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WIC EBT Feasibility Study and Cost-Benefit Analysis

August 20, 2008

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1. GENERAL INFORMATION

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) is designed to provide nutritious foods, nutrition education, and referrals to health and other social services. WIC program participants are pregnant, breastfeeding, or postpartum women, infants, and children up to the age of five who are determined to be eligible based on income.

In Virginia, the primary avenue for providing nutritious foods to WIC participants is through Food Instruments (FIs) or vouchers. FIs are similar to checks but which state the specific food items and quantities that may be purchased by the participant at WIC-authorized retailer locations. Virginia also issues $5 vouchers for purchase of fresh fruits and vegetables at designated Farmers' Markets during the growing season as part of the Farmer's Market Nutrition Program (FMNP). Virginia WIC policies for staff, participants and retailers dictate the issuance, redemption, and payment of FIs.

An alternative to the paper-based and largely manual FI process is electronic issuance, redemption and payment of WIC benefits, referred to as e-WIC. The concept of e-WIC is similar to that of electronic benefits transfer (EBT), which is being used in every State and Territory to distribute Food Stamp Program (soon to be re-named the Special Nutritional Assistance Program or SNAP) benefits and by many States to facilitate cash program payments. Food Stamp EBT uses debit card technologies; participants are issued magnetic stripe cards that can be used at Point-of-Sale (POS) terminals for the purchase of food items at authorized locations. When Food Stamp EBT was first introduced, many grocery stores did not yet accept credit or debit transactions. Today use of credit and debit cards is often more prevalent than cash and the EBT card offers recipients and program participants greater privacy, dignity, and security.

Because of the nature of WIC assistance, e-WIC is more complex than Food Stamp and cash EBT and is considered the most complex transaction at the POS. Few States have implemented e-WIC and among those States the technologies and implementation approach have varied widely. On-line e-WIC uses magnetic stripe cards and direct communications with the host system to verify and authorize the purchase of each food item. Off-line e-WIC uses cards embedded with an integrated circuit chip (ICC), commonly referred to as smart cards. The ICC stores the household's WIC benefit data. When a participant purchases a food item with the smart card, the POS terminal communicates directly with the ICC for verification and purchase authorization and records the transaction on the ICC. The terminal uploads the data to the host system at a later time (usually "pushed" to the host by the retailer). With either technology, retailers are paid through the established Automated Clearinghouse (ACH) network. It is possible for an e-WIC solution to be outsourced to a service provider or hosted in-house by the State.

In 2007, Virginia received a grant from the U.S. Department of Agriculture (USDA) Food and Nutrition Services (FNS) to conduct pre-planning activities for e-WIC. This document has been prepared for the Virginia Department of Health (VDH), Office of Family Health Services, Division of WIC & Community Nutrition Services (herein referred to as WIC Services) to assess the costs, benefits and risks of automating Virginia WIC participant access to nutritious foods.

1.1 CURRENT VIRGINIA WIC ENVIRONMENT

1.1.1 ORGANIZATION

Virginia WIC Services consists of Operations, Support, Vendor, Nutrition and Technical Teams as well as a Business Unit. WIC Services are also supported by the VDH Office of Information Management (OIM) and the Virginia Information Technology Agency (VITA). With contracted staff, OIM provides the design, development, testing and implementation of changes and enhancements to the current WIC management information system (MIS), known as WICNET. VITA provides network support for the WICNET system and would provide similar services as well as hosting services for e-WIC should the system be hosted in-house. Figure 1 illustrates the structure of WIC operations as it currently stands.

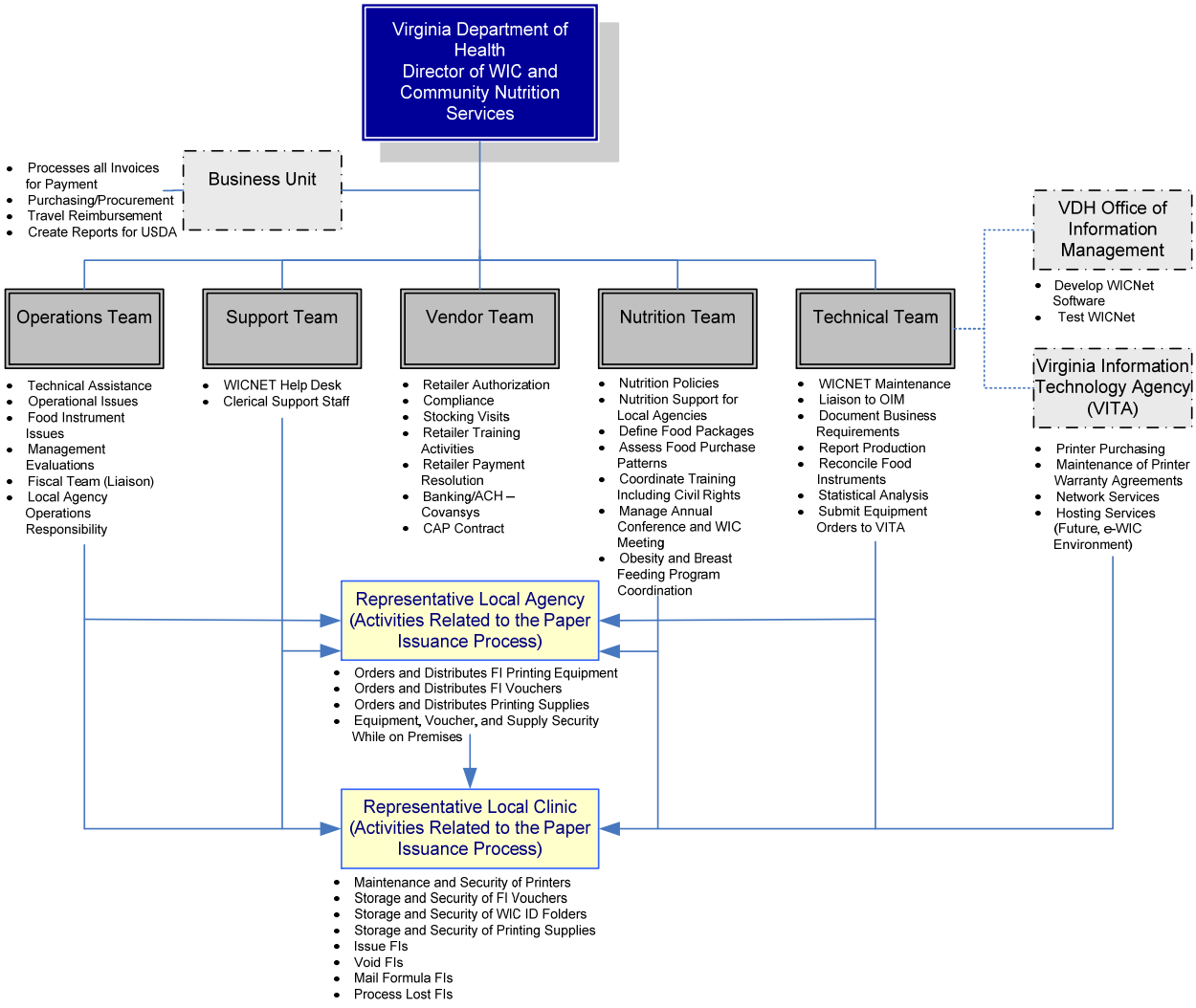


FIGURE 1: DIVISION OF WIC AND COMMUNITY NUTRITION SERVICES ORGANIZATIONAL STRUCTURE

1.1.2 WICNET

At the time of this study Virginia WIC Services is also participating in a WIC Program State Agency Model (SAM) Project. Called Crossroads SAM, member States include Virginia, Alabama, West Virginia and North Carolina, which is also the lead State of the SAM consortium. Crossroads SAM's objective is to plan for, develop, and implement a model WIC MIS with all WIC Program functional areas. When deployed, the Crossroads SAM system will replace Virginia's WICNET system and will be EBT-ready. It is Virginia's intention to leverage its SAM system development and implementation to integrate and implement e-WIC. Therefore, a detailed analysis of impacts to the current WICNET system should e-WIC be deployed is not required for this study.

The SAM project is in the planning phase with a goal of implementation by December 31, 2010. WIC Services anticipates contracting with a system integrator for the implementation of Crossroads SAM, with support provided by the WIC Services Technical Team, OIM and VITA, as appropriate.

1.1.3 CURRENT PROCESSES

WIC vouchers are currently printed and issued at the local clinic level. The parent, guardian, caretaker, or proxy is usually issued multiple vouchers, to provide the appropriate food packages for each participant for each month over a three month period. Vouchers can be redeemed at WIC-authorized locations during the appropriate month. Once vouchers are redeemed, the settlement flow is similar to that of a paper check, with the State's banking contractor responsible for auditing the vouchers for compliance, drawing down funds from the State's WIC account, and settlement to retailers, among other services. The following figure illustrates the current banking flow.

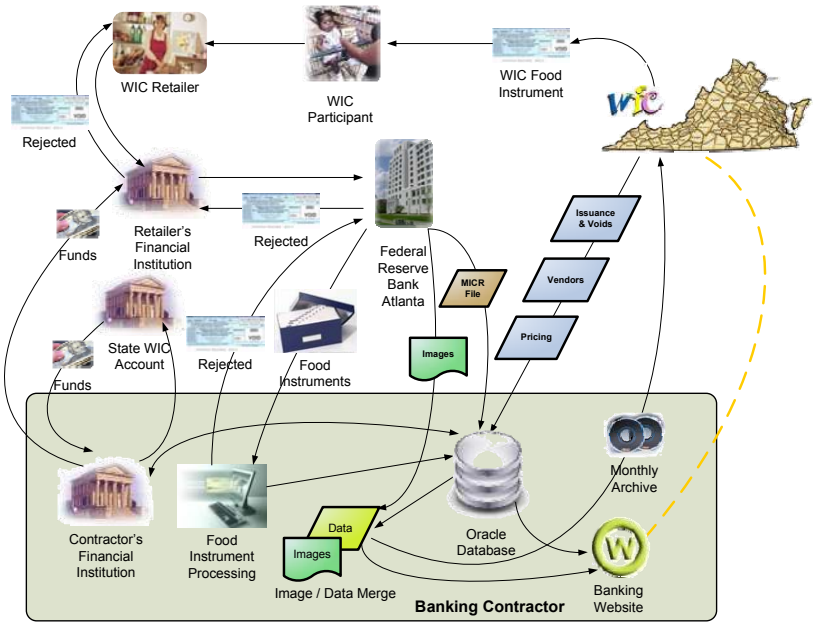


FIGURE 2: SETTLEMENT FLOW FOR THE PAPER-BASED SYSTEM

Detailed information on the paper-based system can be found in the *Baseline Analysis: Virginia WIC Paper-Based Issuance System.* (See Appendix B for relevant extracts of the *Baseline Analysis.*)

1.2 CURRENT E-WIC ENVIRONMENT

From the time Wyoming conducted the first proof-of-principle study in 1991 examining EBT as a means to deliver WIC benefits, Federal and State governments, EBT system vendors and retailers have considered WIC and other more complex programs as the "Next Generation" of EBT. Moving to the next generation has been slower than originally anticipated. Since 2004, EBT has been fully deployed for the Food Stamp Program nationwide and is now interoperable between all States. But e-WIC is only operating statewide in two States, and partially deployed in three other States, with Kentucky developing an on-line system in-house. The status of current e-WIC programs is provided in the following table.

State	Technology	Status
Kentucky	On-line magnetic stripe card system In-house processing	Kentucky has contracted with CDP, Inc. to develop and implement their e-WIC system with a pilot expected in 2009. The system is planned to be portable for use by other States. (CDP, Inc. has indicated it is considering providing hosting services using their on-line solution.)
Michigan	On-line magnetic stripe card system Outsourced processing	Michigan has contracted with ACS, the State's Food Stamp EBT contractor, to provide e-WIC services. They expect to implement statewide by February 2009. (Michigan's former EBT contractor was JPMorgan EFS, which had deployed an on-line e-WIC system in a limited area.)
Nevada	Off-line smart card system Outsourced processing Future On-line magnetic stripe system, also outsourced processing	Nevada is using the Stored Value Systems (SVS) solution in part of the State. SVS has indicated that in 2009 it will discontinue e-WIC services. Because of the exit of SVS from the market, the State will be converting to the JPMorgan EFS e-WIC on-line solution. (JPMorgan EFS is the State's current EBT contractor.)
New Mexico	Off-line smart card system In-house processing	New Mexico has completed statewide rollout of its e-WIC system. New Mexico partnered with Texas for this effort.
Texas	Off-line smart card system In-house processing	Texas partnered with New Mexico for this effort. Texas plans to complete roll-out of its e-WIC system in April 2009. All e-WIC retailers in Texas must be integrated with the e-WIC system. Texas is supporting retailers who need assistance in moving to an integrated electronic cash register (ECR) system.
Wyoming	Off-line smart card system Outsourced processing Future in-house processing	Wyoming was the first State to deploy e-WIC statewide beginning January 2002. Their contractor, SVS, is exiting the e-WIC market. They are currently in the process of implementing the Texas/New Mexico off-line system. Future e-WIC processing will be conducted in-house.

The WIC Program has specific requirements that have created barriers to implementation. Examples of these are provided below.

- Prior to EBT, Food Stamp coupons were portable across State lines; from its inception, EBT stakeholders have worked to achieve that same interoperability for Food Stamp and

cash EBT. With only a few exceptions, such as remote areas where recipients must cross State lines to purchase their WIC items, WIC benefits issued within a State can only be redeemed at a store within that State.

- Unlike Food Stamps, where the recipient is provided with a benefit amount that may be used to purchase food items, WIC items and quantities are specified on the paper voucher.
- Due to cost containment measures and the specificity of the food packages, WIC-authorized retailers have a greater burden of reporting and compliance than retailers authorized for the Food Stamp Program.
- Participants in the Food Stamp Program can carry unused benefits over to the next month. Food packages prescribed for WIC participants are authorized for purchase within a specified period, usually one month. After this period, the food package expires.
- Each State's WIC-approved items are different and therefore each State must create a database of items and their associated Universal Product Codes (UPCs) in order to implement e-WIC. The FNS has recognized the need for a national database of core items; however it is only now testing the ability to capture and maintain food items in a central database.

These same barriers, however, have also created an environment where e-WIC has become attractive to States and has been identified as a means of automating some of the Program's more labor-intensive functions. Once the initial hurdles of implementation are overcome, e-WIC programs see immediate benefits of accuracy, efficiency and accountability.

Based on the current e-WIC environment and market conditions, such as the exit of SVS from providing outsourced off-line services, VDH has identified three viable alternatives for the State's e-WIC solution:

- **Alternative 1:** Contracting for an on-line magnetic stripe card system with transaction processing outsourced to the service provider. (On-line, Outsourced)
- **Alternative 2:** Porting an on-line magnetic stripe card system from another State and conducting transaction processing in-house. (On-line, In-house)
- **Alternative 3:** Porting an off-line smart card system from another State and conducting transaction processing in house. (Off-line, In-house)

2. MANAGEMENT SUMMARY

VDH has completed a baseline analysis of its paper-based and largely manual Food Instrument (FI) distribution, redemption and payment process[1]. The assessment concluded that e-WIC could be anticipated to address the shortcomings of Virginia's paper-based system, including:

- *The errors and waste in the paper-based Special Supplemental Nutrition Program for Women, Infants and Children (WIC) processes that result in shredded vouchers, voids, and misprinted FIs. Staff time associated with correcting these types of errors would be eliminated if the issuance, redemption and payment processes were automated.*

- *The rejected FIs and the retailer sanctions for non-compliance with WIC policies attributed to or allowed to occur by the paper-based system. Retailers associate the ability to conduct WIC transactions electronically with a reduction in losses and fines. Retailer losses attributed to the paper-based system are greater than $300,000 per year. In addition, State and retailer staff spend significant time addressing rejected FIs.*

- *The reduced dignity and privacy of participants, which they attribute to aspects of the paper-based system. Participants are cognizant of the anonymity provided by the use of credit and debit cards.*

Each of the major stakeholders in FI automation, State and local WIC staff, retailers, and WIC Program participants, expect to receive tangible and intangible benefits of an e-WIC system that uses either a magnetic stripe or smart card to issue and access benefits, and that is grounded in standardized banking practices that support automated electronic payment.

VDH faces known challenges in implementing e-WIC. As only a handful of e-WIC systems have been implemented, there are still issues with technical standards and policies that have not been completely resolved and operating rules have not been adopted. In tandem with system deployment, VDH will need to ensure the proper policies and procedures are in place to address all aspects of the e-WIC program. As with other e-WIC States, VDH will likely encounter challenges with retailer implementation, such as cost of deployment and integration with store ECR systems. To mitigate the risks associated with these challenges, VDH has taken a pro-active approach in participating in national e-WIC planning, acquiring lessons-learned from States with e-WIC systems, and inviting Virginia's retailers to participate in e-WIC discussions.

General assumptions based on the State's preferred strategies for e-WIC deployment include:

- The e-WIC solution will be designed, configured, integrated and tested in conjunction with the development of the SAM system.
- Implementation will be concurrent with implementation of the SAM system.
- The State will not deploy stand-beside POS terminals that can only be used for e-WIC transactions.
- Both on-line and off-line software will be available to be ported from other states for the in-house solutions.

[1] See Appendix B: *Baseline Analysis: Virginia WIC Paper-Based Issuance System.*

3. ALTERNATIVES ANALYSIS

3.1 METHODOLOGY

In 2004 FNS released the *WIC EBT National Evaluation Model* to be used to prepare a cost comparison of a State's paper-based system with an existing e-WIC pilot. For this analysis, a new model was developed to capture baseline data as well as facilitate an analysis of e-WIC alternatives. Core elements of the *WIC EBT National Evaluation Model* were incorporated into the *WIC EBT Alternatives Analysis Model* so that data uncovered during e-WIC pilot evaluations in other States could be used as a comparison against Virginia's paper-based system. Major differences between the models include:

- *Type of Comparison:* The *National Evaluation Model* was designed to directly compare a State's paper-based environment and an existing e-WIC pilot simultaneously over a minimum of three months. The *Alternatives Analysis Model* is designed to compare a State's paper-based environment and up to three assumed alternatives.
- *Number and Type of Assumptions:* As the e-WIC environment for a State conducting a feasibility study has not been completely defined, there are a number of stated assumptions for the *WIC EBT Alternatives Analysis Model* that are not required to complete the *National Evaluation Model*.
- *Time Studies:* As other States' e-WIC data (time, materials and services) are being used to create an approximation of the costs for a future e-WIC environment, the necessity for a full three months of State and local clinic time studies of the paper-based system was diminished. Instead, the alternatives analysis is supported by abbreviated time studies of repetitive actions and the State's estimation of time required for occasional activities.
- *Benefits and Risks:* The *Alternatives Analysis Model* is designed to capture and rate the intangible benefits and risks of e-WIC, whereas this is not a major component of the *National Evaluation Model.*

The following activities were conducted to obtain the data necessary for the alternatives analysis.[2]

3.1.1 ALTERNATIVES COSTS

Cost data and information applicable to the various e-WIC alternatives were gathered from the feasibility studies and pilot evaluations previously conducted in a range of States and through interviews with VA WIC Services staff. Reference reports include:

- *Final Evaluation Report* from the Michigan WIC Program EBT Evaluation Project, September 28, 2007
- *WIC EBT Feasibility Study/Cost Benefit Analysis*, Washington State Department of Health WIC Program, September 26, 2007
- *Washington State Project Key Outcomes and Feedback Report*, USDA, FNS, Online WIC EBT Demonstration, March 16, 2006

[2] To the extent possible, baseline numbers (WIC participants, Food Instruments paid, rejected, etc.,) were from the most recent year of reports available when this assessment began, which was the period from March 2007 through February 2008. This is referred to as the "analysis year." Baseline data are provided in Appendix D.

- *New Mexico WIC Program EBT Cost Benefit Analysis,* USDA, FNS, May 19, 2006
- *Texas WIC EBT National Evaluation Model Cost Sheets,* USDA, FNS, 2006

Additional information was obtained concerning these and other deployments, such as the Kentucky on-line system being developed by CDP, Inc., through e-mails, interviews, presentations, and related documentation.

3.1.2 Baseline Data

Baseline costs and evaluation criteria were attained through review of State documentation, interviews, abbreviated time studies and on-line surveys. Details concerning these methodologies can be found in the *Baseline Analysis: Virginia WIC Paper-Based Issuance System;* a synopsis is provided in the following matrix.

Stakeholder Group	Documentation	Interviews	Time Studies	Timed Transactions	On-line Surveys
State-level WIC Staff	Invoices WIC Reports	On-site group meetings and individual interviews; E-mails; Conference calls	All applicable State staff: Two-weeks for repetitive activities; estimated for occasional activities	N/A	N/A
Local Agency and Local Clinic Staff	WIC Reports	On-site interviews at 3 agencies and 4 clinics; E-mails	3 clinics: One-week for repetitive activities; estimated for occasional activities.	Paper-based issuance transactions timed as check against time studies	Available to staff statewide; included processes and estimated transaction times
Retailers	WIC Reports	Interviews with 3 retailers; Follow-up e-mails	N/A	Paper based purchase transactions aligned with WIC Evaluation Model; credit card purchase transaction	Available to retailers statewide. Included requests for estimated transaction times for WIC purchases and back-office activities
Participants	WIC Reports	N/A	N/A	N/A	Available to WIC participants statewide

3.1.3 E-WIC Benefits and Risks

The intangible benefits, possible risks, and evaluation criteria of e-WIC were gathered at the same time and through the same methodologies as the baseline data was gathered. For example, on-line surveys for local staff, retailers and participants included questions concerning the e-WIC program.

Benefit and risk charts were provided to the State for review and assessment. Benefits were identified by aligning the e-WIC program with the goals and objectives of the State's WIC Program as submitted to the FNS in the *Fiscal Year 2007 WIC Program State Plan*. Strategic categories reviewed for their applicability to e-WIC included:

- Vendor Management
- Nutrition Services
- Organization & Management
- NSA Expenditures
- Food Funds Management
- Caseload Management
- Certification & Eligibility
- Fund Delivery/Food Instrument Accountability and Control
- Monitoring/Audits
- Civil Rights

Risks were identified through their alignment with the standard system development life cycle (SDLC) risk categories of:

- Organizational and Change Management
- Business
- Data and Information
- Technology
- Strategic
- Security
- Privacy
- Resources
- Schedule

3.2 EVALUATION CRITERIA

During meetings and interviews with State-level management and staff, the following evaluation criteria were established for assessing the e-WIC alternatives. Each evaluation criterion has been weighted, using a scale of 1 to 5, with 1 being of least importance and 5 being of highest importance to the State. As seen, the State places the highest importance on proven implementation, lower annual operating costs, and the alternative's ability to be implemented concurrently with the SAM system.

Evaluation Criteria		
Criteria	**Weight**	**By Meeting This Criterion:**
Proven Record of Implementation	**5**	The State's implementation risks are reduced.
Proven Record of Operations	**5**	The State's operational risks are reduced.
Proven Record of ECR Integration	**5**	The State's and retailers' risks are reduced. With a greater number of integrated ECRs, costs may also be reduced.

Evaluation Criteria		
Criteria	**Weight**	**By Meeting This Criterion:**
Proven Record With EBT	**5**	The State's and retailers risks are reduced. This indicates that the processor has experience in providing EBT services, including processing, retailer management and help desk support.
Provides Body of Knowledge for Policies and Procedures	**3**	The State will have the advantages of lessons learned, policies that will need to be established, and procedures applicable to the alternative.
Provides Stability for On-going Operations	**5**	The State will be provided with the greatest stability for budget and operations.
Able to Increase WIC Accuracy and Accountability	**3**	The State will realize greater accuracy and accountability for WIC transactions.
Increases Retailers' Ability to Comply With Program Policies	**3**	Retailers will have a greater ability to comply with program policies and procedures.
Minimizes On-going Operations Costs	**5**	The State will be better able to manage the cost of on-going operations.
Provides Uninterrupted Service to WIC Clients or Retailers	**5**	The State and retailers will be better able to minimize disruptions to WIC clients.
Investment in Retailer Hardware/Software	**3**	The State will be better able to minimize investments in retailer hardware and software.
Ability to Adapt to Change in Technology	**4**	The State will be better able to minimize the risk of changes in technology or system changes required to adapt to State and federal program changes.
System and Data Security	**4**	The State will be able to minimize data and security risks.
Able to Meet the Schedule Established for SAM	**5**	The State will be able to minimize the risk of meeting schedules established for SAM implementation.

Within this section, these criteria have been applied against each of the WIC alternatives. Together with a cost analysis and a risk analysis the scores obtained as a result of this evaluation have been used to rank the alternatives analyzed for this study.

4. ALTERNATIVES ANALYSIS

This section contains descriptions of each of the three alternatives and descriptions as to how they meet the evaluation criteria.

4.1 E-WIC ALTERNATIVES

4.1.1 ALTERNATIVE 1: ON-LINE, OUTSOURCED

In an outsourced environment, the full range of e-WIC services is provided by an EBT service provider, often with the assistance of subcontractors. The core functional components of an EBT system that are also applicable in the e-WIC environment include:

- Host Processing System (Authorization Platform)
- Retailer Management
- Card Production
- Help Desk Support for Staff, Retailers and Clients

The processor's e-WIC host system interfaces with the WIC MIS to support the exchange of data necessary to create and manage a client's card account and to authorize a client's access to specific benefits. The host system provides client card management, transaction processing, card history, and transaction history and reporting. In an on-line environment, the system provides the authorization for a transaction at the retailer's POS. Once each night the system initiates the draw down from the State's designated financial institution and settles funds to retailer accounts. In an outsourced environment, the host system is maintained at the contractor's site with a back-up system at an alternative location. State and local staff are provided appropriate access levels to the host system, with the screens necessary to conduct e-WIC activities. JPMorgan EFS and ACS have deployed this alternative in limited areas. CDP, Inc. has indicated that they may provide outsourced services using the software they are currently developing for Kentucky.

E-WIC can be conducted with stand-beside POS terminals or terminals that are integrated with the retailer's ECR system. A stand-beside POS configuration includes the EBT-only POS terminal, PIN pad, receipt printer and a Universal Product Code (UPC) scanner. Core differences between the stand-beside and integrated POS include:

Factor	Stand-Beside System	Integrated System
Installation and Training	EBT Contractor is responsible for installation and training. Installation includes in-lane installation of the WIC POS configuration to include the wiring required for communication to the host system. These activities are a disruption to store activities and facilities.	The retailer or its ECR contractor is responsible for installation and training.
Footprint	Additional equipment in-lane.	The same terminal is used for e-WIC as for the store's debit and credit transactions. No appreciable impact on the footprint in-lane.

Factor	Stand-Beside System	Integrated System
Technology	POS terminal capable of accepting WIC transactions, PIN pad, printer, scanner and peripherals.	Use existing UPC scanner; may require an upgrade in POS terminal hardware and/or software to facilitate acceptance of WIC transactions.
Cost	If outsourced, States may purchase retailer equipment from the contractor and pay for monthly maintenance or they may lease terminals from the contractor. Contractor pricing includes the terminal, installation, and retailer training. States may elect to pay for terminals separately or request terminal pricing be included in the CPCM. If in-house, States may assume retailer support or may provide a stipend for the stand-beside equipment.	Some retailers have assumed integration and terminal upgrade costs. State costs may provide retailers with stipends for ECR integration, ECR systems that have been integrated, POS configurations that include scanning equipment, and/or POS terminals and terminal installation.
In-Lane Transaction Times	Additional transaction time as all WIC items must be scanned twice by the retailer, once at the ECR and once at the e-WIC POS. This increases transaction times and in some testing during initial deployments it exceeded the time for a paper-based transaction. E-WIC transaction processing time slightly more than credit/debit as the transaction authorization is more complex.	Items are scanned one time; transaction processing time slightly more than credit/debit as the transaction and its authorization is more complex.
Updating UPCs/Pricing	Retailers must update UPCs and pricing twice, once for their store system and once in the e-WIC system. There is an increased risk that pricing for individual food items does not reconcile between the ECR and the stand-beside system.	Updates to UPCs and pricing are performed once by the retailer. Risk of out-of-synch systems, which creates reconciliation errors, is minimized or eliminated.

As some large chains will have already integrated with e-WIC systems or may consider the benefits of integration to be greater than the cost of integration, there will always be a number of retailers within a State that are integrated. Whether the remaining retailers are integrated depends on the State's decision to allow stand beside systems. This is true regardless of whether the system is outsourced or operated in-house, and whether the system is an on-line or off-line system. Virginia has determined that ECR integration will be required for its WIC-authorized retailers.

The e-WIC contractor is responsible for establishing the business agreements with retailers, national chains and third party processors (TPPs). The contractor is responsible for the installation and maintenance of the stand-beside POS terminal configuration. On installation, the contractor trains retailers and provides the retailer with training materials. The contractor provides terminal drivers, the software that facilitates transaction authorization with the e-WIC host.

