



Contents lists available at ScienceDirect

Journal of Rural Studies

journal homepage: [www.elsevier.com/locate/jrurstud](http://www.elsevier.com/locate/jrurstud)

## Thinking inside and outside the box: local and national considerations of the Food Distribution Program on Indian Reservations (FDPIR)



Megan Mucioki<sup>a,\*</sup>, Jennifer Sowerwine<sup>b</sup>, Daniel Sarna-Wojcicki<sup>b</sup>

<sup>a</sup> University of California at Berkeley, University and Jepson Herbaria, 1001 Valley Life Sciences Building #2465, Berkeley, CA 94720-2465, USA

<sup>b</sup> University of California at Berkeley, Department of Environmental Science, Policy, and Management, 130 Mulford Hall #3114, Berkeley, CA 94720-3114, USA

### ARTICLE INFO

#### Keywords:

Food assistance  
Traditional foods  
Food security  
Food sovereignty  
Native Americans  
Klamath River Basin

### ABSTRACT

The Food Distribution Program on Indian Reservations (FDPIR) provides a monthly box of U.S. Department of Agriculture foods to low-income, rural Native Americans and is a vital component of food security for recipient households. While the origin of government food annuities dates back hundreds of years to treaties between tribes, pueblos, and nations and the United States Government, FDPIR in its current form and function is 40 years old. The FDPIR food package has faced increasing scrutiny in recent years over the quality, nutritional value, and cultural appropriateness of foods included. Using data collected from three Tribes in the Klamath River Basin as well as national institutions that govern FDPIR, we investigate opportunities and challenges of FDPIR to achieve food security for its clientele, and the extent to which integration of traditional foods can enhance Native American food security, food sovereignty and wellbeing. We conclude with a set of policy recommendations on how to improve Native American food security and food sovereignty outcomes for FDPIR clients.

### 1. Introduction

“All tribes suffered a loss of their healthy, traditional foods when the white man and the army placed us on these reservations, and the United States War Department took over and we were forced to sign treaties giving up our prime hunting grounds. They promised to feed us, provide health care and other services, and educate us, and you know what happened with that. They broke those treaties immediately by the fact that when they gave out the rations they introduced us to food that we did not traditionally eat. We were hunters; our tribe was hunters, and of course other tribes were fishers, gatherers, or growers” (Charles “Red” Gates, Interview, 10/7/2016).

This quote by Charles “Red” Gates, the Standing Rock Sioux Tribe Food Distribution Program Manager and member of the national advisory committee to the U.S. Food Distribution Program on Indian Reservations (FDPIR), succinctly describes the immense cultural and nutritional upheaval experienced by Native Americans<sup>1</sup> during colonization of their territories by the United States government. Over the

course of five centuries, Native Americans across what is now the United States suffered great losses under state-sanctioned genocide, disease brought by settlers, forced removal from their lands and systematic cultural assimilation (Dunbar-Ortiz, 2014). As the United States government continued its expansion westward, a plethora of laws and policies were developed that severely curtailed access to and consumption of traditional foods including restrictions on hunting, fishing and gathering rights (Charlton, 2015; Leonard, 2014).

Still today about 68% of Native Americans continue to live on or near their tribal ancestral territories and 54% of Native Americans live in rural areas (First Nations Development Institute, 2017). Native American rurality is experienced through sustained connection to their ancestral homelands which anchor family and community, traditional foods,<sup>2</sup> traditional knowledge, and Native culture (Ulrich-Schad, 2013). However, the federal processes of control of tribal territories and diminishment of Native American food systems have challenged Native peoples' subsistence in rural areas, prompting government food assistance for low-income Native Americans who can no longer access sustaining volumes of traditional foods from tribal lands – even for those landless tribes whose territory was appropriated without a validating

\* Corresponding author.

E-mail address: [mmucioki@berkeley.edu](mailto:mmucioki@berkeley.edu) (M. Mucioki).

<sup>1</sup> In this paper, the term Native American refers to people Indigenous to the United States, including Alaska Natives. We recognize that there are many other terms (e.g. American Indian, Indigenous Peoples, First Peoples) that can be used synonymously to identify Native peoples and acknowledge the role of self-determination in describing Native identity and cultural heritage in a respectful and accurate manner.

<sup>2</sup> The term traditional foods is used throughout this paper to refer to native plants and terrestrial and aquatic animals that Native Americans have consumed for thousands of years. These foods are specific to geography and culture and vary by Tribe (Gurney et al., 2015).

congressionally ratified treaty. Today the United States government offers food assistance to rural Native communities in the form of tribal commodities or “commods”, a monthly food package officially known as Food Distribution Program on Indian Reservations<sup>3</sup> that serves over 85% of residents on some Indian reservations (Jernigan et al., 2012). FDPIR is focused on Native Americans residing in rural (and often remote) areas, living considerably further from grocery stores than other people in the United States (Kaufman et al., 2014), and who have limited and varying rights to hunt, fish, and gather traditional foods and manage tribal lands (Charlton, 2015; Leonard, 2014).

Recent efforts by Native American members of the FDPIR advisory board have been advocating for better quality foods and integration of traditional foods into the FDPIR food packages to achieve greater food security for tribal members. We suggest these actions align with a growing Native American food sovereignty movement in the United States, which aims to build on Native American community assets to regain sovereignty over their traditional foods and food systems more broadly (Grey and Patel, 2015). In this paper, we examine the underpinnings of the FDPIR food system and the evolution of foods offered through the program to consider the extent to which FDPIR supports Native American food security<sup>4</sup> and how it might enable Native American food sovereignty.<sup>5</sup> We ground our analysis with data from 1) a case study involving household surveys, focus groups and 1:1 interviews among the Karuk, Yurok and Klamath Tribes in the Klamath River Basin between California and Oregon in the western United States and 2) interviews with people engaged in FDPIR policy and programming at the national and local levels. Together, these data illuminate the challenges, benefits, limitations, and opportunities of the FDPIR program at multiple scales in meeting food security and food sovereignty among Native Americans and in particular California Native Americans.

As we enter into an analysis of the impact of FDPIR on Native American food security and food sovereignty, we acknowledge that true food sovereignty involving the return of lands and rights to govern them to Native people warrants a separate discussion. But given the current FDPIR system, albeit a legacy of colonialism itself, we ask what might the contents of a commodity food box look like if it encapsulated the values and goals of Native American food sovereignty movements? We suggest that integrating healthier and culturally relevant foods into the “commods box” is important but insufficient. Rather, our findings suggest that where, how, and by whom the foods are produced and procured should be considered. Namely, we argue that a more “food sovereign” box would prioritize traditional and local foods that are grown, gathered, and processed according to cultural values and norms and sourced from local businesses or programs owned and operated by Native American individuals, communities or governments.

### 1.1. History of FDPIR

Precursors of FDPIR have existed in Native American communities

<sup>3</sup> While FDPIR is the official name of the program many FDPIR clients and Native Americans that grew up around the program refer to it as “commodities” or “commods.” Throughout our household survey and focus groups this program was referred to as tribal commodities as this is the most identifiable terminology for users. Thus, much of the discussion around this program by study participants also uses the aforementioned terms. In order to maintain authenticity of our data the terms “commods” and “commodities” are used throughout our results section to refer to FDPIR and the food it provides to clients.

<sup>4</sup> We use the FAO definition of food security to mean: food availability (are there sufficient quantities of quality food in FDPIR food packages?), food access (are FDPIR foods accessible to users?), utilization (are the USDA foods included nutritious and culturally appropriate?), and stability (are the expectations of FDPIR food access and availability met at all times?) (FAO, 2006).

<sup>5</sup> We are guided by the definition of food sovereignty in the Declaration of Nyéléni (2007) which states: “food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems” (p. 1) See Raster and Hill (2017) for application of Native American food sovereignty in practice.

for over 200 years, dating back to the earliest days of settler colonialism (1778–1871) (Byker Shanks et al., 2016; Finegold et al., 2009). FDPIR in its current form was developed 40 years ago as an alternative to the Supplemental Nutrition Assistance Program (SNAP) in order to reduce rural Native American hunger and food insecurity. However, after providing surplus commodity foods such as canned meats, juices, pasta, processed cheese and flour to Native households, within a generation, the previously identified challenges of malnutrition were replaced with the problems of obesity and diet related chronic disease. Today, Native people familiar with the program have coined the term “commod-bods” to describe the physical consequences of this nutritional transition (Vantrease, 2013). Regardless of recent programmatic efforts to reduce sodium and sugar, and increase whole grains (Hearing to review the Food Distribution Program, 2010), FDPIR food packages continue to fall short of nutritional standards set in 2010 for Dietary Guidelines of Americans (Byker Shanks et al., 2016; USDA and HHS, 2010).

