



College of Business
Center for Business
and Economic Analysis



Examining the Regional Economic Impact of the Pilot Hill Recreation & Wildlife Habitat Management Area and a Valuation of its Latent Attributes

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Center for Business and Economic Analysis

The Center for Business and Economic Analysis at the University of Wyoming (UWyo) supports the economic growth and diversification of Wyoming's economy through applied economic and business analytics for communities, industries, and entrepreneurs who desire a prosperous Wyoming. The center was established in 2019 as a unit within the College of Business. CBEA is a member of the Association for University Business and Economic Research.

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Executive Summary

The purpose of this report is to examine the regional economic impact of the Pilot Hill Recreation & Wildlife Habitat Management Area. Pilot Hill is a newly conserved landscape of more than 7,000 acres connecting Laramie neighborhoods to over 65,000 acres of State and National Forest Lands in the Laramie Range. Pilot Hill provided data on its anticipated construction and operations spending, which was used to model the total economic impact of the project to its surrounding region. The analysis found that Pilot Hill would contribute \$1.2 million per year in added value to the region's economy over the five-year construction period, as well as about \$132,000 yearly through their ongoing operations. To put the \$1.2 million in perspective, the annual direct impact of Pilot Hill's construction is estimated at 11% of the nonresidential construction sector in Albany County.

In addition, visitors benefit the regional economy, especially via purchases made for meals and lodging accommodations. Through a synthesis of the literature, we estimate that Pilot Hill can potentially attract 45,000 non-local visits per year. Each year, these visitors will generate \$5.8 million in added value to the regional economy and support 150 jobs. These visitors are also expected to generate about \$1 million annually in sales, lodging, and property taxes from their spending. The additional local tax revenue is estimated at 3% of Albany County's total revenue.

Further, through a household survey that sampled over 1,000 households from Albany County, WY and the surrounding region, we estimate that the average valuation for Pilot Hill was \$9.43 per household per visit, which aggregates to an overall regional economic benefit of \$4.27 million. To put this value in perspective, the current daily use fee at Wyoming state parks, archeological sites, and recreational values is \$7 per vehicle, while the non-resident fee is \$12 per vehicle. Households also reported preferring the current Pilot Hill recreation plan with trails more than 2:1 over leaving Pilot Hill as open space or using the area for other more intrusive economic development projects. The two most important attributes of Pilot Hill, as chosen by survey takers, are protecting the area from residential development and connecting Laramie, WY to National Forest and state recreation lands.

Summary of Economic Benefits from Pilot Hill

Type of Impact	Category	Estimate
Traditional Economic Impact Analysis	Annual Value Added from 5-Year Construction Plan	\$1,200,000
	Annual Value Added from Operations	\$132,000
	Annual Value Added from Visitors to Pilot Hill	\$5,800,000
	Annual Local Tax Revenue Generated	\$1,300,000
Household Valuation	Total Regional Value from Household Use & Non-Use Survey	\$4,270,000

1. Introduction

This analysis starts by assessing the economic impact of Pilot Hill's construction, operations, and visitor spending. The CBEA developed hypothetical visitor scenarios based on a synthesis of the literature and user counts from similar recreational areas. Moreover, Visitor spending reflects the actual spending pattern of vacationing households nationally, as measured by the annual Consumer Expenditure Survey. The analysis uses IMPLAN: Economic Impact Analysis for Planning, which provides an estimate of the overall economic impacts due to Pilot Hill's activities. IMPLAN uses input-output methodology to track the ripple effects created in the regional economy due to every initial dollar spent. For example, when a Pilot Hill contractor purchases supplies from a local vendor, that local vendor provides wages to its employees and makes purchases from other vendors. These other vendors in turn provide wages to their employees and make purchases from other vendors and the cycle continues. Additionally, when employees of Pilot Hill spend their paychecks at local businesses, these local businesses provide wages to their employees, make purchases from other vendors, and so forth. As a result, the initial dollars spent will be circulated throughout the local economy several times. The impact of this initial spending on the regional economy can be estimated using economic multipliers. In addition to the economic impact measured with jobs or value added, spending associated with Pilot Hill activities will generate state and local government tax revenue.

To complement the economic impact analysis, the CBEA designed a household survey to estimate the benefit (in dollars) of Pilot Hill to households in the region. The survey was designed to elicit the typical household's maximum willingness to pay for the Pilot Hill recreation area. This was accomplished using two different stated preference methodologies: contingent valuation and choice experiments. The contingent valuation is used to provide an estimated benefit for Pilot Hill as it is currently planned. The choice experiment is designed to provide estimated benefits for various attributes associated with Pilot Hill. Finally, the CBEA provides a benefit transfer analysis that estimates economic values for the recreation area's characteristics.

2. What is Pilot Hill?

This section summarizes highlights from Pilot Hill's land use plan (SE Group, 2020). Pilot Hill consists of more than 7,000 acres connecting Laramie neighborhoods to over 65,000 acres of National Forest Lands in the Laramie Range. Notably, the Pilot Hill area overlies the Casper Aquifer, a unique geologic feature that naturally filters rain and snow to provide a primary drinking water source for residents and visitors to Albany County, Wyoming. Restricting development in the aquifer recharge zone is key to protecting Laramie's water source since if the aquifer recharge zone becomes contaminated, the city would need to construct a multimillion-dollar water treatment facility. Thus, these acres, immediately adjacent to Laramie, create a unique community resource that prevents future development in this area, protects the Casper Aquifer, and conserves wildlife habitat.

