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# THE EXTENT OF TRAFFICKING IN THE FOOD STAMP PROGRAM:

## AN UPDATE

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Food and Nutrition Service  
U.S. Department of Agriculture

# **The Extent of Trafficking in the Food Stamp Program**

## **An Update**

### **EXECUTIVE SUMMARY**

Food stamps are intended for food. When individuals sell their benefits for cash it violates the spirit and intent of the Food Stamp Program as well as the law. This practice, known as trafficking, diverts food stamps away from their purpose. It reduces intended nutritional benefits and undermines public perceptions of the integrity and utility of the program. A crucial question, therefore, is the extent to which trafficking exists.

Several years ago, a method to calculate data-based estimates of the prevalence of trafficking was developed by USDA. *The Extent of Trafficking in the Food Stamp Program*\* used this method to analyze over 11,000 completed undercover investigations of trafficking and generate an estimate for calendar year 1993. This report duplicates the precise methodology of the earlier analysis with more than 10,000 new investigations to generate an estimate for the 1996 - 1998 calendar year period. We find that:

**The amount of trafficking has decreased** Stores trafficked about \$660 million per year for cash from the government in the 1996 - 1998 period, a 19 percent decline from the \$815 million trafficked in 1993.

**The rate of trafficking has also decreased** The trafficking *rate* – which compares dollars trafficked to benefits issued – declined 8 percent: from almost four cents of every dollar of food stamp benefits issued to three-and-one-half cents of every dollar issued.

**FNS concentrates its enforcement efforts on stores most likely to traffic.** In addition, the expansion of Electronic Benefit Transfer (EBT) – which had grown to half of all issuance during this period – makes certain forms of trafficking harder to conduct and large-scale trafficking easier to detect. For these reasons, **we find the largest reduction in the trafficking rate among the store categories most likely to traffic – privately-owned stores, especially small ones that do not stock a full line of food.**

**When we repeat our analysis of where store violations occur the overall pattern remains unchanged:**

- **Dramatic differences exist among store types:** the percent of redemptions that are trafficked ranged from nearly zero to over fifteen percent across store categories.

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\* Theodore F. Macaluso, *The Extent of Trafficking in the Food Stamp Program* (Alexandria, VA: Food and Nutrition Service, USDA; 1995).

- **The stores which redeem the overwhelming majority of food stamp benefits continue to have very low trafficking rates.**

### **Acknowledgments**

The author wishes to express his appreciation to the many individuals who contributed to this report. Richard Mantovani, Ph.D, Hoke Wilson and Tigran Markaryan at Macro International successfully compiled and merged the data summarized here, faithfully reproduced the original methodology, made thoughtful suggestions, and responded promptly to the author's numerous requests for additional information and analyses.

Steven Carlson, Director of the Family Programs Staff in the Office of Analysis, Nutrition and Evaluation (OANE), Food and Nutrition Service, provided guidance and commented thoughtfully on drafts of the text. Ken Offerman, also of OANE, managed the contractual support for the project, performed considerable legwork in tracking down data, and also commented thoughtfully on drafts. Finally, the staff of the Benefit Redemption Division of the Food Stamp Program provided many comments and corrections and helped to make this a comprehensive – and better – report.

# The Extent of Trafficking in the Food Stamp Program

## An Update

United States Department of Agriculture  
Food and Nutrition Service

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## INTRODUCTION

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Food stamps are intended for food. When individuals sell their benefits for cash it violates the spirit and intent of the Food Stamp Program as well as the law. This practice, known as trafficking, diverts food stamps away from their purpose. It reduces intended nutritional benefits and undermines public perceptions of the integrity and utility of the program. A crucial question, therefore, is the extent to which trafficking exists.

Several years ago, a method to calculate data-based estimates of the prevalence of trafficking was developed by USDA. *The Extent of Trafficking in the Food Stamp Program*<sup>i</sup> used this method to analyze over 11,000 completed undercover investigations of trafficking and generate an estimate for calendar year 1993.<sup>ii</sup> The report found that:

- About \$815 million was trafficked for cash from the government by food stores during 1993. This amounted to just under four cents of every dollar of food stamp benefits issued.
- Significant differences across types of food retailers existed: supermarkets had very low trafficking rates, non-supermarkets had substantially higher trafficking rates.
- The food stores which redeemed the overwhelming majority of food stamp benefits had very low trafficking rates.

This report updates the earlier analysis with more than 10,000 new investigations to generate an estimate for the 1996 - 1998 calendar year period. We continue to estimate three basic measures of trafficking:

1. the *amount of trafficking* (i.e., the total sum of dollars trafficked, which depends partly upon the total sum of benefits issued and partly upon the next measure, the rate of trafficking);
2. the *rate of trafficking* (the proportion of total benefits issued which were trafficked), and
3. the *store violation rate* (the proportion of all authorized stores that engage in trafficking).

