Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)

WIC Electronic Benefits Transfer (EBT)

National Evaluation Model

Instructions for Use of Spreadsheets Including Client Scenarios

April 2004

National Evaluation Model for WIC Electronic Benefits Transfer (EBT)

1. BACKGROUND AND PURPOSE:

The United States Department of Agriculture (USDA), Food and Nutrition Service (FNS), Supplemental Food Programs Division (SFPD) and the Office of Analysis, Nutrition, and Evaluation (OANE) have developed a National Evaluation Model for the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), Electronic Benefits Transfer (EBT) systems. The National Evaluation Model, described here, will serve as a uniform framework for use by States and FNS in deciding whether to continue or expand WIC EBT initiatives as WIC carefully manages program resources while moving toward broader implementation of EBT.

The WIC Program: The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) provides eligible WIC participants a specific prescription of nutritious foods as an adjunct to health care. Providing participants with prescribed foods, based on their nutritional need, is a cornerstone of WIC's mission. FNS has recognized that electronic technologies can help WIC support its mission more efficiently. Accordingly, the WIC Program has established national guidelines for WIC EBT systems development that specify WIC's objectives in using electronic technologies. These guidelines include, but are not limited to, the following objectives:

- Ensure that WIC participants are able to purchase the complete or partial food package at their discretion, eliminating the risk of forfeiting foods, and that the transaction affords the participant treatment similar to other non-WIC shoppers;
- Ensure that WIC participants are able to purchase only WIC authorized foods, and that foods are not improperly substituted;
- Provide the WIC Program with data on the type, brand and cost of each food item so that State agencies can better control food costs through informed food package decisions and justification of rebates such as for infant formula;
- Ensure that WIC participants are charged no more than the contract price or shelf price for authorized foods;
- Enable the food retailer to complete the WIC transaction efficiently and properly; and
- Facilitate food retailers in claiming and securing WIC reimbursement promptly and accurately.

Unlike the Food Stamp Program – which provides an absolute dollar value for authorized food purchases – the WIC Program provides benefits in the form of specific supplemental food items, in specific quantities, for a one-month valid period. For example, upon certification for WIC benefits, a breastfeeding WIC participant may receive a monthly food package consisting of 7 gallons of milk, 2.5 dozens of eggs, 36 ounces of cereal, 2.5 gallons of juice, 2 pounds of carrots, 1 pound of cheese, 24 ounces of tuna fish, and 1 pound of dry beans or 18 ounces of peanut butter. The participant forfeits benefits not used during the month's valid purchasing period.

WIC and EBT: WIC EBT addresses this need for in-store delivery of food prescriptions to WIC clients as well as the need for automated financial transaction processing to better meet the business needs of authorized WIC food retailers.

As of spring 2004 there are eleven WIC State agencies involved in EBT planning, development and/or implementation. These include: Wyoming (the only State to operate EBT Statewide), Connecticut, Maine, Massachusetts, Michigan, Nevada (and Intertribal Council of Nevada), New Hampshire, New Mexico, Ohio, Texas, and Rhode Island. In addition, several states have volunteered to participate in feasibility demonstrations of on-line, real-time WIC EBT.

FNS has supported off-line, smart card technology for WIC EBT because it makes possible a fully functional electronic solution for WIC benefit delivery. FNS will also support an on-line, magnetic stripe card solution, as long as it successfully meets all WIC EBT functional requirements and is cost efficient for both WIC State Agencies and retailers. All of the current WIC EBT projects intend to use smart card, off-line systems, except for Michigan, which plans to utilize a magnetic stripe card for on-line access to food package benefits, with off-line and batched retail transaction processing.

In April 2003, a direct Federal contract was signed to explore the potential for conducting all WIC EBT functions with real-time, on-line connectivity to retail stores. This project will last 19 to 24 months. California, District of Columbia, New Mexico and Washington State have volunteered to assist in this project's design and small-scale testing of WIC EBT using on-line, real time communications. Washington will serve as an initial demonstration site (with one clinic and several retailers) should functional tests prove successful. Michigan, Ohio, and Wyoming are also advising in this development and testing due to their previous experience with off-line EBT for WIC. Regardless of the technology used, in order to begin widespread WIC EBT expansion EBT must either fit within WIC's budget constraints, or demonstrate a level of effectiveness that attracts other sources of funding beyond traditional federal WIC grants.

FNS continues to support WIC State EBT initiatives by:

- Providing special EBT grant funding to WIC State agencies;
- Providing technical consultation to State agencies;
- Sponsoring national conferences and assisting in technology information sharing; and
- Continuing efforts to develop national WIC EBT standards, such as the ANSI X9.93-2002 retail transaction message and file formats; national WIC food categories/subcategories; and a national UPC database of WIC-eligible foods. FNS is also seeking ways to facilitate integration of WIC purchase functions with electronic cash register systems in retail grocery stores and has sponsored development of a retailer interoperability specification that should assist grocery chains in integrating WIC EBT into their management systems. This is particularly important to grocers who operate in multiple States.

Use of a Nationally Uniform Evaluation Model for WIC EBT

This WIC EBT Evaluation Model provides methodologies, guidance and tools to support consistently uniform WIC EBT data collection, analysis and interpretation, including:

- Continuing identification and definition of key analytic variables/data elements.
- Development of State and Federally accepted metrics to facilitate decision making.

- Standardized methods of data collection and analysis, including detailed formulas for easy replication in readily available software (e.g., Microsoft Excel).
- Guidelines for using the Model that facilitate interpretation of Model results across States.

Most States are likely to need to use this Evaluation Model only once in determining, along with FNS, whether or not to expand WIC EBT pilots to Statewide coverage. While the State may have reasons for wanting to expand EBT beyond its originally planned pilot area to less than its full Statewide geographic caseload, the State should still use this Model to assure that all relevant cost factors have been considered for the expansion.

For any expansion beyond pilot operations, the State will need to be sure that such expansion is leading in the direction of affordable EBT operations costs. This Model is intended to increase a State's certainty that its cost estimations are complete and reliable. For this purpose it can be used by WIC State Agencies as many times as they have need.

2. EVALUATION MODEL OBJECTIVES:

The two objectives of the WIC EBT National Evaluation Model are to:

A. Consistently examine the differences in operational costs and effectiveness of delivering WIC food benefits to participants through paper food instruments and through Electronic Benefit Transfer.

