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Assessing the economic benefit of the Voluntary Public Access and Habitat Incentive Program (VPA-HIP): 2016

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INTRODUCTION

Public access programs of various forms exist in many states across the nation and support landowners who chose to allow public access to their land. These programs provide direct support in the form of monetary incentives as well non-monetary incentives such as habitat enhancement and liability protection. Such programs support local economies by boosting wildlife-associated recreation and fostering conservation spending. However, the current levels of resources such as labor, time and finances can limit the scope and longevity of many of these programs and inhibit the creation of new public access programs.

The 2008 Farm Bill included a new provision called the “Voluntary Public Access and Habitat Incentive Program,” (VPA-HIP) formerly known as the “Open Fields” legislation. Following a hiatus, the competitive program awarded grant funds to twenty-one states and one tribal nation in 2014/15. The overarching objective of the VPA-HIP investments is to help states boost existing access programs and to implement new programs that increase public access to private lands for the purpose of wildlife-dependent recreation, including hunting, fishing, and non-consumptive activities.

Twenty million dollars in funds were authorized in both 2014 and 2015. Individual states were able to submit proposals for funding detailing their plans to enhance or expand public access to private lands. Proposals funded include plans to augment existing lease payments to landowners, initiate a new lease payment structure, and provide technical services to landowners for habitat conservation. Delays in the distribution of federal funds slowed the implementation of programs for many states.

Southwick’s role was to assess and quantify economic returns based on states’ VPA-HIP investments made in 2016 as part of the 2014 Farm Bill. Southwick worked closely with program coordinators in each of the states over the past year to collect baseline information at the start of the program and to estimate additional recreational activity that resulted from VPA-HIP investments. The estimated economic benefits associated with VPA-HIP investments is based on increases in sporting and recreational activities that would otherwise not have existed. The net increase is defined as the recreational and economic activity over and above the baseline levels that existed prior to the new VPA-HIP investments.

METHODS

The objectives of this study were accomplished by collaboratively gathering core measures along with supporting information from each state prior to implementation of the 2014 Farm Bill VPA-HIP award (referred to as VPA-HIP in the remainder of the report) and then again approximately one year later. This effectively allowed the creation of two snapshots in time: pre-award or baseline, and post-award or marginal increase.

The core VPA-HIP measures include, but are not limited to, private acres and landowners enrolled, public use and utilization of enrolled acres, and recreational user spending. Recognizing that each state and their program are unique to local situations and needs, every effort was made to tailor state data collection efforts to fit both the needs of the analysis as well as the resources available.

These measures were gathered with the intent to quantify the change in public access to private lands within the VPA-HIP-enrolled states and to estimate the economic contributions to local economies from recreational spending that occurred as a result of VPA-HIP investments.

Measuring the change in access to private acres in 2016 following VPA-HIP award

Following the notice of award of VPA-HIP funds, public access program managers from each awarded state were contacted via email and phone prior to or shortly after the implementation of their funded public access programs. The thrust of the initial discussions was to outline those core measures needed to evaluate the economic contribution of VPA-HIP investments into state public access programs, to discuss any questions or concerns regarding collecting those measures, and to troubleshoot any challenges associated with gathering and sharing those measures.

Initial data gathering efforts captured existing state agency-run public access programs, their duration, acres enrolled, programmatic spending, recreational use, users, user days, monitoring efforts and data maintained.

The remaining data gathering efforts focused on landowner enrollment and private acres opened for public access. The goal was to capture information from two different perspectives: contract-specific data and historical enrollment and recreational use data. Contract-specific questions centered around providing quantitative counts of landowners and acres enrolled, the activities allowed on each parcel, and seasons when the parcel would be open for usage.

Each of the fourteen states was asked to incorporate the set of questions into their current enrollment process in a fashion that seemed the most functionally feasible. In other words, program coordinators could treat the set of questions as a traditional survey and distribute it to landowners for completion. Alternatively, program coordinators could implement the tool internally among departmental and field staff and capture the information through their existing data tracking mechanisms.

In some states, enrollment is a year-round process. In these cases, a “cut-off” period was determined. Lands enrolled prior to the cut-off were deemed to be open for public utilization in 2016 and lands enrolled after the cut-off date will be open for utilization in 2017. Each state develops and distributes a hunting atlas in early fall of each year. In many of these cases, states closed enrollment based upon the timing of the print and online publication of their public hunting atlas.

User and user day estimates associated with VPA-HIP-enrolled lands

Multiple avenues were explored to estimate potential recreational usage of VPA-HIP-enrolled acres. Program coordinators were asked to report historical utilization estimates when responding to the

baseline survey implemented in 2016. Other avenues included a thorough review of relevant research across a variety of outlets such as state-level harvest and hunter surveys, agency reports, and government publications.

A hierarchical approach was used for each state to develop utilization estimates. If available, the total estimated utilization measure drew from historical state-level research such as harvest surveys or other user-based surveys. In the absence of state-level historical usage estimates, total utilization was estimated using a “national” average utilization rate (based on estimated individual people) developed during the 2011 VPA-HIP evaluation across a geographically diverse set of states where usage estimates were available (Southwick 2012). Usage on private acres enrolled in a public access program is estimated to range between 1 person per 100 acres to 20 people per 100 acres. On average, the rate of utilization is 5 people per 100 acres.

Many states utilized a portion of their VPA-HIP funds to increase awareness of existing public access lands to potential users. Considering this assessment only looks at newly enrolled acres, any increase in participation and economic activity on lands already open to public access is not considered in this report, meaning the results reported here might underestimate the actual benefits from VPA-related spending.

In cases where the number of user-days were not known for a specific state program, we relied on results from a multi-state survey implemented during the prior VPA-HIP evaluation. In 2011, a small group of VPA-HIP grantee states became part of a survey working group whose goal was to gather additional information regarding usage, satisfaction, and recreational expenditures via surveys of enrolled landowners and recreational users of newly enrolled properties receiving VPA-HIP support. With respect to days of use, respondents reported that they hunted or fished an average of eight days annually on lands enrolled with the private lands program. Users also reported that access to these newly enrolled lands increased their annual outdoor activity by an average of four and a half days. These “new” days represent the actual boost in participation created by VPA-HIP.

Estimating spending associated with each state’s VPA-HIP-enrolled lands

The U.S. Fish and Wildlife Service’s *2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* (FHWAR) was used to develop spending profiles. More specifically, we focused on hunting-related spending. Although the enrolled acres were typically multi-use in nature, our economic modeling was driven by typical hunter expenditures given that each state that awarded grants through VPA-HIP indicated that the primary activity on enrolled lands was hunting. As a result, it is possible our estimates are conservative in that they do not account for the smaller proportion of other recreational activity occurring on newly enrolled lands.

The two spending profile columns in Table 1 present the average annual and per-day hunting trip and equipment expenditures reported in the FHWAR. Hunters are estimated to spend \$1,725 on trip and equipment-related spending across all hunting trips throughout the year. This equates to \$107 per hunting day per hunter. This value is slightly lower than the estimated spending per hunter and per day reported by the USFWS. We do not include spending associated with land use fees, camping, or guides given these expenditures are not frequently associated with VPA-HIP enrolled acres.

Table 1. Estimated recreational user trip and equipment spending per day

	FHWAR Annual spending per hunter	FHWAR Per day spending per hunter
Trip spending		
Food	\$219	\$13.62
Lodging	\$53	\$3.30
Transport		
Private	\$261	\$16.26
Public	\$17	\$1.05
Other	\$36	\$2.21
<i>Trip sub-total</i>	<i>\$585</i>	<i>\$36.44</i>
Equipment spending		
Hunting	\$595	\$37.01
Auxiliary	\$136	\$8.44
Special	\$293	\$18.22
Other (excluding licenses)	\$45	\$2.79
License, stamps, tags, permits	\$72	\$4.49
<i>Equipment sub-total</i>	<i>\$1,141</i>	<i>\$70.95</i>
Spending total	\$1,725	\$107.38

Economic Analysis and Modeling Process

The expenditures made by recreational users for hunting and fishing activities generate additional economic benefits throughout the economy beyond the initial spending. These additional economic benefits are typically estimated with regional input-output models that relate changes in some specific industry to impacts on other industries in the regional economy. The IMPLAN input-output software provides a flexible tool for conducting economic impact analyses at various geographic levels and was used in this study to estimate the additional economic benefits to the economy generated by resident and nonresident direct spending on hunting activities. For the purposes of this study, separate state-level models were created to estimate the economic contributions for the statewide economy.

Input-output models estimate the total multiplier effects (indirect and induced) that arise from recreational spending, or the direct effect. This **direct effect** refers to the initial stimulus to the economy, which in this case are the dollars spent by users of private acres enrolled in public access programs. In the strictest sense, the direct effect does not always equal 100% of users' equipment spending due. Because much of the equipment purchased by users is manufactured outside of the state, some of the dollars spent by users leak immediately beyond the state's borders and do not have a direct effect on the economy. In other cases, 100% of users' spending is the direct effect. For example, spending for lodging represents purchases of goods and services that are produced entirely where they are bought and the entire purchase is captured in the direct effect on the regional economy. The economic figures reported in the results section include these considerations.

The **indirect effect** refers to the economic activity (e.g., employment, income, output) associated with businesses that supply the industries stimulated by the direct effect. Those indirectly affected industries, in turn, stimulate additional activity among their local suppliers, and so on. This indirect activity continues until the effect becomes negligible as a portion of each round of payments for goods and services eventually leaks out of the local economy. The **induced effect** measures the economic

activity generated by salaries and wages paid by businesses associated with the direct and indirect effects.

For recreational activities like hunting or fishing, much of the economic impact comes from spending by visitors to the region. If not for their presence, their spending would never occur. If quality hunting was no longer available for example, nonresident hunters may choose to hunt elsewhere and their spending would not occur and thus not generate additional economic effects in the economy.

It is generally acknowledged that retained economic activity can also represent a real “economic benefit”. For example, the quality of hunting opportunities is such that some hunters choose to hunt locally rather than go elsewhere. Admittedly, if the quality of hunting were to decline, then some dedicated residents may choose to travel outside of the state to hunt and their dollars would be lost to the economy, though it is unclear what portion of resident hunters would fall into that category.

The focus of this study was on the total economic activity associated with recreational use as a measure of its overall contribution to the state’s economy. In that case, it was appropriate to include all spending for hunting, whether spent by residents or nonresidents.

Industry Sector Assignment

The economic input-output models are driven by an initial stimulus (the direct effect) within a specific sector, or combination of sectors, of the economy. Recreational users make a wide range of purchases to support their outdoor activity. To properly measure the effect of such purchases, each purchase must be assigned to one of the 509 specific sectors in the IMPLAN economic models. In some instances, users’ purchases are allocated to more than one sector. Table 2 presents the sector assignments for each trip expenditure category.

Table 2. General IMPLAN sector descriptions for user trip expenditures.

Trip spending categories	General sector description
Food	Groceries: Retail stores-food and beverage Restaurants: Food services and drinking places
Lodging	Hotels, motels, and other lodging
Private transport	Gas: Refined petroleum products Oil: Petroleum lubricating oils and greases
Public transport	Air: Transport by air Ground: Transit and ground passenger transportation
Equipment rentals	General and consumer goods rental except video tapes
Boating costs	Boat launch and mooring
Heating and cooking fuel	Heat/cook fuel

Table 3 presents the sector assignments for equipment expenditures. The IMPLAN regional models are based on 2015 economic data obtained from Minnesota IMPLAN Group, the producers of the IMPLAN modeling software.

Table 3. General IMPLAN sector descriptions for user equipment and license expenditures.

Equipment spending categories	General sector description
Hunting equipment	Firearms, bows, arrows Ammunition, handloading, Other: Sporting and athletic goods manufacturing
Accessories	Binoculars, decoys, scopes, other hunting equipment
Apparel	Foul weather gear
ATVs, snow machines	Off-road vehicle
Books and magazines	Periodical publishers
Other equipment	Other outdoor equipment (coolers, camp gear), plantings, taxidermy, etc.
Other	Books, dues, magazines, souvenirs
Licenses	State and local

Three additional estimates were calculated using the estimates of direct spending by recreational users of enrolled acres for each participating state.

Total Output—this measure reports the sum of the direct, indirect, and induced contributions resulting from the spending associated with the newly enrolled VPA-HIP lands. This figure explains the total activity in the economy generated by a retail sale. In other words, this figure reports how much the overall economy would shrink if people did not spend the dollars being studied.

Labor income— this measure reports total payroll, including salaries and wages as well as other benefits (insurance, retirement benefits) paid to employees and business proprietors as a result of the recreational spending associated with the VPA-HIP enrolled acres.

Employment—this measure reports the total jobs in all sectors of the economy as a result of the VPA-HIP stimulated spending. These are not just the employees directly serving recreationists or manufacturing their goods, they also include, for example, the truck driver who delivers food to restaurants serving hunters.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled

676 landowners

New land acres enrolled

608,311 acres

Estimated number of recreational users on new acres

33,013 users

Ratio of additional spending to VPA-HIP investment on new acres

*\$ 5.13: \$1.00
(see text for discussion)*

Economic activity from additional spending

\$32.6 million

Jobs associated with additional spending

279 jobs



Background

Outdoor recreation, hunting included, has been an intergral part of the American experience and provides a powerful connection to the outdoors. According to statewide surveys conducted in Wisconsin (2011) and Michigan (2014) as part of their VPA-HIP proposals, Americans are looking for close-to-home outdoor recreational opportunities. In these states, as in others, public lands are frequently not located where the majority of their population resides. In more rural areas, access to publicly held lands can be vulnerable in cases where private landownership surrounds public acres. As demand for outdoor recreational opportunities increases, the need for accessible acres grows.

Through VPA-HIP, states are able to expand access to the outdoors via partnerships with private landowners willing to voluntarily open their land to the public. Distance to access can prevent many urban Americans from getting involved in fishing and hunting in their state. The states mentioned earlier are focused on creating more access in highly populated areas through the support of VPA-HIP. Also, encouraging landowners around “land-locked” public acres to open up their lands to ensure recreational access to state and federal lands has been and continues to be a strong focus.

Local situations and needs are unique to each state and their programs. Yet, there are common themes across state-level efforts. In this section, we briefly explore objectives, outreach efforts and the resulting economic contributions for all states examined. Following this section, we provide a detailed look at each participating state’s program.

Program Objectives

Many of the states’ overarching goals were to increase participation by landowners, expand usage of VPA-HIP lands or enhance their current private land access programs. States typically addressed these goals by making habitat improvements, offering more outdoor recreational opportunities on more lands, and providing additional hunting opportunities in highly populated areas. More specifically:

- Enrolling additional lands, ranging from 15,000 to 260,000 acres, to their public access program.
- Increasing recreational access on lands enrolled under a USDA conservation program.
- Providing new access points for fishing, canoeing, and boating on public waterways.
- Providing technical assistance to private landowners to conserve and enhance species’ habitats and populations.
- Implementing new programs that would provide outdoor recreational opportunities for youth, minorities, women, seniors, disabled, and other targeted sectors of the hunting public.
- Providing other recreational opportunities in addition to hunting and fishing, such as scouting for big game species, camping, hiking, rock climbing, etc.

- Facilitating the identification of lands enrolled in the program through a customizable online tool and provide mobile access to it.
- Make special efforts to reach new private landowners, including women and minorities as well as those that are socially disadvantaged and have limited resources.

Methods and Outreach Efforts

Boosting outreach efforts to generate more awareness among landowners and outdoor recreationalists was a chief area of focus for all of the states. A variety of outreach methods were used to inform and recruit landowners including local newspaper stories, magazine and newsletter articles, radio and television ads, educational workshops / seminars, booths at rodeos, hunting / fishing shows and partner events, social media, direct mailings, printed flyers and brochures. In addition, partner organizations, including Pheasants Forever, the National Wild Turkey Federation, and USDA, distributed information to targeted landowners and encouraged them to contact departmental staff to learn more.

To engage new landowners that have been historically categorized as “underserved” (women, minorities as well as those that are socially disadvantaged and have limited resources), some states partnered with National Resources Conservation Service (NRCS) to specifically communicate to them via newsletters, press releases, social media, and other forms of communication in different languages. Other outreach tactics included presentations at public events (i.e. hunting expos and Pheasants Forever state habitat meetings and leveraging the beginning farmer organizations to promote their private land access programs through their resources).

