



United States  
Department of  
Agriculture

Food and  
Nutrition  
Service

Office of  
Analysis and  
Evaluation

# **The Evaluation of the Expanded EBT Demonstration in Maryland**

## **Summary of Findings**

### **May 1994**



Associates Inc.

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Expanded EBT  
Demonstration in Maryland**

**Summary of Findings**

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May 1994

*Submitted to:*  
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This study was conducted under Contract Number 53-3198-1-019 with the Food and Nutrition Service, U.S. Department of Agriculture, under the authority of the Food Stamp Act of 1977, as amended. Points of view or opinions stated in this report do not necessarily represent the official position of the Food and Nutrition Service.

## SUMMARY OF FINDINGS

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In April 1993, the Maryland Department of Human Resources (DHR) completed its statewide implementation of an electronic benefits transfer (EBT) system. The demonstration system issues benefits for the Food Stamp Program and for several cash assistance programs: Aid to Families with Dependent Children (AFDC); Bonus Child Support (BCS);<sup>1</sup> Disability Loan Assistance Program (DALP);<sup>2</sup> and Non-Public Assistance Child Support (NPACS).<sup>3</sup>

The EBT system replaces food stamp coupons and government-issued checks with electronic procedures. It posts clients' support payments and assistance benefits to computer accounts established for each EBT participant.<sup>4</sup> Clients access their benefits by using "Independence cards," which function like bank cards. Clients receiving cash payments and benefits can access them at automated teller machines (ATMs) or at point-of-sale (POS) terminals maintained at food retail stores and a few other locations (e.g., check-cashing stores). Food stamp recipients can use their benefits to purchase groceries at all food retail establishments authorized to participate in the Food Stamp Program. ATM owners and retailers with POS terminals are reimbursed for EBT withdrawals and purchases through daily electronic funds transfers.

The Maryland demonstration represents a milestone in EBT testing. Following nearly a decade of relatively small-scale demonstrations, the Maryland EBT system is the first to operate statewide, serving both urban and rural areas. It is by far the largest EBT system in the

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1. Bonus Child Support is the part of the Child Support Enforcement Program in which AFDC recipients participate. AFDC recipients receive a "bonus" payment (beyond their AFDC entitlement) of the first \$50 of child support collected by the program each month.

2. DALP is a state program, which until December 1992 was called General Public Assistance (GPA). A very small number (fewer than 100) of cases in another state program, Public Assistance for Adults (PAA), also participate in the EBT demonstration.

3. Only clients served by the Baltimore City Office of Child Support Enforcement are eligible to participate in the demonstration. Participation is voluntary for these clients; about 25 percent elected to receive their support payments through EBT. For recipients in all other programs, participation in the demonstration is mandatory.

4. This is true for nearly all demonstration participants. About 2.2 percent of all cash assistance cases, however, have their payments directly deposited into their own bank accounts. At that point their payments are no longer part of the EBT demonstration system.

country; approximately \$59 million in program benefits are issued each month to 168,000 households. These households can access their benefits at any of about 1,800 ATMs in the state, at about 3,300 food retailer locations (including some located in the District of Columbia and near the borders of adjacent states), or at a handful of non-food retailer locations.

### **Research Objectives**

As a demonstration project, a large research effort was planned to determine the impacts of the Maryland EBT system and to learn as much as possible about it. This Summary of Findings presents the main findings of that research effort. The full set of findings is presented in the evaluation's three-volume final report.<sup>5</sup>

The evaluation of the expanded Maryland EBT demonstration has four major research objectives:

- (1) To describe the process by which the expanded Maryland EBT system was designed, developed and implemented statewide;
- (2) To determine whether it is possible to design and operate a large-scale, multi-program EBT system that costs no more than current benefit issuance systems, yet is secure and acceptable to participants;
- (3) To determine whether the Maryland EBT system reduces agency losses due to fraud, theft, and misuse of benefits; and
- (4) To assess the impact of the Maryland EBT system on stakeholders (recipients, retailers, and financial institutions), with a focus on the costs these groups incur to participate in the food stamp and cash assistance programs.