The e-WIC contractor also provides the terminals at local clinics to facilitate card issuance and PIN selection. In the WIC environment, an additional terminal or kiosk is often installed in the waiting area of WIC clinics so that clients can obtain a receipt indicating their benefit quantity

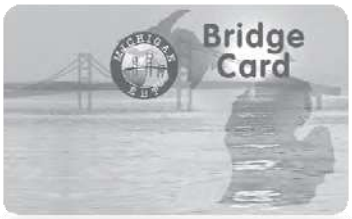
and food type and dates these benefits are available. Virginia has indicated that their WIC clinics will require terminals with this functionality.

The e-WIC contractor provides the State with the required quantities of e-WIC cards. Contractor fees include the card graphics design, card production and card delivery. The contractor calculates card stock needs based on caseloads, card loss and client turnover rates. Contractors do not produce the cards themselves; this service is contracted to card production firms that meet ISO 9000 standards at facilities that meet the security requirements of credit and debit card issuers.

The e-WIC contractor is also responsible for providing help desk services to staff, retailers and clients. Client help desk support is a significant cost driver for EBT contractors; States often take measures to reduce their EBT cost per case month (CPCM) pricing by providing a greater level of training to clients, counseling clients identified as frequent users, and requiring the EBT contractor to provide clients with web-based access to account information. North Carolina has elected to move Food Stamp EBT client help desk services in-house to reduce the CPCM fee charged by their EBT Contractor. By law, some States require on-shore or even in-state customer service centers, which generates a higher CPCM.

The contract with an e-WIC service provider usually contains performance standards concerning system uptime; transaction response times; retailer equipment installation and repair times; help desk response times; and more. States enforce these standards by initiating payment hold-backs and/or liquidated damages when standards are not met.

4.1.1.1 The Clients' Perspective



From the clients' perspective the difference between on-line outsourced and in-house e-WIC should be transparent. In the on-line environment the head of household is issued a magnetic stripe card at the local office and selects a PIN. All of the household's benefits may be accessed with one card – unlike the paper-based system, where separate vouchers, and sometimes multiple vouchers, are issued to each WIC participant in a household. With on-line e-WIC, cards may be issued to additional household members, as transactions are recorded at the host system in real time and there is little risk of a household redeeming the same benefits twice.

The card and PIN serve as the client's identification at the POS. Because each item of the purchase must be approved by the host system, the card is swiped *prior* to beginning a purchase transaction. Generally, the client's account, an itemized list of authorized food items, is then downloaded by the host to the POS. Non-WIC items, items that are not part of a household's benefits, and expired benefits will not be approved for purchase. Upon completion of the transaction, the client is provided with a receipt that indicates items purchased as well as the benefits remaining in the household's account. The POS immediately uploads the transaction data back to the host system.

When the client returns to the WIC clinic for services and is authorized for additional benefits, the benefits are uploaded (either real time or through overnight batch processing) to the host

system. The client does not need to present the e-WIC card for benefit authorization to occur. In emergency situations, when a client is physically unable to go to the clinic, the clinic may still upload benefits to the household's account.

4.1.1.2 Conclusion

With outsourced EBT the State contracts with one entity to provide services and has only one contract to manage. The State may set performance standards and hold the contractor accountable for meeting those standards in all functional areas. The State does not need to learn new skill sets or sub-contract out services such as POS installation, card production, or help desk services. Other benefits of outsourcing include the ability to rely on the extensive experience of contractors that have been providing EBT services for States since the early 1990's. These contractors have in-depth knowledge of EBT and debit network operating rules and of the services required to support EBT such as retailer management and help desk support. They would also provide technology refresh, service enhancements, and upgrades to the system when program rules are changed at the State or federal levels.

There is a slight risk in that there has not yet been a statewide implementation of an outsourced, on-line system, although the ACS system is now deployed in over half the State of Michigan. However, retailer integration with these systems has been minimal. Meijer Corporation developed and deployed an integrated ECR during the JPMorgan EFS pilot in Michigan. When the State converted to the ACS system, the previous integration was not compatible and the stores had to revert to stand-beside POS configurations. There is also a risk of operating cost increases should the caseloads go up, resulting in budget uncertainties.

The following table represents the scores given to this alternative for each of the evaluation criterion. The alternative's scores are based on a 0 to 3 scale, with a zero score meaning the alternative does not have the ability to meet the criterion and three meaning the alternative has the ability to meet or exceed the criterion.

Alternative 1: On-Line Outsourced		
Criteria	**Score**	**Comment**
Proven Record of Implementation	3	Outsourced, on-line e-WIC has been implemented in approximately half of Michigan and will be statewide by early 2009.
Proven Record of Operations	3	Outsourced, on-line e-WIC has a successful record of operations in Michigan.
Proven Record of Integration With ECR Systems	2	The e-WIC contractors have integrated with ECR systems; however, the non-compatibility of integration among the contractors is an issue that still needs to be resolved.
Proven Record With EBT	3	EBT contractors provide States with years of knowledge and experience in the EBT and debit industries, and with other services such as retailer and help desk support.
Provides Body of Knowledge for Policies and Procedures	3	There are policies and procedures that have been developed for Michigan and there are some lessons learned that can be taken from off-line systems.

Alternative 1: On-Line Outsourced		
Criteria	**Score**	**Comment**
Provides Stability for On-going Operations	2	As outsourcing relies on contracting with vendors, there is a risk that new contracts will mean transitioning to a new vendor. This may also impact retailer ECR systems and POS terminals, although these issues are being addressed.
Able to Increase WIC Accuracy and Accountability	3	As all e-WIC transactions are electronic, saving the full set of transaction data, this is a benefit that will be derived from an e-WIC, regardless of the technology or whether it is outsourced or operated in-house.
Increases Retailers' Ability to Comply With Program Policies	3	Regardless of technologies or approach, e-WIC will provide retailers with a means to automate approval of transactions and to provide an electronic check on each transaction.
Minimizes On-going Operations Costs	0	The cost study indicates that annual operations costs are greater than the paper-based system and the other two alternatives.
Provides Uninterrupted Service to WIC Clients or Retailers	3	On-line e-WIC transactions cannot be conducted if there is a loss of connectivity to the POS terminal. However, these networks have proven to have a sufficient level of reliability for use by the credit/debit industries.
Investment in Retailer Hardware/Software	2	Regardless of the alternative, Virginia will need to provide a level of support to its retailers. In the outsourced environment, this may be paid for as part of the CPCM rather than an up-front investment.
Ability to Adapt to Change in Technology	3	In this case, the e-WIC vendor takes on the responsibility of adapting to changes in technologies and other related changes.
System and Data Security	3	Both the credit/debit network and the contractor's systems will be operating according to security standards.
Able to Meet the Schedule Established for SAM	3	This ability is more dependent on the State's ability to acquire services in a timely manner than on the vendor's ability to provide the system as the e-WIC contractors will work with the State to provide services in a timely manner.

4.1.2 Alternative 2: On-Line, In-House

CDP, Inc. is developing an on-line e-WIC system as part of their work with the Commonwealth of Kentucky. The e-WIC system is being developed to comply with ANSI standard X9.93[3] to facilitate porting to and integration with other State WIC systems that are EBT-ready.

To State, Regional and local employees using the system, and to participants, the difference between the outsourced and in-house on-line systems should be transparent. The greater differences will come in the responsibilities of the State to accommodate all functions of the e-WIC system. These responsibilities will be the same regardless of whether the State elects to implement an on-line or off-line system. They include:

- Design, development, and configuration of the ported e-WIC system to meet VDH requirements. While the Kentucky system is being developed to facilitate porting, it will still require system changes to synch up with the functions that will be incorporated into the Crossroads SAM.

[3] American National Standards Institute (ANSI) standards X9.93, which described the transactions between the retailer and the e-WIC host.

- Integrating the ported e-WIC system with Crossroads SAM.
- Procuring servers and associated hardware.
- Hosting the e-WIC system. The system must be operational 24x7, unlike WICNET, which may be up 24x7 but is primarily used during business hours. It is assumed that VITA will provide hosting services for e-WIC.
- Providing retailer support. This may include some funding ECR system integration, funding terminals or POS configurations in-lane and contracting with a firm to provide retailer implementation support.
- Providing retailer management including training, training materials, and help desk support.
- Establishing connectivity with e-WIC only retailers, third party processors and major chains.
- Establishing connectivity with the ACH network for the daily drawdown of WIC funds and retailer settlement.
- Installing issuance and inquiry terminals at local offices.
- Providing State and local staff with help desk support and training materials.
- Managing the card production contract.
- Providing client help desk support and training materials.

During Wyoming's initial EBT rollout, it managed a number of contracts related to its EBT system, rather than contracting with a full service provider. Virginia may also decide to use outside support to provide these services:

- Use the Crossroads SAM contractor or another outside contractor to provide the integration services for e-WIC.
- Contract for retailer management services.
- Contract for banking services, including the daily drawdown and retailer settlement.
- Contract for help desk support.

4.1.2.1 Conclusion

The near-term risk in proceeding with this solution is that the software from CDP, Inc. is in the development phase and is not expected to be tested in the field until mid to late 2009. The time frame for testing and piloting the system adds risk to the State's plan of implementing e-WIC in parallel with its SAM implementation. In addition, the State may be the lead State in attempting to port the system over from Kentucky.

In theory, retailer integration with other on-line systems should be able to be ported to this system as all systems are being developed to the ANSI X.93 standards. However, as seen in Michigan, system integration had to be repeated when moving from one on-line system to another. There is no guarantee that retailers that have integrated with either the ACS or JPMorgan EFS systems will be able to use that integration with the CDP, Inc. on-line system. Other risks to the State include shouldering the responsibilities of the e-WIC functions. These risks can be mitigated if outside sources are used for specific functional areas, such as retailer implementation support.

If the system functions as required, local agencies, retailers and client users should not be able to differentiate between an on-line outsourced and in-house e-WIC system.

The following table represents the scores given to this alternative for each of the evaluation criterion.

Alternative 2: On-Line In-House[4]		
Criteria	**Score**	**Comment**
Proven Record of Implementation	0	The in-house, on-line e-WIC solution has not yet been implemented.
Proven Record of Operations	0	The in-house, on-line e-WIC solution is not yet operational. VDH has not previously supported EBT operations.
Proven Record of Integration With ECR Systems	1	The in-house, on-line e-WIC solution has not yet been integrated with ECR systems. However, the solution is being developed to the same data exchange standards as the Michigan system and may be able to leverage the integration work performed for that State.
Proven Record With EBT	0	VDH has not previously provided EBT services.
Provides Body of Knowledge for Policies and Procedures	3	There are policies and procedures that have been developed for Michigan and there are lessons learned that can be taken from off-line systems.
Provides Stability for On-going Operations	1	The in-house system will rely on VITA to provide 24x7 hosting services, which has not been proven in a financial, transaction-based environment. In addition, VDH will rely on contractors to adapt the software to changes in the WIC program.
Able to Increase WIC Accuracy and Accountability	3	As all e-WIC transactions are electronic, saving the full set of transaction data, this is a benefit that will be derived from an e-WIC, regardless of the technology or whether it is outsourced or operated in-house.
Increases Retailers' Ability to Comply With Program Policies	3	Regardless of technologies or approach, e-WIC will provide retailers with a means to automate approval of transactions and to provide an electronic check on each transaction.
Minimizes On-going Operations Costs	3	This solution would provide lower on-going operational costs than the paper-based based system or the other two alternatives.
Provides Uninterrupted Service to WIC Clients or Retailers	2	On-line e-WIC transactions cannot be conducted if there is a loss of connectivity to the POS terminal or if the host system goes down. The networks have proven to be reliable for use by the credit/debit industries. VITA will be providing hosting services, which has not yet been tested in e-WIC financial, transaction-based environment.
Investment in Retailer Hardware/Software	1	Regardless of the alternative, Virginia will need to provide a level of support to its retailers.
Ability to Adapt to Change in Technology	1	Any changes to technology would have to be undertaken by VDH.
System and Data Security	3	Both the credit/debit network and the systems deployed by VDH will be operating according to security standards.
Able to Meet the Schedule Established for SAM	1	Virginia would have more difficulty in implementing this system in parallel with its SAM system as the on-line system is not due to go into pilot phase until mid to late 2009.

[4] The alternative's scores are based on a 0 to 3 scale, with a zero score meaning the alternative does not have the ability to meet the criterion and three meaning the alternative has the ability to meet or exceed the criterion.

4.1.3 ALTERNATIVE 3: OFF-LINE, IN-HOUSE

This solution involves porting and integrating the off-line e-WIC system that is used in Texas and New Mexico and is being implemented in Wyoming. If hosting an off-line system, the State would bear the same functional responsibilities delineated in Section 4.1.2 above. The difference with this alternative lies in the technology.

As the term "off-line" indicates, transactions at the POS do not require a real-time connection to the host for authorization. The card is inserted into the POS (which must be smart-card enabled) and left in the POS for the duration of the transaction. Each scanned item is compared against the items in the ICC for authorization. Because it does not require communication with the host, the transaction time is less than e-WIC on-line transactions. If an item is approved, it is deducted from the record on the ICC. All transactions are uploaded from the POS to a back-office server. Retailers may upload transactional data from their server to the host system at any time but are encouraged to upload their files on a daily basis.

From the local clinic perspective, smart card issuance is similar to issuing magnetic stripe cards. Benefits, however, must not only be sent to the host system but also loaded onto the ICC. During subsequent visits, clients must present their cards so that new benefits can be written to the ICC, or changed, or deleted, as necessary. In addition, only one card may be issued to each household as the "real-time" file of record will be on the ICC, not at the host system. If a card is lost, stolen or damaged, a client must wait for at least 24 hours before benefits can be replaced. This period allows retailers to upload their transactions to the host system. New Mexico recently recommended a 72 hour waiting period as stores with minimal transactions settle less frequently than every day and it may require an extended period before all transactions are uploaded to the host. This same waiting period applies to help desk services and client web-sites, which must either decline to provide account information or caution clients on the wait period when asked about a transaction history or account balance. Clients would be able to obtain balances at the inquiry terminals in WIC clinics or on their receipts after a store purchase.

The following table describes these and other differences between off-line and on-line EBT.

Comparison of Off-Line and On-Line Systems

Factor	Off-line	On-line
Card Costs	Card costs reported in Texas and New Mexico are approximately $4.50 per card. These costs are for non-personalized cards issued over-the-counter at local clinics.	Cards are approximately $0.25 per card for non-personalized cards issued over-the-counter at local clinics.
Telecommunications	Transactions are conducted between the ICC and the POS. Communication with the host system is not required to conduct the transaction, only to upload the stored transactions for settlement.	On-line communication with the host system must be established for the transaction to occur.

Comparison of Off-Line and On-Line Systems		
Factor	**Off-line**	**On-line**
Host System Availability	Host system does not have to be available to conduct a transaction; however, the host system should be "up" 24x7 to accept retailer settlements.	Host system must be available 24x7 to conduct transactions.
Manual Transactions	Manual transactions are not available if retailer equipment or card is not functioning.	Manual transactions are possible if retailer equipment is not functioning or host system is down and if State policy allows. To conduct a manual transaction, the retailer calls the processor help desk, relays the purchase information, and obtains an authorization number, which is written on a retailer manual voucher. The retailer then submits its voucher for settlement.
Benefit Issuance and Modifications	Cardholder must present the card in order for benefits to be loaded or changed on the ICC.	Benefits are uploaded to the host system. The cardholder does not need to be present and does not need to present the card for benefit issuance or modification.
Service Interruption at POS	No interruptions due to host system, and/or telecommunications problems.	May be transaction interruptions due to host system and/or telecommunications problems; longer transaction times increases this possibility.
Processing Fees	No processing fees for retailers	Processing fees possible
Split Tenders	ICC does not allow the client to split the volume or quantity of an item.	Split tenders are possible, if State policy allows.
Client Returns/Refunds	System does not allow retailer POS to write returns to the card.	System allows returns (which reconstitutes the benefit) or refunds (for value taken from the planned cash value vouchers (CVV) for fresh fruit and vegetables).
Cards Reported Lost, Stolen or Damaged	Clients must wait 24-72 hours to receive a new card as a benefit balance cannot be obtained until retailers settle transactions. Client must go to the clinic to receive a new card, select a new PIN and have benefits loaded on the ICC. Hot lists are downloaded to retailer systems but a stolen card may be used at the POS until the hot list is received by the retailer. (The card must still have benefits and the person must still know the secret PIN to use the stolen card.)	Clients may receive a new card with benefits without a waiting period as all retailer settlements are "real-time". Clients may have a card mailed to them or they may pick them up at the clinic. Use of a hot listed card will be denied at the POS once the card has been reported lost, stolen or damaged.
Security	ICCs can provide a high level of security. Uses a PIN validated against the PIN stored on the card. PIN and card data are encrypted.	Magnetic stripe technology has a lower level of security. Uses a PIN, encrypted transmission, and validation at the host.

Comparison of Off-Line and On-Line Systems		
Factor	**Off-line**	**On-line**
Balance Inquiry	Can provide information stored at the host but the information will not be current unless all retailers have settled their transactions. Clients can get current balances at WIC clinics or on the last receipt received at the store.	Can be provided in real time via phone or web-based client help.

4.1.3.1 The Client Perspective

The greatest impact to the client is the need to present the card at the clinic in order to receive benefits. If a client forgets the card or if there are circumstances where the client cannot get to the clinic, then the client will incur an inconvenience or delay in receipt of benefits.

There is little difference between the technologies when conducting a transaction at the store. Both require presentation of the card prior to the transaction. Smart card transactions are not subject to breaks in connectivity and transmission errors at the POS but errors can occur if a card is removed prior to a transaction being completed.

4.1.3.2 Conclusion

This alternative provides the advantages of being a proven solution, having been implemented statewide in one State and in the process of implementation in two more. It has also been integrated with at least 14 different ECR systems, providing a greater probability of implementation success and a greater chance that Virginia's retailers will already have ECR systems that are integrated with e-WIC in other States.

The following table represents the scores given to this alternative for each of the evaluation criterion.

Alternative 3: Off-Line In-House[5]		
Criteria	**Score**	**Comment**
Proven Record of Implementation	3	This solution has been implemented statewide in New Mexico and will be issued statewide in Texas next year. The system has been ported to Wyoming and is in the implementation phase.
Proven Record of Operations	1	The system is successfully operating in Texas and New Mexico with in-house support. VDH has not previously supported EBT operations.
Proven Record of Integration With ECR Systems	3	The Texas-New Mexico solution has been successfully integrated with ECR systems.
Proven Record With EBT	0	VDH has not previously provided EBT services.
Provides Body of Knowledge for Policies and Procedures	3	Since deployment, Texas and New Mexico have developed lessons learned and standard policies and procedures.
Provides Stability for On-going Operations	3	An in-house solution will provide stability as there is little to no risk of having to change to a different solution once implemented.

[5] The alternative's scores are based on a 0 to 3 scale, with a zero score meaning the alternative does not have the ability to meet the criterion and three meaning the alternative has the ability to meet or exceed the criterion.

Alternative 3: Off-Line In-House[5]		
Criteria	**Score**	**Comment**
Able to Increase WIC Accuracy and Accountability	3	As all e-WIC transactions are electronic, saving the full set of transaction data, this is a benefit that will be derived from an e-WIC, regardless of the technology or whether it is outsourced or operated in-house.
Increases Retailers' Ability to Comply With Program Policies	3	Regardless of technologies or approach, e-WIC will provide retailers with a means to automate approval of transactions and to provide an electronic check on each transaction.
Minimizes On-going Operations Costs	2	As with the on-line in-house e-WIC solution, this alternative's operational costs are much lower than the paper-based system or the outsourced system. The cost analysis indicates a slightly higher operational cost than on-line in-house e-WIC, primarily caused by the higher cost per card.
Provides Uninterrupted Service to WIC Clients or Retailers	3	Off-line e-WIC can be conducted without connectivity to the host system.
Investment in Retailer Hardware/Software	1	Virginia has determined it will not fund stand-beside equipment. There has been some integration of this solution with standard ECR systems. However, this solution will require deployment of smart card terminals at all WIC-authorized locations.
Ability to Adapt to Change in Technology	1	Any changes to technologies or to the system would have to be addressed in-house by Virginia.
System and Data Security	3	Smart cards are considered a more secure technology then the magnetic stripe cards, as the data contained in the chip is encrypted and includes other security features, making it extremely difficult to be read or duplicated. Virginia has experience in implementing security requirements for client data.
Able to Meet the Schedule Established for SAM	2	The Texas-New Mexico system can be ported to Virginia but will require configuration, some development, and integration with the SAM system. As with the other alternatives, there will be a risk in attaining retailer readiness to parallel SAM and e-WIC deployment. This risk might be slightly less as there are more ECR systems integrated with the off-line solution.

5. COST BENEFIT ANALYSIS

A detailed cost analysis was prepared by using the *WIC EBT Alternatives Analysis Model,* created for this feasibility study. Appendix D contains the cost sheets that detail and summarize the cost calculations and findings for e-WIC in Virginia. The sections below provide a discussion of costs: Implementation, Operations, and Retailer-Borne Costs and concludes with a Cost Summary.

5.1 IMPLEMENTATION COSTS

Implementation costs are the labor, hardware, software, and contractor costs expected to be incurred during this initial phase. In addition to the specific comments and notations in the appendices, these overarching considerations and assumptions were used to estimate and consolidate these costs.

- For cost purposes, it was assumed that the on-line system being developed for Kentucky will be ready to port during development of the SAM; the readiness of the system is indicated as a risk in the risk analysis.
- It was assumed that there will be additional development effort to port Kentucky's on-line system as it will not have been implemented statewide or ported to another State when the Virginia project is due to begin start-up.
- The State will not implement stand-beside e-WIC POS terminals or e-WIC POS configurations; integrated systems will be required. Regardless of the solution, the State will provide some level of integration support.
- The POS terminals and installation costs are included in the outsourced solution's CPCM; ECR integration is priced separately.
- The State may need to support some of the chains to integrate their ECR systems with the e-WIC system. Because off-line has a wider base of integrated ECRs, it was assumed that two of the chains' ECR systems may require integration support for the off-line solution, and that four ECR systems may require support for on-line solutions.
- Estimates for in-lane support exclude Wal-Mart stores. During interviews, Wal-Mart indicated a willingness to integrate its own systems to achieve the benefits of e-WIC that it has already experienced in other States.
- Local clinics will require some re-wiring in order to support POS terminals in the WIC clinic waiting rooms.
- The State will acquire the services of contractors to support retailers for the in-house solutions. It was assumed that there will be a greater level of effort for this contractor if the State selects the on-line solution as fewer retailers will have integrated ECRs. For outsourced e-WIC, the e-WIC contractor will be responsible for retailer support if the solution is out-sourced.
- The State will acquire the services of contractors to prepare the e-WIC Implementation Advanced Planning Document (IAPD); to provide Quality Assurance services; and to support e-WIC modifications and integration.
- As the system will be deployed concurrently with SAM, travel costs have already been estimated and are not duplicated in this analysis.

The following table provides the estimated implementation costs for each of the three alternatives. As seen below, the outsourced solution has much lower start-up costs than the other two alternatives. This is because the State will not have to invest in software development or hardware with the outsourced solution and because some implementation costs, such as cards, retailer and clinic terminals, and training materials are included in the e-WIC contractor's CPCM pricing. This effectively amortizes the contractor's implementation costs over the life of the contract.

The total design, development and implementation costs for the off-line, in-house solution is approximately $500,000 more than the on-line in-house solution, for the most part due to the $4.50 per card cost of smart cards.

DESIGN, DEVELOP, TEST, IMPLEMENT			
Alternative	**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**
Labor Costs	**542,464**	**2,206,566**	**1,428,024**
State Level Labor	428,146	2,092,249	1,303,892
Regional & Local Labor	114,317	114,317	124,132
Materials & Services	**0**	**561,618**	**1,188,460**
Materials	0	561,618	1,188,460
EBT Processor Fees	0		
Banking Contractor Costs			
Retailer Costs	**2,571,356**	**2,719,140**	**3,397,851**
TOTAL COST TO STATE	**3,113,820**	**5,487,324**	**6,014,334**

5.2 OPERATIONS COSTS

Operations costs are those costs incurred that can be directly attributed to the benefit issuance, redemption and retailer payment processes. For the purposes of this study, other costs associated with the WIC Program, such as nutrition assessments, have not been considered. Specific assumptions concerning operations costs are provided in Appendix D with the detailed worksheets. General assumptions and considerations include:

- The State will train clients to go to the local clinic if they have problems or questions concerning their cards, just as they do with Food Instrument problems today. This is expected to minimize the need for client help desk support.
- The State will use existing help desk services and staff to support clinics and retailers. If outsourced, the e-WIC contractor will also provide services.
- The cost of training materials is not included in ongoing operations for the paper based system or any of the alternatives. It is assumed that client training materials will be

included in the outsourced contractor's CPCM and that the cost of training materials for the in-house solution will be equivalent to the cost of the training materials currently being produced.

- The replacement rates for magnetic stripe cards is assumed to be higher than that of smart cards based on the pilot evaluations conducted in other States.
- The State's method of distributing Food Instruments will be used to distribute card stock.

The table below provides estimated operations costs for the first full year of operations, estimated to occur in 2011. Compared to the paper-based system, the in-house systems' annual operations costs are significantly less. This cost reduction is largely attributed to the time currently spent at local clinics to issue paper FIs – approximately 5.4 minutes per household per quarter. In the e-WIC environment, the household is first issued a card. After that, the benefit issuance process is eliminated in on-line e-WIC and is minimal, consisting of inserting the card, waiting for the benefit load, and removing the card from the terminal, for off-line e-WIC. In addition, the processes surrounding payment of the special formula distribution center, including preparing and mailing FIs and later reconciling FIs is completely eliminated. The cost of smart cards increases the annual operating costs of the off-line system. Operational cost details are provided in Appendix D.

	OPERATIONS 1 YEAR			
Alternative	**Current Paper**	**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**
Labor Costs	**1,427,649**	**307,133**	**419,311**	**458,654**
State Level Labor	187,554	152,234	264,412	264,412
Regional & Local Labor	1,240,095	154,899	154,899	194,242
Materials & Services	**308,304**	**2,965,779**	**450,033**	**637,283**
Materials	308,304	142,879	450,033	637,283
EBT Processor Fees		2,822,900		
Banking Contractor Costs	**375,331**			
Retailer Costs		**30,269**	**31,361**	**61,411**
TOTAL COST TO STATE	**2,111,285**	**3,303,180**	**900,705**	**1,157,349**

In the outsourced environment, the e-WIC CPCM encompasses e-WIC processing, retailer management, card production, help desk support and the labor necessary to upgrade the software if program changes occur. Outsourcing reduces the level of effort for State personnel and eliminates in-house hosting costs paid to VITA. At the clinic level, there is no difference the between outsourced and in-house environments. The total operating cost of an outsourced environment is estimated to be higher, due to the CPCM fees assessed for services.

5.3 RETAILER-BORNE OPERATIONAL COSTS

As part of this assessment, retailer operational costs related to the paper-based process were examined to determine if they would be reduced or eliminated with e-WIC.[6]

To make this assessment, the Team:

- Conducted and timed purchase transactions at a WIC-authorized retailer and compared these times against those conducted in other States.
- Conducted interviews and surveys to acquire estimated times spent by store or corporate managers to deposit FIs at the bank, handle FI rejects, and enter pricing into the retailer database.
- Examined reports concerning rejected FIs to determine which rejects would have been avoided in an electronic environment (i.e., missing retailer stamp, voucher signed in pencil, etc.).

The following assumptions were made to calculate the operational costs borne by retailers in the paper environment:

- Retailers were reluctant to estimate times for training staff. Therefore the model assumes a 30 minute reduction in training time for e-WIC, which is a conservative estimate based on other States' evaluations.
- It was assumed that the automated settlement of e-WIC would reduce fund settlement from five days to one day and that the annual cost of money to retailers is five percent.
- Purchase transaction times from pilot evaluations conducted in other States varied widely and comparable e-WIC purchases in Virginia were unavailable. Therefore, other States' transaction times were averaged and the same transaction time, 1.3 minutes, was used for both on-line and off-line purchase transactions.

By eliminating the paper-based process and the losses associated with non-compliance to processes specific to the paper-based environment, WIC-authorized retailers in Virginia are estimated to experience a savings of $1.7 million per year in operational costs or approximately $8 million during five years of operations. Losses are comprised of the value of rejected FIs; the amount of a payment request that is above the pre-determined value of the food package and is therefore not paid to the retailer; bank fees for ACH rejects and the cost of money for an estimated five-day settlement cycle. Following are estimated retailer-borne costs for each of the alternatives during Year 1 of e-WIC operations.

[6] Fines were not included in the loss category for the analysis as they are difficult to solely attribute to paper-based processes and they are also balanced against an inflow of funds to the State. Retailers may decide to fund their own integration, ECR and POS software, and associated hardware. As these implementations are performed at their own option, retailer-borne costs for implementation have not been captured for this assessment. Instead, this assessment focuses on the operational efficiencies of e-WIC for retailers.

Year 1				
	Current Paper	Alt 1 OutS, On-L	Alt 2 In-H, On-L	Alt 3 In-H, Off-L
Retailer-Borne Costs	**1,961,249**	**215,055**	**215,055**	**215,055**
Labor	1,591,113	202,478	202,478	202,478
Loss	370,135	12,577	12,577	12,577

5.4 SUMMARY COSTS

The total cost to the State for implementation and operation, and retailer-borne costs for operations are provided in the table below. After five years of operations, on-line, in-house e-WIC is shown to be cost-effective versus paper issuance and the off-line in-house system is trending to be cost effective within six years. If retailer-borne operational costs are considered, the in-house solutions show significant savings over paper issuance and the outsourced solution is virtually equal in cost to the cost of the paper-based system.

