

Summary

In 2003, 13 million households redeemed food stamp benefits using the Electronic Benefit Transfer (EBT) system. Their EBT purchases accounted for 91 percent of the benefits used that year, and provide a rich resource for understanding redemption and shopping patterns among food stamp participants. Regardless of state or region of residence, community characteristics, and household composition, most food stamp recipients used the EBT system frequently and spent their benefits quickly, leaving little unspent at the end of each month. Households averaged nearly eight transactions per month, mostly small purchases of less than \$25. Purchases were distributed evenly across days of the week and months of the year, but tapered off over weeks in the monthly issuance cycle. Most households redeemed their benefits in supermarkets and in the same state where their benefits were issued.

With only a few exceptions, there is relatively little variation in these patterns across states and regions. Only modest change in redemption patterns over time is apparent (although historical comparisons are limited). There is greater variation across different types of households, but these differences appear to be related to the size of the household benefit as much as the characteristics of the household.

Background

EBT was introduced to the Food Stamp Program in 1984 with a demonstration in Reading, Pennsylvania. In EBT systems, recipients authorize transfer of their food stamp benefits to a retailer account to pay for food. They make purchases using a plastic card, similar to a bank debit card, at point-of-sale terminals in authorized stores. Since 2004, all food stamp benefits have been issued through EBT. The nationwide expansion of EBT – by providing a record of the time, place, and amount of every household transaction – enables a more complete and detailed description of food stamp shopping patterns than was ever before possible.

To realize this potential, the Food and Nutrition Service (FNS) contracted with Abt Associates to assemble the data necessary to address two primary research objectives:

- Describe how participants redeem their food stamp benefits – including the number and types of stores used, the timing and amount of purchases over the course of a month, the frequency of benefit exhaustion, and the amount of benefits carried over into following months; and

- Identify differences – if any – in redemption patterns across states, regions, and demographic groups.

The project is unique in two important respects. It is the first to use data from all 50 states, the District of Columbia, and the Virgin Islands to compile a national profile of EBT transactions and shopping patterns.¹ It is also the first to link individual EBT transactions to detailed characteristics of the household that made the purchase. These extensions of previous research were made possible by three unique data sets compiled specifically for this project (see Cole and Lee (2005) for more detail):

- An extract from ALERT containing all EBT transactions nationwide during fiscal year 2003 that was linked with STARS data on retailer characteristics;²

¹ An earlier FNS-sponsored project examined redemption patterns using September 1993 data from the statewide EBT demonstration in Maryland (Cole 1997).

² ALERT is the acronym for the Anti-Fraud Locator for EBT Redemption Transaction system. ALERT files contain one record for each transaction initiated

- A matched file of households in the food stamp quality control sample and the transactions in ALERT. This match enables an examination of redemption patterns among households with different characteristics (with children, elderly members, or earnings, for example);³ and
- Samples of approximately 10,000 food stamp households per state and month drawn from the full ALERT file. These data were used to provide state-level estimates of benefit exhaustion.

The 13 million households who redeemed their food stamp benefits electronically in fiscal year 2003 made over 750 million separate purchase transactions. These purchases represent more than \$19 billion and 91 percent of all food stamp redemptions.⁴ This summary presents an analysis of these transactions for the Nation as a whole. Detailed tables by state and household characteristic can be found in Cole and Lee (2005).

by an EBT cardholder. State agencies, through their EBT vendors, are required to submit EBT transaction data to the ALERT system every month. The Store Tracking and Redemption Subsystem (STARS) is used by FNS for store authorization, monitoring, and investigation. It was used to identify the type and location of the store in which each purchase transaction occurred.