Interested landowners made contact with state program staff, either directly or through intermediary organizations, to begin the application process. As part of the process, program coordinators and other program staff members worked to evaluate the existing wildlife habitat on each property, verify ownership rights, and finalize the specifics of the contract for each parcel. With high demand from landowners, many states used a ranking system to prioritize which parcels of land were enrolled into the program. Factors included location within a “high opportunity area for conservation,” proximity to existing public lands, size, quality of habitat, and whether the land is enrolled in a USDA conservation program and length of contract.

Following successful enrollment, each state took steps to promote availability of specific parcels to potential recreational users. This involved implementing signage at specified points on the property, updating printed and online public hunting atlases and maps for both computer and mobile use, and promoting the increased recreational opportunities via other outreach channels when available.

Targeted outreach efforts focused on women, youth, urban consumers, and minorities took place in several states (AZ, KS, MI, NE, TX, and WI). Hunting and fishing opportunities were promoted in several languages through public service announcements, press releases, ads in local media, brochures, and social media (including online videos) to engage a diverse range of hunters and anglers (KS, NE, TX). To better serve Hispanic communities, hunter educational courses were taught in both English and Spanish in different regions in Kansas. With social media chats becoming more popular, Wisconsin held at least one social media chat during their hunting and fishing season. Nebraska and Wisconsin ramped up their efforts by hosting educational hunting seminars and fishing clinics in urban areas.

Several states (AZ, GA, IA, KS, MI, MT, NE, OR, SD, WA, and WI) provided digital navigational tools, such as interactive maps, that could be downloaded or accessed from their mobile devices to make it easier for hunters to locate and access lands. South Dakota took it one step further by providing

downloadable layers of all lands open to public hunting for use in GPS units. Hunters in Wisconsin could download the GPS coordinates of all VPA-HIP supported lands to their personal GPS devices.

Landowner Enrollment

In total, 1,800 landowners and more than 6.4 million acres of land and water were supported by VPA-HIP and allowed public access from July 2016 through June 2017. Approximately 676 landowners and 608,000 acres were newly enrolled in the 2016-2017 hunting season. To increase acceptance, several states allowed landowners to designate different levels of public access on their lands. For example, in Oregon, private landowners could choose to enroll on a “Welcome to Hunt” basis where the land is open to all hunters or on a “Permission” basis working through state agency staff.

In all cases, landowners are paid on a per acre basis, but the payment methodology varied. For example, in Arizona, the amount paid to landowners for access is based on the number of hunters / recreational users who accessed the property as well as the cost to secure access. In Michigan, the payments are based on the number of species identified on the property. All of the states offered incentives for implementing specific habitat improvement projects and conservation efforts. In 2016/2017, payments to landowners ranges from \$1 to \$25 per acre. The average contract term for each state varies between one and twelve years.

Usage and Satisfaction

State VPA-HIP managers reported a high level of satisfaction among landowners based on landowner surveys or anecdotal feedback. Not all states implemented landowner surveys in 2016. For those states that did, we provide specific results within their state-specific section. For example, Arizona’s landowners say they are generally satisfied with the program (87%), feel the program is worth their effort (87%) and are very likely to continue in the program (83%) (N=38).

The predominant activity on enrolled acres was hunting. As with landowner survey efforts, only several states implemented a survey of recreational users in 2016. Generally, states reported that users were very satisfied with the public access programs. For those states that conducted surveys, we provide specific results within their state-specific section. For example, according to Iowa’s survey in 2016, 97% of hunters indicated that they would hunt an Iowa Habitat and Access Program (IHAP) site again and 79% were satisfied with their experience (N=998). According to Michigan’s survey, 76% indicated that they plan to use the lands again. According to Illinois’ user survey, 58% of the hunters had no other place to hunt other than land available through the Illinois Recreational Access Program (IRAP). Missouri’s 2016 user survey revealed that increasing the acres available for recreational use as well as improving the habitat and wildlife populations are “important” or “very important”.

With respect to utilization, states have different philosophies about tracking who visits the enrolled acres and how often they visit. Some states encourage a minimal tracking approach, allowing users to come and go as they please. Other states require a permit purchase prior to accessing enrolled acres. The diversity of approaches requires us to use a variety of techniques to estimate the level of utilization. We provide more detailed information about the specific approach taken for each state in their sections. Collectively, we estimate 33,000 hunters spent 225,000 days afield on the newly enrolled acres supported by VPA-HIP.

Estimated spending profiles

Based on the data collected during the 2011 VPA-HIP program evaluation, users reported that access to these newly enrolled lands increased their annual outdoor activity by an average of 57%. These “new” days represent the actual boost in participation created by the VPA-HIP. In 2016, the collective average total days spent hunting on VPA-HIP program lands is seven days and the additional (or “new”) days is four days. Table NAT 1 expands on the spending profiles shown earlier by presenting spending associated with the estimated total number of days spent on VPA-HIP public access lands and the estimated marginal increase in spending associated with the additional days spent in the field as a result of increased access to enrolled private lands.

Table NAT 1. Hunter spending profile attributed to days spent on VPA-HIP lands

	Annual spending per hunter associated with activity on VPA lands	Additional spending per VPA hunter annually as a result of newly-enrolled lands
Trip spending		
Food	\$93.98	\$53.39
Lodge	\$22.77	\$12.94
Transport		
Private	\$112.19	\$63.74
Public	\$7.25	\$4.12
Other	\$15.25	\$8.66
<i>Trip sub-total</i>	<i>\$251.44</i>	<i>\$142.84</i>
Equipment spending		
Hunting	\$255.37	\$145.08
Auxiliary	\$58.24	\$33.08
Special	\$125.72	\$71.42
Other (excluding licenses)	\$19.25	\$10.94
License, stamps, tags, permits	\$30.98	\$17.60
Equipment sub-total	\$489.56	\$278.12
Spending total*	\$740.92	\$420.93

*Total spending per hunter is based on the estimated days spent on VPA-HIP lands in that particular state and does vary from state to state.

Average total annual spending on trip and equipment related purchases across all days spent on VPA-enrolled lands is \$740.92 per participant. Reflecting on only the additional “new” days created by the presence of additional, newly enrolled acres, an average of \$420.93 more is spent annually. This increased spending would not have occurred if the VPA-HIP did not exist. The difference in these two estimates can be interpreted as the annual amount hunters would have spent for hunting on public access lands opened prior to the 2016 hunting season.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP lands.

Table NAT 2. Estimated in-state economic contribution of newly enrolled acres across all participating states

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	608,311
Average contract term	1-12 years
VPA-HIP investments in 2016**	\$2.58 million

*Total acres, new and renewed, supported through VPA-HIP is 6.4 million acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on information collected in this study, we estimate that a total of \$24.0 million of in-state trip and equipment spending can be associated with **total** annual days on newly enrolled acres in 2016. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity (output) associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated \$57.3 million in economic activity. Recreational activities generated \$19.2 million in income (salaries, wages, and business earnings). This income is associated with 491 full and part-time jobs that were supported by the spending of hunters and anglers who used the newly enrolled lands.

A total of \$13.4 million dollars of in-state trip and equipment spending can be associated with the **additional** days spent on the newly enrolled lands. These additional days represent the actual boost in participation created by the VPA program. This spending generated \$32.6 million dollars in new economic activity, \$10.9 million of income, and supported 279 full and part-time employees and proprietors who worked in the businesses whose products were purchased by recreational users of VPA-HIP supported lands.

Table NAT 3. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$7,987,155	\$4,538,518
Equipment spending	<u>\$15,551,346</u>	<u>\$8,836,698</u>
Total spending	\$23,546,100	\$13,382,816
Return on Investment (ROI)*		\$5.20**
Total State-level Economic Contribution with multiplier effect		
Output	\$57,324,740	\$32,581,465
Income	\$19,196,354	\$10,910,566
Employment	491	279

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

**Includes all states. Excluding a higher state-level outlier, the estimated national-level ROI is \$3.55

The following pages describe the VPA-HIP in each state and the estimated economic returns from recreational use on the enrolled lands. The ratio of estimated recreation spending on additional days by recreational users to federal VPA-HIP investment to enroll new acres ranges between \$0.63 to \$11.24 per additional day spent on newly enrolled program lands. Including all states, the collective program ROI is estimated to be \$5.20. The ROI calculation can be sensitive to outliers; thus we also calculate a more conservative ROI of \$3.55 when an outlier at the upper range is excluded. Because each state program is unique, it is advisable to use caution in making direct comparisons of the economic returns between individual states. *As public awareness and usage of lands in these states grows over time it is expected that the return from every dollar invested will likewise grow.*

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled 7

New land acres enrolled 291,748

Estimated number of recreational users on new acres 875 people

Ratio of additional spending to VPA-HIP investment on new acres \$ 9.64: \$1.00
(see text for discussion)

Economic activity from additional spending \$0.24 million

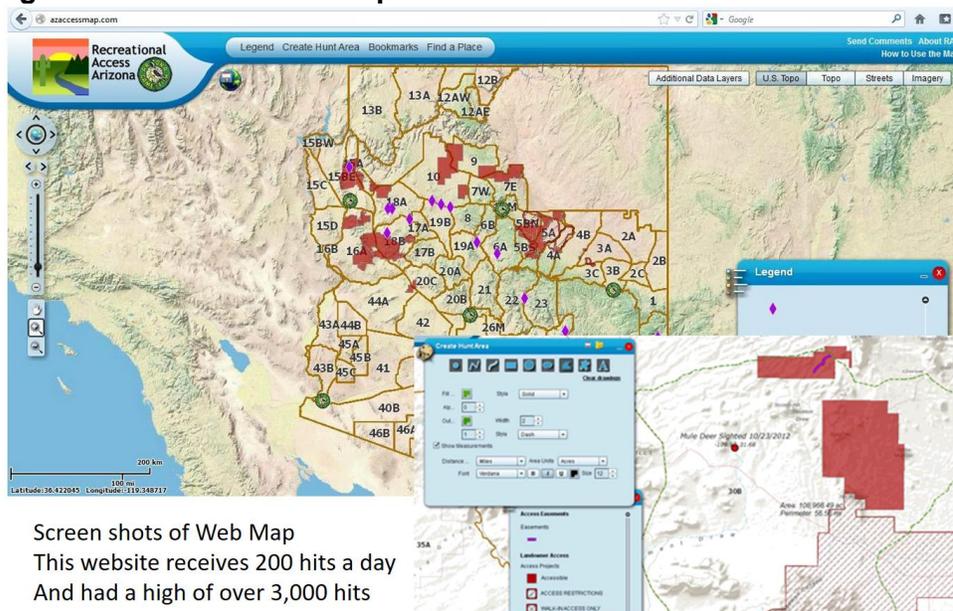
Jobs associated with additional spending 3 jobs

Background *(Based on VPA program grant proposal)*

The Arizona Game and Fish Department (AFGD) works with private land owners to open their lands for outdoor recreational use through their 'Access Program'. This program is a long-standing state-level public access program and took part in the 2011 VPA-HIP. The earlier investment supported the enrollment of 27 additional landowners and more than doubled the total number of private, state, and federal lands for public access and recreational use. Landowner demand for this program is still very high, exceeding \$1 million per year, based on past performance. Recreational user demand for access to private lands was also strong, more than doubling, from 4,661 users to 11,983 users (150% increase), from January 2011 through December 2012.

Boosting outreach efforts was, and is, a significant area of focus. The earlier VPA-HIP investments supported the creation and promotion of a user-friendly customizable tool allowing recreational land users to understand where to hunt, which species are available in particular areas, unit boundaries, and where water catchments are located. After it launched in 2012, an average of 200 people visited the site per day.

Figure AZ 1. AZ Access Map Web site



Program Objectives

The Arizona Game and Fish Department (AFGD) received a three-year grant for \$2.1 million through the 2014 VPA-HIP. The state's overarching goal is to expand its existing access program to provide additional hunting, fishing, trapping, wildlife watching, and other outdoor recreational activities on a state-wide basis. Specifically, their goals are to:



- Provide new hunting and fishing opportunities to or through private lands to appropriate habitat for big/small game, upland/wetland birds, warm/cool water fishing, and watchable wildlife areas.
- Maintain existing areas of hunting and fishing opportunities to or through private lands to appropriate habitat for big/small game, upland/wetland birds, warm/cool water fishing, and watchable wildlife areas.
- Provide other recreational opportunities in addition to hunting and fishing, such as scouting for big game species, camping, hiking, rock climbing, etc.
- Promote the location of lands enrolled in the program online at azaccessmap.com and allow mobile access to the website tool.

Methods and Outreach Efforts

VPA-HIP funds were spent on outreach efforts for 2016-2017 hunting season in order to expand and offer more recreational opportunities. AGFD promoted the Access Program and its accomplishments to private landowners, hunters, anglers, and other outdoor recreationalists through press releases, newspaper and magazine articles, television shows and their web mapping tool, azaccessmap.com, in order to generate more awareness and expand the program. AGFD also sponsored the first dove cook off championship of professional chefs where a national dove cook was crowned, and VPA-HIP was highlighted for the securing of access to private farms to hunt the doves used in the cook off.

AGFD also worked with On Your Own Adventures to promote VPA-HIP and Arizona's access program, hunter ethics, and hunting opportunities in Arizona. This was accomplished using YouTube, a TV show on sportsman channel, podcasts, and several other social media outlets.

Landowner Enrollment

For the 2016-2017 hunting season, a total of 4.5 million acres, supported through the VPA-HIP program, were available for different outdoor activities. A portion of these total acres is made accessible as a direct result of enrollment of key parcels held privately, that essentially land-lock public acres, into a public access program. Approximately 292,000 acres were newly enrolled to the program in 2016. AGFD used state dollars to make incentive payments to landowners in exchange for providing public access and having appropriate wildlife habitat, as well as willing to improve habitat through other Farm Bill and AGFD programs.

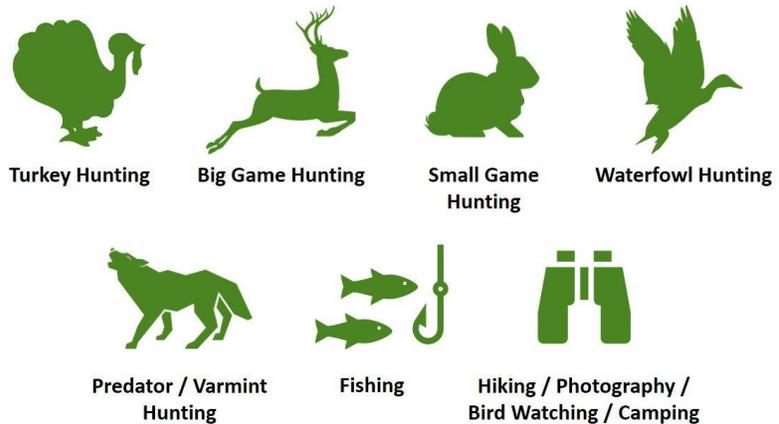
Two new ranches were enrolled in the new Landowner Compact Program, which gives landowners the ability to create rules specific to their ranch that promote ethical recreational use, and if anyone is caught violating these ranch rules would lose access privileges. Currently, 11 sites are enrolled in the program.

Payment to landowners is based on the number of hunters/recreational users who access the property and the cost to secure access to that property. Although each individual agreement may vary, over the past three years, the typical incentive payment for areas with high recreational use is \$8,000 per year for access granted. Low areas of recreational use receive \$1,000 per year and areas with moderate use receive \$4,000 per year for access granted.

The average landowner contract is usually 7 years. Newly enrolled landowners' contracts were for an average of 4.5 years. A few landowners only provide access to hunters, but most provide access for all types of use, both consumptive and non-consumptive. Landowners have to meet the following criteria to be enrolled: 1) suitable habitat for wildlife and 2) the public has indicated a desire to gain access to that private land. The department is able to calculate estimated usage of the lands through

collaboration with other land management agencies and tracking the demands of the angling and hunting communities.

Figure AZ 2. Recreational activities available for the 2016/2017 season on Arizona’s enrolled acres



Usage and Satisfaction



According to their mail-based survey conducted in 2015, nearly six out of 10 hunters (57%) (N=528) say they are satisfied with the landowner access program while 13% are dissatisfied and 30% are neutral. The number one reason why they chose to participate in the Access Program is the belief that access lands offer good hunting opportunities (79%).

Eight out of ten enrolled landowners stated that they are generally satisfied with the program (87%) (N=38), feel the program is worth their effort (87%), and are very likely to continue in the program (83%). Further, 73% of enrolled landowners would recommend the program to a friend and 54% indicate the program has reduced their access issues.

While the state does not currently capture an exact count of user days or users, AZFD currently estimates usage based on historical data and using voluntary survey boxes. The state is looking to improve how they quantify the number of people using private lands for public access. For this analysis, we rely on their historical usage and utilization days on private acres enrolled in all of their public access programs. Total utilization on newly enrolled acres is estimated to be 875 hunters and 2,600 days.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP lands.

