Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

January 27, 2012

Ms. Donna Mueller
Chief Executive Officer
Iowa Public Retirement System
7401 Register Drive
Des Moines, IA 50321

Re: Working After Retirement Study

Dear Donna:

We were asked to provide an analysis of how IPERS funding is affected by retirees who return to work in IPERS covered employment. As you know, there are a number of different issues related to retirees returning to work. Our analysis focuses solely on the financial impact on IPERS. There may be other considerations that are outside the scope of our study which policymakers should to consider in making decisions related to working after retirement. We trust that those issues will be discussed by other parties.

In this letter, we will first review the key plan provisions that affect working after retirement in IPERS. Then, based on data provided by IPERS, we will provide relevant analysis based on the actual experience of retirees returning to work in IPERS. Finally, the cost impact of retirees returning to work on IPERS' funding will be discussed from an actuarial standpoint.

Current Provisions

There are a number of legal rules that govern when IPERS retirees may return to covered employment and what benefits are payable for those years of employment. In the following summary, we have attempted to discuss only the broad plan provisions and have not addressed the exceptions or special cases, in particular those related to elected officials. Iowa law requires that the retiree must have had a *bona fide* retirement in order to start receiving a monthly pension benefit. This requires one month of not being employed by any IPERS-covered employer and an additional three months of not working in a position covered by IPERS. One exception to this general rule is a temporary provision that sunsets July 1, 2012 that allows Licensed Health Care Providers (LHCP) to return to an IPERS covered position after only one month in retirement. A second exception to the general rule permits active IPERS employees

3906 Raynor Pkwy, Suite 106, Bellevue, NE 68123
Phone (402) 905-4461 • Fax (402) 905-4464
www.CavMacConsulting.com
Offices in Englewood, CO • Kennesaw, GA • Bellevue, NE • Hilton Head Island, SC

who are age 70 to begin receiving monthly benefits while actively employed (i.e. no termination of employment is required).

Once an employee returns to IPERS covered employment, there may be a limit on the amount of earnings the retiree may receive without some adjustment to the IPERS benefit (referred to as an "earnings limitation"). For those under age 65, the annual earnings limitation is $30,000 or the annual Social Security wage limit, whichever is higher. After the retiree has earned $30,000 in a calendar year, his or her IPERS benefit amount is reduced $1 for every $2 earned above the $30,000 earnings limitation for the remainder of the year. The earnings limitation does not apply once the retiree is over age 65. This is similar to the rules applicable to Social Security benefits. During the re-employment period, the member earns a second IPERS benefit. If the member works less than four years (seven in 2012) of service after returning to covered employment, the benefit received is a money purchase benefit based on the member and employer contributions paid into IPERS during the re-employment period (a lump sum payment is available as an optional form of payment). If the member works more than four (seven in 2012) years, an additional benefit is earned based on the regular IPERS benefit formula using salary and years of service in the reemployment period. The maximum of 35 years cannot be exceeded when both service periods are aggregated. Alternatively, the retired reemployed member may also elect a lump sum payment of the member and employer contributions in lieu of the monthly benefit.

Those who continue in covered employment under the special provision for active members who are age 70 continue to accrue benefits under the formula benefit as if payments had not commenced (i.e. the benefit is recalculated each year using all salaries and years of service including years after benefits commenced). Effectively, these members continue to earn their full salary, receive IPERS benefits as if they were retired and earn additional IPERS benefits as if their pension had not commenced.

Characteristics of Retirees Who Return to Employment

For purposes of this study, IPERS staff provided us with a data file with extensive detail for each retiree who was re-employed and worked during any part of calendar years 2002 through 2011. We appreciate their assistance in providing us with this data so that a comprehensive analysis of the utilization of the current return to work provisions could be performed. To our knowledge this type of analysis has not been performed previously. Unless otherwise noted, the statistics in this letter regarding working after retirement were derived from this data.

