Nutrition Assistance Program Report Series
Office of Analysis, Nutrition and Evaluation

Special Nutrition Programs Report No. FDD-04-PVP

An Evaluation of the Prime Vendor Pilot

of the

Food Distribution Program on Indian Reservations

United States Department of Agriculture

Food and Nutrition Service

April 2004

United States Department of Agriculture
Food and Nutrition Service
April 2004
Special Nutrition Programs
Report No. FDD-04-PVP

An Evaluation of the Prime Vendor Pilot

of the Food Distribution Program on Indian Reservations

Author:
Sheku G. Kamara, Ph.D.

Office of Analysis, Nutrition and Evaluation
USDA, Food and Nutrition Service
3101 Park Center Drive, Room 1014
Alexandria, VA 22302-1500

This study was conducted in-house by Food and Nutrition Service staff.

This report is available on the Food and Nutrition website: *http://www.fns.usda.gov/oane.*

Suggested Citation:
Kamara, Sheku G. "An Evaluation of the Prime Vendor Pilot of the Food Distribution Program on Indian Reservations," *Nutrition Assistance Program Report Series,* No. FDD-04-PVP, U.S. Department of Agriculture, Food and Nutrition Service, Alexandria, VA: 2004.

ACKNOWLEDGMENTS

This evaluation is the outcome of the efforts of many people within the United States Department of Agriculture (USDA) and the Indian Tribal Organizations (ITOs) participating in the Food Distribution Program on Indian Reservations (FDPIR). The bulk of data analyzed in this report was garnered from two surveys conducted with Food Distribution Directors of the 23 ITOs of the Midwest Region covering Michigan, Minnesota and Wisconsin. Thanks to all the Food Directors and their staff for taking time off their busy schedules to provide detailed responses to the surveys.

At USDA, the evaluation was initiated with a preliminary meeting and phone conference of agencies involved in the nationwide implementation of FDPIR and the Prime Vendor Pilot. These agencies included the Food and Nutrition Service (FNS), the Agricultural Marketing Service (AMS), the Farm Service Agency (FSA), and the Contractor for the Pilot, the Defense Supply Center in Philadelphia (DSCP) of the Department of Defense (DoD). The meetings were organized by Dave Seger, Coordinator of FDPIR at the Food Distribution Division (FDD) within FNS. Participants from FNS included Dave Seger, FDD; Joseph Templin, FDPIR Program Coordinator, FNS Midwest Region (MWRO); Jay Hirschman, Director of Special Nutrition Staff at the Office of Analysis, Nutrition and Evaluation (OANE); John Endahl, Chief of the Special Nutrition Evaluation Branch (OANE); and the author, Sheku G. Kamara (OANE). AMS was represented by Nancy Hubbell, and FSA by Connie Stewart, Donna Ryles (Kansas City Office), and Rachel Hight (Kansas City Office). DSCP was represented by Gina Vasquez and Gail Labrosciano. This group provided invaluable initial input, and many continued to provide helpful assistance through the rest of the evaluation process. Thanks to all of them for their support.

Deserving special acknowledgment are Dave Seger and Joe Templin. As the FNS staff chiefly responsible for FDPIR in the Midwest Region and the pilot demonstration, they played exceptional roles in the evaluation. Dave provided material on the legislation and administration of FDPIR, and on the background and implementation of the Pilot. He also coordinated with all agencies and ensured the retrieval of data from USDA databases and other arcane sources. Joe on the other hand provided prompt administrative and logistical support in the Pilot region. He expended great effort in explaining the importance of the evaluation to ITO directors and the need for credible data, and ensured that completed surveys were promptly returned. Both Dave and Joe also provided contextual explanations on the intuitiveness of some of the data, as well as interpretations of some of the findings.

Thanks to Phil Cohen, Branch Chief at the Food Distribution Division, for his assistance in reviewing the report and providing useful comments.

John Endahl, the Evaluation Branch Chief, provided both conceptual and material input in the questionnaire design, data analysis, and draft review. His contribution is acknowledged.

EXECUTIVE SUMMARY

The Prime Vendor Pilot was conducted as part of U.S. Department of Agriculture's Business Process Re-engineering efforts to improve the administration and operation of the Food Distribution Program on Indian Reservations (FDPIR). Under this pilot, USDA partnered with the Department of Defense, which had an existing contract with commercial vendors and distributors. Reinhart Foods was selected as the prime vendor and was responsible for accepting food orders directly from 23 Indian Tribal Organizations (ITOs) in the Midwest Region, procuring pre-approved food products, storing and delivering the foods to the ITOs. The evaluation compared results from the first year of the prime vendor pilot (July 2001 – June 2002) with the traditional FDPIR commodity distribution system that operated in the previous year (July 2000 – June 2001).

Pilot Objectives: Objectives of the pilot included: (1) improving the commodity distribution system for FDPIR by improving program operations and administrative efficiency while improving product acceptability and procurement flexibility; and (2) reducing Federal staff resources in the food ordering and delivery process for FDPIR.

Findings: Key findings from the first year of the pilot include:

Program Operation and Administrative Efficiency

- The number of households served by FDPIR in the 23 ITOs increased slightly (2.4%) although the actual number of participants decreased by less than one percent as household size declined by over three percent.
- ITOs expressed greater overall satisfaction and reported great improvements in program operation, product quality, commodity pack size, variety and labeling.
- Nearly all ITOs (96%) rated FNS' operation and administration of FDPIR as good to excellent during the first year of the pilot compared to only 70% during the previous year.

Food Ordering and Delivery

- On average, the frequency of food ordering increased from once every 1-2 months to once a week.
- Food deliveries increased from an average of 8 times per year before the pilot to 15 times per year under the pilot.
- Under the pilot, all orders were delivered within 3 days to 2 weeks depending on the time the order was placed relative to the regularly scheduled delivery date, compared to over 1 month prior to the pilot; the convenience of ordering at any time was reported as the best feature of the Pilot.
- Food delivered increased from 26 cases per participant to 27 cases.

- ITOs expressed far more satisfaction with food ordering (65% vs. 9%) and food delivery (91% vs. 4%).

Warehousing and Inventory Management

- Average monthly inventory increased during the pilot from 1,419 cases per ITO to 1,704 cases per ITO (20%). This was directly related to the delivery cycle and when the inventory was taken.
- Storage problems declined and self-ratings for inventory management improved without any increase in staffing.

Cost to USDA Agencies

- The cost of food distributed to the pilot ITOs, adjusted for inflation, remained relatively stable, increasing from $3.4 million to $3.5 million (2.2%).
- After inflation adjustment, the total costs for food, management of the ordering system, transportation, handling, storage, and administration, increased from $3.85 million to $5.22 million (35.6%).
- The mean cost per case of food delivered to ITOs, adjusted for inflation, increased from $16.57 per case to $21.88 per case (32%).

Costs to ITOs

- ITO staffing costs increased by 1 percent.
- Warehouse space increased by 19 percent and warehouse cost by 35 percent.
- Deliveries increased by 95 percent and cases delivered by 3 percent.

TABLE OF CONTENTS

SUMMARY

INTRODUCTION

The Prime Vendor Pilot (PVP) of the Food Distribution Program on Indian Reservations (FDPIR) was implemented by the Food and Nutrition Service (FNS) to pilot test commodity distribution operations through a prime vendor system. The Pilot was recommended by the Business Process Re-engineering (BPR) team to improve the administration and operation of FDPIR. Problems with FDPIR included long advance ordering time; late delivery; low customer satisfaction with product quality, packaging, and labeling; and low cost efficiency.

Through PVP, USDA established a partnership with the Department of Defense's (DoD) Defense Supply Center in Philadelphia (DSCP) and became a party to an existing DoD contract with commercial wholesalers/distributors. Reinhart Foods was selected as the prime vendor out of efficiency and expediency, because of its existing contract with DoD to supply food items to military bases in the FNS Midwest Region. The contract was expanded to include PVP in the States of Minnesota, Wisconsin, and Michigan. The PVP covered the 23 Indian Tribal Organizations of the Midwest Region. The first year of PVP was July 1, 2001 – June 30, 2002. Under the PVP agreement, Reinhart specifically did the following:

1. Accepted food orders directly from ITOs, and scheduled more frequent and regular delivery dates;

2. Procured food products pre-approved by FNS from the open market;

3. Stored the food and delivered it to ITOs which could place orders as late as three days in advance of their scheduled delivery dates, rather than 60-90 days as before; and

4. Billed DoD for food procured and services rendered, and DoD billed USDA.

THE EVALUATION

The evaluation of the first year of PVP was conducted using two methods:

- Two surveys were conducted and data compared statistically on food distribution conditions and service satisfaction levels before the Pilot (pre: July 2000–June 2001) and during the Pilot (post: July 2001–June 2002). ITO food directors responded to questionnaires that covered five areas: (1) the operation and administration of FDPIR, (2) food procurement and ordering flexibility, (3) food delivery, (4) warehousing, and (5) cost reduction.

- Additional analysis was conducted using data collected from records and databases of three USDA agencies involved with FDPIR: FNS, the Agricultural Marketing Service

(AMS), and the Farm Service Agency (FSA). These data covered the numbers and types of participants, quantities and costs of foods distributed, and administrative costs borne by USDA agencies.

FINDINGS

PROGRAM OPERATION AND ADMINISTRATIVE EFFICIENCY

Participants and Households Served

- Households served by FDPIR in the 23 ITOs of the Midwest Region increased from 3,601 to 3,688 (2.4%). However, the actual number of participants decreased from 8,842 (FY 2000-01) to 8,767 (FY 2001-02) as household size declined by over three percents.

Program Improvement

- From the survey responses, ITOs reported great improvements in program operation and administration under PVP.

- Prior to PVP, ITOs were dissatisfied with products and product availability, and suggested more administrative and operational changes.

- During the first year of PVP, ITOs reported significant improvements in product quality, variety, labels, and labeling, over the year prior.

- ITOs expressed greater overall satisfaction during PVP than the year before.

- There was no significant difference in satisfaction with packaging.

Satisfaction with Food Products

- Although no new products were introduced under PVP, the range of products available at any given time increased due to the reliability of the contractor. Thus, more ITOs reported greater satisfaction with product variety during PVP (61%) than the year before (30%).

- More ITOs reported high acceptability for food labels during PVP (35%) than the USDA labels the year before (9%).

- More ITOs reported high satisfaction with commodity pack size during PVP (48%) than the prior year (22%).

- Far more ITOs reported high satisfaction with product quality during PVP (61%) than the year before (4%); under PVP no ITO reported less than moderate satisfaction with product quality compared to nearly half (48%) the year before.

- Far more ITOs reported high satisfaction with labeling during PVP (52%) than the year before (4%); under PVP only 9% of ITOs reported less than moderate satisfaction with labeling compared to 74% the year before.

- Far more ITOs reported high satisfaction with the products they received as a whole during PVP (65%) than the year before (9%); under PVP only 4% of ITOs reported less than moderate satisfaction with products as a whole compared to 39% the year before.

Rating for FNS' Operation and Administration of FDPIR

- Nearly all ITOs (96%) rated FNS' operation and administration of FDPIR as good to excellent compared to 70% the year before.

FOOD ORDERING

Improvement in Ordering

- The convenience of ordering at any time was acclaimed as one of the best features of PVP.

- On average, ordering frequency increased from once every 1-2 months to once a week under PVP.

- Smallest single order reduced from 86 cases on average before PVP to 75 under PVP.

- Initial ordering problems reported early in the Pilot implementation disappeared when the prime vendor enlisted and utilized more back-up providers.

Satisfaction with Food Ordering

- More ITOs expressed high satisfaction with food ordering during PVP (65%) than the prior year (9%).

- No ITO reported dissatisfaction under PVP compared to 26% during the prior year.

Cases of Commodities Distributed During the Year

- More cases of food were distributed during PVP (235,378) than the year prior (228,521) – an increase of three percent.

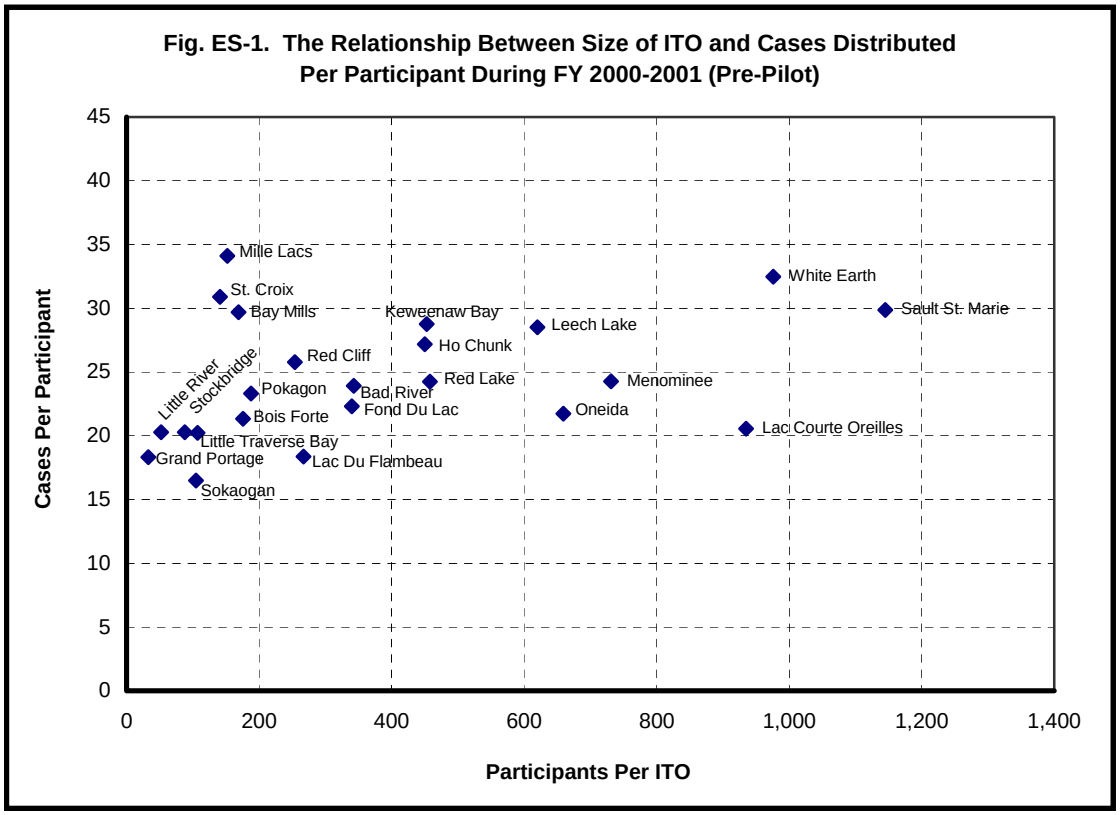
FOOD DELIVERY

- The number of deliveries increased from an average of 8 per year before PVP to 15 per year during PVP.

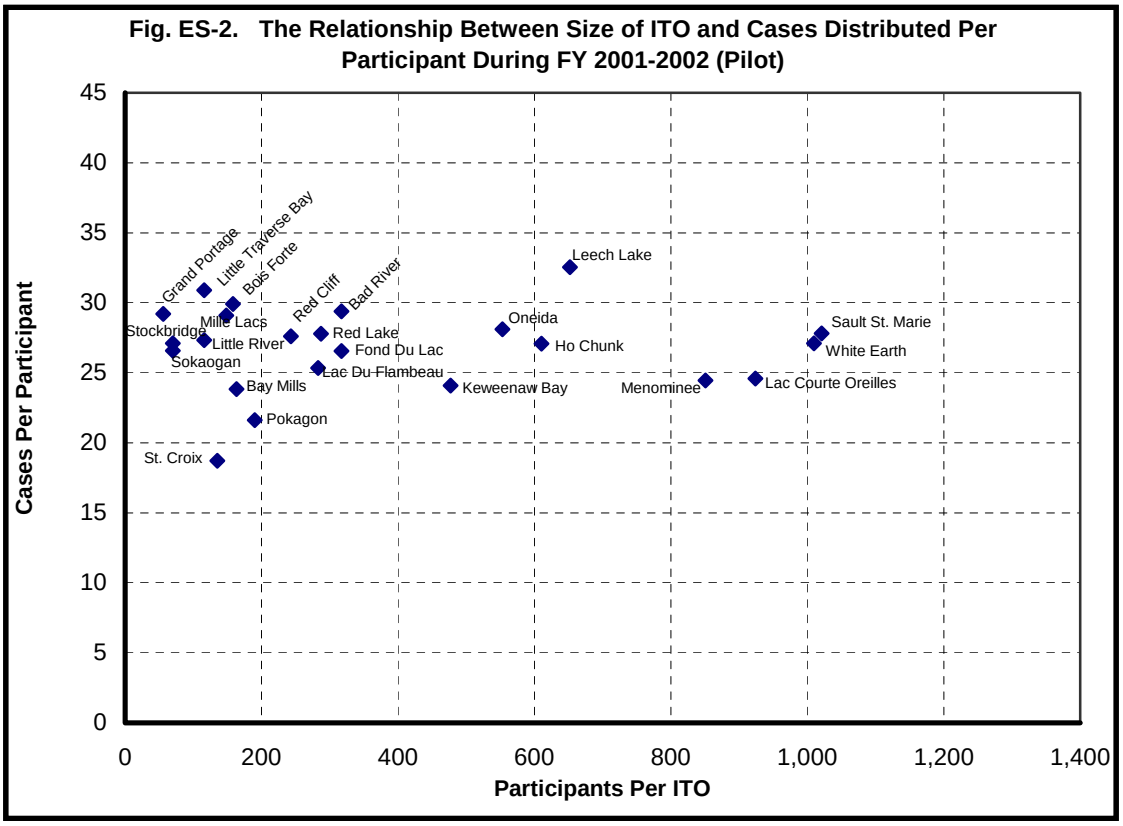
- Far more ITOs (91%) expressed high satisfaction with timeliness of delivery during PVP than the year before (4%).

- Prior to PVP, 80 percent of the orders took one month or longer to deliver. During PVP, all food orders were delivered between 3 days and two weeks, depending on the date the order was placed relative to the regularly scheduled delivery date.

- The mean number of cases of food distributed to each participant in the year prior to PVP was 26, ranging from 16.5 in Sokaogan Chippewa to 34.1 in Mille Lacs (see Figure 1).



- During the first year of PVP, the mean number of cases of food distributed to each participant was 27, with a narrower dispersion ranging from 18.7 cases per person in St. Croix Reservation to 32.5 in Leech Lake (see Figure ES-2). Thus PVP ensured a more uniform distribution of food benefits to participants.



WAREHOUSING AND INVENTORY MANAGEMENT

- During PVP, fewer ITOs (22%) reported storage problems than the prior year (35%).

- Average monthly inventory was 1,419 cases per ITO before PVP and 1,704 cases per ITO during PVP – 20% increase. However, under the Pilot: (1) a full variety of all approved food packages was available; (2) participants took on average more of the food they were eligible to receive; and (3) there was a greater variety of bonus commodities. The increase in cases and inventory was directly related to the delivery cycle and when the inventory was taken.

- All ITOs rated their inventory management operations between good and excellent during PVP compared to 78% the year before.

- There was practically no difference in warehouse staffing, increasing from 9.1 to 9.2 employees per ITO.

COST ANALYSIS

Costs to USDA Agencies

- Distributed food costs, adjusted for annual inflation, increased from $3,444,178 during the year before PVP to $3,519,914 (or 2.2%) during PVP. (PVP costs are costs for food actually distributed to participants recorded in the SNPIIS[1] database).

- Total costs for food, management of the delivery system, transportation, handling, storage, and administration, adjusted for annual inflation, were $3,849,469 during the year before PVP and $5,220,915 during PVP - a 35.6% increase.

- The mean cost, adjusted for inflation, per case of food delivered to ITOs to be distributed to participants was ***$16.57 per case*** during the year before the Pilot and ***$21.88 per case*** during PVP. This represents a 32.1% increase.

- Bonus commodities delivered to the ITOs were valued at $162,000 in the pre-Pilot year, and $620,652 during the first year of the Pilot – nearly four times more. This resulted in more distribution costs to the Prime Vendor, which increased the overall expenditure of PVP.

- Total monthly expenditure under PVP was low in July 2001 (the start up month) and in December 2001 (see Figure ES-3). The low December participation is explained as due to tribal gaming per capita payments, which made some households income-ineligible for that month.

Costs to ITOs

- Costs to ITOs were collected from the surveys based on self-reports by ITOs without requiring documentation. These reported costs are therefore subject to cautious interpretation.

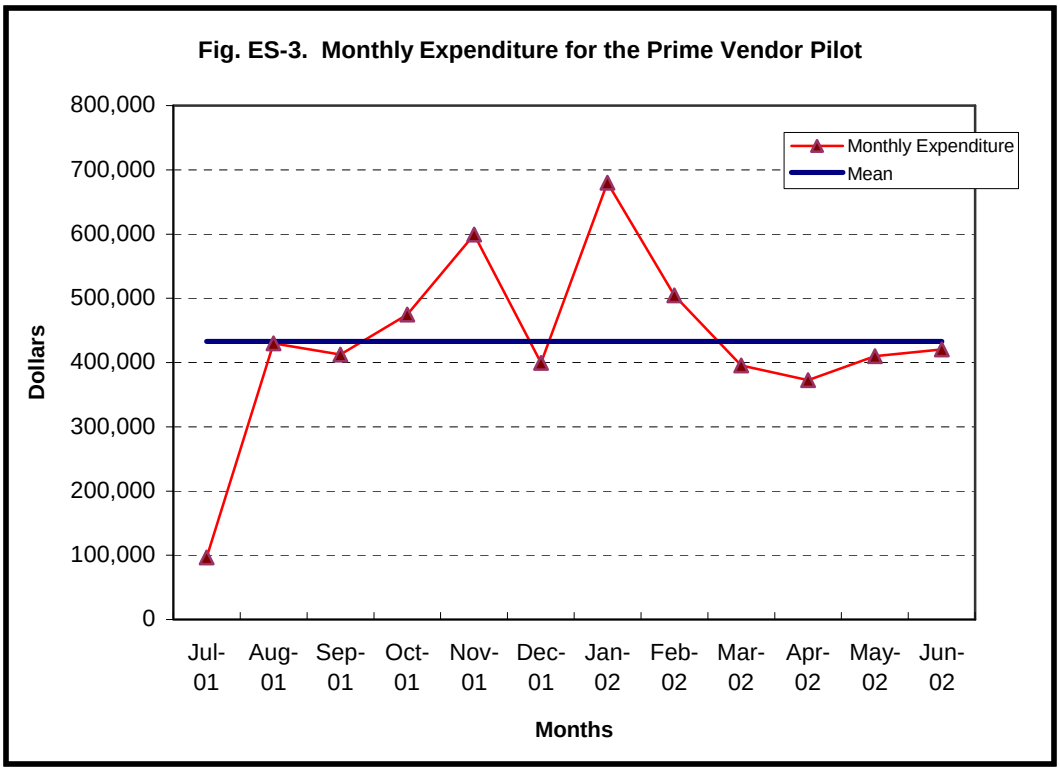
- In general, except for total deliveries, all the cost variables analyzed statistically showed no significant differences between the years prior and during PVP.

- The number of deliveries increased by 95%, and cases delivered by 3%. The mean duration between order and delivery was shortened from 51 days to 1-2 weeks. This could have been further shortened had ITOs chosen to order 3 days in advance of their schedule deliveries as was originally planned.

- Warehousing staffing at ITOs did not change appreciably between the two years (1.1% increase), but total warehouse staff time increased over four times during PVP, although this difference was not statistically significant due to the large variance.

[1] Special Nutrition Program Integrated Information system. SNPIIS uses FNS administrative data.

- Warehouse space increased by 19% and warehousing cost by 35%.



General

In the event the program goes nationwide, there would be significant savings at the Federal level in terms of staff at AMS, FSA, and FNS, warehousing costs, delivery charges, and computer food ordering support.

CHAPTER 1

INTRODUCTION

THE FOOD DISTRIBUTION PROGRAM ON INDIAN RESERVATIONS (FDPIR)

The Food Distribution Program on Indian Reservations (FDPIR) is a commodity distribution and assistance program mandated by Public Law[2] in order to improve the diets of needy persons in households on or near Indian reservations. Specifically, FDPIR was authorized by Section 4(b) of the Food Stamp Act of 1977 [7 U.S.C. 2013 (b)] and Section 4(a) of the Food and Consumer Protection Act of 1973 [7 U.S.C. 612 (c) Note]. Since its inception in 1977, FDPIR has been administered by the Food and Nutrition Service (FNS) of the United States Department of Agriculture (USDA). The program is authorized to provide assistance in the forms of project grants, and sale, exchange, or donation of property and goods.

FNS administers FDPIR through a network of regional, field, and satellite offices. In some instances, such as North Carolina, the State Agency has some administrative function. FNS works with the Agricultural Marketing Service (AMS) and the Farm Service Agency (FSA) to procure commodities, process orders, store food, and arrange food shipments to Indian Tribal Organizations (ITOs) and State Distributing Agencies (SDAs), who in turn distribute the food to low-income households within their jurisdictions or service areas. State Agencies that administer FDPIR are eligible to receive Federal cash assistance (administrative funds) for operational expenses. ITOs serve as their own State Agency for the administration of the program. All Midwest ITOs have direct agreements with FNS.

Beneficiary Eligibility

To be eligible for participation, a household must be living on an Indian reservation, or be an Indian household living in a designated area near an Indian reservation or in Indian country or an approved FNS service area in Oklahoma. The determination of what constitutes a household is based on the classic definition of a group of individuals that customarily purchases and prepares meals together. The household must be certified by local authorities

[2] Agricultural Act of 1949, Section 416 as amended; Section 32, Public Law 74-320 as amended; Food and Agriculture Act of 1963, Section 709 as amended; Agriculture and Consumer Protection Act of 1973, Section 4(a) as amended; Food Stamp Act of 1977, Section 4 as amended; Section 1336, Public Law 97-98 as amended; Personal Responsibility and Work Opportunity Reconciliation Act of 1996, Public Law 104-193.

as having inadequate income and resources. Upper limits of allowable income vary with household size, and household resource limits are set by FNS. FDPIR serves as an alternative to the Food Stamp Program for residents of Indian reservations or qualifying tribal members who reside in the FDPIR service area. Eligibility to receive a commodity package under FDPIR requires that a household must meet income guidelines and residential requirements. Households may not participate in FDPIR and the Food Stamp Program in the same month. Individuals living in urban areas outside of a reservation or an ITO cannot participate in FDPIR, unless the urban area is within a reservation boundary, or has been specifically approved by FNS as an area near a reservation, or as an FNS service area in Oklahoma.

Income Eligibility Standards

The income criteria established by Federal legislation for determining FDPIR eligibility are the same as the Food Stamp Program net monthly income limits plus the standard deduction used in determining eligibility. FDPIR differs from the Food Stamp Program in eligibility requirements in that once a household is determined income eligible, the amount of food it receives is based solely on the number of members it contains, regardless of its level of income. The computation of income eligibility for each household for FDPIR is based on the sum of the Food Stamp Program net monthly income limits and the Food Stamp standard deduction amounts used for the contiguous United States. Table 1 shows the income limits by household size effective October 1, 2002, along with the corresponding Federal poverty threshold levels and the proportion of the income limit as a percentage of the poverty threshold.

Table 1. Net Income Standards for the Food Distribution Program on Indian Reservations (Effective October 1, 2002)

Household Size	Monthly Income Limit ($)	Annual Equivalent ($)	Poverty Threshold (2002)*	Income Limit as Percent of Poverty Level
1	873	10,476	9,183	114
2	1,129	13,548	11,756	115
3	1,386	16,632	14,348	116
4	1,643	19,716	18,392	107
5	1,912	22,944	21,744	106
6	2,190	26,280	24,576	107
7	2,447	29,364	28,001	105
8	2,703	32,436	30,907	105

* Source: U.S. Census Bureau, U.S. Department of Commerce (2003). Poverty in the United States, 2002. (Prepared by Bernadette D.Proctor & Joseph Dalaker).

As shown on Table 1, the monthly income limit for the FDPIR, based on household size, is only slightly above the Federal Poverty Threshold. It ranges from 114.08 percent of the Federal Poverty Level for a single-person household to 115.92 percent for a three-person household. It then declines from 107.20 percent for a four-person household down to 104.95 percent for an eight-person household.

Four types of deductions are allowed for FDPIR participants in the computation of income eligibility for the household. These deductions are outlined in 7 CFR 253.6(f) as follows:

1. Dependent Care Deduction: The current maximum allowable dependent care deduction is $200 for dependent children under 2 years of age, and $175 for all other dependents.

2. Earned Income Deduction: A household with earned income is allowed a deduction of 20% of the earned income.

3. Medicare Part B Medical Insurance Premium Deduction: A household that incurs the cost of Medicare Part B medical insurance premium is allowed a deduction for the monthly cost of the premium.

4. Child Support Deduction: A household that incurs the cost of legally required child support payments to or for a non-household member is allowed a deduction for the amount of monthly child support paid.

The Food Package

The intent of FDPIR is to help low income residents of ITOs to maintain a nutritionally balanced diet. The selection of eligible households is the responsibility of ITOs and State Agencies guided by the income and household criteria. Households determined to be eligible to participate in FDPIR receive a commodity package from the program every month through the ITO or State Agency. In administering FDPIR, USDA has identified a comprehensive list of over 70 commodities in major food groups.[3] These food groups include:

(1) beef, meat, poultry and fish products;
(2) fruits and vegetables;
(3) macaroni, pasta, rice, cereals, and other grains;
(4) cheese, egg mix, and milk;
(5) flour, cornmeal, bakery mix, and crackers;
(6) beans and potatoes;
(7) juices, dried fruits, peanuts and peanut butter; and
(8) corn syrup, vegetable oil, and shortening.

[3] Food and Nutrition Service, United States Department of Agriculture (2001). Commodity Fact Sheet. Alexandria, VA.

USDA purchases the commodities for distribution to ITOs and State Agencies. ITOs and State Agencies place orders to USDA, selecting from the available list and based on the selections of their constituent households. In some ITOs, participants can choose fresh produce instead of canned fruits and vegetables. Once orders from ITOs are received and processed by USDA, commodities are shipped by USDA from regional warehouses to the ITOs and State Agencies, which in turn store and distribute them to participating households.

Through FDPIR, ITOs and State Agencies also provide nutrition education to participants in the forms of fact sheets and booklets, as well as advice for making the most nutritious use of commodity foods. Nutrition education services vary considerably among ITOs. Whereas some report no such budget allocation, some ITOs allocate up to 5% of administrative funds to nutrition education.[4]

Program Administration and Client Participation

In administering the program, FNS provides to ITOs and States up to 75 percent of allowable administrative costs (outlined in Part 277 of the Food Stamp Program Regulations) actually incurred for the operation of FDPIR. ITOs provide a match of 25 percent, which may be substituted by the value of services provided by volunteers, the periodic value for the use of Tribal warehouses financed by Department of Housing and Urban Development (HUD) under Public Law 93-383, or funds provided to ITOs under Section 104 of the Indian Self-Determination and Education Assistance Act of 1975 – Public Law 93-638. The overwhelming majority of local FDPIR programs are administered by ITOs under direct agreements with FNS, but a few operate under the supervision of an agency of a State government.

Since it started in 1977, FDPIR has grown considerably, with a slight reduction in participants in recent years. In 1989, the program served 138,000 clients in 44,962 households with 105 participating agencies. In Fiscal 2001, a total of 113,248 individuals participated in the program – a decrease of 17.9 percent in the last 12 years.

[4] Shanklin et al. (1992). Nutrition Education Needs and Services Among American Indians Participating in a Federal Food Assistance Program. *Journal of Nutrition Education*, 24(6), 298-305.

CHAPTER 2

THE PRIME VENDOR PILOT

BACKGROUND

A Business Process Reengineering (BPR) team developed recommendations for improving the administration and operation of the Food Distribution Program in Indian Reservations (FDPIR).[5] FDPIR is the most labor-intensive food distribution program. Changes in FDPIR also affect the Emergency Food Assistance Program (TEFAP) and the Commodity Supplemental Food Program (CSFP). For example, changes in procedures for multi-food shipments to recipient agencies from the contract warehouse in Carthage, Missouri, would affect most Indian Tribal Organizations (ITO) participating in the FDPIR, as well as the few agencies receiving multi-food shipments in the CSFP.

From the recommendations of the BPR study team, the Senior Oversight Committee of USDA (SOC), comprised of senior managers from the Food and Nutrition Service (FNS), the Agricultural Marketing Service (AMS), and the Farm Service Agency (FSA), made the decision to implement the option of conducting a pilot project in which USDA becomes a party to the existing contract which another Federal agency, the Department of Defense (DoD), has with commercial wholesalers and distributors. This authorized project, selected from one of three alternatives reviewed by the BPR team, was implemented as the Prime Vendor Pilot Project. The first year of the Pilot was from July 1, 2001 to June 30, 2002.

CONDITIONS OF FDPIR PRIOR TO THE PILOT (2000-2001)

The key characteristics of the conditions of FDPIR prior to the implementation of the Prime Vendor Pilot were:

1. Recipient agencies (ITO's) ordered food items 2 months in advance, and could order only once a month. They selected from food items already in inventory at the warehouse or in transit.

[5] Food and Nutrition Service, United States Department of Agriculture (2001) Trailblazers for New-Trition: FDPIR 2000 Final Report. Alexandria, VA: FNS/USDA.

2. Deliveries were made from two USDA warehouses. (The Farm Service Agency (FSA) of USDA divided the country into service zones, and each service zone was served by a single warehouse.)

3. The procurement of commodities with commercial labels for the FDPIR program was established in 1996 as a pilot project and has now been expanded to include 20 commodities.

Problems with the Current FDPIR System

The BPR Trailblazers report summarized the problems of the FDPIR system as follows:

1. The Federal procurement system reacted too slowly to demand.

2. Delivery was frequently late; USDA could not purchase large quantities on time; there were contracting problems; program planning for multi-shipments was poor; food reaches the central warehouse in Carthage, MO or Visalia, CA on time, but was shipped out to Recipient Agencies (RA's) late.

3. Federal procurement and distribution procedures are labor-intensive, inefficient, and involve many offices with duplicate functions; products were sometimes re-ordered or substituted, and when inventory was insufficient to fill orders, meager products were shared.

4. The tri-Agency (FNS, AMS, FSA) Processed Commodity Inventory Management System (PCIMS), the database that records and monitors participation, inventory management, and financial transactions for FDPIR, is inflexible, inefficient, and high maintenance. This database tracks the number of people participating in the program by ITO, the amount of food ordered by ITOs, and the number of cases delivered to ITOs.

5. There is low customer satisfaction due to product problems – pack size, product acceptability, packaging defects, etc. USDA labeling has negative connotations with the stigma of charity, deficiency, and poor quality.