Table AZ 1. Arizona's VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	291,748
Average contract term	4.5 years
VPA-HIP investments in 2016**	\$16,662

*Total acres, new and renewed, supported through VPA-HIP is 4.5 million.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$0.28 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated \$0.43 million in economic activity. Recreational activities generated \$0.15 million in income (salaries, wages, and business earnings). This income is associated with 5 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.16 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$0.24 million dollars in new economic activity, \$0.09 million of income, and supported 3 full and part-time employees and proprietors who worked in the Arizona businesses whose products were purchased by recreational users of VPA supported lands.

Table AZ 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$95,676	\$54,535
Equipment spending	<u>\$186,285</u>	<u>\$106,183</u>
Total spending	\$281,961	\$160,718
Return on Investment (ROI)*		\$9.45
Total State-level Economic Contribution with multiplier effect		
Output	\$429,512	\$244,822
Income	\$154,359	\$87,985
Employment	5	3

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

A total of \$1.7 million in both state and federal funds was spent to support the all enrolled acres over the course of 2016 and includes payments to landowners. A total of \$257,000 in VPA funds were invested in marketing efforts for the entire program and staff. We applied a percentage of that total spending to newly enrolled acres, given the assumption that marketing and outreach would benefit all acres (new & renewed). When we compare spending associated with additional days by recreational users to investments, every dollar invested through VPA-HIP is matched by an estimated \$9.45 of economic activity based on additional recreation days on acres newly opened for public access. Returns are higher than they might be in future years because investments were only used toward outreach efforts rather than direct payments to landowners and habitat projects.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled 6

New land acres enrolled 12,881

Estimated number of recreational users on new acres: 138 people

Ratio of additional spending to VPA-HIP investment on new acres \$5.22 : \$1.00
(see text for discussion)

Economic activity from additional spending \$0.07 million

Jobs associated with additional spending 1 jobs



Background *(Based on VPA-HIP program grant proposal)*

According to Southwick Associates' *Hunting in America: An Economic Force for Conservation* report, Georgia was ranked #7 for total number of non-resident hunters in the U.S. Nearly 630,000 residents and non-residents hunt in Georgia and spend more than 9.9 million days in the field (U.S. Fish and Wildlife Service *2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*). To support outdoor recreational opportunities for both residents and non-residents, Georgia manages a successful Wildlife Management Area (WMA) program that opens private lands for hunting, fishing, trapping, wildlife watching, and other compatible wildlife-related recreation. Since only 7% of Georgia's land base is publicly owned, partnerships with private land owners is a critical component to maintaining and expanding public access.

Program Objectives

The Georgia Department of Natural Resources (DNR) Wildlife Resources Division (WRD) received a three-year grant for \$993,664 through the 2014 VPA-HIP. The state's overarching goal is to expand its successful Wildlife Management Area (WMA) program to provide more outdoor recreational opportunities in hunting, fishing, trapping, and wildlife watching. More specifically, their goals are to:

- Meet the increased demand for mourning dove and waterfowl hunting opportunities by enrolling 1,000 to 1,300 acres.
- Expand access to as many residents and non-residents as possible by enrolling an additional 15,000 to 20,000 acres (includes the dove acres).
- Dedicate a few lands to nontraditional groups, such as youth and women.

Methods and Outreach Efforts

In support of creating the new Outdoor Heritage Recreational Access Program (OHRAP) program, timber companies were invited to make unleased lands available in some compacity for recreational opportunities. In addition, natural resources based non-governmental organizations (NGOs), such as Ducks Unlimited, National Wild Turkey Federation, Quail Forever, etc., were contacted to promote the concept of providing an outdoor experience to their members and serve as sponsors.

To recruit new landowners in an effort to expand their WMA program, a combination of social media, press releases, articles in trade publications and targeted emails were used. WRD also posted information on its website.

Public hunting opportunities that were supported through VPA-HIP were promoted through statewide and local press releases, social media and information was posted on its website and through their mobile application for Android and iPhone, "Go Outdoors GA." Hunters can use the geo-locating features on the mobile app to locate hunting opportunities.

Landowner Enrollment

A total of 13,411 acres (11 properties), supported through the VPA-HIP program, were open for public access during the 2016/2017 hunting seasons. Approximately 12,881 acres were newly enrolled to the program. Most notably, WRD entered into a 12,000+ acres agreement with a private timber products company in South Georgia to provide a 3-day training workshop entitled “Beyond Becoming an Outdoors Women.” The other acres had previously been enrolled in a state-level public access program, but are now supported under VPA-HIP.

The types of hunts that are currently offered are comprised of quota, adult-child, sign-in, open and a specialty hunt for women. A quota hunt is a managed hunt that allows a set number of hunters to participate. A quota is placed on a hunt to protect natural resources (wildlife and their habitats), provide a high-quality hunting experience and maintain a high level of safety. Currently, the state is having discussions with organizations to sponsor youth hunts in the near future.

Figure GA 1. Recreational activities available for the 2016/2017 season on Georgia’s enrolled acres



Some of the landowner agreements involved producers leaving a portion of pre-planted agricultural commodity fields unharvested or harvested to WRD’s specifications. Other agreements involved WRD leasing the land and paying the landowner / producer to specifically plant, cultivate, and harvest all aspects of field(s) to WRD specifications. Annual payments for hunting and wildlife viewing averaged \$19.11 per acre, which consisted of a base payment plus any bonus payments.

Participating landowners had the option to enroll into a multi-year contract (up to 4 years) and select only certain wildlife user groups to have access to their lands (deer hunting, bird watching, hiking, etc.). VPA-HIP funds were used to encourage landowners to allow access for all seasons for all users. Additional financial incentives were given out based on acres, types of recreation and habitats available.

Usage and Satisfaction



In February 2017, sixteen women from various states attended the “Beyond Becoming an Outdoors Woman” 3-day workshop. They hunted small game and swine on the private property using hunt guides and dogs. Many of the participants hunted for the first time and the post-course evaluations indicated growing praise for the event.



During the Fall 2016 hunting season, hunters marked high ratings for their dove hunting experiences through their user survey (N=91). Based on a 10-point rating scale (10 being “strongly agree”), hunters reported an 8 for having an excellent experience and a 9.6 for exceeding their expectations. WRD plans to increase quotas from 50 to 75 per hunt next year and will continue to monitor hunting satisfaction and success. The 2017 dove hunting survey (N=133) showed similar results. Again, hunters indicated an 8 (based on the 10-point scale, 10 being “strongly agree”) for exceeding their expectations.

Roughly 138 residents and non-residents used the newly enrolled lands during the 2016-2017 hunting seasons. This estimate is based on historical state-level data gathered during a 2013 study of the economic impact of wildlife management area visitors. The estimated total annual days per hunter spent on VPA-HIP lands is 8 days and additional days is 4 days.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP private lands.

Table GA 1. Georgia’s VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	12,881
Average contract term	3 years
VPA-HIP investments in 2016**	\$13,250

*Total acres, new and renewed, supported through VPA-HIP is 13,411 acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$0.11 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated between \$0.20 million dollars in economic activity. Recreational activities generated \$0.06 million dollars in income (salaries, wages, and business earnings). This income is associated with 2 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.07 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$0.12 million dollars in new economic activity, \$0.038 million dollars of income, and supported 1 full and part-time employees and proprietors who worked in the Georgia businesses whose products were purchased by recreational users of VPA-HIP supported lands.

Table GA 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$36,862	\$20,873
Equipment spending	<u>\$71,773</u>	<u>\$40,641</u>
Total spending	\$116,235	\$69,114
Return on Investment (ROI)*		\$5.22
Total State-level Economic Contribution with multiplier effect		
Output	\$195,812	\$116,430
Income	\$64,852	\$38,561
Employment	2	1

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

A total of \$0.08 in federal funds was spent to support all of the enrolled acres over the course of 2016, which includes payments to landowners. A total of \$0.013 million in VPA-HIP funds were invested on newly enrolled acres. When we compare spending on additional days by recreational users to investments, every dollar invested through VPA-HIP is matched by an estimated \$5.22 of economic activity based on additional recreation days on acres newly opened for public access.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled

25

New land acres enrolled

3,819

Estimated number of recreational users on new acres

439 people

Ratio of additional spending to VPA-HIP investment on new acres

\$4.50: \$1.00
(see text for discussion)

Economic activity from additional spending

\$0.14 million

Jobs associated with additional spending

2 jobs



Background *(Based on VPA-HIP grant proposal)*

Ninety-five percent of Illinois' acres is in private ownership and there exists a high level of demand for access to land for outdoor recreation. The Department of Natural Resources focuses on providing more outdoor recreational opportunities through their "Illinois Recreational Access Program" (IRAP). As part of the 2011 VPA grant program, 13,000 acres were enrolled, with 68 individual landowners, providing opportunities for youth and adult turkey hunting, deer and upland game hunting, fishing, non-motorized boating, and outdoor naturalist activities, such as hiking and photography. The program is currently offered in 68 CREP-eligible counties with plans to expand to the entire state of Illinois. IRAP's successful start has made it ready to expand to include other activities and to help improve public access in Illinois.

Program Objectives

The Illinois Department of Natural Resources (IDNR) received a three-year grant for \$1.7 million through the 2014 VPA-HIP. The state's overarching goal is to expand their hunting programs and continue to enroll impoundments and stream frontage for fishing and boating. More specifically, their goals are to:

- Encouraging public access to private lands.
- Provide an additional 50 youth and 20 adult turkey hunting sites.
- Provide 2 new access points for fishing, canoeing, and boating on Illinois public waterways.
- Provide walk-in fishing access for 75 acres of impoundments and 10 miles of non-navigable streams.
- Provide access to 1,000 acres for firearm deer and upland game hunting.

Methods and Outreach Efforts

Three access campaigns were used to continue and expand hunting and fishing opportunities. The Outdoor Heritage Campaign provided hunting access to youth turkey hunters under the age of 16 and to first-time adult hunters. Counties where the local National Wild Turkey Federation offers a mentor program for kids interested in turkey hunting were targeted. Information about the program was promoted on the IRAP website and partners' websites.

The Deer and Small Game Hunting campaign allowed hunting access to participants to hunt deer, dove, rabbits, waterfowl, and squirrels. Hunting access opportunities focused on large landowner cooperators (large private landowners, non-government organizations (NGOs), mines and public utilities) that can provide adequate acreage for suitable habitat. The goal was to open up property that was not previously available for any hunting activity to increase hunter retention in Illinois. Hunt locations were promoted on IRAP website and partners' websites.

The third campaign, Fishing Access Campaign, focused on providing walk-in fishing access on impoundments and fishing, canoeing and boat access on

navigable rivers. Fishing locations were listed on IRAP website and partners' websites.

Landowner Enrollment

Outreach and implementation assistance came from a large number of conservation organizations, such as the National Wild Turkey Federation, Pheasants Forever, and the Nature Conservancy. Landowners part of existing conservation programs were the focus of enrollment efforts and received targeted direct mailings and email invites. Other marketing efforts included publications in IDNR letters, IDNR website, and newspaper articles.

A total of 16,115 acres (91 properties), supported through VPA-HIP, were opened for public access during the 2016/2017 hunting seasons. Approximately 3,819 acres were newly enrolled to the program. The other acres had previously been enrolled in a state-level public access program, but are now supported under VPA-HIP.

Figure IL 1. Recreational activities available for the 2016/2017 season on Illinois' enrolled acres



Enrollment into IRAP allows for landowners to receive technical and financial assistance from the state for habitat improvements on their property. At the time of enrollment, the landowner's site was evaluated to ensure there is appropriate wildlife habitat and potential for recreational use being sought.

Habitat management investments were focused towards landscapes that had a large number of current conservation programs (i.e. CREP, CRP, FDA, et.) and prioritized based on the needs defined within the Illinois Wildlife Action Plan. The goal was to support landscape conservation initiatives which best enhance and protect areas of greatest importance to the environment. Management activities included restoration of native plant species and conditions (if possible) through native prairie conversions, tree plantings, timber stand improvements (TSI), and invasive removals.

Habitat improvements on forestlands also helped carry out the objectives in the Forest Campaign of the Illinois Wildlife Action Plan. Pairing VPA-HIP supported habitat improvements with CREP/CSP and FDA investments, facilitated the creation and management of healthy corridors of forest habitats, providing benefits to many forest species in greatest need for conservation.

Annual payments to landowners were based on the recreational activity that they provided, the size of the location, the quality of the habitat, the proximity of the location to a large urban area, and ease of access. Deer and small game hunting averaged \$1 to \$10 per acre with \$10 being paid for deer and smaller amounts for small game hunting. Landowners who opened up their lands for youth turkey

hunting and first-time adult turkey hunting were paid between \$1 to \$3 per acre. Those who offered river or stream access for fishing were paid between \$100 to \$500 per stream acre.

Usage and Satisfaction

Local input from landowners, organizations and communities is continually sought out to help refine the program. The program is in high demand and valued with Illinois residents. **According to IRAP's user survey, 58% of the hunters had no other place to hunt than through the IRAP program.**



"...I am super happy I got the opportunity to spend time with my dad and go hunting. I would not have had the privilege to ...shoot my first turkey if it wasn't for the IRAP program and the IDNR. During this hunting season I learned many different things. Such as land conservation, gun safety, how to harvest an animal and the responsibility that comes with taking that animal. I learned that you really have to work hard! Thank you so much for letting me hunt IRAP this year. I really appreciate it!!!"

- *Malayna Kinney, 11 yrs. old- first turkey*

"Thank you for a tremendous hunting experience! I have been struggling for several years to find quality habitat to turkey hunt. This is a great program and I hope it continues. I heard about it through my NWTf chapter and am glad I was chosen to participate. I will be spreading the word. Thanks again!"

-*Steven Handy*

Access to all properties is controlled with participants having to apply and receive a parking permit and a personal permit before they are authorized to access the property. An estimated 439 residents registered for a permit to access the VPA-HIP lands during the Fall 2016 through Spring 2017 hunting seasons. Based on utilization data provided by Illinois, the estimated total annual days spent on public access lands is five days. Based on a recreational user survey of VPA lands in 2011, the marginal increase in days spent in the field due to increased access was 57%. In this case, there are an estimated three additional days per hunter.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP private lands.

Table IL 1. Illinois' VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	3,819
Average contract term	3.5 years
VPA-HIP investments in 2016**	\$35,350

*Total acres, new and renewed, supported through VPA-HIP is 16,115 acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$0.28 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated between \$0.24 million in economic activity. Recreational activities generated \$0.10 million in income (salaries, wages, and business earnings). This income is associated with 4 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.16 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$0.14 million dollars in new economic activity, \$0.06 million of income, and supported 2 full and part-time employees and proprietors who worked in the Illinois businesses whose products were purchased by recreational users of VPA-HIP supported lands.

Table IL 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$94,856	\$54,068
Equipment spending	<u>\$184,689</u>	<u>\$105,273</u>
Total spending	\$279,546	\$159,341
Return on Investment (ROI)*		\$4.50
Total State-level Economic Contribution with multiplier effect		
Output	\$240,711	\$137,205
Income	\$100,449	\$57,256
Employment	4	2

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

Note: State-level output may be lower than direct spending. This is a result of "leakage" or recreational user spending lost to other economies, spending on goods imported into the state for example.

A total of \$0.97 million in both state and federal funds was spent to support the all enrolled acres over the course of 2016 and includes payments to landowners. A total of \$0.52 million in VPA-HIP funds were invested. Amortizing the VPA-HIP investment over the contract term yields an estimated \$35,350 allocated to access lease payments and habitat improvement efforts for one year associated with newly enrolled parcels. When we compare spending on additional days by recreational users to amortized investments, every dollar invested through VPA-HIP is matched by an estimated \$4.50 of economic activity based on additional recreation days on acres newly opened for public access.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled

86

New land acres enrolled

13,444

Estimated number of recreational users on new acres:

15,705 people

Ratio of additional spending to VPA-HIP investment on new acres

\$11.24: \$1.00
(see text for discussion)

Economic activity from additional spending

\$8.5 million

Jobs associated with additional spending

129 jobs

Background: (Based on VPA program proposal)

Iowa is ranked 49th in the nation for public lands available for hunting, making efforts to expand natural habitat for wildlife and water quality critical. Therefore, the Department of Natural Resources (DNR) launched a program called the Iowa Habitat and Access Program (IHAP) where landowners provide public hunting access to their private lands from September through May.

