# SIX-MONTH FOLLOW-UP REPORT #11 DEPARTMENT OF STATE TREASURER

# **Retirement Systems Division**

As Directed by Session Law 2005-276, Section 27.2

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Office of State Budget and Management

OSBM

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# INTRODUCTION

# Scope & Purpose

Session Law 2005-276, Section 27.2(a), requires that the Office of State Budget and Management (OSBM) conduct semiannual follow-up analyses to the April 2003 operational and staffing analysis of the Retirement Systems Division (RSD) within the Department of State Treasurer (DST). This is the 11<sup>th</sup> and final follow-up report.

The purpose of this report is to ensure that RSD's staffing levels remain appropriate during the implementation of information technology (IT) infrastructure enhancements. Implementation of the new IT system, ORBIT (On-line Retirement Benefits through Integrated Technology) in October 2007 created opportunities and challenges in work functions, including many staffing impacts.

# BACKGROUND

The N.C. Retirement System administers the retirement system for retired and active (current) educators, law enforcement officers, and state and local government employees. The system is also responsible for administration of nine other pension and retirement income funds.

# Staff and Membership Overview

The RSD has a full-time staff of 161 and pension fund assets of approximately \$77 billion.

- Membership According to the Jan. 21, 2008, *Pensions & Investments* magazine, North Carolina's Retirement Systems are the 16<sup>th</sup>-largest retirement system in the country, based on market value of assets. Among public systems, the N.C. RSD is ranked 11<sup>th</sup>-largest in assets.
- Staff to Member Ratio The N.C. RSD 2007-08 staff to member ratio is 1:5,095. According to RSD staff benchmarking of peer states with similarly-sized retirement systems, the average staff to member ratio among the peer systems is 1:1,674.<sup>1</sup> However, peer states, as identified by CEM Benchmarking, Inc., do not all count members in the same way. For example, the chart on page 3 includes inactive accounts, accounts that no longer collect contributions and whose members have not withdrawn contributions.
- Vacancies As of August 2008, the RSD had a total of 12 vacant positions, with four vacancies lasting more than eight months. The RSD reported that these positions were vacant most of that time due to lack of qualified applicants and/or time required to re-evaluate the positions' duties. Three of these vacancies are in Retirement Operations, while the fourth is in the Call Center.

Earlier versions of this report focused on the addition of temporary and Time-Limited positions (TLPs) at the RSD. In more recent reports, OSBM's analysis shifted to the effect of the ORBIT

<sup>&</sup>lt;sup>1</sup> Peer retirement systems' staff to member ratio as of May 2008 (CEM Benchmarking,Inc., study with customized peer group for North Carolina.)

system on staffing. ORBIT's impact can be seen in the RSD's internal and external training requirements and in the shifting roles of staff.

### **Operations Summary**

The chart below illustrates changes in the RSD's expenditures and employee full-time equivalents (FTEs) since the 2003-04 fiscal year. The chart takes into account the costs associated with ORBIT.

Retirement System Operations Summary						
	2003-04	2004-05	<u>2005-06</u>	<u>2006-07</u>	<u>2007-08</u>	
RSD Expenditures (including						
ORBIT Costs)	\$14,629,828	\$23,867,355	\$19,993,238	\$19,148,252	\$16,433,649	
Employees (FTEs)	152.00	155.00	163.00	163.00	161.00	
System Members	710,805	727,940	762,762	781,350	820,309	
Members per Employee	4,676	4,696	4,680	4,794	5,095	
System Retirements*	9,782	10,478	12,954	11,019	11,325	
ORBIT Expenses Allocated	\$3,505,265	\$11,594,546	\$6,872,415	\$4,138,281	\$658,731	
Cost per Member	\$20.58	\$32.79	\$26.21	\$24.51	\$20.03	
*Based on Calendar Year						
Information						
Includes Teachers and						
State, Local, Judicial,						
Legislative, & Firemen and						
Rescue Squad Workers'						
Systems						

The number of staff shows a decrease in 2007-08 because two positions were combined and one was moved to the IT Division. Costs per member decreased in 2007-08 (by more than \$4) and have decreased overall since 2004-05. RSD has one of the lowest costs per member/annuitant of the RSD's peer public retirement systems, including ORBIT costs. The 2008 median cost per member/annuitant among peer systems was \$74, as determined by CEM Benchmarking, Inc., which compares North Carolina to other peer systems such as Pennsylvania, Ohio, South Carolina, and Washington.

For consistency of comparison, the above chart includes data through June 2008 unless otherwise noted. Membership numbers increased with the number of retirees and as new active members took their place. The only membership decrease occurred when a member died or withdrew contributions.