6. There are long delays in introducing new products, often over a year.

THE PRIME VENDOR PILOT

The Prime Vendor Pilot (PVP) established a partnership between USDA and DoD through the Defense Supply Center in Philadelphia (DSCP), to pilot test food distribution operations as part of FDPIR through a prime vendor. The participants included the 23 ITOs of the Midwest Region, covering Minnesota, Wisconsin, and Michigan. Through the PVP agreement, USDA becomes a party to an existing DoD contract between DSCP and

commercial wholesalers/distributors. This is similar to another existing but different contract under which DSCP supplies fresh produce to FDPIR. In this FNS/DoD partnership, the first year of operation of PVP was July 1, 2001 – June 30, 2002. Reinhart was selected as the Prime Vendor for the Pilot out of efficiency and expediency. DoD already had an existing contract with Reinhart Foods to supply fruits and vegetables to FDPIR in that area of the country. As such, DoD expanded the contract with Reinhart Foods to cover the vending services for the Pilot.

Under the Prime Vendor Pilot project, the Prime Vendor, Reinhart:

1. Accepted food orders directly from the ITOs: ITOs could order food items and receive them as early as three days before the agreed upon delivery date, as opposed to waiting for up to 60-90 days after the delivery date as in the year prior to the Prime Vendor Pilot (PVP). Under the PVP system, ITOs could order as frequently as they wanted rather than once a month as before;

2. Procured food products pre-approved by FNS. In short, through this agreement, USDA bought food directly from the wholesalers/distributors without any middleman;

3. Stored and delivered the foods to all ITOs in the Midwest Region; and

4. Billed DoD for food procured and services rendered, and DoD billed USDA.

Under PVP and during the first year of implementation, no new products were introduced.

Goals of the Pilot

The following goals and objectives were identified for the Pilot:

1. To improve food delivery service to ITOs that are receiving multi-food shipments in the FNS Midwest Region through a prime vendor system.

   Objectives: The objectives of this goal were to:

   A. Improve program operation and administrative efficiency by striving to:

      i. Èffect timely delivery by providing FDPIR commodities to recipient agencies (RAs) at the right time and in the right quantities.

      ii. Improve inventory management to just-in-time inventory by reducing inventory level and cost of inventory management (warehousing, staff, etc.).

      iii. Reduce/eliminate warehousing problems.

B. Improve product acceptability and procurement flexibility. Under this objective the Pilot will:

i. Provide all products for the approved established USDA food packages.

ii. Create greater procurement flexibility by providing ordering and delivery options.

iii. Introduce new products quickly (*Note: no new products were introduced).*

iv. Improve product acceptability.

2. To improve ordering and delivery service to ITOs receiving multi-food deliveries in the Midwest Region.

Objectives: The objectives of this goal were to:

A. To reduce Federal involvement in the food ordering and delivery process.

i. While FNS would have no appreciable change in the Federal work force, the work load for food orders would be transferred from FNS Headquarters, AMS, and FSA, to program management.

ii. To reduce the resources devoted to the processing of food orders. Before the Pilot, processing of food orders was undertaken collectively by the Regional Offices, FNS Headquarters, AMS, and FSA.

B. To reduce procurement staff resources in terms of both the number of staff and time involved in procurement activities.

i. At the Regional Office, the workload would shift from food ordering management to monitoring activities. Regional Office staff will be less involved with the paperwork of food ordering since the ITOs will be ordering directly from the Prime Vendor.

C. To reduce delivery resources both in terms of full time equivalent staff (FTE) involved in delivery activities and the time involved in delivery activities.

i. A reduction in labor would be expected at FSA and AMS if actual staff time involved could be determined.

ii. The implementation of reliable delivery schedules will help ITOs to better plan staff resources.

Participating ITOs

All 23 ITO's of the States of Michigan, Minnesota and Wisconsin participated in the Prime Vendor Pilot. The ITOs are listed by State below:

Michigan (6): Sault St. Marie Tribe, Keweenaw Bay, Bay Mills, Pokagon Potawatomi, Little Traverse Bay Bands of Odawa Indians, and Little River Band of Odawa Indians.

Minnesota (7): Leech Lake Band of Ojibwe, Fond du Lac Reservation, Grand Portage, White Earth, Bois Forte Reservation, Mille Lacs Band of Ojibwe, and Red Lake Chippewa.

Wisconsin (10): Red Cliff Band of Lake Superior Indians, Ho Chunk Nation, Stockbridge-Munsee, Sokaogan Chippewa, Lac Courte Oreilles, St. Croix Reservation, Menominee Tribe, Lac du Flambeau, Bad River Band of Lake Superior Ojibwe, and Oneida Tribe.

Three training sessions were conducted for food distribution staff of the participating ITOs on the following dates at the respective locations:

1. April 30, 2001: Fond du Lac Reservation, Cloquet (near Duluth), MN.
2. May 1, 2001: Oneida Reservation, Oneida (near Green Bay), WI.
3. May 2, 2001: Little Traverse Bay, Petoskey (near Traverse City), MI.

The training at each of the three sites was conducted by a team of staff from the Defense Supply Center in Philadelphia (DSCP) of the Department of Defense (DoD), the Prime Vendor Reinhart Foods, and the FNS staff at the Midwest Regional Office. The training included detailed presentations and discussions on the procedures of the proposed food ordering system, the logistics of warehousing, and the scheduling of delivery by Reinhart Foods.

The ITOs were familiarized with ordering procedures and informed about technical assistance provided by Reinhart Foods in the form of a "Help Desk" telephone line for any ITO experiencing trouble with the food ordering system. DoD staff explained the availability of a "hot line" for use by ITOs to report any problems they may encounter with the Prime Vendor or with food items. Staff from FNS's Office of Analysis, Nutrition and Evaluation (OANE), responsible for the evaluation of the Pilot, made a presentation at the training session in Cloquet, MN on the surveys that were planned to be conducted with the ITOs, stressing the need for survey responses and the importance of the accuracy of responses to the interviews.

COMMODITIES PROVIDED TO ITO'S IN FY 2000

Table 2 shows the list of 78 commodities provided in FY 2000, the year prior to the implementation of the Prime Vendor Pilot.

Table 2. List of Commodities Provided to ITOs in FY 2000

Almond, RSTD	Cereal corn 18	Flour 5#	Roasted peanuts
Apple Juice	Cereal corn 12	Fruit cocktail	Potatoes, sliced
Applesauce	Cereal oat RTE	Grape juice	Prunes
Apricot halves	Cereal rice 13 oz.	Grapefruit juice	Egg noodles
Bakery mix	Cereal rice 15 oz.	Nonfat dry milk	Pumpkin
Bakery mix lowfat	Cereal FLK 12	Lunchmeat	Raisins
Kidney beans 2#	Cheese, loaf	Mac & cheese	Rice
Lima beans 2#	Cheese, sliced	Mixed vegetables	Shortening
Pinto beans 2#	Canned chicken	Rolled oats	Tomato soup
Green beans cnd.	Frozen chicken	Vegetable oil	Vegetable soup
Great northern 2#	Cream style corn	Orange juice	Spaghetti sauce
Refried beans 2#	Whole kernel corn	Pasta elbow	Spinach
Vegetarian beans	Cornmeal	Pasta spaghetti	Sweet potatoes
Canned beef	Crackers	Peaches, CND	Corn syrup
Ground beef	Cranberry apple Juice	Pears, CND	Tomato juice
Beef stew	Potato flakes	Peas	Tomato sauce
Ground bison	Egg mix	Pineapple juice	Tomatoes
#Butter prints	Evaporated milk 24	Pineapple, CND	Tuna
Carrots	Evaporated milk 48	Peanut butter 18	
Corn flakes 18	Farina	Peanut butter 2#	

THE FOOD ORDERING PROCESS UNDER THE PILOT

Prior to the Pilot, ITOs submitted food orders through FNS, with the ordering process tracked through the Processed Commodity Inventory Management System (PCIMS). Under PCIMS (FY 2000), all multi-food orders were placed through FNS using established procedures, and processed by five separate entities: FNS, FSA, AMS, the Midwest Regional Office, and the Carthage, MO Warehouse. Under the Pilot, ITOs placed orders and received food directly from Reinhart. The ordering was seamlessly streamlined. ITOs could order as late as 3 days prior to the scheduled delivery date rather than having to order two months in advance of delivery. The FDPIR food package includes some foods for which there were no commercial substitutes. These are: (1) Low-fat bakery mix, (2) Canned beef and chicken, (3) Low-fat macaroni and cheese, and (4) Egg mix. For these foods, FNS provided Reinhart with the names, addresses and telephone numbers of the vendors, and Reinhart contacted them directly to purchase the products. During the planning phase of the Pilot, ITOs were concerned that bonus commodity (such as bison) might not be available after the Pilot was

implemented because the Prime Vendor might not take delivery of them. (Bonus commodities are excess foods that are distributed to a requesting ITO, which do not constitute part of the official commodity allocation for the respective ITO). However, during the fist year of implementation of the Pilot, Reinhart Foods, the Prime Vendor, took delivery and distributed bonus commodities just as well as during the preceding year.

CHAPTER 3

EVALUATION

METHODOLOGY

The evaluation component of the Prime Vendor Pilot (PVP) was developed *ex post facto* to the Pilot planning, after the pilot region and beneficiary ITOs had already been selected, and about two months before the start of pilot food delivery. At that time the Department of Defense (DoD), the partner to the Pilot, had scheduled three training sessions for participating ITOs. Evaluation staff used the opportunity to attend one of the training sessions at Duluth, MN. A presentation was made on the evaluation as a whole, and in particular the pre and post surveys. The roles of the ITOs as key participants and respondents to the survey were discussed. A sample questionnaire was reviewed and the prompt cooperation of ITOs was solicited.

Since the Pilot was authorized to be implemented in the entire FNS Midwest Region and only in that Region, the opportunity to apply a rigorous and robust experimental design with randomization of Pilot and comparison ITOs was precluded by the constraint of including all ITOs in the region and providing the service uniformly to all of them as project participants. Otherwise, applying a randomized design would have captured spatial variations in terms of differences between comparison and Pilot ITOs, as well as temporal differences between the two groups. The next possible option was to collect data from one of the regions that did not receive the service and compare it against the Pilot region. However, FNS regions are disparate entities with different participant characteristics. Any data collected on ITOs or participants of another region could not be compared with the characteristics of ITOs of the pilot region. Failing the opportunity of randomization or the availability of a reasonably comparable region, FNS/OANE selected a pre-post comparison supplemented by administrative records data. Thus, the evaluation was designed with those two key components.

Administrative Records Review

Although FDPIR is administered by FNS, two other USDA agencies, AMS and FSA, share some responsibility in commodity purchase, warehousing, and delivery. A review of administrative records maintained by these three agencies on FDPIR, in particular records of

the Food Distribution Division of FNS, provided the background information on the operation and administration of FDPIR, and the background and operation of the Pilot. In addition, information was extracted from databases shared or used individually by the three USDA agencies for food procurement, delivery, and warehousing. Data were collected on costs incurred by all three participating agencies. The following data systems were utilized:

1. Automated Inventory System (AIS) – This database is used by ITOs to track food deliveries and inventory. From it, the ITO monthly inventory reports are generated. AIS is a mobile data system, and the data feeds into the Special Nutrition Program Integrated Information System (SNPIIS).

2. Processed Commodity Inventory Management System (PCIMS) – This is a tri-agency database operated by FNS, AMS, and FSA. It tracks food orders submitted by ITOs and commodity deliveries to ITOs. It is a historical commodity-tracking database, from which data were extracted on food orders and deliveries for the pre-pilot implementation period (July 2000-June 2001).

3. Special Nutrition Program Integrated Information System (SNPIIS) – This database is operated by FNS to track food product distribution, with data submitted by the ITOs and entered by the regions. From SNPIIS data were extracted on participation (people participating in the FDPIR), food inventory, program financing, and the amount of food distributed.

Pre-Test/Post Test Surveys

The evaluation compared results of a pre-survey with a post-survey supplemented by records data. The pre-survey was conducted by a mail questionnaire interview of ITO directors based on a retrospective recall of FDPIR food delivery conditions, experiences of ITO Directors, and their satisfaction with FDPIR during the year before the Pilot (July 1, 2000 – June 30, 2001). The identical post–survey was conducted with the same respondents after the first year of the Pilot to measure food delivery conditions under the Pilot (with DSCP/Reinhart), and to determine the experiences and satisfaction levels of ITO Directors with the Prime Vendor Pilot during the first year of the demonstration (July 1, 2001 – June 30, 2002).

Questionnaire: The questionnaire used for both pre- and post-surveys contained 59 questions arranged in five areas: (a) FDPIR program operation and administration – 19 questions, (b) food ordering and procurement – 8 questions, (c) the food delivery process– 10 questions, (d) warehousing and inventory management – 10 questions, and (e) cost reduction – 12 questions. The survey questions and response frequencies are presented in tables and graphs in the appendix.

Respondents: All 23 ITOs that participated in the Pilot were surveyed. As mentioned earlier, six of the ITOs were located in Michigan, seven in Minnesota, and ten in Wisconsin. The respondents were the Directors of the food distribution programs in the ITOs.

Surveys: The original intent of the study was to conduct the pre-survey interviews in July-August 2002. However, as soon as the pre-survey was ready to be implemented, the Office of Management and Budget (OMB) required the submission of a clearance package consisting of data collection/survey instruments, estimates of burden for responding agencies and the Federal Government (FNS, AMS, FSA, and the Kansas City warehouse), and justifications for the study, in compliance with the Paperwork Reduction Act of 1996. The process also required that the estimates be announced in the Federal Register for solicitation of comments from the public at large. A minimum of 90 days is usually required to complete the entire process.

The OMB package was submitted in August and clearance was not received until January 2002. Thus, due to the late involvement of the evaluation team in the Pilot and the delay in the OMB clearance, the pre-survey could only be finally conducted in January-February 2002. A special effort was made to impress upon respondents to recall conditions and experiences that occurred during the previous year (July 1, 2000 – June 30, 2001). The post-survey was conducted soon after the end of the first year of the Pilot in July/August of 2002. Both surveys had 100% response rates.

ANALYSIS

Data collected from administrative records and databases provided by FNS, AMS, and FSA were analyzed using cross-tabulation, with comparisons of the trends for the years before and during the Pilot implementation. These data include information on the participating ITOs, the amount and type of commodities ordered and received, and expenditures for commodities, transportation, handling, storage, program administration and staffing. Based on the Consumer Price Index (CPI), expenditure data for the year before the Pilot was adjusted for annual inflation by a figure of 0.0357. Costs were compared for the two periods for food, miscellaneous expenses (transportation, handling, and warehousing), and program administration. In most cases, the percentage change of the Pilot year over the year before the Pilot was calculated. The benefits received by individual participants in terms of food quantity and costs were computed and compared for the pre-Pilot and Pilot years respectively.

The data for both surveys were analyzed statistically using two methods. The first method analyzed differences between the years prior to and during the Pilot by subjecting survey responses to a paired test of means to see if, and to what extent, there were differences between the Pilot and the previous year. To do this, the *null hypothesis* was applied and tested. The *null hypothesis* is a statistical postulation of whether, and sometimes in which direction, a sample mean differs from a population mean or another sample mean. It usually requires a statistical test to prove or refute it, and the test must specify a high level of probability that the occurrence of the event (difference) is not due to chance. The hypothesis is accepted if the results of the statistical test affirm the postulation (of no difference), and rejected if the postulation is refuted by the statistical test. The paired means *t-test* was particularly suitable for this study because the same ITOs and respondents were surveyed in both surveys.

The paired samples *t-test* was applied to compare the means of identical variables from the pre and post questionnaires grouped into five areas: FDPIR program operation and administration, food ordering, food delivery, warehousing, and costs. A probability level of 95% was specified and selected as the confidence limit. The results of the *t-tests* are presented in the next chapter.

The second statistical method used to analyze the survey data was the application of the *chi-square* technique to determine differences within groups for each of the two survey periods. Most of the variables on the questionnaires were at least ordinal level. Responses to these variables were recoded into dichotomous categories comprised of: (1) ITOs that expressed no or low approval ratings, and (2) ITOs that expressed average to high satisfaction. The intent was to see if there was any statistically significant difference in the internal structure of responses of ITOs between the two periods. In other words, were the responses to some variables clustered around the low end of the scale versus the high end for the pre and post conditions? The chi-square results and significance levels are presented in tables along with histograms of the frequency distributions in the appendix.

Data analysis was conducted using SPSS Software Package, Version 10.0 for Windows.

CHAPTER 4

RESULTS

INTRODUCTION

This chapter presents the analysis of both the administrative and questionnaire data, and the results of the evaluation. The first section of the chapter shows the process evaluation, with cross-tabulations and comparisons of the administrative data collected mostly from FNS records and USDA databases. Comparisons are made for the year prior to the Pilot (FY 2000-2001) and the first year of the Pilot (FY 2001-2002). The data include participants served, households, the quantity of food delivered to each ITO, food costs, administrative and operational costs, and staffing levels. The second section of the chapter presents a detailed statistical comparison of the two surveys, with statistical tests of differences *(*paired *t-test)* between the years prior to and during the Pilot.

The results shown in this chapter are supplemented by another analysis, the *chi-square* technique, which assesses within group differences in survey response patterns. The results of the *chi square* analysis and graphical depictions of frequencies of survey responses are presented in the appendix.

PROCESS EVALUATION: ADMINISTRATIVE RECORDS REVIEW

The process evaluation section reviews administrative records data and evaluates the operation and performance of the Pilot through the first year of implementation against the conditions of the Food Distribution Program on Indian Reservations (FDPIR) during the year prior to the Pilot in ITOs of the Midwest region. Data were collected for both years from USDA agencies and the Prime Vendor on the quantity and costs of food delivered, participants and households served, program administration and operation, transportation, handling, and storage costs, and staffing levels. In some instances, data on program administration, operational and staffing costs, and other expenditures incurred by USDA agencies were not available for the year prior to the Pilot. For the first year of the Pilot, all of the expense figures were available, broken down into monthly lump payments made to the Prime Vendor, covering the costs of food as well as delivery, storage, and administration. Comparisons are presented for available data.

Participants and Households

The average monthly number of participants served in the 23 Midwest ITOs during the year prior to the implementation of the Pilot was 8,842 in 3,601 certified households (see Table 3). The mean household size was 2.46 participants per household. During the first year of the Pilot, there were only minor population changes: participants declined slightly by nearly one percent; households increased by over two percent; and the household size declined by over three percent.

Table 3. Participants and Households Served

Category	FY 2000-01 (Pre-Pilot)	FY 2001-02 (Pilot)	% Change
Participants	8,842	8,767	-0.85
Households	3,601	3,688	2.42
Participants/Household	2.455	2.377	-3.18

Food Delivery During FY 2000-2001

Food delivery to the ITOs during FY 2000-2001 was done by USDA. Data on Table 4 show the number of cases delivered to each ITO, the number of participants per ITO, and the mean number of cases received by each participant during the year before the Pilot. The total cases delivered to the 23 Midwest ITOs was 228,521, ranging from 605 in Grand Portage to 34,184 in Sault St. Marie Tribe of Chippewa Indians, with a mean of 9,936 per ITO. The total number of participants was 8,842 clients, ranging from 33 to 1,145, with a mean of 384 per ITO. The overall mean number of cases distributed to each participant for the entire region was 25.9, ranging from 16.5 in Sokaogan Chippewa to 34.3 in Mille Lacs Band of Ojibwe.[6]

Figure 1 shows a scatter plot that depicts the relationship between the size of the ITO and the number of cases distributed to each participant during the year July 1, 2000 – June 30, 2001. A correlation coefficient was computed, and statistically, there appears to be a moderate linear association between the size of the ITO and the benefits participants received during FY 2000-2001 in terms of cases per year (r_{ij} = 0.352). This means that the smallest ITOs (Sokaogan, Grand Portage, Little River, Stockbridge-Munsee, Little Traverse Bay, Lac du Flambeau etc.) generally ordered and received the fewest cases per participant per year, whereas the largest ITOs (Sault St. Marie, White Earth, etc.) received the largest quantity of food in terms of cases per participant. A few small ITOs are among the group that received that largest number of cases. These are Mille Lacs, St. Croix Reservation, and Bay Mills.

[6] The numbers of cases vary because ITOs order different types and varying quantities of food.

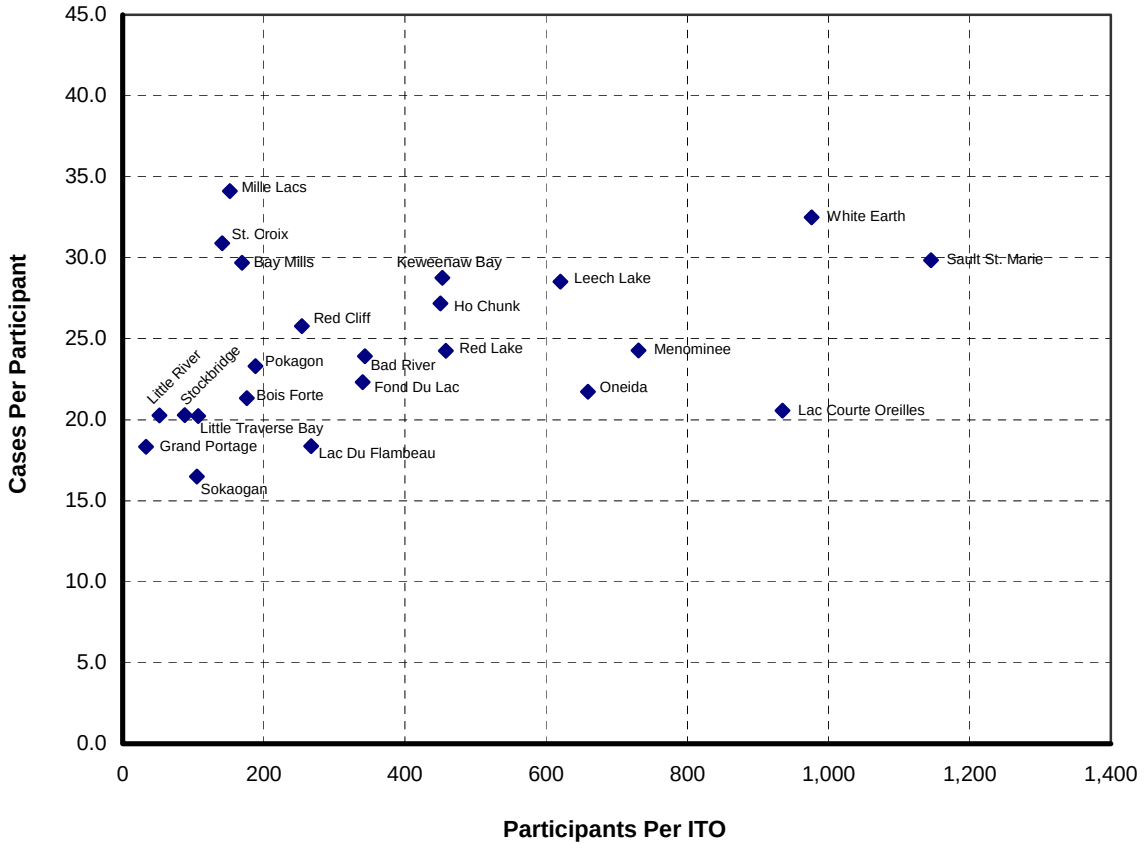
Table 4. Number of Cases Delivered to ITOs, Participants, and Cases Delivered Per Participant During FY 2000-01 (Pre-Pilot)

	ITO	Cases	Participants	Cases/ Participant
1	Sault St. Marie Tribe of Chippewa Indians	34,184	1,145	29.9
2	Keweenaw Bay Indian Community	13,025	453	28.8
3	Bay Mills	5,019	169	29.7
4	Pokagon Band of Potawatomi Indians	4,381	188	23.3
5	Little Traverse Bay Bands	2,164	107	20.2
6	Little River Band of Ottawa Indians	1,054	52	20.3
7	Leech Lake Band of Ojibwe	17,683	620	28.5
8	Fond du Lac Reservation	7,589	340	22.3
9	Grand Portage	605	33	18.3
10	White Earth	31,707	976	32.5
11	Bois Forte Reservation	3,755	176	21.3
12	Mille Lacs Band of Ojibwe	5,185	152	34.1
13	Red Lake	11,109	458	24.3
14	Red Cliff Band of Lake Superior Indians	6,550	254	25.8
15	Ho Chunk Nation	12,232	450	27.2
16	Stockbridge-Munsee Community	1,785	88	20.3
17	Sokaogon Chippewa Community	1,731	105	16.5
18	Lac Courte Oreilles Tribe	19,230	935	20.6
19	St. Croix Reservation	4,355	141	30.9
20	Menominee	17,743	731	24.3
21	Lac du Flambeau	4,906	267	18.4
22	Bad River Band of Lake Superior Ojibwe	8,204	343	23.9
23	Oneida Tribe of Wisconsin	14,325	659	21.7
	Total	***228,521***	***8,842***	***25.9***
	Mean	***9,936***	***384.4***	***25.9***

The correlation coefficient (r) of cases per participant and ITO size is 0.352.

Note: Bonus bison distributed was 35,352 pounds, costing $106,000. Bonus almonds distributed cost $56,000.

Fig. 1. The Relationship Between Size of ITO and Cases Distributed Per Participant During FY 2000-2001 Pre-Pilot)



Mean = 25.9; s.d. = 4.91; r_{ij} *=0 .352.*

Food Delivery During the First Year of the Pilot (FY 2001-2002)

Food delivery, transportation, storage and handling, and administration during the Pilot (FY 2001-2002) were all undertaken by the Prime Vendor, Reinhart Foods. Data on Table 5 and Figure 2 show that a total of 235,378 cases of food were delivered to the 23 ITOs of the Midwest Region during the period July 2001- June 2002 – the first year of the Pilot. The distribution ranged from less than 2,000 cases per year received by small ITOs (Grand Portage, Sokaogan Chippewa Community, and Stockbridge-Munsee Community) to over 27,000 cases per year received by the large ITOs (White Earth and Sault St. Marie). The mean number of cases delivered by Reinhart Foods to each ITO during the year was 10,234, and the mean number of cases distributed to each participant during the year was 26.9.

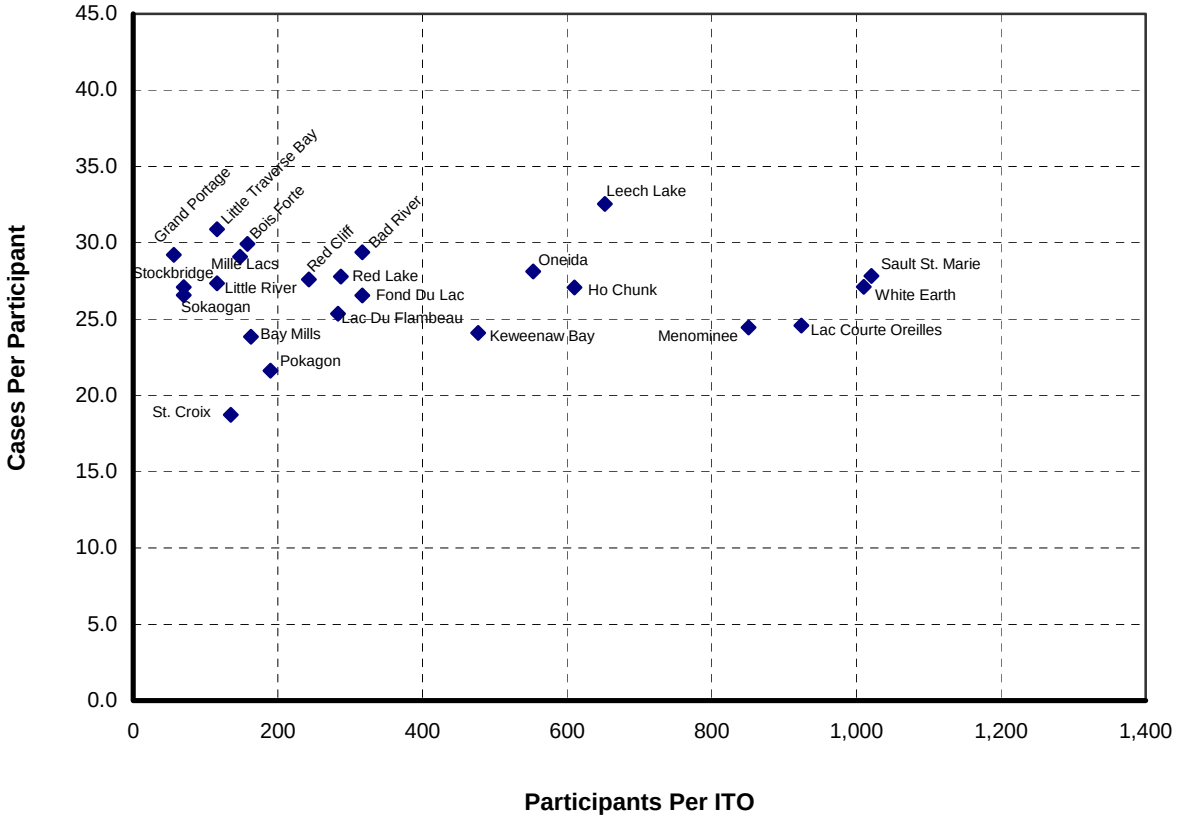
Using data on Figure 5, a correlation coefficient was computed relating the number of cases per participant with the size of the ITO, and the result showed that there was practically no correlation between the two (r_{ij} *= 0.012).* This implies a more even distribution of food benefits under the Pilot across ITOs of different sizes.

Table 5. Number of Cases Delivered to ITOs, Participants, and Cases Delivered Per Participant During FY 2001-02 (Pilot)

	ITO	Cases	Participants	Cases/ Participant
1	Sault St. Marie Tribe of Chippewa Indians	28,409	1,021	27.8
2	Keweenaw Bay Indian Community	11,493	477	24.1
3	Bay Mills	3,886	163	23.8
4	Pokagon Band of Potawatomi Indians	4,109	190	21.6
5	Little Traverse Bay Bands	3,583	116	30.9
6	Little River Band of Ottawa Indians	3,171	116	27.3
7	Leech Lake Band of Ojibwe	21,221	652	32.5
8	Fond du Lac Reservation	8,416	317	26.5
9	Grand Portage	1,636	56	29.2
10	White Earth	27,386	1,010	27.1
11	Bois Forte Reservation	4,727	158	29.9
12	Mille Lacs Band of Ojibwe	4,306	148	29.1
13	Red Lake	7,974	287	27.8
14	Red Cliff Band of Lake Superior Indians	6,708	243	27.6
15	Ho Chunk Nation	16,514	610	27.1
16	Stockbridge-Munsee Community	1,897	70	27.1
17	Sokaogon Chippewa Community	1,860	70	26.6
18	Lac Courte Oreilles Tribe	22,712	924	24.6
19	St. Croix Reservation	2,528	135	18.7
20	Menominee	20,806	851	24.4
21	Lac du Flambeau	7,173	283	25.3
22	Bad River Band of Lake Superior Ojibwe	9,315	317	29.4
23	Oneida Tribe	15,548	553	28.1
	Total	***235,378***	***8,767***	***26.9***
	Mean	***10,234***	***381***	***26.9***

The Correlation coefficient (r) of cases per participant and ITO size is 0.012.
Note: Bonus commodities distributed cost $620,652.

Fig. 2. The Relationship Between Size of ITO and Cases Distributed Per Participant During FY 2001-2002 (Pilot)



Mean = 26.9; s.d. = 3.04; r_{ij} *= 0 .012.*

Changes between the prior year (USDA) and the first year of PVP (Reinhart) in participants served and mean cases distributed to each participant are shown on Table 6. The total number of cases delivered increased by 3%. As shown earlier, participants declined by one percent, and on average, each participant received one case more under PVP than the year before.

Table 6. Change in Food Delivered and Participants

	FY 2000-01 (Pre)	FY 2001-02 (PVP)	% Change
Total Cases	228,521	235,378	3.0
Participants	8,842	8,767	-0.9
Mean Cases Delivered to Each Participant	25.9	26.9	3.9

It can be noticed from a comparison of Figures 1 and 2 that the gap between ITOs in terms of cases of food received by each participant was narrowed considerably during PVP. This means that there was more even food distribution under the Pilot than the year before.

Operational and Food Costs

A cost comparison was initially proposed with the assumptions that: (1) for each USDA agency, cost estimates would be provided for staff who would have been displaced or re-assigned due to PVP regardless of whether or not they were retained or re-assigned; and (2) estimates for the cost of the warehouse space in Carthage which USDA used prior to the Pilot to store food before distribution to the ITOs, would also be provided, regardless of whether or not the space was re-assigned or re-allocated.[7]

Whereas many of the other costs were available, unfortunately, neither staff cost savings nor savings due to warehouse space re-allocation could be provided by the agencies. Further, all staff in all agencies involved in FDPIR and food distribution to the pilot ITOs before PVP and all the warehouse space used by USDA for storing food before distribution to the pilot ITOs were retained *en bloc*. As such, no costs were saved in these two areas during the first year of PVP. Consequently, a cost-savings analysis was not possible.

The rationale given by the USDA agencies for this lack of reductions was that since the Pilot was tested only in one region, staff and warehouse space reductions did not form a large enough critical mass that would require staff re-assignments or warehouse space re-allocations, particularly since its duration was uncertain. Further, the Carthage warehouse served a larger area than the Pilot region. However, should the Pilot be extended to more regions or the whole nation, then cumulative reductions of staff time and warehouse space could result in significant savings by the prime vendor approach over the current FDPIR system.

Based on the above scenario, the cost analysis provided here is a comparison of available expense figures on operational and food costs for the pre-Pilot year (FY 2000-2001) and the first year of PVP (FY 2001-2002). Data for the year prior to PVP are broken down into separate components of food, distribution and administrative expenses. On the other hand, data for the first year of PVP are reported in monthly lump payments made to the contractor covering food and administrative costs without being separated into different components.

Operational and Food Costs for FY 2000-2001

Administrative Costs

As noted earlier, all three USDA agencies involved in FDPIR (FNS, AMS, and FSA) handled some aspects of food distribution during July 2000-June 2001. They incurred some costs separately and some database management (PCIMS) and computer support costs jointly. FNS costs, including headquarters, the Regional Office, and the Carthage Warehouse expenses, were not available for the year before the Pilot. The rest of the costs incurred by the other agencies for the Midwest Region, for food ordering, delivery, database management and computer services amounted to $54,120 – approximately 11 percent of FDPIR charges.

[7] The Carthage warehouse serves a large area that includes the Midwest Region. The Midwest ITO's represent 11% of FDPIR costs.

Food Costs for 2000-01

Table 7 shows food costs by cases delivered prior to the Pilot. A total of 228,521 cases of food were delivered, with each ITO receiving an average of 9,936 cases. The total food cost adjusted for annual inflation was $3,793,417, which averaged to $163,931 per ITO. In terms of benefits, each participant received 26 cases of food on average costing $429.02 per person per year in FY 2001 dollars. The cost per case adjusted for inflation was $16.57.