The pilot for the Iowa Habitat and Access Program (IHAP) was initiated through a VPA-HIP grant received through the 2008 Farm Bill. Funding was used to provide incentive payments for the completion of habitat improvement projects on private land in exchange for access to public hunting. According to the state, the pilot program had overwhelming success. Forty-one sites covering 7,000 acres were enrolled and 78% of those acres were enrolled in a USDA conservation program. All landowners were satisfied or extremely satisfied with their overall experience and 85% of the hunters surveyed were satisfied or extremely satisfied with their hunting experience on IHAP lands.

Program Objectives

In 2014, Iowa Department of Natural Resources received a three-year grant for \$3 million through VPA-HIP to expand their Habitat and Access Program. The state's overarching goal is to enroll approximately 22,000 acres on an estimated 140 properties. More specifically, their goals are to:

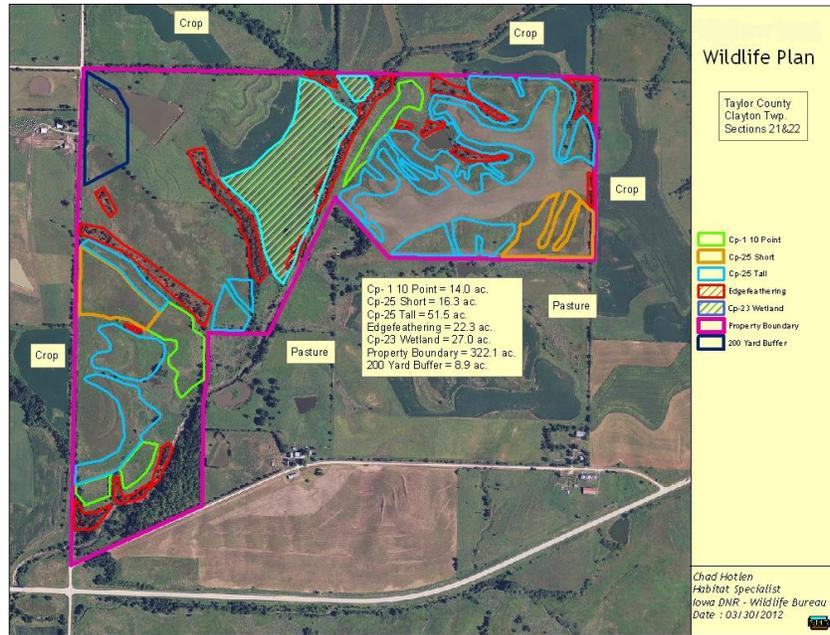
- Improve and manage wildlife on 22,000 acres of private land in Iowa and make those lands available to public hunting.
- Ensure the greatest wildlife habitat allowed by providing ongoing technical assistance to landowners as they carry out the requirements of the conservation program contract.

Methods and Outreach Efforts

Both promotional and direct marketing efforts were used to target landowners. A cooperative agreement with US Department of Agriculture Farm Service Agency (USDA-FSA) enabled the state to send personal letters and postcards to landowners and call them directly. The IHAP program was also promoted via the DNR website, news releases, landowner workshops, and at the USDA/NRCS Service Center.

Once landowners express an interest in enrolling in the program, Private Lands Program (PLP) staff conducted a one-on-one site visit to evaluate existing habitat conditions and then develop a comprehensive wildlife management plan that incorporated program objectives.

Figure IA 1 Wildlife Management Plan.



To educate hunters, the Iowa DNR used a GIS system to capture the location of all VPA-HIP enrolled lands and made them available through the DNR’s website. IHAP sites were included on their Interactive Hunting Atlas as well as in individual property maps on the Department’s website.

Landowner Enrollment

IHAP was open to all landowners who owned at least 40 acres of land. The DNR used a ranking process to prioritize which properties were enrolled in the program. Factors included location within a “high opportunity area for conservation,” proximity to existing public lands, size, quality of habitat, and whether the land is enrolled in a USDA conservation program as well as length of contract. At the time of enrollment, the landowner’s site was evaluated to ensure there was appropriate wildlife habitat and potential for recreational use being sought. Landowners were given free technical assistance for habitat improvements on their property.

Figure IA 2. Recreational activities available for the 2016/2017 season on Iowa’s enrolled acres



- **Turkey**
- **Deer**
- **Migratory Bird Game**
- **Pheasant and Small Game**

A total of 20,785 acres (146 properties), supported through VPA-HIP, were opened for public access during the 2016/2017 hunting seasons. Approximately 13,444 acres were newly enrolled to the program.

Annual payments for habitat improvements and hunting access averaged \$23 per acre per year. In exchange for habitat / wildlife management, landowners were required to keep their lands open from September 1st through May 31st to public hunting through Iowa's Habitat and Access Program. Incentive payments were made for associated habitat improvement efforts. Ninety-five percent of the VPA-HIP funds were used to pay as an incentive for habitat work completed on private lands. Landowners could choose a contract length of 3 to 10 years.

Usage and Satisfaction

Landowner surveys and random interviews are conducted once every four years to gauge satisfaction regarding the quality of the technical assistance received, habitat management activities, and overall public use. Based on their most recent survey (2013, N=29), 79% of landowners were extremely satisfied with their overall experience including, but not limited to hunters use of their land, DNR staff support and expertise, habitat work completed on their property as well as amount and timeliness of their incentive payments. Sixty-nine percent indicated that it is "extremely likely" that they will participate in the program again.

Hunters were asked to fill-out survey cards upon completion of their daily hunting efforts. They were also randomly surveyed twice during the grant period to estimate hunter use days, economic activity, and hunter satisfaction with the program. Based on survey cards collected in 2016, 97% reported that they would indeed hunt an IHAP site again and 79% were satisfied with their hunting experience (N=998).

An estimated 27,623 +/- 3,342 hunters used IHAP sites, with 15,705 visiting newly enrolled lands. Collectively, these hunters reported spending a total of seven days, on average, hunting on IHAP lands and roughly four of those days were additional days, relative to the number of days spent hunting last year.

Recreational usage per acre is higher on Iowa's IHAP lands, relative to other states included in this report. Iowa's utilization of IHAP lands is based on a state-level survey of a sample of licensed hunters in 2016. The survey does rely on hunters accurately identifying a location as an IHAP parcel, which may or may not mean it suffers from recall bias. Anecdotal evidence, on the other hand, does corroborate increased numbers of hunters and better habitat management supporting a larger population of game birds. Additionally, enrollment took place near population centers. In light of this evidence, the higher levels of usage are possible. We raise this point due to the impact of utilization on hunter spending and the estimated return on investment investigated in the next section, both of which are higher for Iowa, relative to all other participating states.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase



is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP lands.

Table IA 1. Iowa's VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	13,444
Average contract term	9 years
VPA-HIP investments in 2016**	\$549,857

*Total acres, new and renewed, supported through VPA-HIP is 20,785 acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$10.8 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated \$14.9 million in economic activity. Recreational activities generated \$5.6 million in income (salaries, wages, and business earnings). This income is associated with 227 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$6.2 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$8.5 million dollars in new economic activity, \$3.2 million of income, and supported 129 full and part-time employees and proprietors who worked in the Iowa businesses whose products were purchased by recreational users of VPA supported lands.

Table IA 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$3,680,293	\$2,097,767
Equipment spending	\$7,165,694	\$4,084,446
Total spending	\$10,845,987	\$6,182,212
Return on Investment (ROI)*		\$11.24
Total State-level Economic Contribution with multiplier effect		
Output	\$14,940,512	\$8,516,092
Income	\$5,627,243	\$3,207,528
Employment	227	129

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

A total of \$0.85 million in both state and federal funds was spent to support the all enrolled acres over the course of 2016 and includes payments to landowners. A total of \$0.55 million in VPA funds were invested on newly enrolled acres. When we compare spending on additional days by recreational users to investments for new acres, every dollar invested through VPA-HIP is matched by an estimated \$11.24 of economic activity based on additional recreation days on acres newly opened for public access.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled 59

New land acres enrolled 22,163

Estimated number of recreational users on new acres 1,108 people

Ratio of additional spending to VPA-HIP investment on new acres \$1.58: \$1.00
(see text for discussion)

Economic activity from additional spending \$0.87 million

Jobs associated with additional spending 11 jobs



Background *(Based on VPA-HIP grant proposal)*

Kansas is ranked #4 in the nation with respect to the number of non-resident hunters. Kansas Department of Wildlife Parks and Tourism administers more than one million acres of public and privately-owned land and actively manages more than 302,000 acres for wildlife habitat on these public conservation areas each year.

Support through the 2011-12 VPA-HIP facilitated the addition of over 41,000 acres of private land open for public hunting access through 140 new lease agreements with Kansas landowners. Long-term habitat improvement projects were also funded on nearly 14,400 acres of private property open for public access. The additional acres of private land resulted in an estimated statewide economic impact of \$1.9 million per year. The program is in a strong position to expand and grow, but current limitations regarding enrollment options and incentives for landowners have restricted its growth potential.

Program Objectives

The Kansas Department of Wildlife Parks and Tourism received a three-year grant for \$2.7 million through the 2014 VPA-HIP. The state’s overarching goal is to increase public access to private lands for wildlife-dependent recreation and make improvements to habitat on these properties through better management plans and the implementation of appropriate conservation practices. More specifically, their goals are to:

- Add an additional 40,000 acres over the course of three years.
- Encourage public access to private lands for hunting, fishing, and other recreational purposes.
- Offer new recreational opportunities on private lands to increase utilization.
- Increase appropriate habitat on enrolled lands.
- Increase recreational access on lands enrolled under a USDA conservation program.
- Provide technical assistance to private landowners to encourage and support participation in conservation efforts and improve habitat.

Methods and Outreach Efforts

Landowner options were expanded with regard to the length of access leases, payment structure, sign-on and term-completion incentive payments, and habitat improvement incentives to increase acceptance and participation among private landowners across the state, especially in areas with historically low participation. These options were aggressively marketed through USDA office newsletters and featured in a direct postcard mailing campaign to USDA conservation program participants.

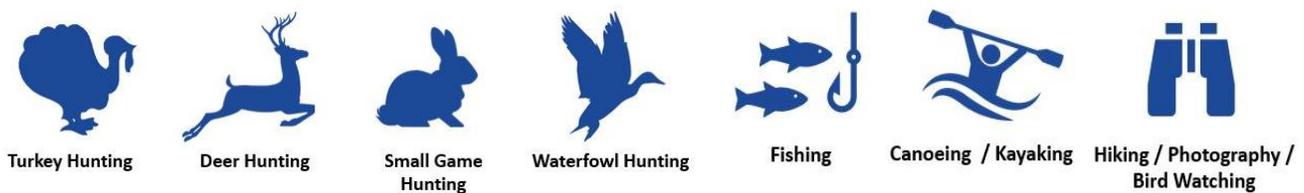
To overcome landowners’ concerns about crowding and over-utilization, especially in highly populated areas of the state, the state employed a random-draw system that limits the number of recreationalists on each area at any given time.

To generate awareness and encourage the public to hunt and fish on privately-owned lands, a combination of online tools, magazine articles, online videos, special events and direct mail were used. In addition, locations of all hunting and fishing access areas were published in the form of an atlas and made available free of charge at every license vendor, agency office, promotional events, and other various locations throughout the state. To better serve Hispanic communities, bi-lingual hunter education courses were offered in some areas.

Landowner Enrollment

A total of 62,163 acres (73 properties), supported through VPA-HIP, were open for public access from June 1, 2016 through May 31, 2017. Approximately 22,163 acres (meeting 55% of their goal) were newly enrolled to the program. The predominant activity on enrolled lands was hunting.

Figure KS 1. Recreational activities available for the 2016/2017 season on Kansas' enrolled acres



Enrollment was open to all private landowners that have appropriate fisheries and habitat. Annual payments for hunting ranged from \$2 to \$6 per acre and the average length of a contract is 12 years. Payment amounts were based on geographic location, total number of acres offered, length of lease, and the quality of habitat. Incentive payments were provided to landowners for habitat maintenance and improvement on properties made available to the public. Incentives were also provided to those who completed approved management practices on the property through the various state initiatives or wildlife habitat practices through USDA Environmental Quality Incentives Program (EQIP).

Annual payments for fishing ranged from \$75 to \$125 per acre. To support their goal in offering new activities, incentives were offered to landowners who allowed recreational access for canoeing and kayaking in addition to the fishing access. Landowners participating in the fishing access program are the only private landowners in Kansas eligible for fish stockings provided by the state. This can represent a significant cost savings to landowners. Technical and financial assistance was given to those who improved their fisheries.

Usage and Satisfaction

According to a small sample of hunters responding to cards that were distributed opening weekend for upland game birds and again during opening day for deer hunting (N=146), there is a general level of overall satisfaction with the program. According to program managers, hunters appear to be returning to traditional pheasant areas in southwest and northwest Kansas.

In the absence of a state-level recreational user and user-days estimate, we rely on the historical national average annual users and user days as well as additional days developed during the evaluation of VPA-HIP in 2011. An estimated 1,108 residents and non-residents accessed the newly enrolled VPA lands during the Fall 2016 through Spring 2017 hunting seasons. The estimated total annual days per hunter spent on VPA lands is eight days and additional days is five days.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP lands.

Table KS 1. Kansas' VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	22,163
Average contract term	12 years
VPA-HIP investments in 2016**	\$352,739

*Total acres, new and renewed, supported through VPA-HIP is 62,163 acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$0.98 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated \$1.5 million in economic activity. Recreational activities generated \$0.49 million in income (salaries, wages, and business earnings). This income is associated with 19 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.56 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$0.87 million dollars in new economic activity, \$0.28 million of income, and supported 11 full and part-time employees and proprietors who worked in the Kansas businesses whose products were purchased by recreational users of VPA supported lands.

Table KS 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$334,020	\$189,136
Equipment spending	<u>\$650,352</u>	<u>\$368,256</u>
Total spending	\$984,371	\$557,391
Return on Investment (ROI)*		\$1.58
Total State-level Economic Contribution with multiplier effect		
Output	\$1,534,764	\$869,046
Income	\$490,684	\$277,845
Employment	19	11

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

A total of \$0.99 million in both state and federal funds was spent to support all of the enrolled acres over the course of 2016 and includes payments to landowners. A total of \$0.35 million in VPA funds were invested. When we compare spending on additional days by recreational users to investments, every dollar invested through VPA-HIP is matched by an estimated \$1.58 of economic activity based on additional recreation days on acres newly opened for public access.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled

31

New land acres enrolled

4,729

Estimated number of recreational users on new acres

2,166 people

Ratio of additional spending to VPA-HIP investment on new acres

\$5.71 : \$1.00
(see text for discussion)

Economic activity from additional spending

\$1.2 million

Jobs associated with additional spending

15 jobs



Background *(Based on VPA program grant proposal)*

According to Southwick Associates' *Hunting in America: An Economic Force for Conservation* report, Michigan was ranked #5 for total number of resident hunters in the U.S. The Michigan Department of Natural Resources (DNR) currently manages over 7.5 million acres of public hunting lands. However, the majority of these lands are in northern Michigan and only 3% of public access lands are in southern Michigan, where over half of the state's population resides. Michigan's DNR places a high priority on providing hunting access across the state through public lands and leasing private lands for public access through their Hunting Access Program (HAP).

In 2011, the state revised and revamped their Hunting Access Program (HAP). Lease rates, communications (including an online interactive tool (www.michigan.gov/mihunt)), and program flexibility were increased, which allowed HAP to more than triple the number of enrolled farms and double the acres to more than 16,000 acres. In 2013, the DNR developed a collaborative *Managed Public Land Strategy* to identify needs for more public lands based on distance to public hunting lands and hunting lands per capita by county. Results from their 2013 survey of HAP hunters identified the need for more accessible lands for hunters in the southern part of the state. According to their 2014 survey, 79% of hunters thought leasing additional land and improving the habitat were the most important changes that could be made to HAP to improve the hunters' experience.

Program Objectives

The Michigan DNR received a three-year grant for \$1.2 million through the 2014 VPA-HIP. The state's overarching goal is to expand its existing hunting access program to enhance wildlife habitat and provide additional hunting opportunities in areas that currently have limited public access and high population levels. More specifically, their goals are to:

- Provide access to an additional 20,000 acres of land for public hunting.
- Develop hunting opportunities on private lands targeted toward youth, women, and seniors.
- Increase land available for hunters in the southern Lower Peninsula, near urban centers.
- Increase small game populations through habitat efforts on private lands, especially in southern Michigan.
- Promote existing tools and develop new tools to increase hunters' ability to gain access to private lands.