To address these objectives, the evaluation collected and analyzed data from two periods—before and after the EBT system was implemented. Data collection included surveys of recipients,

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5. The three volumes are: Margaret Hargreaves and Paul Elwood, *The Evaluation of the Expanded EBT Demonstration in Maryland, Volume 1: System Startup, Conversion, and Expansion*. Cambridge, MA: Abt Associates Inc., May 1994.

Christopher Logan *et al.*, *The Evaluation of the Expanded EBT Demonstration in Maryland, Volume 2: System Impacts on Program Costs and Integrity*. Cambridge, MA: Abt Associates Inc., May 1994.

Erik Beecroft *et al.*, *The Evaluation of the Expanded EBT Demonstration in Maryland, Volume 3: System Impacts on Demonstration Stakeholders*. Cambridge, MA: Abt Associates Inc., May 1994.

retailers, check cashers, and bank officials; interviews with key players in the demonstration (vendor and program personnel); observation of key demonstration events and of thousands of purchase or withdrawal transactions at stores and ATMs; review of program cost data; and month-long studies of how much time local office workers spend on issuance tasks.

### **Project History**

In 1988, while several EBT demonstrations were being planned throughout the country, the U.S. Office of Management and Budget (OMB) approached several states bordering Washington, D.C. about the possibility of implementing a statewide EBT system. The Maryland DHR, intrigued by EBT's potential for cost savings and improved client services, responded with a proposal for a multi-program, single-card system. If a client was eligible to receive benefits from more than one program, benefits for all programs could be accessed from a single EBT card.

OMB approved the proposal in August 1988, and in February 1989 DHR awarded a five-year, \$25.8 million contract to TransFirst Corporation to serve as the system vendor. The pilot system began operating in November of that year, serving about 5,000 recipients in a small area in Baltimore. Under the terms of the contract with TransFirst, the pilot project could be expanded statewide after DHR received approval for expansion from FNS and the Administration for Children and Families (ACF) of the U.S. Department of Health and Human Services. Federal approval would be contingent on the project's cost-effectiveness.

Preliminary analysis of the pilot system's costs suggested that, although a statewide EBT system could cost less than the paper systems for all programs combined, EBT costs for AFDC alone would be higher than the paper system costs. ACF officials did not have the regulatory authority to approve system expansion if it would increase AFDC costs. A solution was found in the creation of a new funding mechanism for the demonstration. This mechanism, called the "EBT Single Administrative Grant" (EBTSAG), capped federal reimbursements for administrative costs, making the project cost-neutral to both FNS and ACF. Any net increase in the administrative costs for the Food Stamp Program or AFDC would be borne by the State.

During the time needed to work out the EBTSAG agreement and obtain approval for statewide expansion, TransFirst sought to terminate its contract because it could not afford to continue operating the system as a small-scale pilot. In August 1991, TransFirst transferred its

EBT contract to Deluxe Data Systems, which entered into a new six-year, \$37.6 million contract with DHR. TransFirst continued to provide EBT processing services until July 1992. On July 20, all EBT processing was switched over to Deluxe's newly developed EBT system. Meanwhile, the caseload handled by the EBT system steadily expanded. Expansion activities began in January 1992, when all the recipients in Cecil County were converted to EBT, and continued on a county-by-county basis until April 1993, when the last areas of the state were converted.

### **Evaluation Findings**

The lessons from the Maryland EBT demonstration are largely positive with respect to both the technical and economic feasibility of EBT. Over a period of 16 months, the Maryland DHR and its system vendor implemented a statewide EBT system involving 3,300 food retailers and 168,000 households. Occasional operating difficulties occurred along the way, but the system has been operating since the fall of 1993 without major problems. State personnel are committed to the project and see it as a vast improvement over issuing paper food stamp coupons and assistance checks.

The people most directly affected by the EBT system also see it as a better method of delivering program benefits. Based on survey data, large majorities of program recipients and food retailers prefer EBT to coupons and checks. Some members of these groups, however, do incur higher participation-related costs under EBT than before. All bank representatives contacted also prefer EBT.

The system also improves program integrity. While the cost to operate the EBT system during the study period was virtually the same as the previous cost to issue government checks and food stamp coupons, the improved security of the system reduces benefit outlays resulting from error or fraud. The system also reduces unreimbursed stakeholder losses and helps ensure that food stamp benefits are used to purchase food.