SUMMARY: DESIGN, DEVELOPMENT, IMPLEMENTATION & 5 YEARS OPERATIONS				
Alternative	**Current Paper**	**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**
Labor Costs	**7,926,100**	**2,247,621**	**4,534,521**	**3,974,404**
State Level Labor	1,041,274	1,273,327	3,560,227	2,771,870
Regional & Local Labo	6,884,826	974,293	974,293	1,202,534
Materials & Services	**1,711,660**	**15,613,468**	**3,060,133**	**4,726,564**
Materials	1,711,660	793,241	3,060,133	4,726,564
EBT Processor Fees		14,820,227		
Banking Contractor Costs	**2,116,154**	**0**	**0**	**0**
Retailer Costs		**2,739,403**	**2,893,253**	**3,738,797**
TOTAL COST TO STATE	**11,753,915**	**20,600,491**	**10,487,907**	**12,439,765**
Retailer-Borne Costs	**10,776,839**	**1,199,590**	**1,199,590**	**1,199,590**
Labor	8,833,630	1,124,126	1,124,126	1,124,126
Loss	1,943,209	75,464	75,464	75,464
TOTAL SYSTEM COST				
Including Retailers	**22,530,754**	**21,800,081**	**11,687,497**	**13,639,355**

5.5 BENEFITS

5.5.1 BENEFITS OF E-WIC OVER PAPER

Regardless of the technology (magnetic stripe or smart cards), deployment of e-WIC was determined to improve the ability of the State to meet its established WIC Program strategic goals and objectives. To make this determination, WIC Services participated in a focus group and subsequent meetings, using the following process:

1. Each of the strategic goals in the State Plan was analyzed to determine whether it would be influenced by the type of WIC issuance – either paper or electronic. Goals that were determined not to be influenced by the mode of issuance, such as supporting civil rights through training materials, were eliminated from the analysis.
2. The remaining strategic goals were rated on a 1 to 5 scale on their overall importance to the WIC Program; the anticipated level of impact that mode of issuance would have on the strategic goal; and the likelihood that either paper issuance or e-WIC would support the strategic goal. Rating definitions are as follows:
    1. No importance, impact or probability
    2. Below average importance, impact or probability
    3. Average importance, impact or probability
    4. Above average importance, impact or probability
    5. Highest importance, impact or probability
3. The average of the three categories was calculated for both the paper-based and the e-WIC systems.
4. If the proposed system received an average score of 4 to 4.5 it was considered to be of above average benefit in assisting the State to achieve its strategic goals and objectives. An average score of 4.5 to 5.0 was considered to provide the highest benefit in assisting the State to achieve its strategic goals and objectives.

With the exception of the two goals aimed to support delivery of services during a disaster[7], e-WIC was considered to provide greater benefits to meeting the State's strategic goals than paper-based issuance. E-WIC was rated above 4 in all categories, above 4 in 30 of the 34 (88 percent) strategic goals, and above 4.5 in 17 of the 34 (50 percent) categories. The largest differential in benefits between paper-based and e-WIC fell in the categories of vendor management, nutrition services and information systems (a score differential of 0.9, 0.9 and 0.8, respectively). Each of these areas was seen to receive much greater benefits from e-WIC than if the State maintains its status quo. The full analysis, which provides the business case for e-WIC in general, is provided in Appendix C.

Based on responses in a web-based survey available to the State's WIC clients, program participants were enthusiastic about e-WIC and its perceived benefits. Following are only a few of the 54 comments received, of which the vast majority approved the idea of an e-WIC solution:

- *The card would be easier to carry and maintain.*
- *Using the e-WIC card would allow me to purchase what I need at the time and wait for the items to be in stock.*

[7] The methodologies for delivering WIC benefits in a disaster have not yet been clearly defined.

- *This e-card would be much better because it is less time consuming and less embarrassing.*
- *I think the e-WIC cards would be a wonderful benefit. Not only would it clear up confusion at the checkout counter, it would allow for a more discreet purchase to avoid judgment from other customers.*
- *PLEASE, if at all possible, use cards for the WIC system. The embarrassment I have felt and the abuse I have been subjected to by people waiting in line behind me at the super market is absolutely horrible.*
- *I think this will be way better…it won't take as long as the cashier enters the dates and rings up the items then maybe people won't be too mad when you do more than one order.*

5.5.2 Benefits of e-WIC Alternatives

The following provides a comparison of the three e-WIC alternatives analyzed for this study. As seen, the on-line outsourced system received the highest rating, primarily due to the experience of the contractors in operating EBT systems and supporting retailers. The off-line in-house solution is rated only slightly less as the system has been proven in Texas and New Mexico, has been integrated with a large number of ECR systems, and has a much lower annual operating cost. The on-line, in-house solution is rated the lowest. It is still in development and does not yet have a record of implementation or operations and the State may have difficulty in implementing this solution concurrent with the SAM implementation. However, this solution is estimated to have the lowest annual operating costs of the three alternatives.

	Weight	Alternative 1: On-Line Outsourced		Alternative 2: On-Line In-house		Alternative 3: Off-Line In-house	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Proven Record of Implementation	**5**	3	**15**	0	**0**	3	**15**
Proven Record of Operations	**5**	3	**15**	0	**0**	1	**5**
Proven Record of Integration With ECR Systems	**5**	2	**10**	1	**5**	3	**15**
Proven Record With EBT	**5**	3	**15**	0	**0**	0	**0**
Provides Body of Knowledge for Policies and Procedures	**3**	3	**9**	3	**9**	3	**9**
Provides Stability for On-going Operations	**5**	2	**10**	1	**5**	3	**15**
Able to Increase WIC Accuracy and Accountability	**3**	3	**9**	3	**9**	3	**9**
Increases Retailers' Ability to Comply With Program Policies	**3**	3	**9**	3	**9**	3	**9**
Minimizes On-going Operations Costs	**5**	0	**0**	3	**15**	2	**10**
Provides Uninterrupted Service to WIC Clients or Retailers	**5**	3	**15**	2	**10**	3	**15**

	Weight	Alternative 1: On-Line Outsourced		Alternative 2: On-Line In-house		Alternative 3: Off-Line In-house	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Investment in Retailer Hardware/Software	**3**	2	**6**	1	**3**	1	**3**
Ability to Adapt to Change in Technology	**4**	3	**12**	1	**4**	1	**4**
System and Data Security	**4**	3	**12**	3	**12**	3	**12**
Able to Meet the Schedule Established for SAM	**5**	3	**15**	1	**5**	2	**10**
Total Weighted Scores			**152**		**86**		**131**

5.6 RISKS

In cooperation with the State, a risk analysis was conducted using standard system development life cycle (SDLC) risk categories. Scores were weighted by rating the impact of the risk on the ability of the State to implement e-WIC on budget and within schedule

Risks were measured numerically with the lowest risk items receiving the lowest numerical scores.

- Risks were first weighted from 1 to 3 with 1 having the *lowest* risk to the State's project and 3 having the *highest* risk to the State's project.
- Each alternative was then rated from 1 to 3, with a 1 rating signifying that the risk has little or no impact on the alternative and 3 being the risk has the greatest impact on the alternative.
- The weight was multiplied by the alternative's risk factor to arrive at a risk rating.

The table below provides the calculated risk rating of each alternative. Risk ratings range from 1 to 9, with 1 being the lowest risk and 9 the highest risk. As seen in the table below, the analysis indicates that the off-line, in-house solution has the lowest average risk rating and therefore is seen to pose the least risk to the State. This lower risk is related to the alternative's proven abilities, portability, and readiness for implementation.

Risk Category	Risk Identification	Risk of Implementing e-WIC	Impact of Risk on On-Line Outsourced e-WIC	Impact of Risk on On-Line In-house e-WIC	Impact of Risk on Off-Line In-House e-WIC	On-Line Outsourced e-WIC Risk Rating	On-Line In-House e-WIC Risk Rating	Off-Line In-House e-WIC Risk Rating
Organizational and Change Management	Adapt to necessary changes in organization structure.	1	2	2	2	2.0	2.0	2.0
	Adapt to necessary changes in policies and procedures.	2	2	2	2	4.0	4.0	4.0
Business	Disruption of services to WIC clients or retailers	2	3	1	1	6.0	2.0	2.0
	Retailer investment in hardware	3	2	2	2	6.0	6.0	6.0
	Retailer investment in software	3	2	2	2	6.0	6.0	6.0
	Ability to obtain qualified e-WIC vendor or services of qualified contractors.	1	1	1	3	1.0	1.0	3.0
	Retailer acceptance of e-WIC	1	1	1	1	1.0	1.0	1.0
Data and Information	Ability to acquire and maintain accurate and complete data.	1	2	1	1	2.0	1.0	1.0
	Ability to provide comprehensive audit trails and financial reporting.	1	2	1	1	2.0	1.0	1.0
Technology	Adequate technical expertise of ongoing staff.	1	1	1	2	1.0	1.0	2.0
	Ability to adapt system to changes in policies and regulations.	1	2	2	2	2.0	2.0	2.0
	Ability to adapt to changes in technologies.	2	2	2	3	4.0	4.0	6.0
Security	Adequate security of the system or data	2	3	2	1	6.0	4.0	2.0
	Adequate security of e-WIC cards and related materials	1	1	1	1	1.0	1.0	1.0
	Adequate security of participants' benefits after issuance	1	1	1	1	1.0	1.0	1.0
	Adequate control of benefit loss and diversion	1	1	1	1	1.0	1.0	1.0
Privacy	Adequate protection of the privacy of WIC participants	1	1	2	2	1.0	2.0	2.0
Resources	Ability to obtain sufficient funding for system implementation	2	1	2	2	2.0	4.0	4.0
Schedule	Ability to implement in parallel with SAM	3	1	3	1	3.0	9.0	3.0
				Quantity of Rated Risks		**19**	**19**	**19**
				Average Risk Rating		**2.74**	**2.79**	**2.63**

6. PROPOSED SYSTEM

The State has conducted this assessment to determine the e-WIC alternative that best meets the current and specific needs of WIC Services, its clients, and its retailer stakeholders. To reach this determination, the elements in the table below have been considered, using a straightforward numerical ranking. Numbers from 1 to 3, 1 being the lowest (bottom rank) designation and 3 the highest (top rank), are assigned to indicate the alternative's rank in each area of assessment. All e-WIC alternatives were perceived to have the benefits of assisting in meeting the State's strategic goals for the e-WIC program and providing other benefits such as reduction in errors at the retailers and increasing the dignity, privacy and security of WIC clients.

Alternative	Costs	Benefits (Evaluation Criteria)	Risks	Total Score
On-line, Outsourced Solution	1	3	2	**6**
On-line, In-house Solution	3	1	1	**5**
Off-line, In-house Solution	2	2	3	**7**

Each of these alternatives is a viable e-WIC solution. Based on the analysis, the following core conclusions have been made:

- By outsourcing processing, the State will manage one contract and use the services of an EBT service provider with experience in processing, retailer management, and client and retailer help desk and support.
- Outsourcing has a much higher cost of operations. If the State determines it has the resources and capabilities to host the system in-house, then it will realize significant savings over outsourcing in its annual operating costs and will eventually realize a cost savings over the paper-based system.
- On-line in-house is less costly than off-line in-house, primarily due the cost of smart cards. However, the State has placed importance on its ability to implement e-WIC concurrent with SAM. There is a risk in that the on-line system may not be ready to port from Kentucky to Virginia with enough time to integrate and modify the system.

If the State determines that it has sufficient resources to host the system in-house, and that cost and ability to meet the SAM schedule are its highest priorities, then the off-line, in-house solution meets these requirements.

6.1 IMPACTS OF E-WIC

Many of the impacts of e-WIC have been discussed throughout this document. This section summarizes the impacts of the off-line, in-house e-WIC solution on the WIC Services Program.

6.1.1 Hardware and Software

WIC MIS: The Crossroads SAM system will be EBT-ready, anticipating the roll-out of the e-WIC program, and will be developed and implemented in parallel with e-WIC. This means there will be no significant changes to the hardware and software of Virginia's WIC MIS. Any modifications and integration work can be accommodated during the SAM design and development phases. This is a distinct advantage to Virginia's e-WIC program.

E-WIC System: The State will need to invest in servers and server licenses and pay VITA a hosting fee. The State and its contractors will be responsible for porting the system and any development, configuration or testing that is needed. State staff and/or contractors will need to become familiar with the software so that they are capable of application maintenance and any future enhancements that may be required.

Clinics: The e-WIC software will be web-based. There will be no additional requirements for PCs, software, or PC connectivity at the local level. Clinics will require a minimum of two terminals. The waiting rooms at the local clinics may require slight modifications to accommodate the POS terminal and the terminal connectivity.

Retailers: Virginia has determined that it does not want to deploy stand-beside terminals nor does it want to be in the business of managing retailer POS terminals and other peripheral equipment. Virginia's intent is to address the issues of ECR integration and POS configurations with the greatest efficiencies, while working on cooperation with these critical stakeholders. Retailer activity will begin at the very earliest stages of the project and will likely require the support of contractors through the implementation period.

6.1.2 Organization

At this time, the State does not foresee that e-WIC will require a change in how WIC Services is organized. The State plans to delegate one full time staff member to manage the EBT program and understands it will need to assign personnel to maintain the UPC database. The State is considering which Teams these staff persons will be assigned to. Local agencies and clinics will not require organizational changes.

6.1.3 Operations

E-WIC System: If e-WIC is taken in-house, VITA will provide hosting and communications services. VITA services include 24x7 maintenance of the State's servers and processors. If outsourced, the e-WIC contractor will be responsible for all aspects of system operations.

State Level: State level staff will need to be trained on the new system, processes, and the reporting capabilities available through e-WIC. New operational activities will naturally occur as new and different types of data are made available to state-level staff.

Local Level: Local offices will need to be trained on the new technologies and processes. Paper food instrument printing and issuance will be eliminated; card and benefit issuance will be added. Other processes will not change. Overall, the local clinics will receive the greatest level of efficiencies with e-WIC implementation.

Retailer Management: The State does not intend to provide or maintain stand-beside POS terminals. Instead, it will provide some level of subsidies to retailers; the hardware and software purchased with these subsidies generally come with a warranty; as with Texas, once the subsidy is given, retailers will manage their own equipment.

Client Help Desk Support: For client support, the State intends to follow the same processes as the paper based system, requesting the clients return to the local clinic if support is required for their cards or benefits. The State will require either the e-WIC or the SAM system, depending on final design, to provide web-based client support. These steps are anticipated to minimize the requirements for a client help desk. The State is assuming, however, that it may need to increase its current help desk staff by one FTE if the system is brought in-house.

Retailer and Clinic Help Desk Support: The State anticipates that the current help desk operators and retailer liaisons will provide the necessary help desk support in the e-WIC environment.

6.1.4 SITE

State Level: If the system is taken in-house, VDH will need to house the servers at the VITA facility. There are no other facility changes anticipated at the State level.

Local Level: The only changes anticipated at the local level are the slight modifications necessary to install POS terminals in the WIC clinic waiting areas.

6.1.5 FISCAL

The in-house system will require an up-front investment in hardware, software and services, including a significant investment in retailer support and retailer infrastructure. However, it is seen to provide a significant savings in operations costs, becoming cost-neutral within six years of operations.

7. SCHEDULE

The following table presents a high-level schedule for an e-WIC implementation that follows the State's intent to implement e-WIC in parallel with its implementation of Crossroads SAM. It is based on the assumption that the State will select the off-line, in-house solution for e-WIC.

Task #	Task Name	Start Date	End Date
1	Project Planning and Management	8/15/08	12/31/10
2	Development of IAPD	9/15/08	11/15/08
3	FNS Review and Approval of IAPD	11/15/08	12/15/08
4	Negotiation of System Porting Agreement with Texas/New Mexico	12/15/08	2/01/09
5	System Design, Development and Technical Testing, Retailer Implementation Activities	4/1/09	12/31/09
6	User Acceptance Testing, Development of Policies and Procedures	1/01/10	4/1/10
7	Pilot Training and Implementation	4/1/10	4/20/10
8	Pilot	4/21/10	8/3/10
9	Local Clinic Training, Rollout	7/16/10	12/20/10
10	Retailer Coordination and Implementation (Schedule to begin after conclusion of holiday season)	1/15/09	12/31/10
11	Project Closure and Transition	12/7/10	12/31/10

APPENDIX A: ACRONYMS

ACRONYM	DEFINITION
ACH	Automated Clearinghouse
ANSI	American National Standards Institute
CAP	Community Action Plan
CBA	Cost Benefit Analysis
CMP	Civil Monetary Penalty
CPA	Competent Professional Authority
CPCM	Cost Per Case Month
CVV	Cash Value Voucher
DX	Disqualification
EBT	Electronic Benefits Transfer
ECR	Electronic Cash Register (System)
EFT	Electronic Funds Transfer
e-WIC	Electronic Benefits Transfer for the WIC Program
FI	Food Instrument
FMNP	Farmer's Market Nutrition Program
FNS	Food and Nutrition Services
IAPD	Implementation Advance Planning Document
ICC	Integrated Circuit Chip
ID	Identification
LAME	Local Agency Management Evaluation
MICR	Magnetic Ink Character Recognition
MIS	Management Information System
NA	Nutritional Associate
OIM	Office of Information Management
PIN	Personal Identification Number
POS	Point-of-Sale
RSMS	Retailer Support Management System

ACRONYM	DEFINITION
SAM	State Agency Model
SDLC	System Development Life Cycle
SNAP	Special Nutrition Assistance Program
TPP	Third Party Processor
UPC	Universal Product Code
USDA	United States Department of Agriculture
VDH	Virginia Department of Health
VITA	Virginia Information Technology Agency
WIC	Special Supplemental Nutrition Program for Women, Infants and Children

APPENDIX B: BASELINE ANALYSIS

3. CURRENT ENVIRONMENT

This section provides an overview of the stakeholders and processes undertaken related to the paper-based issuance, redemption and payment process.

3.1 ORGANIZATIONAL ENVIRONMENT

3.1.1 STATE-LEVEL PROGRAM OFFICE

The WIC Program is managed by VDH, Office of Family Health Services, Division of WIC & Community Nutrition Services (herein referred to as WIC Services).

The Mission of the Virginia Department of Health and the Board of Health is to achieve and maintain optimum personal and community health by emphasizing health promotion, disease prevention, emergency preparedness, and environmental protection.

WIC Services supports the State's WIC Program by providing policies and procedures, materials and equipment, nutrition services, local clinic oversight and vendor management, and by managing the current banking contractor, Covansys. WIC Services consists of Operations, Support, Vendor, Nutrition and Technical Teams, as well as a Business Unit.

Director of WIC Services

The WIC Services Director provides management and oversight of all aspects of the WIC Program. The Director's direct involvement with the paper-based system is limited to preparation for and participation in meetings with WIC vendors who were found to be non-compliant with specific vendor policies that are likely to be mitigated or eliminated by an e-WIC system.

Operations Team

This Team provides technical support and operational oversight to local agencies and clinics. It supports WIC policy creation and promulgation, ensuring that WIC policies are in line with Federal requirements and guidelines and are available to and understood by local staff. The Team consists of staff who conduct management and fiscal evaluations of local clinics, using the Local Agency Management Evaluation (LAME) tool, created to facilitate State audits of local clinics. Audits include assessing clinic security and processes related to paper FI issuance. The Team also ensures that local clinics have appropriate and sufficient magnetic ink character recognition (MICR) printers, including back-up reserve printers, for printing FIs, and maintains the database of printer serial numbers.

Support Team

This Team includes staff who provide help desk support to the local clinics. Calls may be questions or problem reports concerning WICNET, the current WIC management information

system, or FI printing. The Team also includes several administrative assistants who support the WIC Director and Team leads. One of the administrative staff assesses agency needs for vouchers and orders vouchers from Covansys, the banking contractor, on a quarterly basis with interim orders if an agency runs short of vouchers prior to the end of the quarter.

Vendor Team

This Team provides all services related to authorizing retailers for the WIC Program; training retailers on WIC Program policies; ensuring retailers are complying to WIC Program policies; acquiring WIC pricing data from retailers; managing the Community Action Plan (CAP) special formula contract, including assistance with non-reconciling and stale-dated FIs; responding to retailer inquiries concerning payment; and managing the contract with Covansys.

Retailer support includes assisting retailers with payment on an exception basis. For example, a retailer may submit FIs directly to the State if the MICR line (the numerical line printed at the bottom of each voucher and check) was printed incorrectly at the local clinic and the bank will not accept the FI for deposit. If payment for a FI is approved by State staff, the retailer is paid through a State-generated ACH transaction.

The Vendor Team has three staff assigned to retailers in separate regions of the State that regularly visit retailers to check compliance with stocking WIC items, review in-store WIC procedures, and answer questions concerning policies, procedures, payments and rejects. The State contracts with an independent firm to provide "blind" compliance buys throughout the State.

Nutrition Team

This Team is responsible for establishing and promulgating the nutrition goals of the WIC and Community Nutrition programs. The Team defines WIC food packages (ensuring compliance with Federal guidelines), establishes nutrition policies, and coordinates and supports training. The Team also assists WIC Services in meeting strategic goals in areas such as obesity, breastfeeding, and civil rights. The Team does not currently use the limited data from the paper-based process to assess purchase patterns that may support nutritional analysis.

Technical Team

The Technical Team is charged with maintaining the WICNET system. The Team provides the business analysis necessary to support changes to WICNET. The Team also provides statistical analysis and reports production for the Director and the other WIC Services Teams. The Team works with the VDH Office of Information Management (OIM) for software development and testing services and with the Virginia Information Technology Agency (VITA) to purchase equipment, including MICR printers.

Business Unit

The Business Unit provides the financial oversight for WIC Services operations, including processing invoices, approving expenses for materials, services and staff travel, and creating required reports for USDA. The Business Unit reviews the banking contractor invoices prior to payment.

Figure 1 illustrates the organizational structure of the State and local level WIC Services offices.

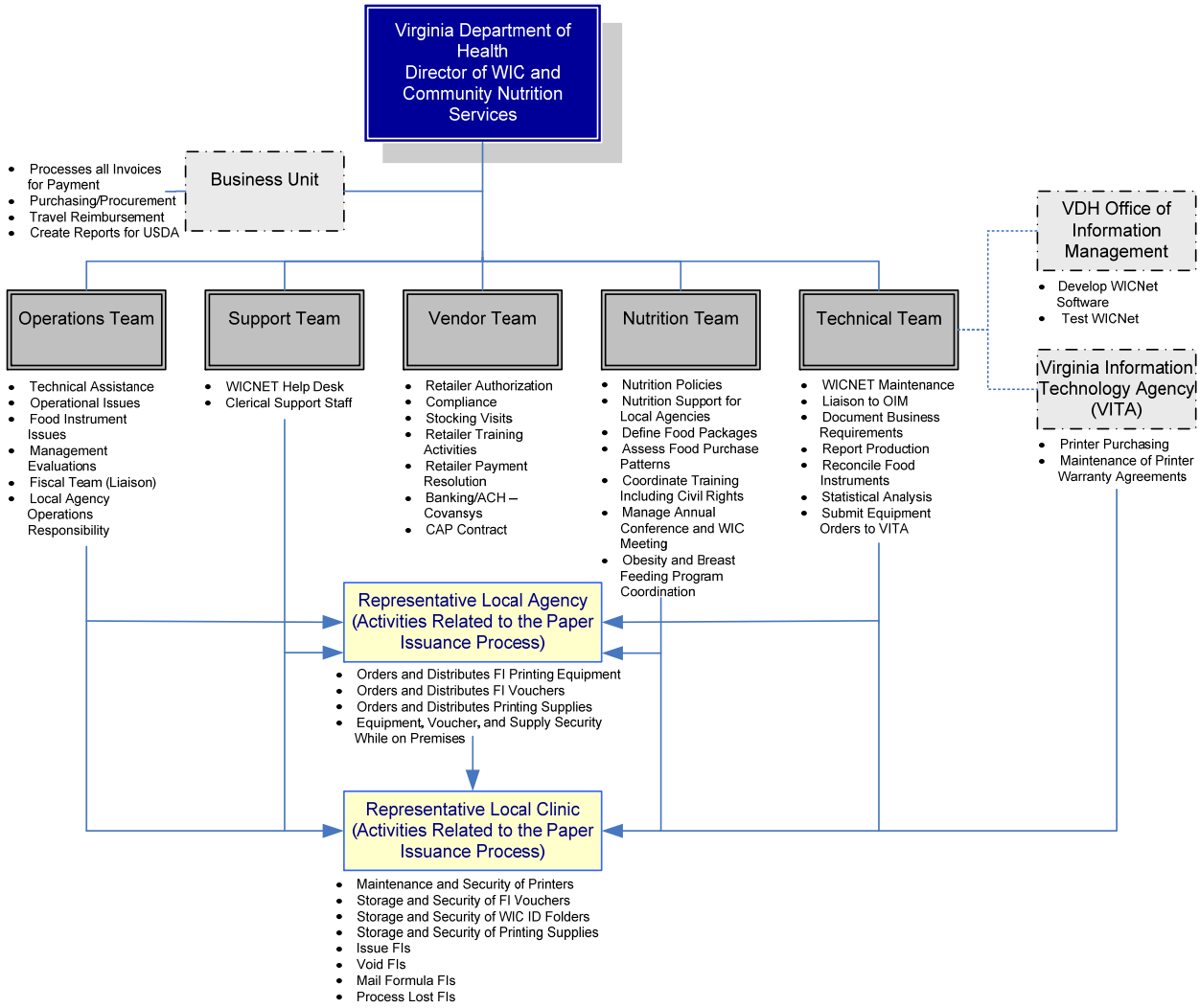


FIGURE 3: DIVISION OF WIC AND COMMUNITY NUTRITION SERVICES ORGANIZATIONAL STRUCTURE

3.1.2 State-Level Ancillary Support

The following offices and agencies provide ancillary support to WIC Services that may be impacted by the implementation of e-WIC. These services and their associated costs are included in the baseline analysis.

3.1.2.1 Office of Information Management (VDH OIM)

Under the direction of the Technical Team, which provides business requirements for WICNET, OIM contractors design, develop, test and implement changes to the WICNET system. This service includes changes to the composition of food packages and other changes that may impact the FI.

3.1.2.2 Virginia Information Technology Agency (VITA)

When the WIC Operations Team determines that local agencies require new or replacement FI printers, the Technology Team is instructed to order the equipment from VITA. VITA purchases the printers and manages the maintenance and warranties for the printers. This service is performed for a fee based on the cost of the equipment. Printers are shipped directly from the equipment contractor to the local clinic and are not handled by VITA staff. Purchasing and shipping services are provided for a fee that is added into the cost assessed for the printers.

3.1.2.3 Marketing Support Solutions

VDH purchases WIC ID Folders, protective plastic sleeves and client and retailer training materials and ships them to Marketing Support Solutions (MSS) for storage until needed by the State or local clinics. With the participant's signature, WIC ID Folders serve as the participant's identification when redeeming FIs at a retail location. The folder is designed to store the FIs until they are redeemed at a store. The back of the folder has an area for clinic staff to enter the next appointment date and time. Plastic sleeves are given to participants in most, but not all local clinics. The sleeve is a plastic bag with a standard zip closure, intended to protect the WIC ID Folder and FIs.

3.2 STATE SYSTEM

WICNET is the primary automated system used by the Virginia WIC Program, providing on-demand FI printing for local clinics. WICNET performs the following functions and captures and tracks the associated data:

- Participant, caretaker and legal guardian visit scheduling
- Participant, caretaker and legal guardian and authorized proxy registration and certification
- Food instrument generation, including generating a unique serial number and issuance record
- Financial and infant formula rebates and billing data

When changes to the system are required – for example, if a food package needs to be updated – the Technical Team's business unit captures all required functional, data, system changes, etc., and relays these changes to OIM. OIM contractors then use the requirements definition to design, develop, test and implement the changes in WICNET.

At the same time Virginia is conducting e-WIC pre-planning activities, the Commonwealth is also participating in a WIC Program State Agency Model (SAM) Project. Called Crossroads SAM, member States include Virginia, Alabama, West Virginia and North Carolina, which is also the lead State of the consortium. Crossroads SAM's objective is to plan for, develop and implement a model WIC information system providing modules for all functional areas of the WIC Program. When deployed, the Crossroads SAM system will be EBT-ready. As this project is in the planning phase, with a goal of implementation by December 31, 2010, Virginia has a distinct opportunity to leverage the SAM system development to accommodate the alternative selected as part of this feasibility process.

3.3 WIC LOCAL AGENCIES AND LOCAL CLINICS

There are 35 local agencies and 152 local clinics (with four or more participants) in Virginia. Local agencies oversee local clinics; they are sometimes, but not always co-located with a local clinic.

3.3.1 LOCAL AGENCIES

Most local agencies oversee clinics with a total participant count of between 2,000 and 5,000 participants. Figure 4 provides a graph indicating the number of participants within each of the 35 local agency regions. The outlier is Fairfax County, which has six local clinics and an average of 16,656 participants during the assessment year.

