United States
Department of
Agriculture

Economic
Research
Service

Food Assistance
and Nutrition
Research Report
Number 23

USDA

# Effects of EBT Customer Service Waivers on Food Stamp Recipients:

## Executive Summary

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**Effects of EBT Customer Service Waivers on Food Stamp Recipients: Executive Summary.** By John Kirlin and Christopher Logan, Abt Associates Inc., for the Economic Research Service, U.S. Department of Agriculture. Food Assistance and Nutrition Research Report No. 23.

## Abstract

Most State agencies are now using electronic benefits transfer (EBT) systems to issue food stamp benefits. To promote operational efficiency, some States have received waivers of certain rules governing EBT use. An exploratory study was conducted to ascertain the effects of these waivers on food stamp recipients. The results show that two of the waivers—those allowing recipients to select their own personal identification numbers and to receive EBT training by mail rather than in person—cause new food stamp recipients in waiver States to have more difficulties in using the electronic system than new recipients in nonwaiver States. Further, the difficulties are more apparent among the elderly or disabled. However, the problems tend to disappear as new users gain EBT experience. A third waiver, extending time for card replacement via mail, showed mixed benefits for recipients, most of whom prefer to pick up the card at a food stamp office. Perhaps the most important conclusion is that the customer service waivers do not affect recipient satisfaction with the EBT system; the high level of satisfaction that they expressed suggests that most problems with the waivers are either transitory or minor.

**Keywords:** EBT, new recipients, customer service, vulnerable subgroups, recipient satisfaction.

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April 2002

# Acknowledgments

The authors would like to thank the many individuals who helped with this study and preparation of its final report. At the U.S. Department of Agriculture, Economic Research Service, William Levedahl, the Project Officer, provided guidance throughout the course of the study. Jane Duffield, of the EBT Division at the Food and Nutrition Service of USDA, served as the EBT "liaison" to the project. Ms. Duffield represented the EBT Division's interest in learning how EBT customer service waivers are implemented and how food stamp recipients respond to the waivers. At FNS, we would also like to thank Preston Mears for his assistance in providing important data—copies of EBT transaction files—to the study, and Theodore Macaluso of the Office of Analysis, Nutrition, and Evaluation for his review of an earlier draft of the final report.

The Evaluation of EBT Customer Service Waivers was conducted in four States, two which have implemented waivers within their EBT operations and two which have not. Food Stamp Program (FSP) and EBT officials in each State have been most generous in discussing with us their EBT card issuance and training policies and practices, in providing us copies of their FSP eligibility files, and in providing copies of monthly summaries of EBT operating statistics. These officials also assisted the study by reviewing the draft report and providing helpful comments and observations. Although many people helped us in this process, we would like to extend special thanks to Robert Waites and Susan Allen of Alabama, Phyllis Hahn and Karen Halpin of Minnesota, Richard McKnight and Kevin Bourgeois of Louisiana, and Mark Kohr and Andy Masson of Pennsylvania. We would also like to thank Susan Lowe of eFunds Corporation for her helpful information and cooperation in arranging for special EBT data extracts and reports.

At Abt Associates, Angela Zaffaroni conducted most of the analysis of survey data. Ellen Bobronnikov examined the EBT transaction data, and Sytske Braat-Campbell analyzed the EBT summary statistics data. Nancy McGarry assisted all of us with her programming skills, and David Hoaglin served as project statistician. Susan Byers Paxson ably managed the production of this final report, as well as earlier project documents.

Finally, we wish to thank Diane Stoner and Ramona Olvera of Abt Associates, who served, respectively, as survey director and assistant survey director for the project, together with a large coterie of interviewers, coders, editors, and supervisors who conducted the survey of 1,632 new food stamp recipients. Most of all, of course, we thank those recipients for the time, patience, and cooperation they gave us in responding to the survey.

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## Executive Summary

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The Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA), together with designated State agencies, administers the Food Stamp Program (FSP) and other nutrition assistance programs. The goal of the FSP is to improve the nutritional status of low-income households. The program seeks to achieve this goal by providing eligible households with benefits earmarked for the purchase of approved food items at program-authorized food retail outlets.

Most State agencies are now using electronic benefits transfer (EBT) systems to issue and redeem food stamp benefits. An EBT system operates very much like a bank debit card. Food stamp recipients in most EBT States receive a plastic EBT card with a magnetic stripe on the back, which they present to food stores at checkout. Either the checkout clerk or the recipient swipes the card through a card reader attached to an EBT terminal, and the recipient enters his or her personal identification number (PIN) using the terminal's keypad. An encrypted version of the PIN, information from the card's magnetic stripe (such as recipient name and card number), and the amount of the food stamp purchase are transmitted to the EBT system's central computer for processing. If the recipient's EBT account contains enough food stamp benefits to cover the purchase, the request is authorized. If an invalid PIN has been entered or there are insufficient benefits to cover the amount, the transaction request is rejected.[1]

Regulations governing the use of EBT systems have been in place since 1992. The regulations include numerous measures intended to protect recipients' rights and to make EBT systems easy to use. Some of these measures may now be outdated and unnecessary; numerous evaluations of EBT systems have documented food stamp recipients' satisfaction with EBT and their preference for EBT over the use of food stamp coupons.[2]

In an effort to promote operational efficiency, FNS has waived some EBT regulations in response to requests from State agencies. The impacts of these EBT customer service waivers on recipients are not known, but there has been some concern that food stamp recipients in States with waivers may have more trouble using their EBT systems than recipients in States in which waivers have not been granted. Another concern is that subgroups of the food stamp population, especially the elderly and disabled, may have difficulties with EBT customer service waivers. FNS, recognizing the need to balance concerns about potential impacts of waivers on recipients with concerns that some of the regulations are unnecessary and outdated, requested that the Economic Research Service (ERS) of USDA sponsor a study to ascertain the impacts of certain EBT customer service waivers on food stamp recipients. This report presents the results from that study.

[1]A few States use EBT systems based on a different technology. In Ohio and Wyoming, the EBT card contains an embedded computer chip rather than a magnetic stripe on its back. From the recipient's perspective, however, EBT systems based on these different technologies operate very similarly.

[2]See, for example, John Kirlin, *The Evaluation of the Expanded EBT Demonstration in Maryland: Summary of Findings*, Cambridge, MA: Abt Associates Inc., May 1994.