The following sections present more detail on the major research findings of the evaluation of the Maryland EBT demonstration.

***To design, develop and implement the Maryland EBT system required \$3.8 million in direct government expenditures and a total cost of nearly \$11 million.***

Federal agencies, the Maryland DHR, and Deluxe Data Systems spent about \$10.8 million to design and develop the EBT system, to test it before implementation, to convert from the TransFirst system to the Deluxe system, and to expand the system statewide. Only \$3.8 million of this total cost was incurred or paid by federal agencies or the Maryland DHR. The remaining \$7.0 million represents Deluxe Data System's investment in creating its EBT software product and establishing its EBT system throughout the state. Data are not available to determine how much of this investment, if any, is recovered in Deluxe's monthly billings to the State for ongoing system operations.<sup>6</sup>

Together, all parties spent about \$2.8 million on system design and development work. Expanding the system to its statewide scope was much more costly, at about \$8.0 million. Expansion activities include the very labor-intensive processes of negotiating contracts with food retailers, installing POS terminals at retailer locations, training store staff in EBT operations, training local office staff in system operations, and training recipients and issuing EBT cards to them.

***Across all programs served, the resource costs of operating the Maryland EBT system were about the same as for the previous paper-based issuance and redemption systems.***

Federal and state accounting and billing systems for program administrative costs do not always track issuance-related costs separately from other program administrative costs (e.g., those related to certifying households as eligible for program benefits). In assessing the EBT system's impacts on issuance costs, therefore, the evaluation generally identified all resources used to issue benefits and measured or estimated the cost of these resources. To preserve confidentiality, the resource cost for EBT services provided by Deluxe Data Systems is approximated using the vendor's billed costs. Resource and activity data, rather than the rules of the EBTSAG, were used to allocate EBT costs across programs.

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6. Deluxe's initial investment in EBT is part of a long-range business plan to compete in the EBT services market. For example, after securing the Maryland contract, Deluxe Data Systems also won a contract to provide EBT services in New Jersey.

During the study period, the Maryland EBT system's resource costs were \$3.85 per case per month, which is slightly less than the \$3.89 average cost per case month federal agencies and the Maryland DHR required to issue and redeem food stamp coupons, government assistance checks, and child support checks.<sup>7</sup> This translates into estimated resource cost savings of about \$120,000 annually, given the caseload levels and vendor fee structure existing in the summer of 1993.

For the Food Stamp Program, estimated costs of the Maryland EBT system were \$1.35 million per year (\$0.79 per case month) *less* than for coupon issuance. For the cash assistance and child support programs, however, the system *increased* resource costs by about \$1.23 million annually (an average increase of \$0.90 per case month). This program difference arises mainly because paper checks can be issued much more cheaply than food stamp coupons, at \$2.86 per case month for AFDC checks versus \$4.71 for coupons. Moreover, EBT resource costs were somewhat higher for cash assistance payments than for food stamps because cash assistance clients commonly use ATMs to withdraw their benefits, and ATM transactions in Maryland (and generally elsewhere) cost more than transactions at retailer POS terminals.

The estimated resource cost savings from the Maryland EBT system are not evenly distributed among the Maryland DHR and the federal agencies. EBT would save \$1.25 million per year in resource costs for FNS, mainly because EBT eliminates the need for the federal government to print and distribute food stamp coupons.<sup>8</sup> For the Maryland DHR, higher costs for the cash assistance programs would outweigh a small saving in food stamp administration, leading to a net increase of \$570,000. AFDC would see higher resource costs for AFDC and the

not the case in non-metropolitan areas. Local labor costs for all cash assistance programs rose in non-metropolitan areas; food stamp labor costs were lower. These divergent impacts result from higher EBT costs and lower paper costs in non-metropolitan areas, when compared with metropolitan areas. In addition to this impact on operating costs, local-level EBT implementation costs, on a per-case basis, were nearly 60 percent higher in non-metropolitan than metropolitan counties. Smaller caseloads in the non-metropolitan offices meant that recipients were trained in smaller groups, which led to higher costs per case.

