USING USDA'S CONTINUING SURVEY OF FOOD INTAKES BY INDIVIDUALS TO ASSESS WELFARE REFORM NUTRITIONAL IMPACTS ON SELECTED LOW-INCOME GROUPS.

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1.0   Introduction

1.1 Overview

The United States is at an historic crossroads. The changes made by the 104th Congress in late 1996 change the structure of the social safety net and the nutrition safety net in profound ways. This paper concisely summarizes the major changes in the nutrition safety net. In addition, the implication of these changes for food expenditures in households of able bodied adults without children is assessed using data from a USDA nationally representative survey. The paper ends with a discussion of the long term implications of the welfare reform legislation for food security and hunger in the United States and a discussion of the additional data requirements placed on the National Nutrition Monitoring System.

1.2 Background: The U.S. Nutrition Safety Net

The U.S. government has a long rich history of involvement in interventions that protect the nutritional status of vulnerable populations. These programs have evolved over the past 30 years and arose in the mid-1960's in response to the problem of hunger in the United States. The major programs that comprise the nutrition safety net include Food Stamps, WIC and the National School Lunch/School Breakfast programs.

The Food Stamp Program is the main food security program for low income households and was established in the mid-1960's to increase the food purchasing power and nutrient intake of poor families. The basic premise underlying the Food Stamp Program is that participation will increase household food expenditures, and improve food consumption, that will ultimately lead to better health. Numerous studies have now documented the effectiveness of the FSP in increasing food expenditures and/or improving food intake (Fraker).

The Special Supplemental Program for Women, Infants and Children (WIC) was started in response to the White House Conference on Food, Nutrition and Health which recommended supplemental feeding be targeted to pregnant women and their children at risk of poor nutritional status. Evaluations of WIC conducted from the mid-1970's to the mid-1980's have demonstrated the effectiveness of WIC in increasing birth weight, decreasing low birth weight and prematurity, improving hematological status and/or improving dietary intake (Kennedy).

Two nationally representative studies of the National School Lunch and School Breakfast programs have shown that lunch/breakfast participants have improved consumption of a range of nutrients (Kennedy).

Taken together, the nutrition safety net has contributed to improved food security and enhanced nutritional status. The recently enacted welfare reform legislation changes some major provisions and funding structure of the Food Stamp Program.

1.3   The Personal Responsibility and Work Opportunity Reconciliation Act of 1996

The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), enacted 8/22/96 removes the longstanding entitlement of poor people to receive federal assistance in the form Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI), and, for some groups, food stamps. One of the groups expected to be affected most significantly by the food stamp provisions is comprised of able bodied adults without dependents (ABAWDs). This group has never been eligible for AFDC or for many other assistance programs. With respect to food stamps, this group is now subject to federal mandates which limit the receipt of food stamps to three months in any three-year

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period unless these individuals satisfy work-, job-training- or related requirements. For this group of individuals, loss of food stamp benefits signifies loss of the only major assistance program available to them (Kramer-LeBlanc, et al).

2.0 Methodology

2.1 Data Availability Issues And Data Description

To evaluate thoroughly the effects of the PRWORA, the analyst would need specific data on Food Stamp Program participants. Necessary data would include information on immigration status, ages and number of dependent children for *each* household member 18 to 50 years of age, disability status, and employment status including hours worked. In addition, it would include information on participation in food and other assistance programs, as well as the money value of the assistance received. Unfortunately, such a data set does not exist at this time, to our knowledge.

However, to obtain a sense of the potential impacts of the PRWORA, we used the first two years of USDA's three-year Continuing Survey of Food Intakes by Individuals (CSFII) 1994-1996. Each of the CSFII 1994-96 survey years comprises a nationally representative sample of noninstitutionalized persons residing in the United States. Information collected included several socio-economic and demographic characteristics of each household and its members, as well as dietary intakes over two non-consecutive days by selected household members. Low-income households were over-sampled. A household was considered to be low-income if its income for the month prior to the screening interview was less than or equal to 130 percent of the poverty threshold.

Only households participating in the food stamp program at the time of the survey and with every household member being authorized to receive food stamps were included in this study. To assess the approximate impact of the PRWORA on food expenditures by households losing food stamp program eligibility, we identified those households that included no children 17 years of age or younger, or a pregnant female member and included a household member 18 to 50 years of age who was either not employed or, if employed, who usually worked less than 20 hours per week. Disability status could not be determined from the available data. Of a total of 5,558 households in the CSFII 1994-95, there were only 418 households with all members receiving food stamps at the time of the survey. Twenty-nine households (7 percent)

who reported receiving food stamps valued higher than the maximum possible allotment (as of October 1995) were eliminated from the analysis. Further, removing 47 households (11 percent) with incomplete schedules, left 342 households that were used in the analysis.