The number of retired reemployed members has increased over the years, but seems to have stabilized in recent years. Figure 1 summarizes the count of retired reemployed members by calendar year included in the data provided to us by IPERS.

Figure 1

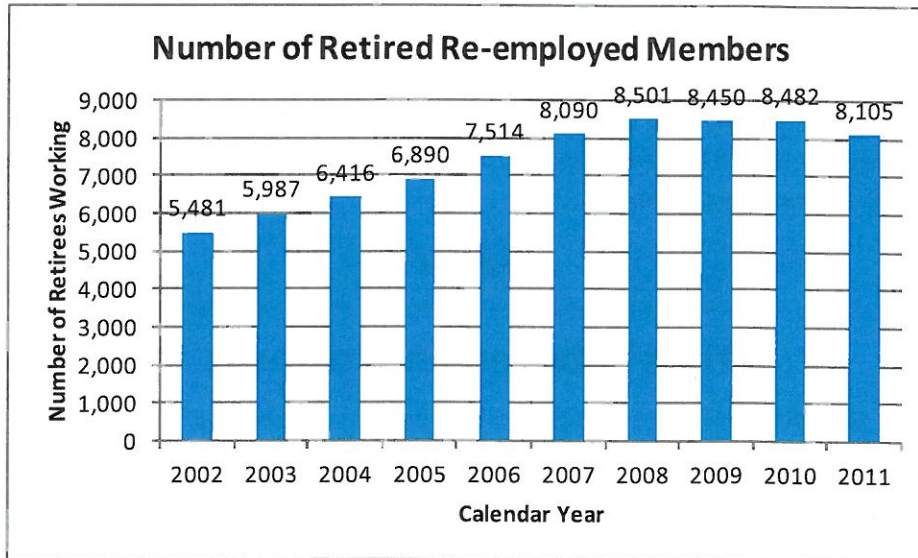
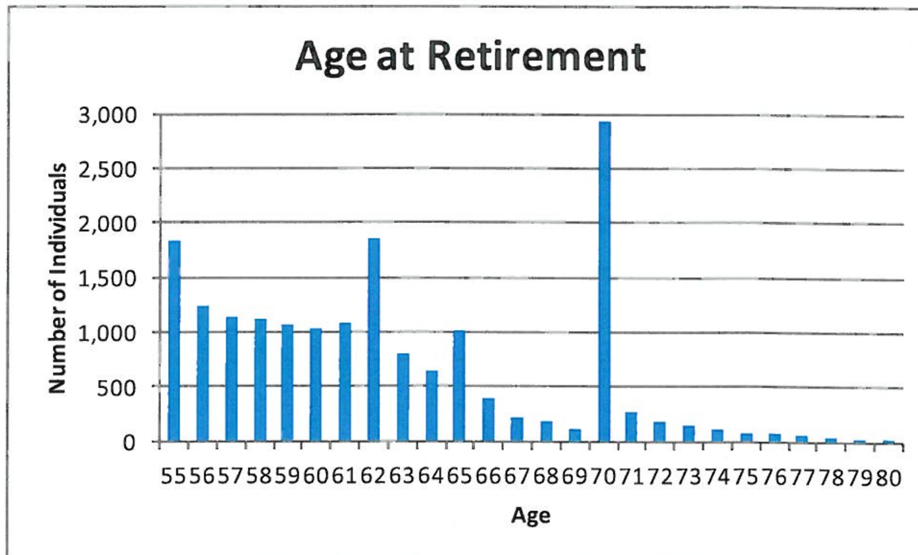


Figure 2 shows the distribution of age at initial retirement for those individuals who ultimately returned to work. As might be expected, a significant number of these individuals are age 70, and thus are likely taking advantage of the provision which permits them to begin receiving retirement benefits while continuing to work in covered employment. We note that otherwise, few individuals who initially retire at age 66 or later return to employment. Part of this is likely attributable to the fact that there are fewer members who retire after age 65 so the eligible group is smaller.