## Customer Service Waivers

The study examines the impacts of three waivers to the food stamp EBT regulations:

- PIN assignment rather than PIN selection
- Elimination of the requirement that recipients receive hands-on EBT training
- Extension of time allowed, from 2 business days to up to 5 business days, to replace a lost, stolen, or damaged EBT card.

### Waiver #1: PIN Selection

Under EBT regulations, recipients are allowed to select their own PIN, usually at the local food stamp office when they pick up their EBT card. An encrypted version of the selected PIN is encoded within the EBT card's magnetic stripe. Recipients are told during training to keep their PIN number secret to prevent unauthorized access to their benefits in the event their EBT card is lost or stolen.

The PIN selection waiver allows State agencies, or their EBT vendors, to assign a PIN to food stamp recipients. In turn, this enables the vendor to mail new EBT cards to recipients, with the assigned PIN already encoded, instead of issuing cards in the food stamp office. The assigned PIN is also sent to the recipient, in a separate mailing for security purposes. This approach mirrors that used in the banking industry for debit cards. In addition, as in the banking industry, food stamp recipients with assigned PINs are given the option of selecting their own PIN, but this requires followup action on their part.

The major concern with the PIN assignment waiver is that recipients, especially the elderly and disabled, may have greater difficulties remembering their PINs than if they had selected an easily remembered number. If they forget their PINs, they cannot access their food stamp benefits until they remember the number or contact the EBT vendor or local food stamp office to select a new PIN. Thus, if the waiver causes food stamp recipients difficulty in remembering their PINs, one would expect to see the following consequences, relative to States without the PIN selection waiver:

- Recipients would make more errors with PIN entry at checkout.
- More errors with PIN entry would lead to more instances of PIN locks, which occur when an invalid PIN is entered consecutively a specified number of times (three or four in most EBT systems). After a PIN is locked, the recipient has to return to the food stamp office or contact the EBT vendor to receive a new PIN before benefits can be accessed.
- More recipients would request a change in PIN to select a more easily remembered code.
- More recipients would write their assigned PINs on a slip of paper instead of trying to remember the unfamiliar number. If the written PIN is kept near the EBT card, card security would be reduced and the number of unauthorized EBT transactions might increase.
- The extra burden of dealing with problems (remembering an assigned PIN, changing a PIN, needing to go to the food stamp office to have a PIN unlocked, or experiencing a benefit loss from an unauthorized transaction) might cause some recipients to stop using their EBT cards. This impact could show up either through an increase in dormant EBT accounts or in the number of recipients leaving the FSP for non-eligibility-related reasons.
- Any increase in problems might reduce recipients' satisfaction with the EBT system.

One would expect the above effects to appear shortly after a State converts to EBT or after a new food stamp recipient receives his or her EBT card. After a recipient uses an assigned PIN repeatedly (or has the PIN changed), problems with PIN usage should diminish dramatically.

### Waiver #2: Hands-on Training

When the regulation for hands-on training is waived, State agencies are allowed to mail training materials to recipients. The written materials must include information on recipient rights and responsibilities under EBT. Hands-on training must be made available to recipients who request it.

If written training materials are less effective than hands-on training in teaching recipients how to use an EBT system, then recipients in States with the hands-on training waiver may have more trouble using the system. Some of these problems will be manifested in ways indistinguishable from the hypothesized impacts

of PIN assignment. That is, without hands-on training, one might expect to see more invalid PIN entries, PIN locks, unauthorized transactions, and dormant EBT accounts. Other outcomes might include more denied transactions, instances of recipients leaving their EBT cards at the store, or calls to the EBT vendor's help desk to ask when benefits are available, how to determine available balance, or how to use the card generally. These are topics normally covered during hands-on training sessions.

As with the waiver for PIN selection, one would expect to see the impacts of the waiver for hands-on training shortly after caseload conversion to EBT or the recipients' entry into the FSP. After a recipient learns how to use the system, the above problems should diminish.

By eliminating the requirement for hands-on training, this waiver will reduce the amount of time (and possibly out-of-pocket costs) that most recipients spend on EBT. Only those recipients who request hands-on training will have to travel to the food stamp office and sit through a training session. For some recipients, of course, hands-on training may be necessary. For the rest, the waiver for hands-on training may remove a burdensome—and unnecessary—trip to the food stamp office.

## Waiver #3: Extended Time for Card Replacement

This waiver will affect only recipients who need to have their EBT card replaced because the card was damaged, lost, or stolen. These recipients have no means to access their program benefits until they receive a new card. The hypothesized impacts of this waiver, then, arise from inaccessibility of benefits for up to 5 days or more instead of 2 days.[3]

The most direct consequence of having no benefits for several days is increased risk for food insecurity. One would expect that, on average, recipients in those States with the extended-time waiver would be more likely to experience food insecurity than recipients in nonwaiver States.

As with the waiver for hands-on training, the waiver extending time for card replacement may reduce the time burden for participants in the FSP. Although some waiver States still require the recipient to come to the office to pick up a replacement card, most do not. Thus, for many recipients, the impact of the waiver is a tradeoff between waiting for mail delivery of the card and traveling to the food stamp office to pick it up.

[3]The longest waiver period is 5 business days. The actual number of days before a replacement card can be used may be greater, however, because of weekends and possible delays in activating the mailed card.

## Research Approach

FNS has sponsored a number of evaluations of EBT systems over the years to learn how these systems operate, their impacts on recipients, program-authorized retailers, and program staff, and their administrative costs. These evaluations, however, predated the granting of customer service waivers, so very little is known about the consequences of these waivers. Further, the evaluations examined EBT systems as they were being introduced in various States, when State and local officials may have been making particular efforts to ensure a smooth transition to the new benefit issuance and redemption system.

This exploratory study differs from the previous EBT evaluations in that it examines four mature EBT systems in the States of Alabama, Louisiana, Minnesota, and Pennsylvania. Neither Louisiana nor Pennsylvania have implemented any of the three customer service waivers being studied, so these two States represent a "nonwaiver" comparison group for the study. In contrast, both Alabama and Minnesota have implemented all three customer service waivers, so they represent the "waiver" treatment group for the study. Alabama and Minnesota, however, differ in how they have implemented their waivers. The biggest difference is that in Minnesota nearly 46 percent of recipients picked up their initial EBT cards at a local food stamp office and received hands-on training at that time. In addition, recipients in Minnesota needing replacement cards are given the option to go to the office to pick them up rather than waiting for mail delivery, and most (86 percent) do so. In Alabama, all replacement cards are mailed, and only 1.8 percent of recipients said they went to the food stamp office to pick up their initial EBT card.

