Nimi'ipuu (Nez Perce Tribe)
Food Sovereignty Assessment

Columbia River Basin, Showing Lands Ceded by the Nez Perce and Current Reservation
Source: Columbia River Inter-Tribal Fish Commission
http://www.critfc.org/member_tribes_overview/nez-perce-tribe/

Prepared for the **Nez Perce Tribal Executive Committee**
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Executive Summary

The aim of this study is to inform and strengthen Nimi'ipuu (Nez Perce) tribal efforts to achieve greater food sovereignty. To accomplish this purpose, public data sets were compiled to characterize conditions on the reservation and estimate the food needs of tribal members. Tribal leaders were interviewed to identify the significant food system assets, and visions for food sovereignty, held by the Tribe. Finally, the report outlines some of the approaches the Tribe contemplates taking to increase its food sovereignty.

Central to both Nimi'ipuu culture and to the nourishment of tribal members is subsistence gathering of wild foods. This stands at the core of food sovereignty initiatives. Yet tribal leaders are also pursuing plans to build a more robust agricultural system that will feed tribal members. Community gardens have sprung up on the Reservation, and many people maintain private gardens for their own use. Tribal hatcheries and watershed sustainability efforts have been highly successful in ensuring robust fisheries in the Columbia River watershed.

Our research found that the 3,536 members of the Nez Perce Tribe have less power over the Reservation land than they would ideally like to have, with only 17% of Reservation land owned by the Tribe or tribal members (Local Foods Local Places 2017; Nez Perce Tribe Land Services). Nevertheless, by leasing some 38,000 acres to nontribal farmers, the Tribe earns $1.7 million each year. Wheat is an important crop, but plantings vary greatly from season to season.

About 1,286 of the residents, or one in four, of the three main towns — Kamiah, Lapwai, and Orofino — are Native American. These are mostly, but not exclusively, Nez Perce tribal members. Appropriately, the Tribe is considering siting new farms on tribal lands near each of the three towns.

Half of the residents of these three towns live in households earning less than a livable wage, and in some outlying areas, poverty is even worse, with more than 80% of the population living below 185% of the federal poverty line. All told, residents of the four counties in which the Reservation stands — Clearwater, Idaho, Lewis, and Nez Perce — collect nearly $9 million annually in SNAP benefits (formerly called food stamps). This is almost as much money as the Tribe earns by leasing farmland.

Meanwhile, as both population and personal income rise, the 65,605 residents of the four-county area purchase about $197 million of food each year. Since the Tribe owns most of the productive farmland in the region, it would be well-placed to grow food for these residents should it consider this to be part of its food sovereignty strategy.

Even small shifts in local food consumption could make considerable difference. If each resident of the four counties purchased $5 of food each week directly from a farm in the region, the region's farms would earn an additional $18 million in revenue annually.

Another significant market for food raised on reservation lands would be the two casinos owned by the Tribe, which purchased $857,988 of food in FY 2017. The food service manager welcomes opportunities to buy food from tribal producers. Several other tribal programs also purchase food items, but rely upon commodities provided by government programs.

At their core, tribal efforts to feed itself are restricted primarily by the limited farming skills held by tribal members. This suggests that the most critical investments involve ensuring that Nez Perce youth develop the capacity to grow food as well as engage in subsistence fishing, gathering, and hunting.

To sum up, Nez Perce's long tradition of food sovereignty can be advanced by pursuing the strategies outlined below. Tribal members and staff are already undertaking most of these. Further detail on each can be found in the Recommendations section, page 31.

1. The Nez Perce Tribe may wish to consider setting specific goals for increasing food sovereignty.

2. The Nez Perce Tribe should continue to strengthen subsistence harvesting of wild foods across traditional lands, and continue to advance cultural rituals connected to these activities.

3. The Nez Perce Tribe should consider developing an ongoing training program for new farmers.

4. The Tribe should pursue its plans to open new farms on tribal lands near each of the three towns: Kamiah, Lapwai, and Orofino.

5. The Nez Perce Tribe should continue to plan for, study the economic feasibility of, and potentially build community kitchens in each of the three towns.

6. The Nez Perce Tribe should continue to increase commercial food production through its Nimi'ipuu Natural Farm Pilot Initiative.

7. As food production ramps up, the Nez Perce Tribe may find itself in the position of being able to market fresh foods to the four-county region.

8. The Tribe may wish to extend its efforts to reclaim ownership of farmlands on the Reservation as current owners retire or express a willingness to sell.

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Nez Perce Tribe Food Sovereignty Assessment

Background

Historically, the Nimi'ipuu (Nez Perce) tribal sovereignty was closely intertwined with a bountiful food supply. Traveling throughout the western regions according to the seasons, hunting buffalo on the Great Plain, gathering at treasured places such as Celilo Falls to fish for salmon, and moving through the hills and woods to harvest berries and wild animals, the Tribe not only thrived, but wove a solid culture that persists to this day.

In earlier times, the Nez Perce depended upon more than 17 million acres of land and water in what became the states of Idaho, Oregon, Washington, and Montana. Much of this was ceded to the United States in the 19th Century. Today, the Nez Perce Indian Reservation holds 750,000 acres, as shown on Map 1 on page 7. Tribal lands overlap with four Idaho counties: Clearwater, Idaho, Lewis, and Nez Perce.

Each tribal village produced its own food in gardens, and orchards were scattered across the land. Growing food and gathering berries was typically considered women's work, while men focused on hunting and fishing.

The Nez Perce continue to pursue traditional food practices throughout their original homelands, though now deeply constrained by industrial, agricultural, and urban development. Joining with the Yakama, Umatilla, and Warm Springs Tribes to co-manage the Columbia River watershed, tribal members play a vital role in protecting both water quality and salmon populations. This includes the

watersheds covering more than 13 million acres including several other rivers as well: Snake, Tucannon, Grande Ronde, Imnaha, Clearwater, and Salmon. Tribal fisheries help keep these rivers stocked and employ about 200 full-time and part-time workers.

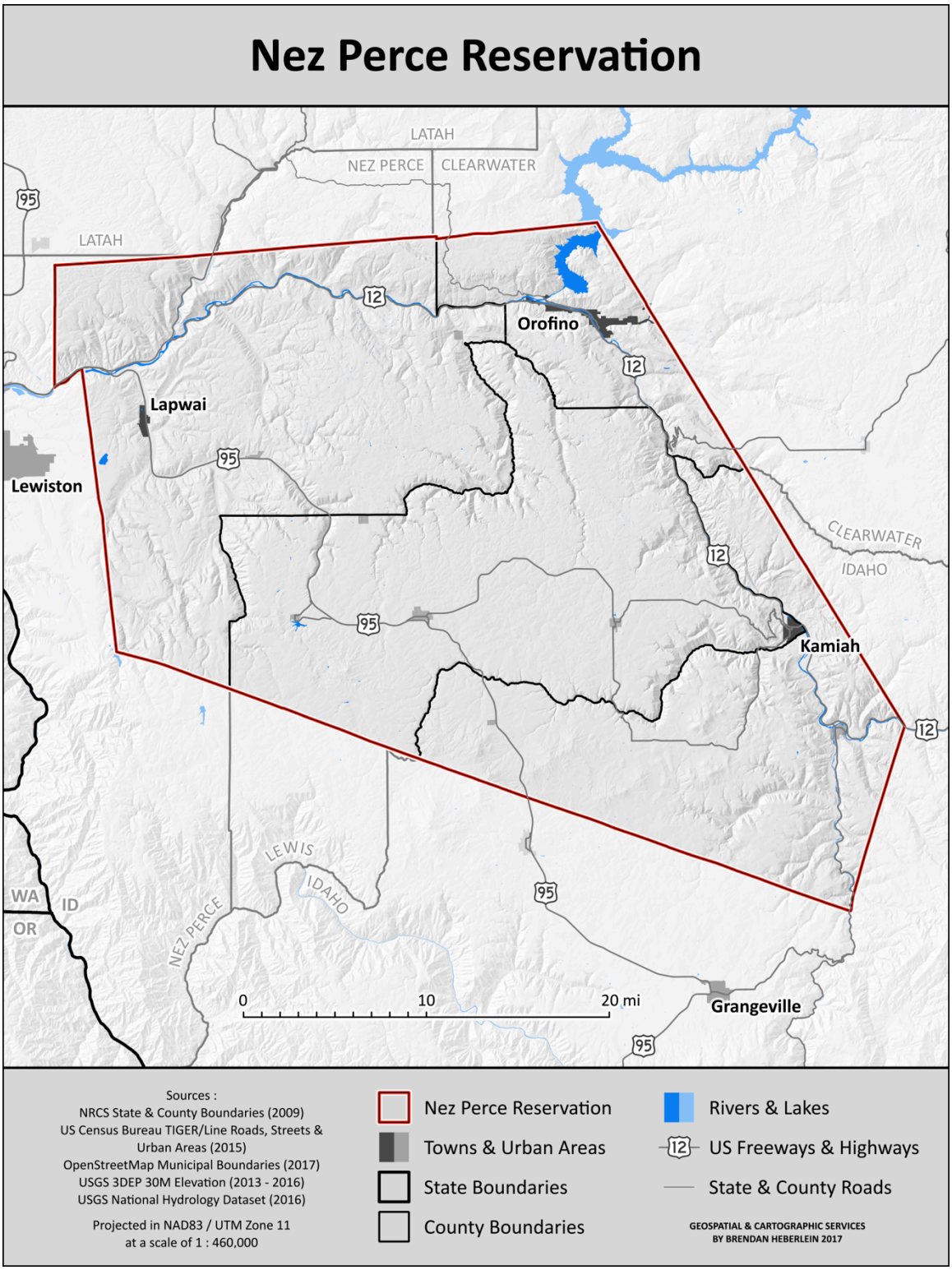
As the Local Foods Local Places strategic plan pointed out, "The Nez Perce Tribe has always been a good steward of the land and its culture and heritage were built on conservation, food gathering, and communal sharing of food" (Local Foods Local Places 2017).

> Yet the 3,526 members of the Nez Perce Tribe have lost their historical influence over much of the reservation's land. Vast acreage has been leased to nontribal farmers, who till about 38,000 acres. Tribal officials said that none of the farms on the reservation are owned or managed by tribal members.

Now that food items are often procured from grocery stores, the Tribe has taken important steps to construct a food sovereignty suited to the modern era. Tribal officials have launched plans to use tribal lands to grow food in each of the three towns where Nez Perce tribal members tend to live. New training programs that will encourage tribal youth to explore farming and food as careers are being considered. Schools have added gardens where students learn about food production. Plans are being drawn up for a food processing facility and commercial farms.

Yet this activity is also undergirded by a strong dedication to harvesting food in the traditional way to the greatest extent possible. Tribal members daily assert their rights to hunt in forested areas, to fish on the Columbia, Clearwater, Rapid, and Selway rivers, and to harvest wild foods, including berries, roots, teas, and medicinal herbs wherever they find them.

Map 1: Nez Perce Reservation



Map by Brendan Heberlein

Population

According to Dr. Steven Peterson's 2017 analysis of the economic impact of the Nez Perce Tribe, the Tribe has 2,269 members in Idaho, with a total enrollment of 3,526. It appears that more than half of the Idaho tribal members live in the three towns shown on Map 1 — Lapwai, Orofino, and Kamiah. These three towns have 1,286 Native American residents, who are primarily, though not exclusively, Nez Perce. Total population on the Reservation is 18,650.

Following is the breakdown of the population in these three towns:

Table 1: Population of Three Towns with Most Nez Perce Members by Race or Ethnicity

	Kamiah	Lapwai	Orofino	All Three
White	1,191	332	2,890	4,413
Native American	148	961	177	1,286
African-American	3	73	26	102
Asian	16	41	17	74
Other	21	7	47	75
Latino	79	147	199	425
Total	**1,329**	**1,286**	**3,088**	**5,703**

Source: US Federal Census, 2010-2015. Note that population totals in each column add up to more than 100% since Latino is considered a culture, not a race. Thus, Latinos are also members of some other racial group. In this table, Alaska Natives are considered Native American.

Of the total population in the three towns, 3,238 are male and 2,465 are female. About one in four residents are Native-American, as Table 2 shows.

Table 2: Native Americans as Percent of Population of the Three Towns

	Kamiah	Lapwai	Orofino	All three
Percent Native-American	11%	75%	6%	23%

Source: US Federal Census, 2010-2015.

The City of Lewiston, Idaho, also has a substantial Native American Population, with 996 (3.1%) residents who are either Native American or Alaska Natives. Very likely a strong proportion of these residents are Nez Perce.

Map 2 on page 10 below shows the location of the Nez Perce reservation in the context of the four-county region. Shaded in green on this map are public lands managed by the Federal Bureau of Land Management. Population of this four-county area is 68,875, as shown in Table 3 below.

Table 3: Population of Four Counties in Central Idaho

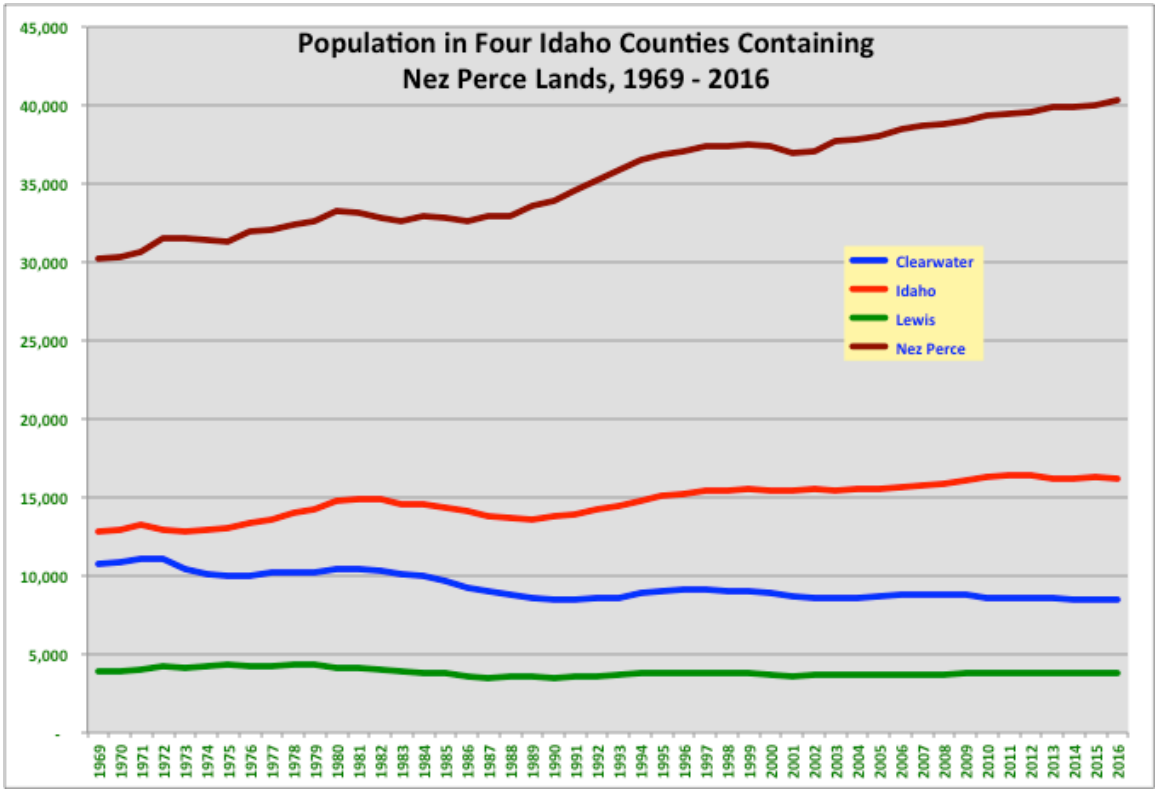
County	2016 Population
Clearwater	8,497
Idaho	16,156
Lewis	3,853
Nez Perce	40,369

Source: Bureau of Economic Analysis

Population trend data for the four counties, covering each year since 1969, are shown on Chart 1. Although the county-wide trends shown here differ from the population trends of the three towns, they are nevertheless helpful in understanding the context that affects tribal members.