***Other factors, principally reductions in fraud and error, allow EBT to generate net annual savings of \$454,000 in resource costs.***

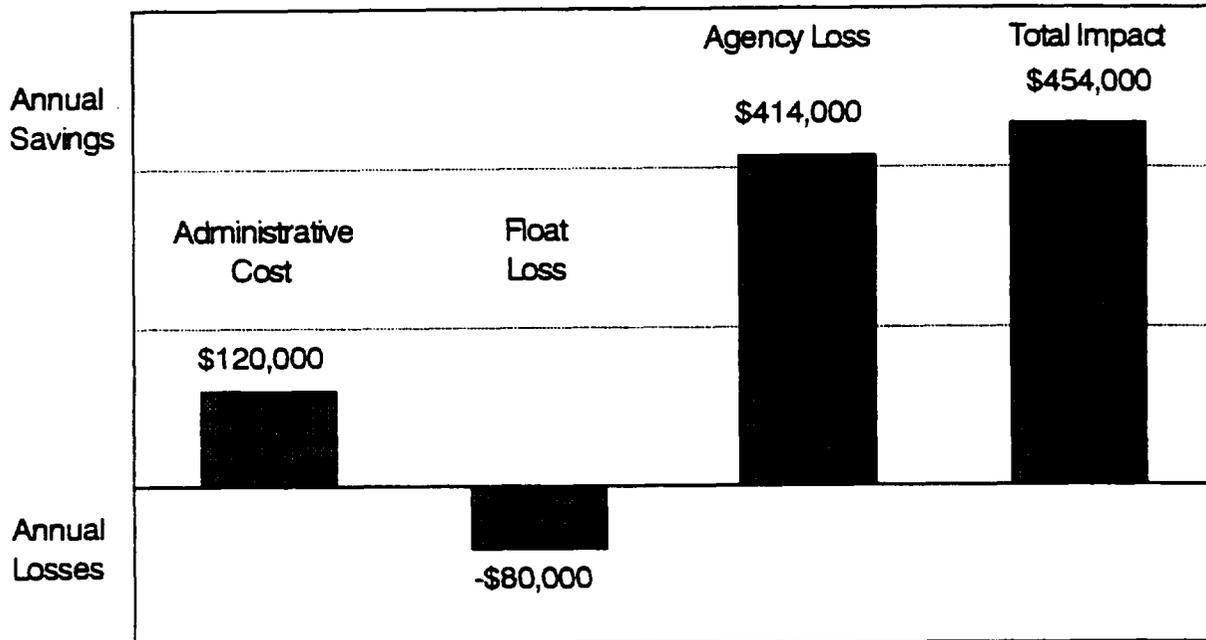
The administrative cost of issuing and redeeming program benefits is not the only cost affected by the Maryland EBT system. In the paper-based issuance systems, extra costs are incurred through *agency losses*. These losses represent additional outlays of taxpayer dollars due to error, fraud, or other problems in the issuance system. Examples include coupons or checks that are lost or stolen and then replaced. Annual agency losses in the food stamp and cash assistance programs totalled about \$483,000 in Maryland before the EBT system was implemented; this is a small fraction of all benefits issued (less than one-half of one percent), but still a large sum of money. Based on expert opinion, the Maryland EBT system will reduce these losses to about \$69,000 per year—leading to annual EBT savings of \$414,000 in agency losses.

In contrast, the EBT system reduced the cash flow benefit that the government gains when food stamp and cash assistance program participants do not redeem their benefits as soon as they receive them. When there is a delay between benefit receipt and benefit redemption, the government enjoys a gain in *float* on the unused funds, i.e., the government's borrowing costs are reduced or interest can be earned on the funds. The EBT system reduces the average time between benefit receipt and redemption, and therefore reduces the government's gain from float. At the interest rates prevailing at the time of the demonstration, the reduction in float equalled about \$80,000 per year.

When the EBT impacts on agency losses and government float are added to the impacts on administrative costs, the net effect of the EBT system is an overall annual savings of \$454,000 (Exhibit 1). This savings estimate would vary with changes in caseload, vendor fees,

or interest rates. If one holds these factors constant, however, the state and federal governments would recoup their \$3.8 million expenditure for system startup within about 8.3 years.