Table 7. Cases and Cost of Commodity Delivered to ITOs for Distribution to Participants During FY 2000-01 (Pre-Pilot)

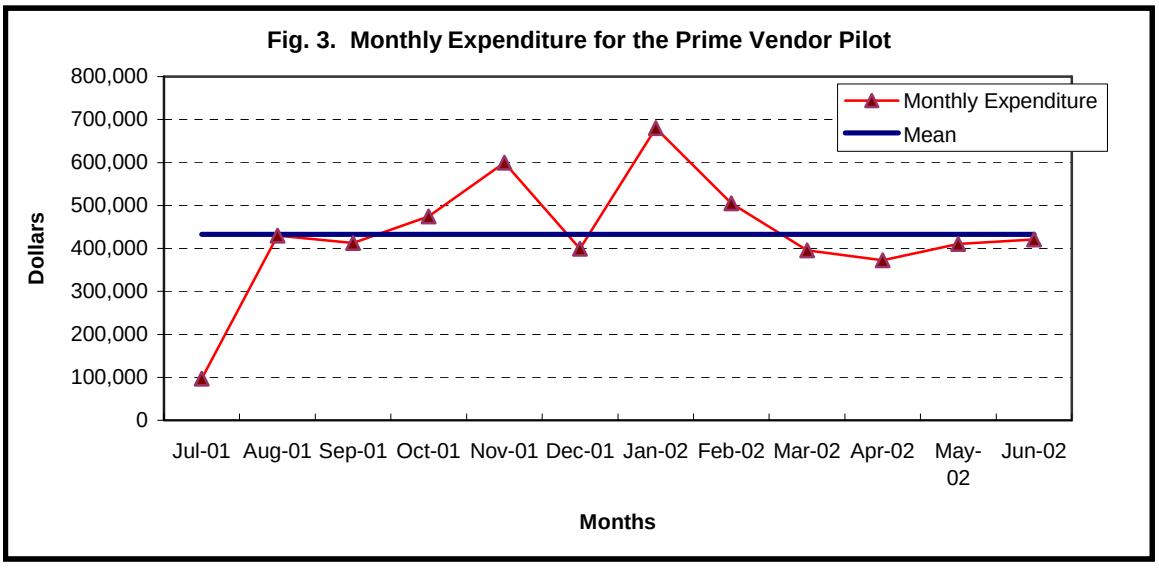
	ITO	Cases	Cost
1	Sault St. Marie Tribe of Chippewa Indians	34,184	486,194.71
2	Keweenaw Bay Indian Community	13,025	184,770.40
3	Bay Mills	5,019	67,357.83
4	Pokagon Band of Potawatomi Indians	4,381	63,421.21
5	Little Traverse Bay Bands	2,164	33,248.84
6	Little River Band of Ottawa Indians	1,054	14,800.04
7	Leech Lake Band of Ojibwe	17,683	262,337.57
8	Fond du Lac Reservation	7,589	135,819.69
9	Grand Portage	605	8,001.90
10	White Earth	31,707	427,877.98
11	Bois Forte Reservation	3,755	53,427.85
12	Mille Lacs Band of Ojibwe	5,185	68,206.85
13	Red Lake	11,109	178,719.17
14	Red Cliff Band of Lake Superior Indians	6,550	94,501.11
15	Ho Chunk Nation	12,232	167,469.11
16	Stockbridge-Munsee Community	1,785	27,822.35
17	Sokaogon Chippewa Community	1,731	24,120.69
18	Lac Courte Oreilles Tribe	19,230	276,394.45
19	St. Croix Reservation	4,355	58,290.56
20	Menominee	17,743	273,873.03
21	Lac du Flambeau	4,906	75,882.24
22	Bad River Band of Lake Superior Ojibwe	8,204	123,390.94
23	Oneida Tribe of Wisconsin	14,325	219,530.15
	Total Food Costs	***228,521***	***3,325,459***
	Other Costs - Transptn, Handling, Storage.		***337,201***
	Total Costs for Food, Transptn, Handling, etc.		***3,662,660***
	Total Cost in 2001 dollars (*.0357).		***3,793,417***
	Mean Per ITO	***9,936***	***163,931***
	Total Participants	***8,842***	-
	Mean Per Participant	***25.9***	***429.02***

Operational and Food Costs During the Pilot (FY 2001-2002)

During the first year of PVP, $5,216,185 was spent on food procurement, food ordering, transportation and delivery (see Table 8). By far the lowest expenditure was in July 2001, the first month, when set-up and logistical arrangements were still in progress. The highest monthly expenditure was in January 2002 - over 50% more than average. Expenditure in December 2001 was sharply lower than the preceding and following months. In general, expenditures seemed high during Winter and much lower during Summer.

Table 8: Monthly Expenditure for Food, Transportation, Handling, Warehousing, and Delivery During FY 2001-02 (Pilot)

Year	Month	Amount
2001	July	$96,589
	August	$429,893
	September	$412,582
	October	$474,672
	November	$599,383
	December	$399,572
2002	January	$679,837
	February	$504,822
	March	$395,592
	April	$372,799
	May	$410,193
	June	$420,647
	Total	$5,216,185
	Mean	$434,682



The decrease in monthly food delivery and participation during December is explained as due to tribal gaming per capita payments, which decreased participation because many households became income ineligible for that period.

The total food delivery to all 23 ITOs during PVP was 235,378 cases (see Table 9). The adjusted total costs for food, transportation, storage, and handling were $5,160,965. On average, each ITO received 10,234 cases costing $224,390, and each participant received 27 cases costing $588.68. The cost per case for food delivered was $21.88.

Table 9. Cases and Cost of Commodity Delivered to ITOs for Distribution to Participants During FY 2001-02 (Pilot)

	ITO	Cases	Cost
1	Sault St. Marie Tribe of Chippewa Indians	28,409	520,466
2	Keweenaw Bay Indian Community	11,493	249,945
3	Bay Mills	3,886	124,602
4	Pokagon Band of Potawatomi Indians	4,109	77,351
5	Little Traverse Bay Bands	3,583	92,386
6	Little River Band of Ottawa Indians	3,171	108,257
7	Leech Lake Band of Ojibwe	21,221	454,285
8	Fond du Lac Reservation	8,416	171,904
9	Grand Portage	1,636	34,123
10	White Earth	27,386	564,067
11	Bois Forte Reservation	4,727	100,067
12	Mille Lacs Band of Ojibwe	4,306	60,493
13	Red Lake	7,974	200,711
14	Red Cliff Band of Lake Superior Indians	6,708	150,903
15	Ho Chunk Nation	16,514	419,678
16	Stockbridge-Munsee Community	1,897	89,540
17	Sokaogon Chippewa Community	1,860	52,551
18	Lac Courte Oreilles Tribe	22,712	452,355
19	St. Croix Reservation	2,528	53,284
20	Menominee	20,806	443,894
21	Lac du Flambeau	7,173	138,928
22	Bad River Band of Lake Superior Ojibwe	9,315	233,592
23	Oneida Tribe of Wisconsin	15,548	422,805
	Total for food, transptn, storage, handling, etc.	***235,378***	***5,216,185***
	Less Milk Adjustment*		***55,220***
	Adjusted Total for foood and other costs		***5,160,965***
	Mean Per ITO	***10,234***	***224,390***
	Total Participants	***8,767***	***-***
	Mean Dollars and Cases Per Participant	***26.9***	***588.68***

** Actual milk cost was $1.15/lb instead of $2.12/lb. Milk cost adjustment for 2,372 cases was $55,220. (Note: one case = 24 pounds).*

Pre-Post Comparison of Total Expenditure By Category

During the pre-Pilot year, the adjusted total cost for food, transportation, handling (in/out) and storage (for the two months minimum for most delivered commodity) for the 23 ITOs was $3,793,417 (see Table 10). Adjusted administration cost before PVP was $56,052. Thus, the adjusted total expense before the Pilot for food, distribution and administration was $3,849,469. During the first year of the Pilot, the total adjusted expenditure for food, distribution and administration was $5,220,915. This included distribution costs for the increased bonus commodity during PVP. Food cost alone during the first year of PVP, $3,519,914, represented only 2.2 % increase over the prior year's adjusted food costs.

Table 10. Comparison of Expenditure on Food, Distribution and Program Administration Costs Before and During the Pilot

Category	FY 2000-01 (Pre-Pilot) USDA		FY 2001-02 (Pilot) DSCP/Reinhart	Difference between Pre (adj.) and Pilot
	Dollars	Adj. Dollars*		
Food and Distribution Costs				
Value of Food Distributed	$3,325,459	$3,444,178	$3,519,914***	$75,736
Transportation	$215,775	$223,478	-	-
Handling (in/out)	$61,783	$63,989	-	-
Storage (two months)#	$59,643	$61,772	-	-
Total	$3,662,660	$3,793,417	$5,160,965 ##	$1,367,548
Program admin. (11%)*	$54,120	$56,052	$59,950	$3,898
Total Costs	$3,716,780	$3,849,469	$5,220,915	$1,371,446

** Includes one year annual inflation adjustment factor of 0.0357 to Pre-Pilot (FY 2000-01) dollars.*

*** Excludes FNS administrative costs for FY 2000-2001 as well as corresponding reductions under PVP.*

**** Represents the food value in SNPIIS adjusted for milk cost.*

 # Two months storage Represents the minimum storage time.

Represents the total paid to the prime vendor adjusted for milk cost; includes marginal cost increase for the distribution of increased bonus commodity.

Comparing food and distribution expenditures (transportation, handling and storage), the cost increase of the Pilot over the year prior was $1,367,548 or 35.6 percent. Under the Pilot, FNS still incurred administrative costs of $59,950. Thus, the overall total expenditure on food, distribution and administration was $3,849,469 for the pre-Pilot year and $5,220,915 for the first year of the Pilot, resulting in a total cost difference of $1,371,446 or 35.6 percent. During the planning stage, it was estimated that the Pilot cost increase would be 40 percent over the pre-Pilot costs. In this analysis, the excess cost due to the Pilot has been estimated to be 35.6 percent, which is 4.4 percent less than the original estimate.

One explanation for the high food prices experienced by DSCP and Reinhart Foods during PVP was that, as a commercial distributor that typically services institutional food service establishments, Reinhart carries food in number 10 cans (about one gallon) and meats by the case weighing 35 to 40 pounds. It does not carry small consumer/household package sizes, such as 15 ounce-cans and one-pound quantity of ground beef. For the Prime Vendor Pilot, Reinhart Foods had to purchase household size cases to fill orders for ITOs. Such small quantities purchased specifically for ITOs (usually a pallet or two at a time), did not generate enough purchasing power to obtain lower wholesale or discounted prices.

Normally, under FDPIR, USDA purchases whole truckloads of a single food item directly from the canners, manufacturers, or producers to supply the ITOs. This was the procedure during the year prior to the Pilot. On the contrary, during the first year of PVP, Reinhart Foods had to purchase small quantities directly from even local supermarkets and store chains. In fact, Reinhart purchased food from the distributor that services IGA Supermarkets in the Midwest area. Another reason for the higher prices experienced by Reinhart was that the contractor, the Defense Supply Center in Philadelphia (DSCP) bills FNS monthly for food items purchased during the month at the actual Prime Vendor case price plus a DSCP surcharge of 5.6 percent. This surcharge includes personnel costs for receiving and processing food orders, acquisition, vendor invoicing, customer assistance, and logistic support. The addition of the surcharge increased the cost as well.

At the start of the Pilot, Reinhart had no historical data for the ordering patterns of ITOs for prior years. Reinhart was furnished with the list of the items on the USDA food package and data on the number of cases of food products delivered to the ITOs during the prior year (FY 2000-2001). Reinhart had to go out in the open market and commercially acquire over 50 of the food items in household size packages that it had never carried in its inventory before. In purchasing these new products, it estimated the number of pallets of food that would be needed to fill orders for a month. In some instances, orders were placed for more product than the supplying company had on hand, and it took a while for the supplier to determine the amount of inventory needed to ensure that no orders were shorted. Thus when the Pilot was first initiated, there were shortages in the Prime Vendor's orders, which were later replaced.

Under the FDPIR ordering system (before PVP), orders were placed two months before the expected delivery date. If some food items ordered by an ITO were not in stock or inventory was not enough to fill all the ITO's orders, the regional coordinator would call the ITO and tell it to place another order for a substitute item, or to reduce the number of cases ordered for the items that are in limited supply. The ITO would oblige accordingly. In reality, prior to the Pilot, ITOs did not get what they originally ordered, but adjustments were made to the orders so that they appeared to get all that they requested. On the other hand under the Pilot, once the ordering process was regularized, ITOs got what they wanted and very swiftly.

Cost Comparison: Mean Expenditure Per Participant

Table 11 presents a comparative summary of the mean expenditures per participant served for different cost components for the pre-Pilot and Pilot years, with pre-Pilot figures adjusted

for annual inflation. The adjusted dollar value of the food delivered increased by 2.2 percent. Since participants declined by nearly one percent, the benefit increase in dollars of food value per participant was from $390 to $401 or three percent. When transportation, handling, and storage costs were added, the total cost increase was 36 percent. Finally, when administrative costs were added, the total cost difference for all expenditures in each year remained about the same at 35.6 percent. It must be noted that if all FNS administrative costs for FY 2000-2001 were available, the total cost difference would have been much less.

Table 11. A comparison of Mean Expenditures Per Capita Participant

Cost Category	FY 2000-2001 (Pre-Pilot)			FY 2001-2002 (Pilot)		Difference in dollars
	Dollars	Adjusted Dollars*	$/capita Part.	Dollars**	$/capita Part.	
Cost of Food Distributed	3,325,459	3,444,178	390	3,519,914	401	75,736
Mean Food Costs Per ITO	144,585	149,747	-	153,040	-	3,293
Cost of Food, Transportation, Handling and Storage	3,662,660	3,793,417	429	5,160,965	589	1,367,548
Mean Cost Per ITO	159,246	164,931	-	224,390	-	59,459
Total Cost Including Admin.	3,716,780	3,849,469	435	5,220,915	596	1,371,446
Mean Cost Per ITO	161,599	167,368	-	226,996	-	59,628

Note: Total participants were 8,842 for FY 2000-2001 and 8,767 for FY 2001-2002.

** Adjusted for inflation (*.0357)*

*** Adjusted for milk cost; includes marginal cost increase for the distribution of increased bonus commodity.*

Bonus Commodity Delivered Before and During the Pilot

During the pre-Pilot year, $56,000 of almonds and $106,000 of bison were delivered to the 23 ITOs. During the Pilot, a variety of bonus commodities were delivered to the 23 ITOs costing $620,652. Thus, with $162,000 of bonus commodity distributed in the pre-Pilot year, the increase (by value) in bonus commodities delivered during the first Pilot year over the previous year was 283% - nearly three times more. It is also worth noting that the increase in bonus commodity distributed resulted in more distribution costs to the Prime Vendor.

Staff-Participant Ratio

The number of participants varied considerably by ITO from less that 100 in some ITOs to over 1,000 in others in both years (see Table 12). The number of staff per ITO ranged from 1 to 16 before and 4 to 18 during the Pilot. Before PVP, total participants and staff were 8,842 and 221 respectively, with a participant-staff ratio of 40. Mean participant and staff figures were 384.4 and 9.6 per ITO respectively. During the Pilot, participation declined by 75 people to 8,767 but total staff increased to 236, resulting in a participant-staff ratio of 37.1.

Average participants per ITO declined to 381.2, but average staff per ITO increased from 9.6 to 10.3 (6.8%). This means that there were fewer participants per staff during the Pilot.

Table 12. Staff - Participant Ratio in Midwest ITO's Before and During the Pilot

ITO	FY 2000-01 (Pre-Pilot)			FY 2001-02 (Pilot)			Pecent Change Over Pre-Pilot		
	Partici-pants	Staff	Part./ Staff ratio	Partici-pants	Staff	Part./ Staff ratio	Partici-pants	Staff	Participant/ Staff ratio
Red Cliff Band	254	10	25.4	243	11	22.1	-4.3	10.0	-13.0
Ho Chunk Nation	450	12	37.5	610	15	40.7	35.6	25.0	8.4
Stochbridge-Munsee	88	10	8.8	70	10	7.0	-20.5	0.0	-20.5
Bay Mills	169	12	14.1	163	12	13.6	-3.6	0.0	-3.6
Leech Lake	620	12	51.7	652	13	50.2	5.2	8.3	-2.9
Fond du Lac	340	10	34.0	317	11	28.8	-6.8	10.0	-15.2
Pokagon Potawatomi	188	8	23.5	190	8	23.8	1.1	0.0	1.1
Grand Portage	33	9	3.7	56	8	7.0	69.7	-11.1	90.9
Lac Courte Oreilles	935	15	62.3	924	15	61.6	-1.2	0.0	-1.2
St. Croix	141	7	20.1	135	8	16.9	-4.3	14.3	-16.2
Menominee	731	16	45.7	851	4	212.8	16.4	-75.0	365.7
Keweenaw Bay	453	11	41.2	477	10	47.7	5.3	-9.1	15.8
Lac du Flambeau	267	5	53.4	283	5	56.6	6.0	0.0	6.0
White Earth	976	11	88.7	1,010	11	91.8	3.5	0.0	3.5
Little River Band	52	6	8.7	116	9	12.9	123.1	50.0	48.7
Sokaogan	105	1	105.0	70	5	14.0	-33.3	400.0	-86.7
Bois Forte	176	11	16.0	158	12	13.2	-10.2	9.1	-17.7
Bad River Band	343	13	26.4	317	18	17.6	-7.6	38.5	-33.3
Mille Lacs	152	6	25.3	148	8	18.5	-2.6	33.3	-27.0
Oneida	659	7	94.1	553	8	69.1	-16.1	14.3	-26.6
Little Traverse Bay	107	9	11.9	116	8	14.5	8.4	-11.1	22.0
Red Lake Band	458	14	32.7	287	17	16.9	-37.3	21.4	-48.4
Sault Ste. Marie	1,145	6	190.8	1,021	10	102.1	-10.8	66.7	-46.5
Total	***8,842***	***221***	***40.0***	***8,767***	***236***	***37.1***	***-0.8***	***6.8***	***-7.7***
Mean	***384.4***	***9.6***	***40.0***	***381.2***	***10.3***	***37.1***	***-0.8***	***6.8***	***-7.7***

Note: Participant counts were collected from FNS databases, and staff FTEs were collected from the pre/post ITO surveys.

COMPARISONS OF PRE AND POST RESPONSE PATTERNS (T-TEST)

The object of PVP was to streamline food delivery and improve it to just-in-time delivery, reduce costs, and ultimately increase the satisfaction of recipient ITOs with FDPIR. The questionnaire was therefore arranged to capture variations in these different areas. Most of the variables were ordinal such that the responses from the two surveys were amenable to statistical testing of differences in response patterns between the two survey periods. In short, were ITOs more satisfied with the new system as implemented under the Prime Vendor contract with respect to the questionnaire's five evaluated areas of administration, ordering, delivery, warehousing, and cost?

Hypothesis and Assumptions

The key assumption on which the hypothesis hinges is that all other factors that are not included in the package of services provided in the Pilot remain equal between the pre and post measurement periods. These factors would relate to FDPIR administration, ordering, delivery, warehousing, cost influences (pricing, inflation, etc.), and the food management and distribution conditions within the ITOs. Based on this, the null hypothesis (or alternate) was applied to the analysis:

$$H_o: \quad \mu_{pre} = \mu_{post},$$

$$\text{or} \quad H_1: \quad \mu_{post} > \mu_{pre}$$

A simple test of means was applied using the paired *t*-test technique at 95% confidence limits (i.e. $P \leq 0.05$). The tests were applied to 15 variables relating to the operation and administration of the FDPIR program, seven variables on food ordering and product choice, six variables on food delivery operations, nine variables on warehousing and inventory management, and eleven variables on cost reduction.

Differences in Pre and Post Response Patterns

This section presents the statistical analysis of differences in the responses of ITO Directors in the pre/post surveys. In the design of the surveys, both questionnaires were structured identically to allow for comparisons of responses through statistical analysis to see if there are any significant differences in perceptions and satisfaction levels before (July 2000-June 2001) and during (July 2001-June 2002) the Prime Vendor Pilot. A t-test was performed for each variable pair, and results were tabulated according to the major areas of the questionnaire. Summaries of the mean responses, differences, t-values, and levels of significance are shown on Table 13.

Table 13. Statistical Tests for Differences Between Means of Pre and Post Surveys (T-test)

VARIABLE (QUESTION)	Means T1	Means T2	Diff. T2-T1	SD	SE	T	*P*
FDPIR OPERATION AND ADMINISTRATION							
Q2: How much product variety was there?	2.04	2.52	0.48	1.08	0.23	2.12	***0.05***
Q3 How acceptable were USDA labelled products?	2.57	3.04	0.47	0.95	0.20	2.42	***0.02***
Q4: How satisfied were you with commodity pack size?	3.13	3.39	0.26	0.62	0.13	2.02	0.06
Q5: How satisfied were you with actual packaging?	3.00	3.13	0.13	0.97	0.20	0.65	0.53
Q6: How satisfied were you with product quality?	2.43	3.61	1.17	1.03	0.21	5.47	***0.00***
Q7: How satisfied were you with the labelling?	2.13	3.35	1.22	1.41	0.29	4.13	***0.00***
Q8: What products were you most satisfied with (#)?	3.91	5.19	1.28	2.44	0.51	2.30	***0.03***
Q9: What products were you most dissatisfied with (#)?	3.30	2.96	-0.35	2.44	0.51	-0.68	0.50
Q10: How much training was provided (total areas)?	4.04	3.87	-0.17	1.27	0.26	-0.66	0.52
Q11: Number of activities satisfied with?	3.83	4.00	0.17	0.72	0.15	1.16	0.26
Q13: How many times products were not available?	2.90	2.40	-0.50	0.37	0.08	-0.57	0.58
Q14: How do rate FNS' administration of FDPIR?	2.87	3.35	0.48	0.90	0.19	2.56	***0.02***
Q15: How efficient was FNS' administration of FDPIR?	2.96	3.39	0.43	0.84	0.18	2.47	***0.02***
Q16: What's the quality of service by FNS staff?	3.13	3.48	0.35	0.65	0.13	2.58	***0.02***
Q17: What's the overall effectiveness of FDPIR?	2.83	3.35	0.52	1.12	0.23	2.23	***0.04***
FOOD ORDERING							
Q20: What was the smallest single order?	85.80	75.30	-10.50	1.97	0.41	-0.95	0.35
Q21: How frequently did you place orders?	3.83	4.35	0.52	1.12	0.23	2.23	***0.04***
Q22: How many multi-food orders did you place?	7.43	14.40	6.97	12.61	2.63	2.41	***0.03***
Q24: How many times did you re-order products?	5.40	7.50	2.10	0.73	0.15	3.14	***0.01***
Q25: How much paperwork was there (#)?	3.57	3.52	-0.05	1.36	0.28	-0.15	0.88
Q26: What foods did you order and not receive (#)?	1.20	2.74	1.54	2.70	0.56	2.31	***0.03***
Q27: What changes will improve multi-food ordering (#)?	1.87	1.17	-0.70	0.82	0.17	-4.06	***0.00***
FOOD DELIVERY							
Q29: How many deliveries (trips) during the year?	8.13	15.09	6.96	0.99	0.21	-2.95	***0.00***
Q31: How long between order and delivery (weeks)?	7.30	2.00	-5.30	4.11	0.86	-6.16	***0.00***
Q33: How many FTE handled delivery functions?	9.61	10.26	0.65	3.24	0.68	0.97	0.35
Q35: How efficient were USDA delivery operations?	2.78	3.30	0.52	1.73	0.36	1.45	0.16
Q36: How do you rate delivery operations?	2.74	3.39	0.65	1.80	0.38	1.74	0.10
Q37: What changes will improve food delivery?	1.52	0.65	-0.87	1.32	0.28	-3.15	***0.01***
WAREHOUSING/INVENTORY MANAGEMENT							
Q38: How many cases did you order?	13700	14740	1040	2402.2	502.40	2.07	***0.05***
Q39: What's the average monthly inventory?	1419	1704	285	1348.9	281.26	0.33	0.75
Q41: Did ITO have storage problems (#)?	1.65	1.78	0.13	0.46	0.10	1.37	0.19

Table 13. Statistical Tests for Differences Between Means (cont'd.)

Variable - Question	Means T1	Means T2	Diff. T2-T1	SD	SE	T	*P*
WAREHOUSING/INVENTORY MNGMT *(contd.)*							
Q43: How many weekly warehouse hours?	44.20	238.40	194.20	645.80	134.59	1.44	0.16
Q44: How many times inventory was insufficient?	0.09	1.78	1.69	4.20	0.88	1.93	0.07
Q45: How do you rate your inventory management?	2.87	3.48	0.61	0.99	0.21	2.95	***0.01***
Q46: Was there any spoilage (# of foods)?	1.30	1.35	0.05	0.77	0.18	0.27	0.79
Q47: What changes will improve inventory mngmt?	2.09	1.65	-0.44	1.88	0.39	-1.11	0.28
COST REDUCTION							
Food Ordering Costs							
Q48: How many staff (FTE) handled food ordering?	1.78	2.1	0.32	1.81	0.38	0.85	0.41
Q49: How many hours/month/staff on ordering?	6.00	6.3	0.30	4.95	1.03	-0.29	0.78
Q50: How many hours/month for entire ordering?	6.70	7.7	1.00	5.43	1.14	0.88	0.39
Q51: Were there any other procurement costs ($)?	1.65	1.91	0.26	0.62	0.13	2.02	0.06
Warehousing Costs							
Q52: What's your warehouse storage capacity (SF)?	2863	2813	-50	3027	631.13	-0.08	0.94
Q53: What's the total warehouse cost?	14564	19612	5048	33666	7163.0	0.71	0.81
Q54: Were there any other warehouse costs ($)?	1.43	1.57	0.14	1.31	0.27	0.52	0.60
Delivery Costs							
Q55: How many deliveries did your ITO receive?	8.13	15.09	6.96	10.12	2.11	3.30	***0.00***
Q56: How many hours/month/delivery staff?	3.61	3.50	-0.11	1.63	0.34	-0.32	0.14
Q57: Were there other delivery costs ($)?	1.83	1.91	0.08	1.35	0.28	0.31	0.76
Q58: What's the total value of spoilage ($)?	95.22	71.48	-23.74	218.36	45.53	-0.52	0.60

T = Statistical test of differences between means for Pre-Pilot (T1) and Pilot (T2).
P = Level of significance.

Program Operation and Administrative Efficiency

Items probed on the operation and administration of FDPIR included questions on the satisfaction of ITOs with the variety in the food package, the USDA label and labeling, commodity pack size and packaging, staff training, product availability, service quality, ratings for FNS staff, and program effectiveness (see Table 13). Of the fifteen variables tested, nine showed statistically significant differences between the two periods, all in the direction of improvement. ITOs expressed more satisfaction with product variety, product quality, and labeling during the Pilot than the year before. They expressed dissatisfaction with the USDA label the year before the Pilot, and were more satisfied with the labeling during the Pilot. In addition, they were more satisfied with more products as well. ITOs reported higher ratings for the administration, efficiency and effectiveness of the FDPIR, and

for service quality by FNS staff. The difference in satisfaction with commodity pack size was marginally higher during the Pilot. There were no differences between the two periods with regards to dissatisfaction with products or product availability, and available training.

Food Ordering and Available Choices

All but two of the seven variables tested on food-ordering showed significant differences between the two surveys (see Table 13). The two variables that did not change were the smallest order and the volume of paperwork. The variables which showed differences were ordering frequency, multi-food orders, re-ordering of unavailable/undelivered products, foods ordered and not received, and suggested changes to ordering. Ordering frequency and multi-food orders increased during the Pilot in accordance with the intended objectives. However, ITOs reported significantly more problems with ordering and not receiving foods, and they had to re-order more times during the Pilot. But then, they had far fewer suggestions for changes to multi-food ordering during the Pilot than the year before.

Food Delivery

Food delivery showed significant differences in three key areas between the two periods (see Table 13). Consistent with the Pilot's objectives, the time between order and delivery was reduced considerably; deliveries to ITOs per year increased significantly; the right quantities were delivered more times; and ITOs had fewer suggestions for changes to food delivery operations. However, they shared more delivery truckloads during the Pilot than before. There were no major differences in delivery staff FTE, self-rating for delivery operations, and ratings of USDA's delivery the year before versus Reinhart's during the Pilot.

Warehousing and Inventory Management

Of the nine warehousing and inventory variables tested, only two were significantly different: cases ordered and the ITO's self-rating for inventory management (see Table 13). Among the notable insignificant variables were warehouse FTE, weekly warehouse hours, insufficient inventory, and spoilage. It is worth noting further that the magnitude of the difference between pre and post in terms of weekly warehouse hours appears huge – almost four times increase - yet it was insignificant. The reason is that there was a wide variation (large variance and standard error) in the difference between pre and post.

Operational and Staffing Costs

Costs borne by ITOs for the administration of FDPIR and distribution of food packages to clients were grouped into food ordering, warehousing, and delivery functions (Table 13). These variables included questions on staff FTE, monthly hours, warehouse capacity and cost, number and costs of deliveries, and value of spoilage. All were insignificant except the

increase in the number of deliveries and the reduction in time between order and delivery. The increase in deliveries was also consistent with the Pilot's goals. Since this was a pilot, FNS did not experience any change in staffing or warehousing costs.

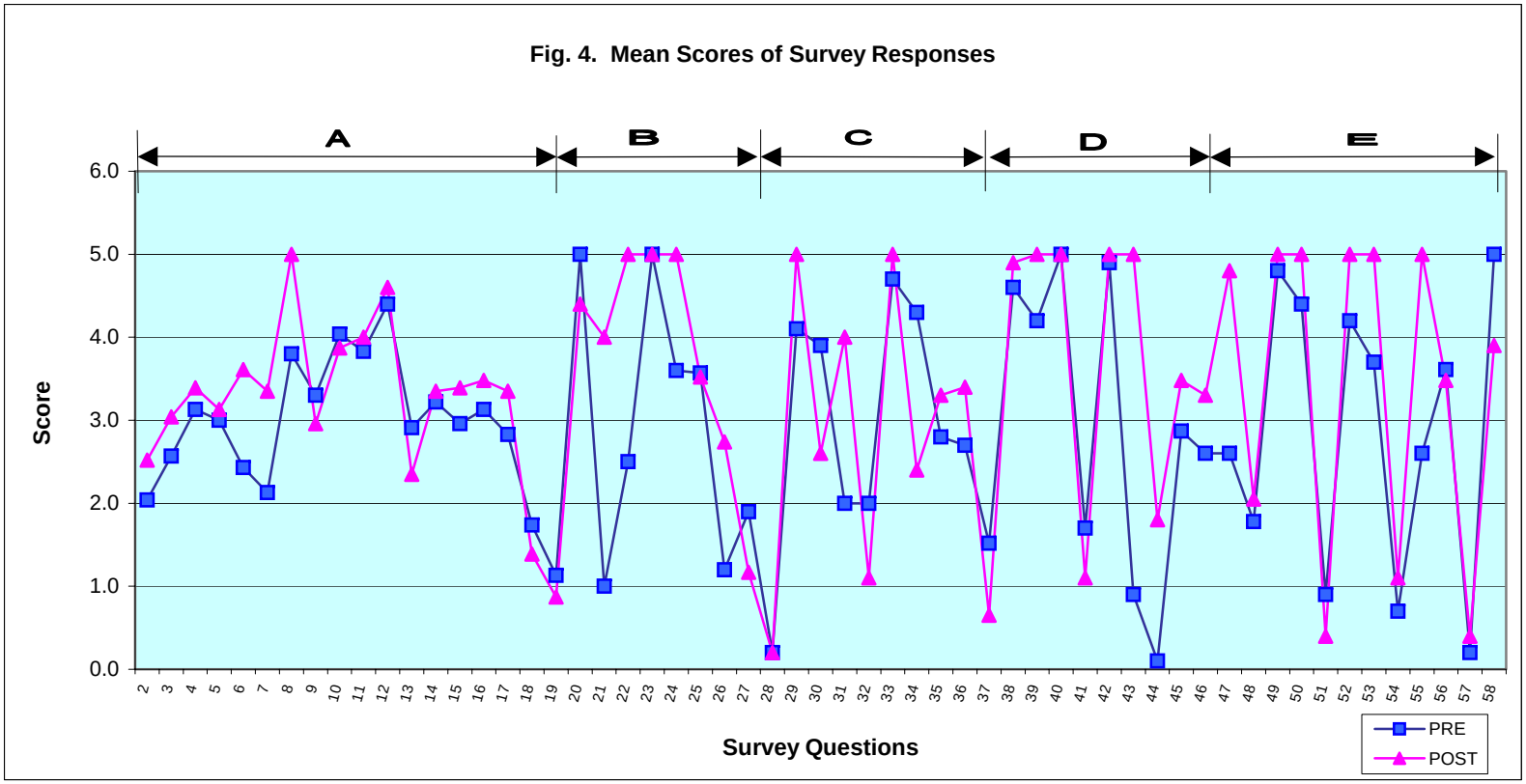
Table 14 shows the percentage difference in procurement, warehousing and delivery variables before and during the Pilot. Procurement staff increased by 18 percent, although as mentioned earlier, this difference is not significant statistically. Warehouse staff increased by one percent and delivery staff by 7.3 percent. Warehouse space and user-cost increased by 19 percent and 35 percent respectively. Total warehouse time increased by four fold. The duration between order and delivery declined dramatically from 51 days to 12 days, and deliveries increased by 95%. Both these findings were consistent with the Pilot goals.

Table 14. Summary of Comparative Costs and Staffing

Function/Activity	Pre	Post	% Difference
Procurement			
Personnel (FTE)	1.78	2.10	18.0
Time (hours/staff/month)	6.00	6.30	5.0
Total hours/month	6.70	7.70	14.9
Monthly inventory	1,419	1,704	20.1
Warehousing			
Personnel (FTE)	9.10	9.20	1.1
Time (total hrs/week)	44.20	238.40	439.4
Total hours/month	176.80	953.60	439.4
Space (sq. ft)	2,863	3,405	18.9
Cost ($)	14,564	19,612	34.7
Mean Cost ($/sq.ft)	5.09	5.76	13.2
Delivery			
Personnel (FTE)	9.60	10.30	7.3
Time (hrs/month/staff)	3.60	3.50	-2.8
Total hours/month	34.60	36.10	4.3
Deliveries	8.10	15.80	95.1
Duration: order to delivery (days)	51.00	12.00	-76.5

General Response Trend

Figure 4 shows a visual comparison of the trends in responses grouped by the five sections of the questionnaire. For most questions, a higher mean during the Pilot implies higher satisfaction or a more desirable outcome. For a few questions, a higher post survey mean signifies the opposite. In general, most of the means were higher for the post survey period.



A = Program operation and administrative efficiency (Q2-Q19).
B = Procurement, Ordering, and Product Choice (Q20-Q27).
C = Food Delivery (Q28-Q37).
D = Warehousing and Inventory Management (Q38-Q46).
E = Staffing and Costs (Q47-Q58)

Administrative Interview

An administrative interview was conducted in March 2002 with ITO Food Directors on the overall performance of PVP. With the exception of a few items not in stock, the results show an overwhelming approval for the conduct and performance of PVP (see Table 15).