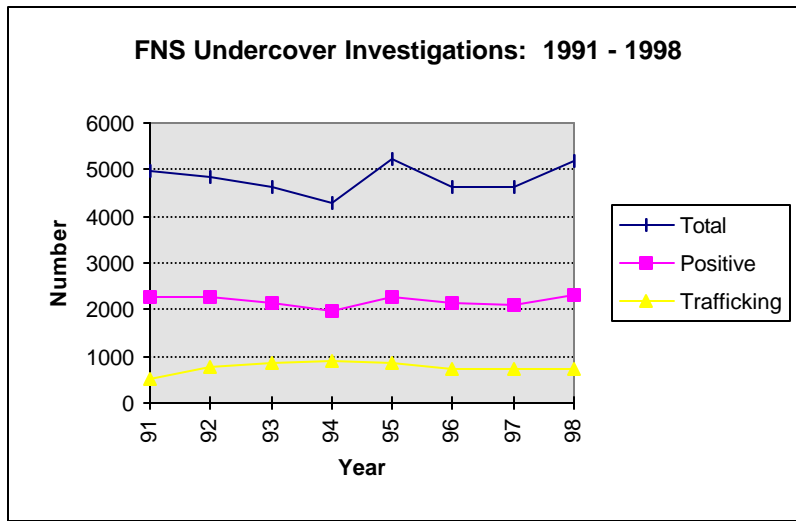
While all three measures are important for different purposes, the second measure – the rate of trafficking – is the one that provides an approximation of FNS’ relative success in controlling trafficking. The trafficking rate is independent of the size of the program (i.e., the total sum of benefits issued) or the relative market share of different types of retailers (which is not reflected in the store violation rate).

We undertook an update because there have been several significant developments which may affect each of these measures of trafficking. These developments include the following:

- *a 24 percent decline in food stamp caseload*: from 10.8 million households per month in 1993 to 8.2 million in 1998. The caseload decline resulted in an 11.3 percent decline in total benefits issued. This is likely to reduce the total dollar amount of trafficking (since total benefits issued decreased), but is unlikely – by itself – to change the trafficking rate (i.e., the proportion of benefits issued that are trafficked).<sup>iii</sup>
- *a 16 percent decline in the number of food retailers authorized to accept food stamps*: from about 210,000 in 1993 to 177,000 in 1998. The decline in participating retailers may change the store violation rate depending upon whether stores willing to traffic left the program at a faster (or slower) rate than non-trafficking stores. However the influence of this factor on changes in the rate of trafficking will depend upon two things: (i) whether trafficking-prone stores that remain on the program changed their trafficking activity; and (ii) whether food stamp participants choose to shop at trafficking-prone stores or not.
- *a 50 percent change-over from paper food coupons to electronic benefit transfer (EBT)*. The Personal Responsibility and Work Opportunities Reconciliation Act of 1996 mandates that all states convert from paper food stamp coupons to electronic benefit issuance by 2002. By September 1998 slightly more than half of all food stamp benefits were issued and redeemed electronically. Under EBT certain forms of trafficking are harder to conduct and large-scale trafficking is easier to detect. Therefore, we would expect its expansion to reduce the rate of trafficking (i.e., the proportion of benefits issued that are trafficked).<sup>iv</sup>

The combined effect of these developments is hard to predict. Fortunately, one additional factor that could affect results – the quality of FNS undercover investigations – appears to have remained stable: there has been no meaningful change in the quantity or quality of FNS investigations. The total number of investigations, the number in which *any* food stamp violation is disclosed (“positives”) and the raw number in which trafficking is found have each remained relatively constant from 1993 through 1998 (Chart 1).

Chart 1



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## APPROACH

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This update uses the same methodology as the earlier report to ensure consistent comparisons. The method focuses on authorized food retailers because all trafficking must eventually flow through a food retailer authorized to participate in the Food Stamp Program. The reason is obvious, but worth pointing out explicitly: *authorized food retailers are the only ones who can redeem food benefits for cash from the government.*<sup>v</sup>

*Because authorized food retailers are the only ones who can redeem food benefits for cash from the government, knowing the prevalence of trafficking among retailers tells us the maximum amount of dollars diverted from food benefits by trafficking for cash.*<sup>vi</sup>

The Food and Nutrition Service (FNS) maintains a staff of investigators who work undercover to determine whether authorized food stores sell ineligible items or engage in trafficking. Stores caught violating are fined or removed from the program and in some instances prosecuted.

For the update, we followed the same approach used in the earlier report:<sup>vii</sup>

- First, we sorted a database of 10,354 completed investigations across five specific dimensions that categorize store types and store locations.<sup>viii</sup>
- Second, for each specific category of store and location we compiled national data from calendar years 1996 through 1998 on the total number of stores and the total food stamp redemptions in that category.
- Third, we analyzed the investigation outcomes and calculated the weighted trafficking and store violation rates within each category.<sup>ix</sup> We weighted the investigation data to accurately represent the national figures.<sup>x</sup> We calculated two of our three measures: the trafficking rate, a redemption-based rate to reflect dollar diversions, and the store violation rate, a store-based rate to identify the kinds of stores that contain the most violators.
- Finally, we multiplied the redemption-based trafficking rate against the total food stamp redemptions in each category and summed across all categories to obtain the first of our three measures: the amount of trafficking, which provides an estimate of dollars diverted from food benefits by trafficking in the Food Stamp Program.<sup>xi</sup>

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## FINDINGS

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**About \$660 million per year was diverted from food benefits by trafficking between 1996 and 1998. This amounts to three-and-one-half cents of every benefit dollar issued** (Table 1).

Our methodology yields a cautious estimate that is likely to best represent the maximum dollars diverted from food benefits per year by direct trafficking in 1996-1998.