# **Retirement Trends**

<u>Key Trends</u>: The RSD has noted the following key long-range trends:

- Total Retiree Growth: From 1990-2007, the number of retirees (including beneficiaries) in the system increased from 92,818 to 208,619, or 125% (Appendix A, Figure 1). This figure represents a cumulative total of retirees over the period.
- Projected Retiree Trend: From 2007 to 2025, the RSD is projected to experience an approximate 75% increase in retirement benefit recipients, from 197,100 to 345,600. (Figure 2 includes data dating back to 2005 and compares projected retirees to actuals.) This projection represents the total number of retirees and beneficiaries in the Teachers and State Employees' Retirement System (TSERS) and the Local Government Employees' Retirement System (LGERS), which are the two largest RSD systems, and thus differs from the all-system counts above.
- Retirements: The number of retirements processed per year has more than doubled since 1990. The total number of retirements processed in calendar 2007 also represents an increase of 60 percent since 1996. From 2007 to 2025, the number of new retirements that will need to be processed in TSERS and LGERS is expected to increase by 50% (from 13,400 to 20,100) (Figure 3).

# FINDINGS

# **ORBIT** Costs and Benefits

As part of this study, OSBM analysts considered the long-term cost-benefit of ORBIT, its impact on staffing and infrastructure, and the concept of risk avoidance. The five-year start-up cost of approximately \$26.8 million must be considered against the long-term costs of the prior legacy system, which can be difficult to quantify. In July 2006, the RSD worked with the Office of Information Technology Services (ITS) to conduct a high-level cost-benefit analysis for ORBIT.

Constraints on the legacy system included:

- The systems were developed in-house in the 1960s and 1970s and had become difficult and costly to maintain.
- The systems included disparate parts of applications and software with separate, non-synchronized databases.
- Some associated software was obsolete, such as Lotus 123 and FoxPro, which presented incompatibility and support challenges.

Since these constraint costs can be difficult to measure, ITS and the RSD identified the types of losses that could occur and the problems that could arise if ORBIT were not implemented. The ITS study estimated a 10-year cost (2008-2017) of \$39 million compared to projected savings of \$43.3 million.

	ITS/RSD Estimated 10-Year Cost-Benefit Analysis of ORBIT										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Costs	(\$1,439,416)	(\$6,650,929)	(\$8,554,595)	(\$6,832,970)	(\$8,429,560)	(\$1,358,950)	(\$1,167,275)	(\$975,500)	(\$783,925)	(\$2,828,310)	(\$39,021,430)
Savings	\$652,000	\$10,629,000	\$1,565,250	\$1,592,812	\$10,921,753	\$1,652,141	\$1,684,048	\$11,017,550	\$1,752,727	\$1,789,663	\$43,256,944

The cost-benefit analysis makes the following assumptions:

- If the RSD did nothing and continued annual or sporadic system application updates: approximate 10-year cost of more than \$6 million.
- If the legacy system programmers resigned or retired: approximate 10-year cost of \$3.6 million.
- If the monthly payroll system were to suffer a major failure and could not produce monthly benefit payments: approximate 10-year cost of \$28 million.
- If additional staff were hired to continue with legacy system maintenance and improve cycle times: approximate 10-year cost of \$5.7 million.

The ITS/RSD study also explained that it is difficult to recruit staff knowledgeable of out-of-date technology. The report cited significant risks that some software infrastructure would no longer be supported by the manufacturers and distributors.

# **ORBIT Impact on Retirement Processing**

Retirement processing is a fundamental aspect of the RSD's services.

# Key Process Changes

One aspect is the amount of time it takes to process a retirement request, known as converting a Form 6 to a Form 6E. The average number of days to process a request generally increased in the time since ORBIT has been implemented, from 17 days in October 2007 to 86 in June 2008 (Figure 4). During this same period, the number of retirement applications actually decreased, from 1,555 in October to 1,014 in June. The number of retirement requests received remained on par with prior years, with the usual peak expected in July (Figure 5).

The RSD notes multiple reasons for this apparent decrease in productivity since the ORBIT implementation:

- Retirement specialists have spent the last several months adjusting to the new system screens, keys, and formats. This is a normal part of any system conversion. However, as part of this adjustment over the last several months, specialists indicate that they are seeing improvements in their ability to navigate and retrieve information. For example, ORBIT is better able to distinguish between types of employees and types of service (State vs. Local vs. Law Enforcement Officer) and gives warnings to analysts when certain information doesn't match. An added feature with ORBIT is that various system forms are now bar-coded, meaning that they can be scanned and some member information can be pre-populated without retyping.
- Quality Control has added an extra step that wasn't often in place before ORBIT. When one of the nine Quality Control auditors finds an error, the auditor sends the information back to the analyst who originated the record. Although this has increased accountability, it also added a step in the review process.

- The RSD anticipated that productivity would decline as staff adjusted to the new system and increased the processing of retirements in the months leading up to the implementation date. Therefore the processing time of 17 days for calculations in October 2007 was well below the average in recent years of 40-50 days.
- The Service Audit Team recently increased to approximately 25 contract positions. This team reviews the records of active employees who are estimated to be close to retirement eligibility. This step must be taken before the benefit calculation can be completed. The General Assembly approved funding in 2007 for the Service Audit Team, and the 2008-09 fiscal year budget includes about \$1 million for these functions.

# Staffing Impact

- Since ORBIT provides a more automated system of generating acknowledgement letters, these letters are dispatched to a mass print job and automatically stuffed and mailed. This allowed two administrative employees to perform one or two hours per day on other functions, including the initial process of logging in retirement requests. It also offset some initial decrease in productivity.
- Three positions moved from retirement processing to disability processing, along with responsibility for disability retirements. Disability retirements occur when someone becomes permanently disabled and meets the requirements to proceed with retirement. This process is a hybrid of disability and retirement because it requires both confirmation that the person is disabled and a calculation of a retirement-type benefit.