Figure 2



Figures 3 and 4 show the time period between the member's initial retirement and when they returned to work for an IPERS covered employer. Figure 3 reflects all of the members during the study period, while Figure 4 shows the frequency by month for the first two years and excludes any retirees who did not return to work within two years. The data indicates that retirees who return to covered employment usually do so within two years and, in fact, most of them return to covered employment within four months of retirement. It should be noted that these counts include the age 70 and LHCP groups who have a shorter bona fide retirement requirement.

Figure 3

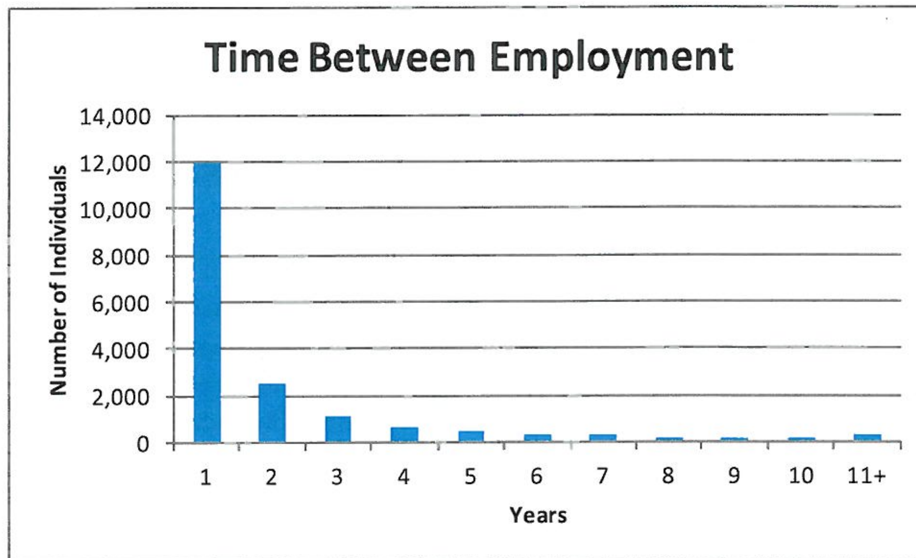
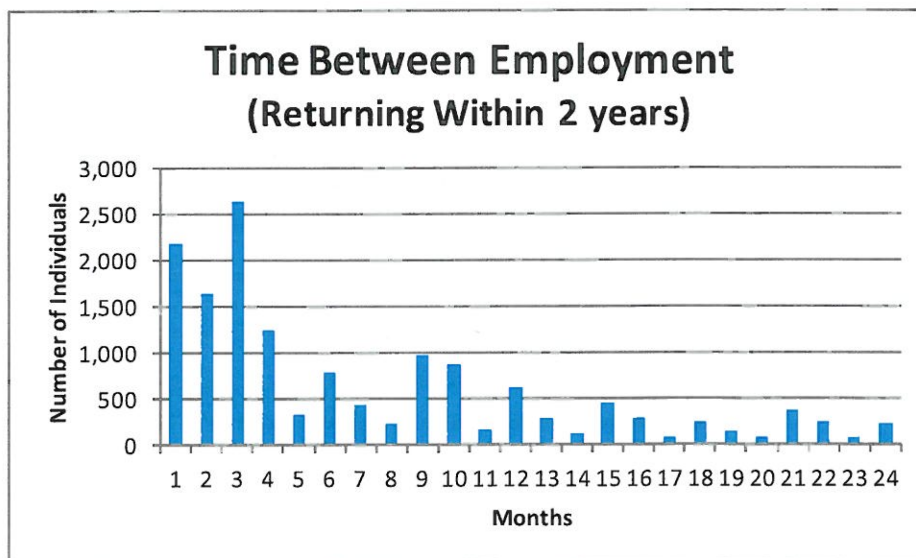


Figure 4



To gain further insight, analysis was performed to determine whether the retiree returned to his or her original employer (the employer at the time of retirement), to a similar employer (different employer, but in the same general group (i.e. state, schools, or other), or to different type of employer. The following chart summarizes the results:

	Same Employer	**Similar Employer**	**Different Employer**	**Total**
State	478	106	511	1,095
Schools	9,521	1,787	911	12,219
Other	3,347	618	505	4,470
Total	13,346	2,511	1,927	17,784
	75%	14%	11%	100%

As shown above, approximately 75% of the retirees returning to work were rehired by the same employer they had been working for when they retired. The state group is notably different, with less than 50% of the retirees returning to the original employer and another 10% returning to a different state department or agency. Among retired school employees who return to work for a different employer, most (15%) still remain with a school employer.

Figure 5 shows a distribution of salary in 2011 for the group of retirees who returned to work in that year. A review of the data in each of the other years (2002 to 2010) indicated a consistent pattern. There are several observations worth noting. First, there were very few individuals earning in excess of $60,000. Second, 96% of the rehired group earned below $30,000, the current earnings limitation for those under age 65. It is interesting to note that the same pattern occurs even though 64% of the reemployed retirees were older than 65 and not subject to the earnings limitation. More than 50% of the retirees earned less than $5,000, and more than 75% earned $10,000 or less. The salary distribution shows that the majority of retirees who have returned to work are earning lower salaries. This could be due to part-time employment, reemployment in lower paying jobs, or other reasons. There is no information in the data to provide insight into the reason for the low salary levels.

Figure 5

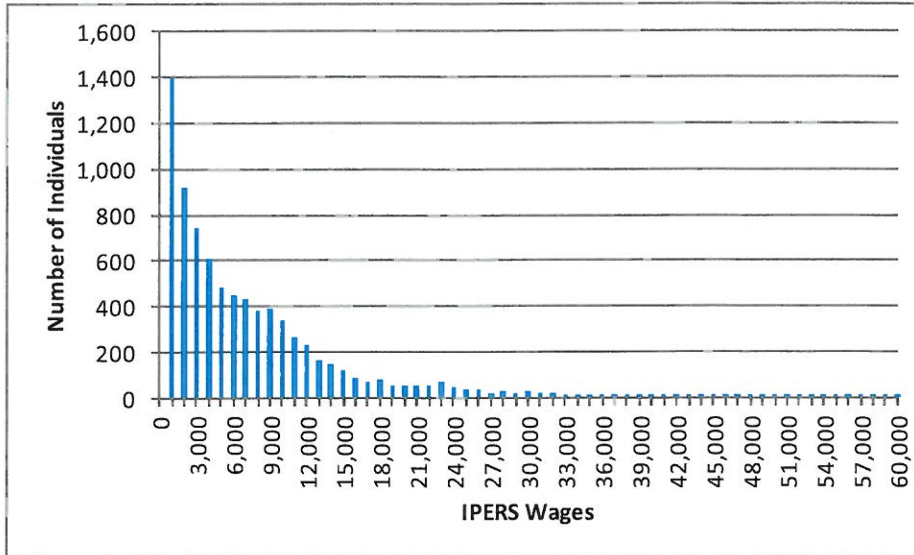
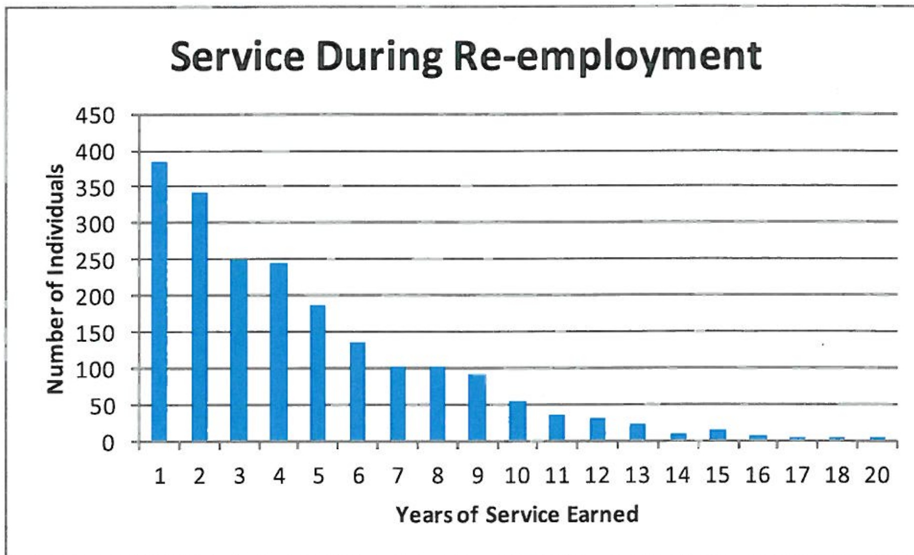