**EXHIBIT 1**  
**SYSTEM IMPACTS ON GOVERNMENT COSTS**



Vendor fees will decline under the current contract, which provides for reductions in the per-case-month fees when the EBT system reaches certain thresholds in the cumulative number of cases served per program. Some of this decline has already occurred since the end of the study period. At the rates in effect in December 1993, for example, annual EBT costs would drop by about \$750,000 if no other system costs changed. This impact by itself would reduce the payback period for startup costs to a little over three years. It is not known whether other changes in state and local costs have occurred; such changes could either augment or offset the vendor cost savings.

***The Maryland EBT system reduces benefit diversion within the Food Stamp Program.***

"Benefit diversion" occurs when food stamp benefits are not used for their intended purpose of buying program-authorized food items. The primary sources of benefit diversion in the coupon issuance system are the provision of cash change after a food stamp sale (which is legal as long as clients do not make multiple purchases of small amounts just to generate change) and the sale of program benefits for cash (or trafficking, which is illegal).

The EBT system provides no cash change in food stamp purchases because the system deducts the exact amount of a purchase from the client's EBT account. EBT also appears to make trafficking more difficult. Based on recipient survey data and the views of program officials and others knowledgeable about issuance procedures and security, the EBT system is estimated to reduce benefit trafficking by 10 percent. Including effects on cash change and trafficking, the system is expected to reduce all forms of benefit diversion by 42 percent, or about \$1.3 million per year in Maryland.

***Program recipients strongly prefer EBT to receiving food stamp coupons or government checks.***

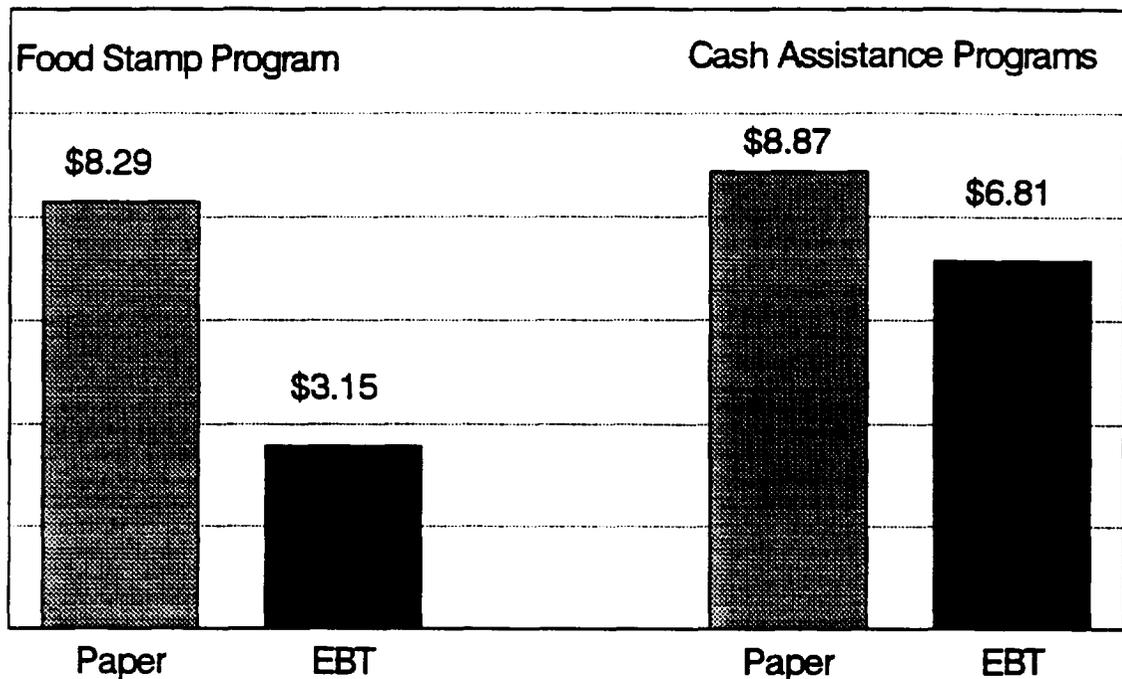
Food stamp recipients in Maryland who have experienced both the EBT and coupon issuance systems overwhelmingly prefer the EBT system. Overall, 83 percent of such recipients said they prefer EBT, while only 10 percent prefer the coupon system. EBT support is even broader among participants in the cash assistance and child support programs—over 90 percent prefer EBT. Reported reasons for preferring EBT include general convenience (e.g., "you don't have to pick up benefits" and "you don't have to cash your whole check at once"), increased security against loss or theft of benefits, and reduced embarrassment or stigma.