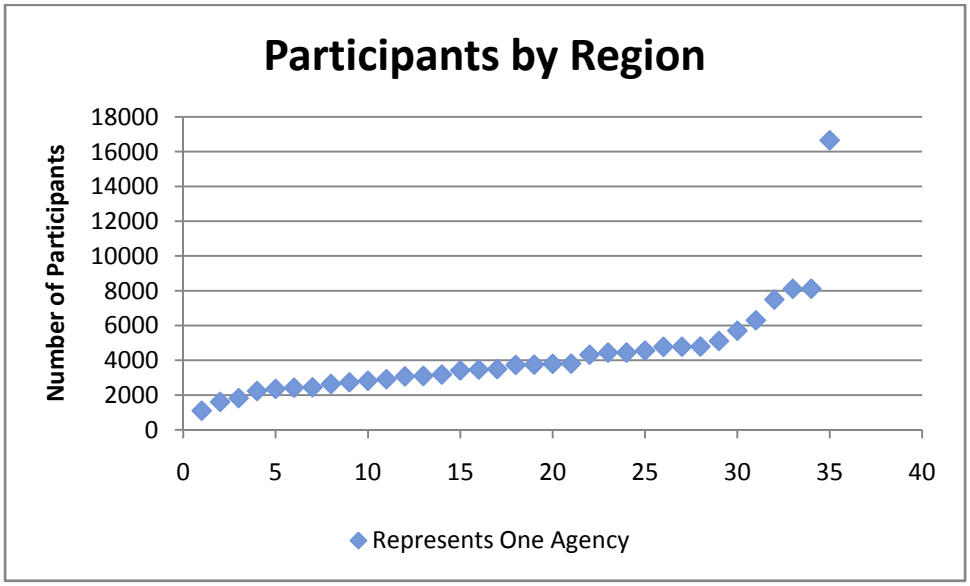


FIGURE 4: PARTICIPANT NUMBERS FOR LOCAL AGENCIES

Local agencies perform a range of services, but the service specifically related to the paper-based process is ensuring their local clinics have sufficient blank stock for issuing FIs. Once the quarterly stock order is received at the local agency it is distributed to local clinics. Blank stock was reported to be delivered to clinics through three different channels. 1) By giving the stock to a County courier who regularly visits clinics or other county offices throughout the region. This service comes at no additional cost to the agency, as it leverages an existing transportation service. 2) By hand carrying stock when agency or clinic staff visit other clinics. Some regions operate small clinics, and have set up arrangements such as staff working at one clinic in the morning and the neighboring clinic in the afternoon. Vouchers can be transported by staff conducting normal business travel. This service comes at no additional cost to the agency. 3) Staff driving to another clinic, specifically for the purpose of delivering blank stock. This is done when there is no other means available. In Henrico County, which is both the local agency and the location of one of the local clinics, it is done almost immediately because they lack sufficient space to store the other clinic's vouchers. This service comes at a cost of time spent

and mileage, although there were reciprocal benefits noted, such as information sharing during in-person visits to the clinic.

Local agencies were asked to estimate the time taken *per quarter* to order, receive and distribute blank stock. The average estimate was 33.7 minutes per quarter. Those agencies that drove stock to their clinics indicated that they drove an average of 24.5 miles and spent an average of 49.8 minutes per quarter delivering stock. Based on responses in the time study and the survey, it is estimated that 50 percent of the local agencies deliver some or all of their clinics' blank stock by driving it to clinics.

3.3.2 Local Clinics

Local clinic participant volumes range from just a few participants to over 4,700 participants at the Little Creek clinic in Norfolk. The average number of participants in a clinic is 984.4 and the median number is 615.5. The nodes in Figure 5 below represent the number of clinics with less than 200, 500, 1,000, 2,000, 3,000, 4,000 or 5,000 participants.

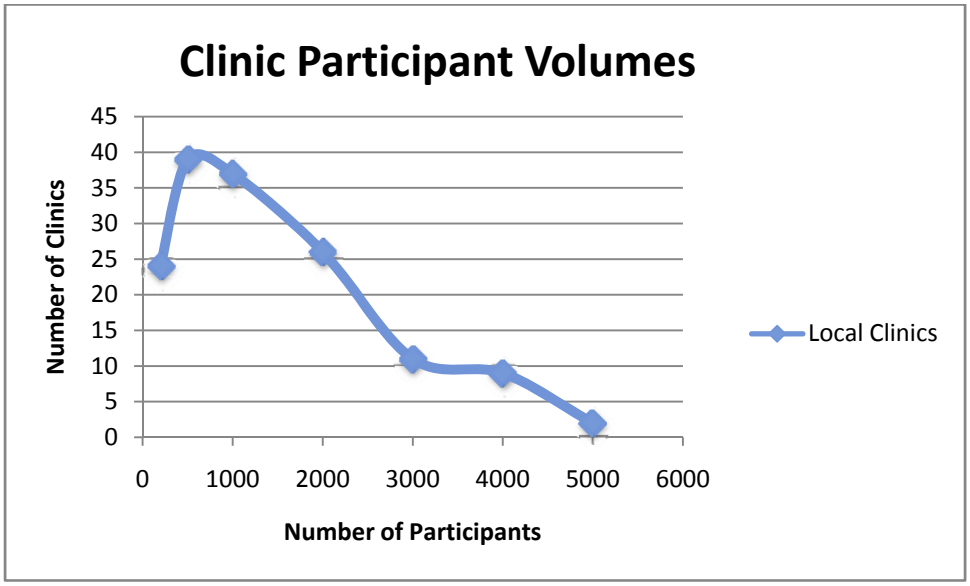


FIGURE 5: NUMBER OF CLINICS BY PARTICIPANT VOLUME

3.3.2.1 Food Instrument Issuance and Voids

VDH policies and procedures provide guidelines as to how FIs and related materials should be ordered, secured and tracked; how FIs should be issued and voided; and how other activities related to FI issuance should be conducted. During on-site visits it was determined that these procedures were being followed but that circumstances such as the size and configuration of the facility; the number and roles of staff; and the number of participants (volume of traffic) can slightly change processes or time spent with clients performing certain tasks.

In general, a WIC family visits the clinic every three months. They are given a health screening and any required nutritional education, performed by a Competent Professional Authority (CPA)/Nutritionist. Once the visit is complete, the family visits a Nutrition Associate (NA) who prints three month's worth of FIs for the family, validates the content of the FIs, and gives the FIs to the participant[8]. If it is a first visit, the participant is given a WIC ID Folder and at many, but not all clinics, is given a protective sleeve for the folder. The NA will schedule the next appointment and write the appointment date on the back of the WIC ID Folder. A new participant is given training on how and where to use the FIs, unless this training has already been given by the CPA/Nutritionist. The participant is asked to sign a stub, acknowledging receipt of the FIs. The NA shreds all unused stock[9]. The NA also initials and dates FI stubs; either the NA or other designated staff places the stubs in a file in numerical order.

If there is a printing error or some other type of error, or if a participant has brought back an FI that requires a change, the FI will be voided. Voids are entered into the WICNET system, the FI is stamped "Void", and the void is initialed and dated and placed in a file in numerical order. Both stubs and voids are filed by month and kept for a minimum of three years. Following is the general work flow for FI issuance and voids.

[8] This refers specifically to the pregnant woman, or to the adult (either parent or guardian) who has responsibility for the infant or child.

[9] Stock arrives in sheets of three. If only one or two FIs are printed on a sheet, the remaining blank vouchers are discarded.

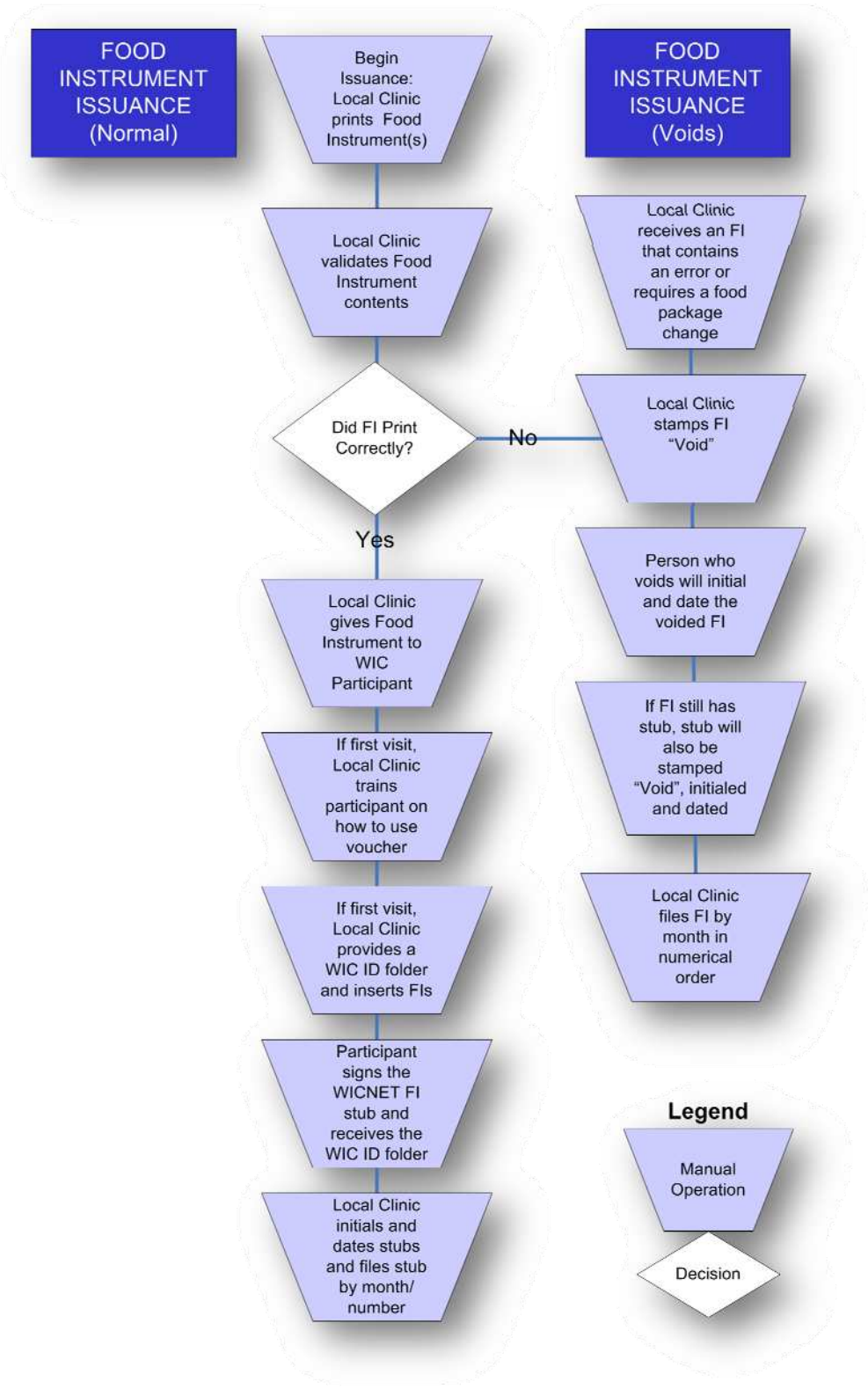


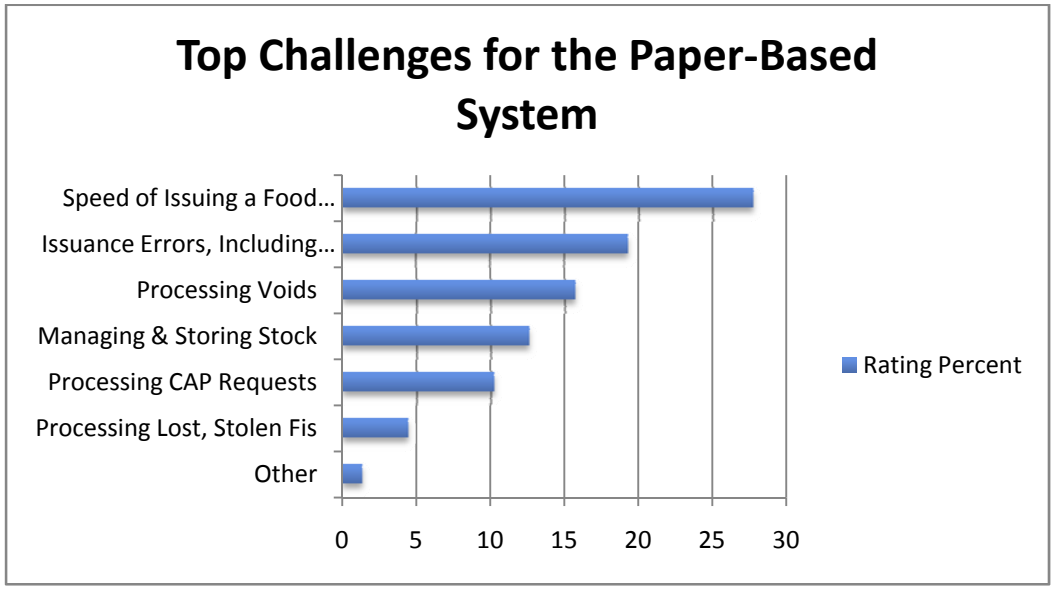
FIGURE 6: FOOD INSTRUMENT ISSUANCE AND VOID WORK FLOW

The time to perform basic issuance functions was captured using a time study conducted over one week at three different clinics and through the web-based survey. Estimated time for transactions include:

- 3.8 minutes to print (issue) the FIs for a household
- 1.6 minutes to provide the client with the household's FI and for the client to sign the stub
- 1.7 minutes to train new clients on the use of FIs
- 3.9 minutes to process a void transaction
- 6.11 minutes *per day* to initial, date and file FIs or voids

In the web-based survey, agency and clinic staff were asked to indicate the top three challenges for a WIC clinic using the paper-based process. The speed of issuing a FI was considered the greatest challenge. It is noted that printing speed is dependent upon response times from the WICNET system and the internet access of the local clinic. During interviews, clinics indicated that there were "time of day" issues, where either the system or the internet in general was slower than other times of the day. The following chart illustrates the responses to this survey question.

"The printer is so slow; the one who is printing cannot perform any other functions, like making appointments, while the checks are printing."



3.3.2.2 Special Formula

The State currently has a contract with the Community Action Program (CAP) of Lancaster County to provide WIC-approved special formula to infants in need. Ordering special formula from the CAP Distribution Center is a highly-manual process and subject to error. Order forms are filled out by hand at the local clinic and faxed to the CAP Distribution Center. Local clinics noted that there are occasions where it is unclear as to whether an order has gone through, so the order is re-faxed, which sometimes results in a duplicate order. All orders must be logged and stored in a CAP file kept by the local clinic with a copy filed in the participant's folder. CAP formula orders are paid for with FIs; local clinics must mail CAP FIs the same business day to the Distribution Center. Mailing can be done at any time during the day; however, most clinics wait until the end of the day so that all orders and FIs can be mailed at once. This creates a problem as mail service for the day has often already occurred. Some local clinic staff go to the Post Office on their way home to ensure FIs are mailed on time. Time studies indicate it takes 18.0 minutes to process the CAP FI mailing at the end of the day.

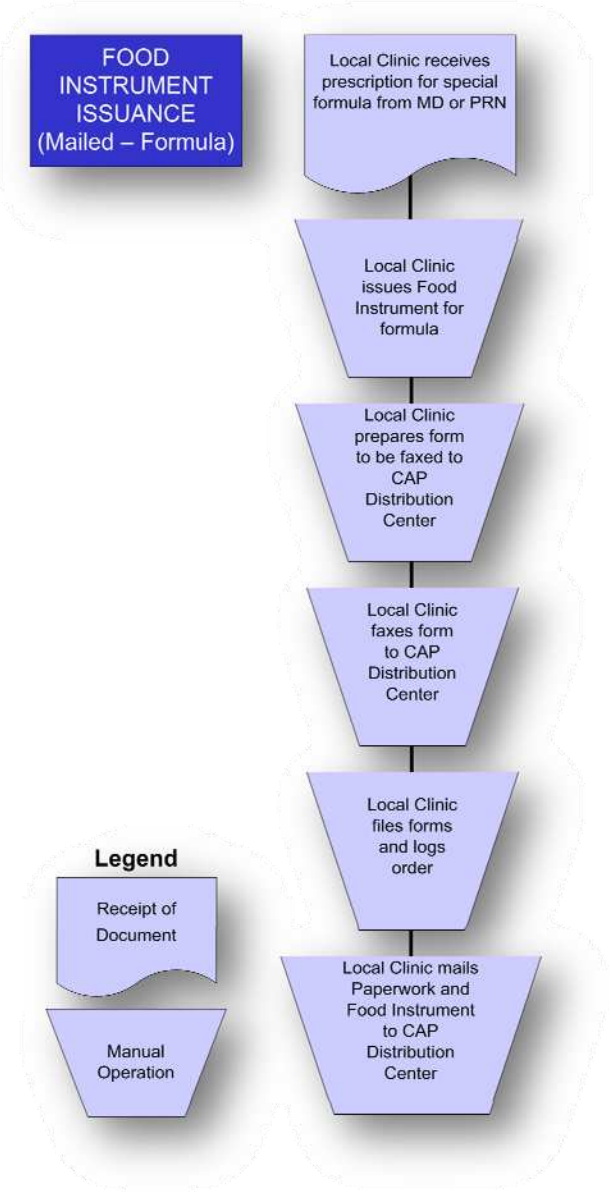


FIGURE 7: LOCAL CLINIC CAP PROCESS

3.3.2.3 Materials and Equipment

A summary of the materials required for FI issuance, and how the materials are obtained by the local offices is provided below:

Supply/Equipment	Initiator	Provider	Comments
MICR Printer	Operations Team	State's Designated Provider	Operations Relays Order to Technical Team; Technical Team Orders Through VITA; Shipped Directly from Provider to Clinic
Toner	Local Clinic	State's Designated Provider	Local Clinic Orders; Toner Shipped Directly from Provider to Clinic
Vouchers	Support Team	Covansys (Banking Contractor)	Support Team Verifies Quantities with Local Agencies (Quarterly) and Orders From Covansys; Covansys Ships to Local Agencies; Local Agencies Distribute to Local Clinics
WIC ID Folders & Plastic Sleeves	Local Clinic	VDH Purchases and Ships to MSS for Storage Until Use	Local Clinic Initiates Order Via Fax to MSS; MSS Ships to Local Clinic
Participant Training Materials	Local Clinic	VDH Purchases and Ships to MSS for Storage Until Use	Local Clinic Initiates Order Via Fax to MSS; MSS Ships to Local Clinic

Vouchers and WIC ID Folders must be kept in secure (locked) storage and when they are received and removed the action must be recorded in an audit log. Blank stock is removed from printers and secured at the end of the day; printers must be re-loaded with stock at the beginning of the next day. Toner must also be stored in a secure location by the clinic.

Time estimates based on time studies and the web-based survey indicate it takes an average of:

- 3.6 minutes to obtain and load the printer with vouchers at the beginning of the day
- 2.8 minutes to remove the vouchers and secure them at the end of each day
- 32.0 minutes *per quarter* to order, store and track WIC ID Folders
- 21.1 minutes *per quarter* to order and store plastic sleeves
- 22.3 minutes *per quarter* to order and store toner

3.4 RETAILER ENVIRONMENT

The WIC Program is committed to ensuring that WIC participants have reasonable access to authorized store locations. Retailer participation is a critical component in the effort to provide WIC participants with a nutritious diet. At the time of this assessment, there were 771 authorized WIC retailers made up of the following:

- One very large chain with 299 WIC authorized retailers

- Ten medium to large chains with 11 to 61 authorized retailers, for a total of 296 stores (includes 11 Commissaries)
- Seventeen small chains with 2 to 8 authorized retailers, for a total of 60 stores
- A total of 115 single stores
- The CAP Formula Distribution Center

For this baseline analysis, the State provided transaction and retailer data, the Analysis Team conducted interviews with three chains, and the Team also created a web-based retailer survey, which was used to collect retailer information. There were 41 survey responses from WIC retailers. Most of the responses were from store managers (79.4 percent) with 20.6 percent of the responses received from chain-level managers. Most of the respondents (87.5 percent) have been providing WIC services for more than ten years. Furthermore:

- Two responses came from national chains
- Five responses came from regional chains with more than five stores in Virginia and other States
- One response came from a regional chain with more than five stores in Virginia
- Six responses were from small, localized chains
- Twenty responses came from single, individually owned stores
- Seven respondents did not identify the type of store they represented

3.4.1 Retailer Authorization and Compliance

The majority of retailers are authorized to provide WIC services on a cyclical basis, with re-authorization occurring every three years. The retailer authorization and re-authorization process includes entry of the store's pricing for WIC items into the Virginia WIC Program web-based Retail Store Management System (RSMS).[10] Stores may update their pricing at any time but are required to update pricing on a quarterly basis. In the Retailer Survey, respondents estimated it takes an average of 41.7 minutes each quarter to update pricing in the RSMS. The average labor rate (salary plus fringe) for back office functions was estimated by retailers to be $10.66 per hour. At this estimated rate, data entry into RSMS translates into an estimated cost of $7.41 per quarter per retailer.[11]

Once authorized, retailers are trained on and provided with policies and procedures that include Federal regulations for the WIC Program. Retailers are monitored for compliance with WIC policies and regulations by staff from the Vendor Team and an independent (anonymous) compliance monitor. Approximately 24 retailers are disqualified from participating in the program each year due to non-compliance. In addition, approximately 37 new retailers are added each year, either to replace non-compliant retailers who have been disqualified (DX) from participating in the program; because an authorized retailer has come under new ownership; or because an authorized retailer has changed locations.

[10] In the past, retailers were permitted to submit pricing in paper and VDH used staff to enter data into the system. The ability to submit pricing on paper was being eliminated during this study and therefore is not being evaluated.
[11] Chain stores sometimes use a central manager to enter price data for the chains; however, each store must still be entered individually.

For some compliance violations, vendors will be assessed an immediate fine. Depending on the number and type of violations, if a vendor demonstrates a pattern of non-compliance, it may be assessed a civil monetary penalty (CMP) and/or be disqualified (DX) from the Program. During FFY 2007, WIC retailer CMPs ranged from $650 to $42,000.

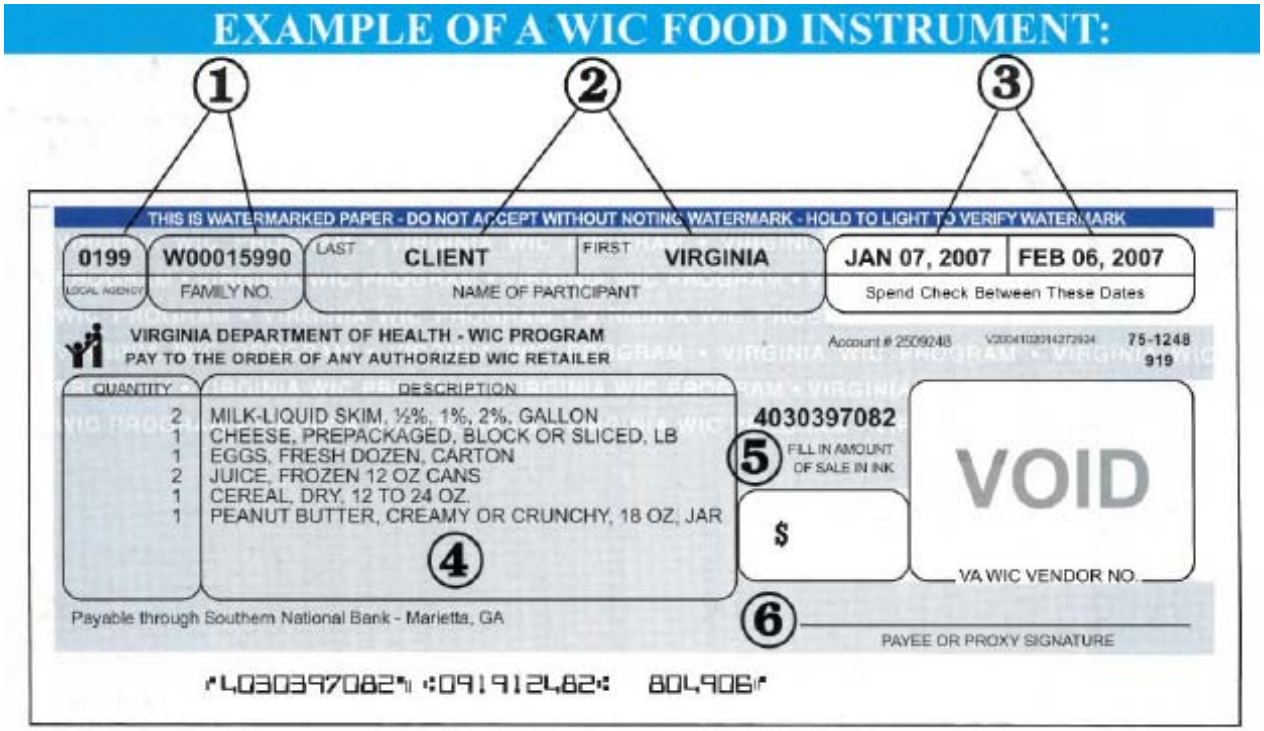
There are some sanctions that correlate with the paper-based process. These are omissions and errors that are allowed to occur because of the inability of the paper-based process to provide an automated check that ensures the transaction is occurring as it should be. These policies and related sanctions are provided below; violation volumes are indicated for the assessment year. The CMPs assessed during this period were assessed for violations against these and other policies/regulations that are not associated with the paper-based system. Therefore, while some CMPs may be avoided in an automated environment, the CMP cost to the retailers for the violations of the policies listed below cannot be determined. The total cost of retailer fines, however, was $9,300.

Policy/Regulation	Number of Violations	Fine/Sanction	Total Fines (Not Including CMP)
Accepts a WIC FI before the "Spend Check Between These Dates" as printed on the FI	0	$100	$0
Charges the WIC Program sales tax on a WIC purchase	2	$100	$200
Obtains the participant's signature before the dollar amount has been entered on the FI	81	$100	$8,100
Substitutes a WIC eligible food that is not prescribed on the participant's FI for another WIC eligible food prescribed on the FI	2	4+ incidents=pattern; 1 year DX or CMP if applicable	
Allows WIC participants to purchase less contract formula than the amount specified on the WIC FI	0	4+incidents=pattern; 1 year DX or CMP if applicable	
Charges the WIC Program for a quantity that is greater than the quantity allowable on the WIC FI (Overcharge)	9	4+ incidents=pattern; 1 year DX or CMP if applicable	
Fails to sell the correct type of food as prescribed by WIC. Allows participant to buy an ineligible food type	89	4+ incidents=pattern; 1 year DX or CMP if applicable	
Forges a participant's signature onto a WIC FI	4	1 year DX	
Substitutes a non-eligible (i.e. smaller package size) than that which is prescribed on the WIC FI	8	$100	$800
Substitutes a non-eligible food from that which is prescribed on the WIC FI (Overcharge)	109	4+ incidents=pattern; 1 year DX or CMP if applicable	
Charges the WIC Program for supplemental food provided extra items in excess of those listed on the WIC FI (Overcharge)	112	4+ incidents=pattern; 1 year DX or CMP if applicable	

Policy/Regulation	Number of Violations	Fine/Sanction	Total Fines (Not Including CMP)
Receives transacts or redeems WIC FIs outside of authorized channels, including the use of an unauthorized store location.	0	3 year DX or CMP if applicable	
Substitutes non-food items for WIC foods, e.g., detergents, kitchen items, etc.	0	3 year DX or CMP if applicable	
Writes in the space provided on the FI a price higher than the receipt	3	3+ incidents=pattern; 3 year DX or CMP if applicable	
Writes in the space provided on the FI a price higher than the posted shelf price	3	3 or more incidents during a single investigation - 3 year DX or CMP, if applicable.	
Fails to confirm a WIC shopper possessed an ID Folder	111	$100	$200

3.4.2 WIC Redemptions

A WIC purchase is by far more complex than credit, debit, EBT, cash or check transactions. Participants usually have more than one FI and must separate food items so that the cashier can ring the purchase associated with each FI separately from the others and from additional purchases the participant may be making. A sample FI is provided below. The local clinic and family numbers are provided in the upper left hand corner of the FI (1).