   Initial costs of EBT system development and equipment deployment are separated from ongoing operational costs. While initial costs are of interest in determining the pace at which WIC may be able to expand EBT, it is ***operational costs*** that will determine whether or not the WIC Program should seek to deploy EBT in individual States and across the nation.

   Consistency in which cost factors are addressed, definitions and metrics allow informed decision making to progress on a State-by-State basis. Guidance and spreadsheets are provided to calculate unit costs and examine WIC client service processes including potential effects on WIC Program services such as nutrition education and health referrals. States will need to keep supporting documents and narratives for all spreadsheets developed so that these may be reviewed and, if necessary, discussed between State and federal decision makers.

B. Provide a basis for projecting costs of expanding State EBT projects to allow informed decision making from both State and federal perspectives. Funds available to implement WIC EBT continue to be limited. Therefore, a clear understanding of expansion costs is necessary in setting priorities and in developing long-term goals for WIC EBT. Of critical importance is each State's ability to determine the affordability of operating WIC EBT within its available WIC Nutrition Services and Administration (NSA) grant once deployed at a Statewide level.

3. EVALUATION FACTORS, COST UNIT DEFINITIONS AND EVALUATION METHODS:

In order to achieve comparability of paper and EBT costs within each State and to facilitate interpretation across a variety of States, a complete set of uniformly defined factors needs to be included in cost estimation. The spreadsheets and text of this National Evaluation Model group these core elements in a way that can be easily summarized and interpreted. Because WIC serves individuals as participants in WIC, costs for benefit issuance are summarized in this Model on a per participant basis.

Monthly Costs Per WIC Participant under EBT (MCEBT) or Paper (MCPAP)

The term participant is defined as a person enrolled and ***receiving WIC food issuance in an average month of WIC EBT project activity or across a comparison period of WIC paper issuance.*** In spreadsheets where it is helpful to easily designate whether this is a measure for EBT or paper issuance, MCEBT is used for the monthly per participant cost of EBT, and MCPAP is used for the monthly per participant cost of paper issuance.

In order to generate reasonable assumptions regarding cost effects of expanding WIC EBT projects, it is helpful to identify key cost centers of ongoing benefits issuance operation such as equipment maintenance and replacement; software maintenance and upgrades, WIC-paid State or contractor operations costs; or WIC (local) staff labor. In these cases acronyms will not be used, but MCEBT or MCPAP may be expressed along with a relevant word descriptor (for example, WIC Local Staff MCPAP or Replacement Equipment MCEBT).

Addressing Special Factors

For costs that apply to a combination of individuals, such as an electronic benefit account, card cost, or staff training, expenses will need to be converted to a monthly per participant cost equivalent. (For example: service for an electronic benefit account would be divided by the average number of WIC participants served within the electronic accounts established for the project.) For these factors, a recommended method of calculating per participant costs will be offered.

Defining the Evaluation Period.

Monthly costs of EBT and paper operations will be based on State-level experience across three or more months of stable operations for both EBT and paper. Equal lengths of time should be examined for paper operations and for EBT operations. States must take responsibility for selecting a starting month for their EBT Evaluation Period and a length of time that provides the best potential for accurately judging ongoing costs of EBT operations. While EBT system start-up costs may be interesting, they are likely to be considerably higher than normal operating costs and, therefore, should not be used in determining operating costs for this National Model.

An exception to use of this Evaluation Period may be needed in regard to local staff paper issuance processes. In order to examine EBT effects on local staff work patterns compared to

WIC local agency processes under paper issuance, States have indicated a preference for using staff time studies. The Evaluation Period dates for paper issuance selected by a State may be either ***prior to*** implementation of EBT ***or at the same time as*** the EBT Evaluation Period. If a State has ***reliable and currently applicable information*** on the time required to accomplish paper issuance in WIC local agencies that is based ***outside*** these selected Evaluation Period dates, this information may be used to compare to local agency times for EBT issuance within the Evaluation Period. Also, it is not necessary for local EBT time studies to cover the entire Evaluation Period. The State must take responsibility for deciding when and for how long local time studies must be conducted to capture any significant differences in local issuance for EBT and paper. It is suggested that timed simulations of paper and EBT procedures (which are largely guided by screens in a State's management information system) also be conducted in order to judge whether there are identifiable time differences in basic system-driven functionality for EBT and paper. Several scenarios with standardized family characteristics are provided for these simulations.

Selecting Sites/Sources for Estimating Local Paper Issuance Costs

In order to fairly gauge the costs of paper issuance there are several choices available in selecting sources for local issuance data. The State may: 1) obtain data from comparison sites that are similar to those in the EBT pilot project and record State-level activities only in regard to these agencies for creating the comparisons to EBT; 2) purposely select varied types of local agencies in which to conduct time studies and compute average times for paper issuance across these agencies; or 3) take known data for local paper operations across the State and compute average figures for paper issuance.

Results from any of these choices would need to be referenced to: 1) the number of participants served by the sites/data sources chosen; and 2) an Evaluation Period of equal length to that used for EBT. This choice will depend on the ***quality and completeness*** of data available to the State for its current paper issuance operations. If there are Statewide reliable data for all aspects of paper issuance except timing of the local paper issuance function in local agencies, it may still be practical to use Statewide figures for paper issuance expenses and to conduct separate time studies for EBT and paper issuance. FNS also gives States the option of using timed simulations of local agency MIS paper and EBT issuance functions as an alternative to comparison of local time studies. Patient flow analyses data may be used in addition or as a substitute for these data if judged by the State to be appropriate.

Documenting State-level Labor Costs for Paper Issuance

States will need to determine the best methods for determining paper issuance labor costs funded by WIC at the State level. Because it is not likely that work supporting WIC paper issuance is separately identified in regular reports, it will be necessary for State or State-contracted staff who serve in WIC's issuance function to record the portion of their time that is ordinarily devoted to issuance-related activity. Because State staffing varies widely, each State must develop activity logs suited to gaining complete and accurate documentation from the various types of State or contracted staff that are involved in WIC paper benefit issuance. Measures of State-level activity should reflect an equal length of time for the Evaluation Period, but should not be taken at the same time these individuals are engaged in supporting EBT. If this separation is not possible,

then professional time estimates may be preferable to activity logs. Professional time estimates are made by persons most experienced with a particular type of activity. Such estimates can be done by an individual and juried by a group of professional peers or generated by a consensus of informed professionals. The principal goal of this documentation is to develop what the State believes to be the most reliable cost estimates possible.