Methods and Outreach Efforts

Michigan used several different tactics to increase the number of acres and sites enrolled in HAP. They focused on enrolling sites that were located within the priority counties for Michigan's Conservation Reserve Enhancement Program (CREP), Michigan's State Acres for Wildlife Enhancement (SAFE), and Michigan's Pheasant Restoration Initiative (MPRI). The purpose of CREP is to implement conservation practices that will improve the water quality of the

Macataw River, River Raisin, and Saginaw Bay watersheds; and to enhance fish and wildlife. This will improve the drinking water for local communities, protect and conserve aquatic life, and improve water-based recreation. In addition, research conducted by Michigan State University revealed that CREP grasslands provide important grassland bird habitat. Local biologists have counted more pheasant broods in areas of concentrations of CREP versus areas with limited CREP enrollment. Waterfowl surveys have also shown an annual increase in duck broods compared to adjacent non-CREP counties. Michigan's State Acres for Wildlife Enhancement (SAFE) goal is to provide 10,000 acres of diverse prairie to benefit pheasants, wild turkey, quail, and a variety of rare or declining species. As of 2014, Michigan currently had 5,769 of the 10,000 eligible acres enrolled. According to the state, they are close to having nearly 9,000 acres enrolled. The Michigan Pheasant Restoration Initiative (MPRI) consists of several key conservation groups working together to increase pheasant populations in Michigan, which have been on the decline. These initiatives all share the DNR's goal in improving wildlife habitat and water quality.

Michigan expanded the HAP eligibility acres by including the eastern end of the Upper Peninsula for sharp-tailed grouse and small game hunting. This enabled them to expand the number of recreational opportunities that are available to hunters. The eastern end of the Upper Peninsula is the only area in Michigan to maintain a population of sharp-tailed grouse where hunting is allowed. Expansion into this area created 1,332 new acres for 2016-2017 hunting season and re-enrolled 2,348 acres from 2015-2016 hunting season.

The Michigan DNR increased hunter and landowner awareness of HAP through targeted outreach and program marketing initiatives including news releases, magazines, printed guides, websites, advertisements, and interactive maps. For example, the DNR expanded their working relationship with the Michigan Department of Agriculture and Rural Development (MDARD) and local conservation districts within the geographical focus areas by providing financial support to Conservation District Biologists to promote HAP with current and new landowners. Also, through their strong working relationship with USDA, the DNR was able to mail information on new opportunities and incentives offered through an expanded HAP to participating CREP landowners. Additionally, Michigan United Conservation Clubs (MUCC) promoted the increased opportunities to landowners and hunters through their weekly television show, monthly publication, and website. Lastly, the Michigan Farm Bureau promoted HAP in their *Michigan Farm News* publication.

Landowner Enrollment

A minimum of 40 acres must be included in the lease and only parcels that have at least 20% of quality habitat types (i.e. grasslands, woodlands, and wetlands) were enrolled in the program. Given these criteria, a total of 22,437 acres (126 properties), supported through VPA-HIP, were open for public access during the 2016/2017 hunting seasons. Approximately 4,729 acres were newly enrolled to the program. The average landowner contract is roughly 2 years.

Once enrolled in the program, landowners received financial incentives and cost sharing to enhance wildlife habitat on current HAP acres. For those landowners who do include habitat projects as part of their lease agreement, DNR's wildlife biologists implemented the management practices either through financial assistance to the landowner, providing materials or seed, or facilitating payments to vendors to implement the work.

Figure MI 1. Recreational activities available for the 2016/2017 season on Michigan's enrolled acres



- All hunting 65%
- Small game only hunting 18%
- Youth & Apprentice hunting 5%
- Small game & Turkey hunting 4%
- Turkey only hunting 3%
- Deer & Turkey hunting 2%
- Sharptail hunting 2%

The DNR focused on increasing their landowner participation rate by offering financial incentives and greater program flexibility. Rates of payment were based on the amounts of specific habitats identified. Annual payments for hunting averaged between \$2 to \$25 per acre, averaging roughly \$13 per acre. Higher rates were paid for higher quality habitat as well as for lands that are located near urban centers. Larger financial incentives were also given to those who have CREP or SAFE lands and similar incentives for those that provided youth / mentor hunting opportunities. For those landowners preferring greater control over public access, their lease agreements included the option of a daily permit system, where permits were issued at a rate of one hunter access permit for every 10 acres of forested land and one hunter access permit for every 20 acres of open grassland or wetland.

Usage and Satisfaction

Michigan DNR surveyed a random sample of hunters using HAP properties to quantify hunting use, hunter satisfaction, expenditures, and to identify ways to improve the program. Attracting new hunters was a key component of creating HAP. About 21% ($\pm 2\%$) of adult HAP hunters (at least 21 years old or older) hunted with a youth hunter (less than 16 years old). In addition, about 11% ($\pm 2\%$) of adult hunters accompanied an apprentice hunter (a hunter without hunter safety certification) on HAP lands.

Over half of the hunters (62%) were either very satisfied or somewhat satisfied with their hunting experience. About 76% ($\pm 3\%$) of the HAP hunters indicated they planned to hunt on HAP lands in the future. The primary reasons hunters selected HAP lands were (1) they did not have access to private lands [65%], (2) the HAP lands were located near their residence [63%], (3) they had previously experienced good hunting on HAP lands [58%], and (4) they had limited time to locate alternative hunting sites [53%].

Overall usage of these additional acres is estimated by applying the state-level average of 0.46 hunters per acre. Given this assumption, just over 2,160 hunters spent time hunting newly enrolled lands this past year. Collectively, these hunters reported spending a total of five and a half days, on average, hunting on Hunting Access lands and roughly three of those days were additional days, relative to the number of days spent hunting last year.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase

is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP lands.

Table MI 1. Estimated in-state economic contribution of Michigan’s newly enrolled acres

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	4,729
Average contract term	2 years
VPA-HIP investments in 2016**	\$93,470

*Total acres, new and renewed, supported through VPA-HIP is 22,437 acres.

**Only estimated VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$1.27 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated between \$2.1 million in economic activity. Recreational activities generated \$0.70 thousand in income (salaries, wages, and business earnings). This income is associated with 27 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.72 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$1.2 million dollars in new economic activity, \$0.39 million of income, and supported 15 full and part-time employees and proprietors who worked in the Michigan businesses whose products were purchased by recreational users of VPA-HIP supported lands.

Table MI 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$430,867	\$243,871
Equipment spending	<u>\$838,918</u>	<u>\$474,827</u>
Total spending	\$1,269,785	\$718,698
Return on Investment (ROI)*		\$7.69
Total State-level Economic Contribution with multiplier effect		
Output	\$2,066,862	\$1,169,844
Income	\$696,427	\$394,178
Employment	27	15

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

A total of \$0.44 million in federal funds was spent to support all enrolled acres over the course of 2016 and includes payments to landowners. An estimated \$0.09 million in VPA-HIP funds were invested to support newly enrolled acres. When we compare spending on additional days by recreational users to investments, every dollar invested through VPA-HIP is matched by an estimated \$7.69 of economic activity based on additional recreation days on acres newly opened for public access.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled 27

New land acres enrolled 4,732

Estimated number of recreational users on new acres 490 people

Ratio of additional spending to VPA-HIP investment on new acres \$0.63 : \$1.00
(see text for discussion)

Economic activity from additional spending \$0.06 million

Jobs associated with additional spending 1 jobs



Background *(Based on VPA-HIP grant proposal)*

With 93% of the state's land being privately owned, the Missouri Department of Conservation (MDC) focuses on creating access to outdoor recreational activities by leasing land from private land owners. MDC administers more than one million acres of public land and actively manages more than 200,000 acres for wildlife habitat on these public conservation areas each year. According to Southwick Associates' *Hunting in America: An Economic Force for Conservation* report, Missouri was ranked #8 for total number of resident hunters in the U.S. and #6 by total number of non-resident hunters. In fiscal year 2014, there were 576,000 hunters and 1.7 million wildlife watchers in the state. The number of small game, deer and turkey permits purchased has remained relatively constant over the past three years.

Program Objectives

MDC received a three-year grant for \$1.1 million through the 2014 VPA-HIP. The state's overarching goal is to provide and expand recreational activities, such as small and large game hunting and wildlife viewing, for urban and rural residents and non-residents alike. More specifically, their goals are to:

- Increase and enhance wildlife habitat for small game and other wildlife species on private land.
- Increase the interest and number of small game hunters by providing additional lands and hunting opportunities on private lands.
- Increase youth hunter recruitment by providing access to private lands that provide hunting opportunities with less competition and hunting pressure relative to MDC Conservation Areas.
- Provide wildlife watching opportunities on private lands, especially on lands in close proximity to major metropolitan areas.

Methods and Outreach Efforts

A combination of promotional efforts and partnership programs were used to recruit and support landowners. For example, MDC has a long-term partnership with Pheasants Forever and Quail Forever and currently has nine Quail Forever Farm Biologists (FBBs) working in the state. Quail FBBs aided the 48 MDC private land biologists in the promotion and delivery of the Missouri Outdoor Recreation Access Program (MRAP) by conducting landowner workshops and outreach programs within their local communities and provided one-on-one assistance to private landowners in the development of wildlife habitat management plans.

Landowner Enrollment

A total of 6,311 acres (27 properties), supported through the VPA-HIP program, were open for public access during the 2016/2017 hunting seasons. Approximately 4,732 acres were newly enrolled to the program. The other acres had previously been enrolled in a pilot public access program, but are now supported under the VPA-HIP. Currently, there are no youth properties, but it's a strong focus for Spring 2018 hunting season.

Figure MO 1. Recreational activities available for the 2016/2017 season on Missouri’s enrolled acres



At the time of enrollment, a minimum of 20% of each enrolled parcel was required to provide quality habitat wildlife, as defined by the Natural Resources Conservation Service (NCRS) practice standard requirements. To encourage installation of additional wildlife habitat on enrolled MRAP parcels, MDC provided up to 90% financial assistance to implement additional practices.

Annual payments for hunting and wildlife viewing averaged between \$15 to \$25 per acre, which consisted of a base payment plus any bonus payments. The total annual payment for fishing only access properties consisted of a base payment plus potential bonuses. The base payment was based on the acreage of impoundments or length of streams being enrolled. The average landowner contract is roughly four years.

Participating landowners had the option to select certain outdoor recreation scenarios and allow only certain wildlife user groups access to their lands. VPA-HIP funds were used to encourage landowners to allow access for all seasons for all users, and youth access only options. All-access options will provide the opportunity to include both hunting and fishing opportunities. Incentives were available for proximity to metropolitan areas and location within MDC designated priority geographies, and commitment to enhance additional wildlife. MRAP applications were prioritized based on parcel size, percentage of parcel consisting of wildlife habitat, contract length, season selections, and proximity to metropolitan areas.

Usage and Satisfaction

According to MDC’s user survey, 21% of recreational users reported having youth or apprentice hunters/anglers/nature viewers with them. Ninety percent of users hunted, 5% fished and 3% used the lands for wildlife viewing. Seventy-six percent were either “satisfied” or “very satisfied” with their experience on the lands and 81% plan to use the lands again in the future.

The VPA-HIP holds value to recreational users as 84% say that it’s “important” or “very important” to increase available acres for the program. Ninety percent say that it’s “important” or “very important” to improve wildlife habitat and wildlife population.

While the state does not capture an exact count of user days or users, an estimated 653 residents and non-residents accessed the VPA-HIP lands during the Fall 2016 through Spring 2017 hunting seasons. Three quarters of visitors are assumed to utilize newly enrolled acres. Their estimate is

based on registration data. The estimated total annual days spent on VPA-HIP lands is two days and additional days is one day.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP private lands.

Table MO 1. Missouri's VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	4,732
Average contract term	4 years
VPA-HIP investments in 2016**	\$108,936

*Total acres, new and renewed, supported through VPA-HIP is 6,311 acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$0.12 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated between \$0.11 million in economic activity. Recreational activities generated \$0.45 million in income (salaries, wages, and business earnings). This income is associated with 2 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.07 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$0.06 million dollars in new economic activity, \$0.03 million of income, and supported 1 full and part-time employees and proprietors who worked in the Missouri businesses whose products were purchased by recreational users of VPA-HIP supported lands.

Table MO 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$40,982	\$23,360
Equipment spending	<u>\$79,793</u>	<u>\$45,482</u>
Total spending	\$120,775	\$68,842
Return on Investment (ROI)*		\$0.63
Total State-level Economic Contribution with multiplier effect		
Output	\$111,546	\$63,581
Income	\$44,924	\$25,607
Employment	2	1

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

Note: State-level output may be lower than direct spending. This is a result of "leakage" or recreational user spending lost to other economies, spending on goods imported into the state for example.

A total of \$0.29 million in both state and federal funds was spent to support all enrolled acres over the course of 2016 and includes payments to landowners. A total of \$0.11 million in VPA-HIP funds were invested to support newly enrolled acres. When we compare spending on additional days by recreational users to investments, every dollar invested through VPA-HIP is matched by an estimated \$0.63 of economic activity based on additional recreation days on acres newly opened for public access. While the benefits for every federal VPA-HIP program dollar invested falls below a 1:1 ratio, Missouri's Outdoor Recreational Access program is a young program. As general knowledge of these lands grows, utilization and the return to every dollar invested also grows.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled 29

New land acres enrolled 10,888

Estimated number of recreational users on new acres 175 hunters

Ratio of additional spending to VPA-HIP investment on new acres \$1.37: \$1.00
(see text for discussion)

Economic activity from additional spending \$0.14 million

Jobs associated with additional spending 2 jobs



Background *(Based on VPA program grant proposal)*

On average, 35,000 upland game bird hunters use the state’s lands to go hunting. The need to recruit and retain hunters is largely contingent upon providing quality access to quality wildlife habitat. Unfortunately, public access to private lands with high quality game bird habitat is decreasing. The Conservation Reserve Program (CRP) grasslands, which provides habitat for many species has also declined – 43% of CRP acres have been lost in eastern Montana since 2006.

Through the Upland Game Bird Enhancement Program (UGBEP), Montana Fish, Wildlife, and Parks (FWP) launched *Open Fields* in 2012 with support from the 2008 Farm Bill VPA-HIP. Initial recruitment into Open Fields successfully enrolled 50 landowners (16,000 acres). The program compensates landowners to manage CRP in ways that benefit upland game birds. Payments were capped at the first 160 acres enrolled, but many landowners offered additional access acres to make their proposals more competitive for funding. FWP funded 8,000 acres, but ultimately enrolled 18,000 acres – more than doubling the amount of accessible land to game bird hunters.

Program Objectives

In 2014, Montana Fish, Wildlife, and Parks (FWP) received a three-year grant for \$491,206 through VPA-HIP. The state’s overarching goal is to enroll approximately 150 new landowners and provide a minimum of 24,000 acres of high quality game bird habitat as part of their efforts to expand their *Open Fields* program. More specifically, their goals are to:

- Contact at least 2,000 new landowners and achieve a response rate of at least 5% that are interested in enrolling in the program.
- Efficiently and responsibly conserve and enhance upland game bird habitats and populations, providing quality hunting opportunities.
- Increase access to larger tracts of public land through enrollment of adjacent private landowners.

Methods and Outreach Efforts

Details of the program, eligibility criteria, and its benefits were promoted in direct mailings to landowners and brochures distributed by USDA Service Center Offices located in focal areas. Each of FWP’s identified focal areas (north-central, northeastern, and eastern Montana) has one dedicated Habitat Specialist providing landowners with direct, personalized attention to ensure landowners concerns and needs are met. Several conservation partners (e.g., Pheasants Forever, Ducks Unlimited, The Nature Conservancy) also help generate program awareness and recruit private landowners.

The UGBEP annual projects access guide, program-specific webpages and FWP online tools, radio, newspaper, magazines, and government-delivery subscription services were used to promote to hunters those new access opportunities that were secured through VPA-HIP support.

Landowner Enrollment

To be eligible for the program, landowners must have private land that is legally accessible for walk-in game bird hunting. To protect and improve the habitat on enrolled lands, FWP required landowners to adhere to the standard maintenance schedule that was established by Montana Farm Service Agency. Habitat specialists work directly with landowners to deliver habitat conservation and enhancement programs that are available through Montana's Upland Game Bird Enhancement Program. FWP works with several conservation partners (e.g., Pheasants Forever, Ducks Unlimited, The Nature Conservancy) who provide technical assistance to landowners who participate in conservation efforts.