#### Looking to the Future

The RSD can now accept retirement applications up to 120 days prior to retirement; previously, it was no more than 90 days. Through this legislative change, the RSD will be better able to cope with peak times because it will help spread the work over a longer period, particularly as RSD staff adapt to ORBIT functionality. Increased lead time may also help offset the additional time required for quality audits.

#### Bottom Line

The implementation of ORBIT did not have a significant impact on the number of staff involved in retirement processing; however, it has changed how they process information. Staff now have a greater access to integrated information and are able to generate more electronic, pre-populated forms. Although processing time has slowed initially with ORBIT, there are greater opportunities to provide more accurate audits of member requests. Processing time is expected to speed up as the initial transition is completed.

# **ORBIT Impact on Member Services**

Member Services are among the most visible functions of the RSD, primarily associated with the Call Center.

### Key Process Changes

As with Retirement Processing, there was general slowdown in Member Services processes as staff, employers, and members navigated through the new system. The number of phone calls received followed the traditional pattern, including peaks in January and February, with a particular spike in October to coincide with ORBIT and its associated member questions. Despite a February peak hold time of more than 11 minutes, hold time decreased again by May and June to three minutes or less (Figure 6). The RSD was able to keep the hold times low in June, despite an increase in call volume centered around July retirements and the phase-out of the State Health Plan's Indemnity product. Current Call Center capacity indicates that hold times begin to approach 10-11 minutes at roughly 26,000 calls per month.

The number of calls answered in 20 seconds or less also showed improvement, from 19.5% in October to nearly 44% by June (Figure 7). The telephone abandonment rate – the rate at which a caller will abandon a call after waiting more than 20 seconds – increased post-ORBIT, but has decreased from its April peak.

The RSD notes multiple reasons why the Call Center has seemed to respond well to ORBIT:

- ORBIT allows counselors and analysts to navigate between different screens in the same system without moving between different legacy systems, thus providing a view of the entire history for a member. Previously, counselors had to navigate between different mainframe windows. RSD staff are also now equipped with dual monitors so that they can refer to scanned documents in the AX System and compare this to integrated information in the ORBIT system.
- The ORBIT "Journal" capability allows counselors to input notes about a member's inquiry. Call Center staff were able to input notes using the prior CommTrack system, but ORBIT Journal tools allow sharing of account notes across the entire organization. The Journal tool also records automated activities of ORBIT, such as when the system sends an acknowledgment letter.
- ORBIT allows Call Center staff to generate or view pre-populated forms from a list of drop-down options, rather than creating them.
- ORBIT brought about restructuring of Member Services functions, as noted in the "Staffing Impact" section below.

#### Staffing Impact

Skill sets changed for Member Services employees with the implementation of ORBIT. The Meetings and Education section (seven FTEs) and the Employer Education section (five FTEs) were separated from the Call Center (now roughly 32 FTEs) in 2006, in preparation for ORBIT. The Call Center now handles only member telephone calls or other correspondence when time allows. Staff can be shifted in times of increased call volume.

With ORBIT, the Call Center has been restructured to a tiered system, where more complex calls are escalated to employees with additional training.

# Looking to the Future

The RSD expects the member self-service function within ORBIT to provide members with online access to more information regarding their accounts, which could reduce the Call Center volume. Of the 85,621 telephone calls received between October and May for which a purpose was recorded, the RSD reports that roughly 30% of the questions could have been answered online. These included questions about retirement processing, retirement forms, and benefit estimates.

# Bottom Line

The Members Services section, specifically the Call Center, seems to have made a quicker transition to pre-ORBIT service levels than some processes. This could be a function of restructuring that took place in preparation for ORBIT and the section's traditional ability to shift staff to cover various needs in peak times. The availability of on-line tools may further refine the staff duties and the types of questions received at the Call Center.

# **ORBIT Impact on Beneficiary Enrollments**

ORBIT brought about significant changes in the Enrollments process.

#### Key Process Changes

Paper enrollment forms are no longer needed. Employers establish accounts for retirees electronically through systems such as the State's BEACON HR/Payroll system. ORBIT then generates Beneficiary Designation forms (2C) that are mailed directly to the member's home. With this new tool:

- Records employees can now enter as many beneficiaries as a member chooses to submit. Prior legacy systems only indicated a header for "multiple" beneficiaries, so staff needed to retrieve copies of scanned documents to tell the names of additional beneficiaries.
- The RSD no longer has to input Employer information in the system because it has already been loaded electronically. Beneficiary designation forms include bar codes to identify members and pre-populate fields on screen.
- As members are added and enrolled, the RSD mails the 2C to the member's home. Members must then notify the RSD of beneficiary elections. The RSD then scans the forms and types in beneficiary names.

The actual number of forms processed did not decrease with ORBIT. In 2006, the Records section processed 95,000 beneficiary forms. Pre-ORBIT, analysts could process approximately 150-200 forms per analyst per day. After ORBIT, production dropped initially to about 30 per day per analyst, but this has improved to about 50-100 per day. Beginning in March 2008, the number of beneficiary forms completed began to exceed the number of beneficiary forms waiting in the queue (Figure 8). An electronic workflow forwards the form to the next person who needs to review or approve it.

