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[Deficiencies in HUD's Computer Tape Library]. November 30, 1977. 5 pp.

Report to William A. Medina, Department of Housing and Urban Development: Assistant Secretary for Administration; by Richard J. Woods, Associate Director, Community and Economic Development Div.

Issue Area: Automatic Data Processing: Acquiring and Using Resources (102). Contact: Community and Economic Development Div.

Budget Function: Miscellaneous: Automatic Data Processing (1001).

The Department of Housing and Urban Development (HUD) uses about 26,000 computer tapes which are stored and maintained in HUD's tape library. The internal controls over these tapes were reviewed to determine whether the tapes were adequately secured and used. Findings/Conclusions: The Office of ADP operations needs to strengthen its control over the library and tapes. A significant number of tapes were held in the library beyond the scheduled retention dates. This could have resulted in additional costs because those tapes were unavailable for reuse. Recause of tape identification problems, librarians have difficulty finding thousands of tapes, limiting or negating the intended use of the tares. About 4% of the hapes may have buen lost or misplaced. During the times librarians are not on duty. other personnel can gain access to computer tapes if they possess a computerized security card. It is difficult for librarians to prevent other personnel from entering the library. Recommendations: HUD should: make a physical inventory of the computer tapes to correct incorrect listings used as controls and continue the inventory on a periodic basis to retain a high degree of accuracy, establish procedures to assure that tapes are only retained for reasonable periods, and examine procedures relating to access to the library to reduce the potential for misplacement of loss of tapes, (RRS)



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COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION

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Mr. William A. Medina Assistant Secretary for Administration Department of Housing and Urban Development

Dear Mr. Medina:

Our Office annually performs a review of the financial statements of the Federal Housing Administration (FHA) to express an opinion on the reasonableness of its financial position. During our audits we make considerable use of the Department of Housing and Urban Development's (HUD's) computers and tape files because a large part of FHA's records are computerized. HUD uses about 26,000 computer capes in its multipillion dollar programs including rnd s insurance operations. These tapes are stored and maintained in HUD's tape library. During our fiscal year 1976 financial examination we reviewed HUD's internal controls over the tapes to determine whether the tapes were adequately itilized and secured.

Our review showed a need for the Office of ADP Operations to strengthen its control over the library and tapes. In summary, our test showed that a significant number of tapes were being held in the library beyond scheduled retention dates. This could result in additional costs to HUD because those tapes were unavailable for reuse. Further, we found that because of tape identification problems, tape librarians may have trouble finding thousands of tapes, thus limiting or negating the intended use of the tapes. Our review also showed that about 4 percent of the tapes may be lost or misplaced and that personnel other than librarians have access to the tape library.

We are recommending that controls over the library and tapes be strengthened by reinstating the practice of taking a periodic inventory of the tapes in the library, establishing more effective procedures for dealing with tape retention periods, and improving procedures to limit access to the tape library.

## NEED FOR IMPROVEMENTS IN CONTROL OVER COMPUTER TAPES

Each of the 26,000 tapes in HUD's tape library contained, among other information, a label identifying the type of data included on the tape and a retention period set by the users, after which, according to HUD officials, the tape should be scratched and reused. The label permitted the librarian to identify tapes needed in the ADP operations.

The retention period recorded on each tape permits the most economical use of HUD's 26,000 tapes because unneeded tapes can be scratched at the proper time and reused. If the retention periods are not properly utilized, HUD could unnecessarily purchase new tapes.

An automated system is used to \_\_\_\_\_\_ count for and control the computer tape inventory. An ADP listing is made weekly of the inventory. It identifies each tape by number and shows the file identification on the label and retention date. Prior to Febrauay 1976, physical inventories comparing computer tapes to the ADP listing were made semiannually to correct mislabeled tapes and correct erroneous entries found on the inventory listing. However, this practice was discontinued because HUD officials believed that the inventory listing was an adequate control over the computer tapes. Since the discontinuance of the physical inventory, computer personnel depend on the inventory listings as being accurate.

