mitigating rate is actually “necessary.” What they have consistently expressed, however, is that as long as the number of those electing an ARP, combined, or member directed plan remains low, the effect on the pension plan remains low. However, the retiree health plan experiences much more risk as the number of those electing an ARP, combined, or member directed plan increases. Due to the requirements of 3306.05(D)(1), it does not appear to ORSC staff that relieving this pressure on the health care program is intended by statute.

### **STRS**

According to the STRS actuary, an increase of the mitigating rate to 5% would decrease the funding period by 0.3 years.<sup>33</sup> Therefore it does appear that a 5% mitigating rate would have a measurable material effect on the funding period of STRS. STRS has no historical analyses for how the rate has affected the funding period over time.

### **SERS**

As mentioned previously, a Buck analysis of H.B. 154 found that the funded ratio of SERS would not be materially impacted if the ARP participation rate was close to 1%, regardless of if the mitigation rate was 6% or 0%. Staff therefore concludes that, with such a minimal 0.2% of SERS population in ARP, the impact of the mitigating rate for the SERS defined benefit plan is not significant. That same analysis found that *any* ARP participation shortens the solvency period of SERS’ health care fund in greater proportion to the participating ARP employees (this is because ARP employees are anticipated having higher salaries). A 1% ARP participation rate reduces health care contributions to SERS by roughly 1.5%. While it is clear that ARP participation then has had a measurable effect on the SERS health care program, it is not clear if the mitigating rate has been sufficient to alleviate that pressure. However, as discussed earlier, it does not appear to ORSC staff that relieving this pressure on the health care program is intended by statute.

### **PTA/KMS comments on practical considerations**

ORSC staff consulted with PTA/KMS and asked for a review of the following:

- 1) What is the purpose of a mitigating rate and why is it necessary;
- 2) Is there a clear, unambiguous way to calculate a rate;

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<sup>33</sup> Email from Marla Bump to Jeff Bernard dated October 8, 2014.



3) What are various methods, and what are the practical implications of those methods.

As discussed previously, PTA/KMS found that the three pieces used by Milliman (1) the UAL; (2) anti-selection; and (3) health care benefits was an effective method to calculate the fully compensatory rate of the negative financial impact of an ARP. By far, the most significant negative factor is the UAL contribution of the employer. They found that:

If a significant number of individuals were to avoid participating in the DB plan and their employers were able to avoid paying a fully compensatory rate or significant part of such rate, then the unfunded liability in existence at 1999 might never be paid off. Essentially, their employers would be shifting money needed by the DB plans to the Defined Contribution (DC) plans to provide DC or ARP benefits in excess of those provided under the DB plan . . . if a STRS employer has a mitigating contribution rate of less than [the current UAL rate of] 12%, then they are able to provide larger retirement benefits to ARP employees than to DB employees. This extra benefit comes at the expense of STRS receiving fully compensatory payments to amortize the unfunded liabilities. In an extreme case, more and more STRS members could elect ARP leaving a declining DB plan with limited resources to pay off its unfunded liability.”<sup>34</sup>

While PTA/KMS found that the methodology to determine a fully compensatory rate for the amortization of unfunded liability is fairly clear, with respect to a mitigating rate, the methodology and practice certainly required clarification. “‘Mitigation’ is not the same as ‘fully compensating.’ Consequently, there may be a need for legislative clarity.”

As stated by PTA/KMS, however, the practical effects of a rate that is less than the fully compensatory, UAL rate results in employer owed liability being diffused from ARP employers to the remainder of the STRS member and employer population.

This is the central policy decision that the General Assembly must consider: how much mitigation of that loss is to be conducted? While subsidization of benefits was largely eliminated in pension reform, there are still instances where the General Assembly supports such subsidization to achieve policy ends. This may be one instance where this is the case.

## **Findings and recommendation**

ORSC staff finds that the applicability, operation, and efficacy of the mitigating rate has not been achieved since enactment of 3305.06. Staff found the historical ORSC studies to be logical and eventually explainable but unnecessarily opaque to outside interested parties and deviated in part from the question asked by the General

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<sup>34</sup> Letter from William B. Forna to Jeff Bernard dated November 20, 2014.