2.2 Definitions of Selected Variables:

A "usual household food expenditures at home" variable was constructed by subtracting household expenditures on nonfood items from household expenditures at grocery stores and adding food expenditures at specialty stores. If the resulting value was negative or 0, a missing value was assigned to usual household food expenditures at home. A "usual total expenditures on food variable" was constructed by summing usual household food expenditures at home and away and usual expenditures at fast food restaurants.

To take into account the varying household age/sex compositions, a "Thrifty Food Plan Male Adult Equivalent Scale" was constructed by dividing each household member's maximum TFP allotment by that of a male 20 to 50 years of age. Then, the household size in TFP MAEs was constructed by summing over all household members.

2.3 Statistical Model

Guided by previously published research (e.g., Basiotis 1993, Levedahl) we constructed a simple model to estimate the relationships between usual household food expenditures per week during the three months prior to the survey for both food at home and total, and the weekly value of food stamps received by the households, while controlling for other individual and household characteristics. Because the value of food stamps received is determined proportionately to the number of household members and household income, household income was not included in the model. To evaluate whether households likely to be rendered ineligible for food stamps have a different relationship between food expenditures and the value of food stamps received (FSVR), we allowed for different intercepts and different slopes for FSVR in each regression equation. Estimation of the model was by Ordinary Least Squares. The model variables and their descriptive statistics are presented in Table 1.

2.4 Limitations

In addition to the selected data limitations discussed previously, there are other limitations to this study that

must be acknowledged. First, household food expenditures were estimated by the respondent instead of being based on an accounting of actual food expenditures. Previous research has shown that for estimation of marginal effects on food expenditures the difference is likely to be small (Basiotis, 1992). Second, the demand for food by the households was modeled on a single equation basis, independent of other household expenditures. Third, no usable information on other government or private food and/or non-food assistance was available for potentially ineligible households. Thus, the estimated PRWORA impacts on household food expenditures presented here may be exaggerated. Fourth, sample size of potentially ineligible households was very small. This could affect the significance of estimated differences between food stamp participating households and potentially ineligible households. Fifth, household weighting factors were not available for the CSFII 1994-95. Thus, results apply to the sample population and not necessarily to the nation's population.

3.0 Results

Sample means for the dependent, and independent variables of the two models are shown in Table 1 by potential FSP eligibility status. Also shown are means for other variables of interest, such as household expenditures on fast food that was brought to the household for consumption, and expenditures on food purchased and consumed away from home. To facilitate comparisons, these and the weekly value of food stamps received are also shown on a per TFP MAE basis.

The most notable result from Table 1 is the small number (28) of households that are potentially ineligible for food stamps. Despite their small number in the sample, these households seem similar to those in the rest of the sample for several characteristics. The major exception is household size. Most of the potentially ineligible households are single person households, compared to only 20 percent of those in the rest of the sample. Also, there were very few potentially ineligible households in nonmetro areas, and there were no hispanic potentially ineligible households.

Results from the multivariate analyses are shown in table 2. There, it is seen that the estimated marginal propensities to consume (MPC) food at home and all food from food stamps are positive and highly significant. Their magnitudes, at 0.38 and 0.36, respectively, are well within previously estimated MPCs from food stamps (Fraker, Levedahl). The estimated differences in the intercepts and the MPCs for the potentially ineligible

households were statistically insignificant, indicating that, based on this sample, these households are similar to other food stamp receiving households with respect to food expenditures out of food stamps.

Thus, rendering potentially ineligible households ineligible for food stamps without a compensating increase in other income, can be expected to have a negative impact on food expenditures by these households. Specifically, elimination of food stamps can be estimated to result in weekly reductions of about $7.50-$8.00 (equivalent to a 20 to 25 percent reduction) on weekly expenditures on food.

Even though most control variables were not statistically significant, the adjusted R-squares, at 0.46 and 0.45, indicate an excellent fit for the two regression equations, given the cross-sectional nature of the data.

4.0 Conclusions and Implications

4.1 Policy Implications

The analyses presented in this paper highlight several key findings. First, households receiving food stamps are very poor with an average income equal to only 68 percent of the poverty threshold. Food Stamps contribute significantly to overall income and, not surprisingly, food stamps are also a significant determinant of food expenditures. Termination of food stamp benefits will result in a decrease in income which, unless compensated for by a similar increase in wage or other income, will have a negative effect on household food security. However, the underlying premise on which welfare reform legislation is based is that individuals and households will move from welfare to work. To the extent that there is successful transition from welfare to work and overall income increases, the risk of hunger will decrease. As we have already noted, if overall income decreases, the opposite will be true; the risk of hunger and food insecurity will increase with decreasing income. At this time it is not possible to ascertain the full effect of welfare reform. As with most major reforms, there may indeed be winners and losers. It is critical to document the elements of success and use this to continue to enhance positive effects. Similarly, where there are negative consequences of the policy reform, the social and nutrition safety net needs to buffer these adverse effects. Monitoring systems need to be able to effectively and swiftly identify the range of impacts on subgroups within the population.

