# CHAPTER 5: INPUT AND OUTPUT

From *Computerworld*, June, 1972:

### Slip of the Keypuncher's Finger Means City to Lose $290,000 in Tax Revenue

WOONSOCKET, R.I. — A keypunch error compounded by a lack of programming safeguards will cost this city almost $300,000 in tax revenues this year.

The error occurred several weeks ago when the city's tax evaluation was being computed. It caused a 1967 Ford to be valued at over $7 million — $7,000,950 to be exact — and therefore cause the tax rate to be based on a figure that was about $7 million too high.

As a result, tax revenues will be decreased by $290,000, reported A. Robert Mailloux, finance director. The city will not increase the tax rate, so department heads will have to "pull in the belt," Mailloux said.

The error resulted when operators were preparing a test run for the property tax rolls on the municipal card-fed Honeywell 110. A keypunch operator mistakenly punched a "P" in the first column of a seven-column field.

The first four columns should have been empty, indicating that the automobile was only worth $950.

The logic of the computer, Mailloux related, stripped the zone bit from the field during a multiplication operation. The letter was thereby translated into a "7" and the next three blanks were filled with zeroes by the computer.

*$182 Million Correct*

The result, then, was $7,000,950 instead of $950 for the automobile; the total tax assessment for the city was originally reported as $187 million, based on an 80% rate, instead of the correct $182 million, Mailloux confirmed.

Tax revenues will be proportionately reduced, he added.

There were five checkpoints at which the erroneous card should have been detected and destroyed, he continued. In fact, the error was detected, and a new card punched, but the old card was not removed from the deck, despite the fact that a supervisor reported that it had been removed and destroyed.

Mailloux said the program should have contained checks that would not have permitted so great an assessment on an automobile to be processed.

A preparatory run by account number (taxpayer number) and another preparatory run by automobile registration number both should have detected the duplicate card, he related.

There were, however, "no programming safeguards," he stated. "Given human frailties, the program was the ultimate chance" to detect and avoid the error, he added.

The error was discovered two weeks ago, when the tax bills were mailed and the owner of the Ford received a bill for $290,000. Officials would not identify the recipient.

The error marks the "largest financial error in the city's history," according to local sources. Other observers suggested the $290,000 sum represented the largest amount ever lost, without compensation or recovery, for a computer-related error.

The actual loss will be increased if the city has to borrow money between now and the end of the fiscal year.