The Pilot Hill area is divided into two sections: a Wildlife Habitat Management Area (WHMA) (3,076 acres) on the southern section with limited trail development and a Recreation Corridor (4,010 acres) with many miles of recreational trails. The project's ecosystem varies from low to high elevation areas and includes many species such as elk, moose, mule deer, and pronghorn

antelope. Further, the Office of the Wyoming State Archaeologist found 158 prehistoric and historic archaeological sites within the project area.

The project's Recreation Corridor was mapped while carefully accounting for the need to protect aquifer, wildlife, and archeological sites. The Corridor also avoids Radio towers for Wyoming Public Media/University of Wyoming, Townsquare Media, and Laramie Mountain Broadcasting as well as powerlines owned by Rocky Mountain Power. Instead, it will use several existing roads previously used for agricultural purposes. In total, 43.9 miles of trails are planned across the project area, a mix of multi-use, hiking only, and biking only trails. Two ADA accessible trails are planned to allow those with disabilities to also enjoy the project area and its recreational opportunities. In addition, a horse access corridor is planned to support horseback riding in the project area. In sum, the majority of trails are multi-use trails (27.1 miles), most of which would be open to all user types (mountain bikers, hikers, and horseback riders). The network also includes 5.9 miles of hiking only trails and 10.9 miles of biking only trails. The trails in this plan provide desired connectivity to Pilot Peak and the Pole Mountain Unit of the Medicine Bow National Forest.

In addition, Pilot Hill supports public access to open spaces for educational opportunities. The project area offers educational opportunities for students ranging from elementary school classes learning about aquifers to University of Wyoming students conducting scientific research on migration patterns of wildlife. Albany County educators can develop curricula to utilize the Pilot Hill project area for research and site-based learning activities.

Pilot Hill is a result of a collaborative effort by Albany County citizens, the University of Wyoming, and the Wyoming Office of State Lands and Investments in July 2020, where thousands of acres of private land on Pilot Hill were preserved through an exchange with Warren Land and Livestock Company (WLLC). Currently, the project area includes lands owned by several different landowners. The University of Wyoming owns 1,233 acres close to and within the City of Laramie. The Bureau of Land Management (BLM) owns 480 acres that are under consideration for lease, and the remaining land is Wyoming State Trust Lands and under a lease to Albany County.

3. Regional Economic Impact

Economic impact analyses are a widely accepted approach used to better comprehend the effect of an event or industry, such as the exogenous shock from the new construction of trails to local and state economies. These analyses typically use input-output (IO) methodologies to re-create inter-industry linkages and calculate the impact on a regional economy. Economic impact analyses have been commonly used in prior literature and reports in various disciplines and for different industries alike, from agriculture to forestry, and many others. In this report, we calculated the economic impacts from the construction and operation of Pilot Hill trails as well as the impacts from visitor spending. These impacts were calculated at the state level although the bulk of the impact will be felt at the county level.

Modeling the economic impact of this project requires the examination of three distinct types of effects. An exogenous increase in economic activity in a given geographic area creates a ripple

effect in the economy of that area. In this case, the project will require several construction jobs. These jobs, and their associated compensation and output, are what we refer to as the direct effect. Beyond this initial effect, there will also be an increase in the demand for intermediate goods needed in construction, which is what we call the indirect effects. Further, the additional income of workers within the construction industry is going to lead to added economic activity in terms of buying goods and services, which, in turn, creates new economic activity in a region. Individuals' spending will induce more spending. We call this last wave of impacts the induced effects. The total impact of the project is the sum of direct, indirect, and induced effects, as illustrated in Figure 3.1. Beyond the direct, indirect, and induced effects, Table 3.1 displays a list of additional economic impact analysis terminology that is used in this report.