Assembly. Further, analyses done by the systems have consistently considered the UAL, but in the application of those studies to an actual mitigating rate, they have not been consistent. While ORSC staff determines that the current mitigating rate process is not in line with statute, the eventual goal of the General Assembly is less clear.

ORSC staff therefore recommends that the mitigating rate language in 3305.06 be modified to better reflect the intent of the General Assembly. In developing a new mitigating rate calculation and considering the historical development to this point, ORSC staff recommends that the General Assembly consider all of the following:

- 1) Recognize that there is a negative financial impact on the retirement system due to ARP participation and that this effect is related to the UAL.
- 2) That a consistent formula be established in statute to provide clarity and consistency for employees, employers, and the retirement systems.
- 3) That the formula use as its central data point the most recent unfunded accrued liability rate for the relevant system.
- 4) That the General Assembly consider and specify the extent of the mitigation provided by ARP employers and whether there is a cap on that amount.
- 5) Whether the mitigation of the unfunded accrued liability owed by employers has a termination date.
- 6) Whether adjustments to the unfunded accrued liability should be made to account for benefit increases, benefit decreases, 13<sup>th</sup> check provisions (in the case of STRS), and health care contributions made in the post-1999 period for the defined benefit plan, and how that would be expressed.

## Appendix A

### PERS, STRS, and SERS Defined Contribution (DC) and Alternative Retirement Plan (ARP) Mitigating Contribution Rates (1998-2015)<sup>35</sup>

	PERS ARP	PERS DC	STRS ARP	STRS DC	SERS ARP
1998	6.0%	n/a	n/a	n/a	6.0%
1999	6.0%	n/a	6.0%	n/a	6.0%
2000	0.0%	n/a	6.0%	n/a	6.0%/3.1%
2001	0.0%	n/a	5.76%	n/a	0.0%
2002	0.0%	n/a	3.5%	3.5%	0.0%
2003	0.0%	0.0%	3.5%	3.5%	0.0%
2004	0.0%	0.0%	3.5%	3.5%	0.0%
2005	0.0%	0.0%	3.5%	3.5%	0.0%
2006	0.0%	.54% (state)/ .70%(local)	3.5%	3.5%	6.0%
2007	.54% (state)/ .70%(local)	.54% (state)/ .70%(local)	3.5%	3.5%	6.0%
2008	.77%	.77%	3.5%	3.5%	6.0%
2009	.77%	.77%	3.5%	3.5%	6.0%
2010	.77%	.77%	3.5%	3.5%	6.0%
2011	.77%	.77%	3.5%	3.5%	6.0%
2012	.77%	.77%	3.5%	3.5%	6.0%
2013	.77%	.77%	3.5%	3.5%	6.0%
2014	.77%	.77%	4.5%	4.5%	6.0%
2015			4.5%	4.5%	6.0%

<sup>35</sup> PERS years are calendar year. STRS and SERS years are for the fiscal year (1999 refers to the rate from July 1, 1998 through June 30, 1999). Therefore the 2015 figure is for the rate currently in effect for STRS and SERS, while the 2014 rate refers to the rate currently in effect for PERS.

