AUDITING THE PREMIUM ENTRY FUNCTION: 
A SAS CASE STUDY
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ABSTRACT
A Premium Entry quality control system has been developed for the Premium Entry units of Fireman's Fund using basic SAS and an in-house SAS-based system. The Premium Entry quality control system has saved thousands of dollars by displaying policies which have been incorrectly entered. The development of the Premium Entry quality control system is discussed from a case study perspective.

PROBLEM DEFINITION
When the problem was presented to this consultant, only the summary level reports were available to Line Management. Line Management suggested entry errors. The initial task was to capture the actual premium entries to determine what factors were causing the irregularities.

Corporate information specialists developed policy level information using standard COBAL listings. The evidence seemed to confirm Premium Entry errors. Because the data was not sorted or tied together, a complete picture of the factors causing the problem could not be determined.

Having used SAS in prior problem situations, this consultant reviewed the problem with other knowledgeable information specialists. The suggested approach was to go after the Premium Entry transactions and use SAS to determine the causative factors.

The first task was to get the record layout of the transaction detail records and the appropriate data cycles. Using basic SAS "if" statements, the transactions for the affected offices were selected. The next step in the problem descriptive phase was to use SAS in the "interactive" mode. The best way, to see the structure of the information and to understand how the business was processed, was to play with the data; e.g., using different sorts and print routines. Viewing the SAS "proc print" exhibits and asking
searching questions of the Line Management allowed this consultant (who had no prior knowledge of the business) to understand the processing structure better than any of the processing managers or supervisors. In playing with the entry transactions, summary reports were done using the "Proc Means Sum Noprint" technique to sum the detail to the policy level. By dropping variables not affecting the problem, we zeroed in on the causative problem items. Without Interactive SAS and a high curiosity quotient, the search for the proverbial needle in the haystack would have been quite tedious and lengthy.

VERIFICATION

The "Proc Print" exhibit confirmed the Premium Entry errors. The next step was to furnish an exhibit to the Premium Entry units which would allow them to see their errors. Current quality control procedures had not been sufficient to display the errors for this unique profit-profitable business.

PREVENTION TECHNIQUE DEVELOPMENT

The "Proc Print" exhibits that were so useful in ferreting out the problem items were of little help in developing reports understandable by entry level clerks. Again, Interactive SAS, through trial and error, was used to develop screens for the data. If an item fell outside the screen (a standard SAS if statement), the Premium Entry clerk would pull all the Premium Entries to explain the rationale behind the numbers. Our Find'em and Fix'em approach was simplified by our In-House SAS-based system which was developed by Information Resources and staff at Fireman's Fund.

The SAS-based system allowed immediate access to the Premium Entries each month so that errors could be corrected within 30 days. This was done by placing the SAS screen logic into the SAS-based system, which allowed each Premium Entry clerk to run the Error Detection Screen monthly.

OTHER BENEFITS

Home Office Line Management has gained control over support units which always seemed to be working at disparate means. By modifying screening factors, additional factors have become auditable by computer, saving the company money in travel and related expense. Further, specific audits have been indicated on items that would have otherwise been overlooked.

CONCLUSION

When dealing with new products in highly segmented systems and diverse processing locations, Murphy's Law will be verified. The Find'em and Fix'em technique described above is greatly enhanced using Interactive SAS, basic SAS statements and curiosity to find out what is wrong. This consultant has enjoyed using SAS over the last 12 years as a descriptive tool explaining the structure of the business at Fireman's Fund.