Table 1.   Means of Selected Variables by Potential Food Stamp Program
            Eligibility Status, CSFII 1994-95 Food Stamp Receiving Households

Variable	Eligible		Potentially Ineligible	
	N	Mean	N	Mean
Usual expenditures on food:				
Total	313	70.406	28	41.448
At home	314	60.139	28	33.956
Fast food	313	5.101	28	4.917
Away from home	314	5.068	28	2.574
Usual expenditures on food per TFP MAE*:				
Total	313	26.669	28	36.745
At home	314	22.776	28	30.103
Fast food	313	1.932	28	4.359
Away from home	314	1.920	28	2.282
Had food expenditures away from home	314	0.528	28	0.250
Had expenditures on fast food	314	0.595	28	0.392
Weekly value of food stamps received	314	45.878	28	21.199
Weekly value of food stamps per TFP MAE	314	17.378	28	18.793
Annual income as percent of poverty	314	68.219	28	57.428
Household size	314	3.369	28	1.178
Household size in TFP MAEs	314	2.640	28	1.128
Single person household	314	0.203	28	0.857
Highest grade completed	314	10.681	28	11.500
Enough food and the kinds wanted	314	0.506	28	0.214
Enough food but not always kinds wanted	314	0.382	28	0.607
Sometimes or often not enough food	314	0.111	28	0.178
White	314	0.660	28	0.501
African American	314	0.340	28	0.357
Other race	314	0.117	28	0.142
Non hispanic ethnic origin	314	0.959	28	1.000
Hispanic ethnic origin	314	0.041	28	0
Household in northeastern region	314	0.224	28	0.358
Household in midwestern region	314	0.264	28	0.214
Household in southern region	314	0.321	28	0.321
Household in western region	314	0.191	28	0.107
Household in the central city	314	0.463	28	0.644
Household in the suburbs	314	0.308	28	0.285
Household in a nonmetro area	314	0.229	28	0.071
Household owns dwelling	314	0.224	28	0.179
Household rents dwelling	314	0.735	28	0.750
Occupies dwelling w/o payment	314	0.041	28	0.071

* Constructed by dividing each household member's maximum TFP allotment by
  that of a male 20-50 years of age, and summing over all household members

Table 2. Estimated Regression Coefficients Estimating Relationships Between Household Expenditures on Food at Home and Total by Food Stamp Receiving Households and Value of Food Stamps Received Controlling for Other Relevant Variables, CSFII 1994-95.

Expenditures on:	Food at Home		Total Food	
Variable	Coefficient Estimate	Prob Value	Coefficient Estimate	Prob Value
Intrcpt	15.136	0.1044	15.351	0.1394
Intrcpt dif of potentially inlgbl hh (PIH)	1.917	0.8493	1.672	0.8818
Weekly Value of Food Stamps Received	0.382	0.0001	0.361	0.0003
FS Value Slope Difference for PIHs	-0.173	0.6326	-0.102	0.8002
Household Size in TFP MAEs	9.600	0.0001	9.919	0.0001
Highest grade completed	0.216	0.6509	0.736	0.1678
Single person household	-2.663	0.5845	-8.528	0.1179
Enough food but not always the kinds wanted	0.039	0.9903	-1.392	0.6988
Sometimes or often not enough food	-0.424	0.9317	-4.467	0.4183
African American	-1.384	0.7025	0.017	0.9966
Other race	2.736	0.5990	6.841	0.2388
Household in midwestern region	5.115	0.2331	6.741	0.1586
Household in southern region	0.830	0.8494	4.730	0.3326
Household in western region	-2.149	0.6727	0.639	0.9102
Household in the suburbs	0.522	0.8892	1.787	0.6703
Household in a nonmetro area	-7.514	0.0862	-7.933	0.1039
Household rents dwelling	1.315	0.7326	5.327	0.2162
Occupies dwelling w/o payment	-1.820	0.8139	3.585	0.6775

Adjusted $R^2=0.46$ Adjusted $R^2=0.45$

4.2 Monitoring/Data Needs Implications

Evaluation of the impacts of PRWORA on welfare recipients places additional requirements on the National Nutrition Monitoring System. The exact nature of these data requirements is the subject of a Federal interagency committee headed by the U.S. Departments of Agriculture and Health and Human Services. In addition to needed information on immigration status of welfare recipients, specific data requirements that emerged from this study include the following:

1. Dietary intake information for all household members
2. Sufficient information to determine dependency status of household members, for example, ages and number of dependent children for *each* household member 18 to 50 years of age

3. Disability status. At a minimum a question "Do you have any disabilities or handicaps that limit activities?" should be asked
4. Household level weights to make data representative of population
5. Other major household expenditures
6. Participation in food and other assistance programs
7. Money value of the assistance received, within practical limits

These can be available from existing surveys with relatively minor modifications.

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