**Table 1 - Trafficking Continues to be Low Among Supermarkets and Large Grocery Stores But Substantially Higher Among Small Stores and Stores That Do Not Stock a Full Line of Food.**

Type of Store	1993			1996 - 1998		
	Store Violation Rate	Trafficking Rate	Estimated Trafficking Amount (\$000)	Store Violation Rate	Trafficking Rate	Estimated Trafficking Amount (\$000)
Supermarkets	4.2	1.7	\$282,058	5.3	1.9	\$279,163
Large Groceries	6.7	3.7	46,632	9.8	3.2	35,255
<b>Subtotal</b>	<b>5.0</b>	<b>1.9</b>	<b>\$328,690</b>	<b>6.7</b>	<b>2.0</b>	<b>\$314,418</b>
Small Groceries	12.8	15.7	177,809	14.4	15.8	154,109
Convenience	8.1	9.6	78,090	11.7	10.8	66,809
Specialty	17.6	14.2	117,004	10.7	8.1	55,782
Gas/Grocery	8.7	10.4	27,528	12.8	9.7	21,784
Other Types	10.2	12.4	82,605	16.2	9.4	43,892
<b>Subtotal</b>	<b>10.7</b>	<b>13.0</b>	<b>\$483,036</b>	<b>13.0</b>	<b>11.5</b>	<b>\$342,376</b>
<b>All Stores</b>	<b>9.4</b>	<b>3.8</b>	<b>\$811,726</b>	<b>11.7</b>	<b>3.5</b>	<b>\$656,794</b>

Notes: The 1996-1998 data have been annualized – see endnote 7.

Trafficking violation rates are calculated separately for stores and redemptions. The store violation rate is the percent of investigated stores caught trafficking weighted by the national distribution of *stores*. The trafficking rate is the percent of trafficked redemptions in investigated stores, weighted by the national distribution of *redemptions*. The apparent anomaly between the two rates – i.e., the store-based rate was higher in 6 of 7 store types while the redemption-based rate is lower both overall and in 4 of 7 store types – reflects the fact that the two rates measure different aspects of trafficking.



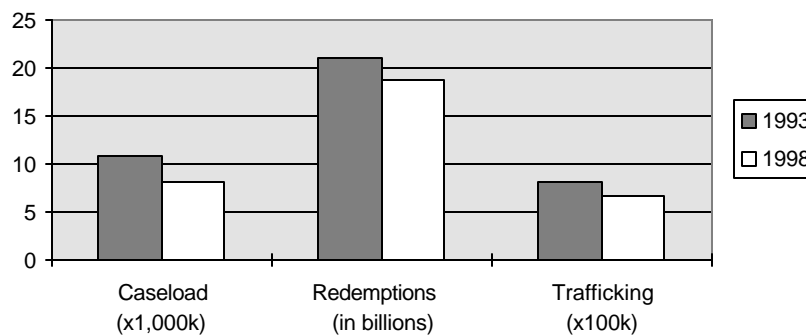
## TRAFFICKING AND CHANGE IN BENEFITS ISSUED

Compared to 1993, the 1998 figure represents a 19 percent decline in the dollar amount of benefits trafficked. As expected, we find a similarity among the changes in caseload, total redemptions, and the amount of trafficking (Chart 2):

**However, the decline in caseload and total redemptions is far from a complete explanation of changes over this period of time: we also find an 8 percent decline in the *rate* of trafficking, which is independent of benefits issued.** The trafficking rate decreased from 3.8 percent of benefits issued in 1993 to 3.5 percent of benefits issued in 1998 (Table 1).

Chart 2

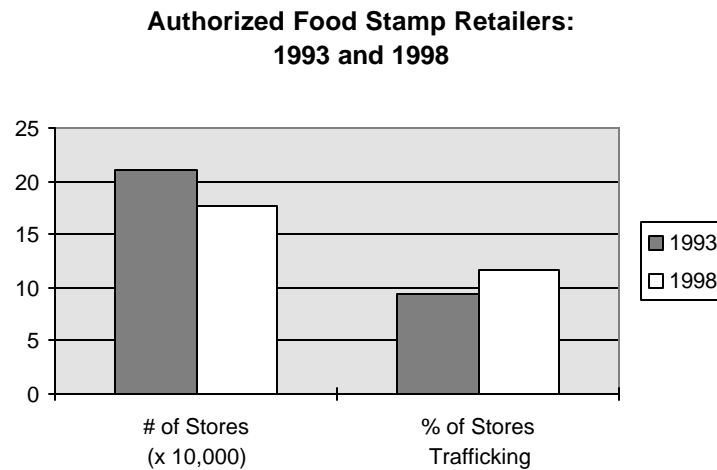
**Food Stamp Caseload and Dollar Amount of  
Trafficking: 1993 - 1998**



## **TRAFFICKING AND CHANGE IN THE AUTHORIZED RETAILER POPULATION**

The 16 percent decline in number of authorized retailers also does not appear to explain the improvement in the trafficking rate: we actually find an *increase* in the store violation rate between 1993 and 1998 (Table 1 and Chart 3).

Chart 3



## **TRAFFICKING AND TYPE OF FOOD RETAILER**

Part of the explanation for the improvement in the trafficking rate is to be found in two critical facts:

- (1) trafficking continues to vary by type of store;
- (2) stores that redeem the most, traffic the least.

Tables 1 and 2 show that:

- Supermarkets and large grocery stores redeemed 84 percent of all benefit dollars but few of those dollars are trafficked.
- In comparison to supermarkets and large grocery stores, trafficking rates among small stores and stores that do **not** stock a full line of food are 4 to 8 times higher.