### Research Objectives

This study has three main objectives. The first research objective is to better understand the types of problems recipients may have with the three customer service waivers. The second is to quantify the impacts of the customer service waivers on food stamp recipients. Impacts can be either positive or negative. For instance, waiving the requirement for hands-on training may cause some recipients more difficulties in using the EBT system, but it also may eliminate an unnecessary trip to the food stamp office. The third objective is to determine whether the customer service waivers have a disproportionate effect on certain subgroups of the food stamp population, most notably the elderly and the disabled. There has been concern that these vulnerable subgroups may have more difficulties coping with the customer service waivers than other food stamp recipients. For example, memory problems may make it harder for some elderly recipients to remember an assigned PIN.

Although a major reason for implementing customer service waivers has been to reduce EBT operating costs while maintaining service levels, it is important to note that this study is not designed to evaluate the impact of the waivers on costs. With the knowledge gained about the impacts of the customer service waivers on clients, however, it will be possible for FNS and State agencies to weigh the estimated impacts of the waivers against the efficiencies expected from waiver implementation.

### Data Sources

In addition to interviews with State officials to learn how they issue cards and provide EBT training, the study's examination of possible waiver impacts is based on an analysis of information in three databases:

- The transaction logs generated by EBT systems as recipients use their EBT cards for food stamp purchases (for November and December 2000);
- System-generated monthly reports summarizing EBT system activity (March 1999 through March 2000); and
- A survey of over 1,600 new food stamp recipients across the four States (January-May 2000).

The survey includes only new food stamp recipients because, as noted earlier, any impacts from the PIN selection and hands-on training waivers are expected to dissipate over time as recipients learn through experience to use their EBT cards.

To determine the impact of the waivers on vulnerable recipients, the survey of new EBT users oversampled recipients who were either elderly (age 60 or greater) or disabled, based on disability codes on State administrative files. The survey also asked respondents about any disabilities that made it difficult to get

about town, go shopping, or use the EBT card. There was not a great deal of correlation between the State code and subjective measures of disability (r=0.335), so the study adopted respondents' own assessment of disability when identifying vulnerable recipients. In some analyses in the report, however, EBT data are used to investigate differences between vulnerable and nonvulnerable recipients. When based on EBT data merged with State administrative data, the analyses necessarily rely on the State disability codes (and age) to identify vulnerable recipients.

# Study Results

## EBT Training

Among the four study States, instructing new food stamp recipients on how to use the EBT system includes three types of training: orientation during the certification process, primary training by mail or in person, and supplementary training for recipients who want or need it. In all four States, EBT orientation during certification includes either a one-on-one explanation of EBT or a training video.

In the two nonwaiver States of Louisiana and Pennsylvania, primary training is done through a video at the local food stamp office, with live instruction included as needed. The "hands-on" portion of the in-person training occurs when recipients select their PIN at an EBT terminal and use the terminal (and newly issued EBT card) to check their balance. In Pennsylvania, some local offices have a practice terminal for additional hands-on training.

In the waiver States of Alabama and Minnesota, recipients receive a handbook and a brief insert or fact card about EBT in the mail when they receive their EBT card. This is the exclusive primary training approach in Alabama and the "default" approach in Minnesota. Minnesota, however, uses a hands-on training approach for recipients who receive their initial EBT cards at the local office. This includes recipients in areas with high mail-loss rates and applicants who qualify for expedited service. The survey of new EBT users excluded new food stamp recipients living in high-mail-loss areas. Even with this restriction, 45.8 percent of Minnesota respondents to the survey said they received their initial EBT card at the food stamp office, and thus they received hands-on training as well. For this reason, Minnesota must be viewed as a "mixed State" with respect to use of the hands-on training waiver.

Table 1 presents information from the survey of new EBT recipients concerning how they learned to use the EBT system. Despite the availability of a training video or in-person instruction during orientation, only 53.9 percent of recipients in the waiver States said they learned to use the EBT system through these training approaches.[4] In the nonwaiver States, an average of 87.4 percent of new food stamp recipients said they learned through video or in-person instruction, either during orientation or primary training. The same pattern is found within both the vulnerable and nonvulnerable groups. Also, when the information for vulnerable recipients is compared with that for nonvulnerable recipients, table 1 shows that vulnerable new recipients were less likely to say they learned through video or in-person instruction than new recipients who were neither elderly nor disabled.

Recipients in the waiver States, whether vulnerable or not, were more likely to learn about using the EBT system through printed materials than were new food stamp recipients in the nonwaiver States. Eighty-six percent of new recipients in the waiver States learned about EBT through printed material, compared with 63 percent of new recipients in the nonwaiver States. Again, the same relationship holds for both vulnerable and nonvulnerable recipients.

New food stamp recipients in the waiver States, especially in the vulnerable group, were more likely to rely on friends, relatives, and store clerks to learn how to use the EBT system than new recipients in the nonwaiver States.

Table 2 presents information about the time and out-of-pocket expenses recipients incurred for making a trip to the local food stamp office (or other training facility) to learn about the EBT system. Instead of breaking out the results by whether or not recipients were elderly or disabled as table 1 does, table 2 provides additional detail for the individual States.

When trips for supplementary EBT training are included, an average of 54.1 percent of waiver-State recipients made a trip for EBT training, compared with an average of 87.4 percent of recipients in Louisiana and Pennsylvania. New food stamp recipients in the nonwaiver States who made a trip spent an average of 0.85 hours at the training site (including possible time waiting for training to start) and 0.76 hours traveling back and forth, for an average total trip time of 1.62 hours. These recipients spent an average of $3.93 per trip, including wages lost while making the trip and out-of-pocket expenses (e.g., bus fare and babysitting costs) associated with the trip. In the waiver States, the average trip time was 1.74 hours and the average cost was $4.84. It is somewhat surprising that average trip time was higher in the waiver States

[4]When averages are presented for the "waiver" States or "nonwaiver" States, the study States are given equal weighting when calculating the average.

than in the nonwaiver States, because training trips in the nonwaiver States included hands-on training during the card issuance process. This result is largely due to the high average trip time in Alabama. Time traveling to and from the office was not unusually long in Alabama, so the explanation lies in time spent at the office. Unfortunately, the survey data are not sufficiently detailed to explain why the average time at the office is higher in Alabama than elsewhere.