Table 15. Administrative Interview on Overall Satisfaction with PVP (March 2002)

	ITO	Delivery Condition	Items Not in Stock		Damages/ Mispicks	Corrective Action	Overall PVP Rating
			Item	Cases			
1	Sault St. Marie	Perfect	0	0	0	0	Perfect
2	Keweenaw Bay	Great	Refried beans	10	0	Next delivery	Good
3	Bay Mills	Good	0	0	0	0	Good
4	Pokagon	Good	0	0	0	0	Good
5	Little Traverse Band						
6	Little River Band	Perfect	0	0	0	0	Perfect
7	Leech Lake	Good	Sliced cheese	50	0	Redelivered	Good
8	Fond Du Lac	Perfect	0	0	0	0	Perfect
9	Grand Portage						
10	White Earth	Perfect	0	0	0	0	Perfect
11	Boi Forte						
12	Mille Lacs	Good	0	0	0	0	Good
13	Red Lake	Good	Rice	2	0	Next delivery	Good
14	Red Cliff	Good	Refried beans	5	0	Next delivery	Good
15	Ho Chunk Nation						
16	Stockbridge-Munsee	Perfect	0	0	0	0	Perfect
17	Sokaogon						
18	Lac Courte Oreilles	Perfect	0	0	0	0	Perfect
19	St. Croix						
20	Menominee	Good	Peanuts	2	0	0	Good
21	Lac Du Flambeau	Perfect	0	0	0	0	Perfect
22	Bad River	Good	Refried beans	7	0	Next delivery	Good
23	Oneida	Perfect	0	0	0	0	Perfect

SUMMARY

The implementation of the Prime Vendor Pilot occurred according to plan and schedule. The contractor, DoD's Defense Supply Center of Philadelphia (DSCP), and the prime vendor Reinhart fulfilled their contract in terms of delivering the products to the ITOs throughout the year. In the first year of the Pilot, participants reduced by almost one percent (from 8,842 to 8,767) but households increased by 2.4% (from 3,601 to 3,688). In real FY 2001 dollars, expenditure on food increased by 2.2 percent and average dollar value of food to participants increased from $390 to $401 (3.1%). Reported staffing increased by about 7% and the participant-staff ratio declined by nearly 8%. This means that there was more staff time per participant during the Pilot than the year before, which partly explains the high administrative costs.

As to the effectiveness of the commodity distribution service provided by the Prime Vendor, and the relative satisfaction of the consumers compared to the year before the Pilot, the conclusions of the evaluation are summarized below based on the goals and objectives of the Pilot.

The findings of the evaluation indicate that the first goal of improving food delivery was highly met by the services provided under the Prime Vendor Pilot in comparison to the year before. ITOs reported significant improvements in the overall food delivery, as well as in specific areas of the delivery process such as program operation and administration, timeliness of delivery, inventory management, and product quality.

Program Operation and Administrative Efficiency

During the year before the Pilot, there was dissatisfaction with more products (Q9), more training was reported (Q10), products were unavailable more times (Q13), more administrative changes were suggested (Q18), and more operational changes were suggested (Q19). During the Pilot, there was significant improvement in program operation and the administration of FDPIR. Ratings for consumer satisfaction with product quality, variety, labels, labeling, number of products ITOs were satisfied with, and overall ratings for the operation and efficiency of FDPIR were statistically significantly higher during the Pilot than the year before. The only key variable for which there was no statistically significant difference in satisfaction between the two periods was packaging.

Product Variety. Under the Pilot, the range of products available at any given time increased due to the reliability of the Contractor. So although no new products were introduced, the satisfaction level of ITOs with the product availability and the variety in the food packages was significantly higher during the first year of the Pilot.

Procurement Flexibility. The Pilot greatly improved ordering and delivery flexibility. The reduction in turn around time between ordering and delivery, and the ability of ITOs to place orders practically at any time was highly acclaimed as the best feature of the Pilot.

New Products. No new products were introduced during the Pilot.

Product Acceptability. ITOs expressed significantly higher acceptability for the food label, and higher satisfaction for product quality and labeling during the Pilot than the year before.

Food Ordering/Procurement Flexibility and Greater Choice

Before the Pilot, the smallest single order was larger (Q20), and more changes were suggested to the multi-food ordering system (Q27). During the Pilot, ITOs ordered, on average, smaller quantities and more frequently. They placed more multi-food orders and expressed fewer problems with the ordering process. Initial problems were reported early on in the process, but much improvement was achieved as the Prime Vendor enlisted and

utilized more back-up providers. In addition, two products – lunch meat and canned beef – were only available during a limited time through USDA vendors, which resulted in accessibility problems earlier on in the process.

Food Delivery

Before the Pilot, the right quantities were delivered more times (Q30), length of time between order and delivery was longer (Q31), more loads were shared (Q34), and more changes were suggested to improve food delivery (Q37). The objectives of timely delivery were met by the reported considerable decrease in the time between order and delivery, the reported significant increase in the delivery of the right quantities of food, and the significant increase in the number of total deliveries made during the year of the Pilot in comparison to the previous year. At the start of the Pilot, there were some reported delivery problems which phased out early and did not have any impact on responses. Once the Pilot was up and running, delivery time was shortened considerably to the original objective of a few days.

Warehousing and Inventory Management

Before the Pilot, more storage problems were reported (Q41). During the Pilot, both warehouse space and warehouse cost tended to reduce slightly, and both spoilage and storage problems did not increase significantly. ITOs reported that they ordered more cases during PVP, but actual figures show that fewer cases were delivered under PVP than the year before. This apparent discrepancy is attributed to variations in pack size during the two years even though the unit ordered remained similar. For example, in one instance, fruit was delivered in a pack size of 24 units per case versus packs of 12 per case in another. So that 100 cases of the same fruit in one instance (100 x 24) was equal to 200 cases in the other (200 x 12).

One important observation was that, although the mean warehouse cost appeared to increase by 34.7 percent between the pre-Pilot and Pilot years, the difference was not statistically significant. Also, the average of the reported weekly warehouse hours of ITOs increased four times (from 44 hours to 238 hours) during the year of the Pilot. However, the distribution of this variable for the post period was highly skewed, with a maximum of 2,404 for the post period compared to 170 for the year before the Pilot. This resulted in a large standard error of the difference with a small t-value. Consequently, the difference was statistically insignificant.

Inventory management improved as a whole during the first year of he Pilot, based on the significantly higher self-rating of ITOs for inventory management for the first year of the Pilot. There was a significant increase in the number of cases ordered, as well as a slight, non-significant, increase in monthly inventory. These in essence, meant that “just-in-time inventory” was not attained, but supply was replenished at all times. As noted before, although participants declined, households increased, which might partly explain the increase in food order.

Cost Comparison

During the year before the Pilot, a few more procurement costs were reported (Q51). Staffing costs for staff of FNS, AMS, FSA, Kansas City warehouse and MWRO were not available for analysis. However, there were no staff reductions or deployments at any of the five USDA agencies as a result of the Pilot. Further, none of the central warehouse space at Kansas City/Carthage was given up or transferred to other uses after the implementation of the Pilot. As a result, the cost savings model proposed earlier for this study could not be estimated.

Costs analyzed here were those reported by the ITOs in the pre and post surveys on food ordering, warehousing and delivery, staffing, and cases ordered. As reported costs, the figures are subject to cautious interpretation. As a general note, with the exception of total deliveries, all the cost variables analyzed using the paired means test technique showed no statistically significant differences between pre and post (see Table 13).

Staff Resources: Staff FTE and total time for both procurement and delivery functions, and paperwork showed no statistically significant differences between the two periods.

Procurement Costs: Average procurement staff FTE increased by about 18 percent, total hours per month by 14.9 percent, and inventory by 20 percent during the first year of the Pilot in comparison to the preceding year (see Table 14).

Warehousing Costs: Warehousing personnel practically did not change between pre and post (1.1 percent increase), but total warehouse staff time increased over four times during the first year of the Pilot over the preceding year. Warehouse space increased by 19 percent and warehousing cost by 35 percent (see Table 14).

Delivery FTE: Delivery personnel FTE increased by 7 percent and total hours per month by only 4 percent during the first year of the Pilot (see Table 14). The number of deliveries increased by 95 percent, and cases delivered by 3 percent. The mean duration between order and delivery was shortened from 51 days to about 12 days.

It is noteworthy that staffing figures appeared to be overstated in both surveys. It appears that programs may have responded in staff hours dedicated to responsibilities without allocating 40 hours per person per week. Also, respondents may have included the total number of people who have worked with the program during the year. A review of administrative budgets and on-site visits by the Coordinator of the program for the region showed that the programs did not have as much staff as they listed. Since this exaggeration applied to both surveys, it would have only affected the magnitude of reported staffing without much impact on the relative comparisons of staffing between the two periods.

Finally, it is also noteworthy that bonus commodity distributed increased nearly four times by dollar value. This means that the Prime Vendor, Reinhart incurred additional costs for the distribution of bonus commodity, which partly contributes to the overall costs of the Pilot.

REFERENCES

Food and Nutrition Service, United States Department of Agriculture (1998). The Food Distribution Program on Indian Reservations (FNS Handbook 501). Alexandria, VA: FNS/USDA.

Food and Nutrition Service, United States Department of Agriculture (1990). Evaluation of the Food Distribution Program on Indian Reservations, Volume 1: Final Report. Alexandria, VA: Office of Analysis and Evaluation, FNS/USDA.

Food and Nutrition Service, United States Department of Agriculture (2001). Commodity Fact Sheet. Alexandria, VA: FNS/USDA.

Food and Nutrition Service, United States Department of Agriculture (2001). Program Fact Sheet. Alexandria, VA: FNS/USDA.

Food and Nutrition Service, United States Department of Agriculture (2001). Trailblazers for New-Trition: FDPIR 2000 Final Repprt. Alexandria, VA: FNS/USDA.

Shanklin, D.S., C.L. Usher, and J.B. Wildfire (1992). Nutrition Education Needs and Services Among American Indians Participating in a Federal Food Assistance Program. *Journal of Nutrition Education*, 24(6), 298-305.

SPSS Inc. (2002). SPSS Software Package, Version 10.0 for WIndows, Chicago, IL.

United States Census Bureau, United States Department of Commerce (2003). Poverty in the United States, 2002, by Bernadette D. Proctor and Joseph Dalaker.

United States Department of Agriculture, Food and Nutrition Service (1990). Evaluation of the Food Distribution Program on Indian Reservations (FDPIR), Volume 1, by Charles L. Usher, David S. Shanklin, and Judith B. Wildfire, Research Triangle Institute.

United States Government Printing Office, National Archives and Records Administration (2001). "Food and Nutrition Service, Department of Agriculture: Agency Information Collection Activities: Proposed Collection; Comment Request – Evaluation of the Prime Vendor Pilot Project." Federal Register, Vol. 66, No. 106, June 1.

APPENDIX

COMPARISONS OF DIFFERENCES WITHIN GROUPS FOR PRE AND POST (CHI-SQUARE ANALYSIS)

Most of the questions on the two surveys were closed-ended with four-point response categories on an ordinal scale. The scale was "none", "little/slight", "some/moderate", and "a lot/very/high". In this analysis, these responses were collapsed into dichotomous categories of low and high, with "none" and "little/slight" constituting "low" and "some/ moderate" and "a lot/very/high" constituting "high". The data were analyzed using Chi-square technique. The questions were worded specific to the respective survey year, either prior to or during PVP. The precise wording of the questions, the chi-square results and probability limits, and histograms of the raw distributions are shown below.

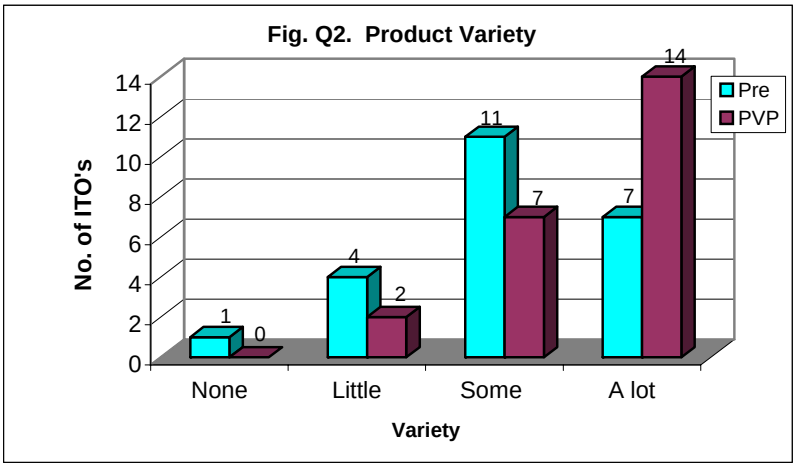
1. PROGRAM OPERATION AND ADMINISTRATIVE EFFICIENCY

Q2: How much product variety was there within the USDA established FDPIR food packages?

Pre: More ITOs tended to report some or a lot of product variety than those that reported little or no variety. However, the difference between the two was not significant (X^2=3.52, *P=0.06*).

Post: Many more ITOs reported higher product variety. The difference between ITOs that reported little or no product variety and those that reported some or a lot of product variety was highly significant (X^2=15.70, *P=0.00*).

Variety	Pre	PVP
None	1	0
Little	4	2
Some	11	7
A lot	7	14
Mean	*2.0*	*2.5*

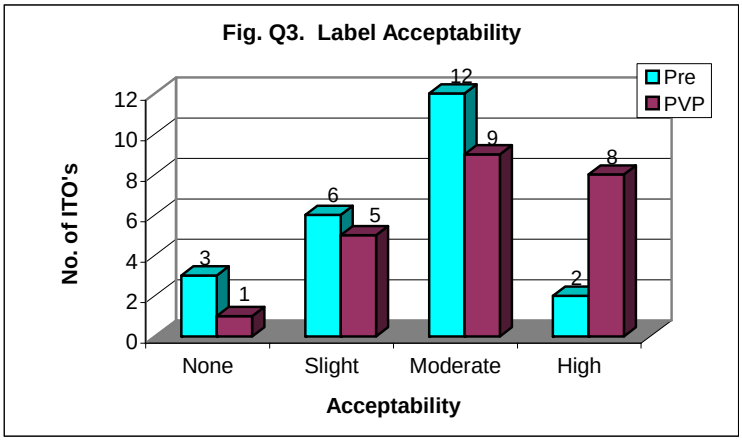


Q3: How acceptable were USDA labeled products?

Pre: The difference between ITOs that reported slight or no label acceptability and those that reported moderate or high acceptability was not significant (X^2=1.09, *P=0.30*).

Post: Significantly more ITOs thought the non-USDA label acceptability was moderate to high (X^2=5.26, *P=0.02*). The number reporting high satisfaction increased considerably.

Acceptability	Pre	PVP
None	3	1
Slight	6	5
Moderate	12	9
High	2	8
Mean	*2.6*	*3.0*

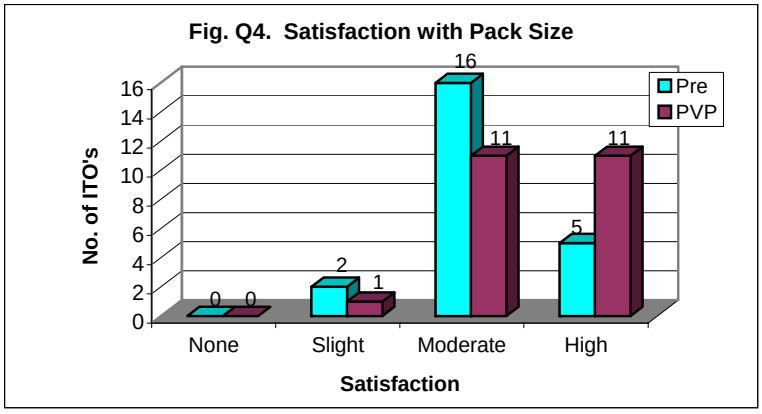


Q4: How satisfied were you with commodity pack size?

Pre: Significantly more ITOs were moderately or highly satisfied with commodity pack size (X^2=15.70, *P=0.00*).

Post: Significantly more ITOs were moderately or highly satisfied with commodity pack size (X^2=19.17, *P=0.00*). ITOs reporting high satisfaction increased moderately.

Satisfaction	Pre	PVP
None	0	0
Slight	2	1
Moderate	16	11
High	5	11
Mean	*3.1*	*3.4*

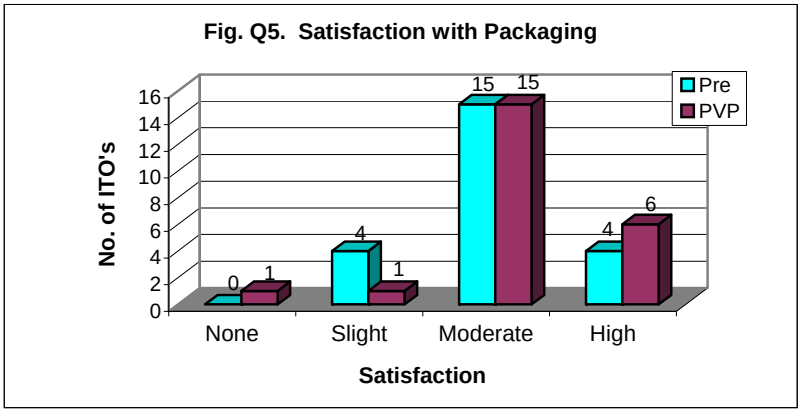


Q5: How satisfied were you with the actual packaging?

Pre: Significantly more ITOs were moderately or highly satisfied with the actual packaging (X^2=9.78, *P=0.00*).

Post: Significantly more ITOs were moderately or highly satisfied with the actual packaging (X^2=15.70, *P=0.00*). There was not much difference in this trend.

Satisfaction	Pre	PVP
None	0	1
Slight	4	1
Moderate	15	15
High	4	6
Mean	*3.0*	*3.1*

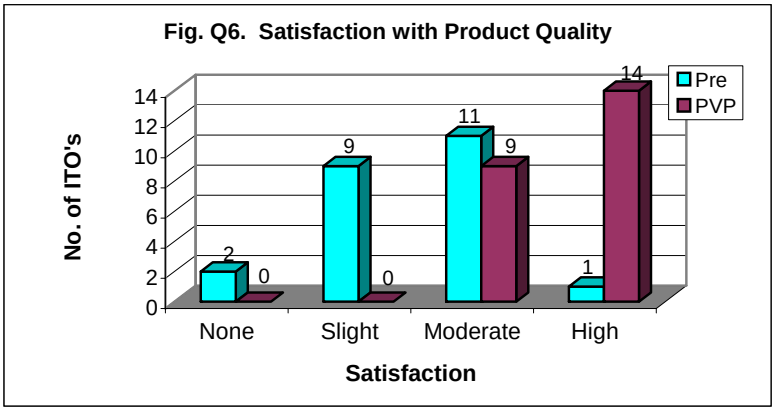


Q6: How satisfied were you with product quality?

Pre: There was no perceptive difference between ITOs in terms of product quality. In other words, just as many ITOs thought less of product quality as those which thought more of it (X^2=0.04, *P=0.84*).

Post: All ITOs thought product quality was moderate or high.

Satisfaction	Pre	PVP
None	2	0
Slight	9	0
Moderate	11	9
High	1	14
Mean	*2.4*	*3.6*



Q7: How satisfied were you with labelling?

Pre: Only a few ITOs expressed satisfaction with labeling. However, the difference between ITOs that expressed dissatisfaction (slight or no satisfaction) with labeling and those that had moderate to high satisfaction was not significant (X^2=0.39, *P=0.53*).

Post: More ITOs reported higher satisfaction with labeling during the first year of PVP (X^2=19.17, *P=0.00*).

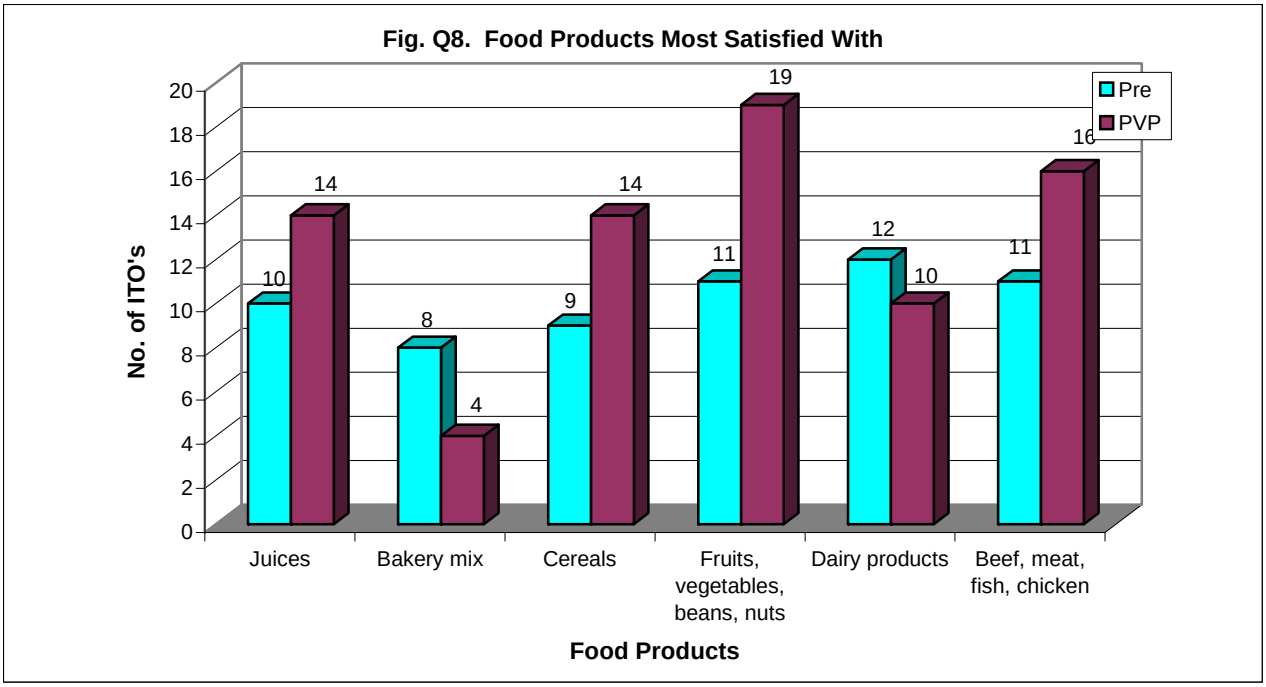
Satisfaction	Pre	PVP
None	7	1
Slight	6	1
Moderate	9	9
High	1	12
Mean	*2.1*	*3.4*

Fig. Q7. Satisfaction with Labeling

Q8: Taking into consideration product quality, packaging, and labeling, what products were you most satisfied with?

Pre: Although satisfaction was reasonably high with all product groups, ITOs slightly favored dairy products, beef/meat products, fruits/vegetables, and juices. Bakery mix and cereals were favored less. The mean number of food groups satisfied with was 3.9.

Post: During the Pilot, by ITOs were by far more satisfied with all food groups except bakery mix and dairy products than the year before the Pilot. The highest satisfaction level was with fruits and vegetables, followed by beef, meat, fish, and chicken. The mean number of food groups satisfied with was 5.2.



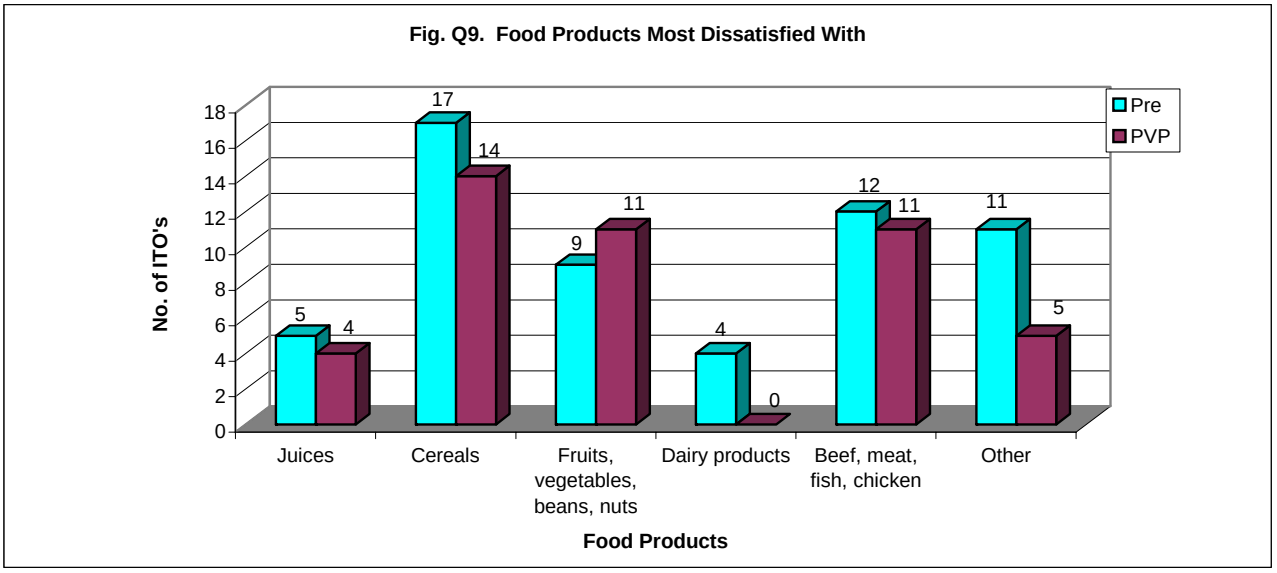
Food Groups	Pre	PVP
Juices	10	14
Bakery mix	8	4
Cereals	9	14
Fruits, vegetables, beans, nuts	11	19
Dairy products	12	10
Beef, meat, fish, chicken	11	16

Mean: Pre = 3.9; Post = 5.2
Multiple response categories.

Q9: Taking into consideration product quality, packaging, and labeling, what products were you most dissatisfied with?

Pre: ITOs expressed slightly more dissatisfaction with products during the year before than during the Pilot. They were most dissatisfied with cereals followed by beef, chicken and meat products, and least dissatisfied with dairy products and juices. The mean number of food groups dissatisfied with was 3.3.

Post: Dissatisfaction with cereals and dairy products declined, but there was a slight increase in dissatisfaction with fruits and vegetables. The mean number of food groups dissatisfied with was 3.0.



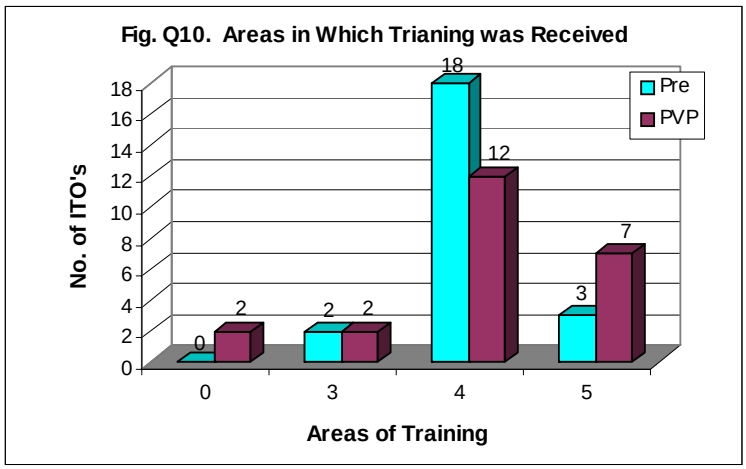
Food Groups	Pre	PVP
Juices	5	4
Cereals	17	14
Fruits, vegetables, beans, nuts	9	11
Dairy products	4	0
Beef, meat, fish, chicken	12	11
Other	11	5

Mean: Pre = 3.3; Post = 3.0
Multiple response categories.

Q10: <u>How much training was provided to your staff in the following areas?</u> [List: (1) food handling, (2) information for clients' use, (3) warehousing procedures, (4) handling fresh produce, and (5) other.]

- Most ITOs received training in four or five areas in both periods.

Training Areas	Pre	PVP
0	0	2
3	2	2
4	18	12
5	3	7
Mean	*4.0*	*3.9*

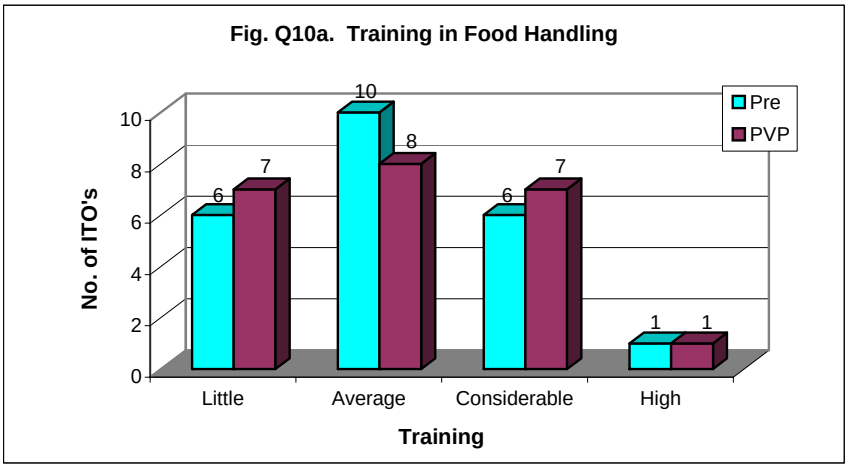


Q10a: How much training was provided in ***food handling?***

- Most ITOs in both periods reported receiving between average and considerable training in food handling.

- Training was offered through workshops at regional and national conferences.

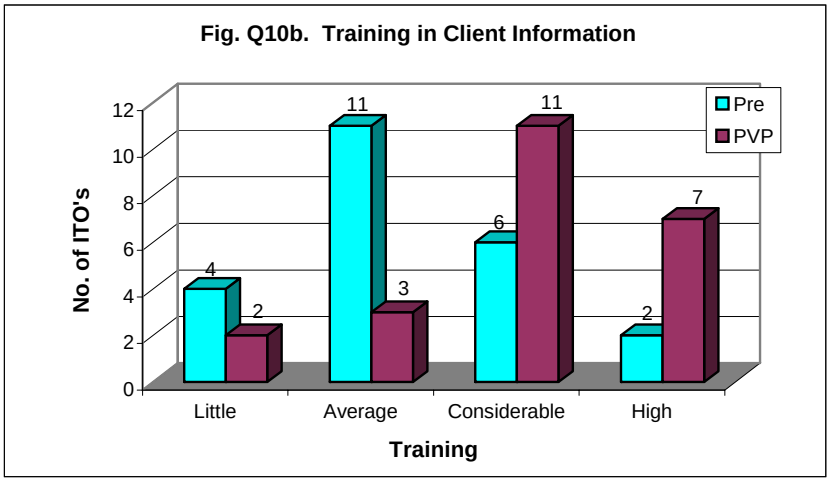
Training	Pre	PVP
Little	6	7
Average	10	8
Considerable	6	7
High	1	1



Q10b: How much training was provided in ***client information?***

- There was a significant improvement in training in client information at the post period.

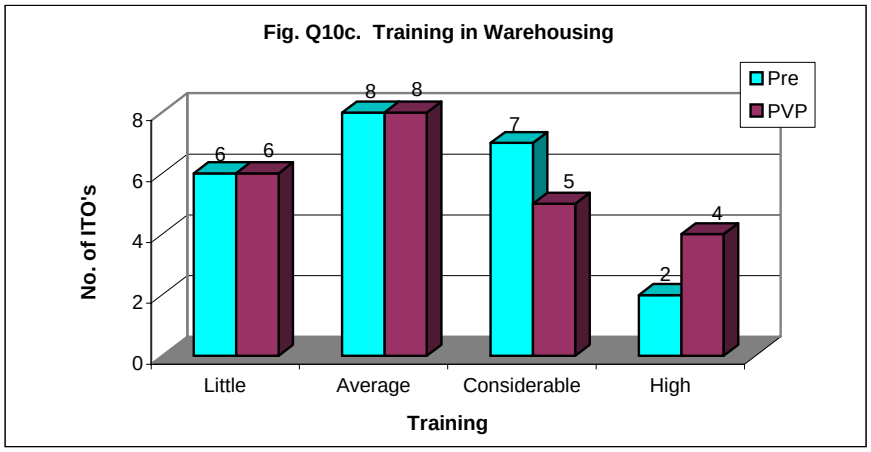
Training	Pre	PVP
Little	4	2
Average	11	3
Considerable	6	11
High	2	7



Q10c: How much training was provided in ***warehouse procedures?***

- Training in warehouse procedures was about the same in both periods.

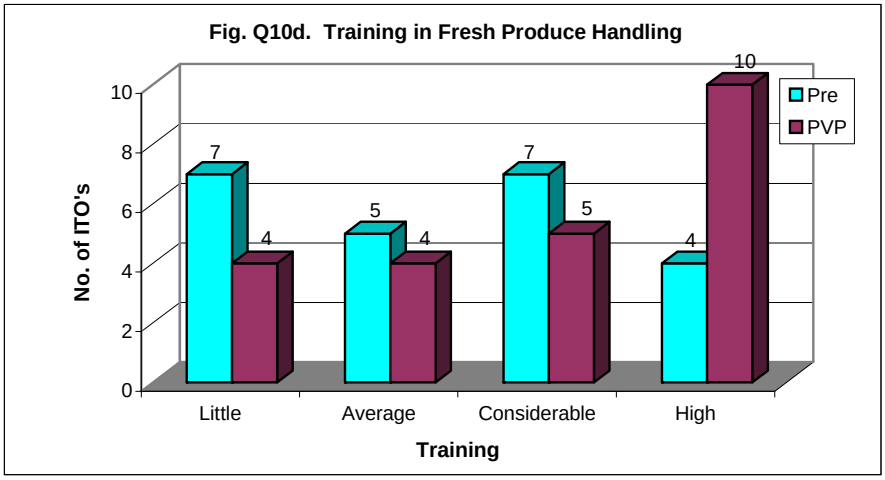
Training	Pre	PVP
Little	6	6
Average	8	8
Considerable	7	5
High	2	4



Q10d: How much training was provided in ***fresh produce handling?***

- There was considerable increase in ITOs reporting high training in fresh produce handling during the Pilot.

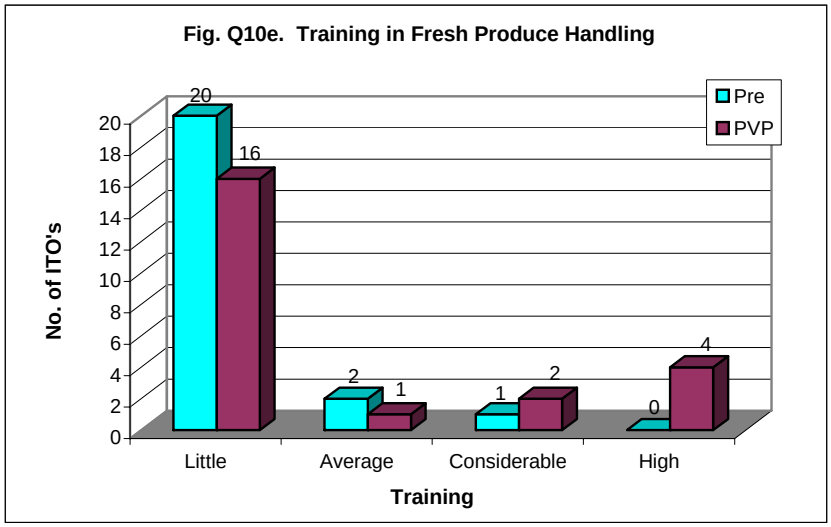
Training	Pre	PVP
Little	7	4
Average	5	4
Considerable	7	5
High	4	10



Q10e: How much training was provided in ***other areas?***

- ITOs reported little training in other areas.