## Appendix B

### Actuarial Studies and Recommendations for ARP Mitigating Rate (1994-2005)

Study	Recommended rate	Method of measurement	UAL as % of payroll <sup>36</sup>
1994 Ohio Legislative Budget Office	Existing employees: 3.46-5.68% New employees: 5.48-6.75%	Election rates; existing liability; and suppressed payroll growth	6.55%
Buck Consultants, 1995-H.B. 482	6.75%	Election rates; existing liability; and suppressed payroll growth	6.56%
Foster Higgins & Company, Inc., 1996-H.B. 482 Alternative Retirement Plan	3% as a reasonable starting place	Election rates	6.56%
1996 Milliman and Robertson, Inc. HB 482-Alternative Retirement Plan	5.6-7.4%	Election rates	6.56%
1999 Milliman and Robertson, Inc. H.B. 586; often referred to as the "July 1, 1999" study	PERS rate of 1.25% (or delay until further data available); STRS rate of 6%; no rate for SERS as no employee data; raised issue of duration of mitigating rate	Election rates; excess of total contributions which would have been made by the member and employer over the employee's entire career over the portion of those future contributions which would be provided as a benefit in the future; additional health care rate based on salary of ARP employees in excess of average pay	PERS-1.33% STRS-5.95%
1999 Milliman and Robertson, Inc. Senate Bill 190	Question of how benefit increases are spread among population  Start STRS DC mitigating rate at 6% and then review after data is available.	N/A	6.56%
2000 Milliman and Robertson, Inc. H.B. 586	5.60% (Pension) plus .16% (health care) for	"July 1, 1999" study methods	STRS-5.95% SERS-0.42%

<sup>36</sup> The unfunded accrued liability rate was taken from the annual actuarial valuation that most closely matched the study period with the exception of the 2012 PWC study, which was an updated revised plan UAL provided by PWC.

update	STRS; -1.26% (pension) and 4.36 (health care) for SERS  Again raised question of how to address benefit increases being paid by supplemental rates.		
2001 Milliman and Robertson, Inc. Substitute House Bill No. 94	Advocate a single composite rate for DC vs. ARP rates or require a separate rate for ARP plans rather than a "lower of my cost or someone else's cost"	Election rates and salary figures	
2002 Milliman Supplemental Contributions from Higher Education Employers	3.33% (pension) plus .87% (health care)	"July 1, 1999" study methods	3.48%
2005 Milliman Supplemental Contributions from Higher Education Employees	SERS 6.0% STRS 8.48% (pension) and .16% (health care)	"July 1, 1999" study methods	SERS-5.88% STRS-8.10%
2006 GRS study of PERS DC rate	Found that "in terms of Section 145.87, no mitigating contribution is actually 'necessary,'" but that the full actuarial rate would be approximately 3.5%	Provided options; election rates dependent	3.68%
2007 GRS study of PERS DC rate	Range of .54% to .85% based on Board policy	Provided options; election rates dependent	1.17%
2012 PWC analysis of STRS DC rate	Varied options: Alternative A: 12.57% Alternative B: 4.85% Alternative C: 7.5%	UAL modified by "value" of DB plan	12.57%
2014 Segal analysis of STRS DC rate	Approach 1: 12.03% Approach 2: 7.2%	UAL modified by "value" of DB plan	12.03%

## Appendix C

### Legislative Action on Alternative Retirement Plans

Act	Legislative Change
Sub. H.B. 715 of 120 <sup>th</sup> G.A.	After the removal of an amendment to establish ARP, H.B. 715 required the Legislative Budget Office to provide an analysis of the feasibility of establishing an alternative retirement plan.
H.B. 482 of 121 <sup>st</sup> General Assembly	H.B. 482 was rolled into H.B. 586
H.B. 586 of the 121 <sup>st</sup> General Assembly	Establishment of ARP; sets mitigating rate to 6% and requires ORSC to complete a study
H.B. 673 of the 122 <sup>nd</sup> General Assembly	Modified who may elect an ARP and delayed date ORSC is to complete a study
H.B. 628, S.B. 190, and S.B. 270 of the 123 <sup>rd</sup> General Assembly	Established a defined contribution plan in PERS, SERS, and STRS, and included a mitigating rate requirement
H.B. 535 of the 123 <sup>rd</sup> General Assembly	Modifies ARP program and designated vendors; requires triennial actuarial studies
H.B. 94 of the 124 <sup>th</sup> General Assembly	Prohibits the ARP mitigating rate from exceeding the defined contribution mitigating rate
S.B. 133 of the 125 <sup>th</sup> General Assembly	Requires higher education to contribute the same amount to the employee's account as they would have under the retirement system, minus the mitigating rate.
H.B. 487 of the 129 <sup>th</sup> General Assembly	Modified ARP provider criteria
H.B. 483 of the 130 <sup>th</sup> General Assembly	Froze STRS rate at 4.5% and required ORSC to issue a study no later than December 31, 2014