Another reason why food stamp clients may prefer EBT is that, on average, it reduces the time and money they spend each month to get their benefits (Exhibit 2). Average time and out-of-pocket costs were reduced by 62 percent for food stamp recipients and 23 percent for participants in the cash programs.<sup>9</sup> These figures include the costs of obtaining benefits, of dealing with issuance problems such as incorrect benefit amounts, and of benefits that were lost or stolen and not replaced.

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9. To combine time expenditures with out-of-pocket costs, recipients' time was valued at the federal minimum wage, \$4.25 per hour.

**EXHIBIT 2**  
**CLIENTS' PARTICIPATION COSTS**  
(dollars per case month)



Because EBT changes the nature of the program participants' experience, one must ask whether it affects caseloads by leading more or fewer people to participate. For example, if certain kinds of clients are unable or unwilling to learn how to use the new technology to access their benefits, they might leave the program or elect not to apply for assistance. Alternatively, to the extent that EBT is more convenient or reduces the embarrassment or stigma attached to program participation, it might increase program caseloads. Analysis of month-by-month variations in program caseloads in Maryland and in the monthly rates of new approvals and case closures reveals no consistent pattern of EBT influence. While it is possible that EBT may affect the participation decisions of a small number of clients, there is no evidence of a clear trend or strong effect.

***Food retailers also prefer EBT to food stamp coupons and government checks.***

Nearly 80 percent of retailers surveyed after system implementation said they prefer the EBT system to paper issuance; 10 percent prefer paper issuance. Major benefits of EBT cited by retailers were easier handling and depositing of program benefits, lower labor costs (i.e., improved productivity), increased sales, less fraud, and the elimination of cash change for food stamp sales. When asked about major drawbacks, some retailers noted that response times at checkout terminals were too slow and that they had problems with EBT equipment. Since the time of the retailer survey, however, system performance has improved.

Retailers carry out some special procedures in accepting benefits from program recipients that are not needed in dealing with their regular cash customers. The special procedures lead to extra operating costs, such as extra labor to fill out the forms for depositing food stamp coupons. These program participation costs were, on average, about the same with the Maryland EBT system as with the paper systems. The EBT system impact was a statistically insignificant reduction in costs of \$0.06 per \$1,000 of benefits redeemed.

One reason that retailers like EBT may be that it is consistent with the industry's gradual movement toward electronic payment systems. Prior to the EBT demonstration, very few food retailers in Maryland allowed customers to pay for groceries with credit cards or bank ATM cards. When Deluxe deployed EBT terminals throughout the state, approximately 450 retailers (14 percent of the statewide total) used the terminal deployment as an opportunity to contract with financial institutions to offer electronic credit or debit as payment options as well. These commercial transactions are processed through the MOST electronic funds transfer network.<sup>10</sup>

***Financial institutions strongly favor EBT, which increases their revenues and lowers their operating costs.***

Prior to the demonstration, financial institutions incurred costs to process retailers' deposits of food stamp coupons. They also incurred costs to cash and process government-issued checks. For the most part, the financial institutions did not receive any direct reimbursement

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10. For each commercial transaction initiated at a Deluxe-deployed EBT terminal, \$0.0075 is rebated to the Maryland DHR in the form of a credit on Deluxe's monthly billings. This rebate has been factored into the analysis of the EBT system's impacts on administrative costs.

for these activities. In addition, with regard to food stamp coupons, financial institutions needed to maintain a separate set of procedures for redeeming coupons; the procedures were labor intensive and not well integrated with the institutions' normal automated processing capabilities.