### 1.2. FDPIR: services and function

FDPIR serves low-income households (all people regardless of tribal membership) in rural areas living on Indian reservations (see First Nations Development Institute, 2017) and low-income households, with at least one person who is a member of a federally recognized tribe, living in an approved area near a reservation or in Oklahoma (USDA, 2015a; USDA, 2016a). In fiscal year (FY) 2016 FDPIR served 93,038 people nationwide on \$122.2 million budget (USDA, 2017a, 2017b). The program spends approximately \$57 per participant per month on food or about \$1.90 per day (FNS, 2016).

Initially, FDPIR provided only surplus U.S. Department of Agriculture (USDA) commodities to recipients, following the pattern of the previous government mandated ration programs for Native people. In 1977, the first FDPIR food packages included 60 different foods from four basic food groups (meat, vegetable/fruit, dairy, and grain) (USGAO, 1989). It was not until the early 1980s, when nutrition was raised as a national concern, that the Food and Nutrition Service (FNS) began to consider the nutritional value of foods offered (USGAO, 1989). Today, FDPIR packages consist of USDA foods purchased specifically for the program and aim to meet the nutritional standards recommended by the Dietary Guidelines for Americans (Hearing to review Food Distribution, 2010; USGAO, 1989; USDA and HHS, 2010).

USDA foods are procured by the American Marketing Service (AMS) through competitive bids by USDA approved vendors and distributed via two warehouses in Idaho and Missouri. While the USDA purchases and ships FDPIR foods, it is the responsibility of 102 Indian Tribal Organizations (ITOs) and three state agencies (serving 276 tribes, pueblos, or nations) to order, store and distribute the food, to determine applicant eligibility, and to provide nutrition related education to FDPIR clients (Hearing to review the Food Distribution Program, 2010; USDA, 2015b). Monthly food boxes are meant to be supplementary to other foods purchased by the recipients, yet many households are completely or very strongly reliant on monthly food boxes from FDPIR for household food security (Hearing to review the Food Distribution Program, 2010; Pindus et al., 2016). For example, a recent national study (Pindus et al., 2016) found that food provided by FDPIR was the sole or primary source of food for 38 percent of households and about 45 percent of households relied on FDPIR food for 41–60 percent of the household's food supply.

### 1.3. Traditional foods and FDPIR

Native American leaders have been advocating for the inclusion of traditional foods in the package to tailor FDPIR towards the needs and preferences of Native recipients (Hearing to review the Food Distribution Program, 2010). For the first time in 2008, the Food, Conservation, and Energy Act (P.L. 110–246, the 2008 Farm Bill) included a provision which authorized the establishment of a fund to

purchase traditional and locally grown foods for the FDPIR program (Pindus et al., 2016). This provision was reauthorized in the 2014 Farm Bill and actually funded (\$5 million) for the first time in the 2015 fiscal year (Pindus et al., 2016). Prior to this congressional mandate, small amounts of bison<sup>6</sup> had been provided to FDPIR clients on an erratic basis without supplemental funding. In 2015, using the funding allocated by Congress, FDPIR began to offer clients traditional foods, including bison, blue cornmeal, salmon, and wild rice, on a more consistent basis, (USDA, 2016b). Additionally, the 2014 Farm Bill included a provision (\$2 million) for a traditional and local foods pilot project to be tested by one or more ITOs. This would allow ITOs to be the purchasing agent of traditional foods included in the package rather than the USDA. Congress has yet to provide funds to actually carry out this provision (Pindus et al., 2016).

## 2. Methods

### 2.1. Case study region

The Klamath River Basin comprises 10.5 million acres of land from southern Oregon to Northern California and includes the Klamath River and its tributaries (EPA, 2016). This region supports some of the most biodiverse ecosystems in the United States (DellaSala et al., 1999; Olson et al., 2012) and includes National Wildlife Refuges, Forests, and Parks. The land and waters of the Klamath are also used for intensive farming and ranching, with related irrigation practices as well as controversial hydroelectricity generation through six dams in the upper basin. Resulting in cumulative ecological and water quality degradation throughout the basin (National Research Council, 2004). The Klamath River has been the third-largest producer of salmon on the West Coast (EPA, 2016), a cultural keystone species (Garibaldi and Tuner, 2004) to the six Federally Recognized Tribes and Rancherias in the Basin. Three of the tribes (the Klamath, Karuk, and Yurok) comprised of 6115 Karuk people, 4413 Klamath people, and 6504 Yurok people are included in this study (U.S. Census Bureau, 2010). Population centers of all three Tribes include rural, remote areas (e.g. Orleans and Weitchpec in California or Chiloquin in Oregon) and more populated urban clusters (e.g. Yreka and Crescent City in California or Klamath Falls in Oregon). Many households in rural, remote areas of the Basin live two or more hours from the closest fully stocked grocery store. Dramatic degradation of the region's fisheries and forestlands caused by mining, logging, fire suppression and dams have caused a persistent decline of availability of and access to traditional foods that has resulted in diet alteration, increased incidence of diet-related diseases, and decreased physical and mental well-being among Native Americans in this region (Norgaard, 2005).

### 2.2. Data collection<sup>7</sup>

Data gathered for the case study was part of a larger Tribal Food Security Project conducted in collaboration with the Karuk Tribe, the Yurok Tribe, and the Klamath Tribes in the Klamath River Basin. The case study involved both qualitative and quantitative data collection methods including key informant interviews, focus groups and a

<sup>6</sup> In this paper, we use the term bison to refer to the American bison (*Bison bison*). However, the term buffalo is often also used to describe the same animal and can hold specific cultural connotations for Native Americans in the plains region who hold the animal as a sacred.

<sup>7</sup> This study adhered to ethical principles and guidelines for human subjects as detailed in the Belmont Report. All study procedures and ethical considerations for human subjects were approved by the University of California Ethics Review Board # 2012-07-4484 and each Tribe's respective research review. All respondents had the option to remain anonymous or identify with their contributions. Those participants that chose to identify themselves by name have been given the opportunity to read and evaluate the information connected with their name before publication to insure they are confident with their decision.

household survey, all of which were co-created with our tribal partners. Two tiers of data were collected for this paper to understand local FDPIR manager and client experiences as well as national program issues and procedures. A balance of data from both scales of perspective is important as FDPIR is a nationally orchestrated program with local implications.

For a deeper understanding of the FDPIR program from a policy and administrative perspective, we conducted nine key informant interviews with FDPIR administrators, advocates and program managers at the national and local levels. These included interviews with three members of the National Association of FDPIR (some of whom were also members of the Food Package Review Working Group), a group of USDA employees working with FDPIR, a member of the InterTribal Buffalo Council, an academic expert, and three FDPIR managers in the Klamath River Basin.

We conducted twenty focus groups (adults, low-income adults, and youth) with a total of 128 Native American participants from the Karuk Tribe (5 groups), Yurok Tribe (8 groups) and Klamath Tribes (7 groups). Groups ranged in size from two to 20 participants with an average of seven people per group. The average age of participants in each group ranged from 14 to 62 years and most focus groups had more female than male participants but each group included at least once of each gender.

A household survey assessing food access and food system utilization, with a section on food assistance programs including FDPIR, was distributed by mail to all tribal members (and descendants when applicable) using home-address listings maintained by tribal enrollment offices. Surveys were also distributed at tribal events in an effort to increase response rate. Out of 3851 surveys distributed, we received 707 completed surveys.<sup>8</sup> Data from fourteen in depth interviews with tribal cultural practitioners provided further insight into the local experience of FDPIR in the Klamath Basin and complemented food assistance related survey questions.

### 2.3. Data analysis

Transcripts from all interviews and focus groups (from the national to local levels) were coded by content into broad FDPIR-related themes followed by sub-coding with particular attention to the objective of our study. While all codes identified are not pertinent to the purpose of this paper, they are included for reference in Appendix A. Coding of interviews and focus groups used in this study were carried out by the first author, however, all three authors engaged in multiple discussions about the codebook and coding process. All coding was done using NVivo for Mac version 11 (NVivo, 2015).

Quantitative data from the household survey was analyzed using descriptive statistics and a two-tailed Fisher's exact test of independence was used to examine significance of association among households that used FDPIR (n = 151), used other types of food assistance (n = 275), and did not use any type of food assistance (n = 242)<sup>9</sup>. All quantitative analysis was done in Stata version 14.2 (StataCorp, 2015).

## 3. Results

### 3.1. Program reliance, benefits, and barriers

#### 3.1.1. Food security

In the Klamath River Basin, according to our household survey, in the past year, 22.60% (n = 151) of survey respondents in the Klamath

<sup>8</sup> Our data is not intended to be representative of national trends or the experience of all FDPIR clients as we recognize differences in food related culture among different tribes, pueblos, and nations and the limitations of our survey sample size.