A State should submit a narrative along with the following spreadsheets that documents the methods chosen by the State to generate data for entry into this National Evaluation Model. Again, States should discuss why the methods chosen are believed to be the most reliable estimates achievable.

4. USING THE NATIONAL EVALUATION MODEL SPREADSHEETS:

This section explains key aspects of this Evaluation Model, and provides guidance for using the Evaluation Model Spreadsheets. The spreadsheets have formulas embedded and protected to assure that entries will not interrupt relationships of cells necessary to cost calculations. The spreadsheets have been reduced in size in order to facilitate viewing of the whole spreadsheet at once. Each spreadsheet is designed to print on one piece of paper. Viewing size may be altered by changing the white percent box located along with the icons at the top of each page. Formulas may be viewed by pressing Ctrl ' (the symbol key at top left corner of keyboard also containing the ~ symbol). Press the same keys again to return to the standard view of the spreadsheet.

Each State will receive one file with spreadsheets in protected format to maintain all original structure while allowing entry of individual cost items. However, for convenience of recording State-specific elements, a second file with flexible (unprotected) format and formulas will also be provided. FNS prefers to receive the original model with protected formulas as the State's final submission. It should be possible to collapse State-specific entries into the basic elements contained in the original (protected) model spreadsheets. This assures States that computations of the model are standardized if cost comparisons are made between States.

The Project Scope Spreadsheet: Entering Reference Values

In order to save time in entering repetitive values in the spreadsheets provided for the National Evaluation Model, the first sheet provides an opportunity to record reference values that describe basic EBT project characteristics and those of the Evaluation Period for paper issuance and EBT. These entries are linked to relevant cells in later spreadsheets to simplify and speed use of all spreadsheets. Please review the reference sheet and enter as many of the requested reference values as possible. In the heading, please enter the 1). Name of the State, and 2). Date on which these data are current. This date can be used for version control by all reviewers within the State and will be used by FNS should the State decide to make changes during the time of FNS review.

The following spreadsheets are linked in order to generate an average monthly cost per participant for all relevant project measures in Spreadsheet #8, WIC EBT Project/Paper Cost Comparison and in Spreadsheet #12, EBT Expansion Cost Summary. While not all States will

be able to complete all factors contained in the spreadsheets, it is essential that all listed items are ***considered*** and ***incorporated*** into estimates of comparative costs and effects in this Model. The purpose is to assess the costs of WIC paper issuance compared to the costs of WIC EBT in a complete and uniform manner. The results can then inform States and FNS about whether ongoing operations of WIC EBT are affordable within the NSA grant available to each State.

Spreadsheet #1 – WIC Costs for Initial EBT Project Equipment for Clinics and Retailers:

What is the total cost of all State WIC purchases or leases for EBT-related equipment and cards as initially installed for retailers and clinics in the WIC EBT project?

On Spreadsheet #1 show the initial cost to the State WIC Program for EBT cards, retailer equipment and durable EBT equipment placed in WIC offices as an initial, one-time investment. (Costs for equipment replacement and installation of replacements should be held for inclusion in Spreadsheet #2 Replacement Equipment. Equipment maintenance and software updates will be included later in Spreadsheet #3 EBT Operations.)

If there were other retailer-related costs such as incentives to retailers to develop integrated software for the WIC EBT pilot; costs of certifying integrated retail EBT systems for the initial pilot, or if there were any WIC-paid offsets to retailers in the pilot for retailer-provided EBT-ready equipment enter the dollar value of these under Other Retailer Startup Costs and attach a narrative describing these costs.

<u>WIC Clinic Workstations; EBT Read/Write Terminals</u>
Enter the total EBT-related cost for a fully ready EBT clinic workstation and the number of EBT workstations deployed for the project. Include ***only the marginal cost*** of upgraded EBT computers, etc. but not costs that are basic to other existing WIC services or existing paper issuance. If there are a limited number of shared card read/write terminals and EBT printers in project clinics, divide the cost of these among the total number of EBT-equipped workstations and include this average value in the per-work-station cost and enter the combined value as unit costs. (Attach a specific list of all EBT equipment and prices with Spreadsheet #1 and note how shared equipment is addressed in the estimate.)

<u>EBT Cards</u>
These entries address the cost of cards in the process of converting participants from paper issuance to EBT. Record the card type(s), model number, memory size, or other descriptors that clearly identify which card(s) you are using. If EBT cards were bought according to a specified unit price, enter this value. If unit costs were not specified, divide the total purchase price for EBT cards by the total number of cards purchased. Under unit costs, enter on the spreadsheet the price per card averaged over all EBT cards purchased.

Next, enter the total number of EBT cards ***initially issued*** across the period of EBT project startup (caseload conversion to EBT). If cards have been purchased in larger quantity than needed for the project, base the entry only on the number relevant to initiating the project. (It is not necessary to include costs of cards purchased for contingent expansions, etc.).

Other Equipment or Replacement Supplies
Identify and record any other costs for EBT project equipment or replacement supplies such as paper provided to retailers or clinics for EBT printers, signs, etc. that are ***not*** anticipated to be ongoing expenses. (A combined cost may be entered under "Other", but identify these costs separately in a supporting list for your records.)

Other Initial Supplies and Equipment
Identify and record any other costs for EBT project equipment such as paper supplies provided to retailers or clinics for EBT printers, signs, etc. that are ***not*** anticipated to be ongoing expenses. (A combined cost may be entered under "Other", but identify these costs separately in a supporting list for your records.)

Spreadsheet #2 – WIC Costs of Replacing WIC EBT Project Equipment for Clinics and Retailers:

What is WIC's total cost of replacing EBT cards and equipment for WIC retailers and clinics experienced in the Evaluation Period?

Using the same approach as in Spreadsheet #1, enter the number of units and unit costs for replacement cards and equipment during the EBT Evaluation Period. Also enter installation costs required for equipment replacement. (Maintenance costs and software updates should be entered in Spreadsheet #3 EBT Operations.)

Document each month's number of cards replaced due to being: lost; damaged; or stolen.

Enter the number of cards newly issued to incoming WIC clients.