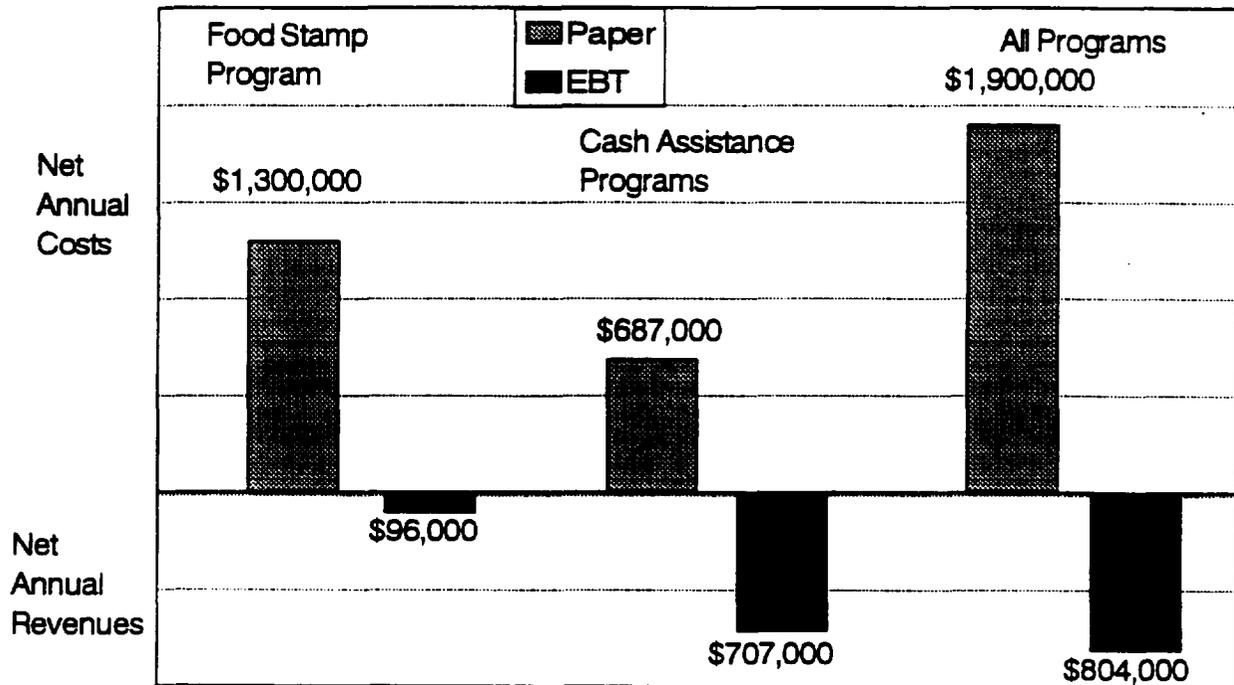
Given this environment, it is not surprising that financial institutions strongly support EBT. Of the 20 main and branch banks included in the evaluation's survey of financial institutions, not one bank official stated a preference for food stamp coupons or paper checks. EBT not only cuts the operating costs and "hassle" of maintaining separate processing procedures (especially for food stamps), but it generates revenues. As clients access their cash benefits through ATMs, the financial institutions charge per-transaction fees to Deluxe Data Systems. Financial institutions also charge fees to retailers and direct deposit customers when posting electronically delivered EBT credits to their accounts. These fees are not unique to EBT, but are the standard fees the financial institutions charge for providing these common banking services.

Under the paper systems, financial institutions incur unreimbursed costs amounting to just under \$4 for every \$1,000 of food stamp benefits they redeem and nearly \$2 for every \$1,000 of cash benefits. EBT eliminates these costs. Instead, the financial institutions conduct activities whose revenues exceed their costs by about \$0.29 per \$1,000 of food stamp benefits and \$1.93 per \$1,000 of cash benefits. Across the state, this translates into annual cost savings of nearly \$2.0 million plus net new revenues of \$810,000, for an overall gain of \$2.8 million (Exhibit 3).

