

DOCUMENT RESUME

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U.S. Customs Service Automated Merchandise Processing System: An Evaluation of Costs and Benefits. GGR-78-57; B-114898. April 20, 1978. 8 pp. + enclosure (1 pp.).

Report to Rep. Al Ullman, Chairman, House Committee on Ways and Means; by Elmer B. Staats, Comptroller General.

Issue Area: Non-Discrimination and Equal Opportunity Programs: Data of Federal Laws and Programs (1001).

Contact: General Government Div.

Budget Function: Law Enforcement and Justice: Federal Law Enforcement and Prosecution (757).

Organization Concerned: United States Customs Service.

Congressional Relevance: House Committee on Ways and Means; Senate Committee on Finance. Rep. Al Ullman.

An analysis of the cost benefit study for the U.S. Customs Service's Automated Merchandise Processing System indicated that automation of Customs' merchandise and revenue processing functions would be beneficial. Automation is Customs' answer to the problem of limited manpower to cope with increasing imported merchandise and revenue processing workload. The analysis of the cost benefit study dealt with the acceptability of the methodology and the extent it fully and accurately stated costs and benefits. The study methodology used by Customs was sound and is acceptable for estimating costs and benefits. Although benefits were overstated and costs understated, the system will provide about \$2.50 in benefits (\$485 million) for every \$1 in costs (\$189 million). Personnel costs and computer procurement costs were understated, while personnel reduction benefits and benefits to the importing community were overstated. Customs needs, but does not have, a plan to implement the personnel changes and retraining that will be required as a result of the system. (BRS)



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-114898

APR 20 1978

RESTRICTED

The Honorable Al Ullman
Chairman, Committee on Ways
and Means
House of Representatives

Dear Mr. Chairman:

We have analyzed the cost benefit study for the U.S. Customs Service's Automated Merchandise Processing System as requested by the Chairman of your Subcommittee on Trade. (See enclosure). We conclude that (1) the study methodology used by Customs was sound and (2) although benefits were overstated and costs understated, even after our adjustments, the system will provide about \$2.50 in benefits (\$485 million) for every \$1 in costs (\$189 million). Hence, automation of Customs merchandise and revenue processing functions would be beneficial.

Automation is Customs' answer to the problem of limited manpower to cope with an increasing imported merchandise and revenue processing workload. Under the automated system, inspection and control, duty assessment, and accounting functions, which had become intermingled over decades of operation, will be separated into distinct work activities. Importers and brokers will deal with Customs on an account basis rather than the present transaction basis and will be permitted to electronically transmit entry data to Customs. The system is scheduled to be fully operational in 1981.

Our analysis of Customs' cost benefit study dealt with the acceptability of the methodology and the extent it fully and accurately stated costs and benefits. The highlights of our analysis are presented in the following section of this letter. We will be pleased to provide additional details if you so desire.

GGD-78-57
(26364)

CUSTOMS' STUDY
METHODOLOGY ACCEPTABLE

In April 1977, Customs updated an earlier cost/benefit study of the automated system. The updated study appropriately measures the costs and benefits of only those functions impacted by the system--inspection and control, duty assessment, and accounting. The study presents the additional costs to develop, install, test, and procure equipment and to operate the system over its expected life--1977 to 1986. Benefits--generally cost reductions and costs avoidances--were stated in terms of net decreases in staffing requirements, and elimination of existing automated systems. Additional benefits in the form of increased revenues were also identified. This methodology is acceptable for estimating costs and benefits.

COSTS SHOULD BE ADJUSTED
UP AND BENEFITS DOWN

Customs' cost benefit study should be adjusted but even then, benefits will substantially exceed costs. Some costs and benefits were understated and others overstated; however, the net result was that benefits were overstated by \$128.1 million and costs understated by \$7.4 million.

To test the accuracy of Customs' 1977 study we reviewed about 70 percent of the estimated costs and 80 percent of the benefits. Its estimates and our adjustments are shown below.

The System Costs and Benefits (note a)

	<u>Per Customs</u>	<u>Per GAO</u>		
		<u>Amount reviewed</u> ----- (millions)	<u>Net ad- justments</u>	<u>Revised estimate</u>
Costs to Customs	<u>\$181.7</u>	<u>\$124.3</u>	<u>\$+7.4</u>	<u>\$189.1</u>
Benefits:				
To Customs	\$442.0	\$347.3	\$ -90.5	\$351.5
To the Import- ing Community	159.8	133.7	-37.4	122.4
To other Federal agencies	<u>11.1</u>	<u>7.7</u>	<u>-.2</u>	<u>10.9</u>
Total benefits	<u>\$612.9</u>	<u>\$488.7</u>	<u>\$-128.1</u>	<u>\$484.8</u>

a/All estimates are in terms of 1977 dollars and no adjustments for possible future inflation have been made.