If costs are only known on a single item basis (as opposed to a workstation basis), reverse the process noted on the spreadsheet and begin by adding together all individual replacement costs. Record the number of workstations affected and divide total costs by this number of workstations to record average unit costs. This computation will aid in creating assumptions needed to estimate EBT expansion costs in Spreadsheet #11.

Other Equipment or Replacement Supplies
Identify and record any other costs for EBT project equipment or replacement supplies such as paper provided to retailers or clinics for EBT printers, signs, etc. that ***are*** anticipated to be ongoing expenses. (A combined cost may be entered under "Other", but identify these costs separately in a supporting list for your records.)

Note in the Comments for Spreadsheet #2:

- Does the number of card replacements differ from original estimates for card replacements made in EBT project planning?
- What happens to cards that are returned to WIC? If a known portion of returned cards is recycled, indicate how this should be considered in offsetting card replacement and costs.

- Are there any identifiable problems in setting up EBT accounts, transferring participants between accounts or in use of EBT by participants and retailers?

Spreadsheet #3 – WIC Costs for State-Level EBT Project Operations during the Evaluation Period:

Based on the State's contracted EBT project costs and/or costs incurred through State provision of EBT project services, what is the total cost (both labor and non-labor) of EBT operations? If extra funds have been provided to local agencies participating in the WIC EBT project that are in addition to funds normally made available under paper issuance, include them here.

Comparisons between paper issuance and the EBT issuance system will require collection of data during the State's selected EBT Evaluation Period.

Definition of the Evaluation Period

Monthly costs of EBT and paper operations will be based on State-level experience across three or more sequential months of stable operations for both EBT and paper. Equal lengths of time should be examined for paper operations and for EBT operations. States must take responsibility for selecting a month to begin their EBT Evaluation Period and a number of sequential months that provide the best potential for accurately judging ongoing costs of EBT operations. While EBT system start-up costs may be interesting, they are likely to be considerably higher than normal operating costs and, therefore, should not be used in gauging operating costs for this National Model.

States should be certain that this Evaluation Period reflects a steady condition of EBT operations—what the State could expect to be ***normal, ongoing*** costs of EBT operations. **For FNS purposes, an Evaluation Period of no less than three full months will be necessary to draw conclusions on project cost comparisons.** Some States may wish to define the Evaluation Period as being longer in order to achieve the most stable estimates possible. FNS will accept an Evaluation Period longer than three months, but the Evaluation Period may not be less than three months.

Recording Staff Work on EBT

Spreadsheet entries should be based on State-designed daily EBT activity logs kept across the Evaluation Period for which all relevant cumulative costs are calculated. It is suggested that a single person be designated to assure that daily activity logs are regularly and fully completed and that data from these logs are compiled in an accurate and understandable manner. It is also suggested that results from these daily activity logs be reviewed by a group of professionals during the data collection period to discuss the quality of results and any need for collection of additional data. An example of a State-Level Daily Activity Log is provided as part of this Model, based on all data elements included in the spreadsheets. This sample may need to be simplified for convenient use by EBT-related staff by selecting only the relevant aspects for particular groups of staff. Cost estimates projected from these activity records should capture full contractor costs and/or State costs using loaded personnel rates (wages plus fringe benefits) for State personnel.

On Spreadsheet #3, enter total State-paid costs for clinic EBT system and equipment maintenance and software updates.

Enter the State WIC cost of providing EBT issuance training and the materials to local agencies .

Record the total costs for retailer system and equipment maintenance across the Evaluation Period. Enter the cost of retailer training, materials, and ongoing vendor authorization for EBT. (If no vendors are authorized for EBT during the Evaluation Period, enter the average cost of authorizing one EBT vendor as experienced during conversion from paper to EBT.)

Record the State-level costs for:

EBT Card Ordering, Inventory Tracking, Storage, & Shipping
EBT Card and Equipment Security
EBT Software Updates at State-level
Data Processing at EBT Host
ACH Fees (If Not Included in Host Processing)
Telecommunications (Marginal EBT costs only)
Fund WIC Settlement Account (if applicable, see text)
Client Assistance/Problem Resolution (State Staff or State Funded)
Retailer Assistance/Problem Resolution (State Staff or State Funded)
EBT Vendor Monitoring & Penalties
Update MIS-Approved WIC Foods/Package Codes & Maximum Price Files
Compile EBT Food Package Prescriptions & Update UPC Files
EBT Reports Review and Redemption Monitoring
Rebate Monitoring and State Rebate Claims Submission
State Indirect Costs Related to EBT Issuance

Processing is defined to mean providing and securing host computer services that:

- Record an WIC electronic benefit account (EBA);
- Receive WIC authorized prescriptions from the State WIC MIS for EBA's;
- Receive retailer settlement claim files
- Reconcile EBA prescription amounts according to legitimate retailer claims
- Provide retailer payment (or forward necessary files for State payment)
- Provide archiving and reporting for EBT audit and monitoring.

For Vendor Monitoring and Penalties, enter only the State administrative cost of overseeing these activities. The dollar value of penalties experienced by retailers under EBT and paper will be entered in Spreadsheets #9 and #10.

Fund WIC Settlement Account refers to States that may require payments to be made by an in-State bank. It is sometimes the case that a separate $0-based account must be maintained in order for an EBT processor to draw down only on an "as needed" basis to meet State fiscal requirements.

If State indirect costs are incurred as part of these services, include these indirect costs as a separate item if possible. If indirect costs are blended into each cost element, write "blended" into the cell for indirect costs and note in comments any fixed percentage(s) incorporated.

Identify and record any other costs of operations necessary to the EBT project as observed in the Evaluation Period. (Attach a specific list for your records.)

Spreadsheet #4 – WIC Costs for State-Level Paper Issuance Operations during the Evaluation Period:

Based on costs incurred for State provision of paper benefit issuance, what is the cost of paper operations, including State WIC oversight?

Recording Staff Work on Paper Issuance

Spreadsheet entries should be based on State-designed daily paper issuance activity logs kept across the Evaluation Period for which all relevant cumulative costs are calculated. It is suggested that a single person be designated to assure that daily activity logs are regularly and fully completed and that data from these logs are compiled in an accurate and understandable manner. It is also suggested that results from these daily activity logs be reviewed by a group of professionals during the data collection period to discuss the quality of results and any need for collection of additional data.