The time and cost estimates above pertain only to those recipients in each State who made a trip to receive in-person EBT training. In addition, the estimates do not discount the time or cost of trips in which the recipient also took care of other business. When a 50-percent discount is applied and the time and cost estimates are averaged over all survey respondents, including those who did not travel to the office for training, the estimated time and cost burdens decline. As shown in table 2, average time for recip-

**Table 1—Recipients' methods for learning to use the EBT system**

| Method | All new recipients | | Vulnerable new recipients | | Nonvulnerable new recipients | |
|---|---|---|---|---|---|---|
| | Waiver | Non-waiver | Waiver | Non-waiver | Waiver | Non-waiver |
| | | | *Percent*[1] | | | |
| Through video or in-person instruction | 53.9 | 87.4** | 50.3 | 76.4** | 54.8 | 89.5** |
| Through printed materials | 86.0 | 63.0** | 77.9 | 58.7** | 88.0 | 64.0** |
| From friends, relatives, or other | 60.1 | 44.7** | 71.5 | 51.4** | 57.5 | 43.1** |

†Difference between this and the entry immediately to the left is significant at the 0.10 level.
*Difference between this and the entry immediately to the left is significant at the 0.05 level.
**Difference between this and the entry immediately to the left is significant at the 0.01 level.
[1]Columns sum to more than 100 percent because survey respondents could indicate more than one method by which they learned to use the EBT system.

**Table 2—EBT training burden and costs**

| Training variables | Total waiver | Total non-waiver | Waiver States | | Nonwaiver States | |
|---|---|---|---|---|---|---|
| | | | Alabama | Minnesota | Louisiana | Pennsylvania |
| Recipients trained in person (percent) | 54.1 | 87.4** | 65.5 | 42.6** | 94.1 | 80.6** |
| Average training time per trip (hours) | 1.74 | 1.62 | 2.19 | 1.29** | 1.74 | 1.51** |
| Average training cost per trip (dollars) | 4.84 | 3.93 | 6.56 | 3.12* | 4.66 | 3.20 |
| Recipients conducting other business during training trip (percent) | 36.8 | 17.9** | 28.0 | 45.6** | 8.5 | 27.2** |
| Average training time per recipient (hours) | .79 | 1.30 | 1.17 | .41** | 1.55 | 1.04 |
| Average training cost per recipient (dollars) | 2.36 | 3.26 | 3.78 | .94** | 4.28 | 2.24* |

†Difference between this and the entry immediately to the left is significant at the 0.10 level.
*Difference between this and the entry immediately to the left is significant at the 0.05 level.
**Difference between this and the entry immediately to the left is significant at the 0.01 level.

ients in the waiver States drops from 1.74 hours per trip to 0.79 hours per new recipient. Average costs drop from $4.84 per trip to $2.36 per new recipient. The declines are not so dramatic in the nonwaiver States, because nearly all new recipients in Louisiana and Pennsylvania made a training trip. Average time in the nonwaiver States drops from 1.62 hours per trip to 1.30 hours per new recipient, and average cost drops from $3.93 per trip to $3.26 per new recipient.

## PIN Problems

Table 3 presents study results pertaining to recipients' use of their PIN number. It gives waiver and nonwaiver State averages for outcome measures for three groups of recipients: all new recipients, vulnerable new recipients (those who are either elderly or disabled), and nonvulnerable new recipients. The data are primarily based on the participant survey.

The survey data show consistent evidence that new food stamp recipients in the waiver States experience more PIN-related problems than new recipients in the nonwaiver States. Those in the waiver States were more likely than their counterparts in the nonwaiver States to have had a problem remembering their PIN just after card issuance (11.6 vs.3.9 percent), to have ever entered an invalid PIN when buying groceries with their EBT card (28.3 vs. 19.9 percent), and to have had a PIN problem that prevented use of their EBT card (7.1 vs. 2.9 percent). Waiver-State recipients were also more likely to have requested a new, presumably easier to remember, PIN (13.1 vs. 4.4 percent).

The same set of relationships exists within both the vulnerable and nonvulnerable groups of new food stamp recipients. In all instances, waiver-State recipients were more likely to experience a problem or request a new PIN than their nonwaiver-State counterparts. All the differences between the waiver and nonwaiver groups in table 3 are statistically significant.

Table 3 also shows that vulnerable new recipients have more PIN-related problems than nonvulnerable ones, whether or not the PIN selection regulation is waived. For instance, in the first row of the table, an average of 21.5 percent of vulnerable recipients in the waiver

**Table 3—PIN-related problems**

| Problem | All new recipients | | Vulnerable new recipients | | Nonvulnerable new recipients | |
|---|---|---|---|---|---|---|
| | Waiver | Nonwaiver | Waiver | Nonwaiver | Waiver | Nonwaiver |
| | | | *Percent* | | | |
| Difficulty remembering their PIN just after card issuance | 11.6 | 3.9** | 21.5 | 8.9** | 9.2 | 2.7** |
| Entered an invalid PIN | 28.3 | 19.9** | 29.9 | 15.8** | 27.7 | 20.5* |
| PIN problem prevented card use | 7.1 | 2.9** | 9.0 | 3.3** | 6.2 | 2.7** |
| Requested a new PIN | 13.1 | 4.4** | 10.7 | 1.7** | 13.7 | 4.9** |
| EBT transactions with invalid PIN[1] | 6.7 | 4.0 | 12.4 | 5.7 | 6.0 | 3.8 |
| Wrote down or told PIN to somebody | 36.4 | 28.2** | 47.3 | 39.1 | 33.9 | 26.2* |
| Experienced an unauthorized transaction | .7 | 0.0* | 1.7 | 0.0 | .5 | .1 |

†Difference between this and the entry immediately to the left is significant at the 0.10 level.
*Difference between this and the entry immediately to the left is significant at the 0.05 level.
**Difference between this and the entry immediately to the left is significant at the 0.01 level.
[1]No significance tests were performed on results based on EBT transaction data because the transactions are not a sample. Rather, the EBT data represent all transactions initiated during a 2-month period. In this sense, any observed differences are "statistically significant," although they may not be large enough to have policy implications.