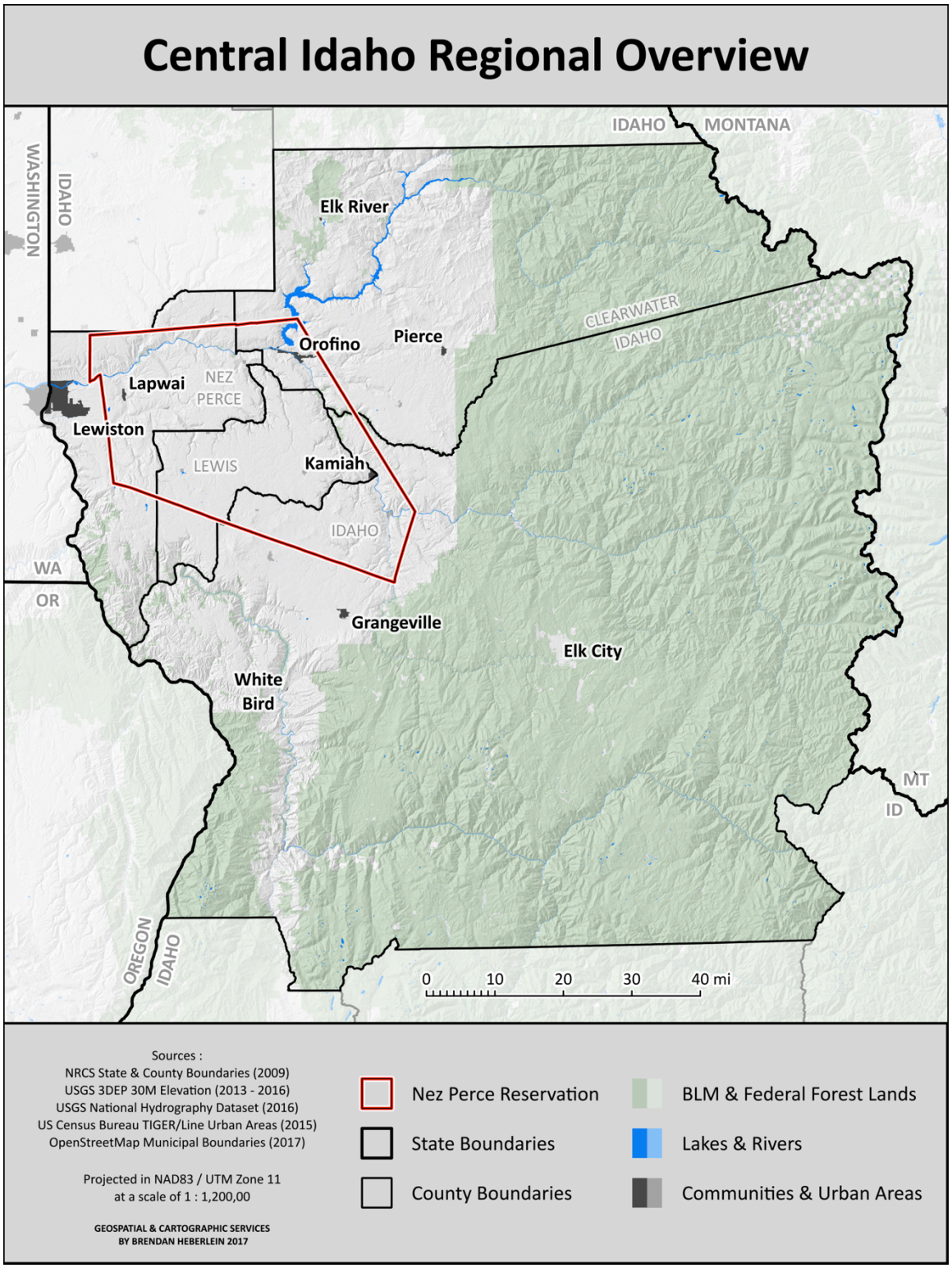
The combined population of the four counties increased 19% from 1969 to 2016, as Chart 1 below shows. Each county exhibits different trends. Population in Lewis County population held relatively steady over the past 48 years, while Clearwater County has lost population. Growth is led by Nez Perce County, which includes an expanding Lewiston.

Chart 1: Population in the Four Counties Containing the Nez Perce Reservation, 1969 - 2016



Source: Bureau of Economic Analysis

Map 2: Nez Perce Reservation in its Central Idaho Context

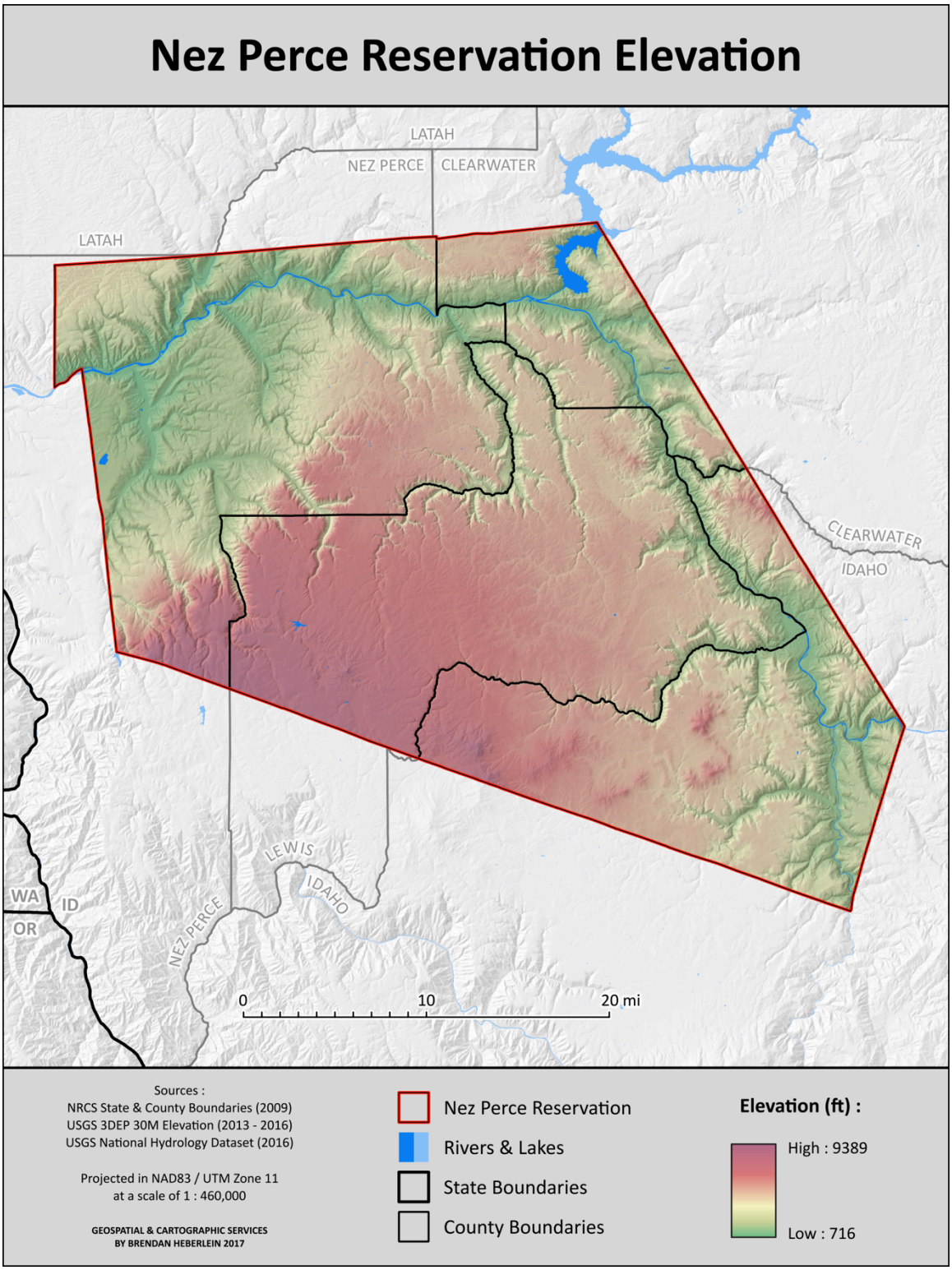


Map by Brendan Heberlein

Land on the Nez Perce Reservation is defined largely by the Clearwater River and its tributaries, which have cut through substantial loess hills and forested mountain terrain that is well above a mile over sea level, as Map 3 below shows. Highlands range as tall as 9,389 feet.

The tributary river valleys in Nez Perce County in the northwest corner of the Reservation provide the largest expanses of fertile soil, as Map 3 shows, but there are also significant valley soils along the river in the eastern section of the Reservation.

Map 3: Nez Perce Reservation — Land Elevation

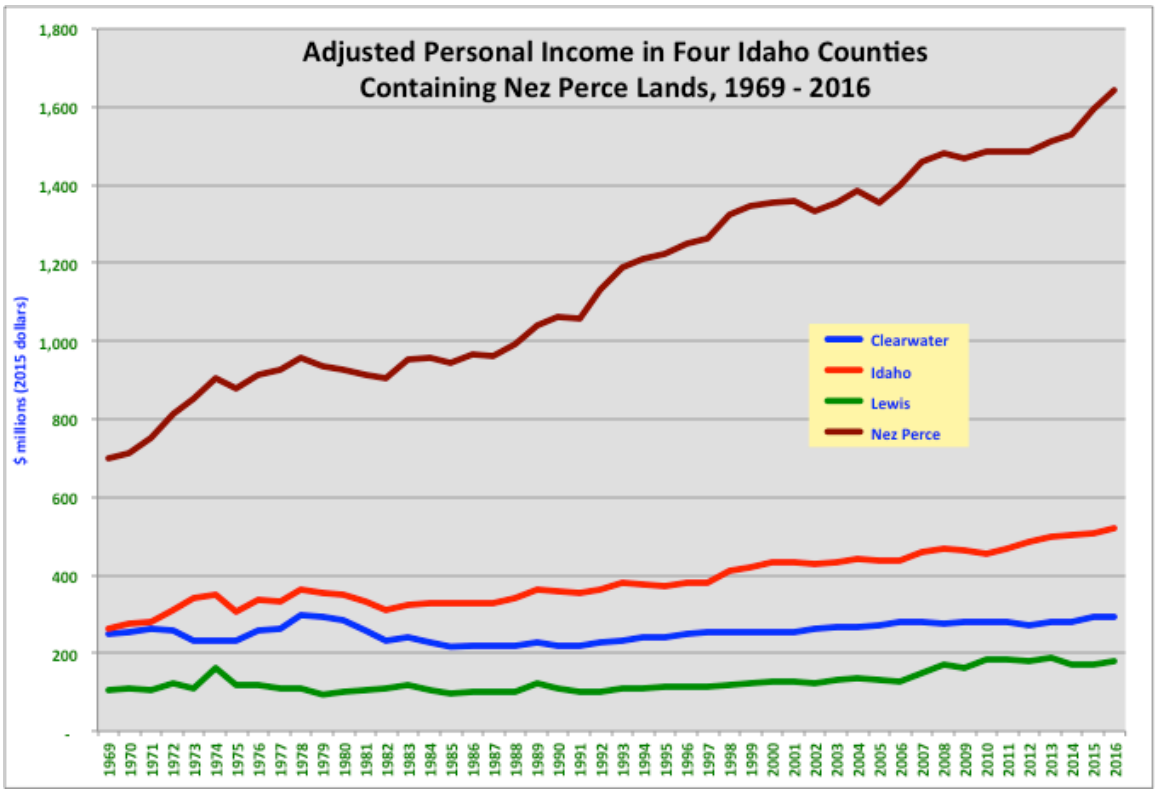


Map by Brendan Heberlein

Personal Income

Adjusted Personal income rose more rapidly than population, doubling from 1969 – 2016. Residents of the four counties now earn a combined $2.6 billion per year. Mirroring population trends, income growth was strongest in Nez Perce County, where income grew 135% after adjusting for inflation. Income growth in Idaho County was similar to the regional trend. Although growth in Clearwater County was small, it nevertheless experienced a 17% increase in income despite losing population. This is shown on Chart 2 below.