**Table 2 - Distribution and Market Shares of Authorized Food Stamp Retailers.**

<b>Type of Store</b>	<b>1993</b>		<b>1996 - 1998</b>	
	<b>Percent of All</b>		<b>Percent of All</b>	
	<b>Stores</b>	<b>Redemptions</b>	<b>Stores</b>	<b>Redemptions</b>
Supermarkets	15.3	76.5	14.9	78.3
Large Groceries	6.9	6.0	7.0	5.8
<b>Subtotal</b>	<b>22.2</b>	<b>82.5</b>	<b>21.9</b>	<b>84.1</b>
Small Groceries	18.8	5.4	20.0	5.2
Convenience	27.7	3.8	26.8	3.3
Specialty	8.7	3.9	9.0	3.7
Gas/Grocery	10.3	1.2	11.9	1.2
Other Types	12.3	3.2	10.4	2.5
<b>Subtotal</b>	<b>77.8</b>	<b>17.5</b>	<b>78.1</b>	<b>15.9</b>
<b>All Stores</b>	<b>100.0<sup>a</sup></b>	<b>100.0<sup>b</sup></b>	<b>100.0<sup>c</sup></b>	<b>100.0<sup>d</sup></b>

Notes:

<sup>a</sup> Based on a total of 200,568 authorized food retailers redeeming at any point during 1993.

<sup>b</sup> Based on a total of \$21.1 billion.

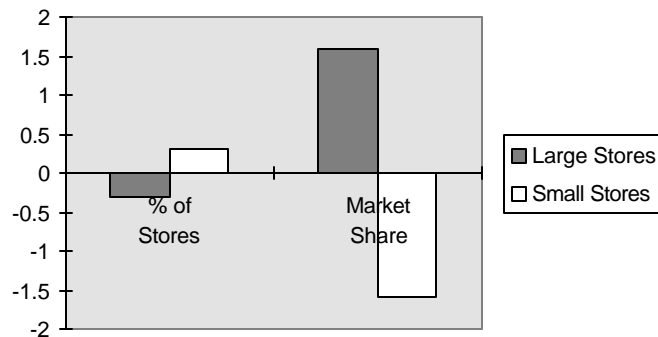
<sup>c</sup> Based on 237,824 unique food retailers redeeming at any point during the 1996-1998 period.<sup>xii</sup>

<sup>d</sup> Based on total of \$56.16 billion over the three years.<sup>xiii</sup>

Between 1993 and 1998 there was a modest increase in the relative market share of supermarkets and large grocery stores – the stores least likely to traffic (Chart 4).

Chart 4

Change in Retailer Population and Market Share: 1993 - 1998



Notes: Unlike earlier charts, in which each column was a different year (1993 or 1998), in this chart each column is *the difference* between the two periods. The “large store” category includes both supermarkets and large grocery stores; “small stores” are everything else. Market share is defined as the percentage of redemptions accounted for by the given category of store.

**Food retailers owned by public corporations (i.e., owned by a company whose stock trades publicly) continue to have lower trafficking rates than privately-owned stores** (Table 3). The public corporation category includes many of the major national supermarket chains, many convenience store chains, and many grocery marts associated with national gasoline retailers.<sup>xiv</sup>

- In 375 investigations of public corporations, FNS undercover investigators found trafficking involved about four percent of publicly-owned stores.
- Among privately-owned food retailers, FNS undercover investigators found trafficking in almost thirteen percent of stores.

**Table 3 - Publicly-Owned Food Retailers Display Low Trafficking Rates; Privately-Owned Retailers, Especially Non-Supermarkets, Are Substantially More Likely to Engage in Trafficking.**

Type of Store	Trafficking When Store is Publicly-Owned				Trafficking When Store is Privately-Owned			
	Store Violation Rate		Trafficking Rate		Store Violation Rate		Trafficking Rate	
	1993	1998	1993	1998	1993	1998	1993	1998
Supermarkets	0.0	4.7 <sup>a</sup>	0.0	3.0 <sup>a</sup>	5.4	5.7	2.6	1.3
Large Groceries	0.0	0.0	0.0	0.0	6.8	9.9	3.8	3.3
Other Types (small groceries, convenience stores, gas/grocery, specialty foods, etc.	1.7	4.3	1.8	4.6	12.0	14.0	15.1	12.3
All Stores	1.2	4.4	0.2	3.0	10.7	12.7	5.3	3.7

**Notes:** <sup>a</sup> See endnote<sup>xv</sup>

Trafficking violation rates are calculated separately for stores and redemptions. The store violation rate is the percent of investigated stores caught trafficking weighted by the national distribution of *stores*. The trafficking rate is the percent of trafficked redemptions in investigated stores, weighted by the national distribution of *redemptions*.

**The store categories most likely to traffic continue to be small privately-owned stores and privately-owned stores that do not stock a full-line of food (Table 4):**

- Among these stores more than 1 of every 8 benefit dollars redeemed was trafficked.
- While these categories account for about 71 percent of all stores they account for only 14 percent of all redemptions.

**Table 4 - Small Privately-Owned Stores Have the Highest Trafficking Rates But Redeem Only 14 Percent of All Benefits Issued**

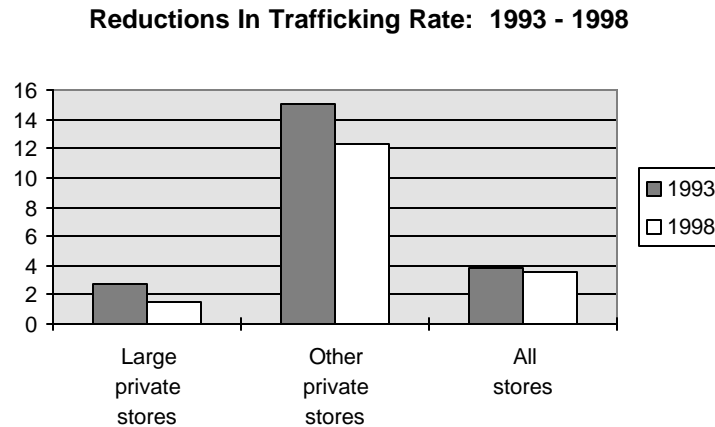
Category of Store	Trafficking Rates (Redemptions)		Percent of All Stores		Percent of All Redemptions	
	1993	1998	1993	1998	1993	1998
Publicly-Owned Stores	0.2	<sup>a</sup>	12.8	12.8	28.0	30.0
Large Private Stores	2.7	1.5	17.2	16.5	56.2	55.8
Private - other stores	15.1	12.3	70.0	70.7	15.8	14.2
All stores	3.8	3.5	100.0	100.0	100.0	100.0

<sup>a</sup> See endnote 15.