Figure MT 1 . Newly enrolled acres and landowners into Montana's Open Fields program



Game Bird Hunting
10,988 Acres
29 Landowners

Enrolled landowners received a one-time payment of \$5 per CRP acre per year for a maximum of 160 acres for the term of the contract. The average length of the contract is 9 years. Incentives were offered to those who participate in specific conservation efforts. All enrolled acres were open to free walk-in public access for game bird hunting with no further permission needed.

Program applications were ranked and selected based on those that could provide the best potential for game bird production and quality public hunting access based on habitat features, accessibility and juxtaposition of adjacent (1) public lands, (2) existing VPA-HIP project sites, and (3) lands actively enrolled in other FWP conservation and access programs. Proposals that offer to enroll supplemental access acres with quality game bird habitat, in addition to those funded through this program, received higher priority for funding.

A total of 10,888 acres (29 properties), supported through the VPA-HIP, were newly open for public access from September 2016 through January 2017.

Usage and Satisfaction



(Photo courtesy of Pheasants Forever)

According to their 2017 Open Fields Survey, 91% of hunters (N=51) were either "very satisfied" or "satisfied" with their hunting experience. "Outstanding / Excellent Habitat" was a comment that several hunters had made about the program.

The state currently estimates a total of 1,450 days in the field by hunters across the 29 new sites. However, they do not capture an exact count of users on Open Fields acres. In the absence of a user estimate, we rely on the historical national average annual and additional days developed during the evaluation of the VPA program in 2011 to calculate an estimated number of hunters. The estimated

total annual days per hunter spent on VPA lands is 8 days and additional days is 5 days. This translates to an estimated 175 hunters visiting newly enrolled acres.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP lands.

Table MT 1. Montana's VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	10,988
Average contract term	9 years
VPA-HIP investments in 2016**	\$62,360

*Total acres, new and renewed, supported through VPA-HIP is 28,353 acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$0.15 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated between \$0.24 million in economic activity. Recreational activities generated \$0.08 million in income (salaries, wages, and business earnings). This income is associated with 4 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.08 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$0.14 million dollars in new economic activity, \$0.04 million of income, and supported 2 full and part-time employees and proprietors who worked in the Missouri businesses whose products were purchased by recreational users of VPA-HIP supported lands.

Table MT 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$51,250	\$29,020
Equipment spending	\$99,786	\$56,503
Total spending	\$151,035	\$85,522
Return on Investment (ROI)*		\$1.37
Total State-level Economic Contribution with multiplier effect		
Output	\$243,200	\$137,710
Income	\$78,862	\$44,655
Employment	4	2

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

A total of \$0.12 million in both state and federal funds was spent to support newly enrolled acres over the course of 2016 and includes payments to landowners. A total of \$0.06 million in VPA funds were invested so support newly enrolled acres. When we compare spending on additional days by recreational users to investments, every dollar invested through VPA-HIP is matched by an estimated \$1.37 of economic activity based on additional recreation days on acres newly opened for public access.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled 120

New land acres enrolled 155,140

Estimated number of recreational users on new acres 7,757 people

Ratio of additional spending to VPA-HIP investment on new acres \$5.45 : \$1.00
(see text for discussion)

Economic activity from additional spending \$6.1 million

Jobs associated with additional spending 73 jobs



Background *(Based on VPA program proposal)*

Nebraska has limited public lands, with 97% of the state’s land in private ownership. Thus, providing access to public lands for outdoor recreation continues to be a high priority for the Nebraska Game and Parks Commission’s Wildlife Division.

The Commission uses their well-established Open Fields and Waters (OFW) campaign to provide access to private lands and existing public lands – those that can’t be accessed without trespassing through private property – for hunting, fishing, and other compatible recreational opportunities. OFW is an incentive-based program, where financial incentives are given to landowners in exchange for allowing public access. The program provides 284,347 acres, 404 surface water acres, and 40 river miles of additional public access for hunting and fishing. According to a survey conducted by the University of Nebraska, the initial VPA-HIP funding of the program in 2010 resulted in a 100% increase in days hunted on OFW.

The Small Grain Stubble Management Program was recently implemented and is modeled after the Tall Wheat Stubble Management Program that previously existed. Through the Small Grain Stubble Management Program, the Commission offers a per acre payment to landowners for providing hunting access while leaving tall wheat and milo stubble through the fall and winter. The reason for bringing back the program is that the latest survey research conducted by the University of Nebraska – Lincoln shows that pheasants will eat the stubble.

In Fall 2015, the Commission collaborated with the National Wild Turkey Federation and began the Canyons Access Initiative (CAI). This initiative provides optimal habitat for turkey, mule deer, and elk hunting opportunities in the Southwest portion of Nebraska. The program started off enrolling 8,825 acres of hunting access and 12 new landowners. According to the Commission, landowner interest has outpaced funding.

Program Objectives

Nebraska Game and Parks Commission’s Wildlife Division received a three-year grant for \$1.5 million through the 2014 VPA-HIP. The state’s overarching goal is to improve and expand their current efforts opening private lands to hunting, fishing, and other compatible recreational activities through their Open Fields and Waters Program and supporting sub-programs. More specifically, their goals are to:

- Enroll 260,000 new acres, 400 new surface acres, 55 new miles of streams / rivers for the Open Fields and Waters Program.
- Add 60,000 acres of new hunting access to the Small Grain Stubble Management Program.
- Provide 12,000 acres of new hunting access for the Canyon Access Initiative.
- Offer financial incentives and liability protection to encourage landowner participation.

- Ensure lands enrolled for public access have quality fish and wildlife habitat by working with landowners to plan and implement habitat management.
- Encourage enrollment in and habitat improvement on existing conservation initiatives.

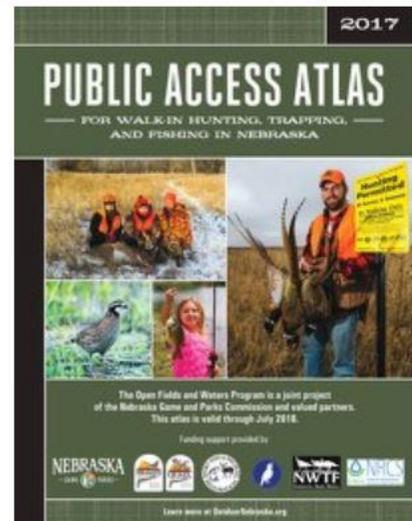
Methods and Outreach Efforts

A variety of methods were used to target landowners about their access programs, including personal contacts, newspaper and newsletter articles, radio and television ads, social media, direct mailings, printed flyers, and brochures. In addition, partner organizations, including Pheasants Forever, Wild Turkey Federation and USDA, distributed information to targeted landowners and encouraged them to contact the Commission staff to learn more. To ease landowners' concerns about the program (i.e. recreational users damaging their property), testimonials from participating landowners were featured in public service announcements.

To retain existing landowners, staff who worked with existing landowners on habitat projects made sure they were aware of all of the different programs that they could enroll in.

To engage new landowners that have been historically categorized as “underserved”, the Commission partnered with NRCS to specifically communicate to them via newsletters, press releases, social media, and other forms of communication in different languages. Other outreach tactics included presentations at public events (i.e. hunting expos and Pheasants Forever state habitat meetings) and leveraging the beginning farmers organization, Nebraska Beginning Farmers, to promote OFW through their resources.

The access programs were promoted in several languages through public service announcements, press releases, brochures, and social media to engage a diverse range of hunters and anglers. The Commission also ramped up its efforts by hosting educational hunting seminars and fishing clinics in urban areas. Enrolled lands were also published in the annual *Nebraska Public Access Atlas* online.



Landowner Enrollment

A total of 227,242 acres (573 properties), supported through the VPA-HIP, were open for public access during the 2016/2017 hunting seasons. Approximately 155,140 acres were newly enrolled to the program.

Figure NE 1. Recreational activities available for the 2016/2017 season on Nebraska’s enrolled acres



To ensure quality wildlife habitat is provided on enrolled lands, the Commission staff would visit each site to determine if the habitat quality and quantity are sufficient to allow recreational activities and maintain species and fish populations for public hunting and fishing prior to signing a contract with a landowner.

The Commission's OFW access program provides payments to landowners on a per acre basis for providing access. Hunting access payment rates can range from \$1 per acre to \$15 per acre. Landowners who had a lake or pond received a base of \$250 for first surface acre and \$40 per acre for every additional acre. Payments for cold water fishing streams were \$1,500 per mile if both sides of the stream were enrolled, and \$750 if only one side of the stream is enrolled. Payments for warm water fishing streams were \$500 per mile if both sides could be accessed, and \$250 if only one side was accessible. Additional incentive payments are made to those who make habitat improvements on their land. Habitat upgrades are conducted on sites deemed necessary during site evaluations to provide quality habitat for hunters and anglers. Currently, the Commission allocates \$100,000 per year into habitat upgrades on OFW properties as part of their Nebraska Wild program. The average landowner contract is roughly 3.5 years.

Landowners were also given the option to receive \$1 to \$3 per acre (pending on the quality of habitat) in exchange for public access through their Small Grain Stubble Management Program. Those who were able to enroll lands into the Canyons Access Initiative was paid \$7 per acre. The access contracts are administered under the OFW program.

Usage and Satisfaction

According to their landowner surveys that were conducted from 2013-2014, 83% of landowners were or very satisfied with the access programs.

To gauge hunters' use and satisfaction of the publicly accessible sites, a combination of mail/email surveys and in-person interviews were conducted. The University of Nebraska interviewed over 3,400 hunting parties on more than 550 sites (both public and private) from 2014 through 2017. Preliminary results indicate that hunters felt that their experience met their expectations and that the lands had good habitat quality. Hunters are most likely to return to the same property to hunt in the future.

At this time, the state does not have a user estimate for the 2016-2017 hunting season. The University of Nebraska will be providing state-level user estimates based on their research. In the absence of a user estimate, we rely on the historical national average annual and additional days developed during the evaluation of the VPA program in 2011 to calculate an estimated number of hunters. An estimated 7,757 residents and non-residents accessed the VPA lands. The estimated total annual days per hunter spent on VPA lands is 8 days and additional days is 5 days.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP lands.

Table NE 1. Nebraska's VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	155,140
Average contract term	3.5 years
VPA-HIP investments in 2016**	\$715,424

*Total acres, new and renewed, supported through VPA-HIP is 227,243 acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$6.9 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated between \$10.8 million in economic activity. Recreational activities generated \$3.8 million in income (salaries, wages, and business earnings). This income is associated with 128 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$3.9 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$2.2 million of income and supported 73 full and part-time employees and proprietors who worked in the Nebraska businesses whose products were purchased by recreational users of VPA supported lands.

Table NE 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$2,338,095	\$1,323,925
Equipment spending	<u>\$4,552,376</u>	<u>\$2,577,740</u>
Total spending	\$6,890,471	\$3,901,665
Return on Investment (ROI)*		\$5.45
Total State-level Economic Contribution with multiplier effect		
Output	\$10,831,079	\$6,132,998
Income	\$3,833,738	\$2,170,819
Employment	128	73

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

A total of \$0.92 million in both state and federal funds was spent to support all enrolled acres over the course of 2016 and includes payments to landowners. A total of \$0.72 million in VPA funds were invested for public access on new acres. When we compare spending on additional days by recreational users to investments, every dollar invested through VPA-HIP is matched by an estimated \$5.45 of economic activity based on additional recreation days on acres newly opened for public access.

2016 HIGHLIGHTS

Focus this year was to retain and enhance existing acres.



Background *(Based on January 2015 Biennium Report)*

The Oregon Fish and Wildlife Department created the Access and Habitat Program (A&H), to provide hunting access and improve wildlife habitat on private lands while helping maintain relations between hunters and private landowners. In 2011, the department received funding through the VPA-HIP program to make habitat improvements on existing acres and providing new hunting access programs in the Columbia Basin and the Willamette Valley over a three- to five-year period. Shortly after implementation, U.S. Congress disbanded the program as part of its sequestration efforts, prohibiting landowner enrollment after September 30, 2012. However, funds did provide habitat benefits to those enrolled in the first few months.

The Columbia Basin is comprised mostly of private lands and has historically provided a large portion of upland game bird opportunities in Oregon. This area is important to hunter recruitment because many new hunters begin by hunting upland game birds. Ongoing A&H projects have improved game bird habitat in the Columbia Basin through technical assistance partnerships and direct habitat management. Four landowners provided public hunting access to almost 10,000 acres.

The Willamette Valley Goose Hunting Program was created in response to a Goose Task Force initiative that was established by Oregon legislation. The Willamette Valley has one of the most complex goose populations. With overall goose numbers increasing for the past three decades and agriculture depredation becoming severe, providing public hunting access in the Willamette Valley was a key management tool to resolving this issue.

From 2013-2015, A&H provided 4.7 million acres of public hunting access and improved over 130,000 acres of wildlife habitat on private lands. To improve wildlife habitat on private lands enrolled in VPA-HIP, funding was targeted towards habitat improvements aligned with department priorities including the Mule Deer Initiative, Blue Mountains Elk Initiative, and the Sage Grouse Initiative. Five projects provided over 30,000 acres of public hunting access in central, south-central, and northeast Oregon.

One of the biggest challenges for new hunters is finding a place to hunt. The A&H Board is helping to overcome this challenge by supporting private hunting land opportunities and providing innovative ways for users to find them. An online interactive tool, OregonHuntingMap.com, was developed (2014) to help the public easily find hunting access areas, species available and other opportunities. A mobile-friendly version was also developed to show where the user's current location is on the map in relation to the hunting access acres. Downloadable PDFs of detailed maps were also provided so hunters could access them from their mobile device.

The Open Fields program has a strong foundation to support large access programs in both the Willamette Valley and the Columbia Basin. The state continues to focus on pursuing new habitat projects and enrolling additional interested landowners.

Program Objectives

The Oregon Department of Fish and Wildlife (ODFW) received a three-year grant for \$1.6 million through the 2016 Voluntary Public Access – Habitat Incentive Program (VPA). The state's overarching goal is to expand its existing public access program to provide more opportunities for hunting, fishing, and other wildlife-dependent recreation. More specifically, their goals are to:

- Secure 90,000 acres of new public hunting access over a 3-year period to provide more opportunities for hunting, fishing, and other wildlife-dependent outdoor recreation.
- Spend \$100,000 on habitat projects each year for three years.
- Implement habitat improvement and restoration projects on enrolled private lands to improve 3,000 acres of wildlife habitat, which will indirectly benefit approximately 150,000 acres.
- Continue to support the Columbia Basin Upland Initiative and Willamette Goose Hunter Access program.
- Enhance the habitat for big game and other wildlife on enrolled access properties to complement the hunting access initiatives outlined in the first three priorities.
- Increase landowner enrollment by targeting underserved private landowners and retain existing ones by facilitating hunting reservations for participating landowners that choose to open their property on a "permission basis."
- Inform potential hunters about the VPA-HIP program through PR and direct marketing efforts to increase usage.

Methods and Outreach Efforts

Landowners categorized as "historically underserved" (women, minorities and those who have limited resources) were targeted to help drive the Open Fields program in becoming more inclusive. Information about the Open Lands program and its opportunities / benefits were promoted through newsletters, websites, press releases, local newspaper articles, NGO partners' resources and by direct mail. No landowner requesting participating in the program was denied funding.

To improve wildlife habitat on private lands, the habitat conditions of each property were evaluated through an on-site visit prior to signing the contract. An evaluation form was completed which included criteria ensuring that all necessary habitat elements to support species of interest were present.

All of the enrolled properties were featured on OregonHuntingmap.com, an online interactive tool and in a Hunting Opportunities Packet that is published online as well as printed and distributed to hundreds of interested hunters each year. Special media attention will be given to newly enrolled properties to educate the public and generate awareness.

Landowner Enrollment

Enrollment efforts during 2016 focused on landowner retention and enhancement of existing acres. A total of 12,012 acres were renewed in the Willamette and Columbia focal areas. The predominant hunting opportunities are deer, elk and upland game birds on these renewed acres.

Figure OR 1. Recreational activities available for the 2016/2017 season on Oregon’s enrolled acres



Private landowners are paid on a per acre basis to allow public hunting on their lands. They were given the opportunity to choose to either enroll on a “Welcome to Hunt” or by a “permission-basis” where hunters make reservations in advanced through ODFW staff.

Habitat projects were not conducted during the 2016-2017 hunting season. Each participating landowner received a habitat improvement grant proposal in order to encourage them to improve the wildlife on their lands. Habitat enhancement and restoration projects were scheduled for the 2017-2018 hunting season to improve 4,880 acres of wildlife habitat. The habitat improvements are aligned with department priorities including the Mule Deer Initiative, Blue Mountains Elk Initiative, and the Sage Grouse Initiative.