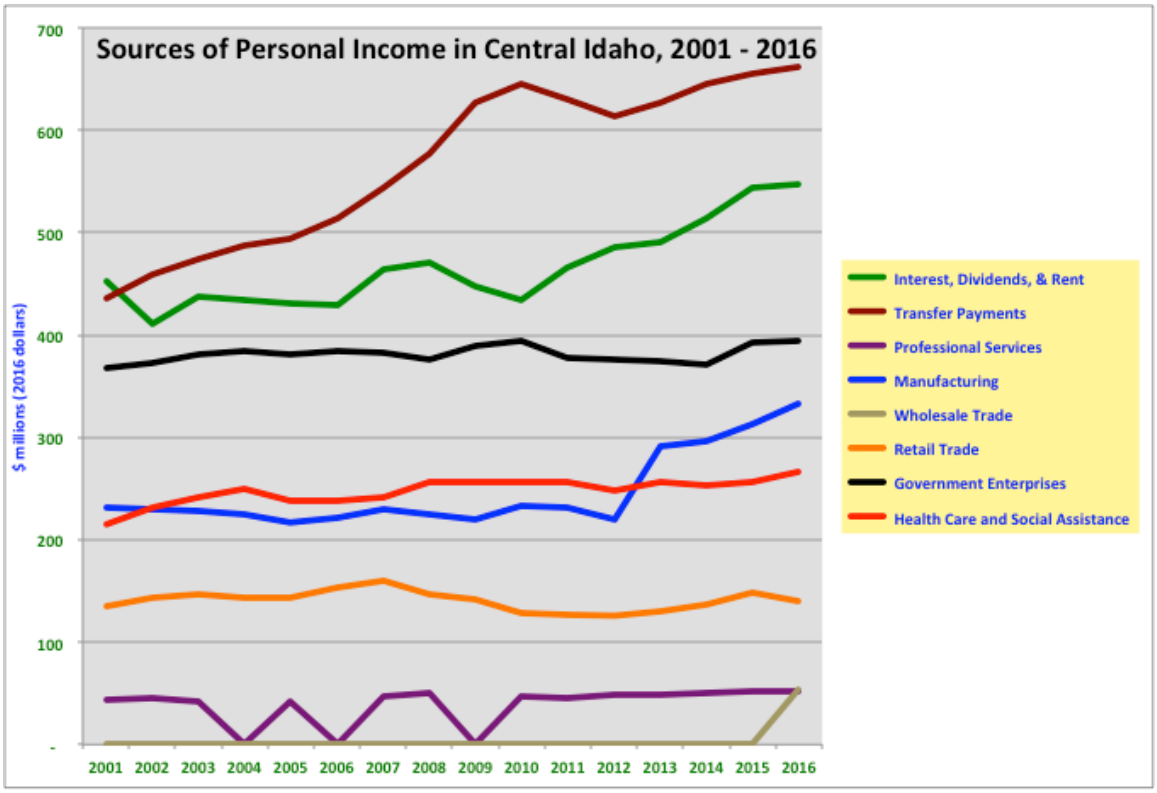
Chart 2: Adjusted Personal Income in the Four Counties Containing the Nez Perce Reservation, 1969 – 2016



Source: Bureau of Economic Analysis

Yet as Chart 3 shows below, the largest single source of income for residents of the four counties was transfer payments — largely public programs such as unemployment and retirement benefits — at $661 million. The second largest source of income was interest, dividends and rent, accounting for another $547 million of income. Government jobs (including the education sector) ranked third, holding steady at just below $400 million. Manufacturing income rose to $332 million.

Chart 3: Adjusted Sources of Personal Income in the Four Counties Containing the Nez Perce Reservation, 1969 – 2016



Source: Bureau of Economic Analysis. Note that entries of "zero" signify data that was not reported in an effort to protect confidentiality.

Poverty

Yet while prosperity was growing for many residents in the region, a significant number of residents face poverty. More than one of every three residents — 34% — live in households earning less than 185% of the Federal Poverty Line, a common benchmark of household food security and one shorthand for defining a livable wage.[1] This represents more than 22,000 people.

Rates are higher on the Reservation, with nearly half of residents in the three main towns in the Reservation living in households with an income level less than 185% of the Federal Poverty Line, as Table 4 shows.

[1] In 2017, 185% of the Federal Poverty Level was an income $45,510 for a family of four.

Table 4: People Living Below Poverty in the Three Towns

	Kamiah	Lapwai	Orofino	All Three
People living below 185 of poverty	671	708	905	2,284
Percent of total population	51%	55%	44%	49%

Source: Federal Census of 2010-2015. "Poverty" is defined here 185 percent of the federal poverty standard, which scales by household size. This is also the earnings level below which children qualify for free and reduced lunch at school. Due to sampling difficulties, the number of people for whom poverty was determined was reported as lower than total population in Orofino, but percentages listed here should closely reflect the entire population of the town.

Table 5: SNAP Recipients in the Three Towns

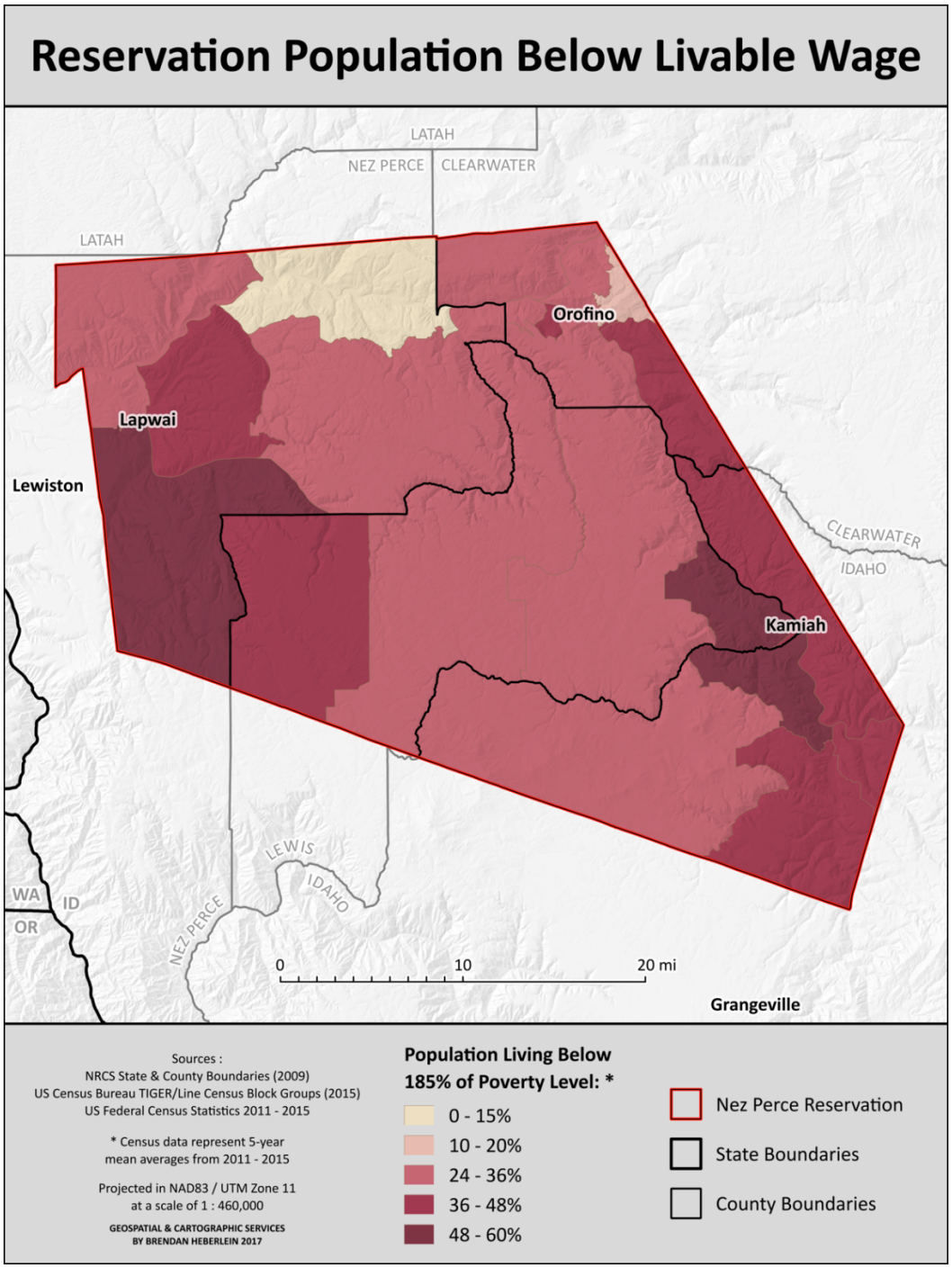
	Total Households	Households Receiving SNAP	Percent of All Households Receiving SNAP	All Native American Households	Percent of Native American Households Receiving SNAP
Kamiah	582	92	15.8%	26	3.3%
Lapwai	386	74	19.2%	248	63.5%
Orofino	1003	157	15.7%	34	7.0%

Source: US Federal Census of 2010-2015

While data become less precise at local levels due to sampling error, an estimated 16% of all households in the three towns collect SNAP benefits (formerly called food stamps). The rate of SNAP enrollment appears on par with this average in both Kamiah and Orofino, but somewhat larger in Lapwai. The difference in enrollment rates may be due to how close people live to tribal officials in Lapwai who can enroll SNAP recipients for benefits.

Map 4 below shows that rural areas of the Reservation also experience significant poverty, with the deepest poverty in areas south and west of the towns of Kamiah and Lapwai. Note that in the lowest-income areas, more than half of the population lives in households earning less than 185% of the Federal Poverty Line.

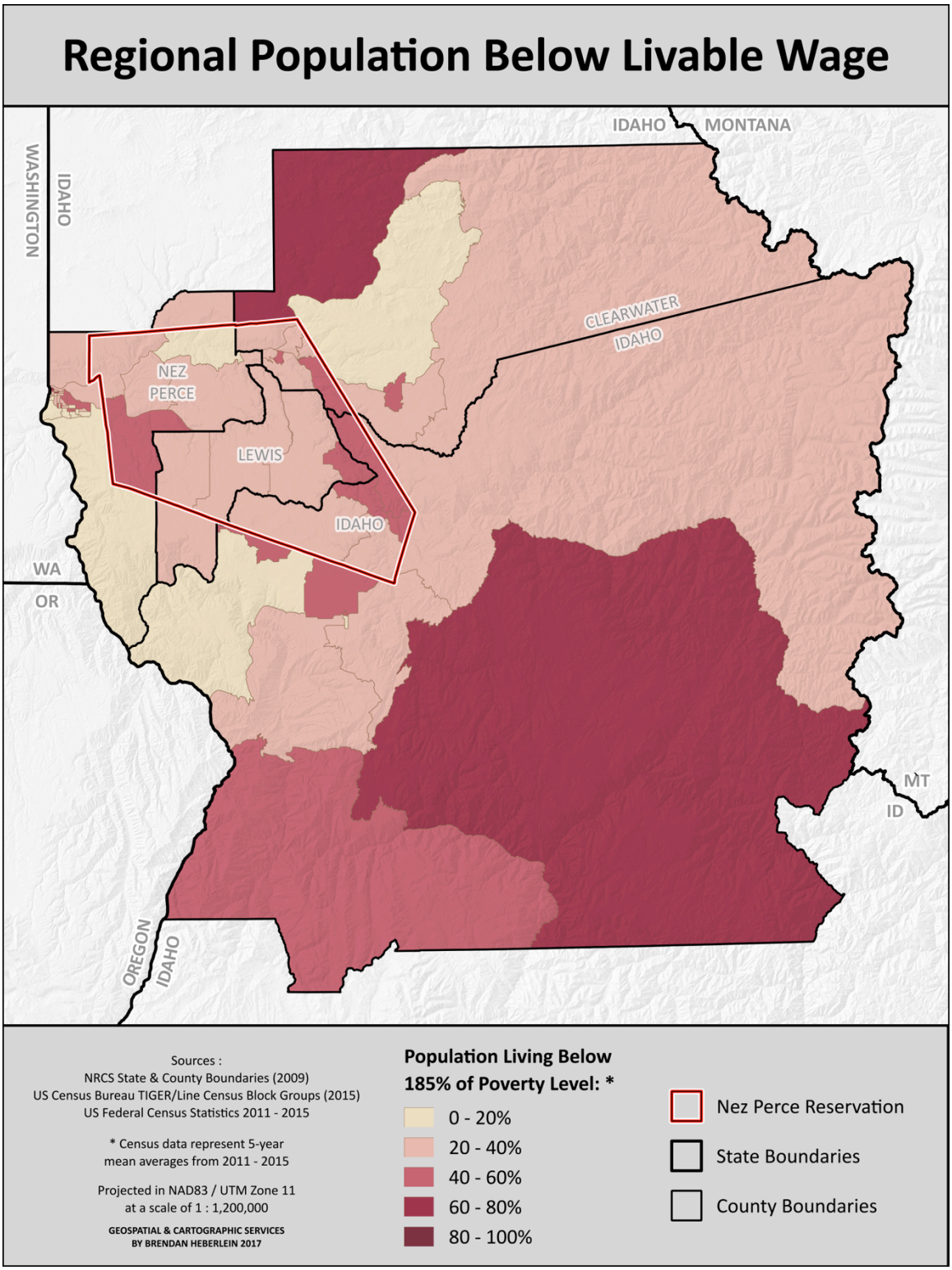
Map 4: People Living Below Poverty Level on Nez Perce Reservation



Map by Brendan Heberlein

Poverty also affects all four counties in which the Nez Perce Reservation stands, as Map 5 below shows. Significantly, many of the poorest areas of these counties are outside of the Reservation. In some locales, more than 80% of the population lives in households earning less than 185% of the Federal Poverty Line.

