

October 20, 2000

Mr. William F. Devereaux, Sr.  
Devereaux Benefit Services, Inc.  
4312 Midland Road  
Sarasota, Florida 34232

Re: *Actuarial Review of the Devereaux Benefit Services, Inc.  
Early Out Planning ("EOP") Program*

Dear Mr. Devereaux:

This letter presents the results of my review of the Devereaux Benefit Services, Inc. Early out Planning ("EOP") Program as to its actuarial soundness to provide benefits promised to participants as funded through the purchase of various life insurance policies.

In performing this analysis, various aspects of the EOP Program were reviewed, including:

- The Program's ability to calculate expected retirement benefits under the Florida Retirement System ("FRS"), including "Option 3" monthly benefits
- The amount of life insurance predicted by the Program to provide continuing benefits to surviving spouses under FRS Option 3 payment election

Specifically *excluded* from the scope of this analysis is:

- Any assessment as to the financial soundness of any insurance company underwriting the underlying life insurance policies funding the EOP or their financial ability to provide the contracted death benefits or guarantee future annuity purchase rates
- Any legal determination as to the statutory authority permitting the implementation of the EOP by public entities within the State of Florida or any other State or governmental entity
- Any warranty that year-to-year or long-term actual experience will "mimic" predictions. Actuarial Science is based on the "law of large numbers" and, generally speaking, the larger the group, the better the predictions (given reasonable assumptions). Conversely, the smaller the group, the greater the likelihood that actual experience will deviate from anticipated experience.

### **How the EOP Program Works**

The EOP Program is designed to provide an early retirement candidate who is a member of a defined benefit plan with continuing, surviving spousal benefits in the form of an insured death benefit equivalent in value to the monthly benefit such surviving spouse would have had had the member elected to receive retirement benefits under a Joint and 100% Survivor Annuity option. While living, however, the member is provided with retirement benefits under a Life-Only Annuity (i.e., without the actuarial reduction for the Joint and 100% Survivor Annuity option). This aspect of the Program works because there is generally some disparity between a pension plan's optional form reduction factors and the actuarial underpinnings of the underlying insurance contract. Currently, the Program provides the surviving spousal benefits through universal life insurance policies on the members' lives but future plans for the Program include the possibility of providing the spousal benefits through the purchase of reversionary life annuities. (Reversionary life annuities are essentially life insurance contracts that commence monthly benefit payments to one life following the death of another.)

The insured death benefit provides both the member and beneficiary with options that ordinarily do not exist for retirees in defined benefit plans. Not only does the member enjoy a larger lifetime monthly benefit without the reduction for the Joint and 100% Survivor Annuity, the member has the ability to name a new beneficiary to the life insurance policy if the original beneficiary predeceases the member. Some defined benefit plans offer this feature but rarely without some actuarial adjustment to the member's monthly benefit to take into account the difference in ages between the first and second beneficiaries. Under the EOP Program, no adjustment is made to the member's monthly benefit for the difference in beneficiary ages. Also, should both the member and beneficiary die simultaneously or the beneficiary die shortly after the member, the unspent proceeds from the insurance policy become part of the estate. When both deaths occur simultaneously or shortly after one another under retirement from a typical defined benefit plan, all benefit payments cease and the pension plan realizes an actuarial gain (i.e., no part of the retirement benefit becomes part of the estate).

The EOP Program has been successfully marketed as an early retirement incentive program to employers whose employees are members of a defined benefit pension plan that is maintained by a governmental entity but the Program as applicability for virtually any employer maintaining a defined benefit plan with an early retirement option. In addition to providing surviving spousal benefits without an actuarial reduction, the program has a cost-recovery feature for the employer funded through the purchase of what is commonly referred to as "key man" life insurance which is designed to cover the employer's insurance premium costs for the surviving spousal coverage. An analysis of the efficacy of this aspect of the Program is beyond the scope of this report but may be the subject of future analysis.

### **Review of the EOP Program's Sample Output**

In the course of this analysis, I reviewed various sample outputs from the Program and determined that it accurately calculates the retirement benefits payable to a Member of the Florida Retirement System as well as the "Option 3" monthly benefit amount (the Joint and 100% Survivor Annuity) when basic census information was inputted, such as date of birth, date of hire, etc.

Next, I investigated the adequacy of the promised benefit (the insurance proceeds) to provide a monthly benefit to the spouse after the member's death in an amount equal to the monthly amount (including a Cost-of-Living-Adjustment) that would have been payable to the spouse under Option 3. Using the 1980 CSO mortality table, and assuming an interest rate of 6.00% and a Cost-of-Living Adjustment (COLA) of 3.00%, I determined that, on a present value basis, the projected insurance proceeds represented an amount sufficient to provide the same monthly benefit that the surviving spouse would have been entitled to receive under Option 3 of the FRS. Consistent results are generated using virtually any set of actuarial assumptions since the program has a great degree of flexibility in choosing mortality tables, interest rates, and COLA rates.

### **Conclusion and Certification**

In my opinion, the Devereaux Benefit Services, Inc. EOP Program is actuarially sound as to its ability to provide promised benefits (given, of course, the financial soundness of the insurance company underwriting the promised death benefits). The program accurately calculates the benefits and optional forms provided to members of the Florida Retirement System, determines a level of insurance sufficient to provide a monthly spousal death benefit in an amount equal to the monthly amount that would have been payable to the spouse under Option 3, and provides members considering early retirement with payment options unavailable to them under the System.

I hereby certify that the techniques utilized in this analysis are in accordance with generally accepted actuarial principles and methodologies which are designed to reasonably estimate future life and financial contingencies and, in my opinion, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes.

Respectfully submitted,



Alfred L. Williams, II M.S.P.A., M.A.A.A.  
Enrolled Actuary No. 99-4808

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