## **TRAFFICKING, FNS ENFORCEMENT AND EBT**

FNS concentrates its enforcement efforts on stores most likely to traffic. In addition, the expansion of Electronic Benefit Transfer (EBT) makes certain forms of trafficking harder to conduct and large-scale trafficking easier to detect. For these reasons, it should not be surprising that **we find the largest reduction in the trafficking rate among the store categories most likely to traffic – privately-owned stores, especially small ones that do not stock a full line of food** (Chart 5).

Chart 5



## **TRAFFICKING AND STORE LOCATION**

The 1993 report examined the prevalence of trafficking by neighborhood and found that trafficking is more frequent among stores located in the poorest of poor neighborhoods. The 1993 report also found only a mild relationship between trafficking rates and a store's location in an urban neighborhood. These two findings continued to be true in the 1996 - 1998 period.

**Stores in the poorest of poor neighborhoods continue to be more likely to engage in trafficking than stores located elsewhere, although the difference between rich and poor neighborhoods has decreased somewhat** (Table 5). Few recipients are likely to sell food stamp benefits for less than they can buy in food, unless the need for cash is overwhelming. It is no surprise, therefore, to find that **the rate of trafficking (i.e., proportion of benefits trafficked) continues to vary widely by the economic status of neighborhoods**.

**Table 5 - Trafficking is More Frequent in the Poorest of Poor Neighborhoods.**

Percent of Households in Poverty in Zip Code Where Store is Located:	Trafficking Rates:				Percent of All			
	Store Violation Rate		Trafficking Rate		Stores		Redemp- tions	
	1993	1998	1993	1998	1993	1998	1993	1998
0 to 10%	4.6	9.5	1.7	2.0	30.3	26.5	27.2	23.2
11 to 20%	8.7	10.7	4.1	3.1	38.9	40.5	38.9	40.1
21 to 30%	13.0	13.2	3.8	3.3	20.1	20.5	20.1	21.6
over 30%	19.2	16.8	7.6	7.1	13.8	12.4	13.8	15.1
<b>All Stores</b>	<b>9.4</b>	<b>11.7</b>	<b>3.8</b>	<b>3.5</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Although some urban areas are widely perceived as having more crime than rural areas, we found only a mild relationship between the *trafficking rate* and urbanicity. The Bureau of the Census classifies zip codes by the urban/rural percentage of residents in the zip code. The trafficking rates by urban/rural percentage in the zip code in which a store is located show a modest increase in highly urban areas (Table 6).

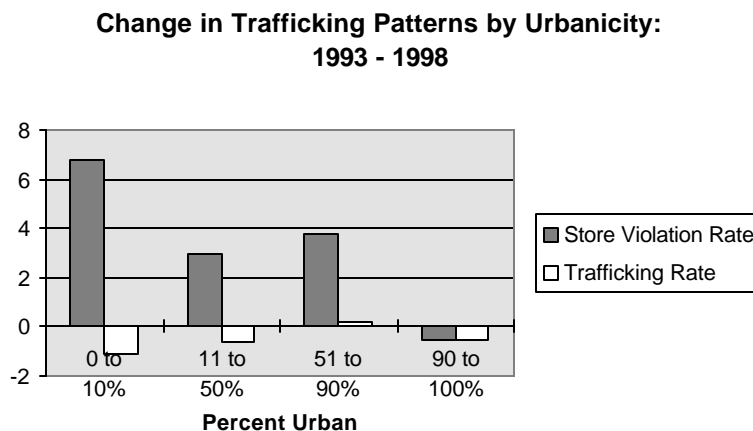
**Table 6 - The Trafficking Rate Is Slightly Higher In Highly Urban Areas.**

Stores Located in Zip Codes  Where Percent Urban is:	Trafficking Rates:			
	Store Violation Rate		Trafficking Rate	
	1993	1998	1993	1998
0 to 10%	6.1	12.9	3.5	2.4
11 to 50%	8.6	11.6	3.1	2.5
51 to 90%	7.1	10.9	2.8	3.0
90 to 100%	12.1	11.6	4.4	3.9



While trafficking rates remain low and do not vary sharply by urbanicity, between 1993 and 1998 we find a large increase in the store violation rate in rural and lower-urban areas (Chart 6). Table 5 indicates a similar increase in the store violation rate outside of the poorest areas. The reason for these changes in store behavior is unknown.<sup>xvi</sup>

Chart 6



#### Stores in low trafficking areas continue to redeem the majority of food stamp benefits.

- Twelve percent of the nation's authorized food retailers are located in high poverty/high trafficking areas, 88 percent are located in lower poverty/low trafficking areas.
- Eighty-five percent of redemptions flow through stores located in neighborhoods where less than 30 percent of the population is below poverty.