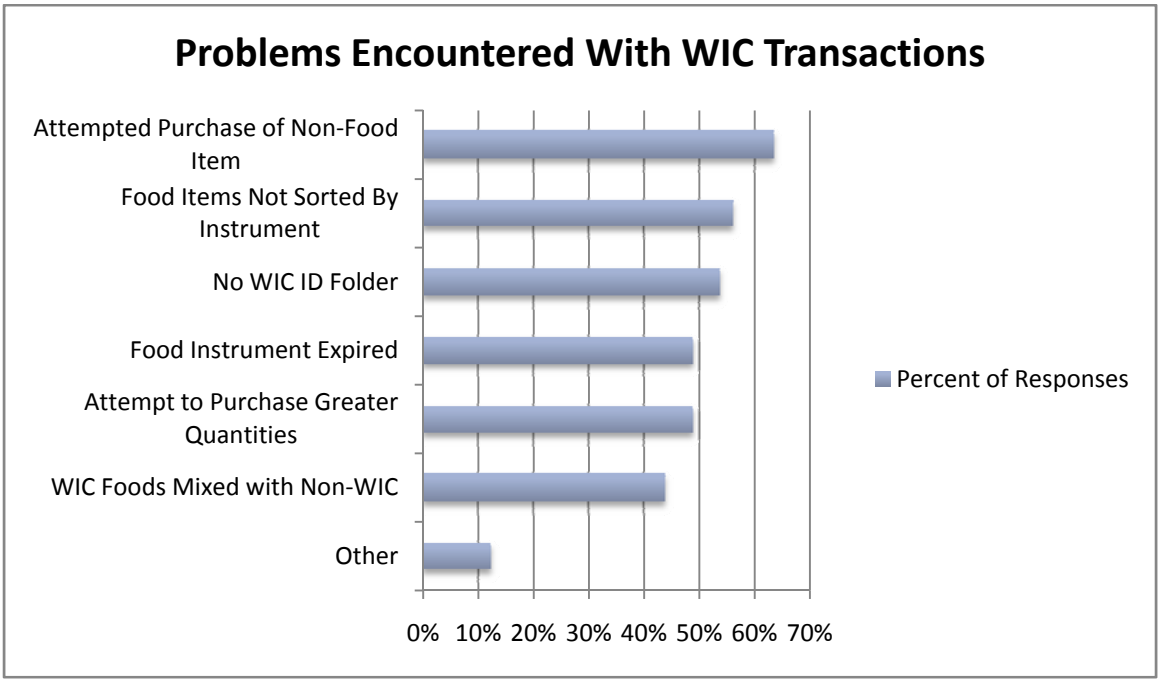
Timed transactions based on the food items and quantities indicated the *National Evaluation Model* resulted in an estimated WIC transaction time of 4 minutes 18 seconds. During a WIC transaction the cashier is responsible for:

- Ensuring the participant has a WIC ID Folder (identification)
- Verifying the name of the participant on the FI (2)
- Verifying the purchase date is within the first and last dates to spend (3)
- Verifying the food items are WIC-allowable and conform to what is on the prescription[12] (4)
- Ensuring that the maximum dollar amount does not exceed $125
- Entering the amount of the purchase in blue or black ink prior to requesting a participant's signature (5)
- Requesting a signature, which must be in blue or black ink (6)
- Providing or offering a receipt

"People always try to get items not on the WIC list and say that they didn't know that they couldn't get it."

"Attempted purchase of non-approved items is difficult for the customer and the checker since the customer often needs to trade out the item to complete the transaction."

From the retailer perspective, cashiers often face challenges created by the client. The Retailer Survey asked retailers what were the most problematic experiences they encountered with WIC transactions, with the survey allowing retailers to check all that apply. Retailers responded as follows:



[12] Although encouraged to do so, participants do not always purchase all the items on a FI. With the exception of infant formula, it is not the responsibility of the cashier to ensure that all other items are being purchased.

Comments received in interviews and from the survey indicated that one of the greatest difficulties, and greatest time consumer in-lane, is the client who is at the register and has either forgotten an item on the instrument or has selected a non-WIC authorized item, such as wrong brand, wrong size, etc. The cashier and customers behind the WIC client then have to wait until the client selects the appropriate product. This would not be avoided with the card, but clients will be provided with a printed receipt of food items that they are authorized to purchase, regardless of the technology.

3.4.3 Retailer Costs

Retailers incur incremental costs associated with repeated transactions. During the assessment year, the following data associated with retailer transactions were recorded by the banking contractor, Covansys:

Transaction Categories	Sub-Categories	Quantity	Value
Payments		**4,582,471**	**$93,819,551**
	ACH Payments	2,212	$413,717
	Check Payments	4,580,259	$93,819,551
Net Rejections		**39,723**	**$992,591**
Fatal Rejections		**8,588**	**$179,723**
	Altered FI	2	$37
	Signature Missing	4,143	$77,236
	Cashed Early	2,422	$50,649
	Previously Rejected	667	$24,956
	Price Not In Ink	374	$7,113
	Signature Not In Ink	88	$1,896
	Cashed Late	748	$14,531
	Unauthorized Vendor	144	$3,305
Transactions Over Amount Allowable		**14,863**	**$483,940**

- Payments were made on over 4.5 million food instruments.
- ACH transactions are those exception payments, including adjustments, which required review and approval by State staff. Once approved, the State authorizes an ACH payment to the retailer's financial institution. If FI redemption must go through State review, there is a delay in payment to the retailer (cost of money).
- Net rejections are the number of rejected FIs handled by the bank over the course of the year. Retailers deposit FIs using the same banking processes as when depositing checks. Prior to deposit, all FIs must be stamped with a WIC Retailer Stamp, which contains the retailer's unique identifier number for the WIC Program. Some types of rejects, such as an unreadable vendor number, can be sent back to the retailer for correction and re-presentment for payment. Those that cannot be corrected are considered to have a "fatal rejection". Regardless of whether the food instrument can be corrected, retailers pay a bank fee for rejection handling, estimated to be $0.46 per reject, or $18,273 over the assessment year.
- Fatal rejections are those food instruments rejected due to non-compliance with program policies and that cannot be corrected by the retailer. Transactions that result in fatal

rejections are often facilitated by the paper-based system, as there are no automated processes in-lane that deter these transactions. During the assessment year, retailers lost $179,723 to fatal rejections.

- VA WIC sets a maximum value for most food packages, and an overall maximum FI value of $125. If a retailer submits a FI with a value over the maximum amount, the FI will only be paid up to the amount allowable for the food package, to a maximum of $125. The retailer forfeits the amount over the maximum. During the assessment year retailers lost $113,026 for transactions which exceeded the maximum allowable values. Large dollar differences between a maximum value and the amount being submitted for redemption are often due to a common cashier error. When a client is redeeming multiple instruments, the cashier mixes the assignment of food package costs between a participant's FIs. Hence, an infant cereal instrument with a maximum value of $7 is rung up for $35, the cost of the infant formula instrument and vice versa. The store has sold $42 worth of authorized WIC items to the client but is reimbursed only $14.

Many, if not all fatal rejects and maximum value payments could be alleviated if the cashier performed his or her duties according to procedures. However, retailers interviewed indicated that they have internal problems with ensuring cashiers are sufficiently trained and following policies. These problems include high turnover rates, language barriers, and transaction time constraints, such as feeling pressured to complete the transaction quickly when other clients are in-line. As training varied widely among stores, retailers were reluctant to provide time estimates for training and to estimate whether training time would be reduced. However, retailers also noted that the paper-based process had so many requirements that it did little to assist them in alleviating paper-associated errors.

In the web-based survey, responding retailers provide time estimates for conducting both in-lane and back-office transactions associated with the paper-based system. The following are average retailer estimates calculated from responses received to the survey.

- Most retailers (62.5 percent) indicated that it takes longer to conduct a WIC transaction than a credit, debit or EBT transaction. Respondents indicated it took an average of 3.9 minutes longer to conduct a WIC transaction. Test transactions conducted at a retailer location resulted in 4 minutes, 18 seconds for the WIC transaction and 1 minute, 01 seconds for a credit transaction, a difference of 3.3 minutes, supporting the retailer survey results. Respondent cashier labor rates (salary plus benefits) averaged $8.93 per hour. This translates to $0.58 of additional retailer cost to conduct a WIC transaction.
- Retailers estimated it takes an average of 10.55 minutes to prepare the bank deposit for FIs. With an average back-office labor rate of $10.66 per hour, this translates to a cost of $1.87 to prepare the FI deposit. Seventy five percent of the respondents indicated that they perform this function daily.
- Retailers estimated it takes 14.39 minutes to take care of a rejection received from the bank. At a labor rate of $10.66 per hour, this translates to a cost of $2.56 to address a rejected FI.

3.4.4 CAP Formula Distribution Center

The CAP contractor receives orders for formula by fax and subsequently receives the order and the associated FI by mail. The contractor checks to see if the FI reconciles with the order. If the FI reconciles and is not stale dated, the contractor deposits it in its designated bank. If the FI does not reconcile, or is stale dated, then the contractor must follow a process of submitting the FIs to the State's Vendor Team for payment assistance. The impacts of paper-based processes, including the cost of FI reconciliation, are incorporated into the cost of the formula.

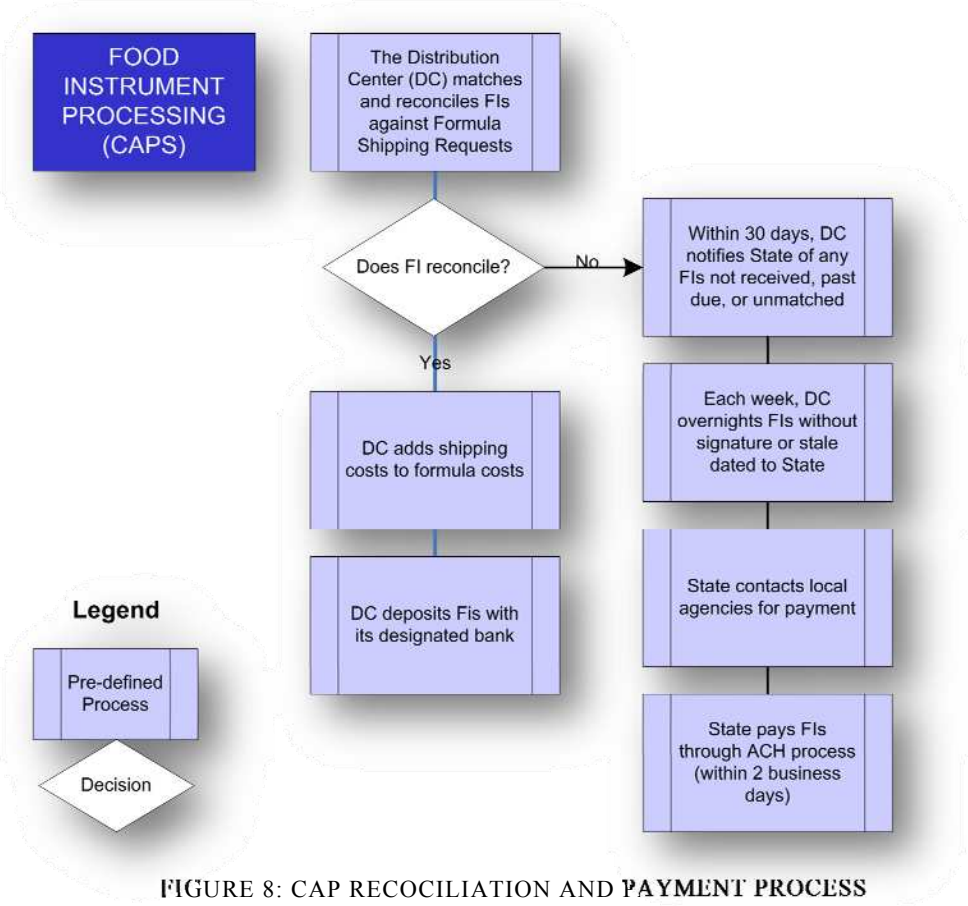


FIGURE 8: CAP RECOCILIATION AND PAYMENT PROCESS

Over the course of the assessment year, the CAP Distribution Center successfully submitted 37,750 FIs for payment and an additional 274 FIs were paid through the exception process via ACH. An average of 12.4, or 149 FIs over the year, were rejected and not paid. These totals are included in the retailer quantities for the assessment year.

3.5 BANKING ENVIRONMENT

VDH has a contract with Covansys to provide back-end processing services for WIC and Farmers' Market Nutrition Program FIs. Services include providing financial payments on redeemed FIs; providing automated and visual edits of deposited FIs to prevent improper payments; providing VDH with an electronic payment/disposition status of all FIs processed; providing a complete audit trail; and providing VDH with secure voucher stock to be used by local clinics to print FIs. Figure 9 below illustrates the redemption and payment flow of the FI and related data and funds.

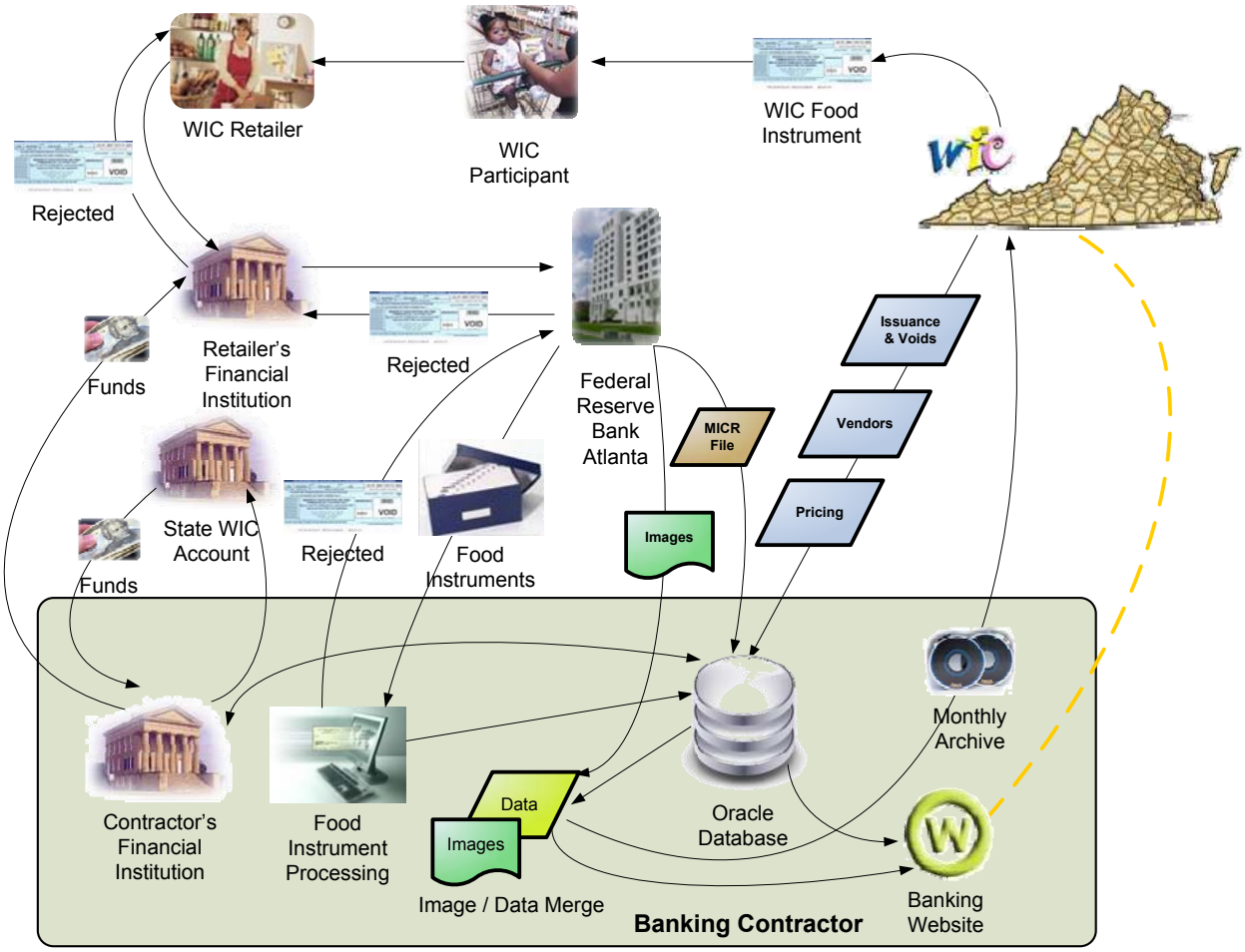


FIGURE 9: WIC FOOD INSTRUMENT, DATA AND PAYMENT FLOWS

As seen above, once a retailer deposits a FI there are a number of points where a reject can occur, including at the retailer's own financial institution (for example, if a MICR line is incorrectly printed), at the Federal Reserve and through the audits conducted by Covansys. WIC is not prefunded; Covansys draws funds from the State WIC account on the day of settlement. Covansys charges a wire transfer fee for the drawdown which occurs on each business day. VDH provides Covansys with the authorized vendor lists, food item and food package pricing data, and files containing FIs issued and FIs voided.

The banking contractor charges fees based on transaction volumes and materials. Services such as manual audits/edits of redeemed FIs are priced within the transaction fees. Transaction fees include:

- Food instruments paid (this fee is less for Farmers' Market FIs than for normal WIC FIs)
- Food instruments rejected
- Endorsement edits
- Electronic funds transfer (EFT) ACH payments
- ACH statements for individual retailers and/or corporate chains
- Wire transfer (a daily transaction made to draw down funds from the State WIC account)

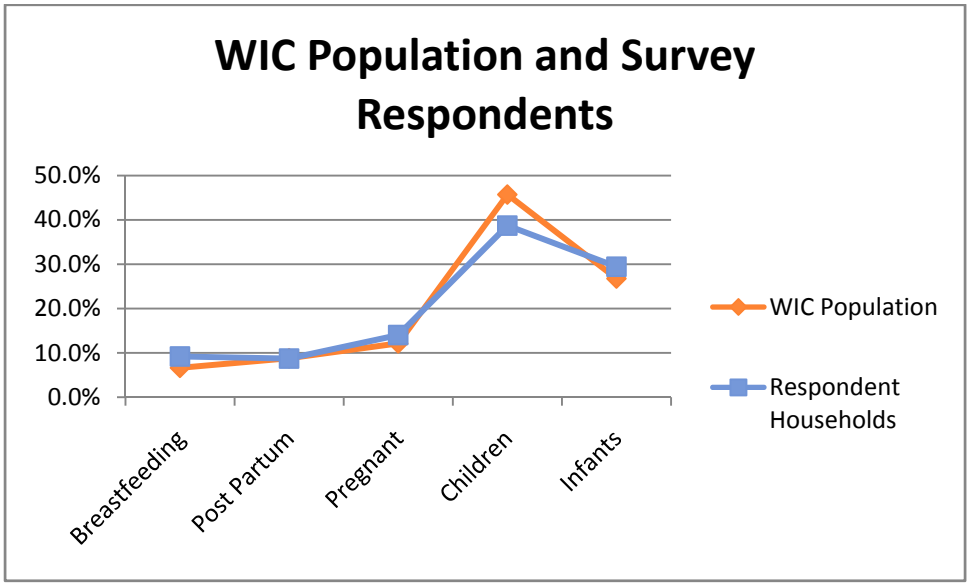
- Stop payments
- Compliance food instruments

The State is also charged for check voucher stock with the cost dependent upon the quantity ordered. These are provided shrink wrapped, with 500 sheets per package and 2,000 sheets per carton.

3.6 WIC PARTICIPANTS

For this analysis WIC participants were invited to participate in a web-based survey. As participant costs are not normally captured in a WIC CBA, the main purpose of the survey was to obtain participants' experiences with perceptions of the paper-based system. The survey was available from May 8, 2008 to June 2, 2008 and 121 completed household responses were received during this period. As seen in the following graph, the respondent households were similar in make-up to the general WIC population in Virginia.

Participant Response: "I love WIC and I know if it wasn't for WIC my daughter would not have the formula she needs. The program is very beneficial and informative."



According to respondents, the average number of FIs received in a three-month period was 14.5. This is approximately three more than the average number of FIs per household based on State data, which is 11.2 FIs during a three month period. In addition:

- 43.1% of the respondents indicated that they use or have used a Food Stamp EBT card.
- 83.2% indicated that it takes longer to use a FI than an EBT, credit, or debit card.
- 3.4% indicated that they had never used an EBT, credit or debit card.
- 90.8% indicated that the store(s) they shop at for WIC items scan the items bar codes.

- 37.3% indicated that they have had to wait at a clinic because of problems printing a FI.

Survey questions and responses related to use of the FI are provided in the following table and further expanded in the section below.

	Question	Percent YES	Percent NO
1	Have you ever felt uncomfortable or embarrassed when using a WIC food voucher?	58.8%	41.2%
2	Have you ever had problems using a WIC food voucher?	43.7%	56.3%
3	Do you ever purchase some but not all of the items on your food voucher?	36.6%	64.4%
4	Have you ever forgotten your WIC ID folder at the supermarket?	30.3%	69.7%
5	Have you ever lost your food vouchers?	25.9%	74.1%
6	Have you ever had your food vouchers stolen?	6.0%	94.0%
7	Have you ever lost your food benefits because your food vouchers were lost or stolen?	9.4%	90.6%

Question 1. Have you ever felt uncomfortable or embarrassed when using a WIC food voucher?

Well over half (58.8 percent) answered yes to this question. Regardless of the efficiencies and cost savings, when Food Stamps transitioned from coupons to EBT cards, one of the major benefits of the program was held to be the ability of Food Stamp recipients to purchase food in a grocery store without the stigma of presenting coupons. Instead, the recipient used a debit card and was perceived by other store clients and by most clerks as being "normal" shoppers.

"Because the people behind you in line obviously know your business when you have the big envelope that you have to show and (when) you (take the) WIC check out then they start judging you as a person."

Following is a synopsis of the 68 comments received in response to this question:

- Customers and cashiers are frustrated with the time it takes to cash more than one voucher in a transaction.
- Employees and shoppers stare when the WIC folder and checks are used; the WIC ID Folder is very large and noticeable.
- Cashiers have to call the managers over to approve the checks, holding up the line.
- When a cashier calls for help, it is often done through the announcement system or by loudly calling for someone to assist with WIC. This impacts privacy and brings out into the open that the person is receiving assistance.
- It takes added time when the total purchase may include Food Stamp (EBT card), cash, and WIC voucher purchase, all of which must be separated.
- Participant has to refer the clerk to the allowable food flyer to educate the clerk on a questionable item.

- Not as embarrassed about WIC as there is a need for healthy foods but more embarrassed that the transaction is holding up the line.
- One infant may receive multiple checks. This is time consuming at the checkout.

Question 2. Have you ever had problems using a WIC food voucher?

This question got a positive response rate of 43.7 percent with 51 participants providing comments. Typical responses included:

"I have had to leave a store because they did not know how to do a WIC check."

- Cashiers were not trained on WIC transactions, including cashing the FI and eligible items.
- Stores did not label WIC items or did not carry the appropriate size/brand.
- Respondents were unsure as to what is an approved WIC item, or an approved item may have changed without the respondent's knowledge.
- Confusion by cashiers to what constitutes an approved WIC item.
- Respondents brought the vouchers but left the "bulky" WIC ID Folder at home.

Approximately one third of respondents indicated that problems with using the FI were related to check out clerks not knowing how to do a transaction. The remaining responses had less to do with a paper-based environment than on educating clients and stores as to which items are authorized, and on having stores clearly mark all WIC-authorized items so that clients can easily identify the items they need to buy.

Question 3. Do you ever purchase some but not all of the items on your food voucher?

Of the survey respondents, 36.6% answered yes to this question and provided 39 comments. Most responses indicated one of the following:

"Sometimes it's not in stock and you need certain WIC items, so you pass up some items. When you are catching a ride you get what you can."

- Items that are remembered once the participant is in the checkout line are not purchased because it takes too much time to go back and get it. Once the transaction occurs, it is too late to get the missed item.
- The quantity is too much for the household or some items were not needed by the household. Items mentioned as not being purchased included beans, peanut butter, eggs, juice and cereal.
- The store was out of the item or didn't carry the item.

Some of these comments are products of the paper-based system, where the "use it or lose it" nature of the FI prohibits a participant from purchasing the forgotten or unavailable item at another store. The second bulleted item is not a result of the paper-based system; however, the reporting capabilities of the current processes do not provide State-level analysts the data necessary to determine participant purchase patterns and therefore implement food packages with quantities more appropriate to actual client usage or for CPAs/Nutritionists to counsel participants who are not accessing all products on the nutritional value of those items.

Question 4. Have you ever forgotten your WIC ID Folder at the supermarket?

This question was asked because WIC staff noted that calls were frequently received from grocery stores that client WIC ID Folders were forgotten by participants. This appears to be prevalent among participants, as 30.3 percent of respondents indicated that they had, at some time, forgotten their WIC ID Folders at the store. It was also noted that several comments on Question 2, above, indicated that recipients also forgot their WIC ID Folders at home, as they were "bulky" and the respondents did not normally carry the folder with them.

Questions 5 through 7. Have you ever lost your food vouchers, had them stolen and/or lost benefits because your vouchers were lost or stolen?

Fully 25 percent of respondents had lost food vouchers at some time during their participation in the WIC Program and six percent indicated that their vouchers had been stolen. More importantly, over nine percent indicated that their household had lost food benefits because their vouchers had been lost or stolen. This loss, in addition to the loss of nutritious foods in some of the cases discussed in Question 3, indicate that not all foods intended for the benefit of WIC participants are being acquired.

4. OPPORTUNITES AND CONSTRAINTS

4.1 OPPORTUNITIES FOR IMPROVEMENT

Through interviews, observations and surveys, various needs for improvement within the paper-based system were identified by the Analysis Team, as well as opportunities that automated systems may represent. These items are discussed below.

Improved Use of WIC Benefits

Three factors indicated that the paper-based process induces inefficiencies in the use of WIC Benefit funds.

- Baseline data indicated that 17.8% of all FIs are not redeemed. As benefit issuance will be electronic, E-WIC will eliminate the waste of issuing FIs that will not be used by the participant.
- Over one third of respondents to the participant survey stated that at times they have not purchased all the food items on their FIs, often because they did not need an item. The State-level Nutrition Team and FNS will be provided the opportunity to accurately and effectively create food packages (content and quantities) that meet the needs of WIC participants.
- Electronic benefit access will allow participants to shop at a later time to purchase remaining items, so long as it is within the authorization period. Paper-based FI is a "use or lose" process. If an item in a food package is not purchased during the store visit, it cannot be purchased at a later time.

Automated Compliance

Retailer non-compliance to WIC policies and procedures may be through omission, error or fraud, initiated by either the retailer or the recipient. The State's Vendor Team monitors compliance through site visits, anonymous compliance buys, and review of rejected FIs. The State mitigates non-compliance by conducting quarterly retailer meetings with participation facilitated through video-conferencing and call-in capabilities, providing retailer training materials and conducting retailer training sessions. Retailer liaisons also provide ad hoc training to retail staff when conducting on-site visits.

When interviewed, retailers discussed the high turnover rate, language barriers, and other issues they encountered in maintaining staff with the knowledge to conduct WIC transactions. One large chain stated that 13 percent of their stores, identified by corporate because of their rate of rejects, have been instructed to have a manager conduct all WIC transactions. Twenty five percent of retailer survey respondents stated that store managers conduct the WIC transactions in their stores. Both survey respondents and interviewees stated that paper-based transactions are complex and prone to error.

Comments from interviewed retailers and from survey participants indicated a desire to conduct WIC transactions electronically, eliminating many of the errors that result in either fatal rejects or over-the-maximum transactions. In addition, retailers stated that EBT is expected to reduce the number of non-compliance sanctions, thereby reducing fines and CMPs.

Certain avenues for error and fraud could be eliminated but compliance monitoring would not be eliminated. On the State side, compliance monitoring would be enhanced by the reporting capabilities of the e-WIC system. As with Food Stamp and cash EBT, the State will be provided with complete transaction audit capabilities and the methodologies to identify anomalies and purchase patterns.

Reduction in Errors and Waste at the Local Clinic

During the assessment period two types of FI printing errors were noted by local clinics and the Vendor Team. First, there were problems with correctly printing the MICR line at the bottom of the voucher. Some, but not all of this was due to clinic problems in setting up the new printers provided in 2007. If this error was noted at the clinic, the FIs were voided and new FIs were printed. If the FIs were given to the client and redeemed, they were rejected at the bank. Retailers then required State assistance for payment and the State incurred ACH costs for exception payment transactions. The second problem was duplicated FI numbers, an error that originated with the WICNET system. This, too, resulted in additional cost in materials and an additional level of effort on the part of WIC and retailer staff to ensure retailers received payment on these FIs.

The actual act of printing FIs inherently results in waste. Blank stock is a perforated 8½" by 11" sheet that contains three vouchers. Once a household's vouchers are printed, any unused vouchers on a sheet are shredded and discarded. This cost is part of the total cost of stock, which would be eliminated with e-WIC. However, if one assumes that either zero, one or two vouchers is discarded with each issuance, then a resulting average of one voucher is discarded with each household's issuance transaction. This means an estimated 409,000 vouchers or 6.7 percent of voucher stock is discarded each year, simply because they are "orphan" vouchers.

Reduction in CAP Special Formula Payment Delays

The manual processes surrounding the CAP special formula are problematic for the local clinics and the CAP Distribution Center. While some errors will be eliminated with SAM, other payment problems, such as the delay in sending and receiving the FIs associated with orders, will be eliminated with the automated payment capabilities associated with e-WIC.

Improvement in Retailer Price Reporting Processes

Retailers indicated a need for relief from the quarterly and as-needed updates to their WIC item prices. At the time of this assessment, the State had implemented the RSMS and was eliminating the paper-based process of submitting pricing on paper and using State staff for data entry. Retailers expressed that there were elements of the RSMS that could be improved. With a few reservations, retailers also expressed an interest in e-WIC capturing a store's current cost data to alleviate the obligation to provide continuous updates. One retailer stated that the use of e-WIC to establish cost data might result in prejudiced pricing calculations if representation within peer groups were unbalanced. It is noted that even if e-WIC could be utilized for capturing costs, RSMS or a future module of the planned SAM system would not be eliminated as retailers requesting authorization would still be required to enter their initial pricing information. The State has an opportunity to work with retailers to ensure that processes for communicating WIC items and pricing are improved with the SAM and e-WIC implementations.