Figure 3.1. Types of Economic Impacts

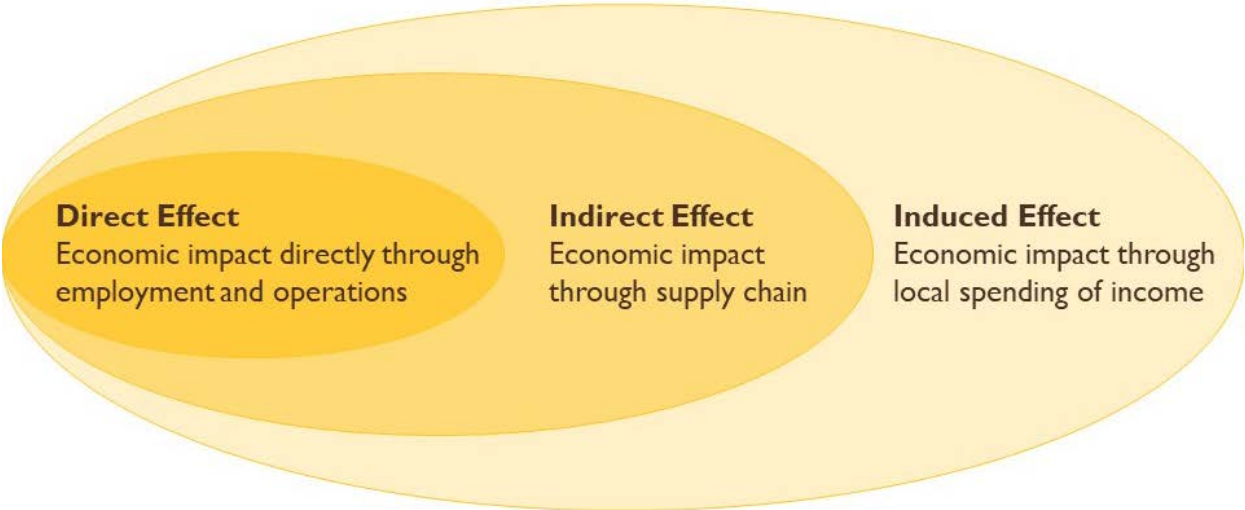


Table 3.1. Economic Impact Analysis Terminology

Variable	Definition
Employment	Employment refers to an industry-specific mix of full-time, part-time, and seasonal jobs. Expressed as full-time equivalents (FTE).
Labor Income	Labor income refers to all forms of employment income, including employee compensation (i.e., wages, salaries, and benefits) and proprietor income.
Value Added	Value added is the difference between an industry's total output and the cost of its intermediate inputs; it is a measure of the contribution to GDP.
Output	Output is the value of production by industry in a calendar year. It can also be described as annual revenues plus net inventory change. It is often referred to as total economic impact
Multipliers	Multipliers describe how, for a given change in a particular industry, a resulting change will occur in the overall economy. For instance, employment multipliers describe the total jobs generated as a result of 1 job in the target industry.

Construction Phase

The project rollout is planned in multiple phases. Phase I covers 18 miles of trails and a primary access site that would include parking for 50+ vehicles, restrooms, shelter, and other amenities. Phase II covers 12 miles of trails and a secondary access site that would include parking for an additional 30-50 cars and trucks/trailers. Phase III covers 11 miles of trails and remote access sites. Two different spending scenarios are modeled for each phase. Table 3.2 lists phase cost by scenario.

Table 3.2. Pilot Hill Project Cost by Scenario

Buildout Expenses	Low	High
Phase I	\$1,982,000	\$3,782,700
Phase II	\$1,848,500	\$2,875,500
Phase III	\$684,700	\$1,719,100
Total	\$4,515,200	\$8,377,300

Data on construction were provided by Pilot Hill and used as inputs in IMPLAN to produce an estimate of the impact Pilot Hill will have on the region. This section estimates the direct, indirect, and induced employment, as well as labor income impact, value added and output of Pilot Hill construction on the regional economy. As shown in Table 3.3.A and 3.3.B, every two Pilot Hill construction jobs support an additional job in the regional economy.

Table 3.3.A. Economic Impact from Construction (Low Cost Scenario)

	Jobs	Labor Income	Value Added	Output
Direct	31	\$1,597,556	\$1,880,831	\$4,515,200
Indirect	8	\$344,741	\$588,306	\$1,352,015
Induced	9	\$316,008	\$656,916	\$1,231,999
Total	47	\$2,258,305	\$3,126,053	\$7,099,215
Multiplier	1.53	1.41	1.66	1.57

Table 3.3.B. Economic Impact from Construction (High Cost Scenario)

	Jobs	Labor Income	Value Added	Output
Direct	57	\$2,964,034	\$3,489,609	\$8,377,300
Indirect	14	\$640,059	\$1,092,229	\$2,510,272
Induced	16	\$586,612	\$1,219,330	\$2,286,916
Total	88	\$4,190,704	\$5,801,168	\$13,174,488
Multiplier	1.53	1.41	1.66	1.57

Table 3.4 reports estimates of tax collected by type. Within the state and local region, Pilot Hill construction would support, depending on the scenario, the collection of \$143,589 to \$266,481 in revenue from various sources: sales tax, property tax, etc.

Table 3.4. Fiscal Impact from Construction

	Low cost	High cost
Sales tax	\$69,887	\$129,695
Property tax	\$51,243	\$95,108
Other taxes	\$22,459	\$41,678
Total	\$143,589	\$266,481

Operation Phase

Next, we examine the yearly impact of Pilot Hill operations on the regional economy. Table 3.5 lists the expected yearly expenses while Table 3.6 lists the economic impact from operations. Table 3.6 illustrates that every two Pilot Hill O&M jobs are expected to support an additional job in the regional economy. Table 3.7 reports estimates of tax collected by type. Within the state and local region, Pilot Hill operations would support the yearly collection of \$7,483 in revenue from various sources.

Table 3.5. Annual Operating & Management Expenses

Annual Lease Fees & Insurance	\$75,000
Staff/Contractual	\$86,000
Administration, Marketing, Fundraising	\$24,000
Property Maintenance	\$15,000
O&M Total	\$200,000

Table 3.6. Economic Impact from Operations

	Jobs	Labor Income	Value Added	Output
Direct	1	\$48,554	\$77,958	\$200,000
Total	2	\$75,898	\$131,657	\$310,574
Multiplier	1.69	1.56	1.69	1.55

Table 3.7. Fiscal Impact from Operations

	Yearly revenue
Sales tax	\$3,777
Property tax	\$2,732
Other taxes	\$975
Total	\$7,483

Visitor Spending

When modeling the impact of spending by visitors, studies often use trail counter data collected by education and outreach staff or other entities. While Pilot Hill is working on establishing such procedures for when it is fully operational, in this section we rely on hypothetical visitor scenarios to model the impact of visitor spending. These scenarios are based on preliminary numbers from Pilot Hill trail counters as well as observed numbers across regional trail systems. Table 3.8 includes the hypothetical numbers used in modeling the economic impact of visitor spending and a breakdown of local visits, non-local visits, and non-local overnight visits. These numbers are based on a synthesis of the literature, data from the department of state parks &

cultural resources, and researcher knowledge of the area. Table 3.9 includes the trail visitation studies that the CBEA evaluated as well as characteristics of these assessed trails.