Usage and Satisfaction



Several tools are currently being implemented to measure hunter use and satisfaction on Access Areas throughout Oregon. Vehicle counters have been deployed on most eastern Oregon access areas to estimate the number of vehicles entering each area during the hunting season. Another tracking tool that is used is self-serve permit boxes located at the access entry way points. These permit boxes capture overall hunter satisfaction and harvest rates. Due to the size of the projects, it is only possible to sample a small portion of the area and extrapolate a project-wide estimate from the sample. Results are not available at this time.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP lands.

There were no newly enrolled acres for the 2016-2017 hunting season, preventing the estimation of the net increase in economic benefits associated with VPA-HIP investments as defined by this research effort. Significant progress toward the state’s enrollment goals was made to open new acres for public use during the 2017-2018 hunting season. Economic contributions of newly enrolled parcels during 2017 will be calculated for the updated report.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled 81

New land acres enrolled 15,115

Estimated number of recreational users on new acres
756 people

Ratio of additional spending to VPA-HIP investment on new acres
\$1.88 : \$1.00
(see text for discussion)

Economic activity from additional spending
\$0.29 million

Jobs associated with additional spending
5 jobs



Background (Based on VPA program proposal)

In existence since 1988, South Dakota Department of Game, Fish, and Parks' (SDGFP) *Walk-In Area Program* leases private land for walk-in hunting access. Their Walk-In Area (WIA) Program provides 1.2 million acres of private lands for outdoor recreation. Through the 2011 VPA-HIP grant of \$1 million, the program expanded by enrolling an additional fifty landowners and adding 43,000 acres of permanent undisturbed wildlife habitat. According to Southwick Associates' *Hunting in America: An Economic Force for Conservation* report, South Dakota was ranked #1 for total number of non-resident hunters in the U.S.

Unfortunately, in the southeastern part of the state, which contains half of the state's population, little private land (33,000 acres) is open to public hunting. With the majority of hunters in South Dakota being pheasant hunters and looking for close-to-home hunting opportunities, the state is focused on creating more access in highly populated areas. Currently, only 113,000 acres provide hunting access to undisturbed wildlife habitat, such as CRP lands.

Program Objectives

In 2014, SDGFP received a three-year grant for \$1.5 million through VPA-HIP. The state's overarching goal is to provide more access to hunt undisturbed wildlife habitat, especially in the southeastern part of the state. More specifically, their goals are to:

- Enroll a minimum of 50,000 new acres of public hunting access that possess undisturbed quality wildlife habitat by the end of the three-year grant.
- Provide expanded hunting opportunities for all wildlife game species in South Dakota, especially in the southeastern corner of the state. Ensure lands enrolled for public access have appropriate wildlife habitat.

Methods and Outreach Efforts

South Dakota Game, Fish, and Parks (SDGFP) promoted their walk-in access program to private landowners through public service announcements, direct mailings, newsletters, and through SDGFP staff.

Hunters were educated about public hunting opportunities through articles, news releases, and posts on the SDGFP Facebook and Twitter page. The public was notified of any updates to available lands through public service announcements. Hunters were also made aware of each location enrolled in the walk-in area through an annual printing of a Hunting Atlas, which is provided to the public free of charge.

Geospatial navigational tools enabled hunters to have easy and timely access to information about lands open for public access for the purpose of recreational hunting. SDGFP offered downloadable layers of all lands open to public hunting for Garmin GPS units and provided interactive maps of walk-in

access areas through applications for Android and Apple supported tablets and smartphones.

Landowner Enrollment

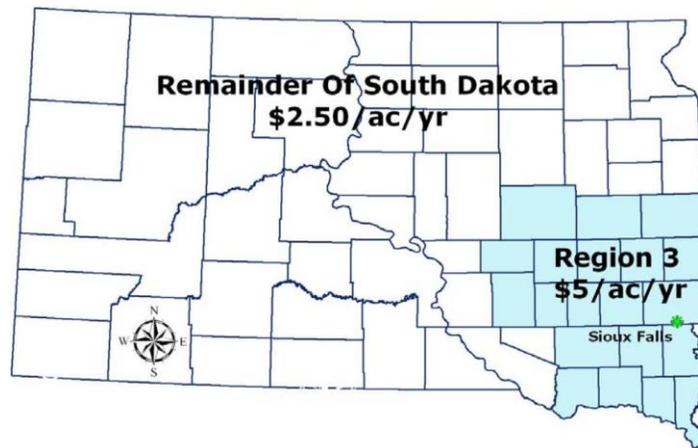
To be eligible for the Walk-In Area Program, private landowners must have adequate wildlife habitat to support public hunting access. Landowners who are enrolled in USDA conservation programs and initiatives with undisturbed habitat were targeted and accepted into the program. Once enrolled, they were given the opportunity to improve wildlife habitat with assistance from state sponsored wildlife habitat programs. Landowners received a quarterly newsletter on the latest conservation program sign-ups and other wildlife habitat development opportunities. SDGFP also offered technical assistance as new initiatives became available.

Figure SD 1. Recreational activities available for the 2016/2017 season on South Dakota's enrolled acres



Payments for multi-year public hunting access (foot-traffic only) of \$2.50 or \$5 per acre per year (\$5 for lands located in highly populated urban areas and \$2.50 for remaining portions) were paid in full at the beginning of the contract. Private landowners also received an annual rent payment of \$1 per acre for hunting access and \$5 per acre for undisturbed wildlife habitat. The average landowner contract is roughly eight years.

Figure SD 2. Signing Incentive Priority Area and Payment Rates



A total of 29,315 acres (98 properties), supported through the VPA-HIP program, were open for public hunting access during the 2016/2017 hunting seasons. Approximately 15,115 acres were newly enrolled to the program.

Usage and Satisfaction



The key benefit provided by acres supported through VPA-HIP funds is the securing of multi-year public access to undisturbed habitat created by USDA conservation program like CRP. Access to this type of land provides important hunting opportunity in South Dakota. SDGFP conducts a hunter satisfaction survey among hunters that hunt private lands through their WIA program. Their 2015 hunter satisfaction survey revealed that the program is valued and relied on for hunting opportunities. Fifty-four percent of hunters (N=3,642) indicated that walk-in areas were very important to their waterfowl hunting and 24% said they probably would not hunt waterfowl if it wasn't for the WIA program. Pheasant and prairie grouse hunters shared the same attitude with 52% (N=3,678) reporting that the WIA program is very important to their upland game hunting. Deer hunters also agreed with 40% (N=2,421) indicating that walk-in areas were very important to their hunting and 30% said they would not hunt big game if it was not for the Walk-In Areas program. The majority of hunters (98%) (N=3,736) plan to use the WIA program in the future.

In the absence of a state-level recreational user and user-days estimate, we rely on the historical national average annual users and user days as well as additional days developed during the evaluation of the VPA-HIP program in 2011. An estimated 756 residents and non-residents accessed the newly enrolled VPA-HIP lands during the Fall 2016 through Spring 2017 hunting seasons. The estimated total annual days spent on VPA-HIP lands is eight days and additional days is five days.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP private lands.

Table SD 1. South Dakota's VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	15,115
Average contract term	8 years
VPA-HIP investments in 2016**	\$201,946

*Total acres, new and renewed, supported through VPA-HIP is 29,315 acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$0.67 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated between \$0.52 million in economic activity. Recreational activities generated \$0.20

million in income (salaries, wages, and business earnings). This income is associated with 9 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.38 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$0.29 million dollars in new economic activity, \$0.11 million of income, and supported 5 full and part-time employees and proprietors who worked in the South Dakota businesses whose products were purchased by recreational users of VPA supported lands.

Table SD 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$227,796	\$128,987
Equipment spending	<u>\$443,529</u>	<u>\$251,144</u>
Total spending	\$671,325	\$380,131
Return on Investment (ROI)*		\$1.88
Total State-level Economic Contribution with multiplier effect		
Output	\$516,811	\$292,640
Income	\$195,852	\$110,899
Employment	9	5

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

Note: State-level output may be lower than direct spending. This is a result of “leakage” or recreational user spending lost to other economies, spending on goods imported into the state for example.

A total of \$0.36 million in VPA program funds was spent to support the all enrolled acres over the course of 2016 and includes payments to landowners. A total of \$0.20 million in VPA-HIP funds were invested on newly enrolled acres. When we compare spending on additional days by recreational users to investments, every dollar invested through VPA-HIP is matched by an estimated \$1.88 of economic activity based on additional recreation days on acres newly opened for public access.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

Landowners enrolled
13 (New)

Land acres enrolled
5,435 (New)

Estimated number of recreational users on new acres
1,653 people

Ratio of additional spending to VPA-HIP investment on new acres
\$4.01 : \$1.00
(see text for discussion)

Economic activity from additional spending
\$0.70 million

Jobs associated with additional spending
8 jobs



Background *(Based on VPA-HIP grant proposal)*

Texas Parks and Wildlife Department (TPWD) currently provides public outdoor recreational opportunities, including hunting and fishing, on 55 state-owned or leased Wildlife Management Units and 45 State Parks totaling 965,608 acres. However, with more than 95% of the land in Texas privately-owned, the public’s access to recreational land, especially land close to urban areas, is increasingly in short supply. Available private hunting leases are expensive and becoming more difficult to find.

With most state-owned lands already open for public access, the agency’s ability to expand the amount of low-cost outdoor recreational opportunities now centers on securing public access rights on private lands. The Wildlife Division within the TPWD leases private lands throughout the state for public hunting, fishing, and trapping through their *Private Lands Hunting Access Program*.

A prior award through the 2011 VPA-HIP program supported work that increased public access acreage in Texas by 22% and created 7 new river access sites on 4 different river systems, opening 25 miles of waterways. Before the 2014 VPA-HIP grant, 38,263 acres of private land provided for small game hunting and recreational access. The Department also offered big game draw hunts, but lack of sufficient funding prevented them from offering additional big game hunting opportunities. Since most Texans live in urban areas and seek close-to-home recreational activities, the Wildlife division is focused on leasing land within 100 miles of urban centers and continuing the success of the previous VPA-HIP grant.

Program Objectives

Texas Parks and Wildlife Department (TPWD) received a three-year grant for \$2.2 million through the 2014 VPA-HIP. The state’s overarching goal is to expand the number of public hunting area/days, increase the acreage of their current small game hunt leasing program and the number of private land big game permits available. More specifically, their goals are to:

- Increase the amount of private lands for small game hunting by 50% from 38,263 to 57,484 acres over the next three years.
- Increase yearly big game public hunt opportunities from 150 to 225.
- Improve the annual number of private area lease hunting area man/days from 7,700 to 11,775.
- Expand fishing and nature-related opportunities through 10 new river access sites.
- Ensure all lands provide high quality fish and wildlife habitat.
- Provide on-site support and technical assistance to landowners enrolled in the program to ensure long term, sustainable stewardship of wildlife resources.

Methods and Outreach Efforts

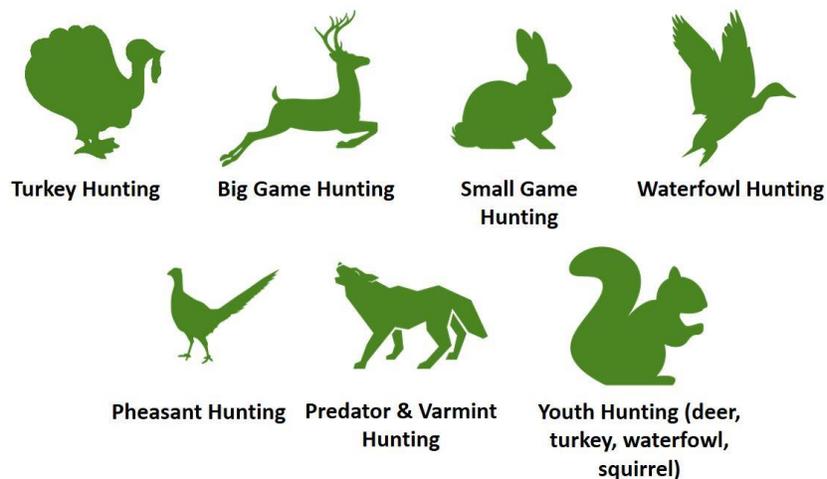
New small game leasing efforts were concentrated close to major metropolitan areas and interstate travel corridors where 80% of the state's population lives. VPA-HIP funds were used to contract three additional National Wild Turkey Federation leasing biologists in order to identify and develop relationships with new landowners through outreach and media events in the cities where they live. Outreach efforts included TPWD and NWTF websites, workshops, urban Life's Better Outside Expos, as well as booths at rodeos, hunting / fishing shows, partner events, and flyers in FSA County Newsletters.

TPWD provided two primary sources of information to make hunters aware of public access opportunities. The printed "Map Booklet for Public Hunting Lands" was provided to hunters that purchased an annual public hunting license or limited public use permits. Online interactive tools were also provided on TPWD website. TPWD also distributed printed brochures and posters that described the public hunting access opportunities at hunting license vendors. Their outreach efforts were expanded by working with FSA and NRCS to provide information for newsletters and posters and other printed materials to USDA Service Centers and at current TPWD booths that were set up at rodeos, county fairs and hunting shows. Materials were also printed in Spanish to better serve Hispanics.

Landowner Enrollment

A total of 33,795 acres (100 properties), supported through the VPA-HIP program, were open for public access during the 2016/2017 hunting seasons. Approximately 5,435 acres were newly enrolled to the program.

Figure TX 1. Recreational activities available for the 2016/2017 season on Texas' enrolled acres



Annual payments for hunting and wildlife viewing averaged \$7.70 per acre. Higher per acre lease payments were given to landowners who implemented habitat improvement practices, have a diversity of habitat types on their property, and keep their lands open longer to recreational activities. Lease payments were also based on the landowner's willingness to restore native habitat as needed, the location in relation to major urban areas, property size, and river access (if applicable). Contracts are signed in advanced, but lease and habitat improvement payments are withheld until the end of the annual use period or after required management practices are met. TWDP required hunter sign-in at all small game leases and worked with partners to determine the amount of public usage of river

access sites. Hunter on-site registrations (OSR) included comment sections that enabled the state to not only gauge a site’s use, but also evaluate the quality of the user’s recreational experience.

NWTF biologists worked closely with TPWD staff to ensure the creation and maintenance of high quality habitat on enrolled lands. Financial and technical assistance was provided to private landowners to encourage and support participation in conservation efforts to benefit wildlife habitat.

Usage and Satisfaction

According to their 2016 hunter and landowner satisfaction survey, respondents were generally very satisfied with the private lands leasing program and plan to participate in the future. 86% of VPA-funded landowners (N=21) were either “very satisfied” or “satisfied” with the Private Lands Leasing Program. Seventy-six percent of them plan to participate in the future.

An estimated 10,280 residents and non-residents accessed the VPA-HIP program lands during the Fall 2016 through Spring 2017 hunting seasons. Their estimate is based on survey and registration data. Roughly 1,600 are assumed to have visited newly enrolled acres. The estimated total annual days spent on VPA lands is four days. After applying the estimate of a 57% increase in recreational days, the additional days is two, based on the hunter survey from the 2011 VPA-HIP program evaluation.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP private lands.

Table TX 1. Estimated in-state economic contribution of Texas’ newly enrolled acres

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	5,435
Average contract term	107 hunting days
VPA-HIP investments in 2016**	\$55,244

*Total acres, new and renewed, supported through VPA-HIP is 33,795 acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$0.70 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated \$1.23 million in economic activity. Recreational activities generated \$0.43 million in income (salaries, wages, and business earnings). This income is associated with 13 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.40 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$0.70 million dollars in new economic activity, \$0.24 million of income, and supported 8 full and part-time employees and proprietors who worked in the Texas businesses whose products were purchased by recreational users of VPA supported lands.