<sup>9</sup> 39 respondents did not respond to survey questions related to food assistance or were not sure if their household used food assistance.

River Basin used FDPIR, 41.17% (n = 275) of survey respondents used at least one type of other food assistance, and 36.23% (n = 242) of survey respondents did not use food assistance. While over 60% of respondents relied on some form of food assistance in the Basin, use of FDPIR was not nearly as high as other Tribal regions (see [Jernigan et al., 2012](#)). The average age of FDPIR users in the Klamath River Basin was 52.66 ( $\pm 14.94$ ) years and the average household size 3.36 ( $\pm 2.13$ ) people.

Based on focus group and interviews, it is clear that FDPIR is essential to the food security of individuals and families who receive the monthly food packages. Each of the focus groups were asked how important food assistance programs, such as FDPIR were to their community. All of the focus groups said these programs were “extremely important.” While the program may not supply people with enough food to last the entire month, it provides food to get by for part of the month and in some instances, provides a larger benefit than SNAP because the size of benefit received is not based on a sliding scale with income. Some focus group participants said they or others were completely dependent on food boxes from FDPIR for all of their food needs for the month. One local FDPIR manager said that he noticed the program is helpful to youth, particularly those with a care-taker struggling with drugs or alcohol. He said:

“I think it's one of the good programs. A lot of families here, the kids like it because then you have the drug problem, the pill, the meth, and heroin, and a lot of kids are thankful because they can go home, open up a can of vegetables, can of fruit. They eat. That's what I see because the food stamps, a lot of people sell their food stamps. Not saying all of them, I wouldn't know what percent, but I think a lot of people” (FDPIR manager 2, Interview, 11/10/2015).

While this situation is nowhere near optimal, it is a way for children to access some type of food under stressful home situations, just one example of complex social issues that shape food access in Klamath Basin Tribal communities. A Karuk cultural practitioner added that the convenient and immediate nature of FDPIR is important for families that have an acute need for food in their household.

“Well say you have a family [who] needs that food now. It is more accessible for them to get help from the government or something as they may not have the energy or resources to go gather out in the forest. It takes a lot more time and effort to go out and gather things like that. Those things are kind of pushed to the side to put “commods” on the dinner table. It just so seems a lot faster to do it that way” (Cultural practitioner 1, Interview, 12/8/2015).

This is not to say that FDPIR foods should replace traditional foods. Rather, in situations of acute need, the program is able to serve a hungry family quickly.

### 3.1.2. Minimizing socio-economic challenges

Some users of FDPIR in the Klamath River Basin did report that FDPIR food and services helped minimize chronic socio-economic challenges in their lives. Those respondents reported that receiving monthly food boxes helped them stretch their income to cover other monthly expenses as they did not have to purchase as much food. This was particularly the case for single-parent households (Chiloquin youth and adults, Focus group, 5/16/2015; Yreka adults, Focus group, 7/27/2015). Moreover, our Klamath River Basin survey results indicate that FDPIR is particularly important for children; 30% more households that used FDPIR, compared to households that did not use food assistance, had at least one child in their household.

FDPIR tailgate drop-off service or the home drop-off service helped some FDPIR clients access food who did not have a reliable form of transportation, could not afford fuel, or who were disabled and elderly (Klamath Falls adults, Focus group, 5/15/2015; Beatty adults, Focus group, 5/17/2015; Pecwan low income adults, Focus group, 6/25/2015; Orleans adults, Focus group, 7/29/2015). However, some focus

group respondents still reported transportation challenges particularly on the lower Klamath River in an area that lacks electricity and phone service, making it near impossible to communicate any changes to scheduled, monthly drop-off on short notice (Pecwan adults, Focus group, 6/24/2015; Pecwan low income adults, Focus group, 6/25/2015).

### 3.1.3. Eligibility challenges

FDPIR eligibility requirements, particularly in the state of California, pose challenges to some low-income households. When FDPIR in its current form was developed in 1977, a minimum income threshold based on household size was included in the eligibility requirements. To this day, elders who have lived through various versions of government ration programs assert that FDPIR should be available to every Native American, regardless of income, as an annuity of tribal treaties with the Federal government (Weitchpec adults, Focus group, 6/23/2015; Charles “Red” Gates, Interview, 10/7/2016). Furthermore, in California the state adds money to monthly, Federal supplemental security income (SSI) cash payments, replacing state food assistance obligation for SSI recipients who qualify for food assistance ([Social Security Administration, 2017](#)). Consequently, elders and disabled people who receive SSI in California are not eligible for FDPIR, even if they meet the minimum monthly income requirement. As one local FDPIR manager explained some elders might be getting \$400–600 a month through SSI, yet the majority goes towards rent and utilities (Interview, FDPIR manager 1, 10/28/2015). In a national study of FDPIR clients, [Pindus et al. \(2016\)](#) found that FDPIR clients also rely heavily on SSI or Social Security Disability Insurance (SSDI), suggesting that the SSI policy in California may perpetuate food insecurity for elder and disabled people.

## 3.2. Quality and cultural relevance of FDPIR food packages

### 3.2.1. Historical quality of commodity boxes and native advocacy for change

Based on responses from the national to local levels, there is collective agreement on the historically poor quality of the boxes as well as recent improvements, which is consistent with [Pindus et al. \(2016\)](#). It is important to note that many of the positive changes are attributed to the collective advocacy of individual tribes, pueblos, and nations, NAFDPIR, and the Food Package Review Working Group. One Native advocate in particular, Charles “Red” Gates, deserves particular notice for his hard work and persistence in improving the FDPIR food package. When he first began working for his tribe's commodity foods program (in 1982), the monthly provisions were very basic surplus food “loaded with fat and sodium.” He said:

“The canned fruits were all sweet with sugar. Really, none of it was really healthy for us, but of course we loved that government cheese. We loved that cheese; everybody did. Of course, our people had a real, real lactose intolerance. They couldn't tolerate the milk products which they gave out, and mostly it was dry skim milk, and they used it for various things; baking, I think most of them, but they got a lot of flour and a few pasta products. It was basically those items that the government felt were surplus, and I will say somebody made a decision, oh, just give it to the Indians; they'll eat it” (Charles “Red” Gates, Interview, 10/7/2016).

The canned meat in particular was horrendous in both appearance and quality. Gates described how the meat was so full of fat, juices, blood vessels, and connective tissue that it was not edible right out of the can. The juices and extraneous tissues and fat had to be removed and washed before consumption. The appearance of this canned meat stuck with Gates and prompted him to research and question the food distributed to Native American people through FDPIR. In 1990, Gates testified before the Congressional Hunger Committee at the Standing Rock Sioux Reservation (see [Standing Rock Sioux Reservation, 1990](#)).

During his testimony, Gates asked the committee:

“Did you ever see what's in these cans?’ This guy said, ‘No. Show us. We want to see,’ so I grabbed a can of pork and I told him, ‘You're going to get a bad smell. It doesn't smell good and it doesn't look good when I open it, so you take a look.’ I got a can of chicken, a can of beef, and a can of pork. The first one I opened everybody crowded around. [...] I opened it up, and as soon as I opened it up a couple of them backed away and grabbed their noses and their mouths. When I began to dump it out they both ran outside and threw up. That's what they were giving us [...] and I showed them all the connective tissue, the blood vessels. It was some pretty terrible stuff [...]” (Charles “Red” Gates, Interview, 10/7/2016).

At this same Congressional hearing, FDPIR clients from Gates's program also had a chance to testify. Gates recalls one testimony by a Native lady who, along with her husband, suffered from type II diabetes. She stated that even though she knew the canned meat was not good for them they had to eat it because it was all they had. When asked what she would prefer instead, she said all they really wanted was some high, quality ground beef. After this Congressional hearing, the USDA released a report (USGAO, 1991) on the quality of canned beef and pork, concluding that “the meats were high quality products that were well received by recipients,” however, changes in the processing methods and labeling could be made to improve the appearance and consumer perception of the product (see USGAO, 1991). This response from the USDA demonstrates, first, the extent to which the institution will defend USDA foods (despite obvious shortcomings) and, secondly, the fear of retaliation FDPIR clients associated with sharing the “real truth” because despite poor quality, commodity foods were (and still are) essential to the survival of many Native American people (Charles “Red” Gates, Interview, 3/17/2017). About a year after the 1990 hearing, Gate's ITO became the pilot project for frozen, ground beef.