Map 5: People Living Below Poverty Level in the Four Counties of Central Idaho

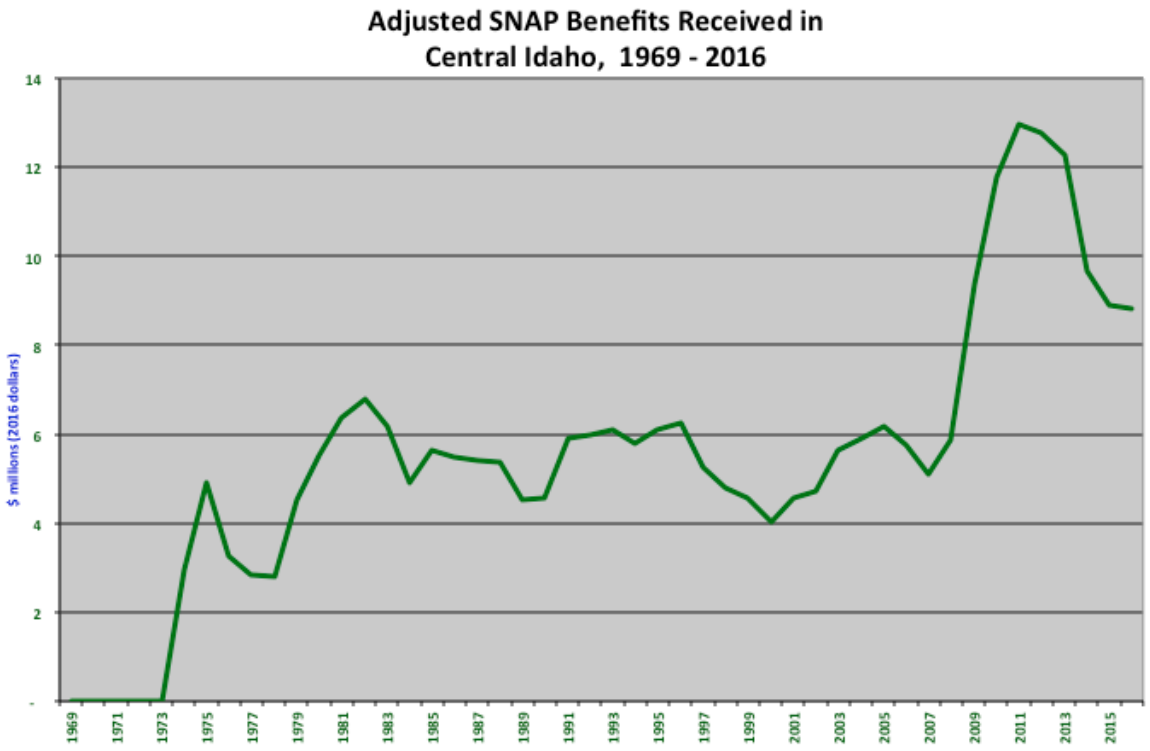


Map by Brendan Heberlein

It should also be noted that the color scale of poverty rates shown on the two maps differ. This means that lower-income areas of the Reservation show up darker on the Reservation map than the same areas on the regional map. This regional map shows that the areas with highest poverty in the four counties are in sparsely populated, remote areas off the Reservation.

Those who earn less than needed to maintain a household may be able to qualify for SNAP benefits (formerly known as food stamps). Residents of the four counties collected $8.8 million of these benefits in 2016, down from a peak of $13 million in 2012 fueled by the housing finance crisis. Chart 4, below, shows how much SNAP usage has increased since 1969, when no one in any of the four counties received food stamps.

Chart 4: Adjusted SNAP Benefits Received in the Four Counties Containing the Nez Perce Reservation, 1969 – 2016



Source: Bureau of Economic Analysis

Food System Assets

Participants in a September 2017 workshop sponsored by the Tribe's Local Foods, Local Places Technical Assistance Program identified a wealth of assets on the Reservation and in surrounding lands (Local Foods, Local Places Technical Assistance Program, 2017). These assets include the land on which the Reservation stands, the rivers that nourish salmon and other fish, locales where wild foods are harvested, fish hatcheries, the tribal freezer/storage facility, and community garden sites.

Half of the land in the Reservation is cropland, while another 34% is dedicated to grazing, and 13% is forested (Local Foods Local Places 2017),

Subsistence Harvesting

Tribal leaders firmly stated that members of the Tribe are committed to maintaining traditional food gathering practices, not only as a way of procuring essential foods, but also as a way to keep tribal culture strong by celebrating the seasonal interactions with the natural environment that food gathering depends upon.

Perhaps nothing is more central to Nez Perce culture than fishing for Salmon. In the Treaty of 1855, the "Nez Perce retained total fishing rights on all streams and rivers within the boundaries of the original 13.4 million acre reservation that extended outward to 'all usual and accustomed places' including the mainstem Columbia River" (DFRM, 2017). See map the front cover of this report showing the broad Columbia watershed, ceded lands, and the Reservation.

While some tribal members fish on the Clearwater River, this fishery requires special equipment that many do not have. Moreover, many tribal members feel it is critical to assert treaty rights to fishing in traditional spots such as Celilo, where members of several tribes gather annually to fish. Another important fishing site is Rapid River.

The forests east of the Reservation also offer abundant habitat for deer and other wild animals, while prairie and savanna areas support bison and elk. Hunters routinely head to these areas to gather meat for their families. The Tribe maintains a deep freeze facility where meat from these hunts and fish can be stored for later use.

Berries are also harvested in large quantities from wherever they grow. Fruit not eaten fresh are dried or frozen for later use. Roots are also gathered each year, as are wild leaves to make tea and herbs used as medicines.

Cultural heritage and language are advanced through the activities that bring tribal members together to gather food. These activities hold considerable economic importance as well, although many tribal members consider food a gift from the creator that should not be sold. Harvesting wild foods and sharing them with each other plays an important role in lowering the cost of living — but not in ways that have been measured. Tribal leaders cautioned that details about such activities, including assessing the amount harvested or the economic value of wild harvests, would not be shared publicly since this element of food sovereignty is closely held as private to the Tribe.

Moving away from traditional diets, and traditional food gathering practices and cultural rites has taken a toll on the Nez Perce population. The tribe has the highest diabetes rate of any tribe in the Northwest, at 10.6% (Local Foods Local Places 2017, citing Nimi'ipuu Health Services).

Gardening

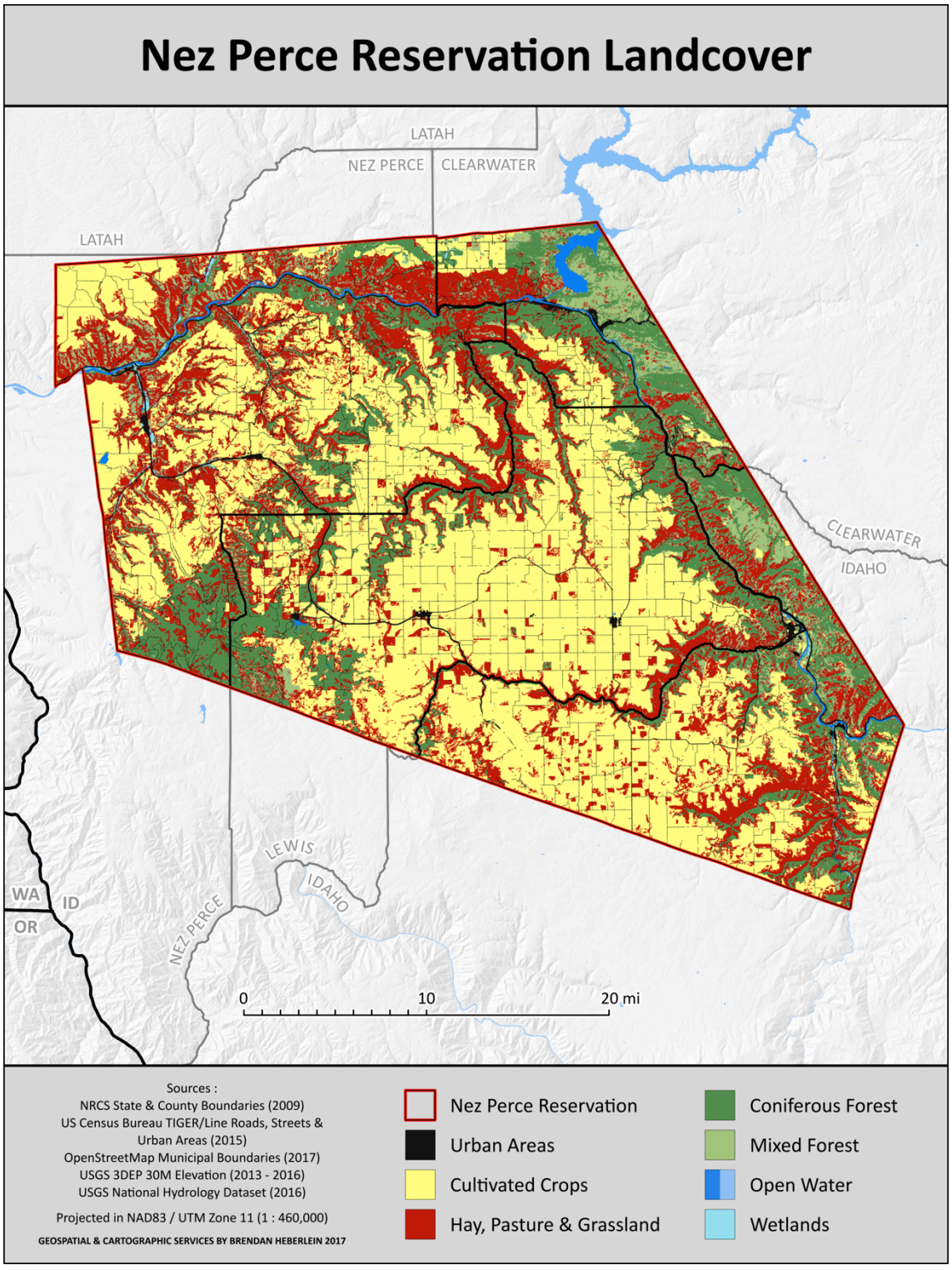
From the 1940s to the 1970s, gardening was broadly practiced by many tribal families living on the reservation. Today there are only a handful of such gardens. As one tribal leader said, "We want this to become the norm again." Several gardens have been developed in recent years as tribal members have taken renewed interest in improving their diet, having more control over the foods they eat, and reducing the risks of developing diabetes.

Local Foods, Local Places participants identified 7 gardening and community gardening sites in Lapwai alone (2017). Once again, while no data are recorded to document the harvest from these gardens, tribal leaders noted that they are an important part of the food supply, and that tribal members increasingly seek gardening skills. Tribal members donated three tons of vegetables produced on community gardens in 2017 (Local Foods Local Places 2017). Tribal hunters also donated animals they harvested (Interview with Tribal official 2017). All these food items were given to nearby families directly or through the local food bank.

Farming

Blessed with some of the best agricultural lands in Central Idaho, tribal lands support farming — 529 farms sold an estimated $1.7 million (Peterson, 2017; Nez Perce Tribe Land Services) of crops and livestock in 2016 from more than 38,000 acres (2015; Nez Perce Tribe Land Services; see Table 6). More than half of these lands were dedicated to wheat in 2015 (see Table 6), but crops vary greatly from year to year. Peas, canola, garbanzos, barley, hay, and lentils were also significant.

Map 6: Land Use on Nez Perce Reservation



Map by Brendan Heberlein

Table 6, below, shows the diverse crops that were raised on tribal lands in 2015. About two-thirds of farm acres were devoted to grains, and another 21% to legumes, with oil crops and forage also serving as important crops.

Table 6: Crop Farming on Reservation Lands, 2015

	Yield Pounds	Yield Bushels	Acres	Percent of Acres
Grains				
Barley	5,009,673	104,368	1,870	4.9%
Buckwheat	499,639	9,993	104	0.3%
Flax Seed	88,273	1,576	229	0.6%
Oats	641,080	20,034	193	0.5%
Wheat, Spring	10,322,109	172,035	4,270	11.2%
Wheat, Winter	67,604,314	1,126,738	17,954	47.2%
Subtotal	**84,165,088**	**1,434,744**	**24,621**	**64.7%**
Oil Crops				
Canola	2,654,249	53,085	2,768	7.3%
Legumes				
Garbanzos	3,232,708	53,878	2,481	6.5%
Lentils	994,213	16,570	1,363	3.6%
Peas	5,739,027	95,650	4,114	10.8%
Subtotal	**9,965,948**	**166,099**	**7,958**	**20.9%**
Grass & Seed				
Blue Grass Seed	321,134	22,938	463	1.2%
Forage				
Hay (Large Bale)	4,323,998	-	1,475	3.9%
Not in production				
Reserve (CRP)	-	-	110	0.3%
Nothing reported	-	-	71	0.2%
Fallow	-	-	564	1.5%
Subtotal			**746**	2.0%
Total acres			**38,030**	

Source: Nez Perce Tribe Land Services

Table 7 below shows acreage devoted to all crops, ranked by number of acres. This ranking demonstrates the dominance of wheat as a crop on tribal lands.

Table 7: Ranked Acreage Devoted to Crops on Reservation Lands, 2015

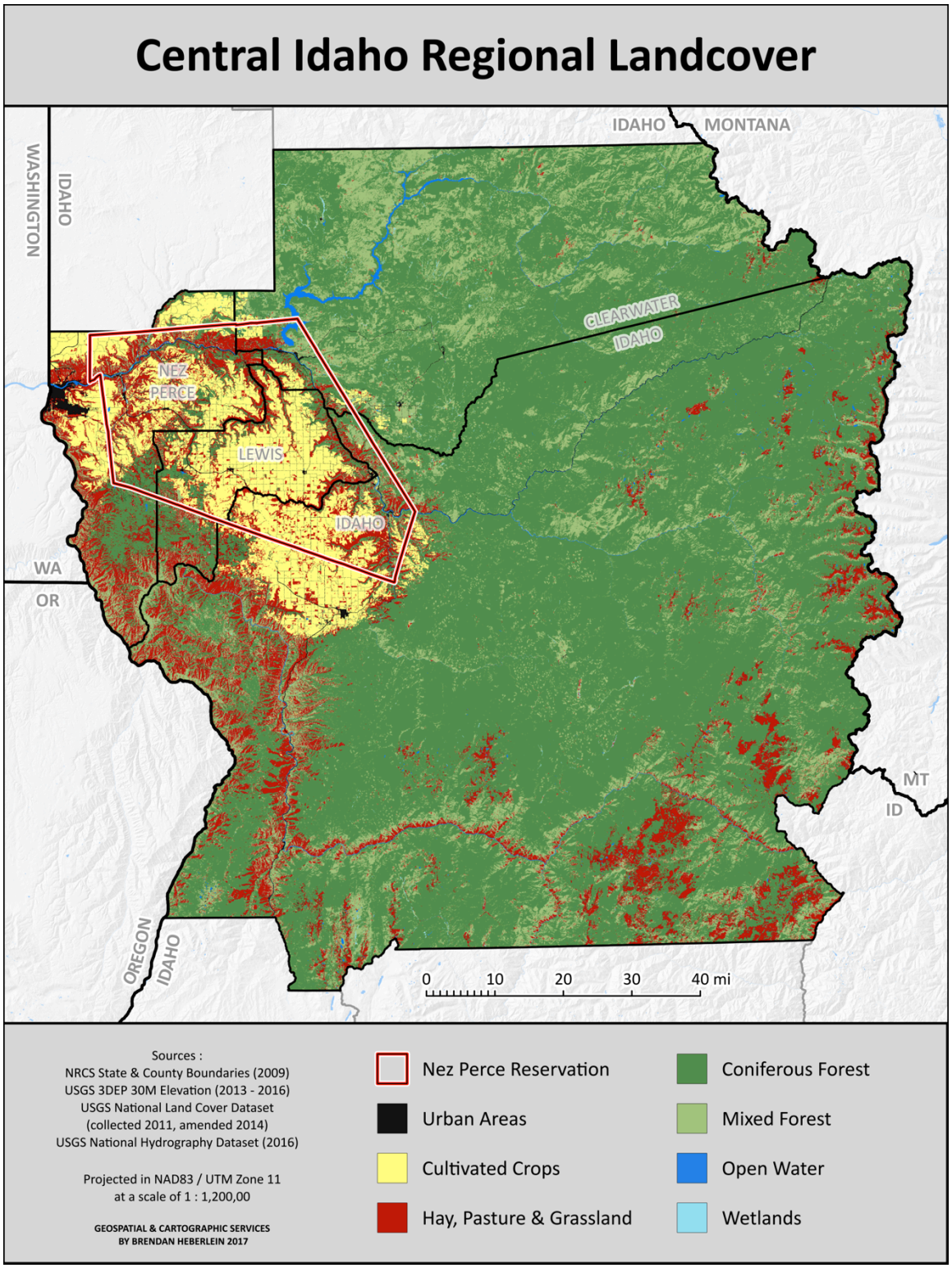
Crop	Acres
Wheat, Winter	17,954
Wheat, Spring	4,270
Peas	4,114
Canola	2,768
Garbanzos	2,481
Barley	1,870
Hay (Large Bale)	1,475
Lentils	1,363
Fallow	564
Blue Grass Seed	463
Flax Seed	229
Oats	193
Reserve (CRP)	110
Buckwheat	104
Nothing reported	71
	38,030

Source: Nez Perce Tribe Land Services

The presence of fallow land and conservation reserve lands indicates that farmers are dedicated to crop rotation and conservation practices.