## **CONCLUSION AND IMPLICATIONS FOR PROGRAM INTEGRITY**

**The rate of trafficking has decreased over this period.** Although the data available are not sufficient to determine causality, the direction and nature of the decrease are consistent with two facts:

- **The stores which redeem the majority of food stamp benefits continue to be stores with the lowest trafficking rates. Overall, 84 percent of food stamp benefits are redeemed in store categories with the *lowest* rates of trafficking.**
- **Electronic Benefit Transfer accounted for over half of all issuance during the measured period.**

EBT has expanded even more since these data were collected and it now represents over seventy percent of all food stamp issuance.

Finally, during this period the store violation rate increased in rural and lower-poverty areas. While this change should be monitored, its significance is muted by the fact that the proportion of benefits trafficked in such areas (the rate of trafficking) is low.

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## TECHNICAL DISCUSSION

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When we look at additional considerations that bear on trafficking, we find two factors which would tend to increase our estimate and two others that would tend to decrease it. It is important to discuss each of these additional considerations explicitly.

### SOURCES OF UNDERESTIMATION

1. Our procedure underestimates two aspects of the trafficking problem. The first aspect leading to underestimation is **evasion trafficking**:
  - Among small retailers that are family-owned or where ownership is closely-held, some violators do not redeem coupons for cash from the government (direct trafficking) but buy food stock for resale from large stores with trafficked coupons (a form of tax evasion we label "evasion trafficking"). Evasion trafficking is a gray area, since the practice does not necessarily involve discounting: a small firm makes an illicit profit at the least risk of detection if it accepts food stamps at full value for food from legitimate recipients, but uses them (illegally) to buy food at supermarkets for resale.
  - In our estimate we are most concerned about evasion trafficking when it is linked to discounting (i.e., the firm buys food stamp benefits at a discount). We have no data to estimate the extent of evasion trafficking by unauthorized food stores or restaurants. However, **evasion trafficking by authorized retailers is partially captured by our estimating procedure, when the trafficking involves discounting**. The data we use to estimate direct trafficking adequately capture the rate at which *all* authorized stores engage in discounting. What the data fail to do is account for redemptions that are *unreported* by authorized discounting firms that buy food for resale with the coupons. If unreported redemptions could be measured, then the evasion trafficking factor would increase the national estimate of dollars diverted from food benefits by trafficking but would not change the store-based violation rates useful for targeting future action.
  - Engaging in evasion trafficking was relatively easy with food coupons but is substantially more difficult under EBT.<sup>xvii</sup> **Because the only ones to find evasion trafficking cost-effective are small privately-owned stores who have not yet switched to EBT, the potential impact of this factor is limited to a shrinking subset of the privately-owned small-store component of our estimate.**

2. The second potential cause of *underestimation* is **network trafficking**:

- Some violating stores will traffic with strangers while others restrict their illegal activities to people they know (which we label "network trafficking"). Investigators can and do catch this type of trafficking, but it requires a harder investigation.
- As a result, **some network trafficking is included in our estimate** (because our investigations include some cases where the network was penetrated and trafficking was caught). But other instances of network trafficking are not included in our estimate (because investigators were unable to penetrate the network and make the case). This source of underestimation applies to all components of our model. **If investigators could catch all instances of network trafficking, the national estimate of trafficking diversions would increase.**<sup>xviii</sup>

### **SOURCES OF OVERESTIMATION**

1. However, our procedure also overestimates other aspects of the trafficking problem. A first source of *overestimation* is the procedure used to determine **legitimate food sales**.

- With extremely rare exceptions, stores that engage in trafficking also sell food and we must allocate some proportion of their total redemptions to legitimate food sales and the balance to trafficking.<sup>xix</sup> **We purposefully used very low figures to estimate the percentage of legitimate food sales by violating stores – this procedure serves our goal of assuring an estimate of the maximum benefits diverted by trafficking.** The estimate of trafficking diversion would be lower to the extent that our method to estimate legitimate food sales was more precise.
- **This consideration is especially relevant to the large-store components of our model (where most redemptions occur).** We reviewed investigator reports in connection with cases of supermarket trafficking.<sup>xx</sup> **In supermarkets the percentage of total redemptions our methodology attributes to trafficking (40%) is about *four times higher* than experienced FNS field investigators attribute to trafficking (10% or less) when recommending sanctions or participating in other legal proceedings.**
- **To be consistent with the 1993 figures,** we keep our method the same in this update report – but **it is likely that the percentage of a store's redemptions we attribute to trafficking substantially overestimate trafficking, especially in supermarkets.** Additional work is being conducted to determine whether better estimates can be created.

2. Another major source of *overestimation* is that investigations are ***a non-random sample of stores.***

- **Our estimating procedure relies on investigations targeted to find fraud:** our estimate would decrease substantially if investigators had randomly selected average stores, rather than selected suspicious stores on purpose.
- **Of our four technical considerations, this is arguably the one with the largest impact on our estimate and applies to all components of our model.**

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## ENDNOTES

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<sup>i</sup> Theodore F. Macaluso, *The Extent of Trafficking in the Food Stamp Program* (Alexandria, VA: Food and Nutrition Service, USDA; 1995).

<sup>ii</sup> Both the earlier report and this one intentionally use calendar, rather than fiscal, years for the analysis. There are two reasons for this. First, it is necessary to combine investigations from several years to achieve a sufficient number of cases for analysis, so the choice of a fiscal or calendar metric is arbitrary. Second, the use of calendar year reinforces the fact that we are providing *estimates*, rather than administrative data (which typically is presented on a fiscal year basis).

<sup>iii</sup> There has been speculation that able-bodied adults without dependents (ABAWDS) are more likely to traffic than other program participants. If this were true, then welfare reform time limits on the duration of participation by ABAWDS might be expected to reduce the rate of trafficking. However, the evidence available to USDA indicates that no one category of participant is either more or less prone to traffic than any other category.