### 3.2.2. Observations of quality in the Klamath River Basin

Adult and elder focus group participants who used FDPIR since childhood thought the quality and diversity of food offered through the program had improved. Starting in 2010, FDPIR integrated fresh fruits and vegetables into monthly food packages, which, according to some, was also a vast improvement to past versions of the food package. However, the quantity and quality of the produce continues to be an issue in the Klamath River Basin. FDPIR clients have a statistically significant greater demand for more fresh and some traditional foods than users of other food assistance programs (Fig. 1), which may be reflective of their rurality. For example, FDPIR users live in more remote locations relative to stores and FDPIR outlets (see Kaufman et al., 2014), and thus have more limited access to fresh fruit/vegetables than users of other food assistance programs. Based on our survey results,

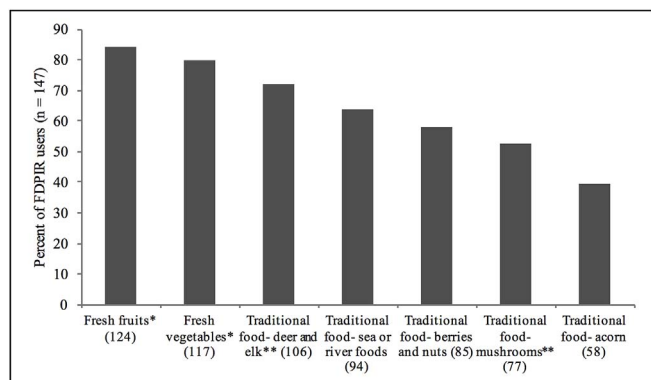


Fig. 1. The proportion of FDPIR users in the Klamath River Basin that wanted more (or any to begin with) fresh foods and traditional foods. The use of asterisks (\*p < 0.05, \*\*p < 0.01) signifies a significantly greater demand by FDPIR users as compared to users of other food assistance programs.

51.35% of FDPIR users lived 30 or more minutes and 27.03% lived 1 h or more from the grocery store, as compared to 37.97% and 21.43%, respectively, for other food assistance users.

In order to supplement their supply of fresh produce, some FDPIR clients reported working in a community garden to access more fruits and vegetables (Klamath Falls adults, Focus group, 5/15/2015) or trading some food box items (namely starches e.g. flour, rice, pasta) for fresh produce (Klamath Falls low income adults, Focus group, 5/16/2015; Beatty adults, Focus group, 5/17/2015). Some focus group respondents reported that the volume of carbohydrates offered in the FDPIR food package is disproportionate to other food groups, resulting in household stockpiles of flour, pasta, or rice (Happy Camp low income adults, Focus group, 7/15/2015; Yreka adults, Focus group, 7/27/2015; FDPIR manager 1, Interview, 10/28/2015).

All three FDPIR managers in the Klamath River Basin reported ongoing problems with receiving spoiled produce. For example, one program had just received moldy tomatoes at the time of the interview (FDPIR manager 1, Interview, 20/28/2015). Additionally, fresh produce was not distributed equally among clients; access was dependent on when clients pick up their food or when food is dropped off to clients. ITO managers reported ordering produce at the beginning of the month so clients who arrive soon after the delivery to the warehouse get the best selection and quality produce while those that pick-up or receive their food boxes later in the month may not get any produce at all. This was particularly an issue in remote drop-off areas where some clients do not receive fresh produce at all (Klamath Falls adults, Focus group, 5/15/2015; Klamath Low income adults, Focus group, 6/20/2015; Pecwan adults, Focus group, 6/24/2015; Pecwan low income adults, Focus group, 6/25/2015).

### 3.2.3. Cultural relevance of FDPIR in the Klamath River Basin

When discussing the cultural appropriateness of commodity foods there were times the focus groups commented on the legacy of commodity foods in Native communities as well as instances that highlighted the grave history and persistent challenges of Native American food sovereignty that have resulted in government assisted food systems. For example, one focus group exchange unfolded as follows:

Speaker 1: “Commodities (the group laughed), we grew up in an environment of commodities.” Speaker 2: “Yeah, and we accept it too, even though the health equality of it is lower- it is just what we eat. Yeah, like it's culturally acceptable as well” (Chiloquin youth and adults, Focus group, 5/16/2015).

Others described “Indian fry bread” as a favorite, culturally relevant food, even as it simultaneously symbolizes the transition away from cultural foods toward dependence on commodities, as the ingredients: flour, dried milk, lard, and salt, were some of the first food rations given to the colonized. Lisa Hillman, Food Security Coordinator for the Karuk Tribe's Department of Natural Resources, shared that today fry bread is still commonly consumed and shared among Karuk people and often referenced in contemporary cultural expression (Lisa Hillman, Interview, 3/5/2017). While the foods provided in this program may be considered culturally acceptable by some, most study participants harbored deep frustrations and conflicts over the legacy of nutritional colonialism and policies responsible for substituting a healthy Native diet with highly processed, high sodium, and high fat foods – a phenomena Leaf Hillman, the Director of the Karuk Tribe's Department of Natural Resources and a ceremonial leader, asserts as a modern extension of tribal termination and genocide (Leaf Hillman, Interview, 3/6/2017). A recurring sub-theme in multiple focus groups and interviews was the idea that FDPIR is “nice when you have nothing else to eat” even though they felt the foods were not healthy and there are other foods that people would rather eat or that are more culturally appropriate. One focus group respondent shared this sentiment but went on to express frustration about Native people in the Basin being reliant on government handouts rather than traditional foods due to the

ongoing legacy of colonization and mismanagement of Native lands and food systems in the Basin (Happy Camp adults, Focus group, 7/13/2015).

3.2.4. Denied access to traditional foods leads to unhealthy dependence on food assistance

Respondents to both our survey and interviews repeatedly expressed strong demand for better access to traditional foods to improve both food security and self-determination. Based on our household survey, 52.00% of FDPIR households said they got a portion of their food from hunting, gathering, or fishing (as compared to 31% nationally [Pindus et al., 2016]). Moreover, 10.61% more FDPIR users than users of other food assistance reported getting a portion of their food from hunting, gathering, or fishing in the last year. Given the rural program requirement, FDPIR clientele are likely more familiar with cultural resources, despite policy, social, and environmental barriers, than their urban counterparts who rely on other food assistance programs. FDPIR clients in the Basin desired deer and elk, sea and river foods, and berries and nuts the most in their FDPIR package. The demand for deer, elk, and wild mushrooms was significantly greater among FDPIR clients as compared to users of other food assistance programs (Fig. 1).

Despite the persistent utilization and demand for more traditional foods, 39.33% of FDPIR users in the Basin said they relied on food assistance because traditional foods were not available at all or in the portion they required, emphasizing the myriad of social, economic, environmental, physical, and legal barriers that Native Americans in the Klamath River Basin encounter when accessing traditional foods. Fig. 2 compares how FDPIR participants, participants of other food assistance programs, and those not using food assistance ranked their ability to access desired healthy foods and traditional foods throughout the year. Access to traditional foods did not vary among the three groups; about 65% of households that used FDPIR in the past year said they rarely or never had access to the traditional foods that they desired (Fig. 2). However, access to healthy foods did vary significantly (p = 0.00) among the three groups; about 10% more FDPIR users said they rarely had access to healthy foods they desired in the past year as compared to users of other food assistance programs (Fig. 2). This trend went up to 22% more when comparing FDPIR users to households that do not use food assistance (Fig. 2), illustrating that while FDPIR is making an effort to provide a more healthful food package, FDPIR users continue to have significantly poorer access to healthy foods than other that use different food assistance programs or those that do not use food assistance.

The former trends related to traditional foods access emphasize that traditional foods are not accessible or available to Native Americans in the Klamath River Basin in desired quantities, forcing low-income

households to utilize food assistance. According to Lisa Hillman, if traditional foods were more accessible to Native people in the Klamath River Basin, some FDPIR users would be less dependent on food assistance and have better access to healthy, culturally appropriate foods, “which, in turn would reduce their reliance on the health system to ameliorate the effects of poor physical fitness and diet-related diseases” (Lisa Hillman, Interview, 3/5/2017). Dependency on government assistance to minimize food insecurity and hunger resulting from denied access to traditional foods, reflects the enduring and uncomfortable legacy of settler colonialism. One cultural practitioner clearly articulates the inherent contradictions of government commodities and other “welfare” being both a help and a hindrance to the well-being of the Karuk people,

“When I grew up, there was no commodities for the Karuk people. You were just poor and the cupboards were empty. There’s a welfare process but that didn’t work well for our family, so we weren’t in the welfare system either. We didn’t have food, we grew up without food. [Now] commodities are very welcomed. We have tribal housing, which helps poverty laden people as well. You don’t have a job or you have an income, and you don’t have to pay rent [in tribal housing], but you still have a nice house, you have food. It helps but then it’s a welfare system, though. The welfare system makes people lazy, you just have to go show up, you just have to maybe check a few boxes and do a few things and you continually get these resources, there’s no incentive for you to progress or to teach your children the values that make a healthy lifestyle, that contributes to a healthy, positive mental health capacity” (Cultural practitioner 2, Interview, 5/3/16).