Table 3.8. Annual visitors by type

	Local	Non-local day	Non-local overnight	Non-local total	Total
Low use	15,000	12,750	2,250	15,000	30,000
Medium use	30,000	24,000	6,000	30,000	60,000
High use	45,000	36,000	9,000	45,000	90,000

The low use scenario assumes a visitation level similar to what is currently observed in the preliminary Pilot Hill trail counters data and to what is observed at the Oregon Trail Ruts State Historic site (37,152 visits per year over the 2017-2019 period). The medium use scenario assumes a visitation level similar to what is observed at the Wyoming Territorial Prison (45,968 visits per year). Finally, the high use scenario assumes a visitation level similar to what is observed at the Steamboat Springs Trails in Colorado. Following best practices, visitor spending should include all spending by visitors that can be exclusively attributed to the presence of Pilot Hill. As such, economic impact analyses focus on non-local visitor spending.

Table 3.9. Number and share of visitors from similar trails

	State	Number of visitors	Nonlocal visits	Overnight visits	Connectivity	Economic impact from operations
Grand County Trails	Colorado	2,000,000 non-local visits	44%	49%	Rocky Mountain National Park	5,694 jobs
Pikes Peak Region	Colorado	1,653,094	58%	78%	Pike National Forest	373 jobs
Steamboat Springs Trails	Colorado	31,300 - 43,500 non-local visits	44%	97%	Routt National Forest	300-400 jobs
Centennial Trail	Idaho	417,118	10%	-	-	54 jobs
Olympian Trail	Idaho	10,000 - 20,000	-	-	-	-
Route of the Hiawatha	Idaho	32,000	-	-	-	-
Missoula County	Montana	128,023 non-local visits	-	34%	-	-
Organized bicycle tourism events	Nebraska	20,000	-	90%	-	1,235 - 4,526 jobs
PIKE2BIKE	Pennsylvania	25,000 - 225,000 non-local visits	-	5%-5.7%	Buchanan State Forest	50 jobs (upper bound)
Snowmobile Trail System	South Dakota	-	-	-	-	1,449 jobs
Creeper Trail	Virginia	130,172	45%	27%	Cherokee National Forest	27 jobs
Teton County Trail System	Wyoming	222,533	44%	32%	Bridger-Teton National Forest	194 jobs

Visitor spending comprises expenditures on lodging, restaurants, groceries at local stores, and recreation expenses. Table 3.10 includes spending for the main categories. Visitor spending patterns for these expenses are estimated using Bureau of Labor Statistics Consumer Expenditure Survey (CES) data for 2020. This survey provides data on the buying habits of American consumers. The data was restricted to survey takers who went on trips and vacations. CES has been used in previous university and college economic impact reports to estimate spending patterns (Swenson, 2015). We do not model an exhaustive list of expenses, rather our aim is to provide a conservative estimate of yearly visitor spending.

Table 3.10. Visitor spending pattern

	Per day visit	Per overnight visit
Recreation expenses	\$46	\$92
Restaurants	\$65	\$130
Groceries		\$30
Lodging		\$156

This section estimates the direct, indirect, and induced employment, as well as labor income, value added, and output impact of Pilot Hill visitor spending on the regional economy. Table 3.11.A-3.11.C illustrate that every four jobs facilitating visitor spending, support an additional job in the regional economy. Table 3.12 reports estimates of tax paid. Within the state and local region, Pilot Hill induced visitor spending would support, depending on the scenario, the collection of \$299,374 to about \$1 million in revenue from various sources: sales tax, lodging tax, etc.

Table 3.11.A. Economic Impact from visitor spending (Low Cost Scenario)

	Jobs	Labor Income	Value Added	Output
Direct	37	\$682,659	\$1,213,681	\$2,290,726
Indirect	5	\$156,931	\$276,049	\$711,380
Induced	4	\$135,096	\$281,349	\$527,364
Total	46	\$974,686	\$1,771,079	\$3,529,470
Multiplier	1.24	1.43	1.46	1.54

Table 3.11.B. Economic Impact from visitor spending (Median Cost Scenario)

	Jobs	Labor Income	Value Added	Output
Direct	81	\$1,495,429	\$2,643,053	\$4,997,693
Indirect	11	\$347,146	\$607,992	\$1,560,804
Induced	8	\$297,292	\$618,765	\$1,160,150
Total	100	\$2,139,868	\$3,869,810	\$7,718,647
Multiplier	1.24	1.43	1.46	1.54

Table 3.11.C. Economic Impact from visitor spending (High Cost Scenario)