Improvement in Services for Participants

WIC participants are more cognizant of the use of card technologies and processes than their predecessors during the implementation of Food Stamp EBT. When EBT was first implemented, many grocery stores were not accepting cards and recipients were usually "unbanked", without debit card experience. WIC participants, who often have used EBT, credit, and/or debit cards, understand the anonymity of the card transaction, as well as the speed and accuracy of the approval and transaction process. Comments received from the survey included a general desire for:

- A reduction in benefit issuance time
- Being treated in a similar manner to other clients
- Having an electronic method to confirm their selected food items are WIC-authorized
- Eliminating the necessity of carrying the WIC ID Folder
- Having the ability to return to a store to purchase the remainder of their WIC items
- Cashiers being provided with easier processes to conduct a transaction

4.2 ISSUES/CONSTRAINTS

The two greatest constraints facing the conversion of a WIC paper based system to EBT are the ability of the WIC information system to facilitate e-WIC and overcoming the barriers of the retailer environment. In coordinating the planning phases of e-WIC with their participation in the Crossroads SAM project, Virginia has mitigated this constraint and will seek to leverage the SAM project to its benefit.

Retailers can look beyond implementation to see the advantages of e-WIC to support their operations and compliance with WIC Program policies. However, there are reservations noted, including cost of implementation, integration of electronic cash register (ECR) systems with the e-WIC system, and the possible impacts of e-WIC EBT terminals on in-lane footprints. For now, the State is communicating e-WIC news to retailers and coordinating their efforts with their retailer community.

5. COSTS RELATED TO THE PAPER-BASED SYSTEM

Costs of the paper-based system were acquired through data provided by the State; invoices from the banking contractor; and time estimates/time studies provided by State and local staff. Details of the paper based cost analysis are provided in Appendix C.

As seen in Figure 10 displayed below, the annual baseline cost of materials, services and labor is $1.94 million. The largest portion of these costs ($1.1 million) is State and local labor, based solely on activities related to the paper based process.

At $1.8 million, annual retailer costs are substantial. Labor costs include the time spent in-lane (by cashiers and managers), and back-office time spent in preparing deposits, reviewing rejects, and entering data into RSMS.

	BASELINE	ESTIMATED COST FOR OUT-YEARS, PAPER-BASED ISSUANCE						
Calendar Year	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Total Labor Costs	**$ 1,306,501**	**$ 1,345,696**	**$ 1,386,067**	**$ 1,427,649**	**$ 1,470,479**	**$ 1,514,593**	**$ 1,560,031**	**$ 1,606,832**
State Level Labor	**$ 171,639**	**$ 176,788**	**$ 182,092**	**$ 187,554**	**$ 193,181**	**$ 198,976**	**$ 204,946**	**$ 211,094**
Operations	$ 18,478	$ 19,032	$ 19,603	$ 20,191	$ 20,797	$ 21,421	$ 22,064	$ 22,726
Retailer	$ 46,446	$ 47,839	$ 49,274	$ 50,753	$ 52,275	$ 53,843	$ 55,459	$ 57,123
Technical	$ 73,059	$ 75,251	$ 77,508	$ 79,833	$ 82,228	$ 84,695	$ 87,236	$ 89,853
Business	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Nutrition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contractor Support	$ 25,239	$ 25,996	$ 26,776	$ 27,579	$ 28,407	$ 29,259	$ 30,137	$ 31,041
Indirect Costs	$ 8,417	$ 8,669	$ 8,930	$ 9,197	$ 9,473	$ 9,758	$ 10,050	$ 10,352
Regional & Local Labor	**$ 1,134,862**	**$ 1,168,908**	**$ 1,203,976**	**$ 1,240,095**	**$ 1,277,298**	**$ 1,315,617**	**$ 1,355,085**	**$ 1,395,738**
Food Instrument Issuance	$ 945,456	$ 973,819	$ 1,003,034	$ 1,033,125	$ 1,064,119	$ 1,096,042	$ 1,128,923	$ 1,162,791
Material Management	$ 124,160	$ 127,885	$ 131,722	$ 135,673	$ 139,743	$ 143,936	$ 148,254	$ 152,701
Contractor Support	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Indirect Costs	$ 65,247	$ 67,204	$ 69,220	$ 71,297	$ 73,436	$ 75,639	$ 77,908	$ 80,245
Material Costs	**$ 282,142**	**$ 290,606**	**$ 299,324**	**$ 308,304**	**$ 317,553**	**$ 327,080**	**$ 336,892**	**$ 346,999**
Banking Contractor Costs	**$ 357,459**	**$ 357,459**	**$ 357,459**	**$ 375,331**	**$ 412,865**	**$ 412,865**	**$ 412,865**	**$ 412,865**
TOTAL COST TO STATE	**$ 1,946,102**	**$ 1,993,761**	**$ 2,042,850**	**$ 2,111,285**	**$ 2,200,897**	**$ 2,254,538**	**$ 2,309,788**	**$ 2,366,695**
Retailer-Borne Costs	**$ 1,826,229**	**$ 1,869,912**	**$ 1,914,905**	**$ 1,961,249**	**$ 2,008,982**	**$ 2,058,147**	**$ 2,108,788**	**$ 2,160,947**
Labor	$ 1,456,094	$ 1,499,777	$ 1,544,770	$ 1,591,113	$ 1,638,847	$ 1,688,012	$ 1,738,653	$ 1,790,812
Loss	$ 370,135	$ 370,135	$ 370,135	$ 370,135	$ 370,135	$ 370,135	$ 370,135	$ 370,135
TOTAL BASELINE COST Including Retailer-Borne Costs	**$ 3,772,331**	**$ 3,863,673**	**$ 3,957,756**	**$ 4,072,533**	**$ 4,209,879**	**$ 4,312,685**	**$ 4,418,575**	**$ 4,527,643**

FIGURE 10: BASELINE AND OUT-YEAR COSTS

The costs identified in this analysis form the basis of the cost comparison in the *e-WIC Feasibility Study*.

APPENDIX C: STRATEGIC BENEFITS

Each of the strategic goals in the State Plan was analyzed to determine whether it would be influenced by the type of WIC issuance – either paper or electronic. Goals that were determined not to be influenced by the mode of issuance, such as supporting civil rights through training materials, were eliminated from the analysis. The remaining strategic goals were rated on a 1 to 5 scale on their overall importance to the WIC Program; the anticipated level of impact that mode of issuance would have on the strategic goal; and the likelihood that either paper issuance or e-WIC would support the strategic goal. Rating definitions are as follows:

- 1 = No importance, impact or probability
- 2 = Below average importance, impact or probability
- 3 = Average importance, impact or probability
- 4 = Above average importance, impact or probability
- 5 = Highest importance, impact or probability

The average of the three categories was calculated for both the paper-based and the e-WIC systems. If the proposed system received an average score of 4 to 4.5 it was considered to be of above average benefit in assisting the State to achieve its strategic goals and objectives. An average score of 4.5 to 5.0 was considered to provide the highest benefit in assisting the State to achieve its strategic goals and objectives.

Following are each of the categories and applicable strategic goals of the State's WIC Program, and the associated ratings given to paper-based and e-WIC systems.

Category 1: Vendor Management

Strategic Goals for Vendor Management	Paper-based Issuance	e-WIC
Strengthen participating retailers' point-of-service delivery, ensuring high quality services are rendered to all eligible Virginia WIC participants.	3.3	4.0
Ensure participating retailers' products and services comply with State, Federal, and regulatory requirements/guidelines.	3.7	4.7
Strengthen and ensure that the foods provided by participating retailers are reasonably priced and accurately reimbursed.	3.3	4.3
Improve the ability to implement the most cost effective strategies to comply with federal regulations related to Vendor Management?	3.3	4.3
Enhance the reauthorization process that provides WIC eligible participants adequate access to authorized stores.	2.3	3.0
Overall Benefits	**3.2**	**4.1**
e-WIC Differential		**0.9**

Category 2: Nutrition Services

Strategic Goals for Nutrition Services	Paper-based Issuance	e-WIC
Improve the delivery and quality of nutrition education.	3.3	4.0
Improve the VDH position to implement food package changes.	3.7	4.7
Improve food package cost containment.	4.0	5.0
Overall Benefits	**3.7**	**4.6**
e-WIC Differential		**0.9**

Category 3: Information Systems

Strategic Goals for Information Systems	Paper-based Issuance	e-WIC
Improve the effectiveness and efficiency of program operations through the use of automated data processing and services.	1.0	4.7
Enhance the data gathered from WICNET.	4.0	4.7
Support the multi-State collaborative process to develop a replacement system for managing WIC services.	4.7	4.7
Enhance strategies to layout the groundwork for development of the replacement system.	4.3	5.0
Improve customers' ability to access and utilize internet-based WIC information and services.	1.0	5.0
Help ensure that all critical reporting needs and requirements are met in a timely and accurate manner.	3.7	4.0
Overall Benefits	**3.9**	**4.7**
e-WIC Differential		**0.8**

Category 4: Organization and Management

Strategic Goals for Organization and Management	Paper-based Issuance	e-WIC
Improve the ability of State and local WIC staff to provide efficient quality services to WIC participants.	4.0	4.3
Improve organizational staff utilization.	4.3	5.0
Improve the ability to respond to disasters.	3.7	3.3
Help ensure a seamless delivery of WIC services in the event of a declared disaster.	3.7	3.3
Help codify policies and procedures of the Virginia WIC Program to support and expedite certain Program operations.	3.7	4.0

Strategic Goals for Organization and Management	Paper-based Issuance	e-WIC
Help support efficient staffing.	4.3	5.0
Assist in addressing fraud and abuse prevention efforts within the WIC Program.	4.3	5.0
Overall Benefit Rating	**4.0**	**4.3**
e-WIC Differential		**0.3**

Category 5: Food Funds Management

Strategic Goals for Food Funds Management	Paper-based Issuance	e-WIC
Help to maximize the use of USDA funds.	1.0	1.0
Help ensure the WIC Program will meet spending targets.	3.0	3.3
Help effectively manage all WIC Program funds.	4.3	5.0
Help to maximize the use of USDA food funds.	4.0	4.7
Help ensure that business requirements for banking are met.	3.3	3.7
Help maximize rebate dollars through the infant formula rebate contract.	4.3	5.0
Help implement allowable food changes to the food list.	4.0	5.0
Help implement infant rebate contracts.	4.3	5.0
Help ensure the fiscal integrity of the WIC Program based on policy compliance.	4.0	4.7
Help to improve the management and allocation of food funds to serve the greatest number of eligible women, infants and children.	4.3	5.0
Overall Benefit Rating	**3.7**	**4.2**
e-WIC Differential		**0.5**

Category 6: Certification and Eligibility

Strategic Goals for Certification and Eligibility	Paper-based Issuance	e-WIC
Improve service delivery to ensure high program retention rates and customer satisfaction.	3.7	4.0
Improve the integrity of program operations by strengthening internal controls and minimizing the risk of potential fraud and abuse.	4.0	4.3
Overall Benefit Rating	**3.8**	**4.2**
e-WIC Differential		**0.4**

Category 7: Fund Delivery/Food Instrument Accountability & Control

Strategic Goals for Fund Delivery/Food Instrument Accountability & Control	Paper-based Issuance	Strategic Goals for Nutrition Services
Help ensure compliance with all State and Federal accountability guidelines regarding food instrument issuance and reconciliation.	**4.0**	**4.3**
e-WIC Differential		**0.3**

APPENDIX D: DETAILED COST ANALYSIS

The attached appendix provides the detailed cost analysis used to support the cost findings of this study.

E-WIC COST BENEFIT ANALYSIS IN SUPPORT OF THE E-WIC FEASIBILITY STUDY

NAME OF AGENCY: **VIRGINIA DEPARTMENT OF HEALTH**

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General Assumptions
The State will implement e-WIC with integrated ECRs; it will not support stand-beside POS configurations.
Both on-line and off-line software will be available to be ported from other states for the in-house solutions.
The e-WIC systsem will be implemented in parallel with the implementation of the State Agency Model (SAM) system.

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INSTRUCTIONS

INSTRUCTIONS
This model has been created to assist in conducting a cost-benefit analysis of a State's paper-based WIC issuance process against the three currently available e-WIC (electronic WIC issuance) alternatives: An outsourced, on-line system; an on-line system using in-house processing; and an off-line system using in-house processing. It also provides an estimate of cost changes based on changes in caseloads. In completing this workbook, capture the cost elements only associated with WIC benefit issuance. Each worksheet contains instructions specific to the worksheet. The following information provides a general explanation on how to use the workbook.

1	Enter the name of the State Agency conducting this analysis in the orange box on the index sheet. This name will be replicated on each worksheet of the workbook.
2	To prepare to complete the worksheet, acquire the data elements listed on the worksheet titled "State-specific Baseline Quantities". The model is designed to be flexible. Therefore, in only a few cases do these data elements link to other worksheets. However, acquiring these items will facilitate data entry.
3	Labor rates requested by various worksheets are expected to be either hourly rates inclusive of fringe benefits or the labor rate paid by the State for contracted support. Overhead costs are calculated separately.
4	Item descriptions, unit costs, labor rates, quantities, comments and other elements shaded in grey are to be filled in by the State and are not locked. There are a limited number of items that are not shaded. **THESE ITEMS MUST REMAIN AS DESCRIBED.**
5	Cells containing functions are locked, to avoid accidental deletion. However, if the need arises to change a function to meet a State's method of calculation, simply unprotect the sheet. Each sheet has been locked without the use of a password.
6	Some material items and activities have been provided in tables as a guideline to the State conducting its analysis. These items may be deleted or new items may be added to fit the State's specific requirements.
7	In each worksheet, the blank cells beneath the tables have been unlocked to allow the State's entry of notations, calculations and assumptions used to arrive at the costs or quantities within the table.
8	Summary tables pull data from the calculation sheets. These tables are completely locked - with the exception of banking costs on the "Baseline Summary" worksheet. This allows the State to enter expected costs should the State require a new banking contract during the assessment period.
9	The "Alternatives Summary" worksheet recognizes that there will be some operations conducted during the implementation year. It allows the State to enter a percentage of transactions expected to be conducted with e-WIC during the implementation year. For example, if a roll-out occurs over a full year, the State might assume that e-WIC is operating at 50% over the entire year. Once 50% is entered in the indicated cell, the worksheet will calculate a 50% operations rate for the paper based system and for the three alternatives. This allows a balanced comparison of all alternatives.
10	The "Alternatives Summary" and "Baseline Summary" worksheets recognize that there may be a time lag between the baseline analysis and the initiation of design and development activities that results in increased costs due to inflation or cost of living increases. Both worksheets provide instructions on how to address this time differential.
11	Cost data in all worksheets (paper and EBT environments) should be entered at current cost levels. Summary worksheets will calculate inflation and cost of living increases.
12	As transaction times for paper-based processes are compared against estimated times for e-WIC, three-month time studies are not required. The use of abbreviated time studies for repetitive transactions and estimations for occassional activities is acceptable.
13	Use the items listed in the "WIC EBT National Evaluation Model" to capture the time for a paper-based Food Instrument purchase transaction. This provides a basis of comparison against the times captured for e-WIC purchase transactions in other States' studies.

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STATE-SPECIFIC BASELINE QUANTITIES

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INSTRUCTIONS: The following data elements should be captured to assist in completion of this model. Areas shaded dark grey are linked to worked sheets. Provide comments as appropriate.

	State-Specific Baseline Data	Values	Comments
1	Baseline Year (Enter as yyyy)	2008	Baseline data (assessment year) March 2007 - February 2008
2	Year Designated to Start Design/Development Phase (Enter as yyyy)	2009	
3	Fringe Rate for State Employees (Enter a numerical value. The cell is formatted for percentages)	38%	
4	Annual Cost of Living Adjustment (COLA)	3%	Average based on variable increases
5	Date of COLA	Varies	Assume Jan 1
6	Annual Assumed Inflation Rate (Enter a numerical value. The cell is formatted for percentages)	3%	
7	Labor Hours Per Year	2080	For tasks that are specific to one person, assumed 1920 hours
8	Indirect Cost Rate for Non-Contracted Services (Enter a numerical value. The cell is formatted for percentages)	6.10%	
9	Indirect Cost Rate for Contracted Services (Enter as n% or nn%)	0%	
10	Estimated percentage of transactions conducted via e-WIC during the Implementation Year (Enter a numerical value. The cell is formatted for percentages)	25%	
11	Number of Regional Agencies	35	
12	Number of Local Clinics	152	Clinics that indicated zero to one cases per month were not included
13	Number of Food Instrument Issuance Stations	176	
14	Average Number of Participants For the Baseline Year	144,930	
15	Average Number of Households for the Baseline Year	102,279	
16	Average Number of Participants Per Household	1.42	
17	Number of New Participants Per Year	89,925	
18	Number of New Families Per Year	33,279	
19	Number of Food Instruments Issued Per Year	6,056,034	
20	Number of Food Instruments Paid Per Year	4,580,259	
21	Number of Voids Per Year	249,933	
22	Number of Unredeemed FIs Per Year	1,081,541	
23	Average Number of FIs per Issuance	14.80	
24	Average Number of Issuance Transactions Per Year	409,116	
25	Number of Food Instrument Rejects Per Year (Attributed to paper-based processes only; may or may not be paid with representment; assumed to be alleviated by e-WIC)	39,723	
26	Number of Unredeemed Food Instruments Per Year	1,081,541	
27	Number of CAP FIs Per Year	20,840	Pertains to Formula Distribution Centers
28	Number of ACH Payments Made Per Year Outside of Normal Processing	2,212	
29	Number of Authorized Retailers	771	Reauthorization occurs every 3 years; 2008 most recent year
30	Annual Turn-Over of Retailers	24	
31	Estimated Number of Retailer Deposits Per Year	150,345	Assumes half of the retailers settle each business day; other half settle every other business day.
32	Estimated Number of Chains Requiring Integration Support - Off-Line	2	
33	Estimated Number of Chains Requiring Integration Support - On-Line	4	
34	Number of Retailers Provided with Basic Integrated ECRs	199	Includes one lane of equipment
35	Estimated Number of Lanes Supported for Integrated Terminals	1,119	Based on one lane for every increment up to $8,000 in monthly sales
36	Estimated Number of Lanes Supported for Stand-Beside Terminals	-	Not applicable to Virginia
37	Seconds to Conduct a Paper-Based Transaction	258	Based on timed transactions using Virginia Food Instruments

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DETAILED COST SUMMARY: DESIGN, DEVELOPMENT, IMPLEMENTATION & FIVE YEARS OF OPERATIONS

	BASELINE	DESIGN, DEVELOP, TEST COSTS				TEST, PILOT, IMPLEMENT COSTS			
Categories	As of June 2008	**Inflation:**	**2009**			**Inflation:**	**2010**		
		103.0%				**106.1%**			
Alternative			**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**		**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**
Labor Costs	**1,306,501**		**313,936**	**954,036**	**619,930**		**228,527**	**1,252,530**	**808,094**
State Level Labor	171,639		313,936	954,036	619,930		114,210	1,138,213	683,962
Regional & Local Labor	1,134,862						114,317	114,317	124,132
Materials & Services	**282,142**		**0**	**279,130**	**294,580**		**0**	**282,488**	**893,880**
Materials	282,142		0	279,130	294,580		0	282,488	893,880
EBT Processor Fees	N/A								
Banking Contractor Costs	**357,459**								
Retailer Costs	**0**						**2,571,356**	**2,719,140**	**3,397,851**
TOTAL COST TO STATE	**1,946,102**		**313,936**	**1,233,166**	**914,510**		**2,799,884**	**4,254,158**	**5,099,825**
Retailer-Borne Costs	**1,826,229**								
Labor	1,456,094								
Loss	370,135								
TOTAL SYSTEM COST									
Including Retailers	**3,772,331**		**313,936**	**1,233,166**	**914,510**		**2,799,884**	**4,254,158**	**5,099,825**

NOTATION: Inflation rates are rates calculated from the baseline year.

Categories	OPERATIONS DURING IMPLEMENTATION YEAR				FIVE-YEAR OPERATION PERIOD							
	Inflation: 106.1%	2010			Inflation: 109.3%	2011 Year 1			Inflation: 112.6%	2012 Year 2		
Alternative	**Current Paper**	**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**	**Current Paper**	**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**	**Current Paper**	**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**
Labor Costs	**346,517**	**74,547**	**101,775**	**111,324**	**1,427,649**	**307,133**	**419,311**	**458,654**	**1,470,479**	**316,347**	**431,891**	**472,414**
State Level Labor	45,523	36,950	64,178	64,178	187,554	152,234	264,412	264,412	193,181	156,801	272,345	272,345
Regional & Local Labor	300,994	37,597	37,597	47,146	1,240,095	154,899	154,899	194,242	1,277,298	159,546	159,546	200,069
Materials & Services	**74,831**	**740,404**	**109,231**	**154,680**	**308,304**	**2,965,779**	**450,033**	**637,283**	**317,553**	**2,970,065**	**463,534**	**656,402**
Materials	74,831	34,679	109,231	154,680	308,304	142,879	450,033	637,283	317,553	147,165	463,534	656,402
EBT Processor Fees		705,725				2,822,900				2,822,900		
Banking Contractor Costs	**89,365**				**375,331**				**412,865**			
Retailer Costs		**7,347**	**7,612**	**14,906**		**30,269**	**31,361**	**61,411**		**31,177**	**32,302**	**63,254**
TOTAL COST TO STATE	**510,713**	**822,298**	**218,618**	**280,910**	**2,111,285**	**3,303,180**	**900,705**	**1,157,349**	**2,200,897**	**3,317,589**	**927,726**	**1,192,069**
Retailer-Borne Costs	**478,726**	**61,722**	**61,722**	**61,722**	**1,961,249**	**215,055**	**215,055**	**215,055**	**2,008,982**	**221,129**	**221,129**	**221,129**
Labor	386,193	49,145	49,145	49,145	1,591,113	202,478	202,478	202,478	1,638,847	208,552	208,552	208,552
Loss	92,534	12,577	12,577	12,577	370,135	12,577	12,577	12,577	370,135	12,577	12,577	12,577
TOTAL SYSTEM COST												
Including Retailers	**989,439**	**884,020**	**280,340**	**342,632**	**4,072,533**	**3,518,235**	**1,115,760**	**1,372,403**	**4,209,879**	**3,538,718**	**1,148,855**	**1,413,198**

FIVE-YEAR OPERATION PERIOD												
	Inflation: 115.9%	2013 Year 3			Inflation: 119.4%	2014 Year 4			Inflation: 123.0%	2015 Year 5		
Alternative	**Current Paper**	**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**	**Current Paper**	**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**	**Current Paper**	**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**
Labor Costs	**1,514,593**	**325,837**	**444,847**	**486,586**	**1,560,031**	**335,612**	**458,193**	**501,184**	**1,606,832**	**345,681**	**471,938**	**516,219**
State Level Labor	198,976	161,505	280,515	280,515	204,946	166,350	288,930	288,930	211,094	171,341	297,598	297,598
Regional & Local Labor	1,315,617	164,332	164,332	206,071	1,355,085	169,262	169,262	212,253	1,395,738	174,340	174,340	218,621
Materials & Services	**327,080**	**2,974,480**	**477,440**	**676,094**	**336,892**	**2,979,028**	**491,763**	**696,377**	**346,999**	**2,983,711**	**506,516**	**717,268**
Materials	327,080	151,580	477,440	676,094	336,892	156,127	491,763	696,377	346,999	160,811	506,516	717,268
EBT Processor Fees		2,822,900				2,822,900				2,822,900		
Banking Contractor Costs	**412,865**				**412,865**				**412,865**			
Retailer Costs		**32,112**	**33,271**	**65,151**		**33,075**	**34,269**	**67,106**		**34,068**	**35,297**	**69,119**
TOTAL COST TO STATE	**2,254,538**	**3,332,429**	**955,558**	**1,227,831**	**2,309,788**	**3,347,715**	**984,225**	**1,264,666**	**2,366,695**	**3,363,460**	**1,013,751**	**1,302,606**
Retailer-Borne Costs	**2,058,147**	**227,386**	**227,386**	**227,386**	**2,108,788**	**233,830**	**233,830**	**233,830**	**2,160,947**	**240,468**	**240,468**	**240,468**
Labor	1,688,012	214,808	214,808	214,808	1,738,653	221,253	221,253	221,253	1,790,812	227,890	227,890	227,890
Loss	370,135	12,577	12,577	12,577	370,135	12,577	12,577	12,577	370,135	12,577	12,577	12,577
TOTAL SYSTEM COST												
Including Retailers	**4,312,685**	**3,559,815**	**1,182,944**	**1,455,217**	**4,418,575**	**3,581,545**	**1,218,055**	**1,498,496**	**4,527,643**	**3,603,927**	**1,254,219**	**1,543,074**

SUMMARY: DESIGN, DEVELOPMENT, IMPLEMENTATION & 5 YEARS OPERATIONS				
Alternative	**Current Paper**	**Alt 1 OutS, On-L**	**Alt 2 In-H, On-L**	**Alt 3 In-H, Off-L**
Labor Costs	**7,926,100**	**2,247,621**	**4,534,521**	**3,974,404**
State Level Labor	1,041,274	1,273,327	3,560,227	2,771,870
Regional & Local Labo	6,884,826	974,293	974,293	1,202,534
Materials & Services	**1,711,660**	**15,613,468**	**3,060,133**	**4,726,564**
Materials	1,711,660	793,241	3,060,133	4,726,564
EBT Processor Fees		14,820,227		
Banking Contractor Costs	**2,116,154**	**0**	**0**	**0**
Retailer Costs		**2,739,403**	**2,893,253**	**3,738,797**
TOTAL COST TO STATE	**11,753,915**	**20,600,491**	**10,487,907**	**12,439,765**
Retailer-Borne Costs	**10,776,839**	**1,199,590**	**1,199,590**	**1,199,590**
Labor	8,833,630	1,124,126	1,124,126	1,124,126
Loss	1,943,209	75,464	75,464	75,464
TOTAL SYSTEM COST				
Including Retailers	**22,530,754**	**21,800,081**	**11,687,497**	**13,639,355**

On a scale of 1 to 5, with 1 being of lowest benefit and 5 being the highest benefit, paper issuance was measured against e-WIC on their ability to meet the State WIC Program's Strategic Goals. Following are the results of the Benefit Measurement:

Paper Issuance	E-WIC Issuance
3.74	4.32

On a scale of 1 to 3, with **1 being the lowest risk** and **3 being the lowest risk**, each of the three e-WIC alternatives were measured on their level of risk to the e-WIC initiatives. Following are the results of the Risk Measurement:

Alt 1 OutS, On-L	Alt 2 In-H, On-L	Alt 3 In-H, Off-L
2.74	2.79	2.63

E-WIC Issuance	was determined to have greater benefits to othe WIC Program than paper-based issuance.
In-House, Off-Line	was determined to have the least risk to the implementation of e-WIC.

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BASELINE COST DETAILS

INSTRUCTIONS: This table automatically calculates estimated costs for out-years.
However, the shaded area in Row 28 is unlocked to allow entry of changes to banking contracts over the analysis period.