The principal reasons for our revisions were:

--an increase in Federal salary costs became effective after Customs updated the study;

--current data (such as equipment procurement costs) were not used; and

--invalid assumptions were made.

There were three major invalid assumptions. First, Customs properly projected workload increases at about 6 percent per year, but adjusted the growth factor downward to 5 percent as a result of anticipated productivity factors. The adjustment factors are speculative and cannot be supported by experience or other analysis. Therefore, we adjusted those costs and benefits that were based on workload to reflect an annual 6 percent increase.

Secondly, Customs assumed that the work force would increase at the same rate as the workload. Historically, the work force of those employee categories impacted by the system has grown at a 4 percent annual rate. Therefore, we adjusted personnel costs and benefits accordingly.

Finally, Customs estimated personnel savings on the assumption that 60 percent of import entries could be routinely processed by computer rather than manually. A recent study and current experience indicate that only a 40 percent rate is attainable. The lower rate decreases these savings.

Comments on some of our more significant adjustments follow.

Personnel Costs Understated

Customs estimated personnel costs at \$94 million. We believe these costs are understated by about \$9 million as shown below.

	<u>Per Customs</u>	<u>Per GAO</u>	<u>Adjustment</u>
Computer terminal operators	\$23,814,175	\$ 28,699,308	\$+4,885,133
Manifest clearance clerks	7,902,180	13,027,476	+5,125,296
Automated Merchandise Processing System Program Division personnel	26,580,000	25,599,840	-980,160
Station office clerks	a/ <u>35,751,124</u>	a/ <u>35,751,124</u>	<u>-</u>
Total	<u>\$94,047,479</u>	<u>\$103,077,748</u>	<u>\$+9,030,269</u>

a/We were unable to verify this estimate because Customs could not provide supporting documentation.

Computer entry
terminal operators

Customs estimated operator costs at \$23.8 million based upon 2,225 staff years at \$10,703 each. We believe the staff years should be increased by 52 and costed at \$12,604, the current salary rate.

Customs based staff years on the number of computer terminals needed to meet an expected 5 percent annual workload increase. As noted previously, we project a 6 percent annual workload increase which will require an additional 52 operator staff years.

Manifest clearance clerks

Manifest clearance is the matching of quantities and other data on the carrier manifest with other import entry documents. Customs has centralized manifest clearance procedures at 11 sites and plans to add approximately 13 locations by fiscal year 1981. These centralized units are expected to process about 85 percent of all manifests.

Customs, on the basis of a test at one port-of-entry, estimated a clerk requirement which was then compounded at 5 percent per year to recognize workload growth for a total requirement of 660 staff years. These were then costed at an average salary for a GS-5, step 1 of \$11,973 per year for a total estimated cost of \$7.9 million.

Based on the results at 11 sites which had automated or manual centralized manifest clearance procedures in effect in 1977, and assuming that work force would grow at 4 percent per year--the historical growth rate--we estimate a total staff requirement of 924 which when costed at the average annual salary of \$14,099, the cost of a GS-5, step 4 clerk, gives a total estimated cost of \$13.2 million.

Computer Procurement
Costs Might Increase

Customs estimated costs for computer hardware and peripheral equipment at \$6.5 million--a figure we do not dispute. However, a solicitation for technical proposals and pricing data was prepared and scheduled to be released in September 1977 but has not yet been issued. The General Services Administration is withholding permission for Customs to procure the needed equipment, pending resolution of several issues.

The delay in issuing the solicitation may extend the target date for completing the implementation of the system. We estimate an additional cost of at least \$160,000 for each month the completion date is extended. This cost represents extensions of the computer lease contract, building lease and guard service for Customs computer facility, and other computer equipment rental at the facility.

Personnel Reduction
Benefits Overstated

Customs estimated personnel savings of \$251.4 million for import specialists, entry control clerks, cashiers/tellers, inspectors, and liquidators. Our analysis of these savings follows:

	<u>Per Customs</u>	<u>Per GAO</u>	<u>Adjustments</u>
Import specialists	\$ 93,412,694	\$ 55,815,761	\$-37,596,933
Entry control clerks	a/65,921,643	a/65,921,643	-
Cashiers/tellers	28,487,430	7,169,208	-21,318,222
Inspectors	44,489,004	49,575,704	+5,086,700
Liquidators	<u>19,047,974</u>	<u>20,353,404</u>	<u>+1,305,430</u>
Total	<u>\$251,358,745</u>	<u>\$198,835,720</u>	<u>\$ 52,523,025</u>

a/We were unable to verify the estimate because Customs could not provide supporting documentation; however, we agree there will be some benefits.