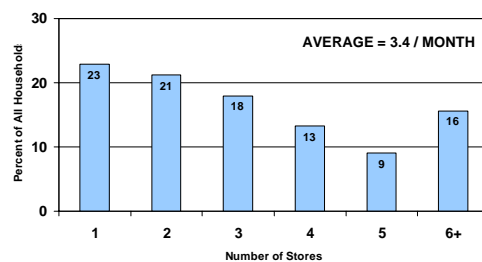
³ It was not possible to match the quality control sample with the ALERT files in 7 states (California, Delaware, Guam, Iowa, New Mexico, Ohio, and Pennsylvania), and it was not always possible to establish a match for every case in the quality control sample in the remaining states. Nevertheless, 80 percent of the full quality control sample was matched to the ALERT files, representing 77 percent of nationwide food stamp caseload.

⁴ Seven state agencies (California, Delaware, Iowa, Maine, Mississippi, West Virginia, and the Virgin Islands) were still delivering paper coupons in some months of fiscal year 2003. These coupons account for the remaining 9 percent of food stamps redeemed that year.

Findings

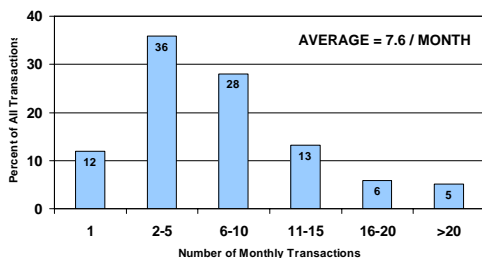
- **Most households shopped in more than one food store each month.** Only 23 percent of all food stamp households visited a single store; over three-quarters shopped at more than one. On average, food stamp households shopped at a little over three stores per month.

Figure 1: Participants Visit Multiple Stores



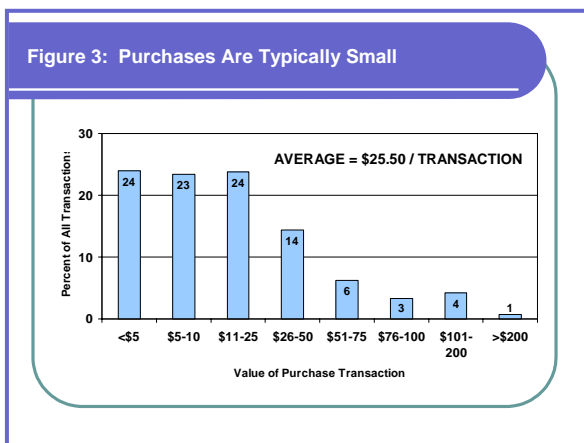
- **Food stamp participants make multiple purchases each month.** Households averaged nearly eight food purchases per month. About 12 percent made just one purchase per month, and 5 percent made 20 or more. The average number of monthly purchases is related to the amount of the household benefit, increasing as allotments go up. Households receiving the minimum food stamp benefit (\$10) made an average of just over one purchase each month. In contrast, those receiving the maximum

Figure 2: Participants Make Multiple Purchases



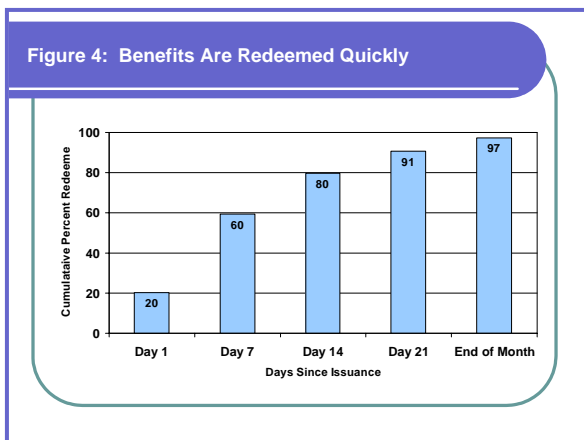
benefit for their family size averaged slightly more than nine purchases.