	BASELINE	ESTIMATED COST FOR OUT-YEARS, PAPER-BASED ISSUANCE						
Calendar Year	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Total Labor Costs	**$ 1,306,501**	**$ 1,345,696**	**$ 1,386,067**	**$ 1,427,649**	**$ 1,470,479**	**$ 1,514,593**	**$ 1,560,031**	**$ 1,606,832**
State Level Labor	**$ 171,639**	**$ 176,788**	**$ 182,092**	**$ 187,554**	**$ 193,181**	**$ 198,976**	**$ 204,946**	**$ 211,094**
Operations	$ 18,478	$ 19,032	$ 19,603	$ 20,191	$ 20,797	$ 21,421	$ 22,064	$ 22,726
Retailer	$ 46,446	$ 47,839	$ 49,274	$ 50,753	$ 52,275	$ 53,843	$ 55,459	$ 57,123
Technical	$ 73,059	$ 75,251	$ 77,508	$ 79,833	$ 82,228	$ 84,695	$ 87,236	$ 89,853
Business	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Nutrition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contractor Support	$ 25,239	$ 25,996	$ 26,776	$ 27,579	$ 28,407	$ 29,259	$ 30,137	$ 31,041
Indirect Costs	$ 8,417	$ 8,669	$ 8,930	$ 9,197	$ 9,473	$ 9,758	$ 10,050	$ 10,352
Regional & Local Labor	**$ 1,134,862**	**$ 1,168,908**	**$ 1,203,976**	**$ 1,240,095**	**$ 1,277,298**	**$ 1,315,617**	**$ 1,355,085**	**$ 1,395,738**
Food Instrument Issuance	$ 945,456	$ 973,819	$ 1,003,034	$ 1,033,125	$ 1,064,119	$ 1,096,042	$ 1,128,923	$ 1,162,791
Material Management	$ 124,160	$ 127,885	$ 131,722	$ 135,673	$ 139,743	$ 143,936	$ 148,254	$ 152,701
Contractor Support	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Indirect Costs	$ 65,247	$ 67,204	$ 69,220	$ 71,297	$ 73,436	$ 75,639	$ 77,908	$ 80,245
Material Costs	**$ 282,142**	**$ 290,606**	**$ 299,324**	**$ 308,304**	**$ 317,553**	**$ 327,080**	**$ 336,892**	**$ 346,999**
Banking Contractor Costs	**$ 357,459**	**$ 357,459**	**$ 357,459**	**$ 375,331**	**$ 412,865**	**$ 412,865**	**$ 412,865**	**$ 412,865**
TOTAL COST TO STATE	**$ 1,946,102**	**$ 1,993,761**	**$ 2,042,850**	**$ 2,111,285**	**$ 2,200,897**	**$ 2,254,538**	**$ 2,309,788**	**$ 2,366,695**
Retailer-Borne Costs	**$ 1,826,229**	**$ 1,869,912**	**$ 1,914,905**	**$ 1,961,249**	**$ 2,008,982**	**$ 2,058,147**	**$ 2,108,788**	**$ 2,160,947**
Labor	$ 1,456,094	$ 1,499,777	$ 1,544,770	$ 1,591,113	$ 1,638,847	$ 1,688,012	$ 1,738,653	$ 1,790,812
Loss	$ 370,135	$ 370,135	$ 370,135	$ 370,135	$ 370,135	$ 370,135	$ 370,135	$ 370,135
TOTAL BASELINE COST								
Including Retailer-Borne Costs	**$ 3,772,331**	**$ 3,863,673**	**$ 3,957,756**	**$ 4,072,533**	**$ 4,209,879**	**$ 4,312,685**	**$ 4,418,575**	**$ 4,527,643**

NOTATIONS

New banking contract to begin July 1, 2011. Assume 10% increase in costs

Assumes that quantity and rates of loss will remain constant

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PAPER-BASED SYSTEM

STATE-LEVEL LABOR COSTS

INSTRUCTIONS: Activity descriptions, labor rates, number of transactions, estimated times and comments may be entered in shaded areas.

BASELINE: ONE YEAR ESTIMATED STATE-LEVEL LABOR COSTS RELATED TO PAPER-BASED WIC ISSUANCE						
	Activity Description	**Labor Rate**	**Estimated Number of Transactions per Year**	**Estimated Minutes per Transaction**	**Estimated Cost per Year**	**Comments**
Operations & Support						
1	Develop Food Instrument Policies & Procedures & Train Staff	$ 33.17	240	63	$ 8,359	63 minutes per day (one staff; estimate 4 weeks sick, vacation and holiday)
2	Evaluate Food Instrument and Printer Expenditures	$ 33.17	26	17	$ 244	One occurrence in 2 weeks
3	Evaluate Security of Food Instruments & Related Materials	$ 33.17	71	120	$ 4,710	Half of all clinics; 120 minutes average
4	Provide Local Clinic Help Desk Support Related to Food Instruments & Printers	$ 24.55	260	44	$ 4,681	44 minutes per day average between 3 Help Desk staff
5	Order Food Instrument Stock	$ 24.55	4	120	$ 196	Two hours each quarter
6	Respond to Local Agency Queries on Toner	$ 33.17	52	10	$ 287	Once/week; 10 minutes per query
7					$ -	
8					$ -	
	Subtotal				**$ 18,478**	
Retailer Management						
1	Retailer Reject Query or Investigation	$ 49.09	240	20	$ 3,927	Blended rate
2	Address Special Formula Vendor Queries Concerning Food Instruments	$ 33.17	240	133	$ 17,646	133 minutes per day
4	Process ACH Transactions	$ 33.17	12	600	$ 3,980	Estimated at 10 hours per month
5	Store Prep and Visit; FI-Related Activities	$ 33.17	386	30	$ 6,402	Half of all stores; 30 minutes per store
6	Prepare For and Provide On-Site Retailer Counseling Concerning Food Instrument Rejects	$ 33.17	120	60	$ 3,980	3 staff, minimum 10 stores per month, 60 minutes per store
7	Retailer Price Submission Support	$ 43.79	240	58	$ 10,159	58 minutes per day
8	Prepare Maximum Reimbursement File	$ 43.79	4	120	$ 350	Once per quarter
	Subtotal				**$ 46,446**	

BASELINE: ONE YEAR ESTIMATED STATE-LEVEL LABOR COSTS RELATED TO PAPER-BASED WIC ISSUANCE						
	Activity Description	**Labor Rate**	**Estimated Number of Transactions per Year**	**Estimated Minutes per Transaction**	**Estimated Cost per Year**	**Comments**
Operations & Support						
Technical Support						
1	Business Analysis of Technical Requirements for the WIC MIS Related to Changes in the Food Instrument	$ 43.79	12	480	$ 4,204	Blended Rate
2	Pull Reports and Provide Analysis Concerning Food Instruments	$ 41.28	260	360	$ 64,397	Blended rate; manager and stat analyst
3	Support Printer Purchasing & Replacement	$ 41.28	12	540	$ 4,458	Blended rate; manager and analyst
4		$ -	-		$ -	
5					$ -	
6					$ -	
	Subtotal				**$ 73,059**	
Business Support						
1					$ -	
2					$ -	
3					$ -	
	Subtotal				**$ -**	
Nutritional Services						
1					$ -	
2					$ -	
3					$ -	
	Subtotal				**$ -**	
Contract Services						
1	Changes to WIC MIS Directly Related to Changes in the Food Instrument	$ 84.13	12	1500	$ 25,239	Estimated at 50 hours per month
2					$ -	
3					$ -	
	Subtotal				**$ 25,239**	
State Overhead Charges						
	Non-Contracted Costs	6.1%			$ 8,417	
	Contracted Costs	0.0%			$ -	
TOTAL ANNUAL STATE LABOR COSTS RELATED TO PAPER-BASED ISSUANCE					**$ 171,639**	

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PAPER-BASED SYSTEM

LOCAL AGENCY AND LOCAL CLINIC LABOR COSTS

INSTRUCTIONS: Activity descriptions, labor rates, number of transactions, estimated times and comments may be entered in shaded areas.

BASELINE: ONE YEAR ESTIMATED AGENCY AND CLINIC LABOR COSTS RELATED TO PAPER-BASED WIC ISSUANCE						
	Activity Description	**Labor Rate**	**Estimated Number of Transactions per Year**	**Estimated Minutes per Transaction**	**Estimated Cost per Year**	**Comments**
Food Instrument Issuance						
1	Issue Food Instruments	$ 20.46	409116	5.4	$ 753,346	
2	Void Food Instruments	$ 20.46	16884	3.9	$ 22,454	
3	Train New Clients on Use of FI	$ 28.17	33279	1.7	$ 26,562	
4	Process and Mail Food Instruments for Special Formulas	$ 28.17	6947	18.0	$ 58,706	Assumes 3 FIs per mailing
5	File Food Instruments and Stubs	$ 20.46	39520	6.1	$ 82,340	Once per day per local clinic
6	Deliver Food Instruments to Local Agencies	$ 35.23	70	49.8	$ 2,047	Once per quarter for 50% of the local agencies
7					$ -	
8					$ -	
	Subtotal				**$ 945,456**	
Materials and Equipment Management						
1	Order, track and Secure Materials Related to Food Instruments (ID Folders, Plastic Sleeves, etc.)	$ 28.17	608	53.1	$ 15,158	Once per quarter per local clinic
2	Order, Track and Secure Toner	$ 28.17	608	22.3	$ 6,366	Once per quarter per local clinic
3	Load/Unload Printer on Daily Basis	$ 20.46	45,760	6.4	$ 99,867	Once per day per printer
4	Order, Secure and Distribute FIs	$ 35.23	140	33.7	$ 2,770	Once per quarter per local agency
5					$ -	
6					$ -	
7					$ -	
8					$ -	
	Subtotal				**$ 124,160**	
Contract Services						
1					$ -	Not applicable to Virginia WIC
2					$ -	
3					$ -	
4					$ -	
	Subtotal				**$ -**	
State Overhead Charges						
	Non-Contracted Costs	6.1%			$ 65,247	
	Contracted Costs	0.0%			$ -	
TOTAL ANNUAL LOCAL LABOR COSTS RELATED TO THE PAPER-BASED ENVIRONMENT					**$ 1,134,862**	

Note:
5 of the 35 local agencies (14%), which are located in Northern Virginia, have a salary differential due to cost of living. Local agency and local clinic labor rates have been calculated using the weighted mean salary of each geographic area. Following are the calculations:

	NV Rate	Elsewhere	NV	Elsewhere	Blended Labor Rate
Position	**Mean**	**Mean**	**Wtd**	**Wtd**	
WIC Coordinator	$ 43.87	$ 33.83	$ 6.14	$ 29.09	$ 35.23
Nutritionist/CPA	$ 35.08	$ 27.04	$ 4.91	$ 23.25	$ 28.17
Nutrition Assistant	$ 27.46	$ 19.32	$ 3.84	$ 16.61	$ 20.46

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PAPER-BASED SYSTEM

STATE & LOCAL MATERIAL COSTS

INSTRUCTIONS: Material items, cost per unit, annual quantities, annual shipping costs and comments may be entered into shaded areas.

BASELINE: ONE YEAR ESTIMATED MATERIAL COSTS RELATED TO PAPER-BASED WIC ISSUANCE							
	Item Description	Cost per Unit	Estimated Annual Quantity	Estimated Annual Cost	Annual Shipping Cost	Estimated Total Annual Cost	Comments
1	Printers	$ 623.000	44	$ 27,412	-	$ 27,412	Purchased; 4-year cycle
2	Printer Maintenance	$ -	-	$ -	-	$ -	Included in purchase price
3	Toner	$ 165.000	1,380	$ 227,700	-	$ 227,700	Shipping included in toner cost
4	Food Instrument ID Folders	$ 0.060	136,756	$ 8,205	-	$ 8,205	
5	Food Instrument Protective Sleeves	$ 0.042	284,544	$ 12,031	-	$ 12,031	
6	File Folders for Filing FI Stubs, Voids	$ 0.310	3,648	$ 1,132	-	$ 1,132	2 per month per clinic
7	WIC Program Retailer Stamps	$ 4.390	200	$ 878	1,000	$ 1,878	New and replacement stamps
8	Postage for Food Instruments Mailed to Special Order Formula Vendor	$ 0.420	6,947	$ 2,918	-	$ 2,918	See Clinic Labor for basis of quantity
9	Mileage for Hand Delivering FIs	$ 0.505	1,715	$ 866	-	$ 866	Average of 24.5 miles/quarter, 50% of local agencies
10		$ -	-	$ -	-	$ -	
11		$ -	-	$ -	-	$ -	
12		$ -	-	$ -	-	$ -	
TOTAL ANNUAL MATERIALS COST RELATED TO THE PAPER-BASED ENVIRONMENT						**$ 282,142**	

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PAPER-BASED SYSTEM

BANKING COSTS

INSTRUCTIONS: Item descriptions, cost per unit, annual quantities, and comments may be entered into shaded areas.

BASELINE: ONE YEAR ESTIMATED BANKING COSTS RELATED TO PAPER-BASED WIC ISSUANCE					
	Item Description	Cost per Unit	Quantity in Assessment Period	Cost in Assessment Year	Comments
1	Food Instruments Paid	$0.053	4,580,259	$242,754	
2	Food Instruments Rejected	$0.800	39,723	$31,778	
3	Endorsement Edits	$0.030	58,884	$1,767	
4	Farmers' Market Instruments Paid	$0.032	57,715	$1,847	
5	ACH Payments to Retailers	$0.500	2,212	$1,106	
6	ACH Statements	$3.000	2,212	$6,636	
7	Compliance Food Instruments	$1.000	841	$841	
8	Voucher Shipping & Restock Fees	$68,950.000	1	$68,950	
9	Wire Transfer (Funds Draw Down)	$5.000	356	$1,780	
10				$0	
11				$0	
12				$0	
TOTAL ANNUAL BANKING COST RELATED TO THE PAPER-BASED ENVIRONMENT				**$357,459**	

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PAPER-BASED SYSTEM

RETAILER-BORNE COSTS

INSTRUCTIONS: Transaction description, labor rates, annual quantities, transaction times and comments may be entered into shaded areas.

BASELINE: ONE YEAR ESTIMATED RETAILER-BORNE COSTS RELATED TO PAPER-BASED WIC ISSUANCE (SUBJECT TO INFLATION)

Labor

	Item Description	Labor Rate	Estimated Number of Transactions per Year	Estimated Time per Transaction (Minutes)	Estimated Cost Per Year	Comments
1	Conduct a Purchase Transaction	$ 8.93	930,501	4.3	$ 595,505	See ** below (Cashier Transaction)
2	Conduct a Purchase Transaction	$ 19.59	297,073	4.3	$ 417,076	Cashier transaction, Manager assist
3	Deposit FIs	$ 10.66	162,189	10.6	$ 304,004	See *** below
4	Handle Rejects	$ 10.66	39,723	14.4	$ 101,557	
5	Enter Pricing Into Retailer Database	$ 10.66	3,084	41.7	$ 22,848	
6	Train Personnel	$ 9.80	3,084	30.0	$ 15,104	Blended Rate. See **** below
TOTAL RETAILER-BORNE COSTS RELATED TO THE PAPER-BASED ENVIRONMENT (SUBJECT TO INFLATION)					**$ 1,456,094**	

BASELINE: ONE YEAR ESTIMATED RETAILER-BORNE COSTS RELATED TO PAPER-BASED WIC ISSUANCE (NOT SUBJECT TO INFLATION)

Rejects*

	Item Description	Cost per Unit	Number of Units per Year	Cost per Year	Loss per Year	Comments
1	Rejected Food Instruments - Unrecoverable				$ 179,723	
2	Amount Exceeding Allowable Maximum				$ 113,026	
3	Bank Fee for Food Instrument Rejects	$ 0.46	39,723	$ 18,273		
4	Cost of Money	$ 0.0007	$ 89,838,232	$ 59,114		Cost of money based on 5 day payment period, at an annual rate of
5		$ -		$ -		
6		$ -		$ -		
TOTAL RETAILER-BORNE COSTS RELATED TO THE PAPER-BASED ENVIRONMENT (NOT SUBJECT TO INFLATION)					**$ 370,135**	

NOTATIONS

* Only the rejects that occur in the paper-based environment and are anticipated to be eliminated in the e-WIC environment.

**Quantity based on 78% of FIs presented for payment; on a monthly basis 3.87 FIs per client per transaction;
24.2% of survey respondents stated that a manager assists with or conducts WIC transactions to alleviate errors

***75% of stores responding to the retailer survey stated that they perform this function daily; 6.3% every other day; 12.5% once a week; 6.3% once a month

Number of Stores:	578.3	48.6	96.4	48.6	**772**
Number of Deposits:	150280	6314	5012	583	**162189**

**** Retailers were reluctant to provide a time and with those that did, time varied widely. Assumed that 30 minutes training dedicated to paper-based processes.

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E-WIC IMPLEMENTATION

STATE-LEVEL LABOR AND CONTRACTOR COSTS

INSTRUCTIONS: Enter the activity, labor rate, estimated FTEs, period of effort in months and comments in the shaded areas.

			ESTIMATED STATE LABOR COSTS FOR E-WIC DESIGN, DEVELOP, AND TEST PHASE (FIRST YEAR)									
			ON-LINE, OUTSOURCED E-WIC			ON-LINE, IN-HOUSE E-WIC			OFF-LINE, IN-HOUSE E-WIC			COMMENTS
	Activity Description	Labor Rate	Estimated FTE(s)	Time Period (Months)	Estimated Cost	Estimated FTE(s)	Time Period (Months)	Estimated Cost	Estimated FTE(s)	Time Period (Months)	Estimated Cost	Comments
State Staff												
1	Program Management	$ 33.17	0.25	12	$ 17,215	0.25	12	$ 17,215	0.25	12	$ 17,215	PM duties includes oversight of SAM implementation.
2	Development of New Policies & Procedures	$ 33.17	0.3	3	$ 5,165	0.3	3	$ 5,165	0.3	3	$ 5,165	
3	Software Oversight & Coordination	$ 33.17	0.1	12	$ 6,886	0.2	12	$ 13,772	0.2	12	$ 13,772	
4	Retailer Oversight & Coordination (Dedicated EBT Staff Person)	$ 33.17	1	12	$ 68,861	1	12	$ 68,861	1	12	$ 68,861	
5		$ -			$ -			$ -			$ -	
6		$ -			$ -			$ -			$ -	
7		$ -			$ -			$ -			$ -	
8		$ -			$ -			$ -			$ -	
	Subtotal				**$ 98,127**			**$ 105,013**			**$ 105,013**	
Contract/Support Staff												
1	Quality Assurance	$ 100.00	0.3	12	$ 62,280	0.3	12	$ 62,280	0.3	12	$ 62,280	
2	IAPD	$ 100.00	1	2	$ 34,600	1	2	$ 34,600	1	2	$ 34,600	
3	Retailer Installation and Testing Support	$ 75.00			$ -	6	3	$ 233,550	3	3	$ 116,775	Contractor support for Virginia retailers in-house environment. Greater for on-line as fewer systems have been integrated. Included in terminals/CPCM for outsourced.
4	WIC MIS Modifications	$ 100.00	2	2	$ 69,200	2	2	$ 69,200	2	2	$ 69,200	Integration with EBT Host. MIS changes may be necessary with outsourced
5	EBT Host Modifications, Configuration, Testing	$ 100.00			$ -	2	12	$ 415,200	1	12	$ 207,600	In-house assumes existing application will be ported; also assumes greater effort for on-line in-house as the system will have not been operational in other states prior to beginning work. Changes to host in outsourced environment included in CPCM.
6	Integration Support for Outsourced	$ 100.00	0.5	4	$ 34,600			$ -			$ -	
7		$ -			$ -			$ -			$ -	
8		$ -			$ -			$ -			$ -	
	Subtotal				**$ 200,680**			**$ 814,830**			**$ 490,455**	
State Overhead Charges												
	Non-Contracted Costs	6.1%			$ 5,986			$ 6,406			$ 6,406	
	Contracted Costs	0.0%			$ -			$ -			$ -	
TOTAL STATE-LEVEL LABOR COST FOR DESIGN, DEVELOPMENT AND TESTING AN E-WI					**$ 304,793**			**$ 926,249**			**$ 601,874**	

ESTIMATED STATE LABOR COSTS FOR E-WIC IMPLEMENTATION PHASE (SECOND YEAR)												
			ON-LINE, OUTSOURCED E-WIC			ON-LINE, IN-HOUSE E-WIC			OFF-LINE, IN-HOUSE E-WIC			COMMENTS
	Activity Description	Labor Rate	Estimated FTE(s)	Time Period (Months)	Estimated Cost	Estimated FTE(s)	Time Period (Months)	Estimated Cost	Estimated FTE(s)	Time Period (Months)	Estimated Cost	Comments
State Staff												
1	Program Management	$ 33.17	0.25	12	$ 17,215	0.25	12	$ 17,215	0.25	12	$ 17,215	
2	Policies & Procedures	$ 33.17	0.2	3	$ 3,443	0.2	3	$ 3,443	0.2	3	$ 3,443	
3	Retailer Oversight & Coordination (EBT Dedicated)	$ 33.17	0.25	12	$ 17,215	1	12	$ 68,861	1	12	$ 68,861	
4	Install Terminals, Train Local Staff	$ 24.55			$ -	1	12	$ 50,966	1	12	$ 50,966	
5		$ -			$ -			$ -			$ -	
6		$ -			$ -			$ -			$ -	
7		$ -			$ -			$ -			$ -	
8		$ -			$ -			$ -			$ -	
	Subtotal				**$ 37,874**			**$ 140,485**			**$ 140,485**	
Contract/Support Staff												
1	Pilot Evaluation	$ 100.00	1	3	$ 51,900	1	3	$ 51,900	1	3	$ 51,900	
2	Quality Assurance	$ 100.00	0.3	3	$ 15,570	0.3	3	$ 15,570	0.3	3	$ 15,570	
3	Retailer Installation and Testing Support	$ 75.00			$ -	6	11	$ 856,350	3	11	$ 428,175	Assumes on-line has fewer integrated ECRs
4		$ -			$ -			$ -			$ -	
5		$ -			$ -			$ -			$ -	
6		$ -			$ -			$ -			$ -	
7		$ -			$ -			$ -			$ -	
8		$ -			$ -			$ -			$ -	
	Subtotal				**$ 67,470**			**$ 923,820**			**$ 495,645**	
State Overhead Charges												
	Non-Contracted Costs	6.1%			$ 2,310			$ 8,570			$ 8,570	
	Contracted Costs	0.0%			$ -			$ -			$ -	
TOTAL STATE-LEVEL LABOR COST FOR IMPLEMENTING AN E-WIC SOLUTION					**$ 107,654**			**$ 1,072,875**			**$ 644,700**	

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E-WIC OPERATIONS

STATE-LEVEL LABOR AND CONTRACTOR COSTS

INSTRUCTIONS: Enter the activity, labor rate, estimated FTEs, and comments in the shaded areas.

ONE YEAR ESTIMATED STATE-LEVEL LABOR COSTS FOR E-WIC OPERATIONS							
			OUTSOURCED E-WIC		IN-HOUSE E-WIC		COMMENTS
	Activity Description	Labor Rate	Estimated FTE(s)	Estimated Cost	Estimated FTE(s)	Estimated Cost	Comments
State Staff							
1	EBT Manager	$ 33.17	1	$ 68,994	1	$ 68,994	
2	Develop e-WIC Policies & Procedures and Train Staff	$ 33.17	0.12	$ 8,279	0.12	$ 8,279	
3	Order Cards and Print Ribbons	$ 24.55		$ -	0.005	$ 255	
4	Provide Help Desk Support Related to Cards and Terminals	$ 24.55	0.1	$ 5,106	1	$ 51,064	
5	Retailer Queries Regarding e-WIC, Transactions, etc.	$ 33.17	0.2	$ 13,799	0.5	$ 34,497	
6	Business Analysis of e-WIC Software Requirements	$ 43.79	0.05	$ 4,554	0.05	$ 4,554	
7	Pull EBT Reports	$ 41.28	0.25	$ 21,466	0.25	$ 21,466	
8	Provide Local Clinic Help Desk Support Related to Food Instruments & Printers	$ 24.55		$ -	0.1	$ 5,106	
9	Maintain and Update UPC Files	$ 43.79	0.1	$ 9,108	0.1	$ 9,108	
10		$ -		$ -		$ -	
11		$ -		$ -		$ -	
12		$ -		$ -		$ -	
	Subtotal			$ 131,306		$ 203,323	
Contract/Support Staff							
1	Changes/Enhancements to e-WIC system	$ 84.13		$ -	0.15	$ 26,249	
2		$ -		$ -		$ -	
3		$ -					
4		$ -		$ -		$ -	
5		$ -		$ -		$ -	
6		$ -		$ -		$ -	
7		$ -		$ -		$ -	
8		$ -		$ -		$ -	
9		$ -		$ -		$ -	
10		$ -		$ -		$ -	
11		$ -		$ -		$ -	
12		$ -		$ -		$ -	
	Subtotal			$ -		$ 26,249	
State Overhead Charges							
	Non-Contracted Costs	6.1%		$ 8,010		$ 12,403	
	Contracted Costs	0.0%		$ -		$ -	
TOTAL STATE-LEVEL LABOR COST FOR ONE YEAR E-WIC OPERATIONS				**$ 139,316**		**$ 241,975**	

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E-WIC IMPLEMENTATION AND OPERATIONS

REGIONAL AGENCY AND LOCAL CLINIC LABOR COSTS

INSTRUCTIONS: Enter the activity, labor rate, number of transactions, time per transaction in minutes, and comments in the shaded areas.

ESTIMATED LOCAL AGENCY AND CLINIC LABOR COSTS FOR E-WIC IMPLEMENTATION									
			ON-LINE E-WIC			OFF-LINE E-WIC			
	Activity Description	Staff/ Contractor Labor Rate	Estimated Quantity	Estimated Time Per Activity (Minutes)	Estimated Cost	Estimated Quantity	Estimated Time Per Activity (Minutes)	Estimated Cost	Comments
Regional and Local Staff									
1	Staff Training	$ 24.32	608	30	$ 7,392	608	30	$ 7,392	Off-line and on-line assumed to be equivalent; used blended labor rate
2	Participant (Cardholder) Training	$ 20.46	102,279	1.7	$ 59,291	102,279	1.7	$ 59,291	Off-line and on-line assumed to be equivalent
3	Initial Card Issuance	$ 20.46	102,279	1	$ 34,877	102,279	1	$ 34,877	
4	Initial Benefit Loading	$ 20.46			$ -	102,279	0.25	$ 8,719	
5		$ -			$ -			$ -	
6		$ -			$ -			$ -	
7		$ -			$ -			$ -	
8		$ -			$ -			$ -	
	Subtotal				**$ 101,560**			**$ 110,279**	
Contract/Support Staff									
1		$ -			$ -			$ -	
2		$ -			$ -			$ -	
3		$ -			$ -			$ -	
4		$ -			$ -			$ -	
5		$ -			$ -			$ -	
6		$ -			$ -			$ -	
	Subtotal				**$ -**			$ -	
State Overhead Charges									
	Non-Contracted Costs	6.1%			$ 6,195			$ 6,727	
	Contracted Costs	0.0%			$ -			$ -	
TOTAL LOCAL-CLINC LABOR COST FOR E-WIC IMPLEMENTATION					**$ 107,755**			**$ 117,006**	

ONE YEAR ESTIMATED LOCAL AGENCY AND CLINIC LABOR COSTS FOR ONE YEAR OF E-WIC OPERATIONS									
			ON-LINE E-WIC			OFF-LINE E-WIC			
	Activity Description	Staff/ Contractor Labor Rate	Estimated Annual Quantity	Estimated Time Per Activity (Minutes)	Estimated Cost	Estimated Annual Quantity	Estimated Time Per Activity (Minutes)	Estimated Cost	Comments
Regional and Local Staff									
1	Card Issuance	$ 20.46	6,846	1	$ 2,334	3,796	1	$ 1,294	Issuance times for off-line and on-line assumed to be equivalent
2	Card Benefit Loading	$ 20.46			$ -	409,116	0.25	$ 34,877	Applicable to off-line only
3	Train New Clients on Use of Card	$ 28.17	33,279	1.7	$ 26,562	33,279	1.7	$ 26,562	Off-line and on-line assumed to be equivalent
4	Remove Benefits/Load Different Benefits to Card	$ 20.46			$ -	1,141	0.25	$ 97	In the on-line environment benefits are automatically uploaded to the host system. In the off-line environment, the card must be inserted into a reader and the benefits loaded onto the chip.
5	Order, Secure and Distribute Cards	$ 35.23	140	34	$ 2,795	140	34	$ 2,795	Off-line and on-line assumed to be equivalent
6	Deliver New Cards to Local Clinics	$ 35.23	70	50	$ 2,047	70	50	$ 2,047	Off-line and on-line assumed to be equivalent
7	Remove Cards From Vault/Return Cards on a Daily Basis	$ 20.46	45,760	6.4	$ 99,867	45,760	6.4	$ 99,867	Each clinic, each day
8		$ -			$ -			$ -	
	Subtotal				**$ 133,605**			**$ 167,539**	
Contract/Support Staff									
1		$ -			$ -			$ -	
2		$ -			$ -			$ -	
3		$ -			$ -			$ -	
4		$ -			$ -			$ -	
5		$ -			$ -			$ -	
6		$ -			$ -			$ -	
	Subtotal				**$ -**			$ -	
State Overhead Charges									
	Non-Contracted Costs	6.1%			$ 8,150			$ 10,220	
	Contracted Costs	0.0%			$ -			$ -	
TOTAL LOCAL-CLINIC LABOR COST FOR ONE YEAR E-WIC OPERATIONS					**$ 141,754**			**$ 177,759**	

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E-WIC IMPLEMENTATION

STATE & LOCAL MATERIALS COSTS

INSTRUCTIONS: Enter the material/service description, unit cost, estimated quantities and comments in the shaded areas.