Import specialists

Import specialists review entry documents to insure that merchandise is properly classified and valued. Customs assumed that the system would routinely process 60 percent of the entries. This would reduce the time spent reviewing entry documents by about only 28 percent because the system will process the more simple, less time-consuming entries.

On that basis and assuming what staff would have been needed without the system, Customs estimated a total savings of 3,414 staff years at an annual average salary of \$27,362 per person.

The assumption that the computer would process 60 percent of the entries is not supportable by current experience. A study to determine the number of entries susceptible to automated review was recently completed by Customs' Duty Assessment Division and showed that only about 40 percent of the entries could be routinely processed by the computer. According to the study, a higher automated review rate is not initially possible due to the myriad of Customs regulations, world trade agreements, and regulations of other Federal agencies which Customs must enforce. These entries will still require some manual review.

A 40 percent review rate will save about 20 percent of the import specialist time. On that basis and considering the difference between Customs' and our projected work force growth, and minor salary costs differences, we believe that personnel reductions (and hence, benefits) were overstated by 1,385 staff years and \$37.6 million.

Benefits to the Importing Community Overstated

The collection of duties and the enforcement of Customs laws and those of other Federal agencies has imposed a myriad of regulations on the importing community which contribute substantially to its costs of doing business. Customs believes that the system will produce about \$160 million in savings to brokers and importers by simplifying their preparation of entry documentation and accounting procedures.

Based on our discussion of Customs' estimates with individual brokers and importers and representatives of their associations, we estimate the benefits would be \$96.3 million. The adjustments were made because (1) accurate workload statistics were not used, (2) certain broker/importer costs were understated, and (3) efficiencies in accounting procedures were not as extensive as estimated. Whether and to what extent this benefit is passed on to purchasers of imported goods, cannot be predicted. And to the extent it is retained as profit, a portion would be returned to the Government as taxes.

PERSONNEL PLAN NEEDED

Customs needs, but does not have, a plan to implement the personnel changes and retraining that will be required as a result of the system. Because much of the system's success will depend on the judicious use of personnel, without a plan,

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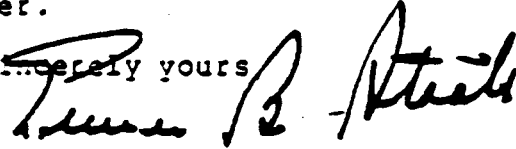
full program benefits may not be realized. This problem was discussed with the Deputy Commissioner of Customs who assured us that he has initiated action to formulate a personnel plan.

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Because of time constraints, your office requested we not ask Customs for written comments on this report. We have, however, discussed the matter with Customs officials who generally agreed with the facts presented.

As arranged with your office, we are sending copies of this report to the Director, Office of Management and Budget; the Chairman, House Committee on Government Operations; the Chairman, Subcommittee on Trade, Committee on Ways and Means; Senate Committee on Finance; the Secretary of the Treasury; the Commissioner, U.S. Customs Service; and Congressman James R. Jones. We will also make unrestricted distribution of this report 3 days from the date of this letter.

Sincerely yours



Comptroller General
of the United States

Enclosure

ENCLOSURE

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COMMITTEE ON WAYS AND MEANS

U.S. HOUSE OF REPRESENTATIVES

WASHINGTON, D.C. 20515

SUBCOMMITTEE ON TRADE

May 31, 1977

ENCLOSURE

SEVENTY-FIFTH CONGRESS

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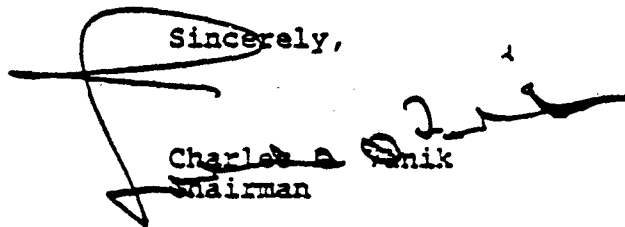
Dear Mr. Staats:

On page 94 of the enclosed hearings on the customs Modernization Act, the Customs Service provides a cost/benefit analysis of the AMPS system.

On behalf of the Trade Subcommittee, I would like to request a GAO review of the methodology used in this cost/benefit study to determine whether it is accurate and fully states all costs and does not overstate any benefits. Recently, the GAO has completed an excellent analysis of the validity of the IRS' cost/benefit statements for its new computer system known as TAS. In view of the errors found in the methodology of this Treasury unit, I would appreciate a review of the projections being offered by Customs on their new AMPS system.

Thank you for your assistance in this request.

Sincerely,


Charles A. Enik
Chairman

CAV:WKV:maw

Encl.