Documenting State-level Labor Costs for Paper Issuance

States will need to decide the best methods for determining paper issuance labor costs funded by WIC at the State level. Because it is not likely that work supporting WIC paper issuance is separately identified in regular reports, it will be necessary for State or State-contracted staff who serve in WIC's issuance function to record the amount of their time that is devoted to issuance-related activity. Because State staffing varies widely, each State must develop daily activity logs suited to gaining complete and accurate documentation from the various types of State or contracted staff that are involved in WIC paper benefit issuance. An example for State paper issuance is provided with this Model to address the items contained on Spreadsheet #4.

Measures of State-level activity should reflect an equal length of time for the Evaluation Period, but should ***not be taken at the same time*** these individuals are engaged in supporting EBT. If this separation is not possible, then professional time estimates may be preferable to activity logs. Professional time estimates can be made by persons most experienced with a particular type of activity. Such estimates can be done by an individual and juried by a group of professional peers; or generated by a consensus of informed professionals. All assumptions made in creating professional estimates should be fully documented and provided as supporting documentation to the estimates. The principal goal of this documentation is to develop what the State believes to be the most reliable cost estimates possible and to be able to consider these assumptions again as EBT expansion assumptions are developed.

On Spreadsheet #4, estimate the total cost of equipment, supplies, and maintenance necessary for paper benefit issuance for a comparable number of months to the length of the EBT Evaluation Period. As in the case of data for EBT, **an Evaluation Period of no less than three months**

will be necessary to draw conclusions on paper cost comparisons. The number of months used for reference should be the same as for EBT. Equipment should include printers for vouchers or other equipment used primarily for benefit issuance. Equipment costs for the period covered by the estimate can reflect average monthly costs across the expected life of the equipment. No costs for computers or other pieces of generally needed WIC equipment should be included.

Record the State-level costs for:

Vouchers/Checks & Printing Supplies (if not local costs)
Voucher/Check Ordering, Tracking Inventory, Storage & Shipping
Voucher/Check and Equipment Security (if not local cost)
Banking Fees
ACH Fees (if not included in Banking)
Telecommunications (Associated with Paper Issuance Only)
Reconciliation of Paper Vouchers/Checks
Client Assistance/Problem Resolution (State Staff or State Funded)
Retailer Assistance/Problem Resolution (State Staff or State Funded)
Vendor Monitoring & Penalties
Update MIS-Approved WIC Foods/Package Codes & Maximum Price Files
Benefit Reports Review and Redemption Monitoring
Rebate Monitoring and State Rebate Claims Submission
State Indirect Costs Related to Paper Issuance

For Vendor Monitoring and Penalties, enter only the State administrative costs of overseeing these activities. The dollar value of penalties experienced by retailers under EBT and paper will be entered in Spreadsheets # 9 and #10.

If State indirect costs are incurred as part of these services, include these indirect costs as a separate item if possible. If indirect costs are blended into each cost element, write "blended" into the cell for indirect costs and note in comments any fixed percentage(s) incorporated.

If there are other costs that are necessary to paper issuance identify and record these on spreadsheet #4.

Spreadsheets #5 & #6 – Local Staff Labor and Materials Costs for WIC EBT and Paper Benefit Issuance During the Evaluation Period:

What are the differential costs of EBT and paper issuance training, issuance support, and WIC client service functions during the Evaluation Period?

Spreadsheets #5 and #6 address total costs for Issuance, Training Issuance Support, and WIC Client Service Functions as estimated across each State's selected Evaluation Period. The number of occurrences ***observed*** in time studies, simulations, or patient flow analysis data ***will be different*** from the frequencies used to estimate costs for the Spreadsheets. Total Dollar estimates are calculated for each function by multiplying ***measured*** time for each occurrence times the ***estimated number of times*** this function would occur across the entire Evaluation Period in

relation to the average number of participants with EBT or paper issuance during the Evaluation Period (as provided on the Reference Sheet). Average hourly wage rates (including fringe benefits) applicable to each function should be entered as Average Hourly Labor Costs. The Spreadsheets will then convert these entries into Total Dollars Estimated Across the Evaluation Period.

Training

Enter ***measures*** in Spreadsheets #5 and #6 from training time studies or patient flow analyses data to calculate locally funded costs of participant and local staff training needed for paper issuance and for EBT. (Simulations will not apply to training measurement.) ***Estimate*** how often these measured activities would occur in relation to the average number of participants with EBT or paper issuance across the entire Evaluation Period. (See Reference Sheet.) ***Determine average hourly local labor costs*** based on wage rates that are characteristic of staff performing these functions. (A State may use figures from the pilot and comparison sites or, if known, rates which reflect wages for similar types of staff across the State.) Record local costs of materials for issuance training as a separate entry. Address retailer training ***only*** if this is a local rather than a State cost.

Issuance Support

Based on daily local staff activity records, provide Spreadsheet entries for issuance support in a manner similar to that described above. EBT Card Ordering, Inventory Tracking, Storage and Shipping do not need to be broken out as separate and distinct functions. However, a State may prefer to keep such activities separate in supporting documentation. Document the average time required and the number of requests for assistance by WIC participants and WIC authorized retailers received by local staff during the Evaluation Period on Spreadsheets #5 and #6.

EBT-related calls to local WIC Staff during the Evaluation Period should be separately logged and categorized according to the nature of the request using Personal Account Numbers (PANs), EBT family IDs or other indexes that allow estimation of the total number of individual WIC EBT participants receiving this local staff assistance. Staff notations may identify how many participants within an electronic benefit account have been provided assistance. The PANs or family IDs will allow the State the ability to determine whether assistance is repeatedly given to the same or to different participants.

WIC Client Service Functions

Enter time and costs for WIC client services under EBT and paper issuance in the same manner as done for issuance training and issuance support activities.

Choosing Data Sources (which sites and which staff)
Examination of overall work flow and patient flow patterns with focus on types of activities that will be eliminated, added, or substantially changed may also identify what managers would consider positive or negative changes in work practices. Mapping local work procedures for paper and EBT should be useful in selecting key sites and key staff for time studies. If your

State has patient flow analyses or other data that provide reliable measurements for WIC clinic work activities, this information may be used instead of, or in addition to, use of time studies and standardized simulations. The nature of the information used will need to be clearly explained to FNS as part of the evaluation submission. ***In choosing which data to use, address the issues identified earlier in this Evaluation Model regarding selection of sources and sites for obtaining Evaluation data.***

Time Studies

Also as previously discussed, a State's exception to use of this Evaluation Period may be necessary in regard to measurements for local staff paper issuance work patterns. In order to examine EBT effects on local staff work patterns compared to WIC local agency processes under paper issuance, States have indicated a preference for using staff time studies. If a State has ***reliable and applicable measures*** for the time required to accomplish paper issuance in WIC local agencies that are ***generated outside*** of the selected Evaluation Period, this information may be used in comparison to local agency times for EBT issuance ***measured within*** the Evaluation Period. Also it is not necessary for local EBT time studies to cover the entire Evaluation Period. The State must take responsibility for deciding the ***needed duration*** of local time studies to reliably capture differences in local issuance for EBT and paper.