	Jobs	Labor Income	Value Added	Output
Direct	121	\$2,243,144	\$3,964,580	\$7,496,541
Indirect	17	\$521,668	\$913,507	\$2,344,612
Induced	12	\$446,315	\$928,845	\$1,741,617
Total	150	\$3,211,127	\$5,806,932	\$11,582,771
Multiplier	1.24	1.43	1.46	1.55

Table 3.12. Fiscal Impact from visitor spending

	Low use	Medium use	High use
Sales tax	\$160,989	\$343,820	\$515,816
Property tax	\$109,114	\$233,164	\$349,849
Other taxes	\$29,271	\$62,786	\$94,199
Total	\$299,374	\$639,770	\$959,865

4. Households Survey and a Hypothetical Choice Experiment

The purpose of the household survey is to estimate the economic value of the entire Pilot Hill recreational area and its specific attributes. The challenge in estimating the value of Pilot Hill is that, unlike many goods and services traded in the economy, Pilot Hill recreation is a non-market good. This means there is not a market price to use to estimate economic value. To estimate the value of non-market goods and services, economists have used methods such as travel costs (i.e., estimating value based on the willingness of households to pay the cost of travel to use the good or service) and hypothetical valuation estimates through surveys (Champ et al. 2003; Haab and McConnell 2002).

Since Pilot Hill is not fully developed and open to the public, we choose the latter method. More specifically, we choose two non-market valuation techniques: a contingent valuation survey and a choice experiment. Contingent valuation is a survey methodology for estimating maximum willingness to pay (WTP) for a non-market good or service. Choice experiments estimate the value of specific attributes of an environmental or public good or service. The methodology has also been applied in disciplines outside of economics. For example, choice experiments have been used in marketing to value specific attributes of a new good before it enters the marketplace.

The economic values estimated here should be considered complements to the economic values earlier in this report. Whereas the values here represent the estimated maximum willingness to pay (WTP) for Pilot Hill recreation area by individual households, the economic impact values (see section 3) represent the direct, indirect and induced benefits to the local community. The benefit transfer estimates (see section 5) represent the economic values extracted from the economic literature and applied to the Pilot Hill recreation area.

Survey Development

The CBEA subcontracted with the Wyoming Survey and Analysis Center (WYSAC) to administer the survey and collect the responses. The goal was to achieve a minimum of 500 completed online surveys. The CBEA and Pilot Hill committee worked together to develop a survey instrument that allowed us to estimate the household economic value of Pilot Hill recreational area. Based on our discussions with the Pilot Hill committee, the sampling region included Albany County, WY and a well-defined region surrounding Albany County.

We ran two separate focus groups to help with survey design. The first was a group of recruited experts in various fields that helped us better understand aspects of the Pilot Hill development such as aquifer protection, wildlife habitat, hiking/biking trails, and educational opportunities, to name a few. The experts' focus group was completed on June 21, 2021 with the full transcript available in the appendix of this report. We also administered a community focus group to help understand community members' thoughts about the Pilot Hill development. The community focus group was completed on June 28, 2021. The full transcript of the community focus group is available in the appendix of this report.

We next turn to the sampling design. Based on recommendations from the Pilot Hill committee, we sampled households from likely users of the Pilot Hill that reside in southeastern Wyoming, western Nebraska, and northern Colorado. We targeted 500 completed online surveys. Based on the recommendation from Brian Harnisch, WYSAC research scientist, we mailed 10,000 letters to households in the sampling region. The expected response rate was approximately 5% based on similar studies administered by WYSAC. To increase response rates, we purchased 10,000 postal stamps and sent the introductory letter with actual mailing stamps rather than standard permit imprints. WYSAC also entered all respondents that completed the survey into a raffle to win an iPad. A copy of the introductory letter and survey is included in the appendix of this report.

The sampling design had 50% of the letters sent to randomly selected households in Albany County, WY. The other 50% were sent equally to the other five sampling regions: (1) the Cheyenne, WY area including Laramie, Platt and Goshen Counties; (2) the Rawlins, WY area including Carbon County; (3) the Casper, WY area including Natrona County; (4) western Nebraska including Scottsbluff, Banner and Kimball Counties; and (5) northern Colorado including Larimer and Weld Counties.

After the focus groups and sampling design, we tested the online survey on WYSAC's WyoSpeaks panel. The mission of WyoSpeaks is to give voice to Wyoming citizens on important issues facing our state and make public policy more responsive to the opinions of our citizens. The WyoSpeaks survey panel uses probability-based sampling methods to monitor the perspectives of Wyoming citizens through online surveys. Over the course of a year, the WYSAC conducts a number of state-wide telephone surveys where all Wyoming residents have an equal probability of selection. During these surveys, respondents are given the opportunity to join the WyoSpeaks panel of Wyoming citizens. The only way to be added to the WyoSpeaks panel is through this random selection process. WyoSpeaks offers researchers, agencies, and organizations a cost-effective alternative to focus groups and robust telephone and mail surveys with a quick turnaround of statistically valid and reliable results. 224 respondents completed the

test version of the survey. We then examined the comments of the respondents and determined that no further changes to the survey were necessary.

The survey includes four sections: (1) background information about Pilot Hill, (2) opening questions about outdoor recreation, expected future use of Pilot Hill, (3) household economic valuation questions, and (4) sociodemographic questions. The total number of completed surveys (including the WyoSpeaks panel) is 1,017 with descriptive statistics shown below in Table 4.1.