The overall benefits section work output for June exceeded the October output and nearly matched June 2007 output levels (Figure 9). This includes retirements processed, refunds processed, and benefits calculations (6E).

# Staffing Impact

The organizational structure of the Enrollments Team has undergone transition during the ORBIT implementation. ORBIT actually triggered an increased need for staff on this team – from five to 11 FTEs since 2003, because it requires the input of more information. The tradeoff is that the integrated system provides more readily-accessible information than the legacy systems could.

# Looking to the Future

ORBIT has helped many RSD forms convert from paper to electronic form. The next hurdle will be converting the 2C electronically, since it still must be signed and notarized to comply with G.S. 135-5(f). The RSD reports a 46% rejection rate of beneficiary forms, primarily because of no signature or notarization. These forms must be returned by mail to the member to correct. ORBIT screens allow the RSD employee to mark why the form is rejected and automatically generate a form letter explaining this reason.

# Bottom Line

ORBIT has changed the way that beneficiary enrollments are processed at RSD, both by allowing the input of more information and providing more avenues to quickly access it. However, not every step has been automated, and staff still must enter certain information on screen. The availability of electronic forms could change the system further.

# **ORBIT Impact on Refunds of Contributions**

Most members are required to contribute 6% of their salary into the system while they are employed. If they cease employment prior to retirement, they may decide to take a refund of those contributions in one lump sum instead of leaving the money in the system and receiving a monthly benefit at retirement.

#### Key Process Changes

The process for refunding a contribution is fairly simple. Since the employee contribution account was tracked in both the legacy systems and ORBIT, no further calculations are required. An RSD staff member must also verify that the member has left employment for at least 60 days. The table below compares the last pre-ORBIT year to the first ORBIT implementation year:

Fiscal Year	Volume	Average # of Employees Needed	Volume per Employee
2006-07	17,191	4	4,298
2007-08	15,773	2	7,887

With ORBIT, the amount of refunds that one employee can process appears to have nearly doubled. RSD credits the integrated nature of information available in ORBIT. With legacy systems, information was not shared easily. Some data, such as an address, might have to be reentered into the legacy system that processed the refund.

# Staffing Impact

As shown above, the number of staff needed for this function was cut in half. One of these employees was shifted to RSD support staff and one was shifted to processing and monitoring overpayments.

#### Looking to the Future

The RSD estimates that it could further improve the turnaround time on this process if it received better information on separation dates and mailing addresses in monthly employer reports. One of the main steps in processing a refund is verifying that the member has separated from employment for the required 60 days.

#### Bottom Line

Although Refunds of Contributions are fairly simple compared to other RSD processes, they represent a significant ORBIT efficiency impact due to the integrated nature of the system.

#### **ORBIT Impact on Processing Deaths of Active Members**

Retirement and life insurance benefits must be paid to the beneficiaries of those members who die prior to retirement.

#### Key Process Changes

The process for paying benefits for the deaths of active members, referred to as "active deaths," is similar to the refund process in most cases, although there is an additional step of verifying the death. As with refunds, calculations need only be tracked once in the ORBIT integrated system. The table below compares the number of cases that could be completed (in a three-month period) prior to ORBIT and the number post-ORBIT:

Period	Volume	Average # of Employees Needed	Volume per Employee
April-June 2007	421	5	84
April-June 2008	491	4	123

#### Staffing Impact

As shown above, the number of staff needed for this function was reduced even as volume increased. However, some resources used on this team are also used in other processes, so the current number of four may be too high.

#### Looking to the Future

Further internal improvements in this category are difficult to quantify. The RSD reports that the process could be automated further if vital records offices made death certificates easier to access electronically.

#### Bottom Line

As with refunds, although the processing of Active Deaths is fairly simple compared to other RSD processes, there is a significant ORBIT efficiency improvement due to the integrated nature of the system.

#### **ORBIT Impact on Employer Reporting**

System employers must report wage and contribution information to the RSD each month. ORBIT has had a significant effect on the ways that employers report this information, and the long-term impact could affect policy and the role of the RSD.

#### Key Process Changes

Pre-ORBIT, employers submitted monthly reports of wages and retirement contributions via paper, tape, or disk. Two RSD employees reviewed this information to the extent possible, but employers often had to be taken at their word because of lack of time to review every record.

Post-ORBIT, the RSD can verify this information at the front-end of the process. Employers must enter information electronically, either in a file format specified by the RSD or directly into the RSD web site. ORBIT screens the data and assigns a menu of error codes, such as "Return to Work Edits" for those employees who have returned to work too soon after retiring, or "Contribution Rate/Amount Edits" for calculation errors. The employer must correct these errors to complete the processing.

#### Staffing Impact

The two employees who processed paper, tape, and disk reports prior to ORBIT have been helping to resolve the large number of errors in employer reports during the initial transition to ORBIT. Their role should continue to be reviewed as the employer reporting process gains stability.