States said they had a problem remembering their PIN just after card issuance, compared with 9.2 percent of nonvulnerable recipients in the same States. Similarly, in the nonwaiver States, the corresponding percentages are 8.9 and 2.7. Many of the differences between vulnerable and nonvulnerable outcomes in table 3 are statistically significant.[5]

These findings of more PIN problems in the waiver States are corroborated by EBT transaction data. For the 2-month period beginning November 1999, an average of 6.7 percent of all EBT transactions in the waiver States were denied because the recipient had entered an invalid PIN. For the nonwaiver States, the average was 4.0 percent. Similarly, within both the vulnerable and nonvulnerable groups of recipients, those in the waiver States had a higher percentage of transactions with an invalid PIN than those in the nonwaiver States. The percentage of invalid PIN transactions for vulnerable new recipients in the waiver States was particularly high (12.4 percent), suggesting that the PIN selection waiver may have a disproportionate effect on the elderly and disabled.

The EBT transaction data enable an examination of whether there is a "learning effect" with respect to the frequency of invalid PIN entries. In general, the percentages that were reported in table 3 for new recipients are higher than the corresponding percentages for existing cases. For example, whereas table 3 shows that an average of 6.7 percent of all EBT transactions initiated by new food stamp recipients in the waiver States had an invalid PIN, 5.5 percent of transactions initiated by existing cases had an invalid PIN (table 4). This pattern suggests two things. First, even among existing cases, the percentage of EBT transactions with an invalid PIN is fairly high. We believe this indicates that most invalid PINs occur when the recipient makes a key entry error. Second, there is a learning effect. In addition to key entry errors, new recipients sometimes enter invalid PINs because they cannot remember their PIN. This is especially apparent in the waiver States, where the percentage of transactions with invalid PINs falls from 12.4 percent for new recipients who are elderly or disabled to 7.9 percent for existing cases with a vulnerable recipient.

If somebody steals or finds an EBT card and knows the associated PIN, that person can access the recipient's EBT benefits. For this reason, new recipients are told during EBT training not to write their PIN down where somebody can find it. Over one-third (36.4 percent) of new recipients in the waiver States, however, said that they had either written the assigned PIN down or told it to somebody in an effort to help themselves remember it. In the nonwaiver States, an average of 28.2 percent of new recipients did the same thing. The 8.2 percentage point difference is statistical-

[5]The notes on statistical significance in table 2 and subsequent tables pertain to differences between outcomes in waiver vs. nonwaiver States. In the full report, statistically significant outcomes between vulnerable vs. nonvulnerable groups of recipients are noted.

**Table 4—Transactions in a 2-month period with invalid PINs**

| Type of case | Total waiver | Total nonwaiver | Waiver States | | Nonwaiver States | |
|---|---|---|---|---|---|---|
| | | | Alabama | Minnesota | Louisiana | Pennsylvania |
| | | | *Percent* | | | |
| All new entrants | 6.7 | 4.0 | 6.2 | 7.1 | 4.9 | 3.1 |
| Vulnerable new entrants | 12.4 | 5.7 | 9.3 | 15.5 | 7.4 | 4.0 |
| Nonvulnerable new entrants | 6.0 | 3.8 | 5.6 | 6.5 | 4.7 | 2.9 |
| Existing cases | 5.5 | 3.7 | 5.4 | 5.7 | 5.1 | 2.3 |
| Vulnerable existing cases | 7.9 | 5.0 | 7.8 | 8.0 | 7.0 | 3.0 |
| Nonvulnerable existing cases | 4.7 | 3.2 | 4.4 | 5.0 | 4.5 | 1.9 |
| | | | *Thousands* | | | |
| Total transactions | 3,480 | 9,239 | 2,391 | 1,089 | 3,786 | 5,453 |

Notes: Table entries are based on EBT transaction data from November and December 1999. "Vulnerable" cases are here defined as elderly recipients or those listed on State eligibility files as having a disability.

Because of an artifact of the EBT transaction data available for analysis, the number of invalid PIN transactions in Alabama, Minnesota, and Louisiana is overstated relative to the number in Pennsylvania. The Pennsylvania data should not be directly compared with data from the other States. See the full report for further explanation.

No significance tests were performed because the data do not represent a sample.

ly significant, but both percentages appear high from a security perspective. Nevertheless, relatively few respondents to the survey said that an unauthorized person had accessed their food stamp benefits. Of the small number who said this had happened, nearly all said they had either written their PIN down or told it to somebody to help them remember the code.

## Use of EBT System

Many of the PIN-related problems described in the previous section are related to the waiver allowing PINs to be assigned instead of having recipients select their own PINs. Some problems (such as writing down the PIN) may also be due to differences among States in the EBT training provided to new recipients. Because both of the waiver States in the study implemented both the PIN selection and hands-on training waivers, it is not possible to estimate the separate effects of the two waivers.

Differences between States in the outcome measures listed in table 5 are more likely to be related to training approach than to how a PIN is chosen. Survey respondents were asked whether they ever needed help from someone at the store to use their EBT card. As the table shows, an average of over 30 percent of respondents from the waiver States said they did compared with 18.3 percent of recipients from the nonwaiver States. Similarly, among both the vulnerable and nonvulnerable groups of recipients, those in the waiver States were more likely to report needing help than those from the nonwaiver States. All of the differences are statistically significant, as shown in the first row of the table. In addition, within the waiver States, vulnerable new recipients were significantly more likely to have needed help at the store than nonvulnerable new recipients, 41.3 vs. 28 percent.

When difficulties associated with PIN use or "system-caused" problems were set aside, only a small percentage of recipients said they found the EBT card difficult to use.[6] Still, as shown in table 5, recipients in the waiver States (and particularly vulnerable recipients) were significantly more likely than those in the nonwaiver States to say that they ever found it difficult to use the EBT card.

[6]Examples of "system-caused" problems include trouble swiping the EBT card through the card reader (usually caused by a problem with the magnetic stripe on the back of the card), problems with the EBT terminal not working, and the store clerk's not knowing how to process an EBT transaction.

Recipients have several ways in which they can keep track of the benefits left in their EBT account. They may obtain current balance information by calling the system's help desk or a special telephone number. In addition, each EBT receipt prints the balance remaining in the account after the current transaction has been tabulated. Finally, recipients can use an EBT terminal to check their balance. Regardless of training approach, over 90 percent of recipients in each group said they knew how to check their remaining benefits.