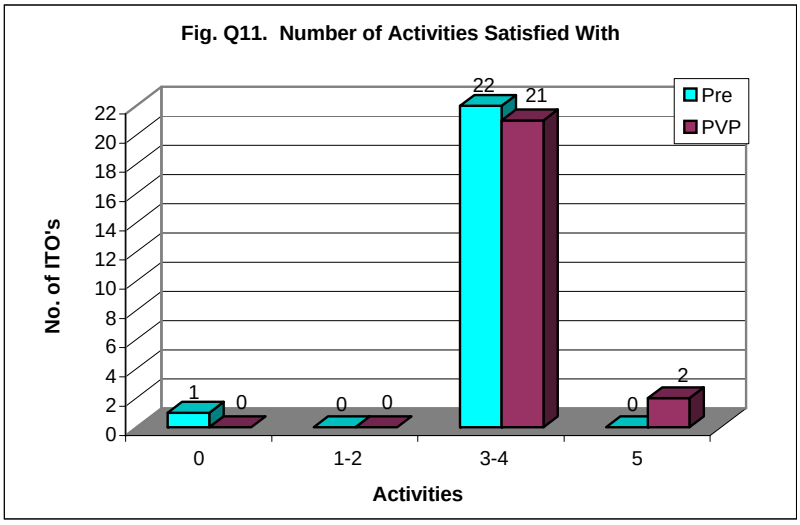
Training	Pre	PVP
Little	20	16
Average	2	1
Considerable	1	2
High	0	4



Q11: How satisfied were you with the following activities? [List: (1) food ordering, (2) timeliness of delivery, (3) warehouse activities, (4) the products as a whole, and (5) other activities.]

- Most ITOs reported being satisfied with 3-4 activities in both periods.

Activities	Pre	PVP
0	1	0
1-2	0	0
3-4	22	21
5	0	2
Mean	*3.8*	*4.0*

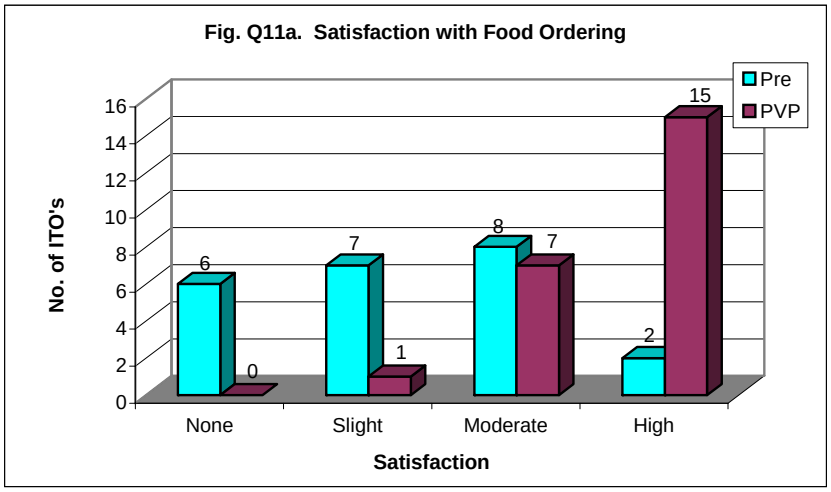


Q11a: How satisfied were you with the ***food ordering process?***

Pre: Nearly three out of every five (57%) ITOs expressed slight or no satisfaction with the food ordering process.

Post: Nearly all ITOs (96%) reported moderate to high satisfaction with food ordering. Thus, satisfaction with food ordering improved greatly.

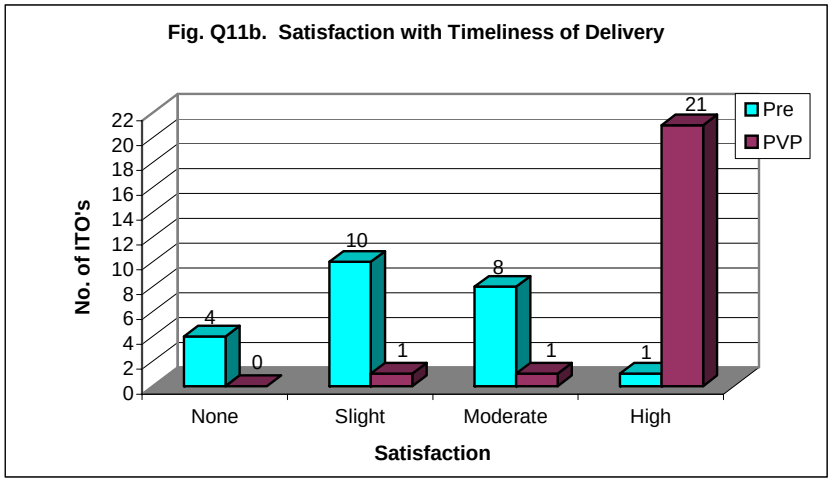
Satisfaction	Pre	PVP
None	6	0
Slight	7	1
Moderate	8	7
High	2	15



Q11b: How satisfied were you with ***timeliness of delivery?***

- ITOs reported a great improvement in timeliness of delivery during the Pilot.

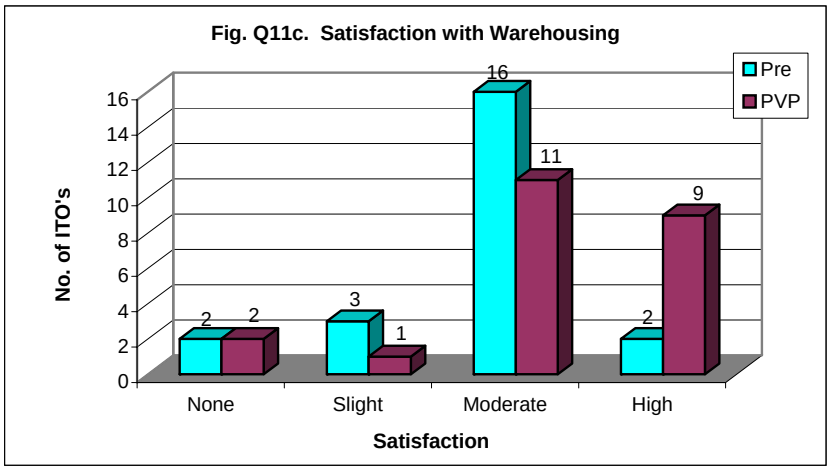
Satisfaction	Pre	PVP
None	4	0
Slight	10	1
Moderate	8	1
High	1	21



Q11c: How satisfied were you with ***warehousing activities?***

- Satisfaction with warehousing activities improved moderately. In particular, high level satisfaction increased from about 10% to 40 percent.

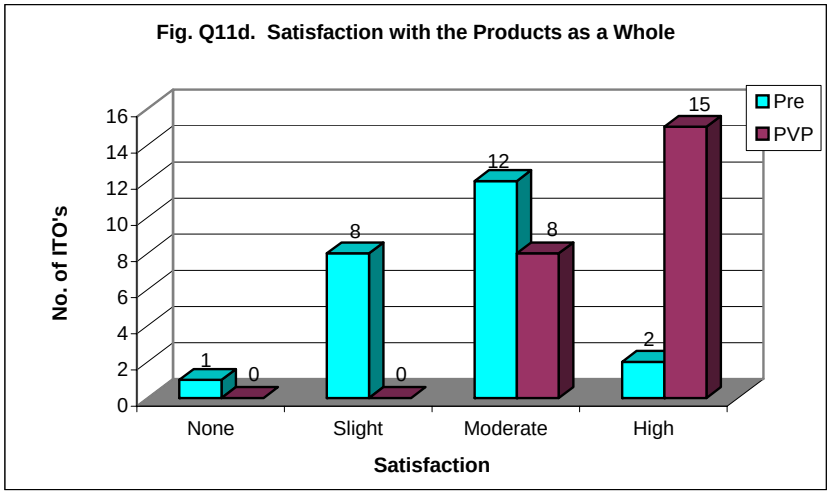
Satisfaction	Pre	PVP
None	2	2
Slight	3	1
Moderate	16	11
High	2	9



Q11d: How satisfied were you with the ***products as a whole?***

- Satisfaction with products as a whole improved considerably during the Pilot.

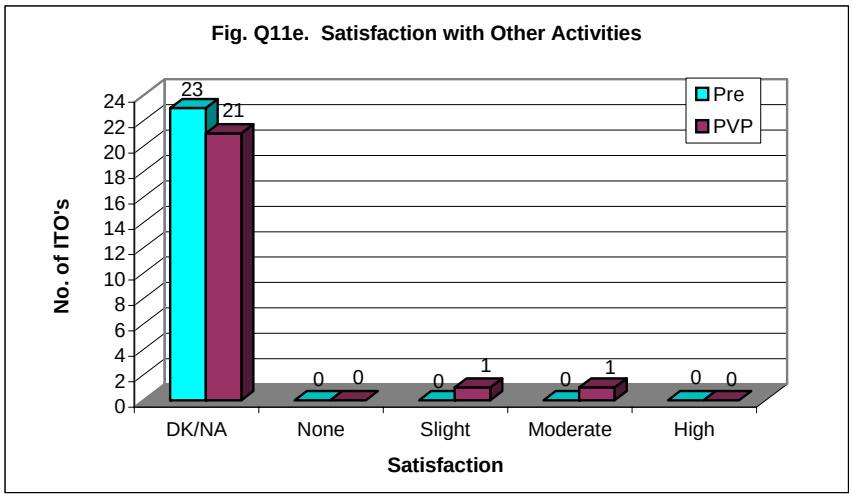
Satisfaction	Pre	PVP
None	1	0
Slight	8	0
Moderate	12	8
High	2	15



Q11e: How satisfied were you with ***other activities?***

- All ITOs did not answer this question at the pre-survey. At the post survey, only two ITOs provided a response.

Satisfaction	Pre	PVP
DK/NA	23	21
None	0	0
Slight	0	1
Moderate	0	1
High	0	0

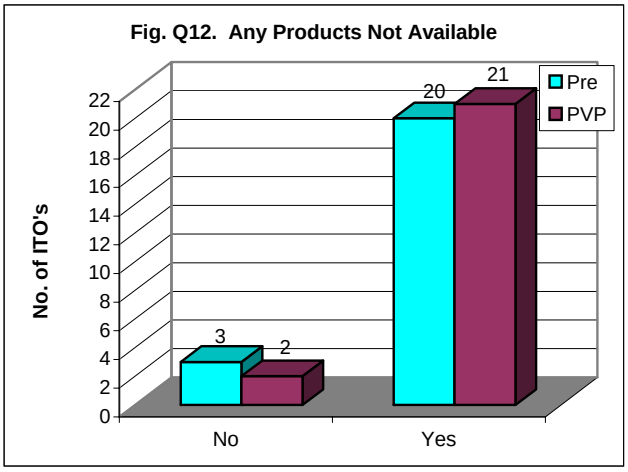


Q12: Were any products ***not available*** for delivery?

Pre: Most ITOs thought there were times when products were not available for delivery (X^2=12.57, *P=0.00*).

Post: Most respondents thought there were times when products were not available for delivery (X^2=15.70, *P=0.00*). There was no difference in this trend.

Products Unavailable	Pre	PVP
No	3	2
Yes	20	21

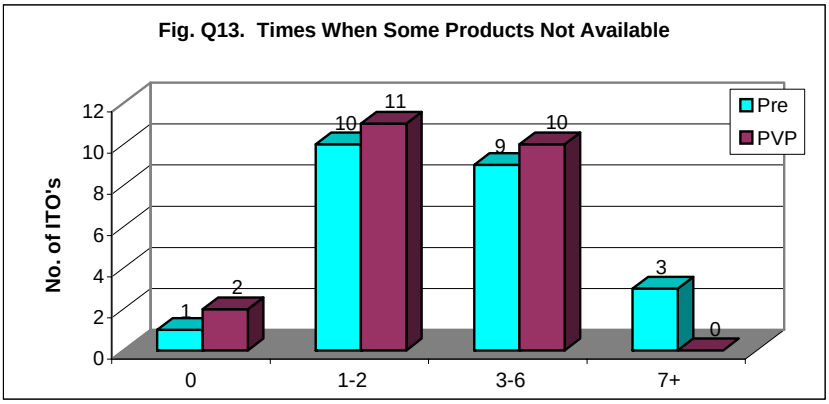


Q13: How many times in the year were specific products ***not available?***

Pre: Significantly more respondents thought products were not available two or more times than those who thought they were unavailable only one time (X^2=19.17, *P=0.00*).

Post: Significantly more respondents thought products were not available two or more times than those who thought they were not available only one time (X^2=15.70, *P=0.00*).

No. of Times	Pre	PVP
0	1	2
1-2	10	11
3-6	9	10
7+	3	0
Minimum	*1*	*2*
Maximum	*9*	*3*
Mean	*2.9*	*2.4*

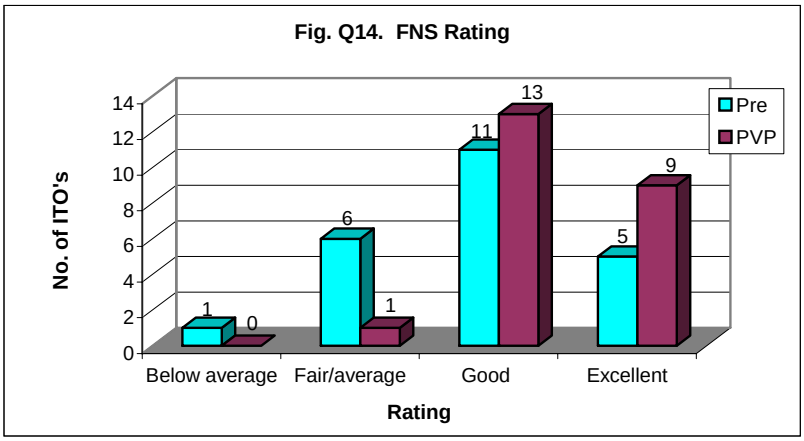


Q14: How do you rate FNS' ***operation and administration*** of the food program?

Pre: Significantly more respondents rated FNS' administration of FDPIR high (X^2=5.26, *P=0.02*).

Post: Significantly more respondents rated FNS' administration of FDPIR high (X^2=19.17, *P=0.00*). Post rating was higher than the pre rating.

FNS Rating	Pre	PVP
Below average	1	0
Fair/average	6	1
Good	11	13
Excellent	5	9
Mean	*3.2*	*3.4*

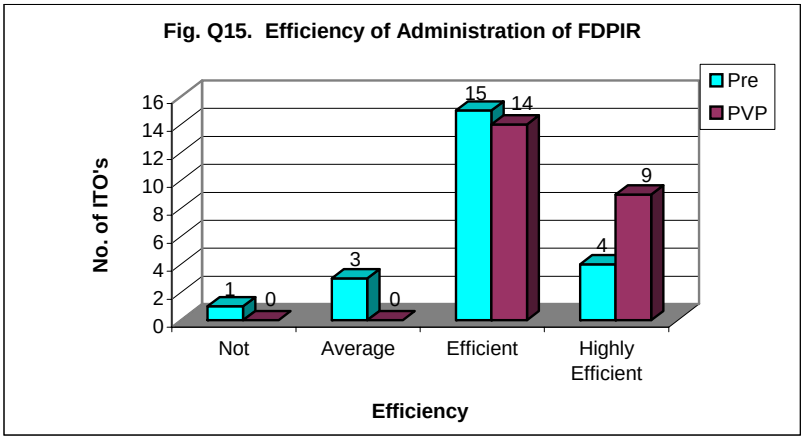


Q15: What did you think about the efficiency of FNS' administration of the program?

Pre: Significantly more ITOs reported that FNS' administration of FDPIR ranged from efficient to highly efficient (X^2=9.78, *P=0.00*).

Post: All ITOs reported that FNS' administration of FDPIR, with respect to PVP, ranged from efficient to highly efficient.

Efficiency	Pre	PVP
Not	1	0
Average	3	0
Efficient	15	14
Highly Efficient	4	9
Mean	*3.0*	*3.4*

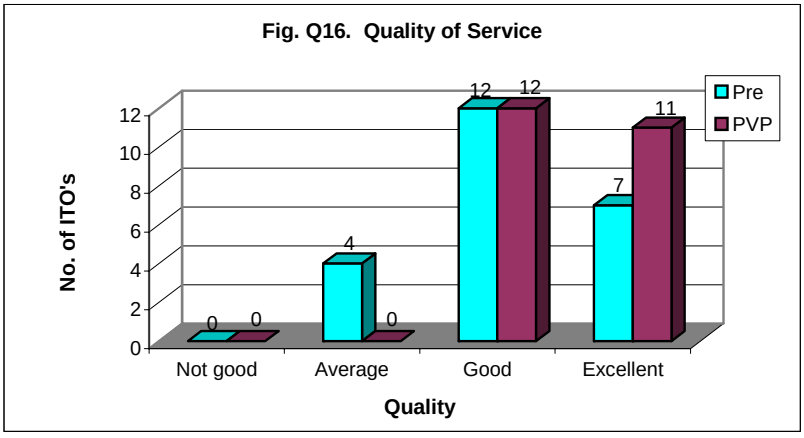


Q16: What did you think about the quality of service provided by FNS staff?

Pre: More ITOs reported high quality of service (X^2=9.78, *P=0.00*).

Post: All ITOs reported good to excellent quality of service.

Quality	Pre	PVP
Not good	0	0
Average	4	0
Good	12	12
Excellent	7	11
Mean	*3.1*	*3.5*

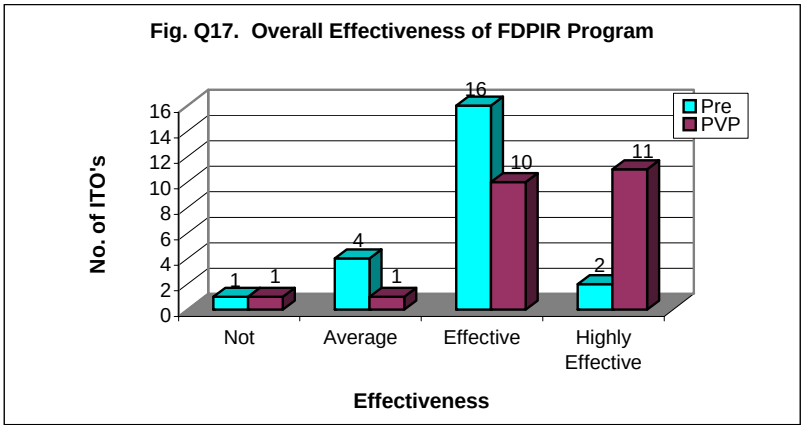


Q17: <u>What did you think about the overall effectiveness of the program operation?</u>

<u>Pre</u>: Significantly more ITOs reported that FDPIR was effective (X^2=7.35, *P=0.01*).

<u>Post</u>: Significantly more ITOs reported that FDPIR was highly effective (X^2=15.70, *P=0.00*).

Effectiveness	Pre	PVP
Not	1	1
Average	4	1
Effective	16	10
Highly Effective	2	11
Mean	*2.8*	*3.4*



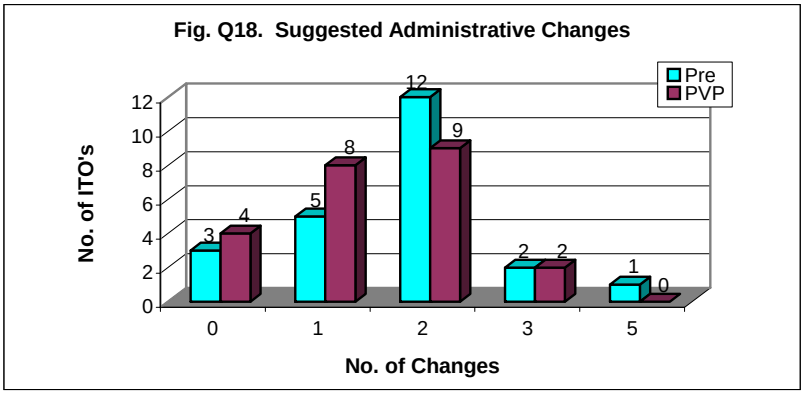
Q18: <u>What ***administrative changes*** would you like to see implemented as part of the Prime Vendor Pilot Program to help your ITO run the FDPIR program more effectively and efficiently?</u> [List: (1) none, (2) more staff, (3) more staff training, (4) more product variety/greater choice, (5) less paperwork, and (6) other]. [***Number*** of changes].

<u>Pre</u>: More ITOs reported more (2 or more) changes than those that reported one or no change (X^2=12.57, *P=0.00*).

<u>Post</u>: Fewer ITOs reported more (2 or more) changes than those that reported one or no change (X^2=0.04, *P=0.84*).

No. of Changes	Pre	PVP
0	3	4
1	5	8
2	12	9
3	2	2
5	1	0
Maximum	*5*	*3*
Mean	*1.7*	*1.4*

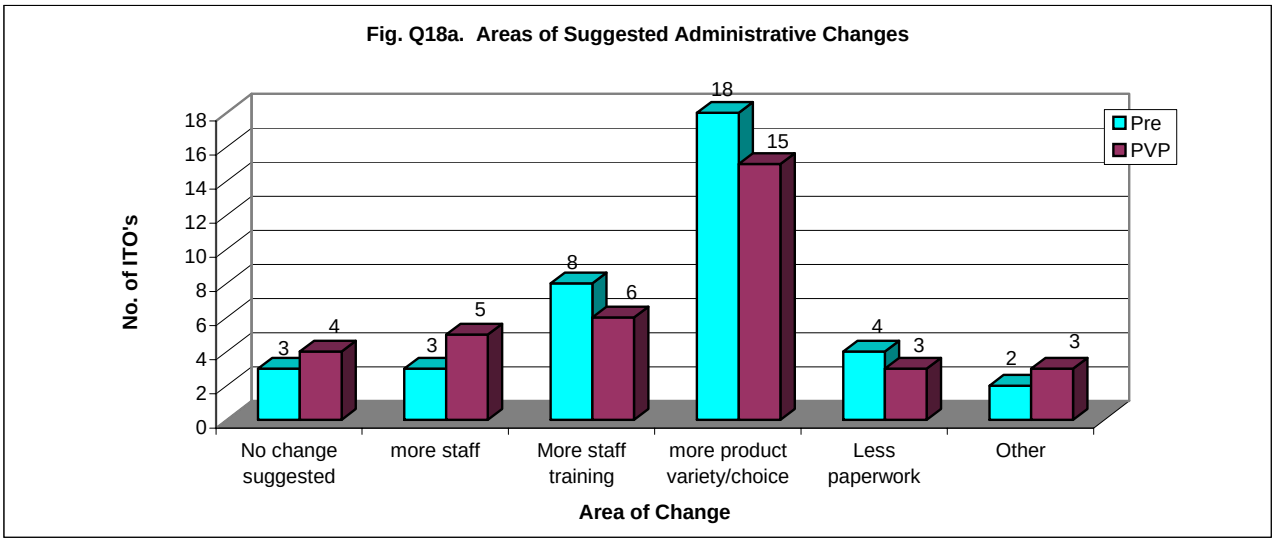
Multiple response categories



Q18a: What ***administrative changes*** would you like to see implemented as part of the Prime Vendor Pilot Program to help your ITO run the FDPIR program more effectively and efficiently? [List: (1) none, (2) more staff, (3) more staff training, (4) more product variety/greater choice, (5) less paperwork, and (6) other]. [***Areas*** of change].

Pre: Most ITOs suggested more product variety/greater choice (78.3%) and more staff training (34.8%).

Post: Most ITOs suggested more product variety/greater choice (65.2%), more staff training (26.1%) and more staff (21.7%).



Area of Change	Pre	PVP
No change suggested	3	4
more staff	3	5
More staff training	8	6
more product variety/choice	18	15
Less paperwork	4	3
Other	2	3

Multiple response categories

Q19: What ***operational changes*** would you like to see implemented as part of the Prime Vendor Pilot Program to help your ITO run the FDPIR program more effectively and efficiently? [List: (1) none, (2) more ordering flexibility, (3) more timely delivery, (4) more warehouse space, (5) less product substitution, and (6) other]. [***Numbe***r of changes].

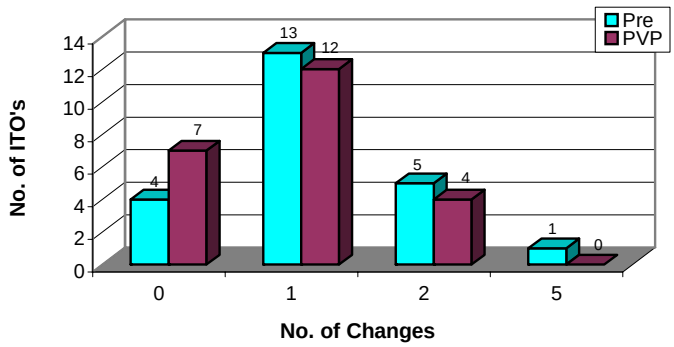
Pre: Fewer ITOs reported more (2 or more) changes than those that reported one or no change (X^2=9.78, *P=0.00*). A majority of ITOs (57%) suggested only one change.

Post: Fewer ITOs reported more (2 +) changes than those that reported one or no change (X^2=9.78, *P=0.00*). A majority of ITOs (52%) suggested only one change. The number of ITOs reporting no change was higher during the Pilot than the year before.

No. of Changes	Pre	PVP
0	4	7
1	13	12
2	5	4
5	1	0
Maximum	*3*	*2*
Minimum	*1.1*	*0.9*

Multiple response categories

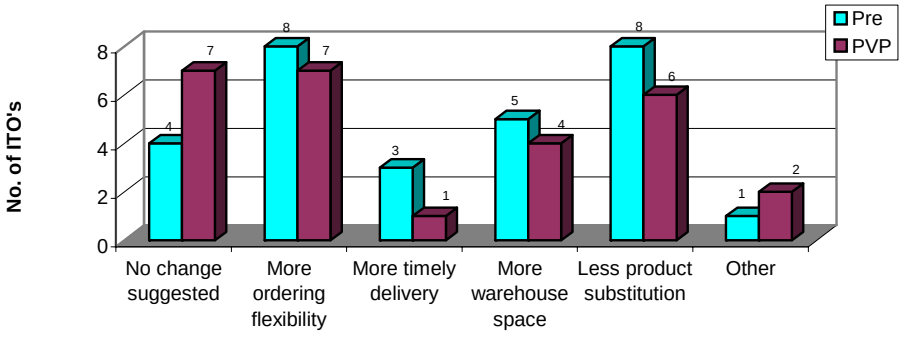
Fig. Q19. Suggested Operational Changes



Q19a: What ***operational changes*** would you like to see implemented as part of the Prime Vendor Pilot Program to help your ITO run the FDPIR program more effectively and efficiently? [List: (1) none, (2) more ordering flexibility, (3) more timely delivery, (4) more warehouse space, (5) less product substitution, and (6) other]. [***Areas*** of change].

- The two key suggested changes in both surveys were more ordering flexibility and less product substitution. More ITOs suggested no change under PVP than prior.

Fig. Q19a. Areas of Suggested Operational Changes



Area of Change	Pre	PVP
No change suggested	4	7
More ordering flexibility	8	7
More timely delivery	3	1
More warehouse space	5	4
Less product substitution	8	6
Other	1	2

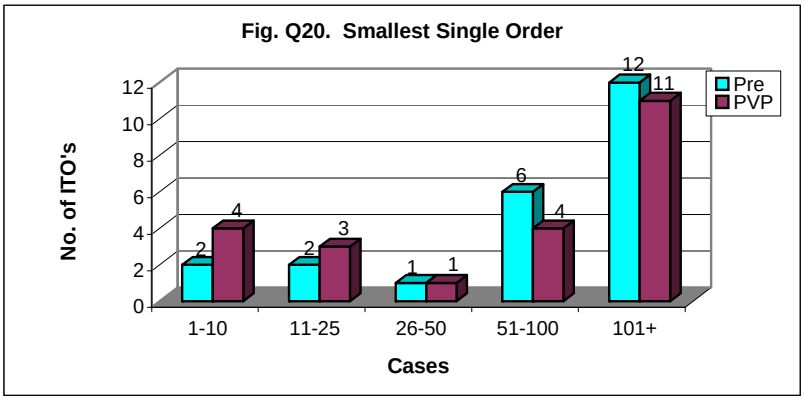
Multiple response categories

2. FOOD ORDERING AND AVAILABLE CHOICES

Q20: What was the smallest single order of food products you placed?

- Less than 25% of ITOs ordered 50 cases or less as the smallest order before the Pilot compared to 35% during the Pilot.
- Half of ITOs ordered more than 100 cases as the smallest order in both surveys.

Cases	Pre	PVP
1-10	2	4
11-25	2	3
26-50	1	1
51-100	6	4
101+	12	11
Mean	*85.8*	*75.3*

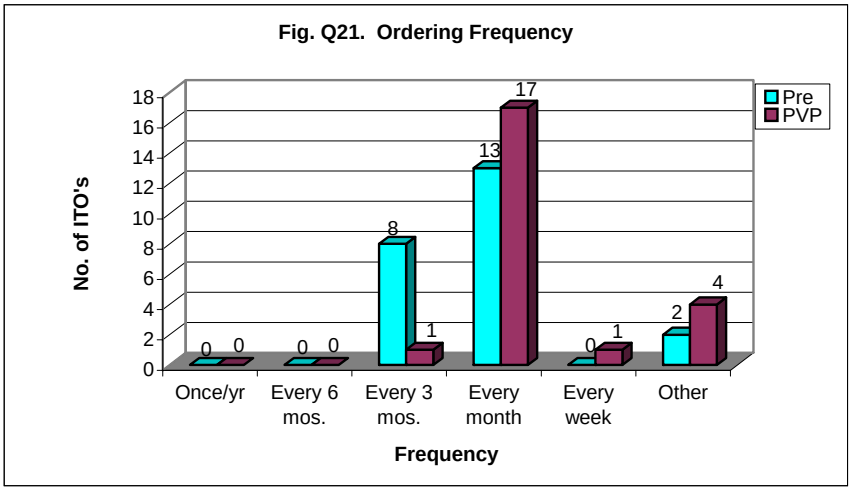


Q21: How frequently did you place orders?

Pre: Before the Pilot, most orders were placed every month or every three months.

Post: During the Pilot, the overwhelming majority of orders were placed once a month.

Frequency	Pre	PVP
Once/yr	0	0
Every 6 mos.	0	0
Every 3 mos.	8	1
Every month	13	17
Every week	0	1
Other	2	4
Mean	*1 mo.*	*1 wk.*

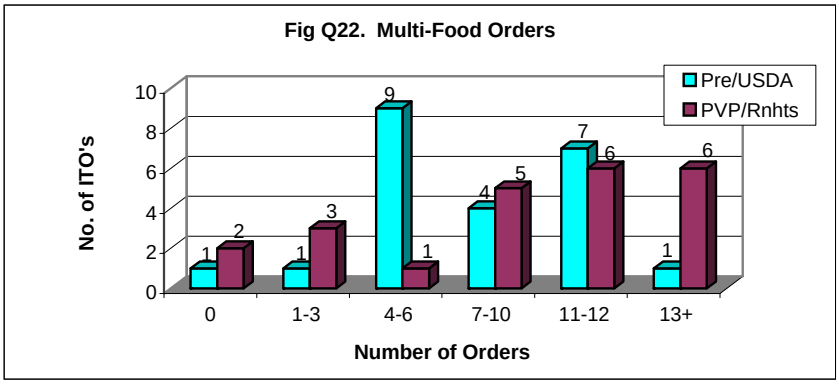


Q22: How many multi-food orders did you place to USDA (pre)/Reinharts (PVP)?

Pre: Over 39% of ITOs submitted 4-6 multi-food orders, 14% 7-12, and 30% 11-12. Only one (4%) submitted 13.

Post: Only one ITO (4%) submitted 4-6 multi-food orders, 17% submitted 7-10, and 26% 11-12. About 26% submitted 13 or more, with the highest being as many as 60.

Orders	Pre/USDA	PVP/Rnhts
0	1	2
1-3	1	3
4-6	9	1
7-10	4	5
11-12	7	6
13+	1	6
Maximum	*13*	*60*
Mean	*7.4*	*14.4*

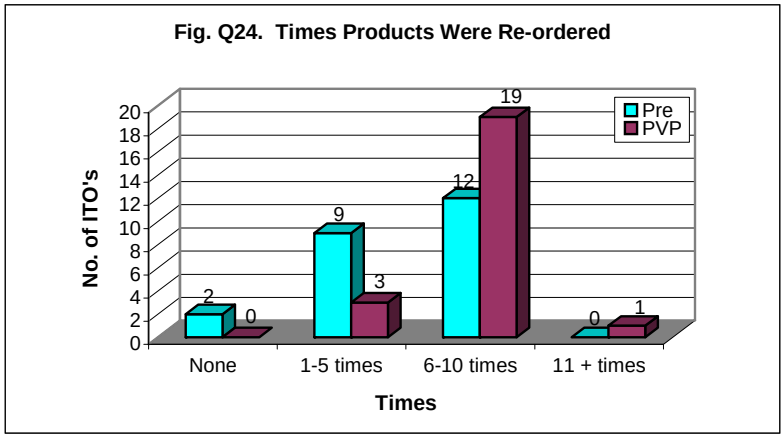


Q24: How many times did you have to re-order products during the year because they were not available for shipment when requested?

Pre: There was no significant difference between ITOs did not re-order or re-ordered only once and those that re-ordered 2 or more times (X^2=0.04, *P=0.84*).

Post: All ITOs re-ordered 2 or more times. [Logistical problems relating to food ordering and delivery by Reinhart, including sourcing difficulties, were reported earlier during the set-up phase of the project, but reportedly solved as the project implementation progressed.]

Re-orders	Pre	PVP
None	2	0
1-5 times	9	3
6-10 times	12	19
11 + times	0	1
Mean	*5.4*	*7.5*

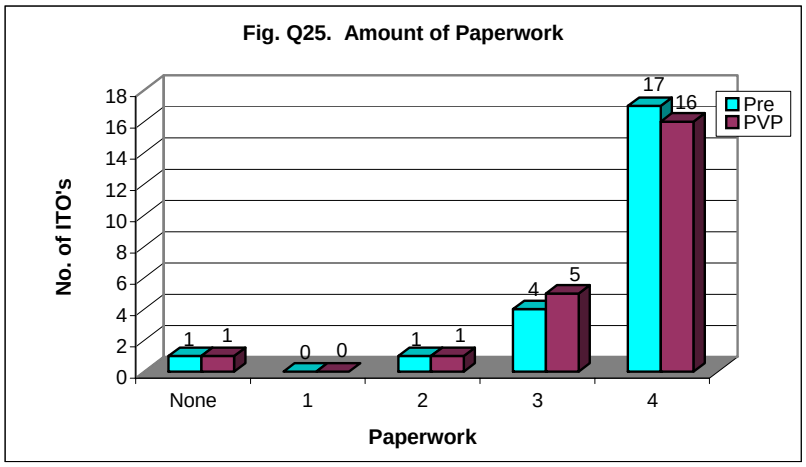


Q25: How much paperwork was there (orders, receiving, inventory, forms etc.)?

- During both pre and post, most ITOs (91%) reported three or four paperwork activities.

- Only one ITO in each case reported no paperwork activity. Also, only one ITO each reported two paperwork activities. In general, paperwork for the FNS regional office was reported to reduce greatly.