### Looking to the Future

The ultimate payoff of this records audit is difficult to quantify. Catching errors and notifying employers does slow the process, but it provides a needed quality control step. Also, the enforcement role of the RSD is unclear. If the RSD finds a problem and notifies the employer, it is not fully understood what RSD staff can do to require the correction.

### Bottom Line

ORBIT provides an audit role for the RSD when it comes to verifying employer reporting. Given the increased tools now available, the RSD may consider shifting additional staff resources and providing the training needed to follow-up on employer report corrections. Staff availability may depend on resource needs in other sections.

Though ORBIT has automated many of the organization's processes, it will also require a new level of employee competency. RSD staff members have transitioned from an old mainframe application to a new and advanced web application. The RSD explained that automation may help eliminate work in some areas; however it will increase the skill level required to perform work in other areas. Over the next few months, RSD will identify the processes in which this effect will be felt the most and ascertain the training impacts.

# CONCLUSION & RECOMMENDATIONS

The RSD was able to achieve a return on investment because:

- Long-term benefits exceeded long-term costs. ITS and the RSD estimated a 10-year cost of \$39 million compared to projected savings of \$43.3 million. The ORBIT implementation helped the RSD avoid costs by replacing a legacy system that was becoming increasingly outdated, difficult to maintain, and offered little in system integration.
- Staffing did not increase significantly (about 6%) but skill sets did change in some areas. ORBIT has changed the level of competency in some areas, such as Member Services and Employer Reporting. As processes changed, staff had to be shifted and cross-trained to better serve the needs of members and make the most effective use of the new system.
- Quantitative measures reflect some productivity improvements after some transition challenges. While some areas have shown initial decreases in productivity, others have responded and adjusted quickly to ORBIT. Areas such as Retirement Processing are responding to the improved access to integrated information, although the increase in quality control measures helps explain some decrease in speed. Other sections, such as Member Services, Refunds of Contributions, and Beneficiary Enrollments, are either showing productivity improvements or are beginning to cross the hurdles of new technology.
- Qualitative measures show an improved access to information. RSD staff cited several instances where improved access to integrated data helped serve members more easily. The ability to navigate within one system, retrieve electronic information via bar-coded forms, create form letters, and quickly identify errors are accomplishments that go beyond quantitative measure.

In the future, RSD will need to:

- Further cross-train its staff in the tools available through ORBIT, thus helping the quantity of output catch up to the improved quality. Over the years, the RSD has shown an ability to respond to members by moving staff to the areas of greatest need, such as the Call Center at traditional peak retirement months.
- Make the most of the increased (120-day) application acceptance time allowed by legislation. The RSD should continue its education efforts to encourage members and employers and continue to apply early and allow sufficient time for quality audits of member accounts.
- Further educate members on the ORBIT resources available on-line. Currently, about 30% of Call Center questions can now be answered on the RSD web site. Increased online access could have significant impact on Call Center volume and ultimately help shift staff to other areas.
- Continue to develop electronic alternatives for paper forms where possible, even if a change in legislation is required. The RSD should demonstrate ways that accurate information can still be obtained and how speed can be improved without using a cumbersome paper process. Members should still be provided with a paper alternative if they do not have computer access.
- Fill vacancies in less than six months before requesting additional staff.
- Seek ways to save processing time by doing less data verification at the time of application for benefits, as accuracy improves through auditing service records and more access to historic records.
- Explore the opportunities for how ORBIT might affect the RSD mission. As ORBIT provides more robust employer reporting information, the RSD may pursue a larger enforcement role as stewards of the multiple retirement systems, which could also involve shifting staff toward this effort.

# **Acknowledgments**

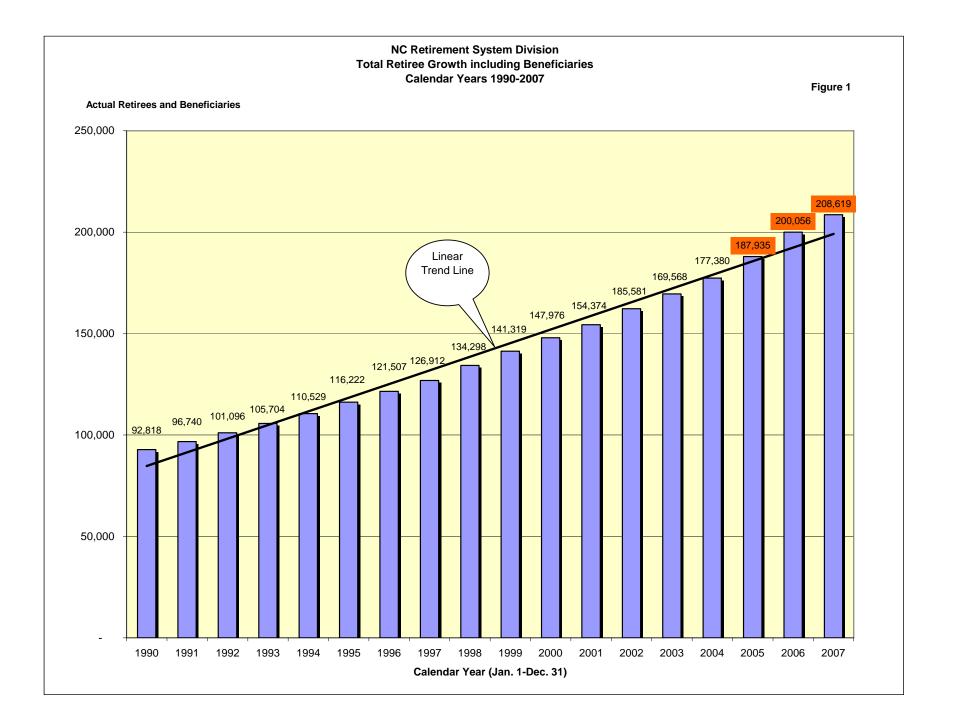
OSBM wishes to acknowledge the staff and management of the North Carolina Department of State Treasurer, Retirement Systems Division, for their continued cooperation and assistance throughout the duration of this study.