Figure 6 displays the duration of employment after retirees return to covered employment. As the graph illustrates, approximately 50% of the retirees who return to work remain in IPERS covered employment for three years or less. Seventy percent (70%) of retirees work no more than 5 years. Because of the relatively short duration of employment after returning to work and the low salary earned by most retired reemployed members, it follows that benefits earned in the second employment period would be fairly small.

Figure 6



Cost Impact

As actuaries, we are often asked to assess the cost to a retirement system related to retirees returning to covered employment. The actual cost of retired members returning to covered employment is heavily dependent on:

1. whether members elect to retire earlier than they would have if the return to work provision did not exist;
2. which members elect to retire earlier; and
3. how long retired reemployed members work after returning to covered employment.

The actuarial cost impact would typically be measured by comparing the System's costs for this group with and without the working after retirement provision. The working after retirement provisions have been in place for many years and the current retirement rates reflect any impact those provisions may have had on retirement behavior in the past. While there are some general principles that can be discussed and detailed data that may be analyzed, we cannot know what the member's behavior would have been in the absence of the working after retirement provisions. This is an important fact should be taken into consideration when reviewing the observations and related comments below. The specific cost of the working after retirement provisions cannot be quantified. Recognizing that fact, however, we can share our thoughts as the potential impact, based on the available data and our professional judgment and experience.

As a general rule, the earlier a member retires with unreduced benefits, the higher the cost to the System. This is because there has been less time to accumulate funds to pay the benefit, coupled with the fact that the benefit will be paid for a longer time. Of course, the benefit amount is often smaller due to the earlier commencement, which offsets some of the additional cost. If the provisions regarding working after retirement are impacting the retirement behavior of members, and that results in members retiring earlier than they would have without the provisions, there is a cost to the System. However, since it is impossible to know what the retirement patterns would be absent the current provisions, the cost cannot be quantified.

As stated earlier, if retirees return to work for less than four years (seven years beginning in 2012) they receive a benefit equal to the member and employer contributions with interest. Because 70% of retired reemployed members work less than five years in the reemployed period, a substantial portion of the members receive a benefit equal to the member and employer contributions with interest. If the benefit is paid as monthly income, the calculation is performed on an actuarial equivalent basis, meaning it has the same cost to the System as the lump sum payout. Thus for the individuals who receive this benefit, it was entirely paid for by the contributions made during the reemployment period. However, the contribution rate for the system, which applies to the covered payroll for all actively working IPERS members, consists of both the cost of the benefit for the current year (normal cost rate) and a payment to fund the Unfunded Actuarial Liability (UAL). For the retired reemployed members who work less than four (seven in 2012) years, all of the contributions are paid to the member upon final retirement so no UAL

payment is received by the system on the payroll for this group. Given the salaries of the retired reemployed group, the dollar amount of the missing UAL payments is likely small in comparison to IPERS total liabilities. However, technically the retired reemployed members do have an impact on IPERS' funding.