Paperwork	Pre	PVP
None	1	1
1	0	0
2	1	1
3	4	5
4	17	16
Mean	*3.6*	*3.5*

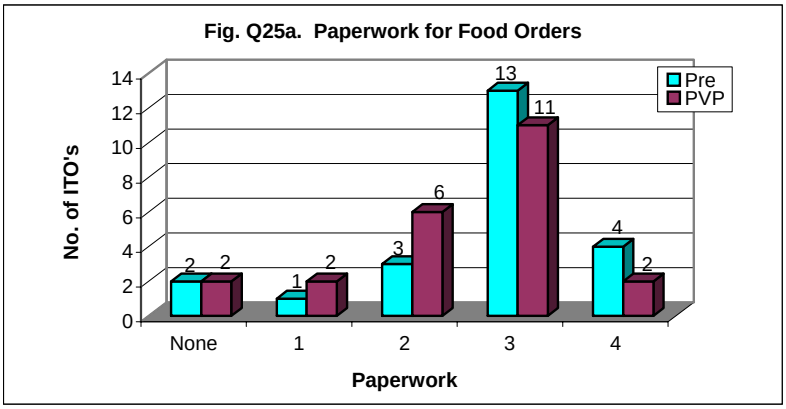


Q25a: How much paperwork was there for ***food orders***?

- About 57% and 48% of ITOs reported three paperwork activities for both surveys.

- Paperwork burden reduced during the Pilot.

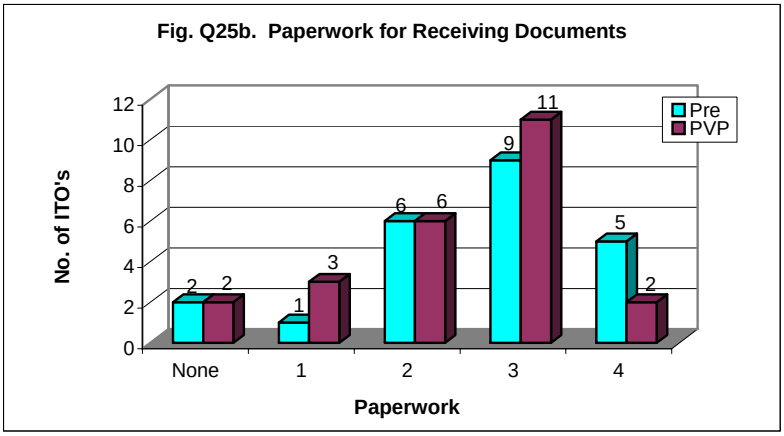
Paperwork	Pre	PVP
None	2	2
1	1	2
2	3	6
3	13	11
4	4	2



Q25b: How much paperwork was there for ***receiving documents***?

- The trend for paperwork for receiving documents was similar in both periods, with a slight decline in burden during the Pilot.

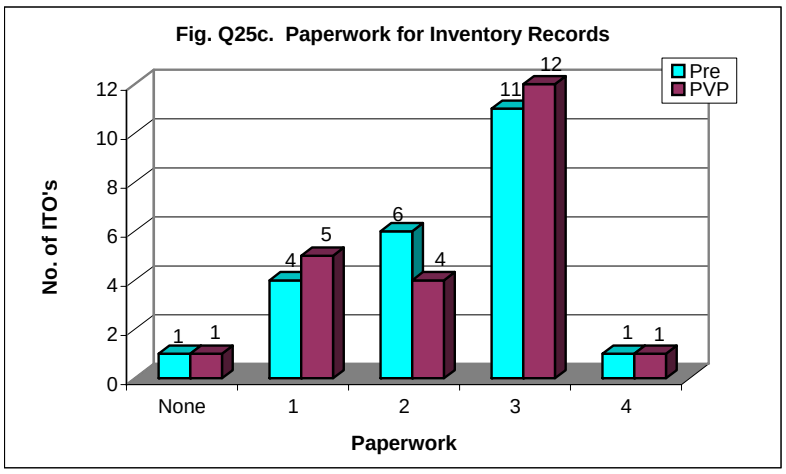
Paperwork	Pre	PVP
None	2	2
1	1	3
2	6	6
3	9	11
4	5	2



Q25c: How much paperwork was there for ***inventory records***?

- The trend for paperwork for inventory records was similar in both periods, with a slight decline in burden during the Pilot.

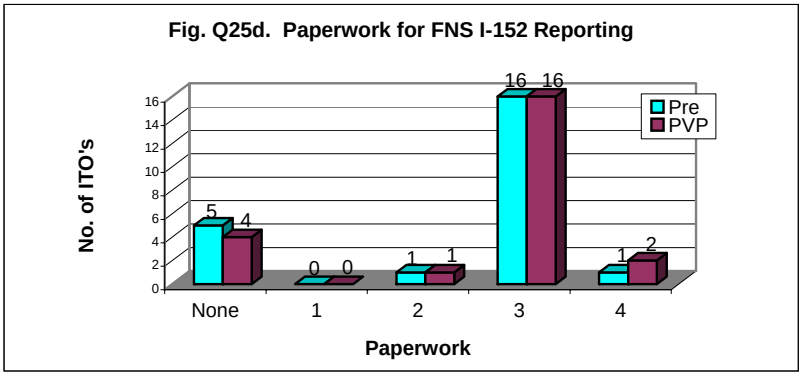
Paperwork	Pre	PVP
None	1	1
1	4	5
2	6	4
3	11	12
4	1	1



Q25d: How much paperwork was there for ***FNS I-152 reporting***?

- About 70% of ITOs reported three paperwork activities for FNS I-152 reporting in both surveys. About equal proportions (22% and 17% respectively) reported having no such activity in the two surveys.

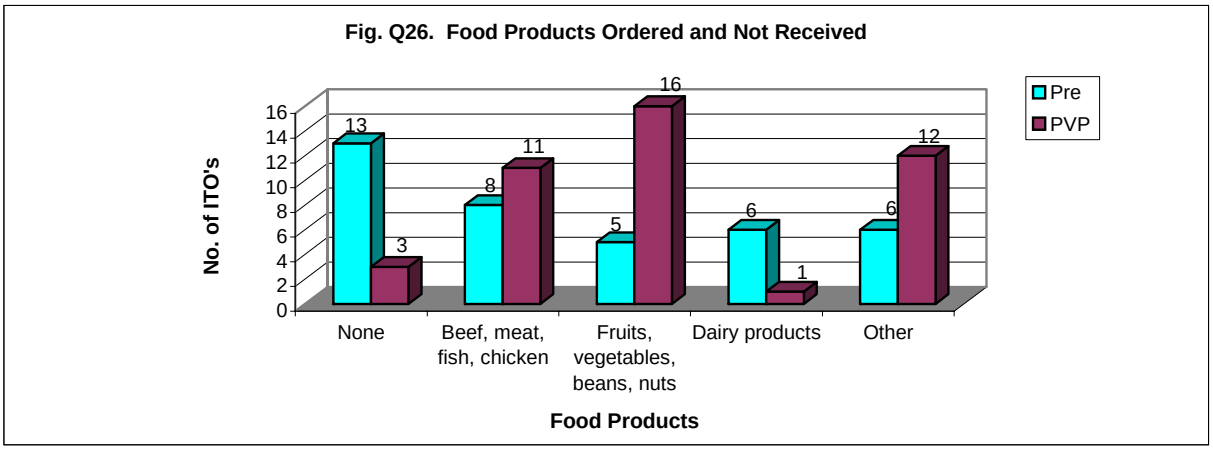
Paperwork	Pre	PVP
None	5	4
1	0	0
2	1	1
3	16	16
4	1	2



Q26: What foods did you order that you did not receive?

Pre: The largest category was beef and meat products with 35% reporting this problem. In general, over half of ITOs reported no such problem.

Post: The problem with beef/meat products increased to 48% during the Pilot. By far the major problem was with fruits/vegetables, with 70% of ITOs reporting this problem.



Food Products	Pre	PVP
None	13	3
Beef, meat, fish, chicken	8	11
Fruits, vegetables, beans, nuts	5	16
Dairy products	6	1
Other	6	12

Mean: Pre = 1.2; Post = 2.7
Multiple response categories.

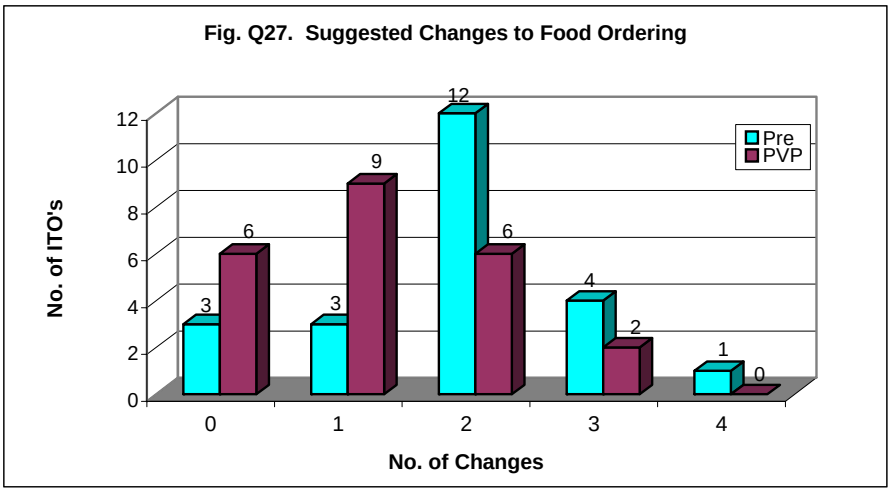
Q27: What changes do you think would make the existing multi-food ordering/procurement system run more smoothly? [List: (1) none, (2) more flexibility in ordering, (3) less paperwork, (4) more staff/staff training, (5) more product variety/greater choice, (5) less product substitution, and (7) other]. [***Number*** of changes].

Pre: More ITOs suggested one or more change than those that suggested none (X^2=5.26, *P=0.02*). Most suggested two or three.

Post: There was no significant difference between ITOs that reported more changes or fewer changes (X^2=2.13, *P=0.14*). Most suggested none, one or two.

Changes	Pre	PVP
0	3	6
1	3	9
2	12	6
3	4	2
4	1	0
Mean	*1.9*	*1.2*

Multiple response categories

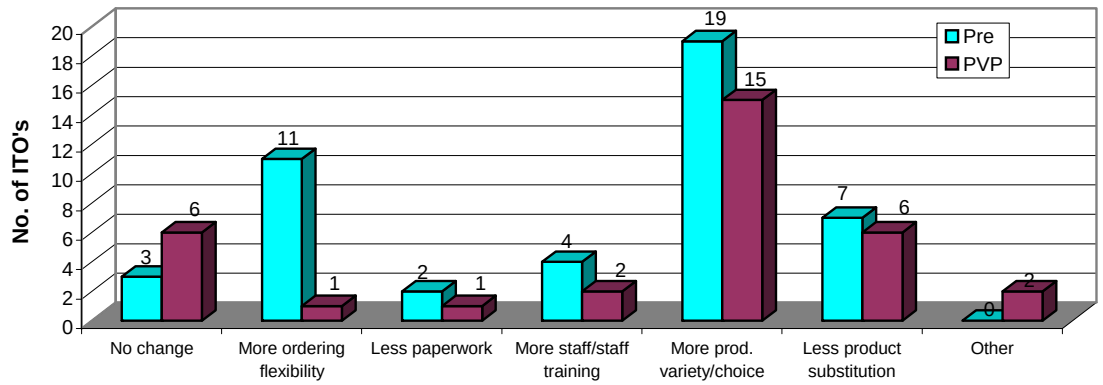


Q27a: What changes do you think would make the existing multi-food ordering/procurement system run more smoothly? [List: (1) none, (2) more flexibility in ordering, (3) less paperwork, (4) more staff/staff training, (5) more product variety/greater choice, (5) less product substitution, and (7) other]. [***Areas*** of change].

Pre: The major suggested changes to multi-food ordering raised during the year before the Pilot were more product variety/greater choice (82.6%) more ordering flexibility (47.8), and less production substitution (30.4%).

Post: The major suggestions made during the first year of PVP to improve multi-food ordering were still improved product variety/greater choice (which is a function of the USDA food package and not the Pilot) and product substitution. More ITOs reported no change. Ordering flexibility, which was a major concern during the year prior to the Pilot was no longer an issue during the fist year of PVP.

Fig. Q27a. Areas of Suggested Food Ordering and Procurement Changes



Area of Change	Pre	PVP
No change	3	6
More ordering flexibility	11	1
Less paperwork	2	1
More staff/staff training	4	2
More prod. variety/choice	19	15
Less product substitution	7	6
Other	0	2

Multiple response categories.

3. FOOD DELIVERY

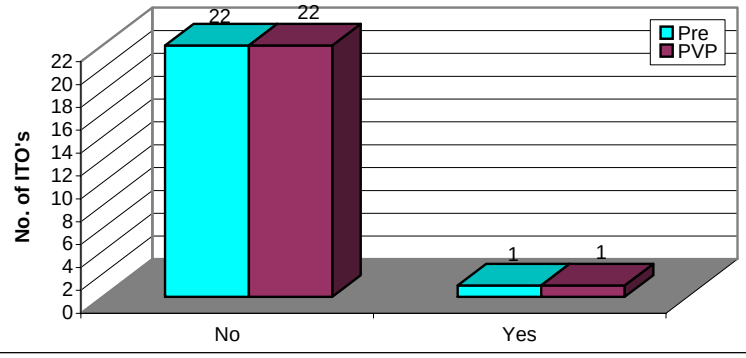
Q28: Were food orders ***delivered*** to the ITO during the appropriate shipment period?

Pre: Nearly all but one ITO reported that deliveries were not received at the appropriate shipment period (X^2=19.17, *P=0.00*).

Post: The trend was exactly the same as the year before (X^2=19.17, *P=0.00*).

	Pre	PVP
No	22	22
Yes	1	1

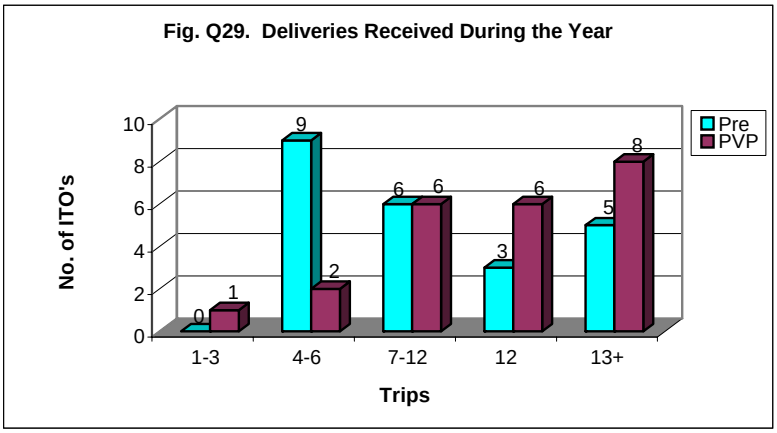
Fig. Q28. Were Food Orders Delivered at the Appropriate Period?



Q29: How many deliveries (trips) did you receive during the year?

- There were significantly more deliveries during the first Pilot year than the year before; the means were 8.1 and 15.1 a year per ITO for the pre and post periods respectively.

Deliveries	Pre	PVP
1-3	0	1
4-6	9	2
7-12	6	6
12	3	6
13+	5	8
Mean	*8.1*	*15.1*

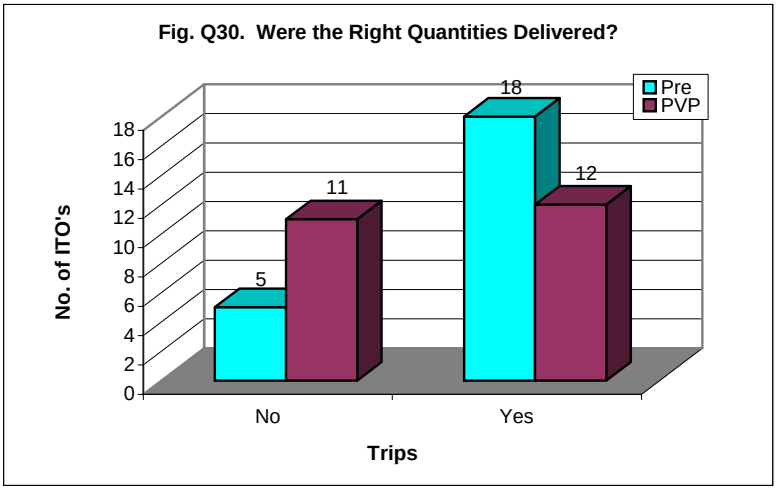


Q30: Were the right ***quantities*** of food ***delivered***?

Pre: More ITOs reported that the right quantities were delivered (X^2=7.35, *P=0.01*).

Post: There was no significant difference between ITOs that answered "yes" and "no" to this question (X^2=0.04.17, *P=0.84*).

Deliveries	Pre	PVP
No	5	11
Yes	18	12

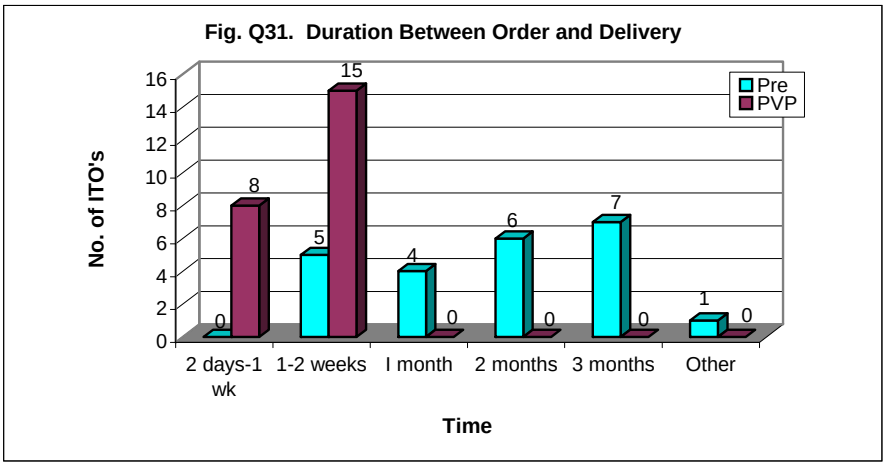


Q31: <u>How long did it take, on average, between when you placed an order and when the food was delivered?</u>

<u>Pre</u>: Most ITOs (78%) reported delivery time of 1 to 2 months, with 35% reporting 3 or more months.

<u>Post</u>: Over one third (35%) of ITOs reported the length of time between order and delivery to be between two days and one week, and 65% between one and two weeks.

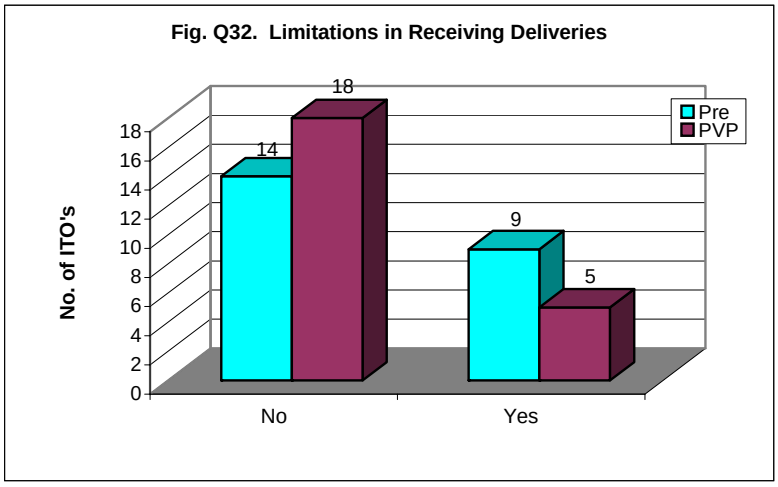
Deliveries	Pre	PVP
2 days-1 wk	0	8
1-2 weeks	5	15
I month	4	0
2 months	6	0
3 months	7	0
Other	1	0
Mean	*7-8 wks*	*1-2 wks.*



Q32: <u>Were there limitations in accepting deliveries**?**</u>

- A majority (61% and 78% respectively) had no delivery limitations in both surveys.
- The trend is a general decline in limitations.

Limitations	Pre	PVP
No	14	18
Yes	9	5

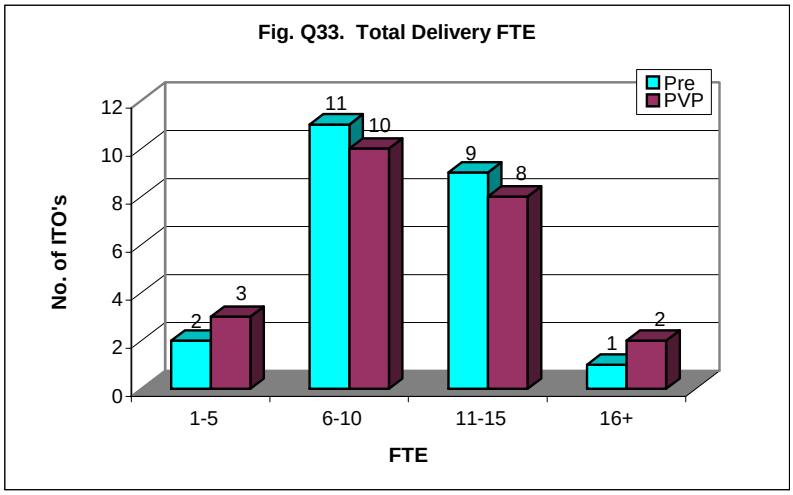


Q33: How many staff (FTE) handled the following delivery functions? [List: (1) off-loading trucks, (2) placing food in warehouse, (3) processing inventory records, (4) pulling orders, and (5) preparation of FNS I-152.]

- Delivery staff FTE ranged from 1 to 16 before the Pilot and 4 to 18 during the Pilot; the means were 9.6 and 10.3 respectively.

- There is not much difference in the trend.

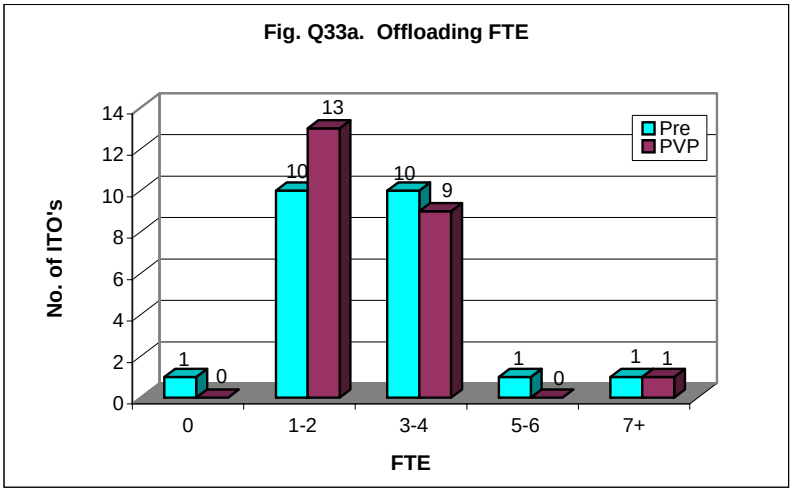
Delivery FTE	Pre	PVP
1-5	2	3
6-10	11	10
11-15	9	8
16+	1	2
Minimum	*1*	*4*
Maximum	*16*	*18*
Mean	*9.6*	*10.3*



Q33a: How many staff (FTE) handled offloading trucks?

- Offloading staff FTE is mostly between one and four in both periods, with means of 2.7 and 2.5 per ITO respectively.

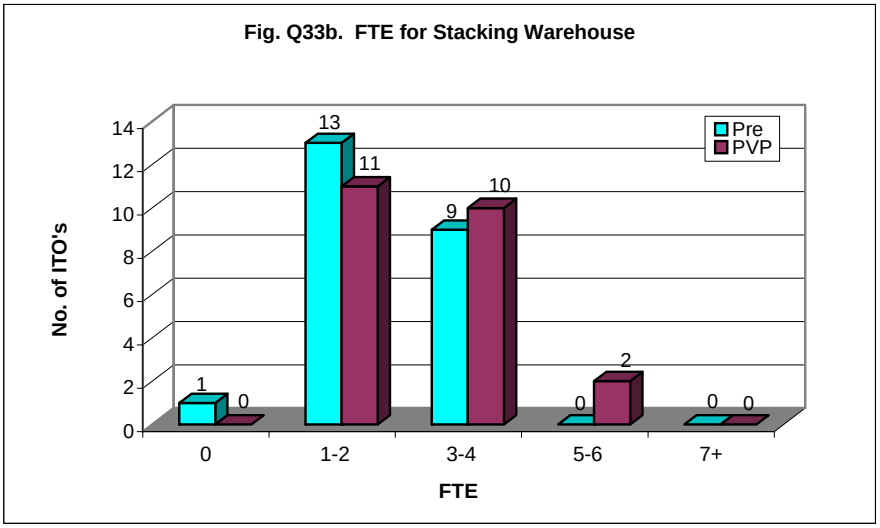
Offloading FTE	Pre	PVP
0	1	0
1-2	10	13
3-4	10	9
5-6	1	0
7+	1	1
Mean	*2.7*	*2.5*



Q33b: How many staff (FTE) handled stacking food in warehouse?

- Staff FTE for stacking food in the warehouse was also between one and four with a slight increase during PVP; the means were 2.2 and 2.7 respectively.

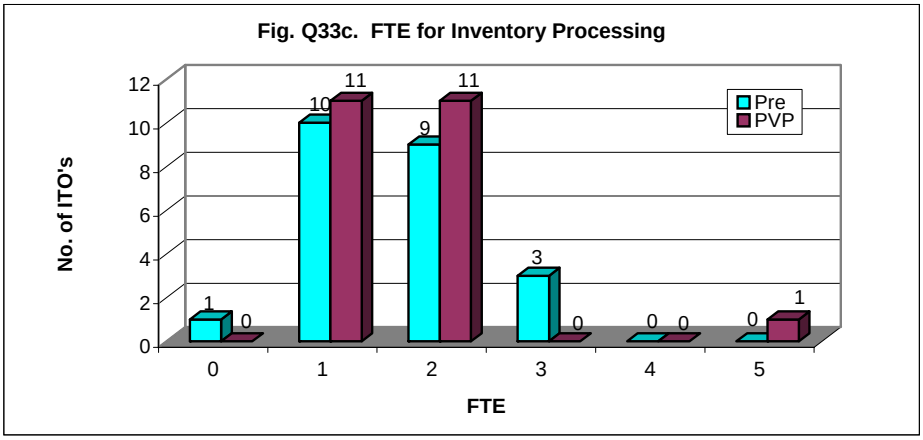
FTE	Pre	PVP
0	1	0
1-2	13	11
3-4	9	10
5-6	0	2
7+	0	0
Mean	*2.2*	*2.7*



Q33c: How many staff (FTE) handled inventory processing?

- Staff FTE for inventory processing was between one and three during the year before PVP, and mostly between one and two during PVP; the means were respectively 1.6 and 1.7.

FTE	Pre	PVP
0	1	0
1	10	11
2	9	11
3	3	0
4	0	0
5	0	1
Mean	*1.6*	*1.7*

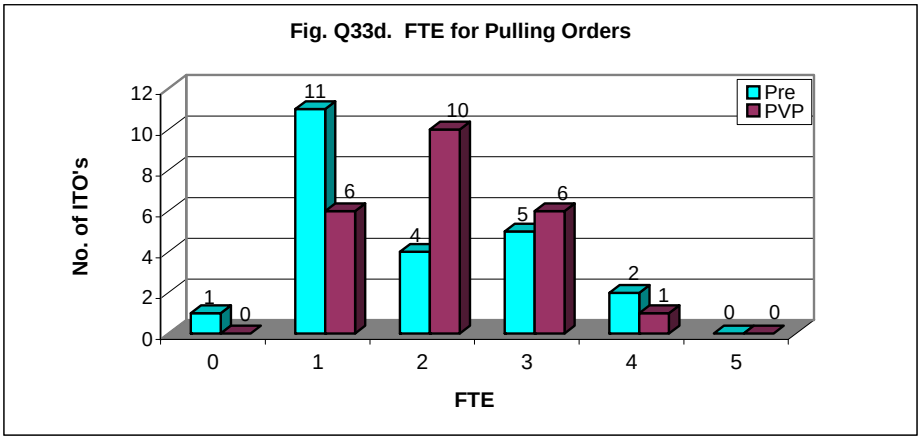


Q33d: How many staff (FTE) handled pulling orders?

- Most ITOs reported between one and three staff FTEs for pulling orders; the means were 1.8 and 2.1 respectively – a slight increase during PVP.

- During the year before PVP, 48% of ITOs reported only one staff FTE for this activity. During the pilot, up to 44% reported two staff FTEs for this activity.

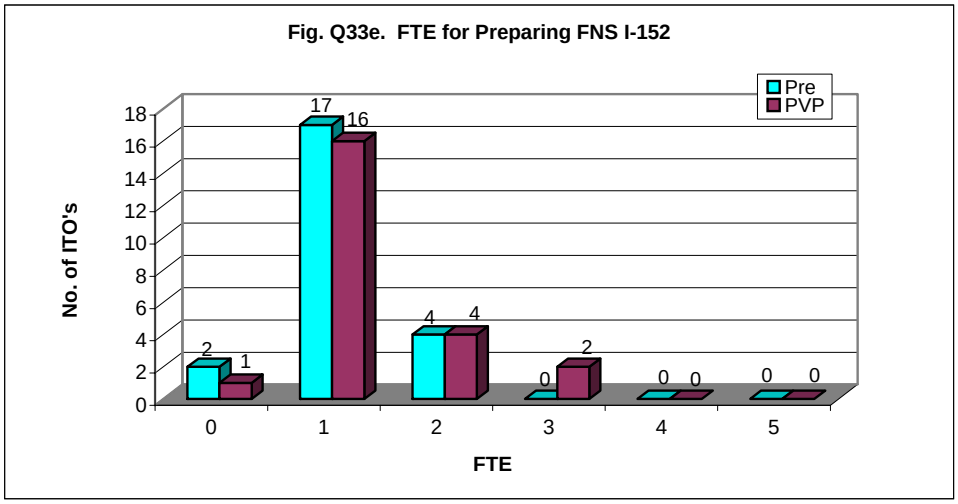
FTE	Pre	PVP
0	1	0
1	11	6
2	4	10
3	5	6
4	2	1
5	0	0
Mean	*1.8*	*2.1*



Q33e: How many staff (FTE) handled preparing FNS I-152?

- Most ITOs (74% and 70% respectively) reported one staff FTE and 17% each reported two staff FTEs for this activity; the means were 1.1 and 1.3 respectively.

FTE	Pre	PVP
0	2	1
1	17	16
2	4	4
3	0	2
4	0	0
5	0	0
Mean	*1.1*	*1.3*

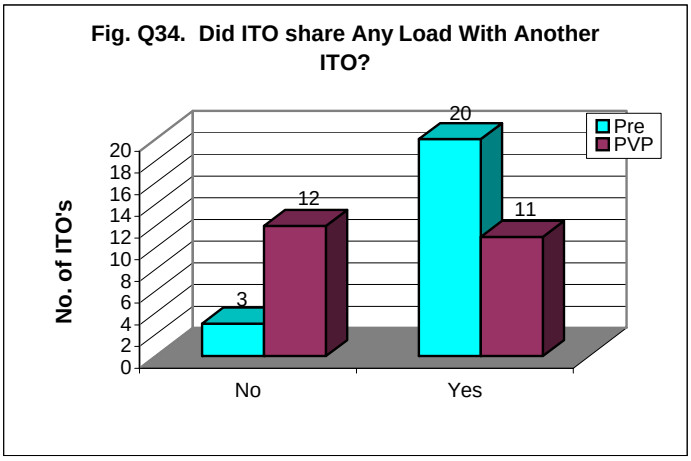


Q34: Were any loads that were delivered shared between your ITO and another ITO?

Pre: About 87% of ITOs shared at least a load with another ITO. This was a significant difference *($X^2=12.57$, $P=0.00$).*

Post: Less than half split at least a load. The difference between those who shared and those who didn't was not significant *($X^2=0.04$, $P=0.84$).* Load sharing before the Pilot was the responsibility of the ITO. Split shipping during the Pilot was the responsibility of the Prime Vendor. So during the Pilot, the burden was removed from the ITO to the vendor. Splits were created to reduce overhead.

Any Load Shared	Pre	PVP
No	3	12
Yes	20	11

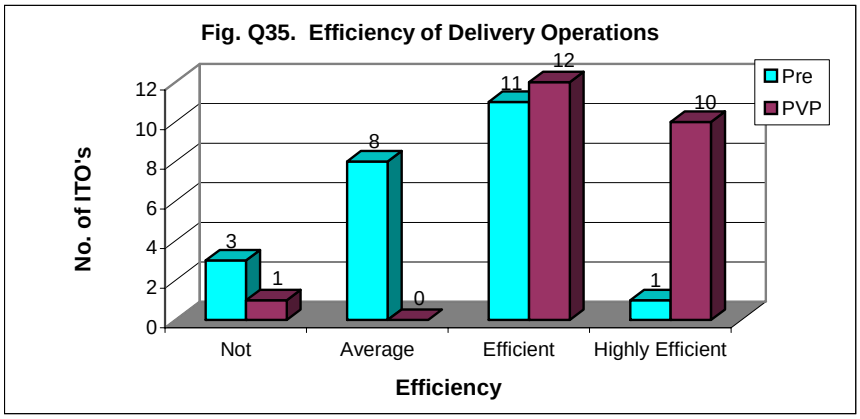


Q35: What did you think about the efficiency of USDA delivery operations?

Pre: Equal proportions of ITOs rated USDA's delivery as average or below and above average. The difference between these two was not significant *($X^2=0.39$, $P=0.53$).*

Post: Nearly all ITOs (96%) thought USDA delivery operations were between efficient and highly efficient.

Efficiency	Pre	PVP
Not	3	1
Average	8	0
Efficient	11	12
Highly Efficient	1	10
Mean	*2.8*	*3.3*

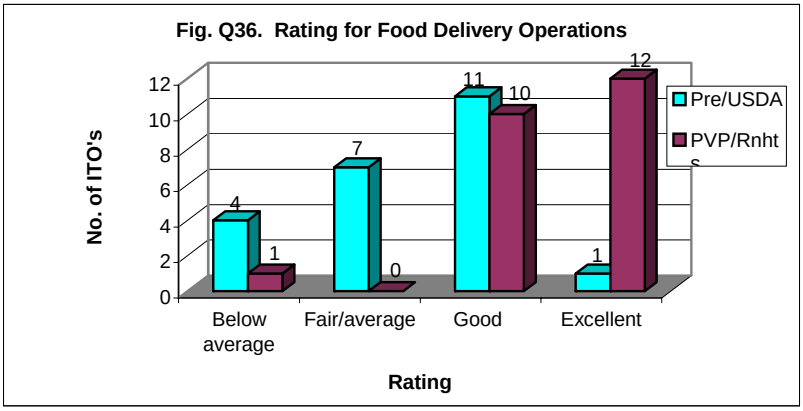


Q36: How do you rate USDA's/Reinharts delivery operations?