Table TX 2. Economic activity attributable to VPA-HIP investments in new acres

	Total annual days on new acres	Additional days on new acres
Hunter spending		
Trip spending	\$237,679	\$134,526
Equipment spending	<u>\$462,771</u>	<u>\$261,929</u>
Total spending	\$700,450	\$396,455
Return on Investment (ROI)*		\$4.01
Total State-level Economic Contribution with multiplier effect		
Output	\$1,231,383	\$696,963
Income	\$433,218	\$245,201
Employment	13	8

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

A total of \$0.61 million in state and federal funds was spent to support the all enrolled acres over the course of 2016 and includes payments to landowners. A total of \$0.34 million in VPA-HIP funds were invested, 16% of that spending was distributed to newly enrolled parcels. When we compare spending on additional days by recreational users to investments on new acres, every dollar invested through VPA-HIP is matched by an estimated \$4.01 of economic activity based on additional recreation days on acres newly opened for public access.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled
180

New land acres enrolled
67,123

Estimated number of recreational users on new acres
1,342 people

Ratio of additional spending to VPA-HIP investment on new acres
\$2.90 : \$1.00
(see text for discussion)

Economic activity from additional spending
\$1.1 million

Jobs associated with additional spending
12 jobs



Background *(Based on VPA program grant proposal)*

With half of Washington's lands under private ownership, there is a substantial need for land for outdoor recreation. Unfortunately, public lands are not evenly distributed across the state. The largest concentrations of public lands are at the higher elevations while the lowlands and lands associated with waterways are mostly private. The Columbia Basin in eastern Washington and the Puget Trough region on the west side of the Cascades are mostly in private ownership.

The Washington Department of Fish and Wildlife (WDFW) has focused on obtaining access to lands for the enjoyment of hunting and improving habitat by working with private landowners through their Private Lands Program. Landowners agree to open their lands to public hunting access in exchange for technical assistance, materials, and implementation of habitat enhancement strategies. Over the past decade, WDFW has begun to offer cash incentives on either a per acre or per site basis, in limited high priority focus areas, where access is difficult to secure.

Prior to receiving two previous VPA-HIP program awards, landowner participation and acreage enrolled in their access program was declining. Landowners were creating their own fee-based access program or 'hunt club'.

The two VPA-HIP program awards allowed Washington to enroll 113 landowners and over 66,000 acres in their habitat and access program. A 2009 survey of Washington hunters regarding access indicated that roughly 47% spend about half or more of their time hunting on private lands and 58% felt that lack of access had affected their hunting activity over the previous five years. The need for access is important to hunters and the declining availability of private lands is cause for concern.

Program Objectives

The Washington Department of Fish and Wildlife received a three-year grant for \$1.6 million through the 2014 VPA-HIP. The state's overarching goal is to support four recreational access initiatives, focused in high priority areas where access has been very difficult to secure. More specifically, their goals are to:

- Provide landowner incentives in the SE Washington CRP enhancement and access focus area to encourage enhancement of permanent cover on 1,000 acres and upland bird hunting access on 60,000 acres in the pheasant focus area.
- Create deer and turkey hunting access on 10,000 acres in Northeast Washington and Klickitat County and deer hunting access on 10 sites near the Puget Sound urban center on small ownerships.
- Facilitate waterfowl hunting access on 75 sites near the Puget Sound urban center and encourage practices that provide important food resources to birds wintering in the region.

- Encourage landowners to provide wildlife viewing opportunities on a minimum of 15 sites, especially near the Puget Sound urban center and other large cities, and near travel corridors.

Methods and Outreach Efforts

WDFW staff used a variety of outreach methods to attract and enroll new landowners. Information about the program was featured in statewide organizations and agencies' newsletters and on their websites. Also, local conservation offices were contacted to interact with the landowners located in their region. Outreach materials and discussions with landowners included information on staff resources, technical services offered, information regarding Washington's recreational liability protection statutes, and the variety of access type choices available, as well as monetary incentives offered.

Once landowners were enrolled, staff worked one-on-one with them to improve habitat and facility public access on individual properties. NRCS conservation practice standards were followed for habitat enhancements.

The public was notified of public hunting opportunities through the website, local media outreach, printed materials, and social media. Major land enrollments were announced to local media and included in WDFW's monthly "Weekender" newsletter directing readers to website information. Their dedicated website for their private lands access program invites hunters to explore individual sites and reserve sites enrolled in their reservation program.

Watchable wildlife sites were featured on a new webpage along with opportunities on public lands. Details included were location, access directions and map, seasons available, and viewing opportunities provided. Recent wildlife observations were featured in the "Weekender" newsletter.

Landowner Enrollment

A total of 1.4 million acres (180 properties), supported through the VPA-HIP program, were open to the public for hunting during the 2016/2017 seasons. Sixty-seven thousand of those acres were newly enrolled in the program.

Figure WA 1. Recreational activities available for the 2016/2017 season on Washington's enrolled acres



WDFW ensures the presence of existing high quality of habitat on lands by making it a requirement for landowners who enroll. During the application process, field staff evaluated the site on number of animals present, site recreation potential, accessibility, and other factors. As part of the contract, landowners were committed to enhancing their habitat and maintaining high quality habitat on their lands. Landowners who enrolled in the program could choose from their Feel Free to Hunt, Register to Hunt, or Hunt by Reservation Program. The newest option, "Hunt by Reservation," has been well received by both landowners and hunters. This option requires that hunters make an advanced reservation through a self-service online system before arriving at the site to hunt.

Payments were based on a per acre basis and incentives were offered to those who conducted habitat enhancements. Landowners located in the Puget Sound area were also offered a bonus payment in exchange for opening their land to wildlife viewing in addition to hunting. This helped the state maximize the potential number of recreational users for their land and enable them to provide unique opportunities near large cities.

Fourteen Private Lands Biologists provided technical advice to the landowners as well as encourage them to maintain and enhance habitats to sustain healthy and productive wildlife populations.

In the southeastern part of the state, as part of their CRP enhancement initiative, biologists worked with landowners to promote diverse upland and riparian cover, which will benefit many species, especially upland game birds. Landowners were offered \$3 per acre per year, and were eligible for \$10 per acre per year if forb enhancements were made to existing grass stands. VPA funds were used to support 60 landowner agreements (60,000 accessible acres) and make habitat improvements to diversity CRP cover and to expand riparian enhancements on 1,000 acres.

WDFW also used VPA-HIP funds to secure public hunting access for deer and turkey hunting with small forest land owners. Landowners were paid \$3 per acre per year and were offered a one-time signing bonus of \$10 per acre for acreage enrolled in habitat improvements. This established program was expanded to new areas, Spokane and Klickitat Counties and the Puget Sound area. WDFW staff focused on improving habitat wildlife, especially turkey management, in these areas by using VPA-HIP funds to advise landowners and encourage their participation in land restoration and assist them with regional recovery efforts.

With VPA-HIP funds, WDFW expanded waterfowl hunting opportunities in the Puget Sound region where over half of the state's residents reside. Landowners were eligible for reimbursement of cover crop planting costs where appropriate. Approximately 75 sites opened their lands to waterfowl hunting and agreed to maintain a waterfowl population by having an attractive waterfowl food resource on their lands. Field staff also offered information and provided assistance in helping landowners implement management practices such as buffer strips that contribute to regional recovery efforts.

Usage and Satisfaction

WDFW conducted surveys and monitored implementation to measure the recreational, habitat and economic value of the activities funded.



The program is very popular with hunters with an estimated 187,000 user days per year. According to their 2014 hunter survey, 72% of deer hunters, 81% of elk hunters and 80% of small game hunters who used WDFW access program lands were satisfied with the program, with the largest proportion of each group indicating that they were “very satisfied.”

To estimate utilization, we rely on historical landowner enrollment counts and acres enrolled combined with a state-level study of the private lands access program. An estimated 1,342 residents and non-residents accessed the newly enrolled VPA-HIP lands during the Fall 2016 through Spring 2017 hunting seasons. The estimated total annual days per hunter spent on VPA lands is eight days and additional days is five days.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and

economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP private lands.

Table WA 1. Washington’s VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	67,123
Average contract term	5 years
VPA-HIP investments in 2016**	\$232,966

*Total acres, new and renewed, supported through VPA-HIP is 1.4 million.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$1.2 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated between \$2.0 million in economic activity. Recreational activities generated \$0.65 million in income (salaries, wages, and business earnings). This income is associated with 22 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.68 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$1.1 million dollars in new economic activity, \$0.37 million in income, and supported 12 full and part-time employees and proprietors who worked in the Washington businesses whose products were purchased by recreational users of VPA supported lands.

Table WA 2. Economic activity attributable to VPA-HIP investments in new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$404,640	\$229,124
Equipment spending	<u>\$787,853</u>	<u>\$446,114</u>
Total spending	\$1,192,493	\$675,238
Return on Investment (ROI)*		\$2.90
Total State-level Economic Contribution with multiplier effect		
Output	\$1,959,518	\$1,109,559
Income	\$656,120	\$371,522
Employment	22	12

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

A total of \$0.23 million in VPA-HIP funds were invested. When we compare spending on additional days by recreational users to investments, every dollar invested through VPA-HIP is matched by an estimated \$2.90 of economic activity based on additional recreation days on acres newly opened for public access.

2016 HIGHLIGHTS

(Estimated contributions of newly enrolled acres and expanded outdoor recreational activity resulting from the 2014 Farm Bill VPA-HIP investments.)

New landowners enrolled 8

New land acres enrolled 1,093

Estimated number of recreational users on new acres 55 people

Ratio of additional spending to VPA-HIP investment on new acres \$2.34 : \$1.00
(see text for discussion)

Economic activity from additional spending \$0.04 million

Jobs associated with additional spending 1 jobs



Background *(Based on VPA program grant proposal)*

Over 83% of Wisconsin’s land base is privately owned, with publicly accessible federal, state and county land concentrated in the northern part of the state and the human population concentrated in the southern counties. One of the Wisconsin Department of Natural Resources (WDNR) key objectives is to provide opportunities for outdoor recreation through its VPA-HIP. With the VPA-HIP program grant in 2011, Wisconsin tripled its acres of private land available to public outdoor recreation (from 14,232 to 42,985) and increased the number of recreational users from an estimated 16,000 to over 95,000.

It is critical to maintain and expand this program in order to meet the outdoor recreation needs of Wisconsin residents. State surveys show that lack of access to public lands close-to-home is a barrier to hunting and fishing recruitment and retention, and access to the natural world is a key element in fostering a conservation ethic among citizens. Wisconsin sportsmen and conservation partner groups have consistently encouraged the WDNR to provide additional hunting and fishing access opportunities throughout the state.

Program Objectives

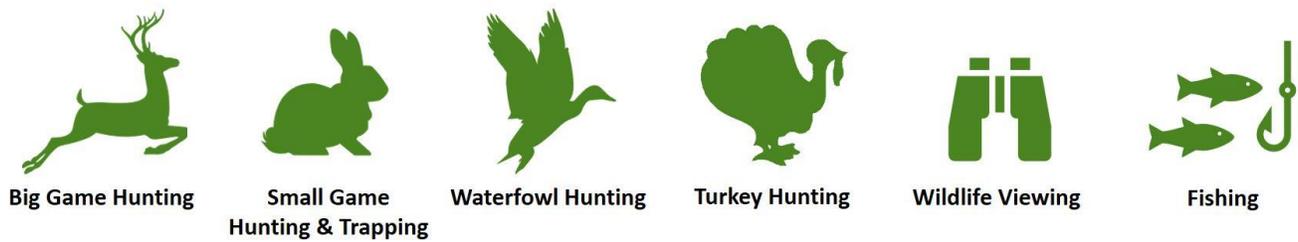
The WDNR received a three-year grant for \$1.3 million through the 2014 VPA-HIP. Funds were allocated in April 2016. The state’s overarching goal is to provide wildlife-dependent recreation in 52 counties where user demand is high, yet access to public land is relative low. More specifically, their goals are to:

- Extend current VPA-HIP landowner agreements (167 leases, 201 properties, and 28,926 acres) through August 31, 2020.
- Expand public access opportunities for hunting, fishing, trapping, bird-watching, and other wildlife-dependent recreation by enrolling up to 50 new properties, encompassing up to 5,000 additional acres.
- Increase wildlife habitat on at least 100 enrolled acres by offering landowners incentives to adopt specific wildlife habitat practices.
- Increase habitat quality on VPA-HIP acres by increasing landowner understanding of and engagement in other USDA and state conservation programs.
- Provide additive value to acres currently enrolled in USDA conservation programs by including public access through VPA-HIP.
- Focus on habitat restoration and enhancement in priority grassland and wetland landscapes to provide critical habitat for game and non-game species.
- Expand outreach efforts to increase program visibility and user participation.

Methods and Outreach Efforts

Landowners with acres enrolled in CREP, CRP, and Wisconsin’s Managed Forest Law Program along with those living within state-defined Habitat

Figure WI 2. Recreational activities available for the 2016/2017 season on Wisconsin’s enrolled acres



All landowners enrolled in VPA-HIP received technical assistance and support for habitat enhancement practices. Landowners received financial incentives for adopting specific habitat enhancement practices on enrolled lands. All habitat practices were in accordance with the appropriate USDA practice standard. This approach increased the value of those lands for wildlife and recreational users, and served as an outreach tool to better serve private landowners.

Usage and Satisfaction

Project performance, including landowner and user satisfaction, is evaluated through data collected via surveys. WDNR uses a combination of mail and web-based surveys.

According to the landowner survey (N=151) conducted in January 2017, 84% of VPA-HIP landowners were either “very satisfied” or “satisfied” with the overall experience. Financial payments and providing hunting opportunities to those that do not own hunting land are the top two reasons for program participation.



Based on user surveys conducted from April 2016 – November 2017 (n=269), 68% of users visit VPA-HIP lands to hunt, 36% for wildlife observation, 4% for fishing, 1% for trapping and 8% for other activities (respondents were able to select multiple activities). Users cite close proximity of VPA-HIP properties and lack of access to other private lands as primary reasons for selecting VPA program lands for their recreational pursuits. They also expressed great satisfaction with their experience, with 91% indicating they would return to the same property, and 79% stating they would explore other VPA program lands.

An estimated 55 hunters accessed the newly enrolled VPA-HIP lands during the Fall 2016 through Spring 2017 hunting seasons. The estimated total annual days spent on VPA-HIP lands per hunter is seven days and additional days is five days. The economic contributions in the next section are conservative as we are not able to estimate utilization by anglers on the 104 stream miles enrolled through the VPA-HIP that provide public access. Approximately 4% of recreational users visit to go fishing and fewer than three stream miles were newly enrolled. As a result, the additional economic contributions by anglers on these new miles would be minimal.

Economic Contributions

The goal of this research is to determine the estimated net increase in economic benefits associated with VPA-HIP investments. This is based on increases in sporting and recreational activities that would not otherwise exist. In other words, this net increase is defined as the recreational and economic activity over and above current levels (prior to new VPA-HIP investments). The net increase is calculated using the recreational spending that can be associated with the additional days spent on the newly enrolled VPA-HIP private lands.

Table WI 1. Wisconsin's VPA-HIP statistics for 2016

Enrollment	New acres enrolled using 2014 Farm Bill VPA-HIP funds
Acres*	1,093
Average contract term	3 years
VPA-HIP investments in 2016**	\$11,729

*Total acres, new and renewed, supported through VPA-HIP is 34,183 acres.

**Only VPA-HIP grant funds are reported. State and private matching funds are not included.

Based on the above goals and assumptions, a total of \$0.04 million of in-state trip and equipment related spending can be associated with total annual days on newly enrolled acres this year. Including both direct effects and the multiplier effects (indirect and induced), the total economic activity, also known as output, associated with all recreation on VPA-HIP lands in 2016 is estimated to have generated between \$0.06 million in economic activity. Recreational activities generated \$0.02 million in income (salaries, wages, and business earnings). This income is associated with 1 full and part-time jobs in businesses across the state whose products and services were purchased by hunters.

A total of \$0.03 million dollars of in-state trip and equipment related spending can be associated with the additional days spent on the newly enrolled lands. This spending generated \$0.04 million dollars in new economic activity, \$0.01 million of income, and supported 1 full and part-time employees and proprietors who worked in the Wisconsin businesses whose products were purchased by recreational users of VPA-HIP supported lands.

Table WI 2. Economic activity attributable to VPA-HIP investments on new acres

Hunter spending	Total annual days on new acres	Additional days on new acres
Trip spending	\$14,138	\$9,327
Equipment spending	\$27,528	\$18,161
Total spending	\$41,667	\$27,488
Return on Investment (ROI)*		\$2.34
Total State-level Economic Contribution with multiplier effect		
Output	\$65,358	\$43,118
Income	\$21,274	\$14,035
Employment	1	1

*ROI is calculated as total spending associated with additional days on new acres divided by VPA-HIP investments in new acres.

A total of \$0.55 million in both state and federal funds was spent to support all enrolled acres over the course of 2016 and includes payments to landowners. A total of \$0.04 million in VPA funds were invested to support access on new acres. Amortizing the VPA-HIP investment on new acres over the contract term yields an estimated \$12,000 allocated to access lease payments for one year. When we compare spending on additional days by recreational users to investments, every dollar invested through VPA-HIP is matched by an estimated \$2.34 of economic activity based on additional recreation days on these acres opened for public access.

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