In summary, while some Native households in the Basin rely on commodity foods for a portion of their food security, many households also continue to hunt, fish, and gather traditional foods, foods that Native people want to be more accessible to replace forced dependency on FDPIR and other forms of welfare.

3.2.5. Integration of traditional foods into FDPIR

This section largely focuses on efforts to integrate traditional foods into FDPIR at the national level, but also provides some insight from the Klamath River Basin case study. Efforts to integrate traditional foods into FDPIR began in 1991, when Charles “Red” Gates wrote a resolution at the national FDPIR conference asking for bison to be included in the FDPIR package; 26 years later, the fight to integrate traditional foods in the FDPIR food package continues. Although bison is not a traditional food to people in the Klamath River Basin, it has carved a precedent of understanding and process for the lobbying and introduction of traditional foods from other tribes, pueblos, and nations in FDPIR.

Progress towards the inclusion of traditional foods in the food package was supported by Congress’s mandate in 2008, with funds appropriated in 2015. Today, there are four traditional foods currently provided or soon to be provided to FDPIR clients (see Table 1). According to USDA employees working with FDPIR, in 2015, bison was introduced once again in the food package, followed by blue cornmeal (2016), and frozen Sockeye salmon fillets and wild rice in 2017 (USDA, Interview, 9/19/2016). Although the effort to include traditional foods in the FDPIR food package is indeed commendable, we ask how traditional or culturally appropriate are these foods? Concerns have been raised about the extent to which these foods are produced according to Native values, whether the companies supplying these foods are owned and operated by tribes or tribal entities, and whether these foods account for regional traditional food differences among Tribes. Wild rice is currently the only traditional food grown, harvested, and processed using culturally appropriate methods, and supplied in the region by a Native owned and operated company. With the exception of KivaSun, the other traditional foods are supplied by businesses that are not Native American owned (Table 1).

A further challenge is that USDA policy requires nationwide

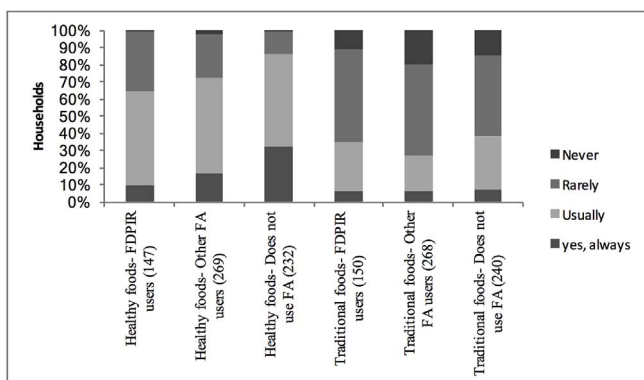


Fig. 2. A comparison of access to healthy foods and traditional foods by FDPIR users, other food assistance users, and those that do not use food assistance. Total, 648 households responded to the question on access to healthy foods while 658 households responded to the question on access to traditional foods. In this figure, FA stands for food assistance.

**Table 1**  
Traditional foods provided or in the process of being provided to FDPIR clients.

Traditional food provided by FDPIR	Tribal region of significance	Companies that currently provide the traditional food	Native American ownership
Bison	Tribes in the plains region	KivaSun, American Indian Enterprises, and Intermountain	KivaSun is owned by Notah Begay III who is Navajo.
Blue cornmeal Sockeye salmon	Tribes in the southwest region Tribes in the Pacific Northwest and Alaska	Millstone Mills Inc. Ocean Beauty	None. Millstone Mills Inc. is located in La Porte, Indiana. None
Wild rice	Tribes in the Mid-west region	White Earth Nation and Leech Lake Band of Objibwe	The rice will be traditionally harvested and processed by the White Earth Nation Tribe and Leech Lake Band of Objibwe

distribution of each of their products to all FDPIR clients, despite the fact that the same traditional foods are not considered traditional by all Native Americans, would not garner uniform demand, and may not be available in bulk quantities. For example, if Chinook salmon from the Klamath River Basin were hypothetically included in the FDPIR package, the salmon would have to be distributed to all 276 tribes, pueblos, or nations using the program despite its particular significance to Northwestern Tribes. The requirement for nationwide distribution makes it impossible to provide traditional foods to FDPIR clients that are locally sourced from Native people and reared and processed in a traditional and culturally appropriate manner. For example, of the three tribes in this study, one has a commercial fishery<sup>10</sup>, while the others strictly use fish from the river for home consumption, feeding elders, and ceremony. Salmon populations have been dwindling since the inclusion of dams on the Klamath River (see [Norgaard, 2005](#)). Even adults that are 30–40 years old today have observed noticeable decline of salmon populations in the Klamath River. Thus, despite, commercialization of the fishery by one tribe the sheer quantity required to provide salmon to all FDPIR clients nationwide is not feasible, yet local tribes would welcome greater access to this culturally significant food. Additionally, Leaf Hillman stated that

“diversifying the existing FDPIR food package by emphasizing sourcing of traditional, as well as fresh, locally available foods would save in transportation costs and provide more localized, culturally appropriate foods within the region” (Leaf Hillman, Interview, 3/6/2017).

While local FDPIR managers were unsure if grass-roots distributions of traditional foods could be incorporated at the local level, one respondent from the InterTribal Buffalo Council in the plains region explained that some tribes donated bison from their herd to FDPIR clients to avoid commercializing bison (InterTribal Buffalo Council, Interview, 9/21/2016). Leaf Hillman thought that “forcing or even encouraging Native American producers into an industrial food supplier model” was not a viable solution and would actually create more conflicts between tribes (Leaf Hillman, Interview, 3/6/2017). Thus, it may be of interest to tribes in the Klamath River Basin to explore alternative methods of providing traditional foods to their local FDPIR (see [Jernigan et al., 2012](#) for example of CSA pilot project).

National distribution of traditional foods provides less volume for tribes, pueblos, and nations that traditionally consume the food and forces compromise on tribal values and priorities related to methods of sourcing and processing. For example, while most FDPIR clients appreciate the ground, frozen bison, the sheer volume required to supply all FDPIR clients nationwide makes it impossible to source a traditionally reared and processed product. At the same time, a respondent from the InterTribal Buffalo Council relayed that relaxing requirements of bison procurement to be more inclusive of traditional rearing

<sup>10</sup> According to Leaf Hillman, The Klamath Basin Tribe with a commercial fishery may be able to supply (on a good year) the needs of the other tribes in the basin, however, it is absolutely not capable of supplying the nationwide needs of FDPIR. (Leaf Hillman, Interview, 3/6/2017).

practices does not necessarily provide the intended benefit for Native American producers, as it just provides a wider open-door to large commercial operations, unless Native producers are given priority (InterTribal Buffalo Council, Interview, 9/21/2016). Ultimately, Leaf Hillman argued that relying on producers who are not Native American to supply traditional foods,

“poses potential risks to the sustainability of traditional food resources [for Native people], as well as possible competition with tribal subsistence users” (Leaf Hillman, Interview, 3/6/2017).

While the Package Review Working Group, comprising members from several tribes, pueblos, and nations, with input from NAFDPIR, does have the ability to set preferred specifications for traditional foods procurement,<sup>11</sup> the USDA requires that all suppliers must be USDA certified and able to supply the program nationwide. One member of the Working Group said that bison specifications were originally set to source a grass-fed, whole ground product from Native American vendors, however those specifications have been relaxed as Native American vendors were unable to supply the necessary quantity to serve FDPIR clients nationwide and meet USDA vendor requirements (Working Group Member 1, Interview, 10/6/2016). Gates, also a Working Group member, shared similar challenges related to sourcing wild rice. As a result, Native American leaders in the Working Group decided to make wild rice first available to tribes in the Mid-West for whom this food is traditional, and then allocate it to others throughout the country. Although each tribe wants to prioritize their own traditional foods, there is also a strong sense of allegiance among FDPIR tribal leaders. They want to take care of each other and provide healthy foods to each other even if that means sharing a portion of their culturally reared bison to a tribe in the North West.

A Working Group member felt that finding Native American vendors of traditional foods local to the area was the biggest challenge in providing traditional foods to FDPIR clients. He said:

“I think the challenge is to find local vendors that are willing to go through the paper work to become a vendor. And if they can supply the amount of food requested. That is probably the biggest challenges. And we are trying to work with USDA to reach out to these local vendors to get contact information and assist them in applying to become a vendor. Making it more streamline(d). For them to have that availability [...] some say it is a pretty complicated process. And USDA says it is not. I guess the only way to find out is to really take a look what it entails to become a local vendor” (Working Group Member 1, Interview, 10/6/2016).