- Purchases are typically small.** The average purchase amount was about \$25.50. Just over 71 percent of EBT purchases were \$25 or less; almost half of the purchases were \$10 or less. Average purchase amounts decreased as the size of the



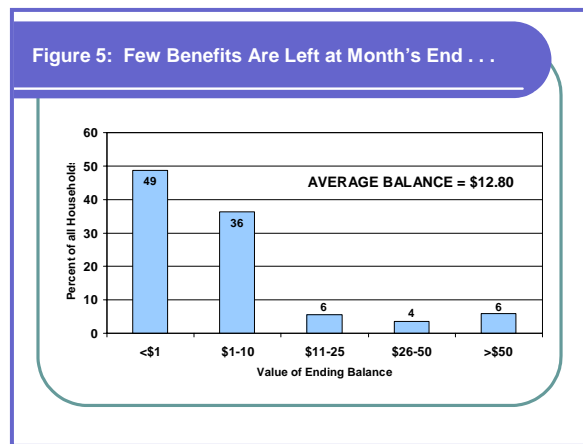
monthly benefit got smaller: the average purchase transaction among households who redeemed more than \$300 per month was about \$32; the average among those who redeemed less than \$25 was \$7.

- Food stamp participants use their benefits quickly and have little left at the end of a month.** Most households (63 percent) used more than half of their benefits within 1 week of issuance. Over half (56 percent) used more than 90 percent of their benefits within 2 weeks. About 80 percent of all



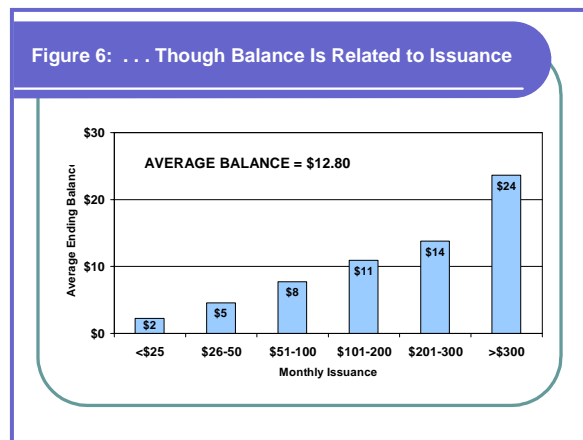
benefits were redeemed within 2 weeks of issuance, and 97 percent were redeemed by the end of the month.

Few households (15 percent) had a significant EBT account balance (more than \$10) at the end of the month. The average balance for all households was about \$12.80, while almost 49 percent of households had less than \$1 remaining. The average value of remaining benefits increased with the amount of benefits received. Households



with a monthly benefit of more than \$300 had an average balance of almost \$24, while those with an allotment of \$25 or less had a balance of about \$2.

- The frequency of food stamp purchases varies by week within a month, but does not vary much by day of the week or month of the year.** During a calendar month, the proportion of purchases peaked



in week two at 31 percent and reached a low of about 20 percent during week four. The percentage of total transactions that occurred on any given day of the week ranged from 13 percent to 15 percent. The share of purchase transactions in any given month of the year ranged from 7 percent to 8 percent.

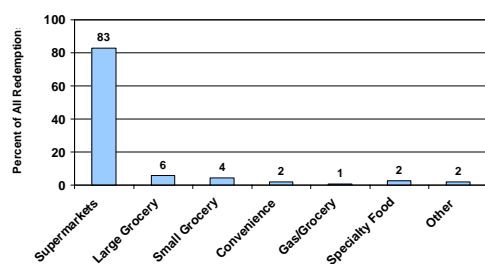
- **Very few households make no food purchases from their EBT account.** Only 7 percent of all households had any months of inactivity. For most of these households, inactivity was limited to just a single month: less than 1 percent of all households had consecutive months of inactivity. Inactivity was more likely among households with small benefits. Among those receiving \$25 or less, almost 26 percent were inactive at least once during the year.
- **Most food stamp benefits are redeemed at supermarkets.** Supermarkets generally provide the widest range of high-quality foods at reasonable prices. Although access to supermarkets may be limited in some areas, most low-income shoppers redeem most of their food stamp benefits in supermarkets. Supermarkets accounted for over 64 percent of all EBT transactions and 83 percent of the total value of EBT purchases. Large and small grocery stores accounted for about 8 to 10 percent of EBT transactions and 4 to 6 percent of the total value of benefits redeemed.