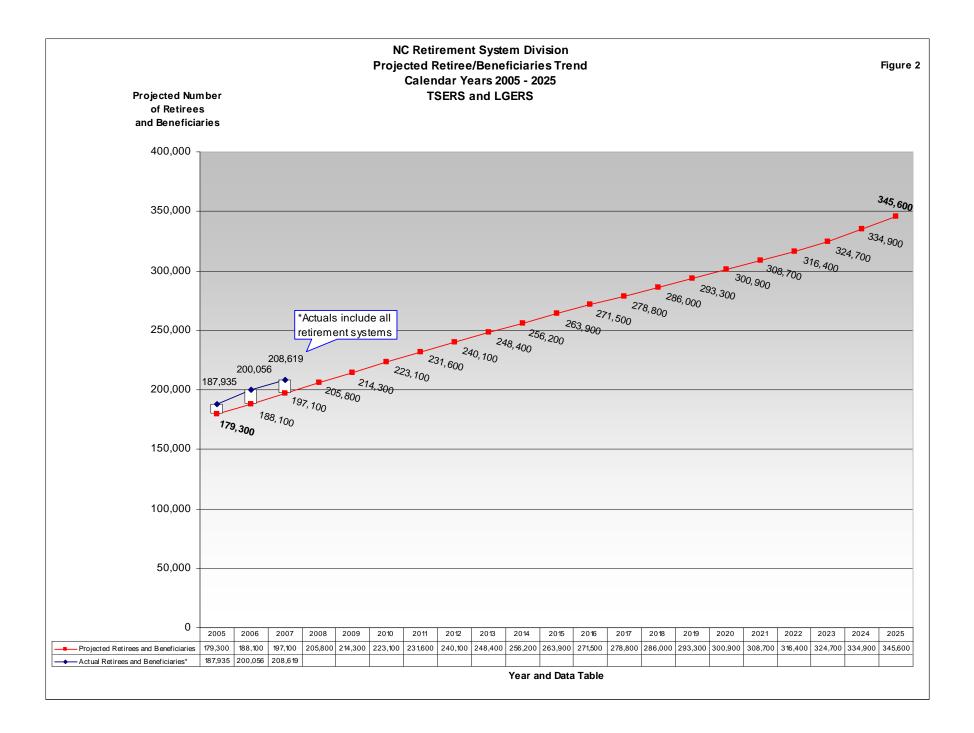
# APPENDIX A

# **RETIREMENT SYSTEMS DIVISION**

System Growth, Benefits Processing, and Workload Data

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#### Projected Retiree Trend for 2005 - 2025 TSERS and LGERS