As Map 7, below, shows, the Nez Perce Reservation includes most of the agricultural lands in the four-county region. This suggests that, if doing so met tribal goals for food sovereignty, the Tribe would be well-placed to raise food for the 68,605 residents of this four-county region. In Table 8 below, the quantities of food that would be required to feed this population are listed.

Map 7: Land Use in the Four Counties that Contain the Nez Perce Reservation



Map by Brendan Heberlein

Tribal officials noted, however, that Native Americans operate none of the farms working tribal lands. While this fact certainly places some limits on the Tribe's food sovereignty, it is also true that the income derived from renting or leasing land to others is an important source of income for the Tribe and ensures the land is used productively. See Tables 6-7 for more detailed data.

Household Food Purchasing

It is difficult to estimate food purchasing by Nez Perce households since available data on food consumption from the US government do not take into account subsistence harvesting and gathering. Moreover, federal data are typically based upon food consumption patterns of families in large, multi-state regions, who eat a different assortment of foods than most tribal members.

Thus, only broad estimates can be made here. These are made in two ways: (1) Bureau of Labor Statistics (BLS) Consumer Expenditure Survey data (commonly used for market studies) show average household food consumption for the Western states; (2) USDA Economic Research Service Food Availability data show how many pounds of food the average consumer in the US eats in a year. Both of these data sets have been applied to the Nez Perce Tribe, but both are likely to overstate actual food consumption since they reflect nontribal diets.

Using BLS data, we can estimate that the residents of Kamiah consume an estimated $4 million of food each year (however, we caution again that this is likely to overstate actual purchasing for the reasons outlined above). Residents of Lapwai also consume about $4 million of food. Orofino residents consume about $9 million of food. Thus, the consumer market for food in these three towns is between $12 to $17 million. Since at least 95% of these consumer purchases are made while purchasing food sourced outside the Reservation, this represents a flow of some $14 million leaving the area each year (at retail prices). This amounts to more than the sales of all farms reported by the Tribe (who are selling at wholesale prices, so caution should be used in interpreting these numbers).

If one wanted to focus solely on Nez Perce tribal members living in Idaho, the household market for food would be approximately $7 million.

It is far more accurate to estimate the consumer market for food in the broader four-county area, since these federal data are more accurate when applied to a larger geography with a population that is more representative of the surveyed household consumers. The combined 65,605 residents of the four counties purchased about $197 million of food in 2015. About $113 million of this was food purchased to eat at home. Once again, most all of these foods were sourced outside the region, representing a $190 million economic loss to the four-county region. Simultaneously, this loss also produces economic opportunity for Nez Perce farmers who may wish to raise food for nearby nontribal residents.

Table 8: Estimated Food Purchases by Households in the Four-Counties that Contain the Nez Perce Reservation, 2015

	$ millions
Meats, poultry, fish, and eggs	24
Fruits and vegetables	23
Cereals and bakery products	14
Dairy products	12
Other food at home	41

Source: Bureau of Labor Statistics, Consumer Expenditure Survey

If farmers in the four-county region, including perhaps Nez Perce farmers, were to increase production for local markets, they would find this to be an important market, although difficult to reach until new infrastructure is built to create more efficient community food trade.

Meanwhile, if each resident of the four counties purchased $5 of food each week directly from some farm in the region, so that the farmer earned full value for each sale, this would generate an additional $18 million of annual revenue for farmers in the four counties.

The second way of estimating food consumption is to estimate total pounds of the most commercially available foods using Economic Research Service Food Availability data. Once again, these data are likely to overstate consumption by tribal members for the reasons stated above. These data are shown in Appendices A-D. They can be used as a rough guide by Nez Perce farmers who might wish to calculate how many acres they would need to plant to provide an entire town, or all tribal members, with enough food to meet their annual needs. Since some of the foods listed by ERS would not be of interest to tribal members, this data is best used for specific commodities in a specific locale as a rough guide to farm planning.

Tribal Food Buyers

Tribal programs purchase about $1 million of food each year. Once again, it is not possible to calculate an exact figure because data are missing. Moreover, some tribal programs rely upon federal aid to make food purchases, and could not readily direct these resources to purchasing food from tribal sources.

The most precise data were supplied by the Clearwater River Casino, which operates two sites — Lewiston and Kamiah. Total food purchases by the two casinos for the fiscal year ending in September 2017 were $857,988. A detailed breakdown of food purchases by the casinos for the month of October 2017 is shown in Appendix E. General Manager Steve Griffiths expressed strong interest in purchasing food from local farmers and processors.

Three other tribal programs also purchase food, offering meals to community members to foster connections among them. These three programs did not report specific food purchasing totals. Some of these foods are purchased through USDA and other federal programs, so may not be able to quickly change to purchasing from local farms.

- Early Child Development Program (Serves food daily in Lapwai and at another site in Kamiah.)
- Senior Citizens Program (Serves food out of one kitchen in Lapwai and at another site in Kamiah daily.)
- Pi-Nee-Waus Community Center (has contractor in café).
- Teweepuu Community Center (No food sold or served here.)
- Wa A'Yas Community Center (No food sold or served here.)

Tribal Fisheries

Working diligently to ensure the long-term sustainability of the fish population in the Columbia River basin, tribal fisheries hatch young fish, raise them to maturity, and release them in local rivers. They have also mounted a persistent campaign to restore salmon habitat. Such work is critical because salmon and steelhead runs have declined because of hydroelectric power stations, degradation of the ecosystem, impaired water quality, and over-harvesting.

The Department of Fisheries Resource Management states that (DRFM, 2017):

> Today, maintaining a healthy 13-plus million acre watershed and improving survival of salmon and steelhead under the auspices of the 1855 Treaty, rests with the Tribe's Department of Fisheries Resources Management program. Our vision is to recover and restore all species and populations of anadromous and resident fish within the traditional lands of the Nez Perce Tribe.
>
> The Fisheries program works throughout the ceded lands and has offices in Powell, Red River, Grangeville, Orofino, McCall, Sweetwater, Lapwai and Joseph, OR. We coordinate and interact with State, Federal and Tribal agencies and committees and private entities in assessing and implementing fish recovery and restoration plans. We monitor fish populations and provide recommendations and overview on Endangered Species Act (ESA) issues. We also provide recommendations for restoration and protection of critical habitat for fish populations and protect fish and wildlife resources through conservation actions.

The Tribe says that 200 people work in fisheries management, which has a $20 million budget. This is one-fifth of the Tribe's total employment (Peterson, 2017). In 2015, the DRFM received an Honoring Nations award "with High Honors" from the National Congress of American Indians. The award is offered by the Harvard Kennedy School's Project on American Indian Economic Development. In honoring the Tribe, Andrew Lee, of the Honoring Nations Board of Governors, pointed out that the Tribe could claim partial credit for restoring a Chinook run that had declined to only 385 adult fish has been rebuilt to over 60,000, among other accomplishments. "When it comes to salmon, the Nez Perce are serious. And they've been seriously effective" (DRFM, 2017).

DFRM itself points to several successes, including restoring habitat through the Crooked River Valley Rehabilitation Project (CRVR) near Elk City, restoring the Snake River fall Chinook hatchery, bringing back the Coho salmon population in the Clearwater River, supplementing the summer fish populations on Johnson Creek, assisting repeat-spawning "Kelt" Steelheads of the Columbia Basin, and restoring spring habitat in Lookingglass Creek in Eastern Oregon (DRFM, 2017).

Food Businesses in the Four-County Region

As the Nez Perce pursue food sovereignty initiatives, the Tribe may also wish to form collaborations with food businesses in the broader four-county region. While few are owned by tribal members, the 287 firms pursuing food-related business amount to 15% of all firms in the region.

Once again, due to confidentiality restrictions, data are not reported for sectors where only a few firms operate. This means that while the number of firms is fairly accurate, the total number of employees and total payroll are both low. These food-related sectors account for at least 3,200 employees and $72 million in payroll. Additional firms (for example trucking firms) that do not specifically focus on food business are not included in Table 9 below, which is further reason for an undercount.

Table 9: Food-Related Businesses in the Four-Counties that Contain the Nez Perce Reservation, 2015

NAICS Code	Sector Name	Number of firms	Employees	Payroll $1,000s
11	Agriculture support, fishing and hunting	14	32	869
113	Forestry and logging	61	383	20,322
311	Food manufacturing	1		
312	Beverage and tobacco product manufacturing	2		
325	Chemical manufacturing	3		
333	Machinery manufacturing	7	33	1,228
445	Food and beverage stores	34	812	17,415
722	Food services and drinking places	145	1,843	26,476
4244	Grocery and related product merchant wholesalers	6	136	5,877
4245	Farm product raw material merchant wholesalers	7		
4248	Beer, wine, and distilled alcoholic beverage merchant wholesalers	1		
42491	Farm supplies merchant wholesalers	6		
		287	***3,239**	***72,187**

*Source: US Federal Census, County Business Patterns, 2015. As mentioned in the text, the count of firms is fairly accurate, while the *number of employees and *payroll figures are low since data were suppressed to protect confidentiality.*

Recommendations

Nez Perce upholds a long tradition of food sovereignty. While weaker than in historical times, due to incursions by settlers and the United States government, important elements persist. This tradition can be advanced in items detailed below. Tribal members and staff are already undertaking most of these.

1. The Nez Perce Tribe may wish to consider setting specific goals for increasing food sovereignty.

Pursuing Nez Perce tradition, tribal members will want to focus on ensuring that every member of the tribe has access to healthy food from wild harvests and local farms and gardens. Setting specific goals may assist this effort. Such goals might include determining which crops and livestock would be most important in feeding tribal residents, and setting goals for raising each food item based on the capacity of the tribe to do so. Data in Appendices A – D may serve as a guide for such planning.

One tribal official noted that the Tribe needs to expand its food storage facilities to cover 3-4 years of food needs; if this becomes a formal goal of the Tribe, setting appropriate production and harvesting goals will become essential.

2. The Nez Perce Tribe should continue to strengthen subsistence harvesting of wild foods across traditional lands, and continue to advance cultural rituals connected to these activities.

Clearly, the survival of Nimi'ipuu culture and heritage are closely intertwined with the cultural practices surrounding harvesting of wild foods. This is the heart of food sovereignty for the Tribe.

Ongoing tribal efforts to ensure that the rivers in the Columbia River watershed are fully stocked with salmon and other fish have proven highly successful, and employ a substantial number of people. These of course should be continued and expanded as appropriate.

One tribal official suggested that youth should be more engaged in salmon restoration efforts, so that they learn more about the need to protect the watershed, and practical ways of maintaining the salmon population, at the same time they learn how to fish.

3. The Nez Perce Tribe should consider developing an ongoing training program for new farmers.

Currently, few Nez Perce adults farm actively, so it is difficult for agricultural skills to be passed along to youth. Schools can play a strong role in cultivating these skills, beginning with gardens where youth learn about food and growing food at an early age. Nearby universities may be able to assist in training where gaps exist. One tribal official recommended that the Tribe hire a full-time garden coordinator to organize youth in the three communities to "make gardening cool" as part of expressing a Native American identity. By engaging youth in gardening while they are young, it will be easier to develop a core of youth who grow to be gardeners and farmers.

Yet the Tribe should also consider creating a training farm on land that is already owned by the Tribe, where youth who wish to garden or farm commercially can gain solid skills, and have access to washing stations, packing sheds, cold storage, distribution networks, and other infrastructure that will help them efficiently convey foods they grow to nearby residents.

The Tribe has properly been inspired by ALBA, a farmer-training program in California that has achieved strong success. The Tribe may wish to expand upon the ALBA model by ensuring that an incubator farm is adjacent to leasable land where graduates can establish larger commercial operations should they choose to. Locating these farms right next to training farms allows graduates to remain in a community with other growers even as they achieve greater production. Were graduates to move to more remote farms, they would lose both the access to infrastructure, and community context, for their farming.

Since the Tribe contemplates seeking funds from the USDA Community Foods Program Competitive Grants Program, and for the lasting sustainability of the initiative, it would be important to engage tribal youth in the planning and development of such a training farm campus.

Hopefully, data included in this food sovereignty assessment will prove useful in farmer training programs and production planning.

4. The Tribe should pursue its plans to open new farms on tribal lands near each of the three towns: Kamiah, Lapwai, and Orofino.

Drawing upon training programs outlined above, the Nez Perce should continue to engage youth in planning and implementing food production and distribution initiatives centered around land that is already owned by the Tribe near each of the three towns.

The Tribe may also wish to include nearby nontribal residents in its definition of "food sovereignty," as the Blackfeet Nation of Montana has done, to encourage strong connections with its neighbors and to provide markets for its food products (to the extent the Tribe wishes to charge money for foods at all).