Time measurements may directly apply to the individual WIC functions which comprise WIC local services as listed in the spreadsheets, or if a State prefers, be measured within specific combinations of activities such as: 1) Initial Certification (including benefit issuance, education, and referral); 2) Recurring certification (including benefit issuance, education, and referral); 3) Benefit issuance with education; 4) Benefit issuance without education; and 5) Making mid-month food prescription changes. Regardless of the activity flows in which these measurements are taken, measurements used to compute average times for individual functions listed on the spreadsheets are needed.

It is suggested that a single person be designated to assure that daily activity logs are regularly and fully completed and that data from these logs are compiled in an accurate and understandable manner. It is also suggested that results from these daily activity logs be reviewed by a group of professionals during the data collection period to discuss the quality of results and any need for collection of additional data.

An example of a Local-Level Daily Activity Log for EBT and for paper issuance is provided as part of this Model, which includes all data elements included in the spreadsheets. This sample may need to be simplified for convenient use by EBT-related staff through selection of relevant aspects for particular groups of staff. It also may be designated for use in examining measurements for each function within combinations of activities as discussed above. Cost estimates projected from these activity records should capture locally contracted costs and/or local staff costs using loaded personnel rates (wages plus fringe benefits) for WIC local agency personnel.

Simulations

It is strongly suggested that timed simulations of paper and EBT procedures (which are largely guided by screens in a State's management information system) be conducted in addition to, or in place of, time studies in order to judge whether there are identifiable time differences in basic

system-driven functionality for EBT and paper. Several scenarios with standardized family characteristics are provided for these simulations.

Simulations would follow this general pattern: Using the standardized scenarios provided with this Model, time the number of seconds required for client service functions identified in the spreadsheets. Timing should be done by more than one person and recorded. Since the time needed to complete a function is largely driven by the MIS, the clock that is part of the worker's computer may be convenient for use in timing. If a visible difference in MIS-driven staff procedures is found, the State may want to videotape examples of paper and EBT procedures to easily demonstrate this effect. **The most likely difference to be seen in this simulation of MIS procedures is the difference in time for creating an EBT card and printing vouchers/checks. The time to sign vouchers/checks can easily be simulated by any staff person.** Time to sign vouchers should only be added to paper issuance measures if the time normally taken for participants to sign vouchers affects WIC-paid staff time. Simulations using MIS and printing equipment as the drivers in the measurements allows differences in such procedures to be measured in seconds--a level of accuracy not available through staff activity recording.

Using measurements from each of the three scenarios of participant characteristics, compute an average time across these scenarios for each WIC function addressed. Use the same approach and the same scenarios to calculate costs for ***both*** paper and for electronic benefits. If these measures are used in addition to time study estimates, make copies of Spreadsheets #5 and #6 and designate these #5A and #6A. If only using simulations, enter simulation figures on Spreadsheets #5 and #6. If interesting differences are documented, attach a narrative to indicate what assumptions or considerations a State might want to make in estimating costs of WIC EBT Statewide expansion.

Attach Comments that document the factors used in computing the entries on Spreadsheets #5 and #6. Also include a narrative that addresses the following questions. These comments will be useful when considering implications of EBT expansion:

- What types and frequencies of local assistance to WIC EBT clients and EBT retailers are required to operate EBT?
- Do these requests for assistance (or lack of requests) provide a measure of client satisfaction with EBT?
- Do these requests (or lack of requests) provide a measure of retailer satisfaction with EBT?
- Are these sustainable levels of assistance by local WIC staff over the long term? Why?

Spreadsheets #7 – Client Time in WIC Clinics (Use of this Spreadsheet is Optional)

If substantial change is anticipated in clinic processes, a State may want to separately address participant time in clinic, particularly if the number of overall visits a client must make to the WIC clinic will change under EBT. There may also be work quality differences that a State would want to take into consideration. This spreadsheet is not needed by FNS for decision

making unless the State decides that client time in clinic may affect costs of EBT system expansion.

Standardized simulations can be used if some or all local WIC clinic functions are entered into computer screens while the client is present and not otherwise engaged in obtaining services. In order to determine whether EBT affects client time in clinic, reexamine simulations of Scenarios 1 through 3 as done for staff work flow or conduct these simulations again to determine the number of seconds a client must be present for major types of WIC services to be accomplished. Other patient flow monitoring processes may be used if considered reliable for WIC clinics.

Spreadsheet #8 – WIC EBT Project/Paper Cost Comparison:

How do the costs of EBT versus paper issuance compare based on the Evaluation Period?

Spreadsheet #8 shows the results of the comparisons developed in the previous spreadsheets based on the State's selected Evaluation Period and the Average Number of WIC Participants with EBT or Paper Issuance recorded in the Reference Sheet. The monthly cost elements are automatically derived from total costs previously entered and are presented on a per participant cost basis. The spreadsheet will show the relative relationship of costs during the pilot to those experienced with paper benefit issuance.

Spreadsheet #9 – Changes in Retail Training and Checkout Times:

What impact has EBT had upon retailer practices?

Demonstrate and time the retail checkout process for paper and EBT using a standard number and type of approved WIC food items and quantities listed below:

Item 1: 1 Dozen Eggs
Item 2: 1 Gallon Whole Milk
Item 3: 1 Can Frozen Orange Juice
Item 4: 1 Box Adult Cereal A
Item 5: 1 Box Adult Cereal A
Item 6: 2 lbs. Random Weight Cheese
Item 7: 1 Box Adult Cereal B
Item 8: 1 Box Infant Cereal
Item 9: 1 Jar Peanut Butter
Item 10: 1 Can Tuna
Item 11: 1 lb. Carrots
Item 12-14 3 Cans WIC Infant Formula (Designate a Common Brand)
Item 15: 2 lb. Dried Beans
Item 16: 1 Can Tuna

Complete Spreadsheet #9 by timing the number of seconds (nearest whole number) that a WIC paper purchase takes compared to the electronic purchase of the this ***same number of the exact same*** WIC approved food items. The simulations can be done using group observation and time

notation, or timing with group video review. The ideal case would be to observe, time, and videotape this simulation in a retail checkout lane using the same store employee for both simulations. The store employee should either be new to both types of WIC transactions or experienced with both.