We reviewed the dependability of the ADP listing as a control mechanism over the 26,000 tapes included in the library. Our test, a random sample of 225 tapes, included a comparison of data shown on the listing with data shown on the tapes. We found that for about 76 percent of the tapes the labels or the retention date on the listing did not match-the entries on the tapes, the tapes were kept in the library beyond the retention date, there were no retention dates on the listing or tapes, or the tapes could not be located. The following chart shows the results of our test.

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Deficiency	Error Rate	Error Rate Projected to (Total number of tapes)
File identification on tape label did not match file identification on		
listing Tapes kept beyond maximum	12.9	3,377
retention date	23.6	ō,179
Retention data on tape label did not match retention data on listing	- 19.1	5,001
No retention data on either listing or tape	-16.0	4,189
Tapes could not be located Sub-Total, deficienc		1,152 19,898
File identification and retention data on tape		····
label match data on listin	ng <u>24.0</u>	6,283
Total	100	26,181

Because the ADF listing is an essential part of the internal control of the library, we believe it is important to the efficient utilization of the tapes for the ADP listing to accurately account for the 26,181 tapes. Since the ADP listing is used to locate tapes, the librarians might find it very *difficult\_or\_even\_impossible to locate a tape when the label* entry on the ADP listing used to identify a tape differs from \_\_\_the label on the tape. Our test shows the probability that over 3,300 tapes were in this category. The problem of retention of tapes appears to be worse, since over 6,000 tapes may have been kept beyond the maximum retention date. Retention status of over 9,000 additional tapes is unclear -because-either-retention data on the tapes and listing differ, or there is no rentention data recorded. The degree of inaccuracy of the ADP listing clearly justifies the resumption of a periodic physical inventory of the tapes to establish and keep current the accuracy of the ADP listing.

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ADP officials informed us that determination of retention periods is essentially the responsibility of the user. Because of past criticism from users with respect to scratching of computer tapes, ADP Operations officials told us they were reluctant, at times, to scratch outdated tapes. We believe that the user should determine within specific guidelines what the retention period should be, however, ADP Operations should be responsible for assuring that tapes are scratched and available for reuse within the established guidelines. This is especially important since our test shows that almost 24 percent of the tapes were kept in the library longer than the retention period established by the user and the retention status of an additional 35 percent is unclear. We believe improvements are necessary to decrease the overretention rate. Based - on the cost of computer tapes as of June 1977, it is possible that HUD could save about \$49,000 if the 6,179 tapes projected by our test as being overretained could be utilized.

Further, our test showed that about 4 percent or over 1,100 tapes could have been lost or misplaced. While we did not attempt to determine the potential causes of the deficiency, we noted that HUD employs tape librarians to maintain control over the computer tape library during normal business hours. During other times librarians are not on duty and personnel can gain access to computer tapes if they possess a computerized security card. We observed that the double doors between the computer hardware room and computer tape library were unlocked, making it extremely difficult for the tape librarians to prevent personnel from entering the library.

in the tape library selecting and leaving with tapes, creating in the tape critical computer tapes could be misplaced or lost.

## RECOMMENDATIONS

HUD's inventory of about 26,000 computer tapes represents a substantial investment not only in dollars but also in invaluable amounts of program data. A requirement for adequate control over these tapes is obviously an essential part of HUD's computer operations. We therefore, recommend that:

- --a physical inventory be made of the computer tapes to correct the ADP listing used as a control over these tapes and that such an inventory be continued on a periodic basis to recain a high degree of accuracy of the listing,
- --procedures be established to assure that computer tapes are only retained for reasonable periods and thereafter made available for reuse, and

--current procedures relating to access to the library by individuals other than librarians be examined with the objective of reducing the potential for misplacement or loss of computer tapes.

We would appreciate being advised of any actions you take or plan to take with regard to the matters discussed in this report. Should you wish to discuss these matters in more detail, we would be pleased to meet with you or members of your staff. We appreciate the cooperation given our representatives during this examination.

Sincerely yours,

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Richard J. Woyds Associate Director