The Tribe has established a list of priority crops to grow: corn, potatoes, peas and beans, carrots, onions, raspberries, tomatoes, lettuce and other greens, herbs, melons, and kale. It may also wish to consider adding cabbages, cucumbers, bell peppers, and other vegetables to this list as farming expertise and marketing efforts expand.

One likely market for these vegetables would be the two casinos owned by the Tribe in Kamiah and Lapwai. Often, we have found that initial sales of locally grown produce items work best when one or two items are traded at first in order to build mutual trust, open communications, and a solid track record of delivering food.

The Tribe has established a vision of building hoophouses and greenhouses to extend the growing season. This is a solid vision. We encourage tribal farms to continue to plant in soil for maximum nutrient content, rather than pursuing hydroponic or aquaponics production.

5. The Nez Perce Tribe should continue to plan for, study the economic feasibility of, and potentially build community kitchens in each of the three towns.

This community kitchen could serve multiple roles — as a training kitchen for learning food preparation; as a facility where tribal members can work together to prepare meals or test new value-added products; or as a catering kitchen. A feasibility analysis can assist the Tribe in ensuring that the kitchen will serve community needs and be affordable to run.

In the meantime, the Tribe may be able to make use of existing certified commercial kitchens already in operation to test the feasibility of launching a broader effort. Cooking lessons will also be aided by leveraging 6 existing "food as medicine" positions that engage youth in peer training. One Local Foods Local Places team member noted there is strong interest in bringing tribal members together in these kitchens to cook meals together. These are then frozen for later use.

6. The Nez Perce Tribe should continue to increase commercial food production through its Nimi'ipuu Natural Farm Pilot Initiative.

Tribal officials have begun planning for a commercial farming enterprise based on both outdoor and greenhouse food production to sell high-demand, high-value produce. The Tribe envisions selling food to both tribal and nontribal customers.

Implementation of this program will be difficult until a core group of farmers has been identified and/or trained.

Setting priorities for which programs to implement, and which products to produce, should be guided by evaluating each in terms of Tribal goals: How will each initiative strengthen food sovereignty? How will each help meet Tribal food production needs? How will each build capacity among tribal members to produce, process, and distribute healthy foods? What impacts will these programs have on the health of tribal members? How will each proposed initiative help build cultural, social, and commercial connections among tribal members? What will be the financial sustainability of each proposed initiative?

7. As food production ramps up, the Nez Perce Tribe may find itself in the position of being able to market fresh foods to the four-county region.

Nez Perce may wish to consider establishing a formal brand that helps consumers identify which products are tribally produced, and assures them that the quality meets high tribal standards.

Ultimately, the Nez Perce Tribe may wish to launch an "Eat Five, Buy Five" campaign (eat five fruits and vegetables each day, and buy five dollars of food from a tribal farm each week) to promote food products grown and processed by the Tribe.

8. The Tribe may wish to extend its efforts to reclaim ownership of farmlands on the Reservation as current owners retire or express a willingness to sell.

Clearly, this is a longer-term strategy, but having full ownership and management of tribal lands for producing food will be an essential part of tribal food sovereignty.

References

Department of Fisheries Resource Management (DRFM, 2017). "Protecting and Conserving Our Way of Life." Web site http://www.nptfisheries.org/, viewed November 29, 2017.

Local Foods, Local Places Technical Assistance Program (2017). Draft Report, "Strengthening the Local Foods System and Community Revitalization: Actions and Strategies for Lapwai, Idaho." September.

Nez Perce Tribe (n.d.). Tribal web site. www.nezperce.org

Nez Perce Tribe Department of Fisheries Resource Management (2013). Management Plan, 2013 – 2028. Nez Perce Tribe.

Nimi'ipuu Health Services. http//nimiipuuhealth.org/ Accessed December 14, 2017.

Peterson, Steven (2017). "Updated Economic Impact Analysis of the Nez Perce Tribe." Nez Perce Tribe.

Peterson, Steven (2014). "Tribal Economic Impacts: The Economic Impacts of the Five Idaho Tribes on the Economy of Idaho." Published by the Five Tribes (Coeur d'Alene, Kootenai, Nez Perce, Shoshone—Bannock, and Shoshone—Paiute).

Appendix A: Consumption of Selected Foods in Kamiah, 2015

Note: These figures are likely to overestimate consumption of food items listed here, since each is drawn from average consumption calculations for the US as a whole, and do not refer specifically to food consumption by Nez Perce tribal members in Kamiah. Still, they may be taken as rough estimates of food consumption for use in planning by Nez Perce farmers as a first step. Each should be ground-truthed with local residents.

		Total Pounds
Vegetables		
	Asparagus	2,193
	Beans, Lima	2
	Beans, Snap	1,954
	Broccoli	8,825
	Brussels Sprouts	611
	Cabbage	8,878
	Carrots	11,257
	Cauliflower	1,714
	Celery	7,349
	Cucumbers	9,835
	Eggplant	1,130
	Escarole & Endive	226
	Garlic	2,565
	Green Peas	3,057
	Greens, Collard	2,047
	Greens, Mustard	518
	Greens, Turnip	518
	Kale	678
	Lettuce: Head	19,217
	Lettuce: Leaf & Romaine	14,327
	Mushrooms	3,960
	Okra	532
	Onions	24,321
	Peppers, Bell	14,207
	Potatoes	44,522
	Pumpkins	7,070
	Radishes	638
	Spinach	2,219
	Squash	6,100
	Sweet Corn	10,140
	Sweet Potatoes	9,981
	Tomatoes	27,245
Fruit		
	Apples	25,171
	Apricots	159
	Blackberries	106
	Blueberries	2,047

	Cherries	1,582
	Cranberries	93
	Grapes	10,260
	Peaches & Nectarines	4,333
	Pears	3,814
	Prunes & Plums	771
	Raspberries	651
	Strawberries	10,566
Grains		
	Barley	970
	Oats	5,981
	Rye	665
	Wheat Flour	179,016
Dairy & Milk		
	Fluid Milk & Cream	230,847
	Dry Milk Products	4,784
	Cheese	40,800
	Cottage Cheese	2,791
	Condensed & Evaporated Milk	1,196
	Frozen Dairy Products	29,105
Eggs		
	Eggs	46,382
Meats		
	Pork	78,544
	Lamb	1,462
	Chickens total	129,578
Nuts		
	Hazelnuts	32,959

Source: USDA Economic Research Service Food Availability Data, 2015

Appendix B: Consumption of Selected Foods in Lapwai, 2015

Note: These figures are likely to overestimate consumption of food items listed here, since each is drawn from average consumption calculations for the US as a whole, and do not refer specifically to food consumption by Nez Perce tribal members in Lapwai. Still, they may be taken as rough estimates of food consumption for use in planning by Nez Perce farmers as a first step. Each should be ground-truthed with local residents.

		Total Pounds
Vegetables		
	Asparagus	2,122
	Beans, Lima	2
	Beans, Snap	1,890
	Broccoli	8,539
	Brussels Sprouts	592
	Cabbage	8,590
	Carrots	10,892
	Cauliflower	1,659
	Celery	7,112
	Cucumbers	9,516
	Eggplant	1,093
	Escarole & Endive	219
	Garlic	2,482
	Green Peas	2,958
	Greens, Collard	1,980
	Greens, Mustard	502
	Greens, Turnip	502
	Kale	656
	Lettuce: Head	18,596
	Lettuce: Leaf & Romaine	13,863
	Mushrooms	3,832
	Okra	514
	Onions	23,534
	Peppers, Bell	13,747
	Potatoes	43,081
	Pumpkins	6,842
	Radishes	617
	Spinach	2,148
	Squash	5,903
	Sweet Corn	9,812
	Sweet Potatoes	9,658
	Tomatoes	26,363
Fruit		
	Apples	24,357
	Apricots	154
	Blackberries	103
	Blueberries	1,980

	Cherries	1,530
	Cranberries	90
	Grapes	9,928
	Peaches & Nectarines	4,192
	Pears	3,691
	Prunes & Plums	746
	Raspberries	630
	Strawberries	10,224
Grains		
	Barley	939
	Oats	5,787
	Rye	643
	Wheat Flour	173,224
Dairy & Milk		
	Fluid Milk & Cream	223,378
	Dry Milk Products	4,630
	Cheese	39,480
	Cottage Cheese	2,701
	Condensed & Evaporated Milk	1,157
	Frozen Dairy Products	28,163
Eggs		
	Eggs	44,881
Meats		
	Pork	76,003
	Lamb	1,415
	Chickens total	125,385
Nuts		
	Hazelnuts	31,893

Source: USDA Economic Research Service Food Availability Data, 2015

Appendix C: Consumption of Selected Foods in Orofino, 2015

Note: These figures are likely to overestimate consumption of food items listed here, since each is drawn from average consumption calculations for the US as a whole, and do not refer specifically to food consumption by Nez Perce tribal members in Orofino. Still, they may be taken as rough estimates of food consumption for use in planning by Nez Perce farmers as a first step. Each should be ground-truthed with local residents.

		Total Pounds
Vegetables		
	Asparagus	5,095
	Beans, Lima	6
	Beans, Snap	4,539
	Broccoli	20,504
	Brussels Sprouts	1,420
	Cabbage	20,628
	Carrots	26,155
	Cauliflower	3,984
	Celery	17,077
	Cucumbers	22,851
	Eggplant	2,625
	Escarole & Endive	525
	Garlic	5,960
	Green Peas	7,102
	Greens, Collard	4,756
	Greens, Mustard	1,204
	Greens, Turnip	1,204
	Kale	1,575
	Lettuce: Head	44,652
	Lettuce: Leaf & Romaine	33,289
	Mushrooms	9,202
	Okra	1,235
	Onions	56,510
	Peppers, Bell	33,011
	Potatoes	103,448
	Pumpkins	16,428
	Radishes	1,482
	Spinach	5,157
	Squash	14,174
	Sweet Corn	23,561
	Sweet Potatoes	23,191
	Tomatoes	63,304
Fruit		
	Apples	58,487
	Apricots	371
	Blackberries	247
	Blueberries	4,756

	Cherries	3,675
	Cranberries	216
	Grapes	23,839
	Peaches & Nectarines	10,067
	Pears	8,863
	Prunes & Plums	1,791
	Raspberries	1,513
	Strawberries	24,550
Grains		
	Barley	2,254
	Oats	13,896
	Rye	1,544
	Wheat Flour	415,954
Dairy & Milk		
	Fluid Milk & Cream	536,386
	Dry Milk Products	11,117
	Cheese	94,802
	Cottage Cheese	6,485
	Condensed & Evaporated Milk	2,779
	Frozen Dairy Products	67,627
Eggs		
	Eggs	107,771
Meats		
	Pork	182,501
	Lamb	3,397
	Chickens total	301,080
Nuts		
	Hazelnuts	76,582

Source: USDA Economic Research Service Food Availability Data, 2015

Appendix D: Consumption of Selected Foods by Nez Perce Members in Three Reservation Towns, 2015

Note: These figures are likely to overestimate consumption of food items listed here, since each is drawn from average consumption calculations for the US as a whole, and do not refer specifically to food consumption by Nez Perce tribal members in Idaho. Still, they may be taken as rough estimates of food consumption for use in planning by Nez Perce farmers as a first step. Each should be ground-truthed with local residents. Data are calculated for all Nez Perce tribal members living in the three towns on the Reservation.

		Total Pounds
Vegetables		
	Asparagus	2,122
	Beans, Lima	2
	Beans, Snap	1,890
	Broccoli	8,539
	Brussels Sprouts	592
	Cabbage	8,590
	Carrots	10,892
	Cauliflower	1,659
	Celery	7,112
	Cucumbers	9,516
	Eggplant	1,093
	Escarole & Endive	219
	Garlic	2,482
	Green Peas	2,958
	Greens, Collard	1,980
	Greens, Mustard	502
	Greens, Turnip	502
	Kale	656
	Lettuce: Head	18,596
	Lettuce: Leaf & Romaine	13,863
	Mushrooms	3,832
	Okra	514
	Onions	23,534
	Peppers, Bell	13,747
	Potatoes	43,081
	Pumpkins	6,842
	Radishes	617
	Spinach	2,148
	Squash	5,903
	Sweet Corn	9,812
	Sweet Potatoes	9,658
	Tomatoes	26,363
Fruit		
	Apples	24,357
	Apricots	154

	Blackberries	103
	Blueberries	1,980
	Cherries	1,530
	Cranberries	90
	Grapes	9,928
	Peaches & Nectarines	4,192
	Pears	3,691
	Prunes & Plums	746
	Raspberries	630
	Strawberries	10,224
Grains		
	Barley	939
	Oats	5,787
	Rye	643
	Wheat Flour	173,224
Dairy & Milk		
	Fluid Milk & Cream	223,378
	Dry Milk Products	4,630
	Cheese	39,480
	Cottage Cheese	2,701
	Condensed & Evaporated Milk	1,157
	Frozen Dairy Products	28,163
Eggs		
	Eggs	44,881
Meats		
	Pork	76,003
	Lamb	1,415
	Chickens total	125,385
Nuts		
	Hazelnuts	31,893

Source: USDA Economic Research Service Food Availability Data, 2015

Appendix E: Food Items Purchased by Clearwater River Casino

Note: Following is an itemization of food purchases for the month of October 2017, for both the Lewiston and Kamiah casino food services. This is part of an annual $857,588 of food purchases by the two casino food services. Data were provided by Steve Griffiths, General Manager.

Table 10: Foods Purchased by Two Clearwater River Casinos in October 2017, in dollars

	Amounts Purchased
Fruits	$ 2,776.13
Vegetables	7,579.77
Beef	10,444.86
Pork	2,831.29
Poultry	4,533.08
Other Meats	1,315.88
Seafood & Shellfish	5,915.65
Breads & Pastries	7,840.73
Dairy & Eggs	7,177.79
Other	3,965.69
	$ 54,380.87

Source: Clearwater River Casino

For more detail on specific items purchased, see next pages.