Despite this knowledge, a relatively large percentage of EBT transactions are denied because the account does not have sufficient funds. These "insufficient funds" transactions do not necessarily imply difficulties using the EBT system; some recipients appear to prefer letting the system notify them—with a rejected transaction—when their balance is low rather than tracking the balance on their own. Nevertheless, one might expect that recipients having difficulties learning to use an EBT system would be more likely to experience insufficient funds transactions. In table 6, we see that the percentage of EBT transactions rejected due to an insufficient balance is somewhat higher in the waiver States (5.0 percent) than the nonwaiver States (4.1 percent). Similar differences exist within both the vulnerable and nonvulnerable groups, with vulnerable recipients more likely to have a transaction rejected.

When transactions rejected for insufficient funds are added to those rejected due to an invalid PIN, an average of 11.7 percent of all EBT transactions initiated by new recipients in the waiver States are rejected, compared with 8.1 percent of all EBT transactions initiated by new recipients in the nonwaiver States. The 3.6 percentage point difference is substantial, given the total volume of transactions processed by EBT systems. Together, the EBT systems in Alabama and Minnesota process about 1.7 million EBT transactions per month. At this level, the 3.6 percentage point difference equals about 61,000 rejected transactions per month.

A final measure that potentially indicates difficulties using the EBT card is the percentage of new recipients who fail to use their cards in the months immediately following card issuance. Table 5 shows that an average of 4.5 percent of new entrants in the waiver States had not used their EBT cards, compared with an average of 5.0 percent of new entrants in the nonwaiver States. The analysis reveals that 16.0 percent of vulnerable new recipients in the waiver States had not used their

**Table 5—Problems with system use**

| Card-use variables | All new recipients | | Vulnerable new recipients | | Nonvulnerable new recipients | |
|---|---|---|---|---|---|---|
| | Waiver | Nonwaiver | Waiver | Nonwaiver | Waiver | Nonwaiver |
| | *Percent* | | | | | |
| Needed help at store using card | 30.6 | 18.3** | 41.3 | 21.1** | 28.0 | 17.4** |
| Find EBT card is difficult to use | 1.5 | .4* | 4.1 | .6* | .9 | .3 |
| Know how to check remaining balance | 93.6 | 94.1 | 91.1 | 91.3 | 94.3 | 94.7 |
| Had EBT transactions rejected due to insufficient balance[1] | 5.0 | 4.1 | 6.9 | 6.1 | 4.7 | 3.9 |
| New recipients with no card experience[1] | 4.5 | 5.0 | 16.0 | 9.1 | 2.6 | 4.4 |

†Difference between this and the entry immediately to the left is significant at the 0.10 level.
*Difference between this and the entry immediately to the left is significant at the 0.05 level.
**Difference between this and the entry immediately to the left is significant at the 0.01 level.
[1]No significance tests are performed on results based on EBT transaction data because the transactions are not a sample. Rather, the EBT data represent all transactions initiated during a 2-month period. In this sense, any observed differences are "statistically significant," although they may not be large enough to have policy implications.

EBT cards in the 2 months following issuance, compared with 9.1 percent of vulnerable new recipients in the nonwaiver States. Thus, there is supportive evidence that vulnerable new recipients in the waiver States may be experiencing greater difficulties using the EBT card because of the waivers.

Finally, is there a learning effect for insufficient funds transactions? The data in table 6 may suggest that there is a small such effect for nonvulnerable recipients; the percentages for nonvulnerable new entrants are always greater than those for nonvulnerable existing cases. This is also true for vulnerable recipients in Pennsylvania, but not in the other three States. None of the differences between new and existing cases is very large, however, so the support for a learning effect is not very persuasive.[7] Experience with the EBT system, therefore, does not lead to a large decrease in insufficient funds transactions. Again, experiencing such rejections may be less of a bother to some recipients than keeping track of their balances.

[7]Recall that the EBT transaction data do not represent a sample, so no tests of significance are presented. If tests were conducted, nearly all differences would be statistically significant because of the large "sample" sizes involved. The more relevant question is whether any differences are "large" from a policy perspective.

## Card Replacements

Food stamp recipients need a replacement EBT card when their existing card is lost, stolen, or damaged. In the nonwaiver States of Louisiana and Pennsylvania, recipients needing a replacement card go to the local food stamp office to pick it up. In Alabama, all replacement cards are mailed to recipients, who then have to call EBT customer service to have the cards activated. Recipients in Minnesota have a choice: they may wait for the replacement card to be mailed to them, or they may go to the local food stamp office to pick it up.

New food stamp recipients who were interviewed for this study were asked whether they were using a replacement card. Of the 1,632 respondents to the survey, 146 said that they were. These 146 recipients represented an average of 11.7 percent of the respondents from the waiver States and 8.5 percent of the respondents from the nonwaiver States (table 7).

A number of the survey respondents with replacement cards said they had already received multiple replacements. When these multiple cards are counted and compared with the number of months between initial card issuance and interview, the average monthly probability of needing a replacement card is 3.6 percent

**Table 6—EBT transactions rejected for insufficient funds**

| Cases | Total waiver | Total non-waiver | Waiver States | | Nonwaiver States | |
|---|---|---|---|---|---|---|
| | | | Alabama | Minnesota | Louisiana | Pennsylvania |
| | | | *Percent* | | | |
| All new entrants | 5.0 | 4.1 | 4.3 | 5.6 | 3.1 | 5.2 |
| Vulnerable new entrants | 6.9 | 6.1 | 6.2 | 7.5 | 4.6 | 7.6 |
| Nonvulnerable new entrants | 4.7 | 3.9 | 3.9 | 5.5 | 3.0 | 4.9 |
| Existing cases | 4.9 | 3.7 | 4.7 | 5.1 | 3.4 | 4.1 |
| Vulnerable existing cases | 7.7 | 5.5 | 7.4 | 8.0 | 5.4 | 5.5 |
| Nonvulnerable existing cases | 3.9 | 3.1 | 3.6 | 4.2 | 2.7 | 3.4 |
| | | | *Thousands* | | | |
| Total transactions | 3,480 | 9,239 | 2,391 | 1,089 | 3,786 | 5,453 |

Notes: Table entries are based on EBT transaction data from November and December 1999. "Vulnerable" cases are here defined as elderly recipients or those listed on State eligibility files as having a disability.