This same respondent did mention that the USDA is now willing to work with vendors that can at least supply one semi-truck load of product; while in the past the expectation was for the vendor to provide enough product to serve all recipients of FDPIR on a national level.

Representatives from various branches of the USDA stated if you get

<sup>11</sup> The specifications they set for the harvesting and parching of wild rice are specific to methods that are traditional or culturally appropriate for that food. Likewise, for salmon they specified that the fish must be wild caught.

too specific or restrictive when sourcing traditional foods for FDPIR you risk not being able to find a vendor that can meet the technical aspects and volume demanded for the product. Culturally appropriate methods of rearing, harvesting, or processing are usually practiced by small, Native owned businesses that have never worked with the USDA before as a vendor. Thus, they may require extra training and support to complete the process. The USDA did recognize that becoming a USDA vendor is cumbersome and challenging. AMS has provided some outreach and training for vendors that have the potential to provide traditional foods to FDPIR.

Some respondents were particularly adamant about updating the USDA procurement rules and vendor requirements to recognize unique attributes of traditional foods and Native American culture instead of contorting traditional systems to fit USDA requirements. Leaf Hillman added that maintaining rigid and inflexible program policies leftover from the advent of federal policies on assimilation and termination “is entirely inconsistent with the current federal self-determination policy” (Leaf Hillman, Interview, 3/6/17). Suggestions to improve the program include changing food distribution requirements from a national to a local level (particularly in the instance of traditional foods), developing local food economies with tribes that have an interest in feeding their own people, and changing the vendor requirements to make it easier for local, Native owned businesses to serve their own people traditional foods and other foods using culturally appropriate remuneration structures rooted in tribal policies, codes and values. In the future, Charles “Red” Gates planned to work with a tribal-led group in order to work around the USDA road-blocks and go straight to public appointed officials that have been more willing to support and advance their cause for change to the procurement process.

## 4. Discussion

### 4.1. Food security and nutrition

Our results suggest that monthly food packages provided by FDPIR are a vital aspect of food security for FDPIR clients. However, if we evaluate the FDPIR food package using FAO (2006) food security measures, we find they fall short in meeting international standards for quality, access, availability, nutritional value, and cultural appropriateness. For example, in addition to reports of receiving moldy fruits and vegetables, we found some clients did not receive *any* fresh fruits or vegetables even though these products should be available monthly to all FDPIR clients. These challenges are exacerbated by client transportation issues as well as unreliable delivery systems to remote parts of the region. FDPIR services are not always consistent and sometimes clients will miss receiving a food box completely. We also discovered that low-income elderly SSI recipients are ineligible to receive FDPIR food packages, a policy constraint that is resulting in grave food insecurity consequences among some tribal elders.

Discussions of nutritional adequacy of the FDPIR food package have been ongoing since the mid 1980s. While some improvements have been made, our findings show there is still much needed room for improvement. Survey respondents overwhelmingly desire more fresh fruits and vegetables, as well as traditional foods in the food package (see Fig. 1), which is consistent with Pindus et al.’s findings (2016) from their national survey of FDPIR participants. Our results suggest there is a surplus of simple carbohydrates, as many households rely on canned food and carbohydrates by the second week of the month. Furthermore, our data suggest that FDPIR users in the Klamath River Basin have less access to healthy foods than users of other food assistance programs (see Fig. 2). Results from a national study on the nutritional content of FDPIR food packages corroborates our findings. After analyzing five random FDPIR food packages using the Healthy Eating Index 2010, Byker Shanks et al. (2016) found that FDPIR food packages were significantly lower than the recommended 2010 Dietary Guidelines for Americans.

The FDPIR food system is reliant on USDA economies of scale, procuring the cheapest food in large volumes from industrial food producers in order to limit spending while serving a large number of people. This inherently excludes nutritionally dense traditional and local foods, as their production and value do not often meet the demands or specifications of the FDPIR food system. The USDA currently spends approximately \$1.90 per day per FDPIR client on food, yet only \$0.01 of that total is allocated to traditional foods. Deprioritizing nutrition due to budgetary concerns ignores treaty entitlements of health care and food in return for Native American land and does not actually save the United States money in the long run, as evidenced by the high rates of diet-related diseases and associated medical costs within the Native communities. Medical expenditures for people suffering from type-II-diabetes are over two times higher than those without diabetes (Yang et al., 2013). Ultimately, the health care costs associated with managing diet-related diseases greatly outweigh the cost of offering FDPIR clients a food package composed of healthy, culturally relevant and nutritionally dense foods. To reconcile on-going nutrition problems with the FDPIR food package, the Federal government claims that the monthly food package is only supplemental. However, our results, as well as the results of a national study (Pindus et al., 2016), demonstrate that many FDPIR clients *only* consume FDPIR food.

### 4.2. Decentralization, self-determination and integration of tribal values

For over 30 years FDPIR managers, tribal leaders, and lobbyists have worked to improve FDPIR packages to ensure Native American access to nutritious and culturally appropriate food with limited success. USDA requirements for nationwide distribution of traditional foods precludes the very definition of traditional foods, which are customarily sourced, processed and consumed or traded locally or regionally. Distributing traditional foods from outside the region (e.g. sourcing blue cornmeal from Indiana for distribution in California) contradicts the cultural and sustainability values inherent in traditional food systems and tribal lands, and fails to achieve tribal goals of reviving their own cultural food traditions. While blue cornmeal may have been a cultural food of the plains Indians, it was not part of the traditional diet of California tribes. Furthermore, sourcing traditional foods from non-tribal entities (such as blue corn from Millstone Mills Inc.) misses the opportunity to support Native American owned and operated entities and promote economic resilience among Native communities.

Decentralized procurement and distribution of healthy and culturally relevant foods surfaced as a priority policy recommendation from our study. This might include designating ITOs as purchasing agents of traditional and local foods, and prioritizing Native American producers following culturally appropriate specifications. Sourcing and distributing locally produced foods at a local level would alleviate current challenges related to sourcing enough traditional foods to serve all FDPIR clients on a national level. Local distribution, as defined by tribes, pueblos and nations receiving FDPIR would allow traditional foods to be produced and cultivated in a culturally appropriate manner without compromising cultural specifications to fulfill bulk orders. It would also allow small, Native American owned and operated businesses to provide food for their own people. As one respondent in our study emphasized, Native people really just want the opportunity to feed themselves (Charles “Red” Gates, Interview, 10/7/2016). From 2013 to 2015, FDPIR carried out a regional vendor pilot project to explore if an alternative method of distribution would render more effective services and lower costs (FNS, 2016). FNS contracted a regional vendor to purchase and distribute food (excluding produce) to four different ITOs. While ITO staff identified several advantages of this model (e.g. fewer out of stock foods, more recognizable brands, and longer “best if used by” dates), it was not expanded due to budget constraints; the regional vendor model increased the cost per participant by 24% as compared to the national warehouse model (FNS,



2016). While this project took a step towards decentralization, it mimicked the national warehouse model on a smaller scale, lacking consideration for ITOs as the purchasing agent, cultural values, and traditional foods.

National School Lunch Programs (NSLP) have grappled with similar issues related to local food procurement over the years and have developed policies related to traditional and local foods that may be useful to consider in the context of FDPIR. For example, section 4033 of the Agricultural Act of 2014 (P.L. 113-79) (Farm Bill) allows donated traditional foods to schools primarily serving Native American students to be served at lunch if the school can store and handle the foods to USDA standards (USDA, 2015c; The Harvard Law School, 2015). Additionally, traditional foods can be purchased and included in a reimbursable school lunch if the foods are classified as meat<sup>12</sup> or meat alternative, grain, fruit, or vegetable (USDA, 2015d). NSLP allows geographical preference in the bidding process; local vendors receive a price deduction from their bid to give them a competitive edge. However, in the end the school pays the pre-adjusted price for the product (USDA, 2011). In 2013, the state of Oregon supported school purchase of local foods by providing a reimbursement to schools for increased costs of buying local (The Harvard Law School, 2015). Furthermore, for “small purchases,” schools can purchase directly from local farmers without a bidding process (The Harvard Law School, 2015).

There appear to be many lessons that could be shared between the NSLP and the FDPIR programs in relation to creating more culturally responsive, local procurement policies.

It is important to conclude this discussion with the fact that some Native Americans do not want to commercialize traditional foods but would rather donate traditional foods to FDPIR clients or provide traditional foods to their community apart from any type of government food assistance program. Commercialization can be a barrier to the supply of authentic traditional foods to FDPIR clients, as commercial markets cater to broader market trends and public demand for the product rather than Native preference, cultural values, and traditional networks of food distribution. Thus, in addition to calling for greater decentralized procurement and distribution policies along the lines of the NSLP for the FDPIR program, we argue that in order to achieve true food security for Native American communities, policy makers need to “think outside the [commodity foods] box” to support the jurisdiction and agency of Native people in “feeding themselves,” as one respondent said. As evidenced in our study, there is an ongoing unmet demand among FDPIR clients for greater access to and consumption of traditional foods (see Figs. 1 and 2). This calls for considering alternative policy strategies that support Native American food sovereignty goals of attaining rights to hunt, gather and fish on their ancestral lands.