Table 11: Specific Foods Items Purchased by Two Clearwater River Casinos in October 2017

Note: IQF stands for Individually Quick Frozen

Fruits
Apples, red
Bananas
Blackberries, whole
Blueberries, whole IQF
Broccoli, florets
Cantaloupe, chunks
Cantaloupe, fresh, whole
Fruit mix
Grapes, green, seedless
Grapes, red, seedless
Huckleberries, IQF
Lemons, fresh whole
Lime, fresh whole
Melon, honeydew, fresh, chunks
Oranges, fresh mandarins
Oranges, fresh whole
Peaches, sliced
Pears, sliced
Pineapple, chunks
Pineapple, fresh whole
Pineapple, tidbits
Raspberries, fresh, whole
Strawberries, fresh

Vegetables
Beans, green, cut
Beans, green, cut, french
Beans, green, cut
Beans, green, whole
Beans, kidney
Carrots, baby
Cauliflower, florets
Celery, stalk
Cilantro, fresh
Corn, baby cut
Corn, cut, frozen
Cucumber, whole
Horseradish
Kale, fresh
Lettuce, blend

Lettuce, leaf fillets
Lettuce, romaine
Mushrooms, sliced
Onions
Parsley, fresh
Peas, green frozen
Pepper, bell, fresh whole
Peppers, bell, red, choppers
Potatoes, fresh
Potatoes, processed
Spinach, fresh
Squash, yellow
Squash, zucchini
Tomatoes, fresh
Tomatoes, processed
Vegetable blends

Meats & Poultry
Beef
Pork
Poultry
Other

Seafood & Shellfish
Clams, steamers
Clams, whole
Fish, other
Fish, salmon
Mussels, whole, blue
Oysters, half shell IQF
Shrimp

Dairy & Eggs
Butter, chips
Butter, cups, USDA
Butter, unsalted,
bulk
Cheese
Cream
Eggs
Milk, 2%
Milk, buttermilk
Sour Cream

Yogurt

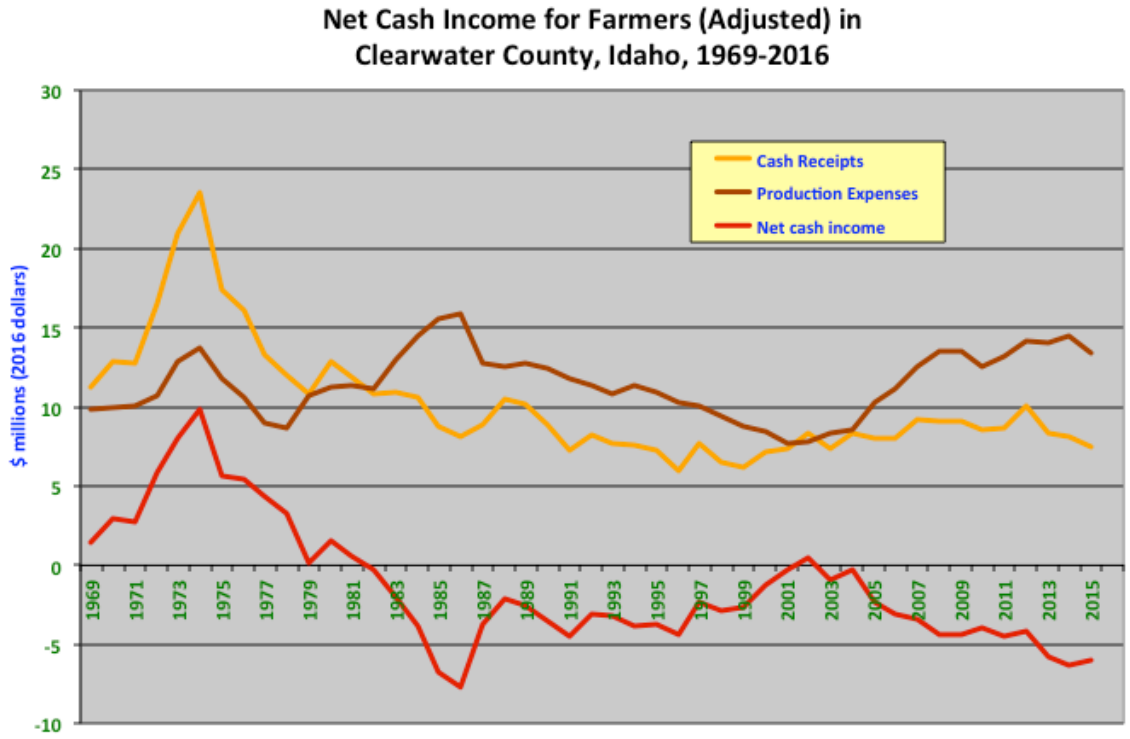
Breads & Pastries
Breads, assorted
Cereal
Muffins
Pasta w/ meat and cheese
Pastries
Pies
Pizzas
Pretzels
Tortillas

Other
Beans, baked
Jelly, grape
Oils
Olives
Pie fillings
Pudding
Salsa
Sauces
Shortening
Soups

Source: Clearwater River Casino

Appendix F: Net Cash Income of Farming in the Four Counties

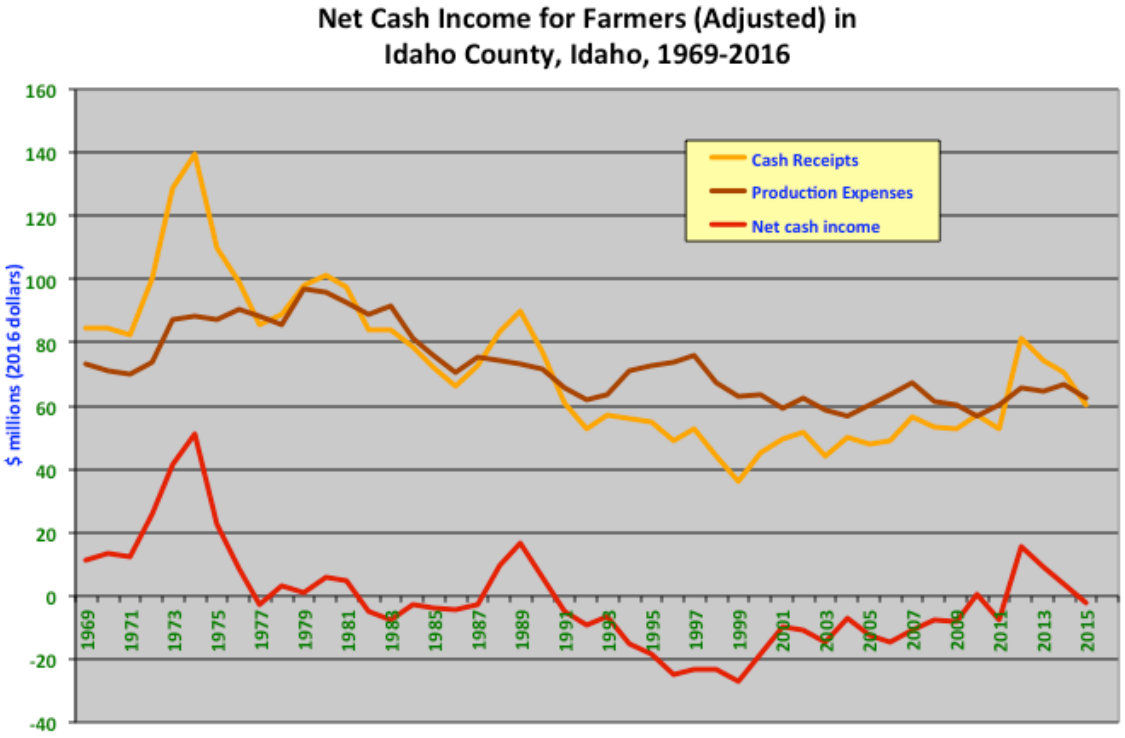
Chart 5: Adjusted Net Cash Income for Farmers in Clearwater County, Idaho, 1969 – 2016



Source: Bureau of Economic Analysis

Note that production expenses have exceeded cash receipts for Clearwater County farmers for every year but one since 1982.

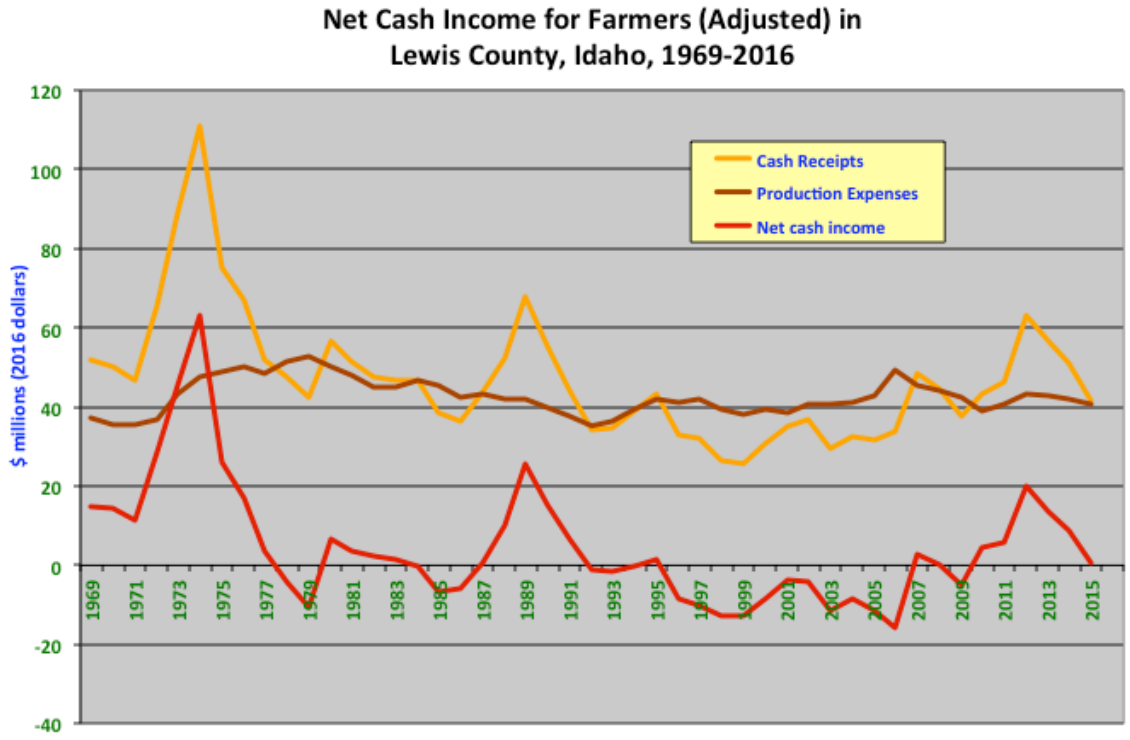
Chart 6: Adjusted Net Cash Income for Farmers in Idaho County, Idaho, 1969 – 2016



Source: Bureau of Economic Analysis

Note that since net cash income peaked in 1989, Idaho County farmers have seen production expenses outrun cash receipts in every year except four. This is led by declines in livestock farming.

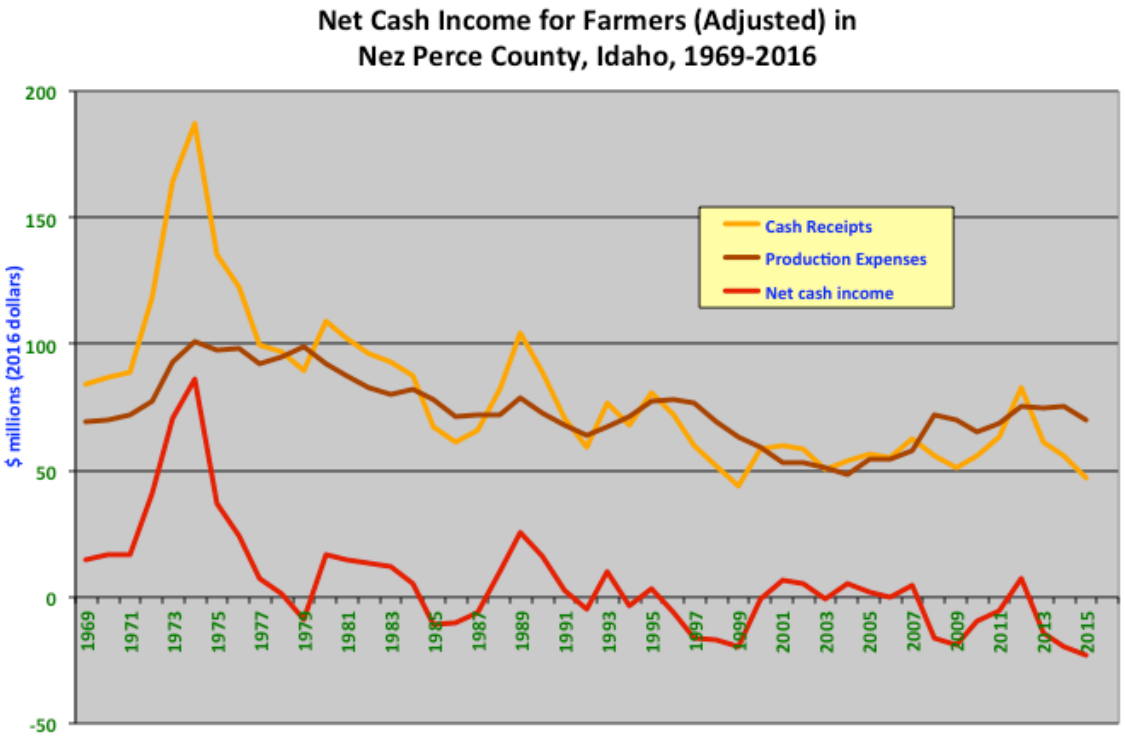
Chart 7: Adjusted Net Cash Income for Farmers in Lewis County, Idaho, 1969 – 2016



Source: Bureau of Economic Analysis

Note that farm income has peaked in three years, 1974, 1989, and 2012, when wheat prices were artificially high. In other years, Lewis County farmers have experienced production expenses that were more or less the same at cash receipts.

Chart 8: Adjusted Net Cash Income for Farmers in Nez Perce County, Idaho, 1969 – 2016



Source: Bureau of Economic Analysis

Note that after a tremendous windfall in 1974, when more than $70 million of profit was earned, Nez Perce farmers have generally broken even at best. It appears that farmers have taken wheat lands out of production since 1989.

Appendix G: US Census of Agriculture Data for Nez Perce

Nez Perce Reservation Highlights

(USDA NASS — Native American Census of Agriculture, 2012)

Note: Data from the US Census of Agriculture do not match data compiled by the Tribe, but are included here for reference. In the main body of the report, Tribal data were used.