<sup>iv</sup> EBT also provides new ways to catch any trafficking that does occur. A new system, labeled ALERT, analyzes EBT transaction data to catch some trafficking stores without the need for in-person investigations. These cases are still relatively new and are not incorporated here. FNS is working on developing a new trafficking measure to better reflect the impact of Electronic Benefit Transfer. ALERT data will be included in the new measure.

<sup>v</sup> While food retailers constitute the overwhelming majority of authorized redeemers of food stamp benefits, the Food Stamp Program has also authorized a few food wholesalers to accept food stamp benefits. For simplicity, we refer to all authorized entities as retailers.

<sup>vi</sup> Trafficked coupons are not always redeemed for cash from the government. Owners of small authorized or unauthorized stores, restaurants, and the like can pretend to be recipients and illegally use food stamps to buy food at supermarkets for resale in their stores. We label this "evasion trafficking" (since it is a form of tax evasion) and discuss its impact on our estimate at the end of this paper.

<sup>vii</sup> There is one trivial difference: the earlier report involved data on investigations started by January 1, 1991 and completed by March 1994 which were combined with redemption data from 1993 and presented as a single result for calendar 1993; this update involves data on investigations completed between January

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1996 through December 1998 combined with redemptions from 1996 - 1998, which we annualize and present as a single result for the 1996-1998 period. Because trafficking was less of a focus of investigators in the 1980s than it is now, the earlier report involved a cut-off on the *start* of investigations to ensure that the investigators' focus was on trafficking (rather than sale of ineligible items). Such a restriction is no longer needed.

<sup>viii</sup> We obtained all investigations included in the FNS Store Investigation and Monitoring System (SIMS) database for calendar years 1996 through 1998. A small fraction of these investigations were of stores that could not be matched to zip codes in the redemption file and therefore were not used in the analysis. Inspection of these dropped investigations indicated (1) that the proportion of trafficking to non-trafficking outcomes in these investigations was similar to the data used for the analysis and (2) the cases were distributed across the data in such a way that it is implausible that they would change any substantive findings. The total number of SIMS investigations and the number used in the analysis were as follows:

	SIMS	Analysis File
1996:	3,709	3,690
1997:	3,624	3,601
1998:	3,095	3,063
Total:	10,428	10,354

The five dimensions we employ consist of three that categorize stores (type of store, ownership, and amount of food stamp business) and two that categorize the zip code in which each store was located (degree of urbanization, percent of households in poverty). Specific definitions employed are as follows:

#### Type of Store.

Store types on the FNS application form were collapsed to the following seven categories (to ensure an adequate number of cases of each type):

Supermarket	any store identifying itself to FNS as a supermarket or grocery with gross sales over \$2,000,000.
Large grocery	any store identifying itself to FNS as a supermarket or grocery with gross sales between \$500,000 and \$2,000,000.
Small grocery	any store identifying itself to FNS as a supermarket or grocery with gross sales under \$500,000.
Convenience	any store identifying itself to FNS by this title, regardless of gross sales.
Specialty	any store identifying itself to FNS by this title, regardless of gross sales. They are almost always single product line stores such as meat markets, fish markets, dairy stores, etc.

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Gas/Grocery	any store identifying itself to FNS by this title, regardless of gross sales.
Other Types	any store identifying itself to FNS by a title different than any of the preceding, regardless of gross sales. Examples include produce stands, general stores, combination grocery/bars, health/natural food stores, milk and/or bread routes.

#### Ownership.

Ownership types on the FNS application form were collapsed to the following two categories (to ensure an adequate number of cases of each type).

Public	any store identifying itself to FNS as a public corporation (i.e., a retailer whose stock trades publicly).
Private	any store identifying itself to FNS as other than publicly-owned. This includes private (i.e., closely-held) corporations as well as partnerships, sole proprietorships, co-ops, etc.

("Franchise" is a separate category on the FNS application, not an ownership type: both public and private ownership categories include stores that report themselves as franchises.)

#### Amount of Food Stamp Business.

Stores were categorized into deciles on the basis of food stamp redemptions. The purpose was statistical, rather than analytical, to ensure that large disparities in redemptions by stores do not distort results.

#### Urbanization.

Based on census data for the zip code in which the store is located. Four categories were employed: 0 to 10 percent urban population, 11 to 50 percent, 51 to 90 percent, and over 90 percent.

#### Poverty.

Based on census data for the zip code in which the store is located. Four categories were employed: 0 to 10 percent of residential population below poverty, 11 to 20 percent, 21 to 30 percent, and over 30 percent.

<sup>ix</sup> For calculating trafficking rates, the number of investigations in each store category are large enough to give high confidence in the estimates (ranging from a low of 369 to a high of 3,665 by store type).

<sup>x</sup> Statistically, the FNS investigation data base encompasses a sufficient number of cases to be used as a post-stratified sample of the national "population" of retailers. By categorizing the investigated stores on



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the five dimensions described in note 8 and weighting the stores, by category, to reflect the national population of retailers, by category, we are able to draw valid conclusions about the national situation.

<sup>xi</sup> The specific calculation was a two-stage one. The first stage combines the data on the trafficking rates by type of store and store location with national redemption data to yield an estimate of the *gross* redemptions by authorized food stores found trafficking. The second stage accounts for the fact that some of the gross redemptions are legitimate food sales. To ensure consistency with the earlier estimate, we continue to use the assumption that legitimate food sales account for 60 percent of the gross redemptions among supermarkets and large grocery stores caught trafficking and treat 40 percent of their gross redemptions as trafficked. Among all other types of food stores, we assume that only 10 percent of the gross redemptions are legitimate food sales among stores that do not stock a full line of food (i.e., small grocery, convenience, specialty food, gas/grocery, and "other" stores) and treat 90 percent of their gross redemptions as trafficked.