No significance tests were performed because the data do not represent a sample.

**Table 7—Card replacements**

| Replacement variables | Total waiver | Total non-waiver | Waiver States | | Nonwaiver States | |
|---|---|---|---|---|---|---|
| | | | Alabama | Minnesota | Louisiana | Pennsylvania |
| | | | *Percent* | | | |
| Survey respondents using a replacement card | 11.7 | 8.5† | 9.9 | 13.6 | 8.5 | 8.5 |
| Monthly probability of needing a replacement card | 3.6 | 3.7 | 2.4 | 4.9 | 3.9 | 3.6 |
| | | | *Days* | | | |
| Average time between last benefit issuance and report of lost, stolen, or damaged card[1] | 14.6 | 13.8 | 14.1 | 15.0 | 13.8 | NA |
| Average time between report of lost, stolen, or damaged card and activation of replacement card[1] | 4.2 | 1.3 | 7.2 | 1.2 | 1.3 | NA |

†Difference between this and the entry immediately to the left is significant at the 0.10 level.
*Difference between this and the entry immediately to the left is significant at the 0.05 level.
**Difference between this and the entry immediately to the left is significant at the 0.01 level.
[1]No significance tests were performed because data do not represent a sample.
NA = Not available.

and 3.7 percent in the waiver and nonwaiver States, respectively. Based on additional analysis (presented in table 8), there is no consistent evidence that new recipients are more or less likely than existing cases to need a replacement card.

Based on EBT summary statistics, the leading cause for a replacement EBT card is loss of the previous card, followed by damage to the card. Less than 10 percent of replacement cards are issued because the previous card has been stolen from the recipient.

The impact of the waiver extending time for card replacement will vary, depending on how much time is needed to deliver the card and when during the monthly benefit issuance cycle the new card is needed. This timing is important because prior research has shown that most food stamp benefits are redeemed within the

first week after they are issued. If a card is lost, stolen, or damaged within a week of benefit issue, there is high likelihood that the recipient has benefits remaining in the account that cannot be accessed until a new card is in hand. In contrast, if an EBT card is lost, stolen, or damaged later in the cycle when few benefits are left (but not just before the next benefits are issued), waiting a few extra days for mail delivery of the replacement card may not impose a burden.

The third row of table 7 shows that, on average, EBT cards are reported as lost, stolen, or damaged about 2 weeks after benefit issue. Indeed, reports are close to being evenly distributed throughout the benefit month, with only a slightly greater likelihood of occurring in the first 2 weeks (table 9). This means that over a quarter of all reports of lost, stolen, or damaged cards occurs within a week after benefit issuance, when most food stamp recipients have the greatest need for their benefits.

The last line of table 7 shows the average number of days that elapse between the reporting of a lost, stolen, or damaged card and activation of the replacement card. In Louisiana, where all recipients must go to the office to pick up the replacement, new cards are activated, on average, within 1.3 days of the reported loss.[8] The average duration in Minnesota is 1.2 days, reflecting the fact that, based on the survey data, 86 percent of Minnesota recipients needing a replacement card choose to go to the office to pick it up, avoiding the wait for mail delivery. In contrast, an average of 7.2 days elapses in Alabama before a replacement card arrives in the mail and is activated through a phone call to customer service.

Table 10 shows the data underlying estimation of the time spent and out-of-pocket costs incurred to obtain a replacement EBT card in each State. Nearly all recipi-

[8]Comparable data are not available for Pennsylvania, the other nonwaiver State.

**Table 8—Monthly probability of needing a replacement card**

| Recipients | Total waiver | Total nonwaiver | Waiver States | | Nonwaiver States | |
|---|---|---|---|---|---|---|
| | | | Alabama | Minnesota | Louisiana | Pennsylvania |
| | | | *Percent* | | | |
| New entrants | 3.6 | 3.7 | 2.4 | 4.9 | 3.9 | 3.6 |
| Existing cases | 4.3 | 3.1 | 2.6 | 6.1 | 4.2 | 1.9 |
| All cases | 4.2 | 2.8 | 2.5 | 5.9 | 3.9 | 1.7 |

Notes: Results for new entrants based on survey responses and elapsed time between initial card issuance and interview. Results for all cases are taken from November 1999 data. Results for existing cases are derived from the above data and the percentage of cases in November 1999 that were new entrants.

**Table 9—When card holders (all cases) reported EBT card as lost, stolen, or damaged**

| Point in benefit cycle | Total waiver | Total nonwaiver | Waiver States | | Nonwaiver States | |
|---|---|---|---|---|---|---|
| | | | Alabama | Minnesota | Louisiana | Pennsylvania |
| | | | *Percent* | | | |
| Within 5 days of receiving monthly food stamp benefits | 25.6 | 29.6 | 27.0 | 24.3 | 29.6 | NA |
| Between 6 and 10 days after benefit receipt | 14.0 | 14.5 | 13.5 | 11.5 | 14.5 | NA |
| Between 11 and 15 days after benefit receipt | 10.8 | 10.8 | 11.8 | 9.9 | 10.8 | NA |
| More than 15 days after benefit receipt | 46.4 | 45.1 | 47.7 | 54.3 | 45.1 | NA |
| | | | *Number* | | | |
| Sample size | 10,787 | 13,595 | 1,385 | 9,402 | 13,595 | NA |

Notes: Table entries are based on supplementary EBT data from November and December 1999.
NA = Not available.
No significance tests were performed because the data do not represent a sample

ents in Louisiana and Pennsylvania went to the office to pick up replacement cards, whereas all Alabama respondents to the survey said they received their cards in the mail. As noted before, 86.0 percent of Minnesota respondents went to the office to pick up their cards. The last row of table 10 shows that Alabama recipients spent no time and incurred no costs in waiting for mail delivery of their cards, whereas recipients in the nonwaiver States spent an average of 1.43 hours and $8.49 in lost wages and out-of-pocket expenses to obtain their cards.[9] The figures for Minnesota fall between the Alabama and nonwaiver State estimates, reflecting the choice Minnesota recipients had between mail delivery and traveling to the office to pick up their cards.

[9]As with earlier estimates for costs associated with training trips, these burden and cost estimates factor in those recipients who did not travel to the office to pick up their card, and the estimates discount the costs of multipurpose trips by 50 percent.