(D) means data has been suppressed to protect confidentiality

Farms:	**All farms**	**Farms operated by American Indians or Alaska Natives**
Farms (number)	529	14
Land in farms (acres)	535,241	(D)
Average size of farm (acres)	1,012	(D)
Reservation acres on farm (acres)	317,775	(D)
All farm land on reservation (number of farms)	261	7
Farms with all harvested land on reservation (number)	231	1
Farms with all livestock held on reservation (number)	217	7
Farms by size:		
0.1 to 9 acres	33	5
10 to 49 acres	85	2
50 to 179 acres	91	1
180 to 499 acres	91	4
500 to 999 acres	61	0
1,000 acres or more	168	2
Features:		
Total cropland (farms)	430	7
Total cropland (acres)	317,790	2,934
Harvested cropland (farms)	368	4
Harvested cropland (acres)	275,324	(D)
Irrigated land (farms)	45	2
Irrigated land (acres)	502	(D)
Tenure:		
Full owners (farms)	259	12
Full owners (acres)	99,671	(D)
Part owners (farms)	198	2
Part owners (acres)	347,879	(D)
Tenants (farms)	72	0
Tenants (acres)	87,691	0

Market Value of Agricultural Products Sold	**Total**	**Farms operated by American Indians or Alaska Natives**
Market value sold ($1,000s)	134,953	2,394
Average sales per farm (dollars)	255,110	171,025
Crops sold ($1,000s)	122,859	(D)
Livestock and products sold ($1,000s)	12,094	(D)
Farms by Value of Sales		
Less than $1,000	90	7
$1,000 to $2,499	37	0
$2,500 to $4,999	47	0
$5,000 to $9,999	50	0
$10,000 to $24,999	43	1
$25,000 to $49,999	36	0
$50,000 to $99,999	25	1
$100,000 or more	201	5
Farm Production Expenses		
Total ($1,000s)	100,347	2,227
Fertilizer, lime, & soil conditioners	22,564	(D)
Chemicals	12,989	(D)
Livestock and poultry purchased or leased	1,867	103
Feed purchased	3,802	1,084
Gasoline, fuels, & oils	6,652	62
Hired farm labor	4,355	438
Interest expense	3,725	38

Land Use Practices	Total	Farms operated by American Indians or Alaska Natives
Land drained by tile (farms)	69	1
Land drained by tile (acres)	21,206	(D)
Land artificially drained by ditches (farms)	44	0
Land artificially drained by ditches (acres)	8,918	0
Land under conservation easement (farms)	23	0
Land under conservation easement (acres)	12,148	0
Cropland on which no-till practices were used (farms)	125	1
Cropland on which no-till practices were used (acres)	154,957	(D)
Cropland on which conservation tillage practices were used, excluding no till (farms)	114	1
Cropland on which conservation tillage practices were used, excluding no till (acres)	68,282	(D)
Cropland on which conventional tillage practices were used (farms)	139	0
Cropland on which conventional tillage practices were used (acres)	45,971	0
Cropland planted to a cover crop (excluding CRP) (farms)	22	0
Cropland planted to a cover crop (excluding CRP) (acres)	1,889	0
Energy		
Renewable energy producing systems (farms)	14	0
Solar panels (farms)	12	0
Wind turbines (farms)	3	0
Methane digesters (farms)	0	0
Geoexchange systems (farms)	2	0
Small hydro systems (farms)	0	0
Biodiesel (farms)	2	0
Ethanol (farms)	0	0
Other (farms)	0	0
Wind rights leased to others (farms)	2	0

Other Farm Characteristics	Total	Farms operated by American Indians or Alaska Natives
Farms reporting:		
Internet access	437	8
Dial-up service	31	1
DSL service	95	1
Cable modem service	29	1
Fiber-optic service	30	4
Mobile broadband plan for a computer or phone	56	3
Satellite service	207	2
Broadband over Power Lines (BPL)	16	0
Other Internet service	18	0
Farms by Legal Status for Tax Purposes		
Family or individual ownership	414	6
Partnership	47	0
Corporation	49	1
Other (cooperative, estate or trust, institution, etc.)	19	7

Livestock and Poultry	Total	Farms operated by American Indians or Alaska Natives
Cattle & calves inventory (farms)	234	1
Cattle & calves inventory (number)	18,905	(D)
Beef cows (farms)	207	1
Beef cows (number)	10,366	(D)
Milk cows (farms)	17	0
Milk cows (number)	27	0
Cattle & calves sold (farms)	204	1
Cattle & calves sold (number)	9,734	(D)
Hogs & pigs inventory (farms)	13	0
Hogs & pigs inventory (number)	113	0
Hogs & pigs sold (farms)	12	0
Hogs & pigs sold (number)	80	0
Sheep & lambs inventory (farms)	23	0
Sheep & lambs inventory (number)	609	0
Sheep & lambs sold (farms)	24	0
Sheep & lambs sold (number)	568	0
Total horses & ponies inventory (farms)	160	8
Total horses & ponies inventory (number)	897	115
Owned horses & ponies inventory (farms)	152	8
Owned horses & ponies inventory (number)	838	115
Owned horses & ponies sold (farms)	42	1
Owned horses & ponies sold (number)	97	(D)
Goats, all inventory (farms)	14	0
Goats, all inventory (number)	134	0
Goats sold (farms)	10	0
Goats sold (number)	95	0
Bison inventory (farms)	0	0
Bison inventory (number)	0	0
Bison sold (farms)	0	0
Bison sold (number)	0	0
Layers inventory (farms)	59	0
Layers inventory (number)	1,447	0
Broilers & other meat chickens sold (farms)	3	0
Broilers & other meat chickens sold (number)	66	0

Selected Crops Harvested	Total	Farms operated by American Indians or Alaska Natives
Barley for grain (farms)	124	0
Barley for grain (acres)	23,125	0
Barley for grain (bushels)	1,532,387	0
Corn for grain (farms)	0	0
Corn for grain (acres)	0	0
Corn for grain (bushels)	0	0
Corn for silage or greenchop (farms)	0	0
Corn for silage or greenchop (acres)	0	0
Corn for silage or greenchop (tons)	0	0
Corn, traditional (farms)	0	0
Corn, traditional (acres)	0	0
Corn, traditional (pounds)	0	0
Cotton, all (farms)	0	0
Cotton, all (acres)	0	0
Cotton, all (bales)	0	0
Dry edible beans, excluding limas (farms)	52	1
Dry edible beans, excluding limas (acres)	24,232	(D)
Dry edible beans, excluding limas (cwt)	353,332	(D)
Forage-land used for hay, haylage, silage, green chop (farms)	248	4
Forage-land used for hay, haylage, silage, green chop (acres)	23,832	(D)
Forage-land used for hay, haylage, silage, green chop (tons, dry)	44,283	(D)
Oats for grain (farms)	32	0
Oats for grain (acres)	2,082	0
Oats for grain (bushels)	142,550	0
Soybeans for beans (farms)	0	0
Soybeans for beans (acres)	0	0
Soybeans for beans (bushels)	0	0

Selected Crops Harvested, continued	**Total**	**Farms operated by American Indians or Alaska Natives**
Sunflower seed (farms)	0	0
Sunflower seed (acres)	0	0
Sunflower seed (pounds)	0	0
Wheat for grain, all (farms)	212	1
Wheat for grain, all (acres)	157,698	(D)
Wheat for grain, all (bushels)	11,023,304	(D)
Winter wheat (farms)	200	1
Winter wheat (acres)	125,157	(D)
Winter wheat (bushels)	9,169,829	(D)
Durum wheat (farms)	0	0
Durum wheat (acres)	0	0
Durum wheat (bushels)	0	0
Spring wheat (farms)	119	0
Spring wheat (acres)	32,541	0
Spring wheat (bushels)	1,853,475	0
Land in vegetables (farms)	15	0
Land in vegetables (acres)	20	0
Cantaloupes (farms)	0	0
Cantaloupes (acres)	0	0
Honeydew melons (farms)	0	0
Honeydew melons (acres)	0	0
Squash, all (farms)	3	0
Squash, all (acres)	1	0
Watermelons (farms)	0	0
Watermelons (acres)	0-	0
Land in orchards (farms)	8	0
Land in orchards (acres)	50	0
Land in berries (farms)	2	0
Land in berries (acres)	(D)	0

Farm Operators	Total	Farms operated by American Indians or Alaska Natives
Total Operators	842	14
Sex of operator:		
Male	561	8
Female	281	6
Primary occupation:		
Farming	442	8
Other	400	6
Place of residence:		
On farm operated	653	9
Not on farm operated	189	5
Days worked off farm:		
None	378	8
Any	464	6
1 to 49 days	87	1
50 to 99 days	31	0
100 to 199 days	70	3
200 days or more	276	2
Years on present farm:		
2 years or less	38	0
3 or 4 years	35	0
5 to 9 years	145	1
10 years or more	624	13
Age group:		
Under 25 years	3	0
25 to 34 years	68	0
35 to 44 years	79	0
45 to 54 years	196	2
55 to 64 years	280	3
65 to 74 years	139	7
75 years and over	77	2
Average age of:		
All operators	56	68

Appendix H: US Census of Agriculture Data for Four Counties

Compiled by Austin Wertheimer of New Growth Associates

Clearwater County, Idaho Highlights (Census of Agriculture, 2012):

- 256 farms, 6% greater than in 2007.
- Clearwater County has 72,615 acres of land in farms.
- Farmers sold $9.7 million of products in 2012.
- $7.2 million (75%) of these sales were crops.
- $2.4 million (25%) of these sales were livestock.
- The most prevalent farm size is 50 to 179 acres, with 83 farms (32%) in this category.
- The next most prevalent is 10 to 49 acres, with 79 (30.8%) farms.
- 14 farms (5%) are 1,000 acres or more.
- 91 farms (35.5%) are less than 50 acres.
- 190 farms (74%) sold less than $10,000 in farm products.
- 16 farms (6%) sold more than $100,000 in farm products.
- The county ranks 8th of 41 counties in the state for sales of cut Christmas trees and other short rotation woody crop, with $7,000
- Clearwater County ranks 5th of 43 counties in the state for sales of poultry and eggs, *but sales figures were suppressed by the USDA in an effort to protect confidentiality.*
- Clearwater County ranks 1st in the state of 12 counties in inventory of pheasants, chukars, and quail, *but inventory figures were suppressed by the USDA in an effort to protect confidentiality*.

Idaho County, Idaho Highlights (Census of Agriculture, 2012):

- 731 farms, 4% less than in 2007.
- Idaho County has 639,222 acres of land in farms.
- Farmers sold $80.8 million of products in 2012.
- $62.5 million (77%) of these sales were crops.
- $18.2 million (23%) of these sales were livestock.
- The most prevalent farm size is 50 to 179 acres, with 164 farms (22.4%) in this category.
- The next most prevalent is 1000 acres or more, with 162 (22.1%) farms.
- 162 farms (22%) are 1,000 acres or more.
- 179 farms (24%) are less than 50 acres.
- 386 farms (52.8%) sold less than $10,000 in farm products.
- 169 farms (23%) sold more than $100,000 in farm products.
- The county ranks 9th of 37 counties in the state for sales of fruits, tree nuts, and berries, *but sales figures were suppressed by the USDA in an effort to protect confidentiality.*
- Idaho County ranks 5th of 39 counties in the state for sales of hogs and pigs, with $296,000 in sales
- Idaho County ranks 6th of 43 counties in the state for sales in aquaculture, *but sales figures were suppressed by the USDA in an effort to protect confidentiality.*
- Idaho County ranks 6th of 43 counties in the state in acres of wheat for grain, with 80,467 acres.

- Idaho County ranks 6th of 37 counties in the state in acres of winter wheat for grain, with 58,256 acres.
- Idaho County ranks 8th of 41 counties in the state in acres of spring wheat for grain, with 22,211 acres.
- Idaho County ranks 6th of 22 counties in the state for sales of horses, ponies, mules, burros, and donkeys, *but sales figures were suppressed by the USDA in an effort to protect confidentiality.*
- Idaho County ranks 2nd in the state of 42 counties in inventory of goats, with 1,579.

Lewis County, Idaho Highlights (Census of Agriculture, 2012):

- 216 farms, 4% less than in 2007.
- Lewis County has 221,280 acres of land in farms.
- Farmers sold $9.7 million of products in 2012.
- $62.4 million (95%) of these sales were crops.
- $2.8 million (5%) of these sales were livestock.
- The most prevalent farm size is 1,000 or more acres, with 66 farms (30%) in this category.
- The next most prevalent is 50 to 179 acres, with 47 (21.7%) farms.
- 66 farms (30%) are 1,000 acres or more.
- 30 farms (13.8%) are less than 50 acres.
- 92 farms (42.5%) sold less than $10,000 in farm products.
- 88 farms (40%) sold more than $100,000 in farm products.
- Lewis County ranks 6th of 43 counties in the state for sales of poultry and eggs, *but sales figures were suppressed by the USDA in an effort to protect confidentiality.*
- Lewis County ranks 4th of 42 counties in the state in acres of wheat for grain, with 85,066 acres.
- Lewis County ranks 3rd of 37 counties in the state in acres of winter wheat for grain, with 70,636 acres.
- Lewis County ranks 1st of 12 counties in the state for acres of canola, with 12,354 acres.
- Lewis County ranks 2nd of 12 counties in the state for inventory of pheasants, *but figures were suppressed by the USDA to protect confidentiality.*
- Lewis County ranks 4th of 10 counties in the state for inventory of pigeons or squab, *but figures were suppressed by the USDA to protect confidentiality.*

Nez Perce County, Idaho Highlights (Census of Agriculture, 2012):

- 430 farms, 9% less than in 2007.
- Nez Perce County has 322,199 acres of land in farms.
- Farmers sold $81.1million of products in 2012.
- $72.2 million (89%) of these sales were crops.
- $8.9 million (11%) of these sales were livestock.
- The most prevalent farm size is 1,000 or more acres, with 100 farms (23%) in this category.
- The next most prevalent is 1 to 9 acres, with 90 (20.9%) farms.
- 100 farms (23%) are 1,000 acres or more.

- 178 farms (41.3%) are less than 50 acres.
- 232 farms (53.9%) sold less than $10,000 in farm products.
- 113 farms (26%) sold more than $100,000 in farm products.
- Nez Perce County ranks 7th of 42 counties in the state for sales of grains, oilseeds, dry beans, and dry peas, with $67,537,000
- Nez Perce County ranks 6th[th] of 37 counties in the state for sales of fruits, tree nuts, and berries, *but figures were suppressed by the USDA to protect confidentiality*
- The county ranks 3rd of 22 counties in the state for sales in aquaculture, with $1,709,000
- Nez Perce County ranks 5th of 42 counties in the state in acres of wheat for grain, with 82,915 acres.
- The county ranks 4th of 37 counties in the state in acres of winter wheat, with 66,139 acres.
- The county ranks 2nd of 24 counties in the state for acres of dry edible beans, excluding limas, with 26,708 acres.