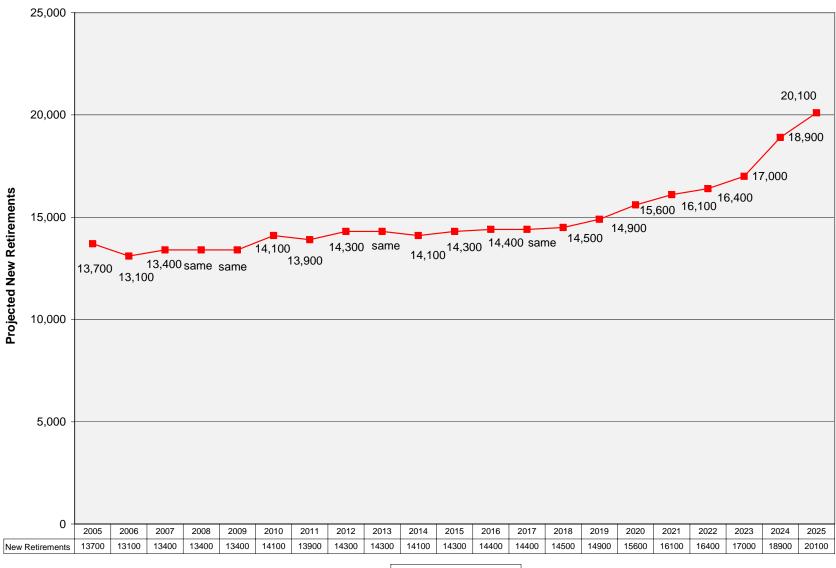
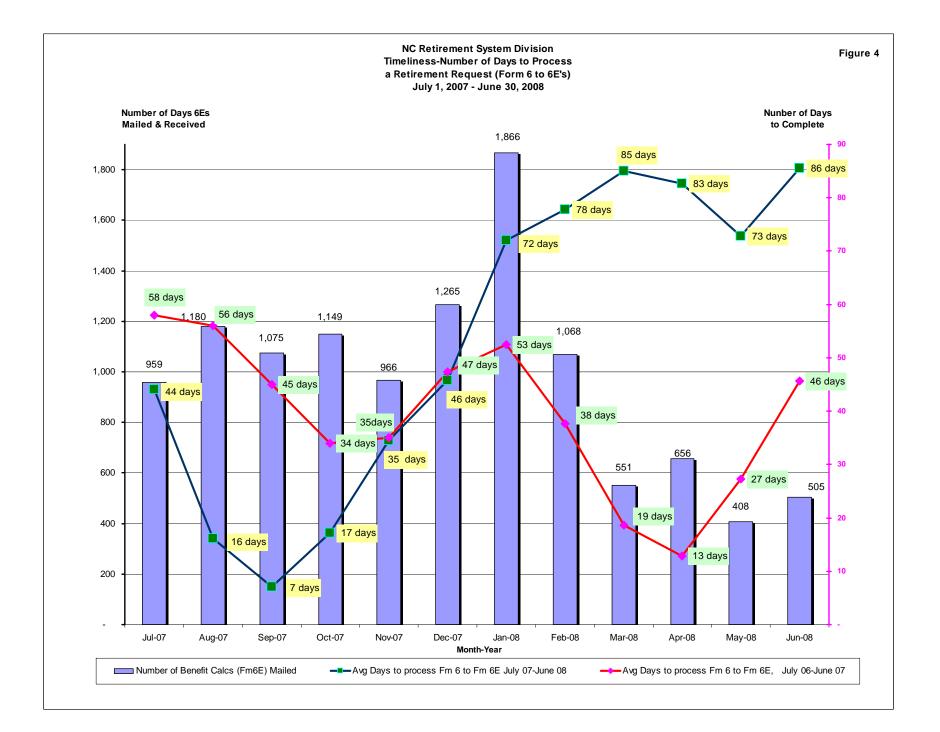
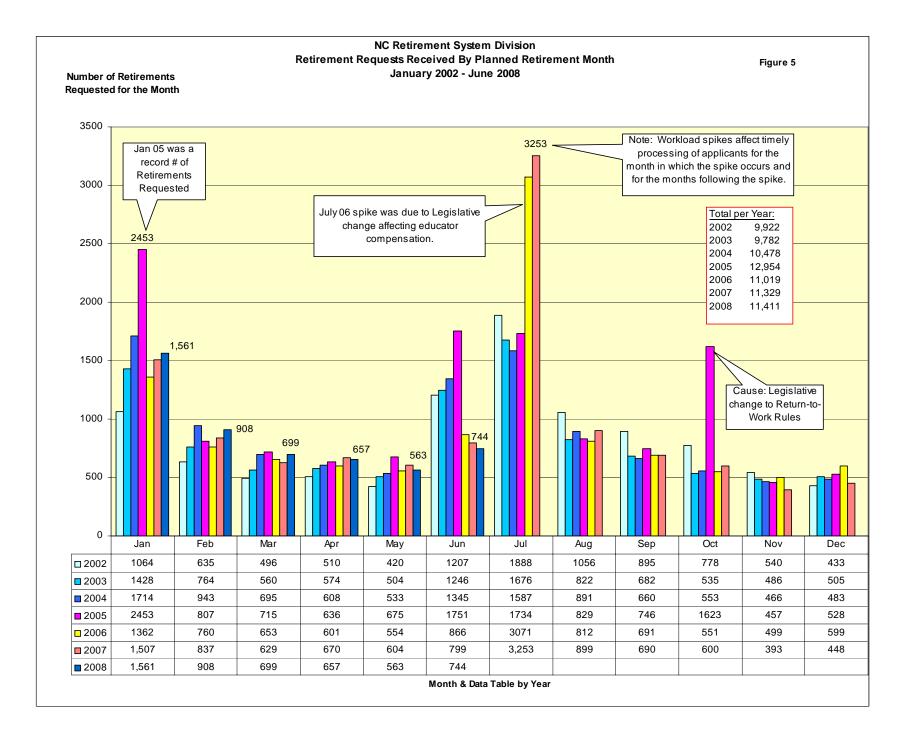
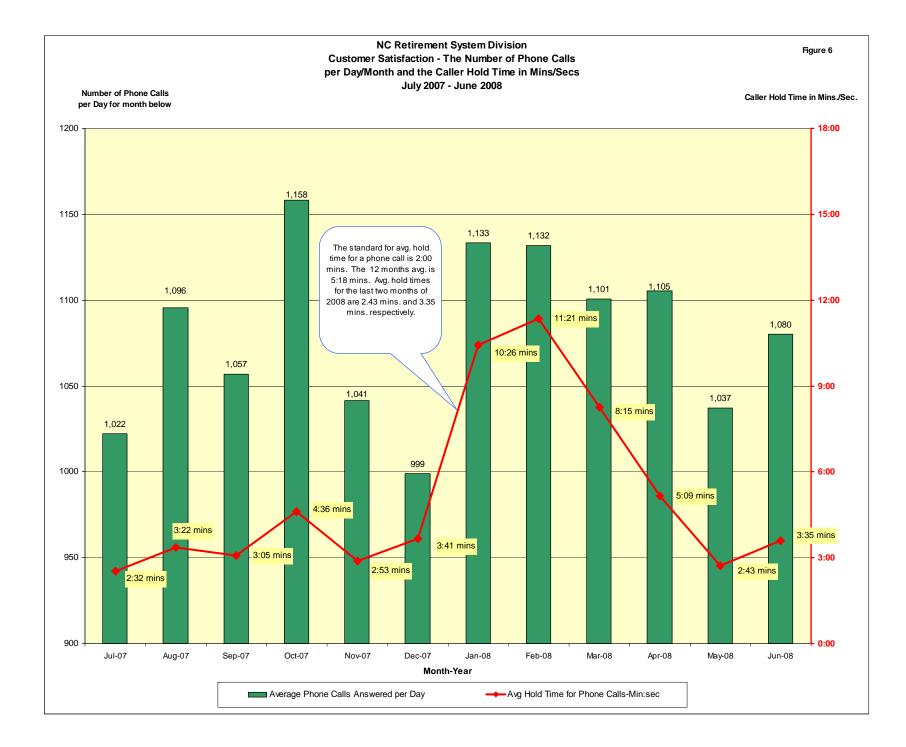
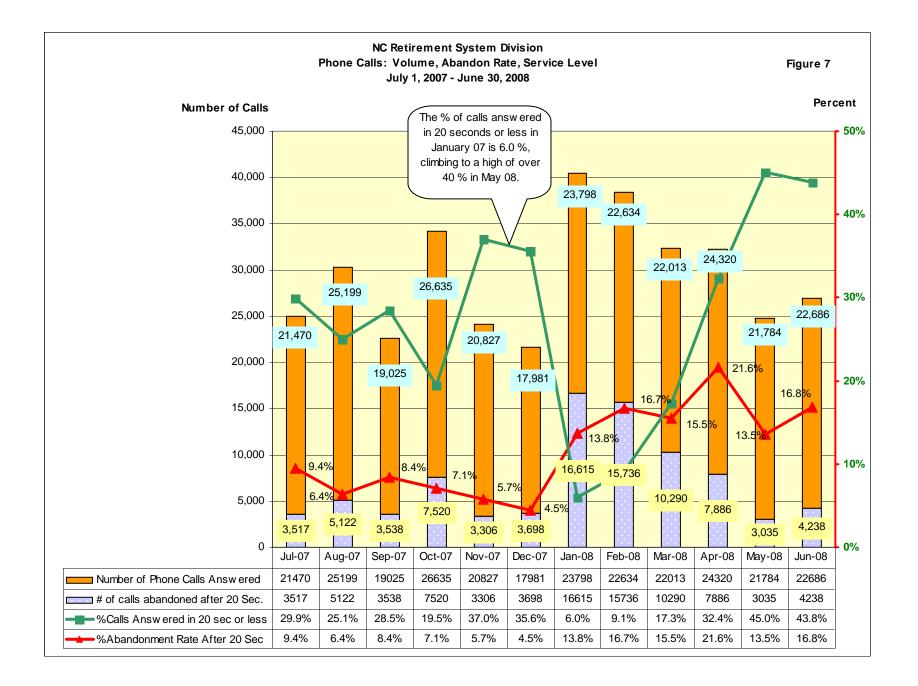