Table 4.1. Descriptive Statistics for Survey Questions (N = 1,017)

Variable Name	Definition	Mean	Min	Max
Final Survey	Final Survey	78%	0	1
Some Outdoors	Outdoor activities a few times per month or year	63%	0	1
Frequent Outdoors	Outdoor activities a few times per week or daily	27%	0	1
Aware	Aware of PH before the survey	56%	0	1
Some PH Usage	Expect to use PH between 1 and 10 times per year	55%	0	1
Frequent PH Usage	Expect to use PH between 11 and 50+ times per year.	22%	0	1
Environment	Favor environment over economic development	77%	0	1
Young	Between 18 and 34 years old	35%	0	1
Middle Age	Between 35 and 64 years old	44%	0	1
Old	Between 65 and 75+ years old	21%	0	1
Parent	Parents of a child aged 17 years old or younger	24%	0	1
HH Size	Number in household including the respondent	2.42	1	15
Female	Identify as female	57%	0	1
High School	High School is highest level of education	6%	0	1
College	College is highest level of education	61%	0	1
Professional	Professional or Doctoral degrees	32%	0	1
Hispanic	Identify as Hispanic, Latino/a or Spanish origin	8%	0	1
White	Identify themselves as white	97%	0	1
Black	Identify themselves as black	1%	0	1
Native American	Identify as Native American	3%	0	1
Asian	Identify as Asian	3%	0	1
Income	Annual household income from all sources	\$78,313	\$5k	\$200k
Albany, WY	Reside in Albany County, WY	65%	0	1
Cheyenne, WY	Reside in Laramie, Platte or Goshen County, WY	21%	0	1
Casper, WY	Reside in Natrona County, WY	3%	0	1
Rawlins, WY	Reside in Carbon County, WY	5%	0	1
Colorado	Reside in Larimer or Weld County, CO	3%	0	1
Nebraska	Reside in Scottsbluff, Banner, or Kimball County, NE	3%	0	1

We highlight three features of Table 4.1. First, the respondents answering the survey are disproportionately highly educated with 32% of the respondents having a professional or graduate degree. In the U.S. population, only 13.1% of people 25 and older have a professional or graduate degree. Second, the majority of respondents prefer protection of the environment over economic development (77% vs. 23%). Third, despite targeting 50% of respondents from

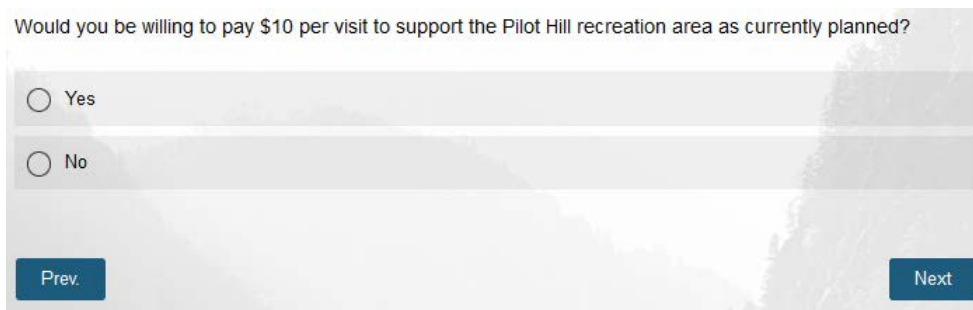
Albany County, WY, the final sample composition had nearly 2/3rds of the respondents being from Albany County. Next we turn to the economic non-market valuation estimates.

Household Level Non-market Valuation Results

Contingent Valuation

We started with the double-bounded dichotomous choice (DBDC) survey results. The recommended method for eliciting maximum willingness to pay (WTP) for a non-market good or service is to present the respondent with a take-it-or-leave-it bid. Below, we show a screen shot of the contingent valuation question from the online survey:

Figure 4.1. Screenshot of Contingent Valuation Survey Question



Previous research has found the “take-it-or-leave-it” cognitive task of the respondent is simpler than an open-ended WTP question. However, since the “take-it-or-leave-it” response only narrows down WTP to a fairly large region, we ask a follow-up question that reduces the bid by 50% if the respondent says “No” to the initial question, and increases the bid by 100% if the respondent says “Yes” to the initial question. This allows us to bracket the respondent’s maximum WTP in a smaller region without placing a large burden on the respondent. The breakdown of the responses are shown in Table 4.2 below.

Table 4.2. Breakdown of Contingent Valuation Responses for the Current Pilot Hill Plan

Responses to the Double-Bounded Discrete-Choice Questions	Percentage of Responses
“yes - yes”	10%
“yes - no”	26%
“no - yes”	22%
“no - no”	42%

Next, we briefly discuss the model for maximum WTP. Maximum WTP for Pilot Hill is represented by the following equation:

$$WTP_i^* = X_i\beta + \varepsilon_i \quad (1)$$

where WTP_i^* is the latent maximum willingness to pay for Pilot Hill for respondent i , X_i is a vector of explanatory variables, β is a vector of coefficient estimates, and ε_i is an error term. The model is estimated using maximum likelihood methods and the results are reported in Table 4.3. Note that the coefficients obtained directly from maximum likelihood estimation are not the β values in equation (1). A simple transformation is necessary to put the coefficient in dollar units.