WIC staff time measures for WIC costs of retailer training were addressed as an operational cost in Spreadsheets #3, #4, #5, and #6. In order to gain an understanding of ***how*** training changes from a retailer's perspective in regard to EBT and paper issuance, observe and time several retailer training sessions over the course of the Evaluation Period. Enter the average observed value in whole minutes. Timing of these observations is not used for cost computations. Training normally done by **an experienced WIC trainer** for retail staff who are new (i.e., not experienced) in regard to paper issuance and retailer staff who are new to EBT can provide useful illustrations.

Enter the number of hours (rounded to nearest whole number) in the interval between a typical retailer claim submission and retailer payment under paper issuance and under EBT. Estimate the number of hours it takes for the State to implement a UPC change reported by a retailer under EBT. In addition to recording the general direction of change in retailer certainty of the correctness in basic elements of the WIC purchase, enter the dollar value of penalties imposed on retailers under paper and under EBT.

Attach a Comment narrative that lists the important areas of change that may have implications for costs borne by the store, the participant, and WIC.

Spreadsheet #10 – System Performance and Security Patterns:

What is the quality of redemption system performance, speed of operations, and security under WIC EBT, and what requires improvement?

Document your State's assessment of the adequacy of benefit delivery speed, system reliability, and food delivery/vendor monitoring to indicate the level of performance and security present in the WIC EBT implementation. To the extent that your State's data allow measurement of differences between paper and EBT, enter these metrics and attach any necessary definitions. States are invited to propose metrics that can provide useful illustration of EBT's effects compared to paper. Use Spreadsheet #10 to note any deficiencies or improvements that need to be addressed in expanding the WIC EBT system. If there are factors not identified on Spreadsheet #10 that are important to your State, identify and record the nature of these effects by adding these items to the spreadsheet.

To the extent that these are not sufficiently addressed by entries on spreadsheet #10 and yet are important to your State EBT expansion, attach a narrative that addresses the following questions. These aspects will contribute to assumptions on costs and less tangible benefits in projecting effects of WIC EBT expansion.

- In what ways does the WIC EBT system perform more effectively for WIC funded staffs, WIC approved vendors and WIC participants in terms of:

a. Caseload management (service to individual WIC participants and their caregivers) system security, reliability, staff burden (operating effectiveness) and recipient access.

b. Store accessibility; retailer activities; financial risk, and benefit redemption (in terms of local and Federal Reserve Bank timeliness); error prevention; liabilities for loss, etc. What ways, if any were more effective under paper issuance?

c. Facilitating or improving administrative functions of the WIC Program.

- How have State agency workflow and staffing been affected by the new system in terms of formal staffing allocation attributable to the WIC EBT system? Is the anticipated intensity of staff support needed to continue or expand WIC EBT reasonable and sustainable within allowable State staffing patterns?

- Do problems exist in setting up new or transferred EBT prescriptions accurately and in a timely manner?

- Does the rate of card or equipment replacement raise any concerns for fraudulent activity? For inability to predict WIC costs in the future?

Spreadsheet #11 – Summary of WIC EBT Planned Expansion Features:

What are annual costs expected in operating Statewide EBT? Are there special needs or other challenges that can be anticipated in expanding WIC EBT Statewide? What can be done to minimize ongoing WIC costs?

Use Spreadsheet #11 to enter major EBT expansion cost centers, and attach a narrative to address the technical and cost considerations necessary to expanding the WIC EBT system.

If Statewide WIC EBT will require initial or ongoing costs associated with retailer EBT integration into their store management systems, estimate these initial costs as part of EBT initial expenditures and ongoing annual WIC NSA costs for equipment replacement and enter them under "Other Retailer Costs" in each section.

To help in completing Spreadsheet #11 write down the State's explicitly stated assumptions that underlie costs as estimated on this spreadsheet. To the extent that these assumptions lead toward a known action, also record the action steps associated with each assumption. For each area, indicate the nature and anticipated causes of cost impacts foreseen in WIC EBT Statewide expansion. While FNS will focus on the content of the spreadsheets, it is these background notes that will allow a State to later gauge whether EBT rollout is progressing in an acceptable manner.

Refer to notes developed with previous spreadsheets. Some additional questions that are important to think about in framing assumptions for WIC EBT expansion include:

- What are the equipment configurations needed to operate the WIC EBT system in WIC authorized stores Statewide? Do these differ from the pilot area? Would these patterns affect estimated costs of Statewide EBT?

- Would the piloted configuration of equipment and telecommunications be expected to change due to the size of an expanded EBT system? What changes may be projected? How would the overall pattern of these changes affect WIC costs of system expansion?

- Are there assumptions regarding needs for new retailer and/or clinic equipment that do not stem from costs experienced in the EBT pilot? Would assumptions about replacement equipment need to reflect something different than the pilot experience?

- What retail characteristics appear to be most or least compatible with the WIC EBT system? Are there retailer differences such as WIC client density across the State that will impact estimations of costs on a per participant basis?

- To what extent will Statewide infrastructure and maintenance (equipment, software, telecommunications, etc.) be voluntarily offset by retailers?

- Are there alternative strategies for expansion that would affect equipment cost configurations? Adaptations to infrastructure that would affect WIC costs?

- What are annual EBT contracted costs? What is the basis of telecommunications (i.e., dedicated phone line, Internet, etc.) that supports the WIC EBT system and what cost structure(s) will apply if EBT is expanded Statewide?

- What are the technical and economic requirements for expanding the system? Are contracted services available Statewide? Will these costs change in relation to the pilot?

- How many WIC clinic sites are compatible with expansion prerequisites? Will there be added costs to make them ready for conversion to EBT? Will staffing or locations need to change due to EBT expansion?

- Is the State's WIC caseload growing or significantly changing in ways that might alter cost estimates?

- Are there realizable opportunities for EBT cost sharing with other non-WIC entities such as the Food Stamp Program? In all locations? In some locations?