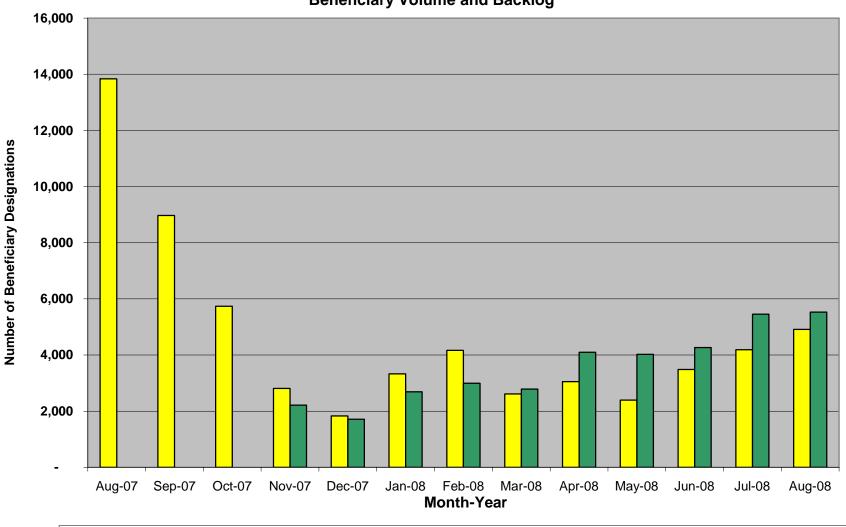
Figure 3











Number of Beneficiary Forms Scanned

Beneficiary Volume and Backlog

Figure 8

■ Number of Beneficiary Forms Completed