Pre: The proportions that this item below average or fair and good to excellent were equal. The difference between the two opinions was not significant *(X^2=0.39, P=0.53).*

Post: Nearly all ITOs (96%) rated food delivery between good and excellent, while only one rated it lower. The difference between the two opinions was highly significant *(X^2=0.19.17, P=0.00).*

FNS Rating	Pre/USDA	PVP/Rnhts
Below average	4	1
Fair/average	7	0
Good	11	10
Excellent	1	12
Mean	*2.7*	*3.4*



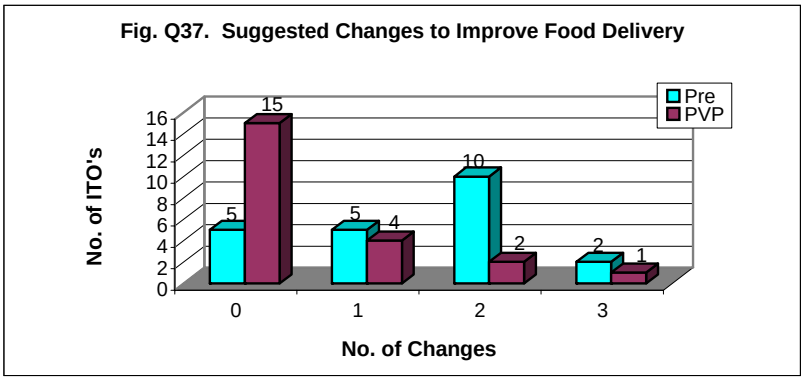
Q37: What changes will make USDA delivery functions run more smoothly in the future? [List: (1) none, (2) more delivery flexibility, (3) less paperwork, (4) more staff/ training, (5) more trucks/frequent delivery, and (6) other.] [***Number*** of changes.]

Pre: Most ITOs (78%) suggested some improvements in food delivery. There was a significant difference between those suggested something and those who did not *(X^2=7.35, P=0.01).*

Post: A majority of ITOs suggested no improvements. The difference between those that did and those that did not suggest anything was not significant *(X^2=2.13, P=0.14).*

No. of Changes	Pre	PVP
0	5	15
1	5	4
2	10	2
3	2	1
Maximum	*4*	*4*
Mean	*1.5*	*0.7*

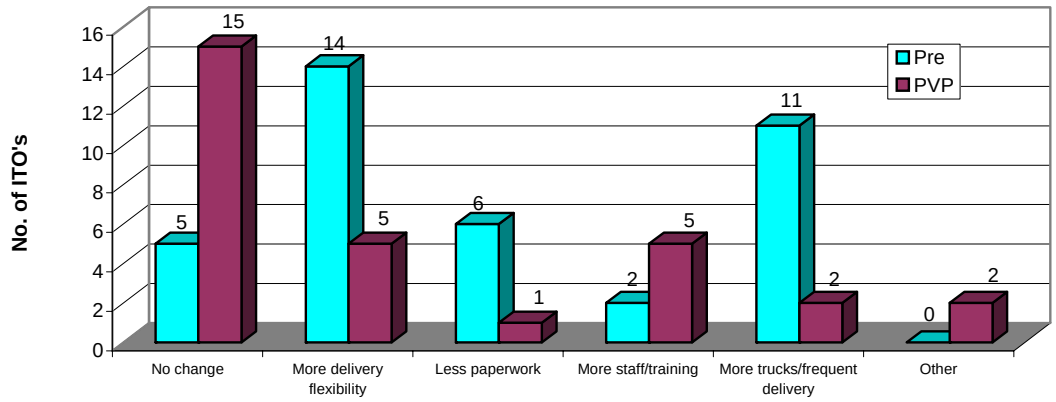
Multiple response categories



Q37a: What changes will make USDA delivery functions run more smoothly in the future? [List: (1) none, (2) more flexibility in delivery, (3) less paperwork, (4) more staff/staff training, (5) more trucks/frequent delivery, and (6) other.] [***Area*** of change.]

- At the pre survey, suggested food delivery changes were delivery flexibility and more trucks. During the Pilot, most ITOs suggested no change.

Fig. Q37a. Areas of Suggested Food Delivery Changes



Area of Change	Pre	PVP
No change	5	15
More delivery flexibility	14	5
Less paperwork	6	1
More staff/training	2	5
More trucks/frequent delivery	11	2
Other	0	2

Multiple response categories

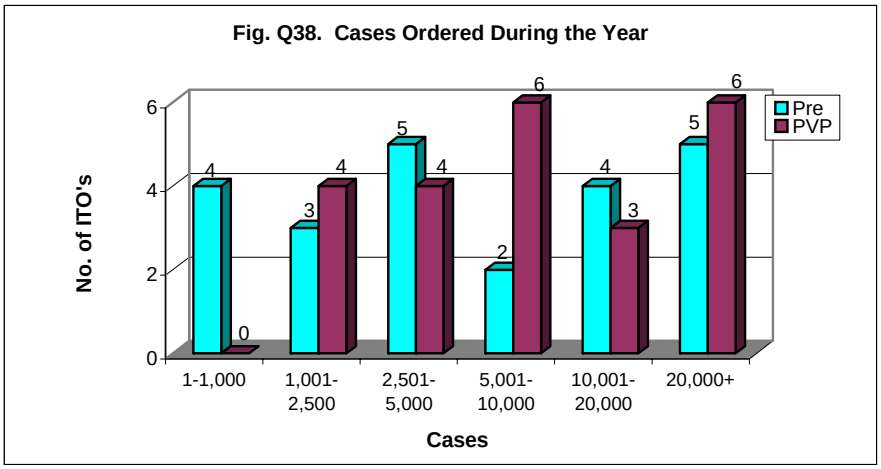
4. WAREHOUSING AND INVENTORY MANAGEMENT

Q38: How many cases of commodity did you order during the year?

- The maximum number of cases ordered in both the year before and during the first year of the Pilot were over 20,000; the mean numbers of cases were 13,700 and 14,700 respectively.

- During the year prior to the Pilot, four ITOs ordered 1,000 or less, while during the first year of the Pilot, all ITOs ordered more than 1,000 cases.

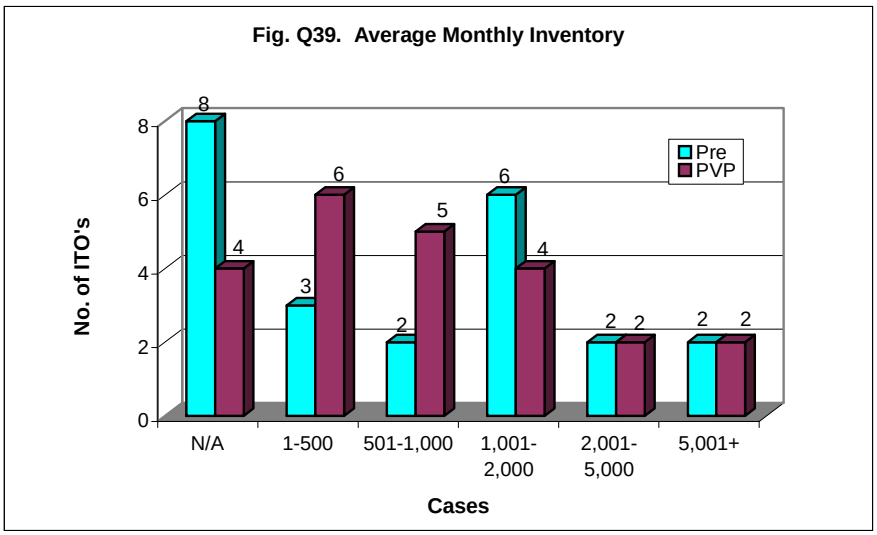
Cases	Pre	PVP
1-1,000	4	0
1,001-2,500	3	4
2,501-5,000	5	4
5,001-10,000	2	6
10,001-20,000	4	3
20,000+	5	6
Mean	*13,700*	*14,740*



Q39: <u>What was your average monthly inventory (cases)?</u>

- Average monthly inventory was mostly within 2,000 cases at both periods.

Cases	Pre	PVP
N/A	8	4
1-500	3	6
501-1,000	2	5
1,001-2,000	6	4
2,001-5,000	2	2
5,001+	2	2
Minimum	*10*	*300*
Maximum	*5,000*	*7,209*
Mean	*1,419*	*1,704*



Q40: <u>Did your ITO have a warehouse?</u>

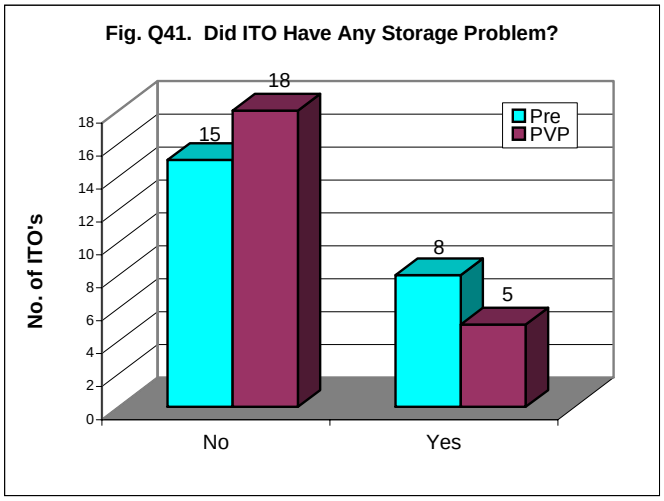
- All ITOs reported having a warehouse at both periods.

Q41: Did your ITO have any storage problems?

Pre: About 65% ITOs reported having storage problems as against 35% that did not. This difference was not significant *(X^2=2.13, P=0.14).*

Post: Storage problems decreased during the Pilot, with the difference between those that had problems and those that didn't being significant *(X^2=7.35, P=0.01).*

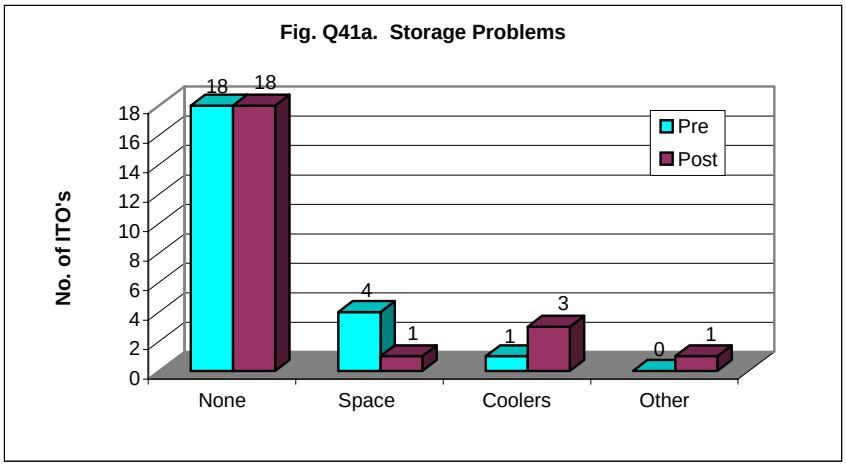
Problems	Pre	PVP
No	15	18
Yes	8	5



Q41a: Did your ITO have any storage problems? [***Type*** of Storage Problems].

- Only five ITOs (22%) reported storage problems in each survey. The problems involved space and coolers respectively.

Problems	Pre	Post
None	18	18
Space	4	1
Coolers	1	3
Other	0	1

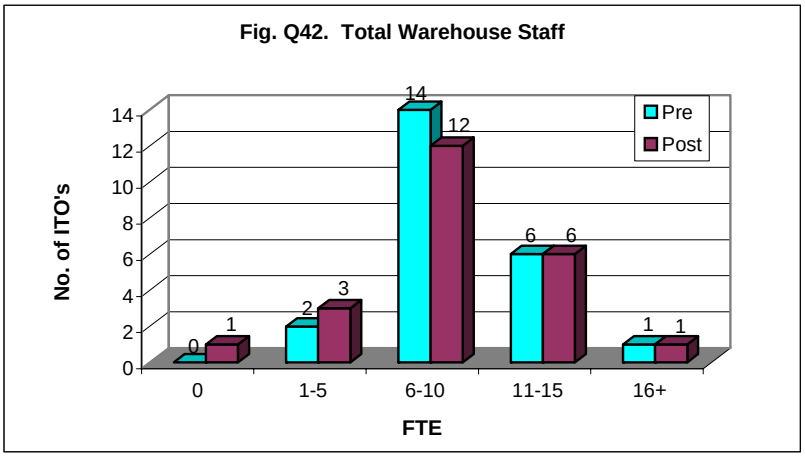


Q42: How many warehouse staff (FTE) did you have?

- Most ITOs had between 6 and 15 warehouse staff FTE, with about equal distributions and similar means (9.1 and 9.2 respectively) in both periods.

- There was generally no change either in magnitude or trend in warehouse staff between the pre and post survey periods.

Staff FTE	Pre	Post
0	0	1
1-5	2	3
6-10	14	12
11-15	6	6
16+	1	1
Minimum	*1*	*0*
Maximum	*16*	*17*
Mean	*9.1*	*9.2*

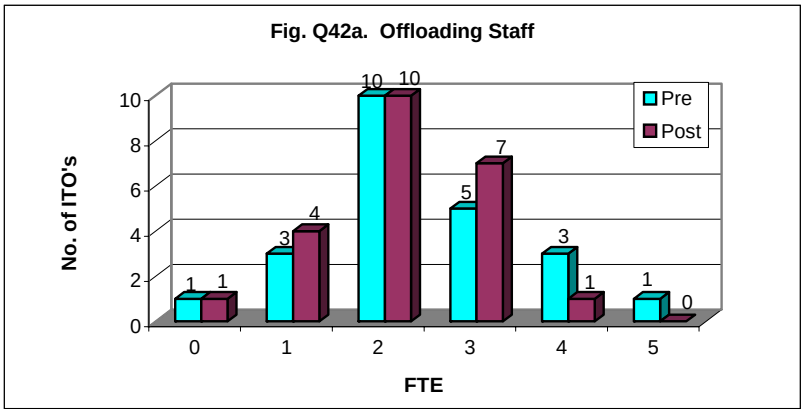


Q42a: How many staff (FTE) did you have for ***Offloading*** Trucks?

- Most ITOs had between 2 and 3 offloading staff in both periods.

- There were fewer offloading staff during the Pilot; the means were 2.4 and 2.1 FTE respectively.

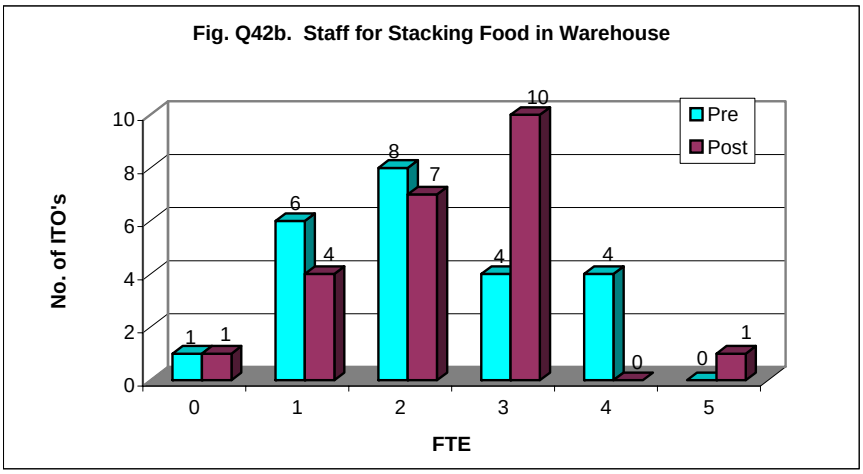
Offloading FTE	Pre	Post
0	1	1
1	3	4
2	10	10
3	5	7
4	3	1
5	1	0
Maximum	*5*	*4*
Mean	*2.4*	*2.1*



Q42b: How many staff (FTE) did you have for ***Placing Food in Warehouse***?

- Most ITOs had between 1 and 4 staff FTE for placing food in warehouse in both periods. The means were 2.2 and 1.9 respectively.

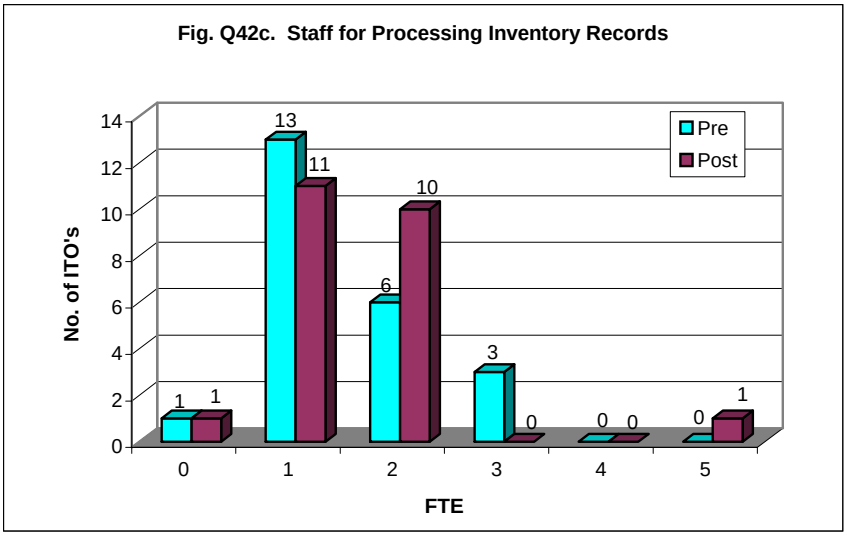
FTE	Pre	Post
0	1	1
1	6	4
2	8	7
3	4	10
4	4	0
5	0	1
Maximum	*4*	*5*
Mean	*2.2*	*1.9*



Q42c: How many staff (FTE) did you have for ***Processing Inventory*** Records?

- A majority of ITOs had between 1 and 2 staff FTE for inventory processing and records for both periods. The means were 1.5 and 1.6 respectively.

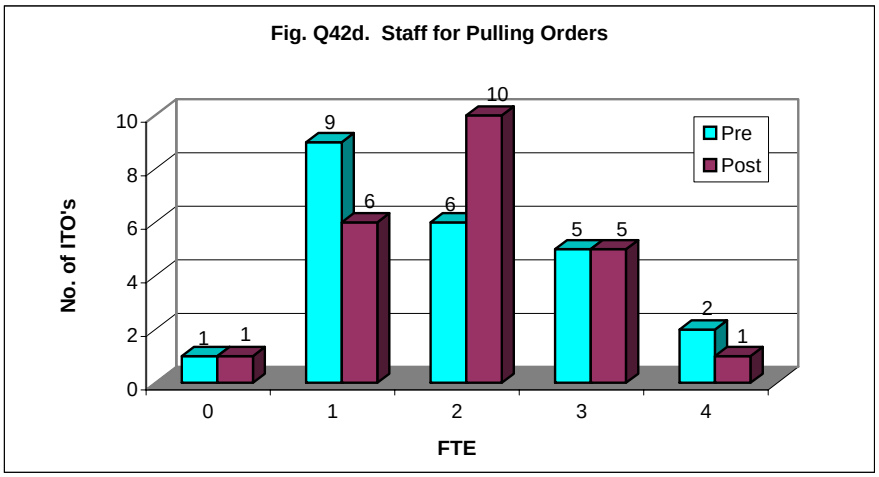
FTE	Pre	Post
0	1	1
1	13	11
2	6	10
3	3	0
4	0	0
5	0	1
Maximum	*3*	*5*
Mean	*1.5*	*1.6*



Q42d: How many staff (FTE) did you have for ***Pulling Orders***?

- Staff FTE for pulling orders was between 1 and 3 in both periods. The means were 1.9 and 2.0 respectively.

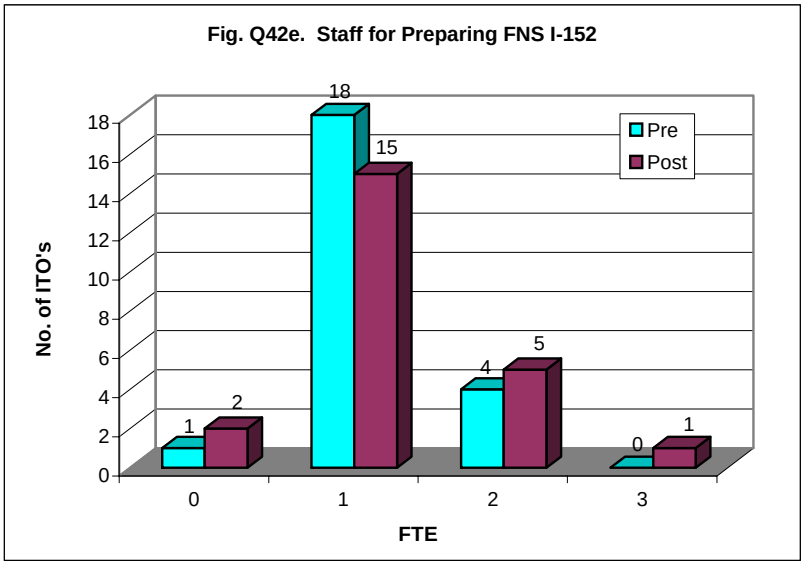
FTE	Pre	Post
0	1	1
1	9	6
2	6	10
3	5	5
4	2	1
Maximum	*4*	*4*
Mean	*1.9*	*2.0*



Q42e: How many staff (FTE) did you have for ***Preparing FNS I-152***?

- A majority of ITOs had only one staff FTE for preparing FNS I-152 in both periods. The means were 1.1 and 1.2.

I-152 Staff	Pre	Post
0	1	2
1	18	15
2	4	5
3	0	1
Maximum	*2*	*3*
Mean	*1.1*	*1.2*

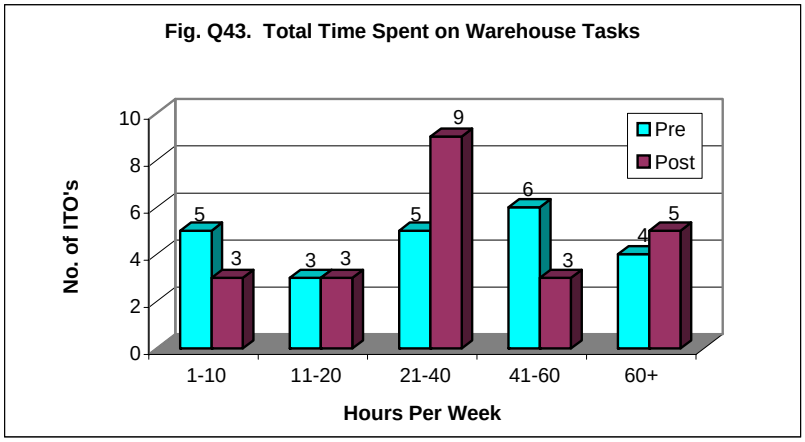


Q43: How much time (hours/week) was spent by staff on warehouse tasks?

- There was a significant difference between pre and post in terms of the number of hours ITOs spent on warehouse tasks. The means were 44.2 and 238.4 respectively.

- This huge difference between the two periods in weekly warehouse hours appears to be the result of two things: (1) the increase in the frequency of ordering, and (2) large increases in the reported hours of two ITOs.

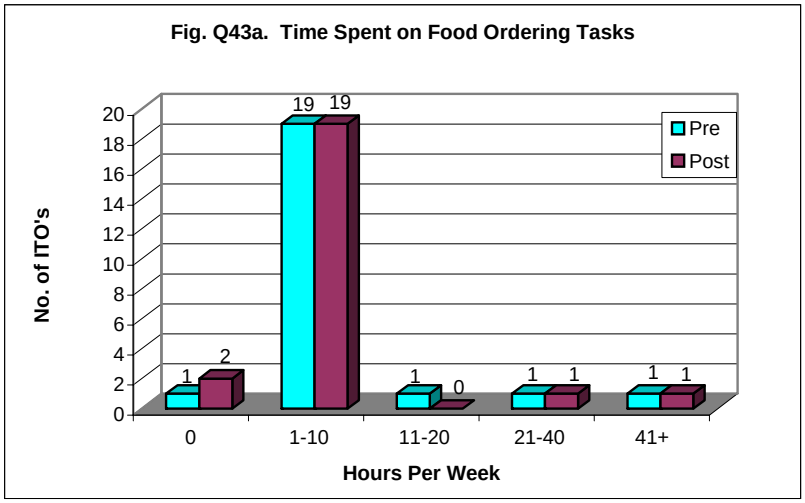
Hours/week	Pre	Post
1-10	5	3
11-20	3	3
21-40	5	9
41-60	6	3
60+	4	5
Minimum	*4*	*3*
Maximum	*170*	*2,404*
Mean	*44.2*	*238.4*



Q43a: How much time (hours/week) was spent by staff on ***Food Ordering*** tasks?

- Time spent per week on food ordering tasks was almost exclusively less than 10 hours per ITO for both the year prior and during the Pilot. The means were 7.9 and 5.5 hours a week respectively.

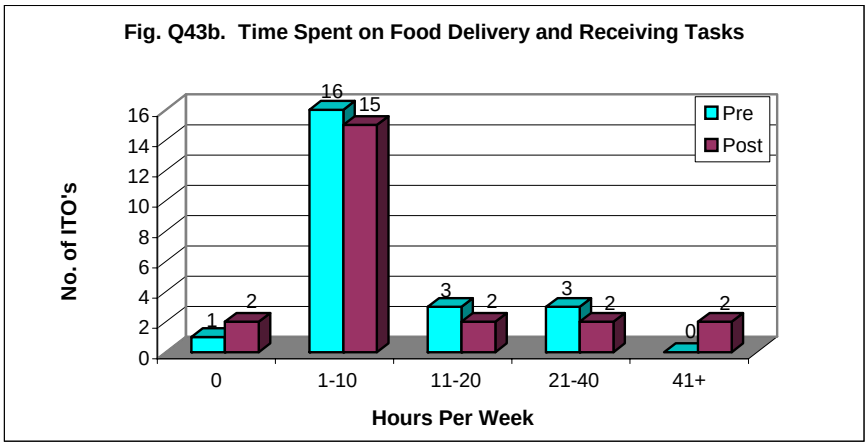
Hours/week	Pre	Post
0	1	2
1-10	19	19
11-20	1	0
21-40	1	1
41+	1	1
Maximum	*72*	*52*
Mean	*7.9*	*5.5*



Q43b: How much time (hours/week) was spent by staff on ***Food Delivery and receiving*** tasks?

- Time spent per week on food delivery and receiving was mostly less than 10 hours per ITO for most ITOs. The averages were 7.8 and 35.9 hours a week respectively In the post period, two ITOs had large increases.

Hours/week	Pre	Post
0	1	2
1-10	16	15
11-20	3	2
21-40	3	2
41+	0	2
Maximum	*25*	*576*
Mean	*7.8*	*35.9*

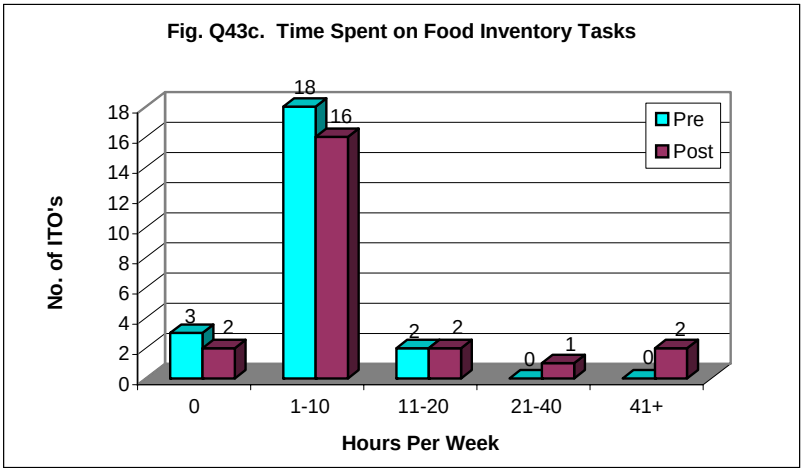


Q43c: How much time (hours/week) was spent by staff on ***Food Inventory*** tasks?

- Time spent per week on food inventory was mostly less than 10 hours per ITO for most ITOs. In the post period, two ITOs had considerable increases.

- The averages were 4.6 and 26.3 hours a week respectively.

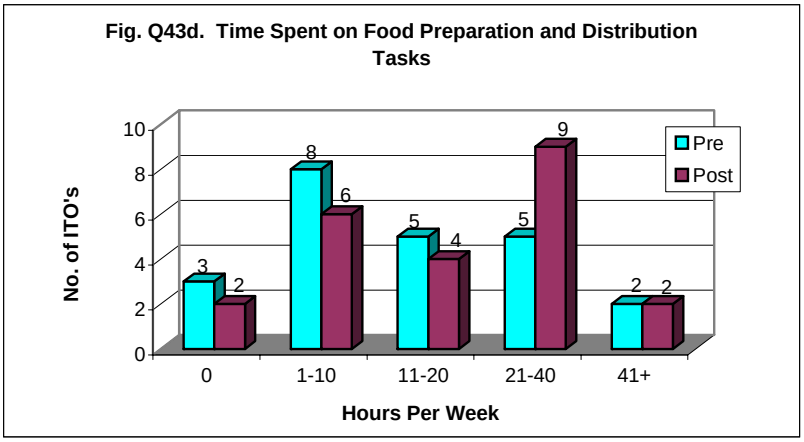
Hours/week	Pre	Post
0	3	2
1-10	18	16
11-20	2	2
21-40	0	1
41+	0	2
Maximum	*20*	*416*
Mean	*4.6*	*26.3*



Q43d: How much time (hours/week) was spent by staff on ***Food Preparation and Distribution*** to clients?

- Food preparation and distribution hours nearly tripled, increasing from a mean of 21.3 per week in the pre survey to 57 per week during the Pilot.

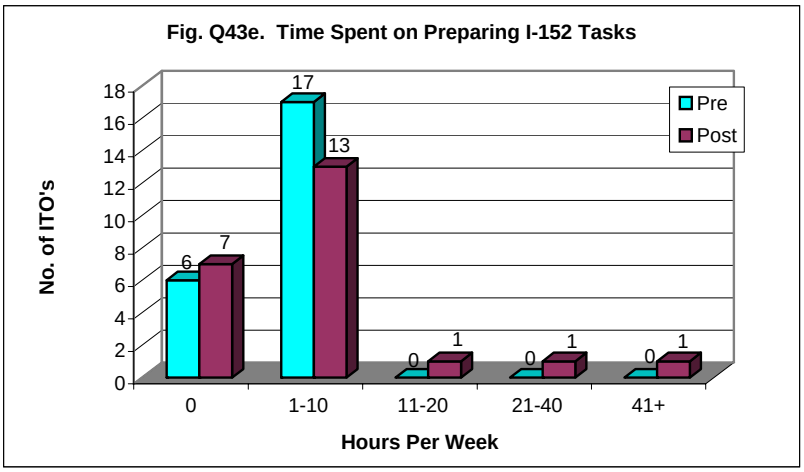
Hours/week	Pre	Post
0	3	2
1-10	8	6
11-20	5	4
21-40	5	9
41+	2	2
Maximum	*120*	*840*
Mean	*21.3*	*57.0*



Q43e: How much time (hours/week) was spent by staff on ***Preparing FNS I-152****?*

- Time for preparing FNS I-152 also increased five times, from a mean of 1.5 hours per week to 7.9 hours per week.

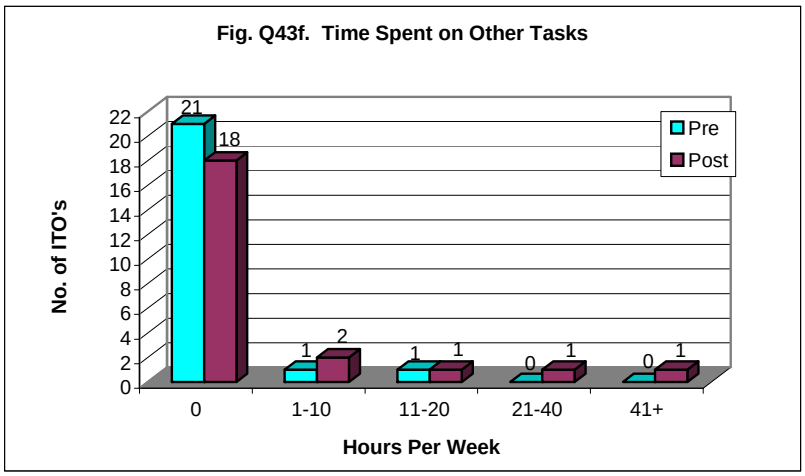
Hours/week	Pre	Post
0	6	7
1-10	17	13
11-20	0	1
21-40	0	1
41+	0	1
Maximum	*4*	*104*
Mean	*1.5*	*7.9*



Q43f: How much time (hours/week) was spent by staff on ***Other Tasks***?

- Generally, very little time was spent on other tasks.

Hours/week	Pre	Post
0	21	18
1-10	1	2
11-20	1	1
21-40	0	1
41+	0	1
Maximum	*20*	*416*
Mean	*0.9*	*20.5*

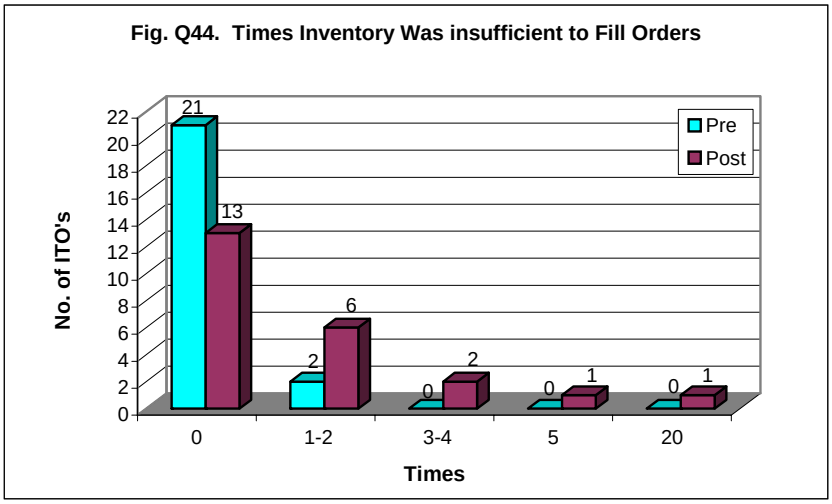


Q44: How many times was inventory ***Insufficient*** to fill orders?

Pre: Two ITOs reported insufficient inventory one or two times during the year.

Post: During the Pilot, six ITOs reported insufficient inventory one or two times, two reported three or four times, one five times, and one twenty times. A review of September 2002 I-152 reports showed beginning and ending inventory for all 23 ITOs for nearly all of the food package at each program, except for fresh produce which ITOs are discouraged to have a roll-over of due to short shelf life.