Table 4.3. Double-Bounded Discrete-Choice Contingent Valuation Estimates (N = 883)

Variable Name	Transformed Coefficients (β 's)	Standard Errors ^a
Intercept	1.0180	1.0155
Final Survey	0.5835	0.2040
Aware	-1.8527*	0.1624
Some PH Usage	4.6029***	0.1802
Frequent PH Usage	1.0522	0.2318
Environment	5.1889***	0.1652
Young	3.9508**	0.2060
Middle Age	2.4285*	0.1894
Parent	0.9603	0.1923
HH Size	-0.3671	0.0631
Female	1.5112*	0.1311
High School	-2.6692	0.3128
College	-1.7975*	0.1485
Hispanic	1.4069	0.2659
White	1.3151	0.3559
Log(Income)	-0.1780	0.0809
Cheyenne, WY	4.4161***	0.2283
Casper, WY	2.4202	0.3879
Rawlins, WY	0.7336	0.3447
Colorado	6.0667**	0.3759
Nebraska	3.1740	0.3921
BID	-0.1452***	0.0063
Category	Mean WTP	Sample Size (N)
All respondents	\$9.43	883
Pilot Hill Users	\$9.93	687
Pilot Hill Non-Users	\$7.68	196

Notes: Significance codes: 0.01 '***', 0.05 '**', 0.1 '*'

^aStandard errors from the untransformed coefficients

Logistic Log-likelihood: -1080.40; AIC: 2204.805, BIC: 2310.038

Table 4.3 shows the coefficient estimates for equation (1). Coefficients with positive signs are associated with a higher WTP for Pilot Hill while coefficients with a negative sign are associated with a lower WTP for Pilot Hill. The statistically significant impacts are:

Respondents with a significantly higher value for Pilot Hill ...

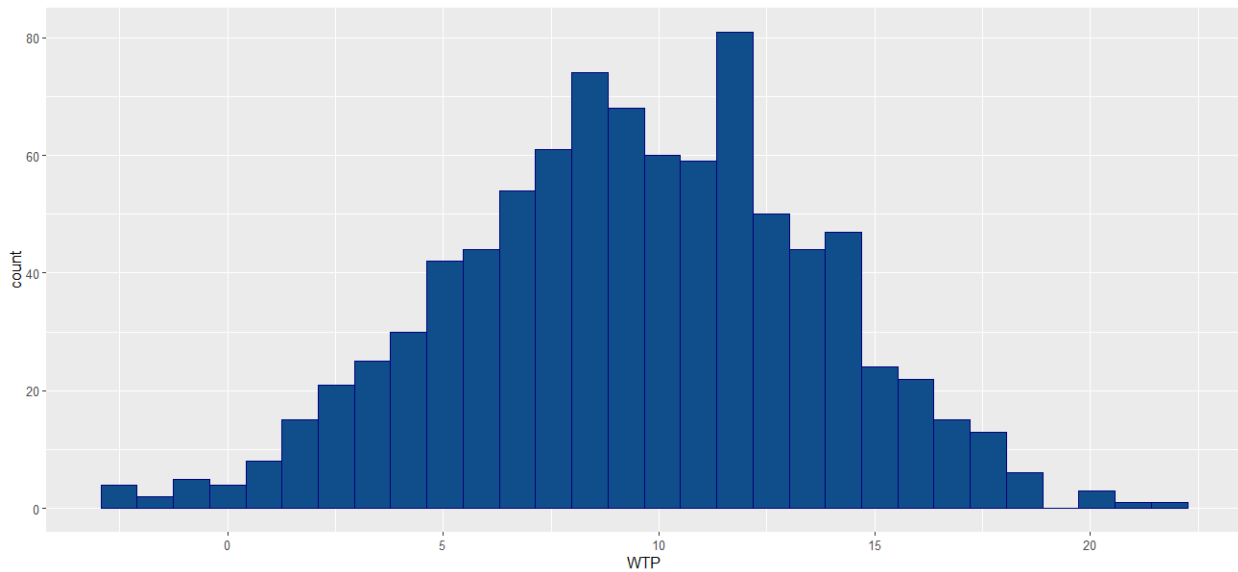
- are female
- prefer the environment over economic development
- plan to moderately use the recreation area
- are young
- have a professional or graduate degree
- are from Laramie, Platte or Goshen counties, WY, and
- are from Northern Colorado.

Respondents with a significantly lower value for Pilot Hill ...

- are those already aware of Pilot Hill, and
- are those receiving a higher donation/fee initial bid.

Using equation (1), we then estimate a maximum WTP for Pilot Hill based on the respondent's characteristics. Figure 4.2 shows the distribution of WTP values across all 883 respondents.

Figure 4.2. Distribution of Estimated Maximum WTP Values for Pilot Hill (N = 883)





The mean WTP across all respondents is \$9.43 and slightly lower for those who said they would use the Pilot Hill recreation in the future. This makes sense because the hypothetical cost of Pilot Hill is posed as a daily visitation fee, so these respondents may expect to pay multiple times and thus may report a lower per-trip value.