Over 46 percent of food stamp households shopped exclusively at supermarkets; less

than 6 percent never shopped at supermarkets. Use of supermarkets varied with benefit size: households with monthly allotments of \$25 or less redeemed a smaller proportion (77 percent) of their benefits in supermarkets, and more of them (21 percent) never used supermarkets.

- **Most food stamp participants redeem benefits in the same state they were issued.** To provide recipients with the same flexibility they enjoyed with paper coupons, EBT systems must be interoperable – that is, participants must be able to use their electronic benefits across state lines. Few recipients took advantage of this flexibility – slightly more than 3 percent of all households made purchases out of state. The District of Columbia was the major exception with about 57 percent of its food stamp households making out-of-state transactions. It is likely that many residents may find it more convenient to shop in neighboring states given the District’s small size and proximity to Maryland and Virginia.
- **EBT redemption patterns have not changed dramatically over time.** A historical comparison can be made for Maryland, the first statewide EBT system. Food stamp households in Maryland made approximately 10 purchase transactions each month in 1993 (Cole 1997), and an average of about 7 purchases in 2003. There was a slight increase in the average purchase amount from \$17.65 in 1993 (\$22.75 after adjusting for inflation) to about \$25.90 in 2003. A majority of food stamp benefits were used at supermarkets in both years, although the amount redeemed at supermarkets increased from about 73 percent in 1993 to 82 percent in 2003.
- **There is relatively little variation in shopping patterns across states and regions.** The average number of monthly purchases generally ranged from 5 to 9 per household in most states (although the average in Hawaii was nearly 13). Purchase amounts averaged between \$20 and \$30

Figure 7: Most Benefits Are Redeemed in Supermarkets



(although the averages in Alaska and the Virgin Islands were more than \$36). Average unspent issuance at the end of a month generally ranged from \$3 to \$7 (with higher balances in Alaska, Hawaii, Nevada, and the Virgin Islands).

Although there is more variability in the percent of benefits redeemed in supermarkets -- from 64 percent in New York to 91 percent in Wyoming -- supermarkets were the most common point of redemption in every state. More than 78 percent of all food stamp benefits were redeemed at supermarkets in every region except the Northeast. In that region, 68 percent of benefits were redeemed in supermarkets. Participants in the Northeast were also more likely to never shop at supermarkets (10 percent compared to a national average of 5 percent). These patterns may be attributed to the relatively large number (39 percent) of small grocers among authorized retailers in the Northeast.

- **Shopping patterns do not vary substantially across selected community characteristics.** The average number and amount of purchases among households in counties with persistent poverty mirrored the national averages at about eight transactions and \$27 per month. The percentage of households with no supermarket redemptions was slightly higher in areas with persistent poverty (6 percent) than in areas without persistent poverty (5 percent). Households living in counties with persistent poverty carried a somewhat lower balance from one month to the next (\$11) than households living in counties without persistent poverty (\$13).

Similarly, the data show little difference in the redemption patterns of urban, suburban, and rural households. The average number of monthly purchase transactions ranged from seven to eight, the average purchase was approximately \$28, about 80 to 85 percent of all benefits were spent in

supermarkets, and end-of-month account balances averaged between \$12 and \$13 for households in all three areas.

- **Where shopping patterns vary across household characteristics, they appear to reflect the differences in benefit amount associated with features of household composition.** Households with higher benefits shopped in more stores, made a larger number of purchases, and made larger average purchases. These households tended to be larger, included children, and received Temporary Assistance for Needy Families (TANF) or had earnings. While there was no discernable relationship between the size of the benefit and the rate at which it was exhausted, households that received the minimum benefit had smaller end-of-month account balances and were more likely to experience months of account inactivity than households with larger benefits. These households were also smaller, less likely to include children, and more likely to include an elderly member. The race of household head had no consistent relationship to shopping patterns.