<sup>xii</sup> We processed all stores received from FNS redemption files but used only the ones with a match to zip code data in the analysis. Stores that had no redemptions were dropped from the analysis (unless they had been investigated, in which case they were retained). For each specific year the total number of authorized retailers received and total number in our analysis file are as follows:

	<u>Received</u>	<u>Analysis File</u>
1996:	205,318;	202,850
1997:	196,408;	193,510
1998:	184,055.	180,857

<sup>xiii</sup> For each specific year the sum of redemptions (total dollars) was:

	<u>Received</u>	<u>Analysis File</u>
1996:	\$21,713,774,005	\$21,580,132,008
1997:	\$18,463,396,131	\$18,322,710,580
1998:	\$16,433,240,311	\$16,260,221,191

<sup>xiv</sup> We categorize stores according to how they categorized themselves in FNS authorization data. Examples of public corporations are major supermarket chains, like Albertson's and Safeway and gas-and-go mini-marts operated by companies like Texaco or Mobil. Many major supermarket chains, such as the Publix chain in Florida, are private corporations. IGA stores which have the appearance of a chain but are not public also fall under non-public ownership. Stores that most readers consider "franchises" may fall under either the public or non-public heading, depending on how they categorized themselves to FNS. Southland's 7-Eleven chain are classified under public corporations.

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<sup>xv</sup> In 1993 USDA investigators found *no* instances of trafficking at publicly-owned supermarkets. Between 1995 and 1998, however, four cases of trafficking occurred in publicly-owned supermarkets. Because there are relatively few investigations of supermarkets and because the redemptions flowing through supermarkets are so large, these four cases have a large apparent impact on trafficking rates. To be consistent, we report the trafficking rates exactly as computed in the first trafficking report. However, an examination of the four cases indicates that the procedures used in the earlier report significantly overstate the amount of redemptions trafficked in supermarkets. Relevant considerations include the following:

- *Only a very small number of supermarket cases detect trafficking in any one year.* Combining the data from the earlier report with this update, we found the following cases of trafficking in publicly-owned supermarkets: 0 in 1993, 0 in 1994, 1 in 1995, 2 in 1996, 0 in 1997, 1 in 1998.
- *Two of the four cases appear to involve the actions of a single clerk.* In one of those cases, the clerk was not even at the cash register when the transaction took place. Two of the four cases, however, involved a lower-level manager at the store.
- *In three of the four cases, redemptions at the supermarket were in a pattern of significant decline; two of the three were being closed.* It is possible that upper management gave decreased attention to employee actions in such an atypical environment. (This speculation will be evaluated as additional supermarket trafficking cases emerge over the next several years.)
- *The percentage of redemptions attributed to trafficking in these four stores by the investigators was substantially lower than the percentage we use in our calculations.* In the first report when trafficking was found at a supermarket or large grocery we attributed 40 percent of the total redemptions in the store to trafficking. In these four instances of trafficking, investigators estimated that 10 percent or less of total redemptions were trafficked.
- *In light of the above, the true rate of redemptions trafficked in supermarkets is likely to be substantially below the 3 percent figure in Table 3.*

<sup>xvi</sup> The increase in store violation rates outside of high poverty and highly urban areas may have occurred for several reasons. For example, the results are possible if the decline in authorized retailers differed by area. Alternatively, the results may reflect the expansion of EBT, either if the EBT switch-over forces violators into nearby non-EBT areas (and those areas are less than 90 percent urban and/or the population in poverty is under 21%) or if rural or higher-income States are implementing EBT at a slower rate. It is also unclear at this stage whether the increase is occurring among all non-urban stores or only those located along highways through rural areas. FNS is developing a new trafficking measure to better reflect the impact of Electronic Benefit Transfer. These – and other – potential explanations will be analyzed as part of that effort.

<sup>xvii</sup> The store owner would need to have possession of multiple EBT cards and make multiple trips to

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supermarkets (a small-store owner using more than one card to pay for a large purchase transaction would involve the supermarket in a violation that is readily detectable through the ALERT system; supermarkets are unlikely to accept that risk). Not only would the store owner need to have several cards and use them at several places (or on different days), for the practice to be worth the risk of getting caught the balances left on the cards would need to be large (which is not usually the case).

<sup>xviii</sup> An additional *potential* consideration is the quality of the investigation. Even when retailers are willing to traffic with strangers, investigators with greater experience and adequate time and resources to establish a case are likely to catch more trafficking than investigators with less experience, time and resources. We believe the overall quality of investigations in our sample is high for two reasons. First, FNS investigative procedures provide adequate time and resources to establish a case. Second, in the earlier report we only used cases from 1991 and later, to ensure that investigators had at least two years of experience in establishing trafficking cases (or were hired with the understanding that trafficking cases were highest priority). In this report, most investigators have at least six years of experience in establishing trafficking cases, which strengthens our confidence in these estimates.

<sup>xix</sup> On rare occasions phantom stores – i.e., fronts that take coupons but do not have a food business – are found. This phenomenon is likely to decrease in the future for two reasons: (1) FNS has expanded its staff resources to visit more stores in person; (2) EBT requires a visit from the EBT vendor to install terminals and the vendor will not install a terminal if they have questions about the legitimacy of the business.

<sup>xx</sup> See endnote 15.