No. of Times	Pre	Post
0	21	13
1-2	2	6
3-4	0	2
5	0	1
20	0	1
Maximum	*1*	*20*
Mean	*0.1*	*1.8*

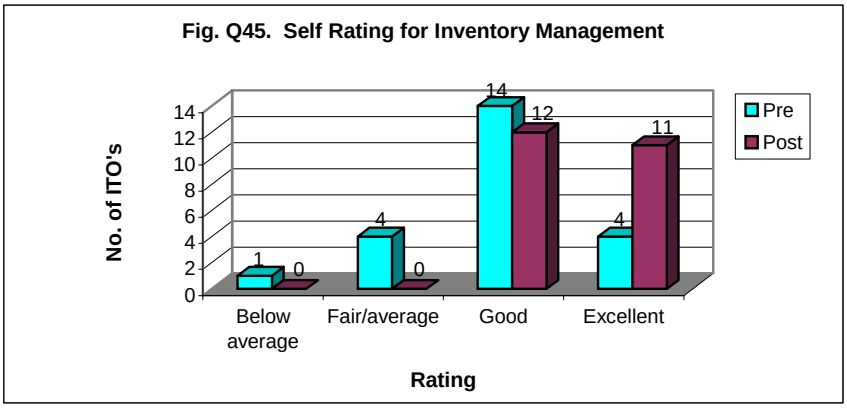


Q45: How do you rate your inventory management operations?

Pre: All but 5 ITOs rated their inventory management as good or excellent. The difference between the high and low raters was significant *(X^2=9.78, P=0.10).*

Post: All ITOs rated their inventory management operations as good or excellent, with about equal proportions.

Rating	Pre	Post
Below average	1	0
Fair/average	4	0
Good	14	12
Excellent	4	11
Mean	*2.9*	*3.5*

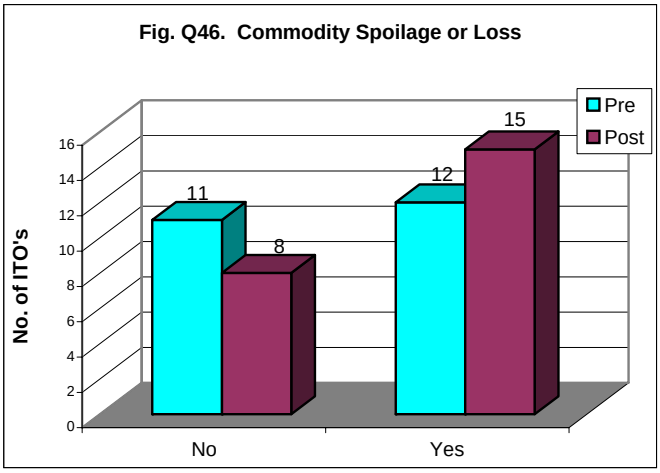


Q46: Was there any spoilage or loss of donated commodities?

Pre: Just over half (52%) of ITOs reported spoilage or loss and the other half did not. The difference between the two groups was not significant *(X^2=0.04, P=0.84).*

Post: More ITOs (65%) reported experiencing spoilage or loss and the rest did not. The difference between the two groups was not significant *(X^2=2.13, P=0.14).*

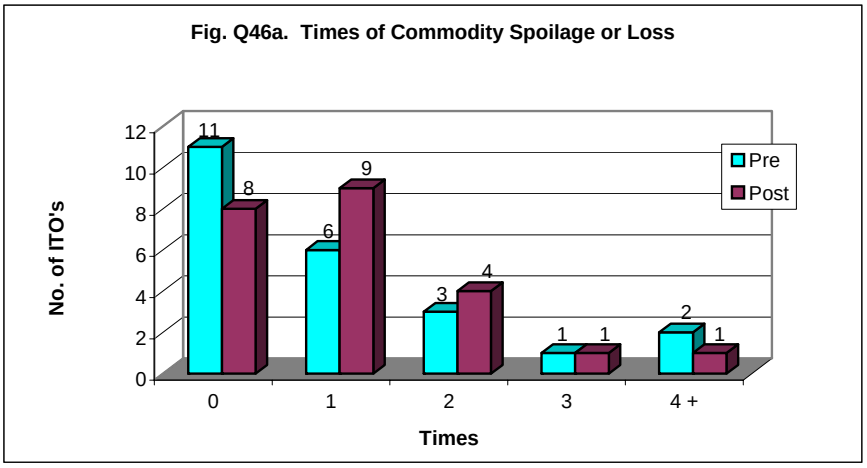
Spoilage/Loss	Pre	Post
No	11	8
Yes	12	15



Q46a: Was there any spoilage or loss of donated commodities? [***Number of times***].

- There was no difference in the overall trend in commodity spoilage or loss.

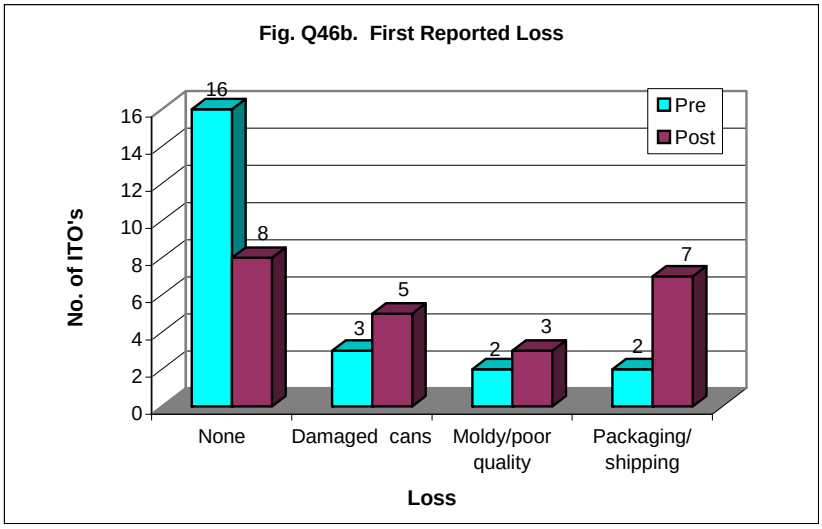
Times	Pre	Post
0	11	8
1	6	9
2	3	4
3	1	1
4 +	2	1
Maximum	*2*	*2*
Mean	*1.3*	*1.4*



Q46b: Was there any spoilage or loss of donated commodities? [***First*** reported spoilage or loss].

- The first reported spoilage was mostly in the form of moldy or poor quality food, damaged cans, and packaging/shipping problems.

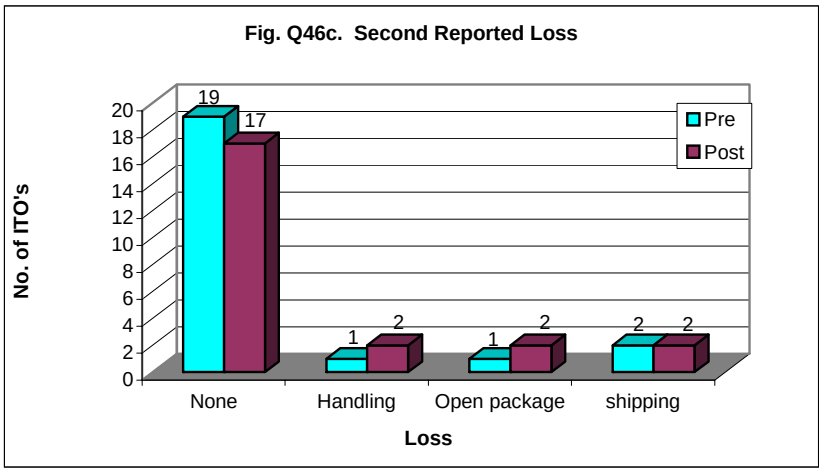
First Loss	Pre	Post
None	16	8
Damaged cans	3	5
Moldy/poor quality	2	3
Packaging/ shipping	2	7



Q46c: Was there any spoilage or loss of donated commodities? [***Second*** reported spoilage or loss].

- Only few ITOs (four in pre and six in post) reported a second loss relating to open packages, and handling/shipping problems. The trend was the same for both periods.

Second Loss	Pre	Post
None	19	17
Handling	1	2
Open package	1	2
shipping	2	2

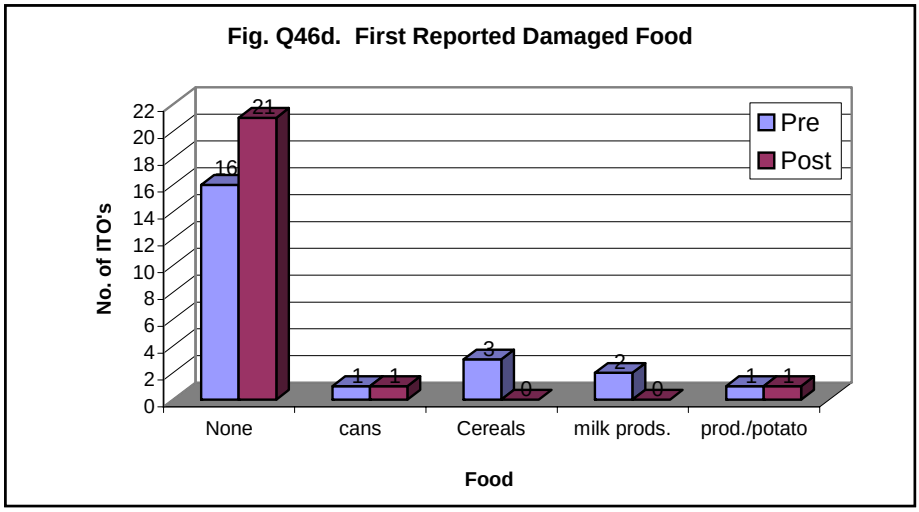


Q46d: Was there any spoilage or loss of donated commodities? [***First*** reported damaged food].

- Foods that were damaged were mostly canned goods, cereals, milk products, and potatoes/produce.

- Seven in the pre survey and only two in the post survey reported such loss.

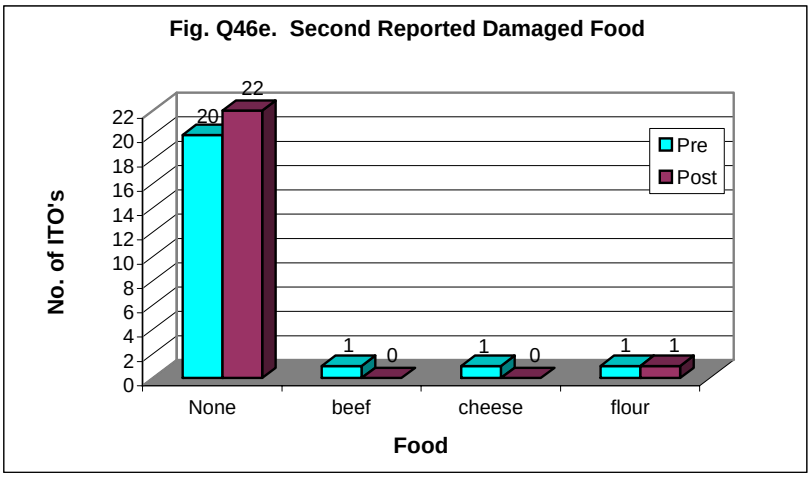
First Food	Pre	Post
None	16	21
cans	1	1
Cereals	3	0
milk prods.	2	0
prod./potato	1	1



Q46e: Was there any spoilage or loss of donated commodities? [***Second*** reported damaged food].

- Very three ITOs in the pre survey and one in the post survey reported a second damaged food, involving beef, cheese, and flour.

Second Food	Pre	Post
None	20	22
beef	1	0
cheese	1	0
flour	1	1

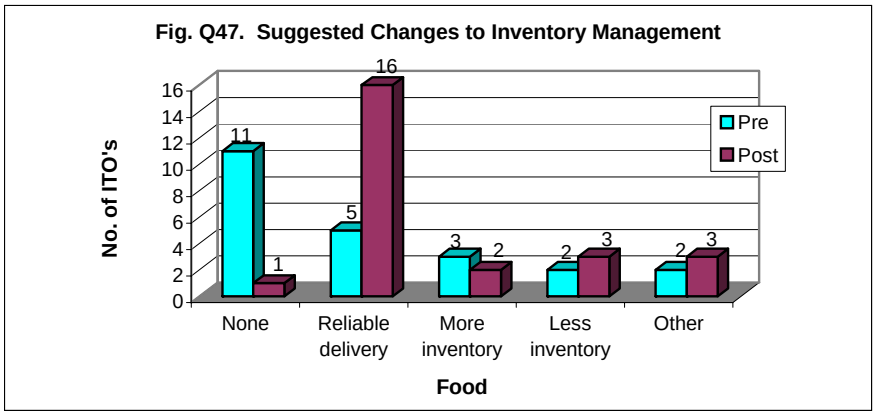


Q47: What changes do you think will make inventory management operations run more smoothly?

Pre: Just over half (52%) of ITOs made suggestions on improving inventory management operations and the other half made no suggestions. The difference between the two groups was not significant *(X^2=0.04, P=0.84).*

Post: All but one ITO suggested improving inventory management. The difference between the two groups was significant *(X^2=5.26, P=0.02).* ITOs stated that "knowing when deliveries are going to show up" was an immense advantage of the Pilot, i.e. a scheduled delivery date versus the 15 days shipping period before the Pilot.

Changes	Pre	Post
None	11	1
Reliable delivery	5	16
More inventory	3	2
Less inventory	2	3
Other	2	3



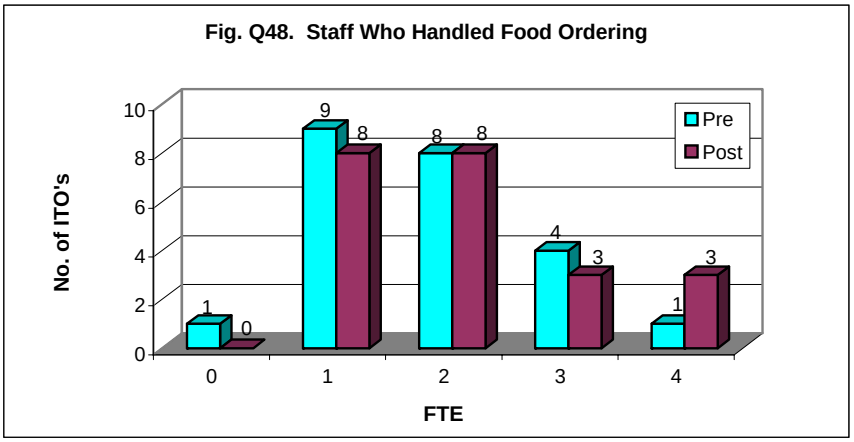
5. OPERATIONAL AND STAFFING COSTS

5a. Procurement Costs

Q48: How many ***staff FTE*** handled the ordering component?

- Food ordering was handled by one or two staff FTE in most ITOs in both of the years before and during the Pilot.

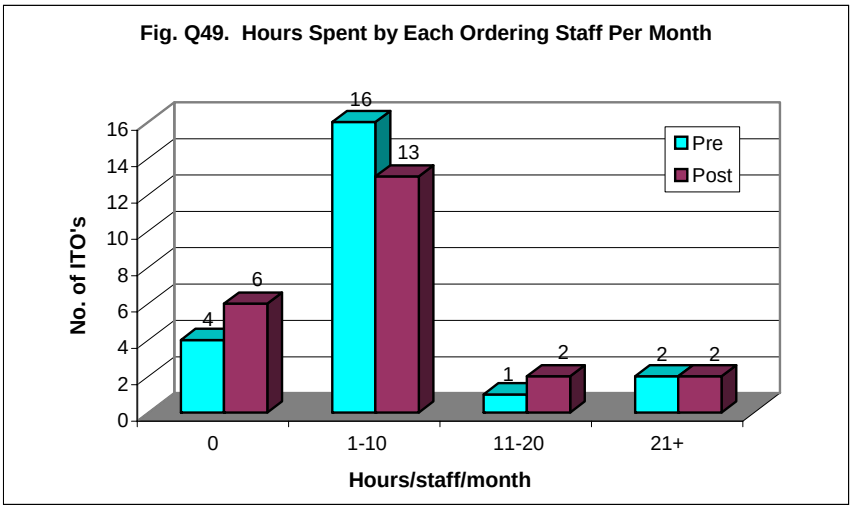
FTE	Pre	Post
0	1	0
1	9	8
2	8	8
3	4	3
4	1	3
Minimum	*0*	*1*
Maximum	*4*	*4*
Mean	*1.8*	*2.1*



Q49: On average, how much time (hours/month) was spent by each staff on ordering tasks?

- In most ITOs in both periods, staff spent less than ten hours a month each on procurement tasks.

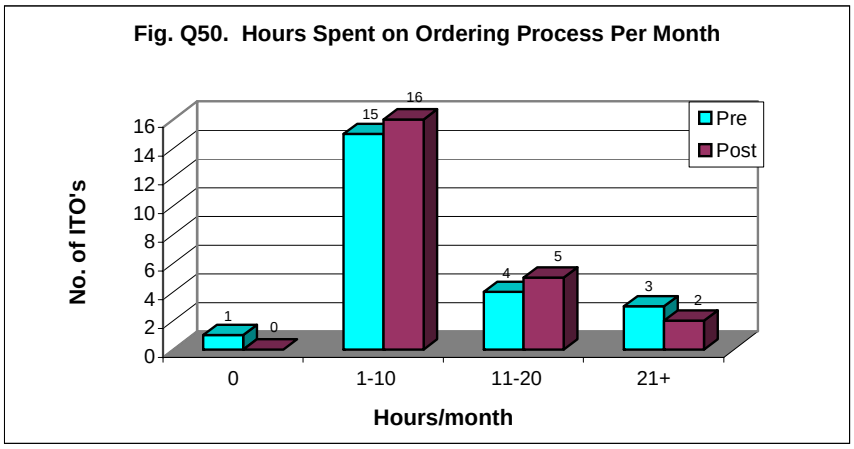
Hours/staff/mo.	Pre	Post
0	4	6
1-10	16	13
11-20	1	2
21+	2	2
Maximum	*21+*	*21+*
Mean	*6*	*6.3*



Q50: How many hours (per month) did the entire ordering process take?

- Most ITOs reported spending less than 10 hours a month on the entire procurement process.
- The trend was the same for both years.

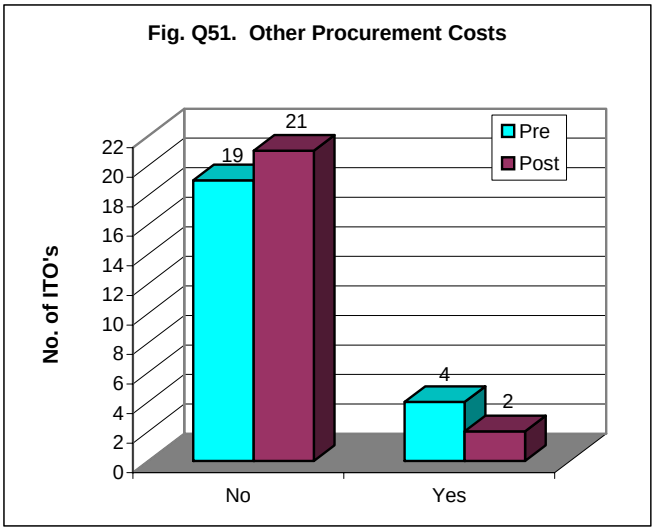
Total Hrs./mo.	Pre	Post
0	1	0
1-10	15	16
11-20	4	5
21+	3	2
Minimum	*0*	*3*
Maximum	*23*	*21*
Mean	*6.7*	*7.7*



Q51: Were there any other procurement costs?

- Most ITOs reported no other procurement costs.

Other Proc. Costs	Pre	Post
No	19	21
Yes	4	2



5b. Warehousing Costs

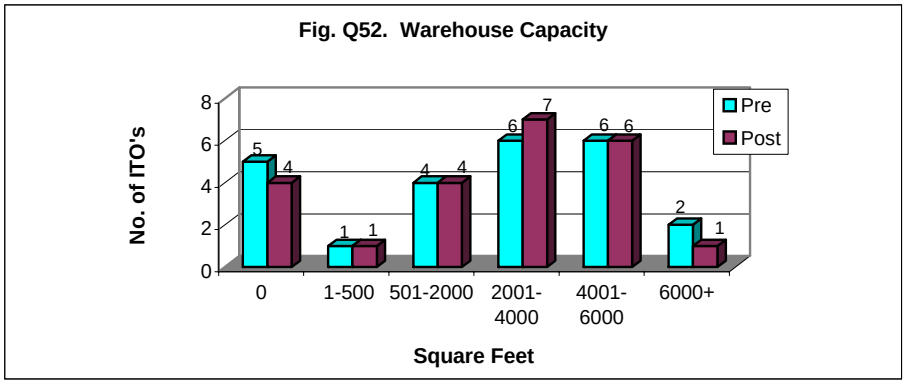
Q52: What was your warehouse storage capacity (sq. ft.)?

Pre: Over 78% of ITOs had warehouses, of which 84% had a capacity of 500 to 6,000 square feet. Maximum space was 8,575 square feet and the mean was 2,863.

Post: About 83% of ITOs had warehouses, of which 90% had a capacity of 500 to 6,000 square feet. Maximum space declined to 6,800 square feet, but the mean increased to 3,405 square feet.

The decrease in maximum space and increase in the mean during the first year of the Pilot imply that the frequent ordering opportunity provided by the Pilot obviated the need for very large warehouses, but necessitated slight increases in smaller ones.

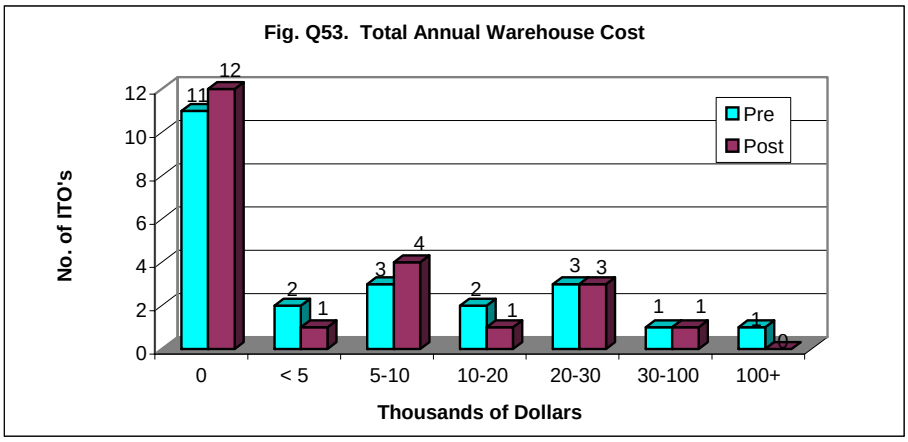
Sq. Feet	Pre	Post
0	5	4
1-500	1	1
501-2000	4	4
2001-4000	6	7
4001-6000	6	6
6000+	2	1
Maximum	*8,575*	*6800*
Mean	*2,863*	*3,405*



Q53: What was the total warehousing cost for the year?

- Half of ITOs reported no warehouse costs. The other half reported costs mostly between $5,000 and $30,000 a year.

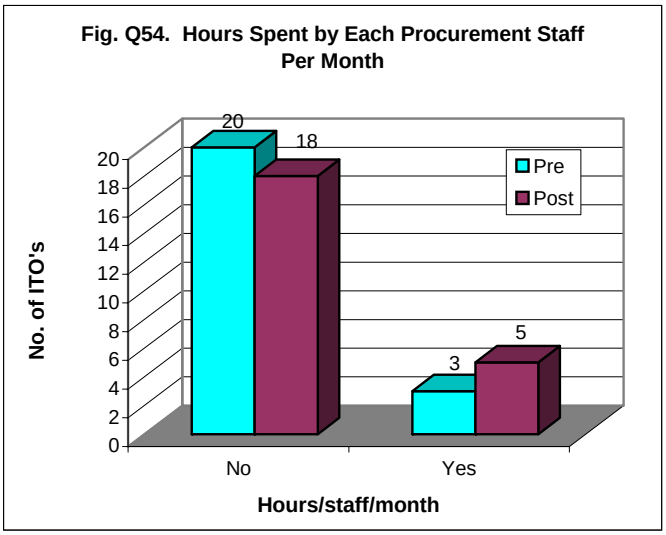
Cost/yr. (x $1,000)	Pre	Post
0	11	12
< 5	2	1
5-10	3	4
10-20	2	1
20-30	3	3
30-100	1	1
100+	1	0
Maximum	*127,102*	*100,000*
Mean	*14,564*	*19,612*



Q54: Were there any other warehouse costs?

- Very few ITOs (13% and 22% respectively) reported having other warehouse costs.

Other Costs	Pre	Post
No	20	18
Yes	3	5

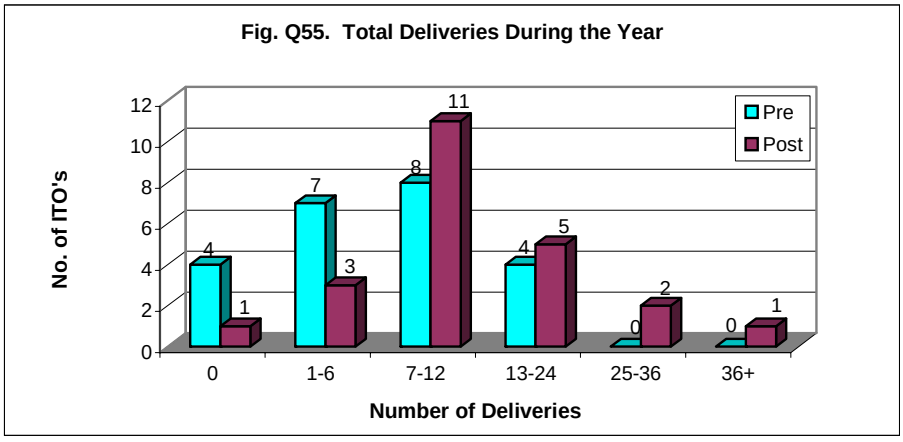


5c. Delivery Costs

Q55: How many deliveries did your ITO receive?

- Deliveries ranged up to 24 at the pre and up to 60 at the post periods, with means of 8.1 and 15.8 respectively. In essence, there were twice as many deliveries during the Pilot as the year before.

Deliveries	Pre	Post
0	4	1
1-6	7	3
7-12	8	11
13-24	4	5
25-36	0	2
36+	0	1
Minimum	*0*	*3*
Maximum	*24*	*60*
Mean	*8.1*	*15.8*

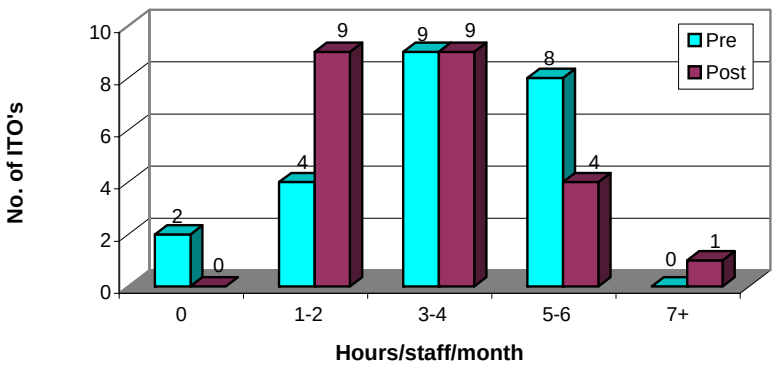


Q56: <u>On average how many hours a month did each delivery staff spend on delivery tasks?</u>

- Hours spent on delivery tasks by most ITOs were between 1 and 6 per staff per month. Although the maximum for the post period was higher, the means were almost equal.

Hours	Pre	Post
0	2	0
1-2	4	9
3-4	9	9
5-6	8	4
7+	0	1
Minimum	*0*	*1*
Maximum	*6*	*12*
Mean	*3.6*	*3.5*

Fig. Q56. Hours Spent by Each Delivery Staff Per Month

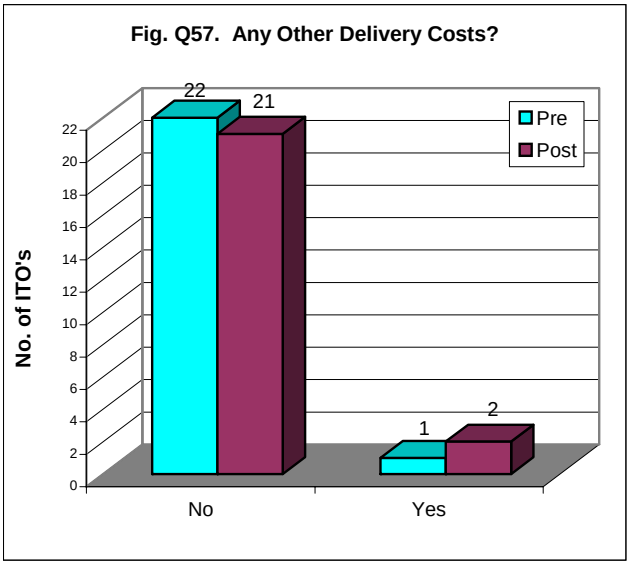


Q57: <u>Were there any other delivery costs?</u>

- Very few ITOs (one at pre and two at post) reported other delivery costs.

Other Costs	Pre	Post
No	22	21
Yes	1	2

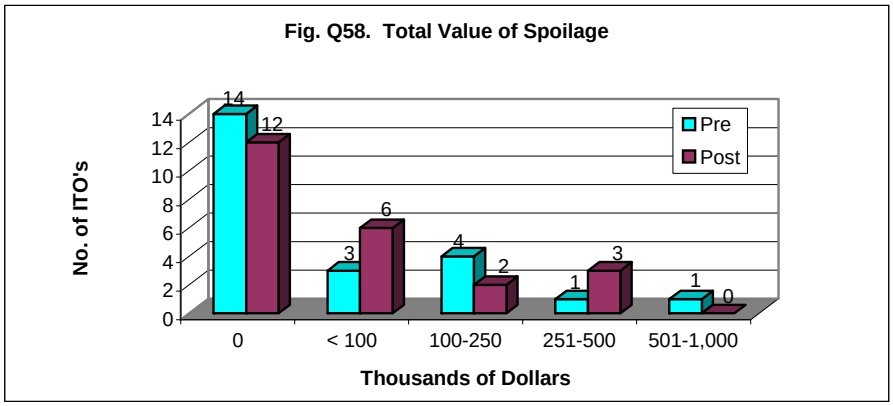
Fig. Q57. Any Other Delivery Costs?



Q58: What would you estimate the total value ($) of spoilage during the year?

- A majority of ITOs (61% and 52% respectively) reported no loss. The mean spoilage values were $95.20 and $74.70 respectively for the year prior to and during PVP.

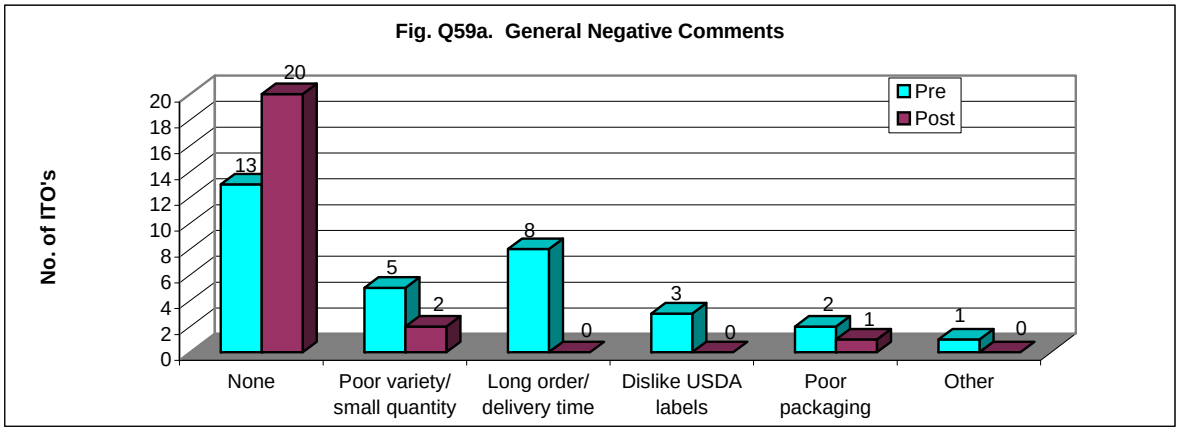
Value of Spoilage ($)	Pre	Post
0	14	12
< 100	3	6
100-250	4	2
251-500	1	3
501-1,000	1	0
Maximum	*800*	*500*
Mean	*95.20*	*74.70*



Q59a: Please provide any other comments about food distribution in Indian reservations during the year. [***Negative Comments***].

Pre: About 44% of ITOs commented negatively on delivery time, poor variety/small quantity, dislike for USDA labels, and poor packaging.

Post: Only 3 ITOs (13%) reported negative comments regarding poor variety and poor packaging. There were no negative comments on ordering/delivery time.



Negative Comments	Pre	Post
None	13	20
Poor variety/ small quantity	5	2
Long order/ delivery time	8	0
Dislike USDA labels	3	0
Poor packaging	2	1
Other	1	0

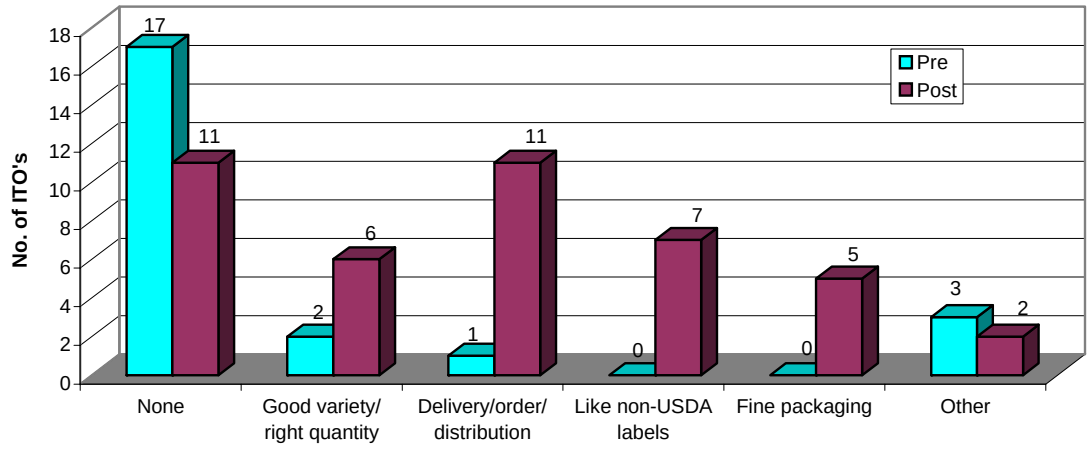
Note: (1) Number of participating ITO's is 23.
(2) Multiple response categories.

Q59b: Please provide any other comments about food distribution in Indian reservations during the year. [***Positive Comments***].

Pre: Nearly three-quarters (74%) of ITOs had no positive comment on the food distribution program during the year prior to the Pilot. The few comments made were about the good variety/right quantity and delivery/distribution.

Post: Over half (53%) of ITOs expressed positive comments compared to 26% the year before the Pilot. About of the positive comments (48%) were about improvements in delivery/order/distribution; About one-third (30%) liked non-USDA labels; one-quarter (26%) praised the good variety/right quantity; and one-fifth (22%) complimented the fine packaging.

Fig. Q59b. General Positive Comments



Positive Comments	Pre	Post
None	17	11
Good variety/ right quantity	2	6
Delivery/order/ distribution	1	11
Like non-USDA labels	0	7
Fine packaging	0	5
Other	3	2

Note: (1) Number of participating ITO's is 23.
(2) Multiple response categories.