The cost of providing monthly income in a defined benefit plan increases with age. Therefore, for retirees who return to work and continue employment for more than four years (seven in 2012) and elect to receive a monthly benefit based on the formula benefit, the cost of the monthly benefit likely exceeds the contributions collected during the re-employment period. As a result, there is likely some cost impact to IPERS, although we expect it is small. However, any cost would be reflected in the overall contribution rate and, therefore, paid by other members and employers. Again, if the contributions paid during the working after retirement period are insufficient to cover the cost of the monthly benefit earned, there clearly would be no contributions made to fund the Unfunded Actuarial Liability.

For those who continue to work past age 70, the analysis is more complicated. On first blush one may conclude that since the ultimate benefit does not take into account the in-service annuity benefits that were paid, then the cost of the provision is the total of the monthly benefits paid while the member was also actively working. However, this approach ignores the fact that the member's behavior, such as how long the person continued to work and possible changes to part-time status in the final years, may have changed as a result of the current provision. We believe it is reasonable to conclude that there is a cost, even though it cannot be quantified.

One final issue related to the cost of retiree returning to work must be raised. When an IPERS employer hires an IPERS retiree instead of hiring a new IPERS member, the system's funding is impacted. If a new IPERS member was hired, part of the contributions on the new member's pay would be used to fund the Unfunded Actuarial Liability. As we noted earlier, the regular IPERS' contributions made on the payroll of retirees who return to work are needed to fund the benefits paid to the retiree upon their second retirement and do not provide a contribution to fund the UAL. Based on the most recent actuarial valuation, the estimated FY13 payroll for retired/reemployed group is about $73 million and the UAL payment is 4.29% of payroll. Therefore, the loss of UAL funding is about $3.3 million. Because the normal cost rate for retired/reemployed members is significantly higher than that of other active members, there is also an impact on the overall normal cost rate that is applied to all covered payroll. Our best estimate at this point in time is based on findings in the last experience study. That report quantified the impact on the aggregate normal cost rate as 0.06% of payroll, which translates to about $4.2 million in FY13. It is coincidental that the additional contributions resulting from the higher normal cost rate for regular active members is about equal to the amount of the UAL payments not made by the retired/reemployed group. Even if the net cost impact of the two amounts is small, there is a shift of costs from the retired/reemployed group to the rest of the active members and their employers. The additional cost impact, which cannot be quantified and therefore, is not included in the above discussion, is how the return to work provisions impact retirement patterns.

We have focused our discussion only on the financial implications of working after retirement to IPERS. There may be other reasons why the state of Iowa – including its employers, employees, and citizens - finds it advantageous to have the current return to work provisions, even if there is some cost to the

system. While it is important for the policymakers to consider the impact of the return to work provisions on IPERS, it is not the only factor to be considered in making decisions regarding these rules.

Licensed Health Care Professionals

Beginning in 2006, legislation took effect that temporarily allowed Licensed Health Care Professionals (LHCPs) to return to IPERS covered employment without the usual four month wait required for a *bona fide* retirement. The Experience Study prepared in 2010 (for July 1, 2005 to June 30, 2009) contained a limited analysis of the impact of the LHCP provisions, although due to the recent introduction at that point in time, there was not adequate data to provide credible analysis. That report noted that when compared to employees in the "Other" government employment group, active LHCP members were retiring at higher rates which resulted in younger retirement ages. The report also noted that LHCPs who had returned to employment represented a higher portion of new retirees (23.6% vs. 15.9% for the Other government group) and that the LHCP retirees who had returned to employment were earning about twice as much as other retirees who had returned to work. Because data for LHCP's was not separately maintained for periods before the law, there was no way to determine if these differences were because of the legislative change in the provisions or not.

In this study, we performed an analysis of the demographic characteristics of the LHCP retirees who have returned to work that is similar to the analysis performed for the entire membership. Our findings were discussed earlier in this letter. While there are some definite differences between the LHCP group and the retired reemployed members in the Other employer group, it is not possible to determine if the differences are the result of the special provisions, or if this pattern would have occurred anyway.