ESTIMATED MATERIALS AND SERVICES COSTS FOR E-WIC DESIGN DEVELOPMENT AND TEST PHASE (FIRST YEAR)									
			ON-LINE, OUTSOURCED E-WIC		ON-LINE, IN-HOUSE E-WIC		OFF-LINE, IN-HOUSE WIC		COMMENTS
	Materials Description	Unit Cost	Estimated Quantity	Estimated Cost	Estimated Quantity	Estimated Cost	Estimated Quantity	Estimated Cost	Comments
Participant Materials									
1	Card Design	$ 5,000.00	-	$ -	1	$ 5,000	1	$ 5,000	Card Design included in vendor CPCM
2	Integrated Circuit Chip File Layout	$ 5,000.00	-	$ -	-	$ -	1	$ 5,000	Not applicable to on-line
3	Key Ceremony	$ 10,000.00	-	$ -	-	$ -	1	$ 10,000	This is a formal, security ceremony where the digital key to the card's chip is transferred from the card manufacturer to the State.
4		$ -	-	$ -	-	$ -	-	$ -	
5		$ -	-	$ -	-	$ -	-	$ -	
6		$ -	-	$ -	-	$ -	-	$ -	
Local Clinic									
1		$ -	-	$ -	-	$ -	-	$ -	-
2		$ -	-	$ -	-	$ -	-	$ -	
3		$ -	-	$ -	-	$ -	-	$ -	-
4		$ -	-	$ -	-	$ -	-	$ -	
5		$ -	-	$ -	-	$ -	-	$ -	-
6		$ -	-	$ -	-	$ -	-	$ -	-
Host Processors									
1	WEB Server	$ 25,000.00	-	$ -	2	$ 50,000	2	$ 50,000	
2	FTP Server	$ 25,000.00	-	$ -	2	$ 50,000	2	$ 50,000	
3	EBT Application Server	$ 25,000.00	-	$ -	2	$ 50,000	2	$ 50,000	
4	EBT Database Server	$ 25,000.00	-	$ -	2	$ 50,000	2	$ 50,000	
5	Software Licenses	$ 7,000.00	-	$ -	8	$ 56,000	8	$ 56,000	
6			-	$ -		$ -		$ -	
7			-	$ -		$ -		$ -	
8		$ -		$ -	-	$ -	-	$ -	
9		$ -		$ -	-	$ -	-	$ -	
10		$ -	-	$ -	-	$ -	-	$ -	
Telecommunications									
1	Modems, Routers, TC Equip	$ 10,000.00		$ -	1	$ 10,000	1	$ 10,000	
2		$ -		$ -		$ -		$ -	
3		$ -		$ -		$ -		$ -	
TOTAL MATERIALS AND SERVICES FOR E-WIC DESIGN, DEVELOPMENT PHAS				**$ -**		**$ 271,000**		**$ 286,000**	

ESTIMATED MATERIALS AND SERVICES COSTS FOR E-WIC IMPLEMENTATION (SECOND YEAR)									
			ON-LINE, OUTSOURCED E-WIC		ON-LINE, IN-HOUSE E-WIC		OFF-LINE, IN-HOUSE WIC		COMMENTS
	Materials Description	Unit Cost	Estimated Quantity	Estimated Cost	Estimated Quantity	Estimated Cost	Estimated Quantity	Estimated Cost	Comments
Participant Materials									
1	Magnetic Stripe Cards	$ 0.20	-	$ -	127,849	$ 25,570		$ -	Cards included in vendor CPCM; Purchased 25% more than participant population
2	Integrated Circuit Chip Cards	$ 4.50	-	$ -	-	$ -	127,849	$ 575,319	Purchased 25% more than participant population
3	Card Booklets	$ 0.30	-	$ -	127,849	$ 38,355	127,849	$ 38,355	Included in vendor CPCM
4	Participant Training Materials	$ 0.07	-	$ -	127,849	$ 8,949	127,849	$ 8,949	Included in vendor CPCM
5		$ -	-	$ -	-	$ -	-	$ -	
6		$ -	-	$ -	-	$ -	-	$ -	
Local Clinic									
1	Local Clinic Mag Stripe POS/PIN	$ 500.00	-	$ -	152	$ 76,000	-	$ -	Included in vendor CPCM.
2	Local Clinic Smart Card PIN/Read-	$ 625.00	-	$ -	-	$ -	152	$ 95,000	
3	Local Clinic Magnetic Stripe Query	$ 500.00	-	$ -	176	$ 88,000	-	$ -	
4	Local Clinic Smart Card Query/Read-	$ 625.00	-	$ -	-	$ -	176	$ 110,000	
5	Local Clinic Training Materials	$ 0.67	-	$ -	1,520	$ 1,018	1,520	$ 1,018	Included in vendor CPCM.
6	Installation of Terminals	$ 75.00	-	$ -	176	$ 13,200	176	$ 13,200	Included in vendor CPCM.
Host Processors									
1	EBT Data Storage (RAID)	$ 14,454.00	-	$ -	1	$ 14,454		$ -	
2	Test Environment Server	$ 126.00	-	$ -	1	$ 126	1	$ 126	
3	Software Licenses	$ 300.00	-	$ -	2	$ 600	2	$ 600	
4		$ -	-	$ -		$ -		$ -	
5		$ -	-	$ -		$ -		$ -	
6		$ -	-	$ -		$ -		$ -	
7		$ -	-	$ -		$ -		$ -	
8		$ -		$ -		$ -		$ -	
9		$ -		$ -		$ -		$ -	
10		$ -	-	$ -	-	$ -	-	$ -	
Telecommunications									
1		$ -		$ -		$ -		$ -	
2		$ -		$ -		$ -		$ -	
3		$ -		$ -		$ -		$ -	
TOTAL MATERIALS AND SERVICES FOR E-WIC IMPLEMENTATION PHASE				**$ -**		**$ 266,272**		**$ 842,568**	

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E-WIC OPERATIONS

STATE & LOCAL MATERIALS COSTS

INSTRUCTIONS: Enter the material/service description, unit cost, estimated annual quantities and comments in the shaded areas.

ESTIMATED MATERIALS AND SERVICES COST FOR ONE YEAR OF E-WIC OPERATIONS									
			ON-LINE, OUTSOURCED E-WIC		ON-LINE, IN-HOUSE E-WIC		OFF-LINE, IN-HOUSE WIC		
	Materials and Services Descriptions	Unit Cost	Estimated Annual Quantity	Estimated Annual Cost	Estimated Annual Quantity	Estimated Annual Cost	Estimated Annual Quantity	Estimated Annual Cost	Comments
WIC Participant									
1	Magnetic Stripe Cards (New Participants & Replacement Cards)	$ 0.25		$ -	82,373	$ 20,593		$ -	Cards included in vendor CPCM; includes new participants and an assumed 48% card loss, stolen or damaged per year.
2	Integrated Circuit Chip Cards (New Participants & Replacement Cards	$ 4.50		$ -		$ -	45,552	$ 204,986	Assumes 12% cards lost, stolen or damaged per year
3	Card Sleeves/Card Booklets	$ 0.30		$ -	82,373	$ 24,712	45,552	$ 13,666	
4		$ -		$ -		$ -		$ -	
5		$ -		$ -		$ -		$ -	
Local Clinic									
1	POS/PIN Selection Terminal Maintenance	$ 144.00	328	$ 47,232		$ -		$ -	Applicable to outsourced only; includes receipt paper
2	Receipt Paper	$ 120.00		$ -	152	$ 18,240	152	$ 18,240	Outsourced included in CPCM
3	Mileage for Card Delivery to Local Clinics	$ 0.505	1,715	$ 866	1,715	$ 866	1,715	$ 866	In-Person Delivery Performed in Some Regions
4	POS/PIN Terminal Replacement (Mag)	$ 500.00		$ -	16	$ 8,200		$ -	Assumes 5% of Terminals
5	POS/PIN Terminal Replacement (Smart Card)	$ 625.00		$ -		$ -	16	$ 10,000	Assumes 5% of Terminals
Host Processors Maintenance and Support									
1	WEB Server	$ 28,908.00		$ -	2	$ 57,816	2	$ 57,816	Includes server maintenance and network fee
2	FTP Server	$ 28,908.00		$ -	2	$ 57,816	2	$ 57,816	Includes server maintenance and network fee
3	EBT Application Server	$ 28,908.00		$ -	2	$ 57,816	2	$ 57,816	Includes server maintenance and network fee
4	EBT Database Server	$ 28,908.00		$ -	2	$ 57,816	2	$ 57,816	Includes server maintenance and network fee
5	Test Environment Server	$ 252.00		$ -	1	$ 252	1	$ 252	Maintained at OIM; network fee only
6	Licenses: On-going Fees	$ 600.00		$ -	10	$ 6,000	10	$ 6,000	
7		$ -		$ -		$ -		$ -	
8		$ -		$ -		$ -		$ -	
9		$ -		$ -		$ -		$ -	
10		$ -		$ -		$ -		$ -	
Telecommunications									
1	VITA Fee for Terminal Network Connections	$ 252.00	328	$ 82,656	328	$ 82,656	328	$ 82,656	Network fee
2	POS Transaction Fee	$ 0.07		$ -	54,084	$ 3,786		$ -	
3		$ -		$ -		$ -		$ -	
4		$ -		$ -		$ -		$ -	
5		$ -		$ -		$ -		$ -	

ESTIMATED MATERIALS AND SERVICES COST FOR ONE YEAR OF E-WIC OPERATIONS									
			ON-LINE, OUTSOURCED E-WIC		ON-LINE, IN-HOUSE E-WIC		OFF-LINE, IN-HOUSE WIC		
	Materials and Services Descriptions	Unit Cost	Estimated Annual Quantity	Estimated Annual Cost	Estimated Annual Quantity	Estimated Annual Cost	Estimated Annual Quantity	Estimated Annual Cost	Comments
Settlement and Transaction Costs									
1	Retailer ACH Settlement	$ 0.10		$ -	150,345	$ 15,035	150,345	$ 15,035	Outsourced included in CPCM
2	Wire Transfers (Funds Draw Down)	$ 1.00		$ -	240	$ 240	240	$ 240	Outsourced included in CPCM
3		$ -		$ -	-	$ -		$ -	
4		$ -		$ -		$ -		$ -	
5		$ -		$ -		$ -		$ -	
SUBTOTAL: SUBJCT TO INFLATION				**$ 130,754**		**$ 411,844**		**$ 583,204**	
WIC EBT Vendor Fees									
1	Cost Per Case Month	$ 2.30	1,227,348	$ 2,822,900		$ -		$ -	
2		$ -		$ -		$ -		$ -	
3		$ -		$ -		$ -		$ -	
4		$ -		$ -		$ -		$ -	
SUBTOTAL: CONSTANT RATE OVER LIFE OF CONTRACT				**$ 2,822,900**		**$ -**		**$ -**	
TOTAL E-WIC MATERIALS COSTS FOR ONE YEAR OF OPERATIONS				**$ 2,953,654**		**$ 411,844**		**$ 583,204**	

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E-WIC IMPLEMENTATION AND OPERATONS COSTS

RETAILER COSTS

INSTRUCTIONS: Enter the material/service description, unit cost, estimated annual quantities and comments in the shaded areas.

ESTIMATED RETAILER COSTS FOR E-WIC IMPLEMENTATION

			On-Line, Outsourced e-WIC		On-Line, In-house e-WIC		Off-line, In-House e-WIC		
	Materials Description	Unit Cost	Estimated Quantity	Estimated Cost	Estimated Quantity	Estimated Cost	Estimated Quantity	Estimated Cost	Comments
1	Terminal Integration - Per Lane	$ 200.00	1,119	$ 223,800	1,119	$ 223,800	1,119	$ 223,800	
2	WIC POS Terminal - Smart Card	$ 750.00		$ -		$ -	920	$ 690,000	Excludes the terminals included with ECR Purchase Support
3	ECR System Purchase Support - Mag Stripe, Outsourced	$ 10,050.00	199	$ 1,999,950		$ -		$ -	POS Terminal & terminal integration provided for in the CPCM
4	ECR System Purchase Support - Mag Stripe, In-	$ 10,750.00		$ -	199	$ 2,139,250		$ -	Includes one POS terminal at $500
5	ECR System Purchase Support - Smart Card	$ 11,000.00		$ -		$ -	199	$ 2,189,000	Includes one smart card POS terminal
6	ECR System Integration Support	$ 50,000.00	4	$ 200,000	4	$ 200,000	2	$ 100,000	Assumes a greater number of chain stores have ECR systems that have been integrated with the off-line solution
7				$ -		$ -		$ -	
8				$ -		$ -		$ -	
9				$ -		$ -		$ -	
10				$ -		$ -		$ -	
TOTAL RETAILER COSTS FOR E-WIC IMPLEMENTATION				**$ 2,423,750**		**$ 2,563,050**		**$ 3,202,800**	

ESTIMATED RETAILER COSTS FOR ONE YEAR OF E-WIC OPERATIONS									
			On-Line, Outsourced e-WIC		On-Line, In-house e-WIC		Off-Line, Outsourced e-WIC		
	Materials Description	Unit Cost	Estimated Quantity	Estimated Cost	Estimated Quantity	Estimated Cost	Estimated Quantity	Estimated Cost	Comments
1	Terminal Integration	$ 200.00	36	$ 7,200	36	$ 7,200	36	$ 7,200	Annual turnover of 24 retailers per year. Average of 1.5 lanes per store
2	WIC POS Terminal - Smart Card	$ 750.00		$ -		$ -	36	$ 27,000	
3	ECR System Purchase Support - Mag Stripe, Outsourced	$ 10,250.00	2	$ 20,500		$ -		$ -	Assumes 28% of new retailers will require integration purchase support.
4	ECR System Purchase Support - Mag Stripe, In-House	$ 10,750.00		$ -	2	$ 21,500		$ -	Assumes 28% of new retailers will require integration purchase support.
5	ECR System Purchase Support - Smart Card	$ 11,000.00		$ -		$ -	2	$ 22,000	Assumes 28% of new retailers will require integration purchase support.
6				$ -		$ -		$ -	
7				$ -		$ -		$ -	
8				$ -		$ -		$ -	
9				$ -		$ -		$ -	
10				$ -		$ -		$ -	
TOTAL RETAILER COSTS FOR ONE YEAR OF E-WIC OPERATIONS				**$ 27,700**		**$ 28,700**		**$ 56,200**	

NOTATION: In general, the stores requiring additional lanes are the chain stores, which will already have a POS terminal that is integrated with both their ECR and UPC scanners. Therefore, additional lanes of POS configurations that include scanners are not included.

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E-WIC OPERATIONS

RETAILER-BORNE COSTS FOR E-WIC

INSTRUCTIONS: Enter the item description, labor or unit cost, estimated annual quantities and comments in the shaded areas.

ESTIMATED RETAILER-BORNE COSTS FOR ONE YEAR OF E-WIC OPERATIONS (SUBJECT TO INFLATION)

Labor

	Item Description	Labor Rate	Number of Transactions per Year	Average Time per Transaction (Minutes)	Cost Per Year	Comments
1	Conduct a Purchase Transaction	$ 8.93	930,501	1.3	$ 180,036	See ** below (Cashier Transaction)
2	Deposit FIs	$ 10.66	0	-	$ -	See *** below
3	Handle Rejects	$ 10.66	1,986	14.4	$ 5,081	Assumes 95% reduction in errors
4	Enter Pricing Into Retailer Database	$ 10.66	24	41.7	$ 178	Based on 24 new retailers per year
5		$ -			$ -	
6		$ -			$ -	
TOTAL RETAILER BORNE COSTS SUBJECT TO INFLATION					**$ 185,296**	

ESTIMATED RETAILER-BORNE COSTS FOR ONE YEAR OF E-WIC OPERATIONS (NOT SUBJECT TO INFLATION)

Rejects/Fines

	Item Description	Cost per Unit	Estimated Number of Units per Year	Cost per Year	Loss per Year	Comments
1	Rejected Payments - Not Recoverable				$ -	Not applicable
2	Amount Exceeding Allowable Maximum				$ -	Not applicable
3	Bank Fees	$ -		$ -		
4	Cost of Money	$ 0.0001	$ 89,838,232	$ 12,577		Based on one-day settlement period at a rate of 5% for cost of money.
5		$ -		$ -		
6		$ -		$ -		
TOTAL RETAILER BORNE COSTS NOT SUBJECT TO INFLATION					**$ 12,577**	

NOTATIONS

The rejects that occurred in the paper-based environment are eliminated in the e-WIC environment.

Purchase transaction time based on an average of times acquired in the Michigan, Texas and New Mexico EBT Pilot Evaluation Time Studies.

Once operational, retailer pricing will be acquired through e-WIC transactions; however, new retailers will initially need to enter their pricing into the database.

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BENEFIT ASSESSMENT: PAPER-BASED SYSTEM VS. E-WIC SYSTEM

E-WIC Benefits are defined as those benefits that meet the strategic goals of the Department, as defined in the State's annual plan to FNS. Strategic goals from the two most recent plans are to be used. Columns should be filled in as defined below.	
Col. B	Enter the Strategic Categories as defined in two most recent plans as submitted to FNS.
Col. C	Enter the Strategic Goals associated with the category.
Col. D	Enter the year the Strategic Goal appeared in the Department's plan
Col. E	Enter the determination (Yes/No) as to whether the goal applies to paper-based or e-WIC systems.
Col. F	For goals marked "Yes", on a scale of 1-5, with 5 being the highest, enter the importance of the goal to the WIC program.
Col. G	For goals marked "Yes", on a scale of 1-5, with 5 being the highest, enter the impact of the goal on WIC program services.
Cols H-I	For goals marked "Yes", on a scale of 1-5, with 5 being the highest, enter the probability of either the paper-based or the e-WIC system of helping to meet the
Cols J-K	Dashboard ratings will be automatically calculated in these columns. No entry required.
Col. L	If applicable, provide information to support or clarify the determination of the rating.

Score	Definition
5	Highest Importance, Highest Impact or Highest Probability
4	Above Average Importance, Impact or Probability
3	Average Importance, Impact or Probability
2	Below Average Importance, Impact or Probability
1	No Importance, Impact or Probability

BENEFITS

A	B	C	D	E	F	G	H	I	J	K	L
Item #	STRATEGIC CATEGORY	STRATEGIC GOALS: WILL THE ALTERNATIVE (PAPER OR E-WIC) SUPPORT THE STRATEGIC GOALS AS ESTABLISHED IN THE STATE PLAN?	Strategic Plan Year	Impacted by Issuance Approach?	Importance Rating	Impact Rating	Paper Based System Probability Rating	e-WIC System Probability Rating	Paper-Based System Rating	e-WIC System Rating	Comments
1	Vendor Management	Strengthen participating retailers point-of-service delivery, ensuring high quality services are rendered to all eligible Virginia WIC participants.	2006	Yes	4	4	2	4	3.3	4.0	
2		Ensure participating retailers' products and services comply with State, Federal, and regulatory requirements/guidelines.	2006	Yes	5	4	2	5	3.7	4.7	
3		Strengthen and ensure that the foods provided by participating retailers are reasonably priced and accurately reimbursed.	2006	Yes	5	4	1	4	3.3	4.3	
4		Improve the ability to implement the most cost effective strategies to comply with federal regulations related to Vendor Management?	2007	Yes	4	5	1	4	3.3	4.3	
5		Help ensure that "50% vendor's" costs to the Program meet federal cost-neutrality requirements.	2007	No					-	-	
6		Enhance the reauthorization process that provides WIC eligible participants adequate access to authorized stores.	2007	Yes	3	3	1	3	2.3	3.0	
7	Nutrition Services	Improve the delivery and quality of nutrition education.	2006	Yes	4	4	2	4	3.3	4.0	
8		Increase the percentage of pregnant women who initiate breastfeeding.	2006	No					-	-	
9		Improve the community-based response to obesity.	2006	No					-	-	
10		Improve the VDH position to implement food package changes.	2007	Yes	4	5	2	5	3.7	4.7	
11		improve food package cost containment.	2007	Yes	5	5	2	5	4.0	5.0	
12		Help ensure compliance with federal guidelines regarding specifics of what constitute the provision of nutrition education services.	2007	No					-	-	
13		Improve the ability to meet CHAMPION goals.	2007	No					-	-	
14		Help ensure the WIC Peer Counselor Program is operational within each local agency.	2007	No					-	-	
15		Help ensure utilization of Breastfeed Task Force outputs.	2007	No					-	-	
16	Information Systems	Improve the effectiveness and efficiency of program operations through the use of automated data processing and services.	2006	Yes	5	4	1	5	3.3	4.7	

BENEFITS											
A	B	C	D	E	F	G	H	I	J	K	L
Item #	STRATEGIC CATEGORY	STRATEGIC GOALS: WILL THE ALTERNATIVE (PAPER OR E-WIC) SUPPORT THE STRATEGIC GOALS AS ESTABLISHED IN THE STATE PLAN?	Strategic Plan Year	Impacted by Issuance Approach?	Importance Rating	Impact Rating	Paper Based System Probability Rating	e-WIC System Probability Rating	Paper-Based System Rating	e-WIC System Rating	Comments
17		Enhance the data gathered from WICNET.	2006	Yes	4	5	3	5	4.0	4.7	
18		Support the multi-State collaborative process to develop a replacement system for managing WIC services.	2007	Yes	5	5	4	4	4.7	4.7	
19		Improve the ability to implement recommended changes to WICNet that are determined to be mission critical.	2007	No					-	-	
20		Enhance strategies to layout the groundwork for development of the replacement system.	2007	Yes	5	5	3	5	4.3	5.0	
21		Improve customers' ability to access and utilize internet-based WIC information and services.	2007	Yes	5	5	1	5	3.7	5.0	
22		Help ensure that all critical reporting needs and requirements are met in a timely and accurate manner.	2007	Yes	5	3	3	4	3.7	4.0	
23	Organization & Management	Improve the ability of state and local WIC staff to provide efficient quality services to WIC participants.	2006	Yes	5	4	3	4	4.0	4.3	
24		Improve organizational staff utilization.	2006	Yes	5	5	3	5	4.3	5.0	
25		Improve the ability to respond to disasters.	2006	Yes	3	3	5	4	3.7	3.3	
26		Improve the competency of the nutrition professionals serving WIC participants.	2006	No					-	-	
27		Help ensure a seamless delivery of WIC services in the event of a declared disaster.	2007	Yes	3	3	5	4	3.7	3.3	
28		Assist alternative service providers to improve access to WIC services.	2007	No					-	-	
29		Help codify policies and procedures of the Virginia WIC Program to support and expedite certain Program operations.	2007	Yes	4	4	3	4	3.7	4.0	
30		Help ensure that WIC Program fiscal and service expectations are met by the Agency Business Unit.	2007	No					-	-	
31		Help support efficient staffing.	2007	Yes	5	5	3	5	4.3	5.0	
32		Help ensure consistent application and documentation of all Time & Effort reporting.	2007	No					-	-	
33		Help maintain a current and accurate profile of available Virginia WIC Program materials and resources.	2007	No					-	-	
34		Assist in addressing fraud and abuse prevention efforts within the WIC Program.	2007	Yes	5	5	3	5	4.3	5.0	
35	NSA Expenditures	Help to maximize the use of USDA funds.	2006	Yes	1	1	1	1	1.0	1.0	
36		Help ensure the WIC Program will meet spending targets.	2006	Yes	3	3	3	4	3.0	3.3	
37		Help in the allocation of funds to local agencies to adequately fund WIC services.	2006	No					-	-	
38		Help ensure the consistent application and effective review of funding formulas.	2007	No					-	-	
39		Help effectively manage all WIC Program funds.	2007	Yes	5	5	3	5	4.3	5.0	
40		Help local agencies manage budgets consistent with policies.	2007	No					-	-	
41	Food Funds Management	Help to maximize the use of USDA food funds.	2006	Yes	5	4	3	5	4.0	4.7	
42		Help ensure that business requirements for banking are met.	2007	Yes	3	3	4	5	3.3	3.7	
43		Help maximize rebate dollars through the infant formula rebate contract.	2007	Yes	5	5	3	5	4.3	5.0	
44		Help implement allowable food changes to the food list.	2007	Yes	5	5	2	5	4.0	5.0	
45		Enhance the effectiveness of cost dispersion methods.	2007	No					-	-	
46		Help implement infant rebate contracts.	2007	Yes	5	5	3	5	4.3	5.0	
47		Help ensure the fiscal integrity of the WIC Program based on policy compliance.	2007	Yes	5	4	3	5	4.0	4.7	
48		Help to improve the management and allocation of food funds to serve the greatest number of eligible women, infants and children.	2006	Yes	5	5	3	5	4.3	5.0	

BENEFITS											
A	B	C	D	E	F	G	H	I	J	K	L
Item #	STRATEGIC CATEGORY	STRATEGIC GOALS: WILL THE ALTERNATIVE (PAPER OR E-WIC) SUPPORT THE STRATEGIC GOALS AS ESTABLISHED IN THE STATE PLAN?	Strategic Plan Year	Impacted by Issuance Approach?	Importance Rating	Impact Rating	Paper Based System Probability Rating	e-WIC System Probability Rating	Paper-Based System Rating	e-WIC System Rating	Comments
49	Caseload Management	Help ensure consistency in the State's application of its resources to WIC participants.	2007	No					-	-	
50		Help maximize financial resources used to identify, locate, and attract targeted WIC populations.	2007	No					-	-	
51	Certification & Eligibility	Improve service delivery to ensure high program retention rates and customer satisfaction.	2006	Yes	4	4	3	4	3.7	4.0	
52		Improve the integrity of program operations by strengthening internal controls and minimizing the risk of potential fraud and abuse.	2006	Yes	5	4	3	4	4.0	4.3	
53		appropriate timelines for Value Enhanced Nutrition Assessment implementation.	2007	No					-	-	
54		Provide best practices for collaborative efforts between local agency and health care providers to internal and external customers.	2007	No					-	-	
55	Fund Delivery / Food Instrument Accountability & Control	Help ensure compliance with all State and Federal accountability guidelines regarding food instrument issuance and reconciliation.	2007	Yes	5	4	3	4	4.0	4.3	
56		Help determine the cost-benefit of WICNet changes in food instruments issuance.	2007	No					-	-	
57	Monitoring/Audits	Assist in monitoring local agency operations and nutrition services.	2006	No					-	-	
58		Improve compliance with WIC Program policies and procedures.	2007	No					-	-	
59		Help standardize the way in with the State agency uses available data to monitor and address local agency operations.	2007	No					-	-	
60	Civil Rights	Help to ensure WIC staff, applicant and participants are knowledgeable of civil rights, rules and regulations.	2006	No					-	-	
61		Help ensure that WIC personnel receive training materials and information on civil rights.	2007	No					-	-	
62									-	-	
63									-	-	
64									-	-	
65									-	-	
66									-	-	
67									-	-	
68									-	-	
69									-	-	
70									-	-	

	Paper-Based	e-WIC System
Overall Dashboard	3.7	4.3

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RISKS: MOVING FROM PAPER-BASED ISSUANCE TO AN E-WIC SOLUTION

Instructions	
Col. B	This column identifies the major risk categories.
Col. C	This column identifies the risks within the categories. Stated risks may be edited or new risks may be added, as determined by the State.
Col. D	Determine the level of risk (High, Medium or Low) in moving from paper to e-WIC. Score high risk as 3, medium as 2 and low as 1.
Cols E-G	Identify whether individual e-WIC alternatives bring added risk (3), has no impact to the level of risk (2) or decreases the level of risk (1)
Cols H-J	Risk ratings will be automatically calculated in these columns. No entry required.
Col. K	If applicable, provide information to support or clarify the determination of the rating.

Numerical Risk Rating	Definition
1	**Lowest** risk or lowest additional risk if implementing alternative
2	Average risk or no additional risk of implementing alternative
3	**Highest** risk or highest addition of risk if implementing alternative

Analysis

Lowest average score below denotes lowest risk alternative, and therefore of highest benefit.

A	B	C	D	E	F	G	H	I	J	K
	Risk Category	Risk Identification	Risk of Implementing e-WIC	Impact of Risk on On-Line Outsourced e-WIC	Impact of Risk on On-Line In-house e-WIC	Impact of Risk on Off-Line In-House e-WIC	On-Line Outsourced e-WIC Risk Rating	On-Line In-House e-WIC Risk Rating	Off-Line In-House e-WIC Risk Rating	Comments/Mitigation
1	Organizational and Change Management	Adapt to necessary changes in organization structure.	1	2	2	2	2.0	2.0	2.0	
2		Adapt to necessary changes in policies and procedures.	2	2	2	2	4.0	4.0	4.0	
3	Business	Disruption of services to WIC clients or retailers	2	3	1	1	6.0	2.0	2.0	
4		Retailer investment in hardware	3	2	2	2	6.0	6.0	6.0	
5		Retailer investment in software	3	2	2	2	6.0	6.0	6.0	
6		Ability to obtain qualified e-WIC vendor or services of qualified contractors.	1	1	1	3	1.0	1.0	3.0	
7		Retailer acceptance of e-WIC	1	1	1	1	1.0	1.0	1.0	
8	Data and Information	Ability to acquire and maintain accurate and complete data.	1	2	1	1	2.0	1.0	1.0	
9		Ability to provide comprehensive audit trails and financial reporting.	1	2	1	1	2.0	1.0	1.0	
10	Technology	Adequate technical expertise of ongoing staff.	1	1	1	2	1.0	1.0	2.0	
11		Ability to adapt system to changes in policies and regulations.	1	2	2	2	2.0	2.0	2.0	
12		Ability to adapt to changes in technologies.	2	2	2	3	4.0	4.0	6.0	
13	Security	Adequate security of the system or data	2	3	2	1	6.0	4.0	2.0	
14		Adequate security of e-WIC cards and related materials	1	1	1	1	1.0	1.0	1.0	
15		Adequate security of participants' benefits after issuance	1	1	1	1	1.0	1.0	1.0	
16		Adequate control of benefit loss and diversion	1	1	1	1	1.0	1.0	1.0	
17	Privacy	Adequate protection of the privacy of WIC participants	1	1	2	2	1.0	2.0	2.0	
18	Resources	Ability to obtain sufficient funding for system implementation	2	1	2	2	2.0	4.0	4.0	
19	Schedule	Ability to implement in parallel with SAM	3	1	3	1	3.0	9.0	3.0	
20										
					Quantity of Rated Risks		**19**	**19**	**19**	
					Average Risk Rating		**2.74**	**2.79**	**2.63**	