### **The Maryland EBT Demonstration and Future EBT Initiatives**

These findings from the Maryland EBT demonstration have come available just as the federal government is moving toward a nationwide EBT system. The Secretary of Agriculture pledged in May 1993 to have all states operating, implementing or planning for EBT by 1996. In his report on the National Performance Review, Vice President Gore supported the Department of Agriculture's commitment to issue food stamps electronically, arguing that it could "eliminate billions of checks, coupons, and all the other paperwork, record keeping and

**EXHIBIT 3**  
**FINANCIAL INSTITUTIONS' PARTICIPATION COSTS**



eligibility forms that clutter the welfare system."<sup>11</sup> A federal EBT Task Force has been working since October 1993 to address the design, policy, legislative and regulatory issues that need resolution before nationwide use of EBT could become reality.

The Maryland demonstration supports this effort in many ways. Most notably, it has shown not only that a statewide EBT system is technically feasible, but that such a system can be cost-competitive with paper issuance approaches without cutting service levels to participants. Indeed, the strong preferences for EBT expressed by recipients, retailers and bankers indicate that EBT improves service levels, supporting the government commitment to adopt this new issuance technology.

The Maryland EBT demonstration has not answered all the questions relevant to nationwide EBT, however, and its findings point to some issues that will have to be addressed

11. *From Red Tape to Results: Creating a Government that Works Better and Costs Less*. Report of the National Performance Review, September 1993, p. 113.

in that context. The most important of these issues are connected with the system's operating costs.

In Maryland, the overall savings in administrative costs resulted from combining a large savings in Food Stamp Program resource costs with an increase in resource costs for AFDC and the other cash programs. This appears to imply that implementing EBT for the Food Stamp Program alone would yield greater net savings than the multi-program EBT system. However, a food stamp-only EBT system would have higher costs than those attributed to the program in Maryland because some system costs in Maryland were shared across programs. For example, the Food Stamp Program and AFDC split the cost of training and issuing an EBT card to a client who received both types of benefits, but the Food Stamp Program would pay the whole cost in a single-program system. Thus it is not clear whether an EBT system serving only the Food Stamp Program would generate greater cost savings than a multi-program system.

A related question raised by the Maryland experience is whether EBT costs can become more competitive with the costs of issuing paper checks. The key issue is ATM fees, which strongly influence EBT costs for cash benefit programs. Making EBT more cost-competitive requires finding ways to limit these fees, such as negotiating lower fees with ATM service vendors or restricting the number of free ATM withdrawals that recipients can make. Implementing either of these strategies, however, would alter some of the other EBT results observed in Maryland. Lowering ATM fees would reduce the benefit that financial institutions get from EBT, while limiting free ATM transactions would reduce one of the advantages that recipients enjoy.

Another important finding from Maryland is that the EBT system shifted resource costs from the federal government to the Maryland DHR. Some tasks that had been performed by FNS (e.g., coupon printing and distribution) are eliminated under EBT, saving federal expenses. While it is true that EBT also reduced issuance-related costs at DHR's local welfare offices, the added costs of vendor processing services led to an overall increase in state resource costs, even after federal reimbursement of 50 percent of the State's administrative costs. A nationwide EBT strategy will need to consider the differing financial costs and incentives presented to various levels and departments of government.

In considering future EBT initiatives, a new cost factor to deal with is the Federal Reserve Board of Governors' recent decision to extend the consumer protection provisions of

Regulation E to EBT systems. One important provision of Regulation E limits a customer's liability for unauthorized electronic transfers from his or her account. When EBT systems come under Regulation E coverage, system costs will increase by an unknown amount. Program benefit outlays will increase because state and federal agencies will be liable for that portion of claims of unauthorized transfers exceeding \$50. In addition, administrative costs can be expected to increase as state agencies process and investigate reported losses. Whether the cost increases resulting from Regulation E would eliminate an EBT system's cost-competitiveness with paper issuance cannot be judged from the Maryland experience.

While these uncertainties are important, the central message of the Maryland experience is a positive one. The demonstration shows that a large-scale, multi-program EBT system can generate net savings for taxpayers and improved service to program participants. The challenge in implementing nationwide EBT will be to continue to achieve and ultimately to improve upon these positive results.

### Research Reports from Other EBT Demonstrations

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