## 5. Conclusion-shaping policy to support Native American food security and sovereignty

Historically, commodity foods were responsible for the advent of rampant obesity and chronic disease coupled with the nutritional transition away from traditional foods, due to denied access, and towards Euro-American, processed foods. Despite these changes, tribes in the Klamath River Basin and elsewhere have maintained a living culture of traditional foods, with recent renaissance towards programs that intentionally aim to revitalize the consumption of traditional foods by Native American people as well as food security and sovereignty for Native American communities.

The very origin and endurance of FDPIR commodity food boxes inherently contradicts true Native American food sovereignty. However, while we acknowledge the flaws of the system and its inherent colonial legacy, we also acknowledge that FDPIR is an extremely

important source of food to those that use the program and in general an essential component of modern day Native American food systems. Efforts to evaluate whether the integration of more traditional foods into the FDPIR can support Native American food security and sovereignty are complex, revealing a number of challenges and contradictions associated with scale, equity, nutritional quality, cultural values, and governance. As we imagine what might constitute an approach to food distribution on Native Americans lands that better supports food security and sovereignty for tribal communities we propose that the USDA explore innovative approaches to promote a healthier, more culturally appropriate and equitable FDPIR program that meets not only food security but also community development and self-determination goals of Native American individuals and communities. Thus, we propose the following policy recommendations to better support food security and sovereignty in Native American communities:

- Think beyond the (commod) box in programming designed to reduce food insecurity such as enabling hunting/fishing and gathering rights and augmenting federal funding for cultural lands and fisheries restoration to restore the quality, availability and abundance of traditional foods.
- Reconsider policy restrictions that inhibit vulnerable populations from accessing FDPIR when enrolled in other welfare assistance programs (for example elders on SSI in California)
- Increase the amount and frequency of delivery of fresh fruits and vegetables to ensure better quality. This could be accomplished by sourcing from local producers, allocating funds to support a farm or garden on-site at the ITO, or having a bi-weekly vegetable and fruit drop-off.
- Decentralize traditional foods procurement and distribution. This can be accomplished by funding the 2014 Farm Bill provision to allow tribes, pueblos and nations to purchase local produce and traditional foods for FDPIR.
- Augment funding allocations towards the purchase of traditional foods.
- Tailor USDA vendor and procurement procedures to prioritize culturally specific rearing and processing practices of traditional foods that are sourced for the FDPIR program.
- Source traditional foods for the FDPIR program from Native American owned businesses that are local to the area of significance for each traditional food and that adhere to agreed upon tribal sustainability metrics developed in consultation with tribes, pueblos, and nations in each region.
- Create Native American vendor pilot projects to supply traditional foods on a local scale. This will help develop local, Native American vendors, provide opportunity for education and training, and increase the likelihood of success.
- Provide a different type of remuneration structure for tribes who *do* wish to provide their traditional foods to local FDPIR clients but *do not* wish to commercialize their traditional foods through USDA vending. This should include a way to manage for, harvest, and distribute these foods in a way consistent with tribal policies, codes, and values.

In summary, monthly food boxes provided by FDPIR are essential to the food security and survival of many vulnerable and low-income Native American households, yet Native communities continue to suffer from high rates of diet-related diseases and food insecurity and poor access to traditional foods. Traditional foods exemplify the very definition of a healthy diet (as described by USDA and HHS, 2010) as these foods *do* support a healthy weight, promote health, and prevent disease, as well as much more (USDA and HHS, 2010). FDPIR can make great strides in improving the program to support Native American food sovereignty and security by granting tribes, pueblos, and nations agency over sourcing healthy, traditional foods directly from tribally owned and operated businesses who demonstrate culturally appropriate values

<sup>12</sup> Farmed and wild animals must be slaughtered and inspected at a Federal inspection facility (USDA, 2015d).

and methods of rearing, harvesting, and processing. Special consideration must be given for tribes, pueblos, and nations who do not want to commercialize their traditional foods but still wish to provide them locally to FDPIR clients. Efforts should not stop short of offering foods to FDPIR clients that are the very best in nutrition and quality, but should include those that uphold intangible, cultural values and principles of self-determination that support holistic health and well-being of tribal households and communities.

**Ethical statement**

This study adhered to ethical principles and guidelines for human subjects as detailed in the Belmont Report. All study procedures and ethical considerations for human subjects were approved by the University of California at Berkeley's Ethics Review Board #2012-07-4484 and each Tribe's respective research review. All respondents had the option to remain anonymous or identify with their contributions. Those participants that chose to identify themselves by name have been

**Appendix A. Supplementary data**

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.jrurstud.2017.11.002>.

**Appendix A. Codes and adjoining themes used to analyze interview and focus groups for data related to FDPIR**

Adjoining themes	Codes	Definition of codes	Focus groups or interviews	References across all focus groups and interviews
Program challenges, benefits, and opportunities	Challenges minimized	Aspects of the program that help clients minimize certain challenges that they face.	9	19
	Elders	Any mention of elders and the use of FDPIR.	6	11
	Food security	Discussion of not having enough food and needing food assistance to eat.	18	43
	Program issues or limitations	Complaints, challenges, or limitations associated with FDPIR food and program rules and procedures.	19	94
Quality and cultural relevance of FDPIR food packages	Trade	Trading or sharing FDPIR foods	9	11
	Acculturation	Integration of FDPIR foods and government food assistance programs as the “norm” of some aspects of Native American diets.	17	26
	Fresh food	Discussion about fresh fruits, vegetables, and other fresh food as opposed to canned items offered through the program.	14	41
	Nutritionally and culturally appropriate	Discussion about the nutritional and culturally value of FDPIR foods for Native people.	17	45
Stories about commodity foods	Traditional foods	Any mention of the inclusion of traditional foods in FDPIR.	17	87
	Food stamps versus commodities	Comparison of FDPIR and SNAP.	11	18
	Program description	Information about the FDPIR program, rules, and procedures.	6	65
	Commodity related stories	Stories about FDPIR history, foods and rumors, myths, or questions about FDPIR program.	7	25

**References**

Byker Shanks, C., Smith, T., Ahmed, S., Hunts, H., 2016. Assessing foods offered in the food distribution program on Indian reservations (FDPIR) using the healthy eating Index 2010. *Public Health Nutr.* 19 (7), 1315–1326.  
 Charlton, G., 2015. The law of Native American hunting, fishing and gathering outside of reservation boundaries in the United States and Canada. *Can.–U.S.L.J.* 39, 69–117.  
 Declaration of Nyeleni, 2007. Declaration of Nyeleni. Retrieved from: <https://nyeleni.org/IMG/pdf/DeclNyeleni-en.pdf>, Accessed date: 18 January 2017.  
 DellaSala, D.A., Reid, S.B., Frest, T.J., Srittholt, J.R., Olson, D.M., 1999. A global

perspective of the biodiversity of the Klamath-Siskiyou Ecoregion. *Nat. Areas J.* 19 (4), 300–319.  
 Dunbar-Ortiz, R., 2014. *An Indigenous Peoples' History of the United States*. Beacon Press, Boston.  
 EPA, 2016. Watershed Priorities: Klamath River Basin, California and Oregon. Retrieved from: <https://www3.epa.gov/region9/water/watershed/klamath.html>, Accessed date: 11 August 2017.  
 FAO, 2006. Food Security Policy Brief. Issue 2. Retrieved from: <http://www.fao.org/forestry/13128-0e6f36f27e0091055bec28eb830f46b3.pdf>, Accessed date: 18 January 2017.  
 Finegold, K., Pindus, N., Levy, D., Tannehill, T., Hillabrant, W., 2009. Tribal Food

**Acknowledgements**

This study was one component of a collaborative food security extension and research project supported by USDA-National Institute of Food and Agriculture-Agriculture and Food Research Initiative Food Security Grant # 2012-68004-20018. It is important to recognize the invaluable contributions of project collaborators from the Karuk Tribe, Yurok Tribe, and Klamath Tribes in the development of the household survey and interview scripts, successful data collection with Tribal members, oversight, and contributions to the themes and recommendations presented in this study. We are also thankful to all those who participated in the household survey, focus groups, and interviews.