Spreadsheet #12 – Summary of WIC EBT Planned Expansion Features:

Spreadsheet #12 applies the entries on previous spreadsheets to provide a comparison of Paper Issuance, Pilot Project EBT, and Statewide EBT in terms of average monthly costs per participant.

5. SUBMITTING EVALUATION MODEL RESULTS TO FNS:

Please provide copies of the National Evaluation Model spreadsheets (with protected formulas) and requested supporting narrative to the appropriate FNS Regional Office when complete. Electronic form is preferred.

FNS will use results from this Evaluation Model to make reasoned decisions about support for State expansions of WIC EBT. By using uniform definitions, standardized scenarios for measurement, and uniform placement of information in the spreadsheets of this Evaluation Model, States will have assisted FNS in streamlining communications while making sure that key elements necessary for sound decision making are available to both State and Federal WIC Program managers.

Based on the information from the previous spreadsheets and considerations discussed above, the following Highlights may be useful as a quick reference format for easily communicating major findings of this Evaluation to other State and federal decision makers.

DATE

STATE
WIC STATEWIDE EBT
HIGHLIGHTS

Total Annual State WIC NSA Grant	$
Average Monthly WIC Participation	
Monthly NSA Grant per WIC Participant	$
EBT Equipment and Cards:	
Total Initial Deployment for:	
WIC Stores	$
WIC Clinics	$
EBT Cards	$

AVERAGE MONTHLY COSTS PER PARTICIPANT FOR STATEWIDE WIC EBT OPERATIONS IN RELATION TO PAPER

	PAPER	Statewide EBT
Ongoing Monthly WIC Cost Per WIC Participant	$	$
Cost by Element:		
Equipment Replacement	$	$
WIC Stores		
WIC Clinics		
Voucher or EBT Card Expenses		$
State Issuance Operations	$	$
(Contracted Services)	$	$
Local Issuance Operations	$	$

DATE

STATE
WIC STATEWIDE EBT EXPANSION HIGHLIGHTS

	EBT Effects on Issuance		Estimated Annual Change
System Performance & Security:			
Vendor Overcharging/Food Substitution	+ or -		$
Audit Trail Availability	+ or -		
Track Food Redemptions & Store Prices	+ or -		Days
Vendor Monitoring/Claims Establishment	+ or -		
Rebate Claims Justification	+ or -		
WIC Retail Checkout Time	+ or -		Hours
Retailer Confidence:			
Percent of Claims Rejected	+ or -		%
Days from Claim to Payment	+ or -		Days
Clerk Potential for Error in Foods Allowed	+ or -		
WIC Vendor Training			
State	+ or -		Hours
Store	+ or -		Hours
WIC Vendor Monitoring Time:			
State	+ or -		Hours
Store	+ or -		Hours
WIC Issuance Problem Resolution/WIC Staff Assistance to Clients and Retailers	+ or -		Hours
Vendor Penalties	+ or -		Dollars
Annual WIC Local Staff Time Available for:			
WIC Certification	+ or -		Hours
Nutrition Education & Breastfeeding Support	+ or -		Hours
Issuance	+ or -		Hours
Referrals	+ or -		Hours
Annual Number of Client Visits to WIC	+ or -		WIC Visits

WIC CLINIC SERVICES TEST SCENARIO: 1

EBT ___Paper____(Check One)

Description: New client is certified for WIC benefits

Assumption: A pregnant woman, with no other WIC family members is newly certified. She has doctor's statement of current pregnancy, blood results showing no anemia, and documents to show her as income eligible with a household containing 2 adults.

Timing Instructions: Record to nearest second for each function measured.

PAN: PIN:
Family Group ID:
Cardholder Name: Lola Green
Service Provider Name:
State: Date Current:

Data Type	Data Entry	Certification	Nutrition Education & Breastfeeding	Benefit Issuance	Referrals	Total
1. Name	Lola Green					
2. Address	440 South St. This Town					
3. DOB	3-30-81					
4. WIC Category	Pregnant					
5. Family Income	$18,000					
6. HH Size	2 Adults					
7. Nutrition Risk	High Weight For Height					
8. Previous Births	No					
9. High Risk	No					
10. Food Package	Standard					
Comments:						

Completed by: _____ **Date:** _____

WIC CLINIC SERVICES TEST SCENARIO: 2

EBT ___Paper____(Check One)

Description: A child is certified for WIC benefits for the second time.

Assumption: A child, with a WIC sibling and breastfeeding mother in WIC is again certified. He has current blood test results showing anemia and documents to show him income eligible with a household containing 3 persons.

Timing Instructions: Record to nearest second for each function measured.

PAN: PIN:
Family Group ID:
Cardholder Name: Ben Olds
Service Provider Name:
State: Date Current:

Data Type	Data Entry	Certification	Nutrition Education & Breastfeeding	Benefit Issuance	Referrals	Total
11. Name	Ben Olds					
12. Address	441 South St. This Town					
13. DOB	2-15-02					
14. WIC Category	Child					
15. Family Income	$24,000					
16. HH Size	Mom+2 kids					
17. Nutrition Risk	Anemia					
18. Previous Births	NA					
19. High Risk	No					
20. Food Package	No Tailoring					
Comments:						

Completed by: _____ **Date:** _____

WIC CLINIC SERVICES TEST SCENARIO: 3

EBT ___Paper____(Check One)

Description: New client is certified for WIC benefits

Assumption: A breastfeeding woman whose infant is enrolled in WIC is certified at 6 weeks postpartum. She has blood results showing no anemia, and documents to show her as income eligible with a household containing 2 adults and 1 baby.

Timing Instructions: Record to nearest second for each function measured.

PAN: PIN:
Family Group ID:
Cardholder Name: Sandy Taylor
Service Provider Name:
State: Date Current:

Data Type	Data Entry	Certification	Nutrition Education & Breastfeeding	Benefit Issuance	Referrals	Total
21. Name	Sandy Taylor					
22. Address	443 South St. This Town					
23. DOB	6-24-78					
24. WIC Category	Breastfeeding					
25. Family Income	$14,900					
26. HH Size	2 Adults + Baby					
27. Nutrition Risk	Breastfeeding Dyad					
28. Previous Births	No					
29. High Risk	No					
30. Food Package	Standard					
Comments:						

Completed by: _____ **Date:** _____