## Satisfaction with EBT Card

Difficulties with PIN use and the EBT system do not appear to affect recipients' satisfaction with their EBT cards. When asked how satisfied they were with their card, an average of 79.7 percent of new food stamp recipients in the waiver States said they were "very satisfied," compared with an average of 83.5 percent of new recipients in the nonwaiver States (table 11). An additional 15.9 percent of recipients in the waiver States, and 12.4 percent of recipients in the nonwaiver States, said they were "somewhat satisfied." The distribution of respondents satisfied with the EBT card is similar within the groups of vulnerable and nonvulnerable recipients.

These responses are all the more informative because the survey question about card satisfaction was asked near the end of each interview, after respondents had answered questions about problems with their PIN or with system use. Even after having their attention directed toward possible recent problems using their EBT cards, recipients in both the waiver and nonwaiver States expressed a great deal of satisfaction with the cards.

**Table 10—Card replacement burden and cost**

| Burden/cost | Total waiver | Total non-waiver | Waiver States | | Nonwaiver States | |
|---|---|---|---|---|---|---|
| | | | Alabama | Minnesota | Louisiana | Pennsylvania |
| Survey respondents going to local office to pick up replacement card (percent) | 43.0 | 99.4 | 0.00 | 86.0 | 98.9 | 100.0 |
| Average time per trip (hours) | 1.09 | 1.52* | – | 1.09 | 1.45 | 1.60 |
| Average cost per trip (dollars) | 6.04 | 17.59 | – | 6.04 | 13.22 | 21.95 |
| Respondents conducting other business during trip (percent) | 7.3 | 13.0 | – | 7.3 | 9.8 | 16.2 |
| Average time per recipient (hours) | .44 | 1.43** | 0.00 | .88 | .37 | 1.48 |
| Average cost per recipient (dollars) | 1.02 | 8.49 | 0.00 | 2.04 | 3.23 | 13.76 |

†Difference between this and the entry immediately to the left is significant at the 0.10 level.
*Difference between this and the entry immediately to the left is significant at the 0.05 level.
**Difference between this and the entry immediately to the left is significant at the 0.01 level.
– = Undefined.

**Table 11—Recipient satisfaction with EBT card**

| Degree of satisfaction | All new recipients | | Vulnerable new recipients | | Nonvulnerable new recipients | |
|---|---|---|---|---|---|---|
| | Waiver | Non-waiver | Waiver | Non-waiver- | Waiver- | Non-waiver |
| | | | *Percent* | | | |
| Very satisfied | 79.7 | 83.5 | 73.3 | 88.1 | 81.2 | 82.7 |
| Somewhat satisfied | 15.9 | 12.4 | 21.6 | 7.9 | 14.6 | 13.2 |
| Neither satisfied nor dissatisfied | 1.6 | 1.5 | 2.4 | .2 | 1.4 | 1.8 |
| Somewhat dissatisfied | 1.6 | 1.2 | .8 | .4 | 1.8 | 1.4 |
| Very dissatisfied | 1.2 | 1.4 | 2.0 | 3.4 | 1.0 | .9 |

Note: For all new recipients, chi-squared tests show no significant difference between waiver State and nonwaiver State distribution of recipients' satisfaction with their EBT cards. Similarly, there is no significant difference between the waiver State and nonwaiver State distribution of nonvulnerable recipients' satisfaction. The distributions for the vulnerable recipients are significantly different at the 0.05 level.

## Conclusions

After examining a variety of data sources and outcome measures, this study of EBT customer service waivers reports the following main findings:

- First and foremost, the implementation of customer service waivers does not affect recipient satisfaction with EBT cards. The high level of satisfaction with the cards voiced in all four States suggests that most problems associated with the waivers are either transitory or perceived by most recipients to be relatively minor.
- Notwithstanding recipients' overall satisfaction with EBT, the PIN selection waiver does appear to cause some new food stamp recipients to have more difficulties using the EBT system than new food stamp recipients in nonwaiver States. Furthermore, the difficulties are more prevalent among elderly or disabled recipients. Over time, however, the prevalence of PIN-related problems in the waiver States declines, presumably because recipients memorize their assigned PIN or request a more easily remembered PIN.
- The hands-on training waiver changes how States conduct EBT training, but perhaps not to the degree originally thought. Alabama and Minnesota still provide some in-person training. With the waiver, however, some recipients do not have to go to the food stamp office for training, and this leads to a reduction in overall average time and out-of-pocket costs for training.
- Offsetting the savings in time and money costs associated with the hands-on training waiver, system-use problems are more prevalent in the waiver States than in the nonwaiver States.
- The waiver extending card replacement time allows States to mail replacement cards rather than having recipients come to the local food stamp office to pick them up. This reduces the overall average time and out-of-pocket costs recipients incur to obtain replacement cards. It also, however, extends the period in which recipients do not have an EBT card and cannot access their benefits. Data from Minnesota suggest that, when given the choice, most recipients would prefer to get their replacement card immediately, even if that means a separate trip to the office.

Of all the conclusions of the study, perhaps the most important is that implementation of the customer service waivers does not affect recipients' satisfaction with their EBT cards. FNS may therefore want to reexamine the usefulness of the customer service protections in the current regulations. As documented in this study, however, the customer service waivers can cause problems for some food stamp recipients. Any new EBT regulations, therefore, should seek to incorporate measures to minimize or alleviate such problems. One example would be to make it very easy for recipients to change their assigned PIN and for training materials to be quite explicit about how this can be done. Another example would be, where feasible, to give recipients the choice of receiving a replacement card in the mail or going immediately to the food stamp office to pick it up.

Finally, we note that it was beyond the scope of this study to examine the potential impacts of the EBT customer service waivers on other food store customers (food stamp and non-food stamp customers alike). If the waivers cause confusion at checkout for food stamp recipients, then other customers will be affected by having to wait in line longer for their groceries to be rung up. The study's results suggest that, although the customer service waivers cause problems in some instances, the impacts on other customers are likely to be small. The main reason for this conclusion is that the waivers will affect only a small percentage of food stamp clients at any given time. The impacts are expected to be confined mostly to new food stamp recipients, and the evidence indicates that only a subset of all new recipients, those who are elderly or disabled, are most likely to be affected by the waivers. As new food stamp recipients get accustomed to using the EBT system, their problems at the checkout counter should diminish.