In the experience study, it was noted that the LHCPs were retiring at younger ages. As might be expected, the distribution of the age at retirement for the LHCP group who returned to work (see Figure 7) is also younger than the return to work group as a whole. We note from Figure 8 that there is a striking difference for those who "retire" at age 70, with a much smaller proportion of the LHCP group beginning benefits at age 70. One possible explanation of this observation is that a higher proportion of LHCP retirees return to work, diminishing the impact of the 70-year olds who continue to work while commencing benefit payments. If the special provisions encourage LHCP employees to retire earlier and return to work with the same employer, this observation is to be expected.

Figure 7

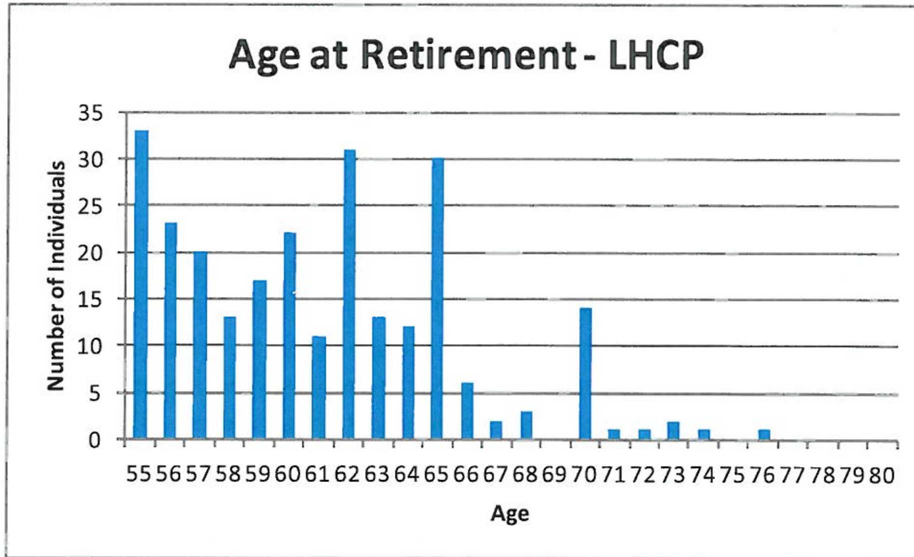
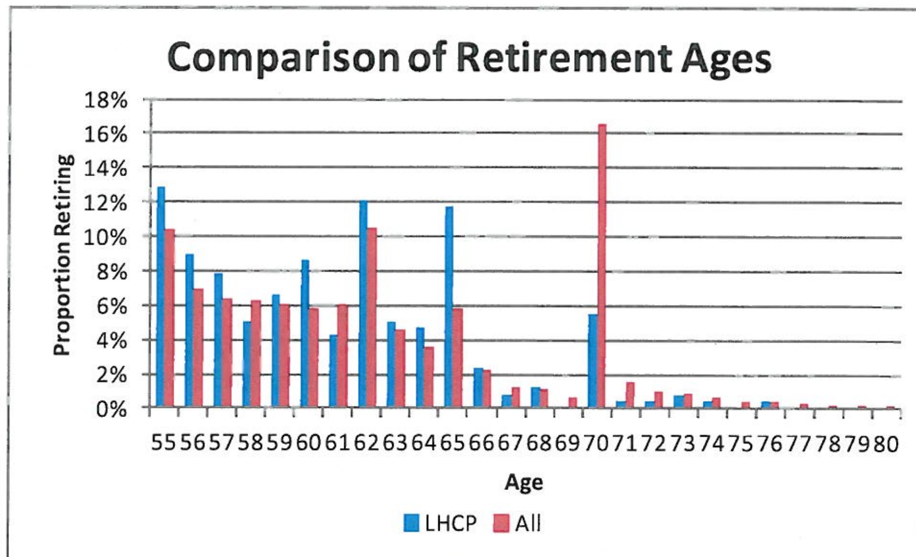