References

- Cole, Nancy and Ellie Lee (2005). *Analysis of EBT Benefit Redemption Patterns: Methods for Obtaining, Preparing, and Analyzing the Data*. Report prepared by Abt Associates for the Food and Nutrition Service, USDA.
- Cole, Nancy (1997). *Evaluation of the Expanded EBT Demonstration in Maryland: Patterns of Food Stamp and Cash Welfare Benefit Redemption*. Report prepared by Abt Associates for the Food and Nutrition Service, USDA.

This summary was prepared by Carol Olander, Erika Jones, and Steven Carlson, Office of Analysis, Nutrition, and Evaluation. References are available on-line at www.fns.usda.gov/oane.

Table 1: EBT Transactions by Community Characteristics: 2003

	Average number of stores per household	Average number of monthly transactions	Average purchase amount	Percent re-deemed in supermarkets	Percent never shop at supermarkets	Percent re-deemed within 2 weeks	Average ending balance	Percent with consecutive inactive months
All households	3.3	7.6	\$27.90	82.1%	5.4%	80.5%	\$13.16	0.7%
Population density								
Metropolitan areas	3.5	7.8	27.83	82.0	5.2	80.2	13.24	0.7
Suburban areas	3.0	7.3	28.12	85.4	4.4	81.0	13.15	0.6
Rural areas	2.7	7.0	27.93	80.4	7.7	81.8	12.03	0.7
Persistent poverty								
Yes	3.5	8.2	26.84	81.5	6.2	83.1	11.48	0.3
No	3.3	7.6	28.02	82.3	5.2	80.2	13.29	0.8

Source: Matched Food Stamp Quality Control-ALERT file.

Note: Because these tabulations are based on a sub-sample of all EBT transactions, the values reported in table may not match values reported in figures.

Table 2. EBT Transactions by Household Characteristics: 2003

	Average number of stores per household	Average number of monthly transactions	Average purchase amount	Percent re-deemed in supermarkets	Percent never shop at supermarkets	Percent re-deemed within 2 weeks	Average ending balance	Percent with consecutive inactive months
All households	3.3	7.6	\$27.90	82.1%	5.4%	80.5%	\$13.16	0.7%
With children	4.0	9.7	31.53	83.1	2.4	80.9	15.64	0.1
With elderly	2.2	4.6	19.16	78.7	8.8	74.2	13.04	2.1
With earnings	3.6	8.6	29.82	84.0	3.5	79.4	15.28	0.2
With TANF	4.3	10.2	31.00	81.6	2.5	82.8	14.65	0.0
Food stamp benefit								
\$10 or less	1.2	1.6	8.84	79.8	16.8	78.7	1.99	6.5
\$11-100	2.0	3.5	19.16	83.3	9.0	81.9	6.53	1.2
\$101-200	3.2	7.0	23.10	80.1	5.4	81.4	11.89	0.3
\$201-300	4.0	9.4	29.34	83.3	2.0	81.4	15.08	0.0
\$301 or more	5.0	13.1	33.94	82.4	1.4	79.4	22.86	0.1
Minimum benefit	1.2	1.6	8.85	79.8	16.8	78.7	1.99	6.5
Maximum benefit	3.9	9.2	27.25	81.0	4.8	80.2	16.55	0.2
Household size								
1	2.5	5.0	19.91	78.5	8.9	78.9	10.31	1.4
2	3.4	7.3	26.78	83.3	4.2	81.0	11.86	0.4
3	4.0	9.5	30.56	83.4	2.3	80.5	15.54	0.1
4+	4.6	11.7	33.69	82.7	1.8	81.0	17.99	0.1
Race of household head								
White	2.9	6.9	27.70	85.6	4.9	78.0	15.43	0.9
African American	3.8	8.1	28.55	80.2	5.9	84.6	9.28	0.4
Hispanic	3.5	8.2	27.91	81.5	4.8	78.6	13.37	0.8

Source: Matched Food Stamp Quality Control-ALERT file.

Note: Because these tabulations are based on a sub-sample of all EBT transactions, the values reported in table may not match values reported in figures.

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