- Assistance: a Comparison of the Food Distribution Program on Indian Reservations (FDPIR) and the Supplemental Nutrition Assistance Program (SNAP). The Urban Institute and Support Services International, Inc Retrieved from. <https://www.fns.usda.gov/sites/default/files/fdpir/12.13.12-FDPIR-Study-Urban-Institute.pdf>, Accessed date: 13 February 2017.
- First Nations Development Institute, 2017. Research Note - Twice Invisible: Understanding Rural Native America. First Nations Development Institute, Longmont, CO.
- FNS, 2016. Food Distribution Program on Indian Reservations regional vendor pilot assessment. Prepared by Manhattan Strategy Group on behalf of the USDA and FNS Retrieved from. <https://www.fns.usda.gov/sites/default/files/ops/FDPIRRegionalVendorPilot-Entire%20Report.pdf>, Accessed date: 26 March 2017.
- Garibaldi, A., Tuner, N., 2004. Cultural keystone species: implications for ecological conservation and restoration. *Ecol. Soc.* 9 (3), 1.
- Grey, S., Patel, R., 2015. Food sovereignty as decolonization: some contributions from Indigenous movements to food system development politics. *Agric. Hum. Values* 32 (3), 431–444.
- Gurney, R.M., Caniglia, B.S., Mix, T.L., Baum, K.A., 2015. Native American food security and traditional foods: a review of the literature. *Sociol. Compass* 9 (8), 681–693.
- Hearing to review the Food Distribution Program on Indian Reservations, 2010. Hearing before the Subcommittee on Department Operations, Oversight, Nutrition, and Forestry of the Committee on Agriculture House of Representatives, 111th Congress, Second Session, Serial No. 111–153. Retrieved from. <https://archives-agriculture.house.gov/sites/repUBLICans.agriculture.house.gov/files/testimony/111/111-53.pdf>, Accessed date: 18 January 2017.
- Jernigan, V.B.B., Salvatore, A.L., Styne, D.M., Winkleby, M., 2012. Addressing food insecurity in Native American reservation using community-based participatory research. *Health Educ. Res.* 27 (4), 645–655.
- Kaufman, P., Dicken, C., Williams, R., 2014. Measuring Access to Healthful and Affordable Food in Native American Areas. EIB-131. U.S. Department of Agriculture, Economic Research Service.
- Leonard, W.A., 2014. Habitat and harvest: the modern scope of tribal treaty rights to hunt and fish. *Am. Indian Law J.* 2 (1), 285–322.
- National Research Council, 2004. Endangered and Threatened Fishes in the Klamath River Basin: Causes of Decline and Strategies for Recovery. National Academies Press, Washington, D.C.
- Norgaard, K.M., 2005. The Effects of Altered Diet on the Health of Karuk People. The Karuk Tribe Retrieved from. <http://pages.uoregon.edu/norgaard/pdf/Effects-Altered-Diet-Karuk-Norgaard-2005.pdf>, Accessed date: 18 January 2017.
- NVivo qualitative data analysis Software, 2015. QSR international Pty Ltd. Version 11.
- Olson, D., DellaSala, D.A., Noss, R.F., Stritholt, J.R., Kass, J., Koopman, M.E., Allnutt, T.F., 2012. Climate change refugia for biodiversity in the Klamath-Siskiyou Ecoregion. *Nat. Area J.* 32 (1), 65–74.
- Pindus, N.M., Hafford, C., Levy, D.K., Biess, J., Simington, J., Hedman, C., Smylie, J., 2016. Study of the Food Distribution Program on Indian Reservations (FDPIR): Final Report. Prepared by the Urban Institute for the U.S. Department of Agriculture Food and Nutrition Services, June.
- Raster, A., Hill, C.G., 2017. The dispute over wild rice: an investigation of treaty agreements and Ojibwe food sovereignty. *Agric. Hum. Values* 34, 267–281.
- Social Security Administration, 2017. Supplemental Security Income (SSI) in California. SSA Publication No. 05–11125. Retrieved from. <https://www.ssa.gov/pubs/EN-05-11125.pdf>, Accessed date: 26 March 2017.
- Standing Rock Sioux Reservation: A case study of food security among Native Americans, 1990. Hearing before the Select Committee on Hunger House of Representatives, One-hundred-and-first Congress. second session. Fort Yates, N.D.
- StataCorp, 2015. Stata Statistical Software: Release 14. StataCorp LP, College Station, TX.
- The Harvard Law School Food and Policy Clinic, 2015. Good Laws, Good Food: Putting Food Policy to Work for the Navajo Nation. Community Outreach and Patient Empowerment and the Navajo Nation.
- Ulrich-Schad, J.D., 2013. Issue Brief No. 61- Rural Natives' Perceptions of Strengths and Challenges in Their Communities. Carsey Institute, New Hampshire.
- United States Census Bureau, 2010. American Indian and Alaska Native Tribes in the United States and Puerto Rico. Retrieved from. [https://www.census.gov/population/www/cen2010/cph-t/t-6tables/TABLE%20\(1\).pdf](https://www.census.gov/population/www/cen2010/cph-t/t-6tables/TABLE%20(1).pdf), Accessed date: 1 September 2017.
- USDA, 2017a. Food Distribution on Indian Reservations: Persons Participating. Retrieved from. <https://www.fns.usda.gov/sites/default/files/pd/21irpart.pdf>, Accessed date: 18 January 2017.
- USDA, 2017b. Cost of Food Distribution Programs. Retrieved from. [tps://www.fns.usda.gov/sites/default/files/pd/fd\\$sum.pdf](tps://www.fns.usda.gov/sites/default/files/pd/fd$sum.pdf), Accessed date: 18 January 2017.
- USDA, 2016a. Food Distribution Program on Indian Reservations (FDPIR): FY 2017 Net Monthly Income Standards. FNS Handbook 501, exhibit M. Retrieved from. <https://www.fns.usda.gov/sites/default/files/fdpir/Exhibit-M-Net-Monthly-Income-Standard.pdf>, Accessed date: 18 January 2017.
- USDA, 2016b. FDPIR Food Package Review Working Group Conference Call Notes. Retrieved from. <https://www.fns.usda.gov/fdpir/fdpir-food-package-review-work-group-conference-call-notes>, Accessed date: 18 January 2017.
- USDA, 2015a. About Food Distribution on Indian Reservations (FDPIR). Retrieved from. <https://www.fns.usda.gov/fdpir/about-fdpir>, Accessed date: 18 January 2017.
- USDA, 2015b. Food Distribution on Indian Reservations: USDA Foods Fact Sheets. Retrieved from. <https://www.fns.usda.gov/fdpir/fdpir-usda-foods-fact-sheets>, Accessed date: 18 January 2017.
- USDA, 2015c. Service of Traditional Foods in Public Facilities. Retrieved from. [https://www.fns.usda.gov/sites/default/files/cn/SP42\\_CACFP19\\_SFSP21-2015os.pdf](https://www.fns.usda.gov/sites/default/files/cn/SP42_CACFP19_SFSP21-2015os.pdf), Accessed date: 19 January 2017.
- USDA, 2015d. Child Nutrition Programs and Traditional Foods. Retrieved from. [https://www.fns.usda.gov/sites/default/files/TA01-2015\\_Child\\_Nutrition\\_Programs\\_and\\_Traditional\\_Foods.pdf](https://www.fns.usda.gov/sites/default/files/TA01-2015_Child_Nutrition_Programs_and_Traditional_Foods.pdf), Accessed date: 19 January 2017.
- USDA, 2011. Procurement Geographic Preference Q&As. Retrieved from. [https://www.fns.usda.gov/sites/default/files/SP18-2011\\_os.pdf](https://www.fns.usda.gov/sites/default/files/SP18-2011_os.pdf), Accessed date: 19 January 2017.
- USDA and HHS, 2010. Dietary Guidelines for Americans, 2010, seventh ed. U.S. Government Printing Office, Washington, D.C Retrieved from. <https://health.gov/dietaryguidelines/dga2010/dietaryguidelines2010.pdf>, Accessed date: 27 March 2017.
- USGAO, 1991. Food Distribution Program: USDA's Canned Beef and Pork Can Be Improved. United States General Accounting Office. Report to Congressional requestors Retrieved from. <http://www.gao.gov/assets/160/150533.pdf>, Accessed date: 18 January 2017.
- USGAO, 1989. Food Assistance Programs: Nutritional Adequacy of Primary Food Programs on Four Indian Reservations, Report to Congressional Requesters. GAO/RCED-89-177. Retrieved from. <http://www.gao.gov/assets/220/211704.pdf>, Accessed date: 18 January 2017.
- Vantrease, D., 2013. Commod bods and frybread power: government food aid in American Indian Culture. *J. Am. Folk.* 126 (499), 55–69.
- Yang, W., Dall, T.M., Halder, P., Gallo, P., Kowal, S.L., Hogan, P.F., 2013. Economic Costs of Diabetes in the U.S. In 2012. American Diabetes Association, pp. 1–14.