Figure 8

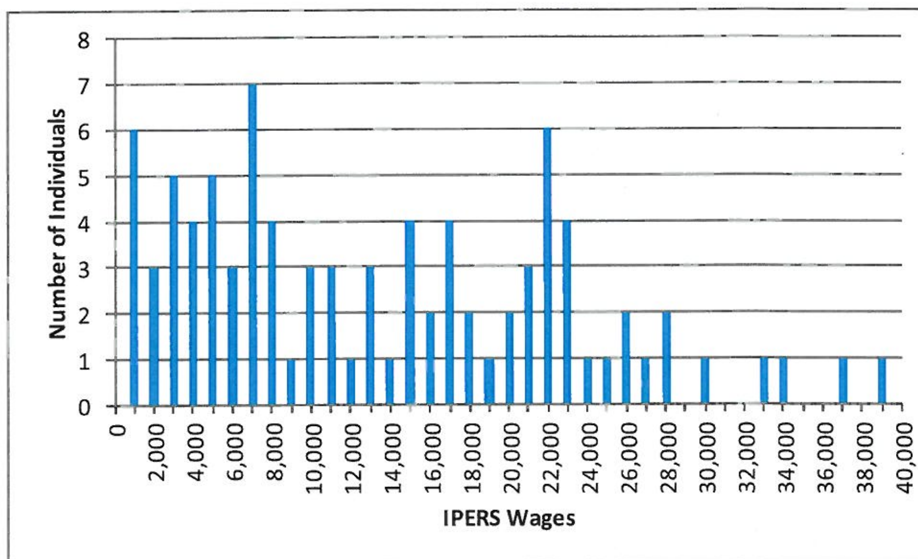


As was noted for the entire group of retired reemployed members, the majority of employees return to work for the same employer they were working for when they retired. For the LHCP group, this trend was even stronger with more than 89% of the retirees returning to work for the original employer.

In the 2010 experience study report, it was noted that the LHCPs who had returned to work were, on average, earning more than twice that of other retirees who had returned to work. While there was still a

noticeable difference in this study (see Figure 9), it is not quite as large as the prior study. Since there is more data available and more time has elapsed, we give the new pattern more credibility. The higher wages earned by the LHCPs may be the result of many factors of which are unknown to us. Two possibilities include (1) the hourly pay rates for LHCPs may be higher than the average of the other retirees in the group, and (2) the LHCP group may be working more hours than other return to work members. Without additional information, which is not readily available, it is impossible to know the reasons for the differences.

Figure 9



As was discussed earlier in this letter, it is impossible to conclude that the temporary return to work provisions have caused earlier retirement and greater utilization of returning to work, although many of the observed patters indicate that trend. Because of the relatively short time the program has been in existence, we do not have sufficient data to consider how long the LHCPs will work after returning from retirement. If many of them continue beyond four years – a real possibility given the younger retirement ages – then there will be some cost to IPERS. Experience tells us that when members can take an action that benefits them financially, they will tend to do so. Given this general experience and the analysis provided in this letter, we believe there is likely an increased cost to IPERS because of the special return to work provision for LHCP, but it cannot be proven or quantified.

Data, Assumptions and Methodology

The results provided in this letter are based on the member data provided to us by IPERS which included detailed member information for those who retired and returned to work in the period from January 1, 2002 through December 31, 2011. To the extent that any of the data is inaccurate, our analysis and findings may change and need to be revised.

We do note that the last three year of this study period were during a time of significant economic instability. It is possible that some of the behavior observed may have been influenced by employer responses to budget issues and employee responses to perceived financial issues. As with any review of recent historical patterns, there is no guarantee that such patterns will continue into the future. To the extent that future events cause employers and employees to choose different actions, the results shown here may change as well.

We, Patrice A. Beckham, FSA and Brent A. Banister, FSA, are consulting actuaries with Cavanaugh Macdonald Consulting, LLC. We are members of the American Academy of Actuaries, Fellows of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you have any questions or additional information is needed, please let us know.

Sincerely,

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

Brent. A. Banister, PhD, FSA, EA, FCA, MAAA
Chief Pension Actuary