Choice Experiment

The choice experiment presented respondents with three different options for the Pilot Hill recreation area. Option #1 was similar to the current development plan for Pilot Hill. It offers multi-use trails for hikers, bikers and horseback riders. Option #2 is a hypothetical scenario whereby the Pilot Hill area is left as open space without trails and human use. Option #3 is a hypothetical scenario whereby the lease to Pilot Hill is terminated and the area is returned to the state of Wyoming. The area would then be used for a number of different possibilities (e.g., residential development, mining, wind turbines, etc.) that provide an economic return to the citizens of Wyoming. Each scenario is clearly explained and accompanied by an artist's rendering of the scenario so the respondent can more easily distinguish and recall the options. A snapshot of the three scenarios is shown below in Figure 4.3.

Figure 4.3. Choice Experiment Scenarios (Trails, Open Space, and Economic Development)

Option #1. Recreation Trails
Option #1. Pilot Hill with Recreation Trails

Option #1 is similar to the current plan for Pilot Hill. The area will include hiking, biking and horseback riding trails, which connects to National Forest lands.
Prev. Next

Option #2. Open Space
Option #2. Pilot Hill as Open Space

Option #2 preserves Pilot Hill as open space with no recreation trails.
Prev. Next

Option #3. Economic Development
Option #3. Pilot Hill Lease Ends

For Option #3, Albany County, WY is unable to sustain the Pilot Hill project. The State of Wyoming terminates the current lease and leases for other uses to obtain the highest economic return for the state.
Prev. Next

Three Choices with Costs
Now please select which one of the three options you prefer.

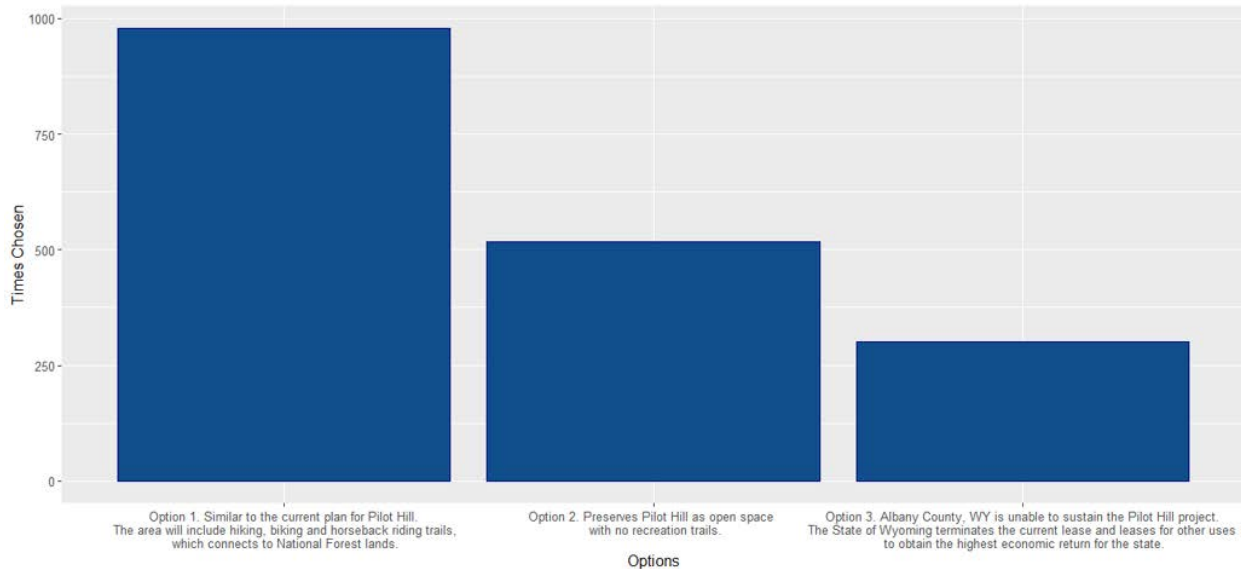
Option #1 Pilot Hill with Recreation Trails	Option #2 Pilot Hill as Open Space	Option #3 Pilot Hill Lease Ends
This option involves a fee of \$20 per visit.	This option involves a donation of \$15.	This option involves no fee or donation.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Prev. Next

Options #1 and #2 also included a randomized cost to the respondent. For Option #1, the cost was either presented as a fee per visit (if the respondent indicated they were likely to use Pilot Hill in the future) or a one-time donation (if the respondent indicated they would not use Pilot Hill). The cost of Option #3 was always equal to zero.

Figure 4.4 shows the distribution of choices for all 997 respondents. Most respondents were presented with two instances of choice, each with different randomized costs. The total number of choices was 1,809. The total number of choices was less than twice the number of respondents because the randomly selected fees were such that a second choice scenario was not necessary.

Figure 4.4. Distribution of Choices (Option #1 Trails; Option #2 Open Space; Option #3 Econ Dev)



The most preferred option in the choice experiment, irrespective of cost, was Option #1 with a trail system and connectivity to National Forest and state lands. This option was chosen more than the other two options combined. Option #3 of returning the land to the state of Wyoming to obtain the highest economic return was the least frequent choice, although we note it was chosen approximately 300 times.

Next, we dig deeper to see how the choice of each option depends on the fee/donation level. In Tables 4.4 and 4.5 below, we investigate whether higher fees/donations lead to a reduced probability the option is selected. Table 4.4 shows that for the 978 times that Option #1 (Trails) was chosen, there does not seem to be a strong pattern in the responses. Our conjecture is that the majority of respondents that chose Option #1 did so for reasons other than the hypothetical cost. Table 4.5 shows that for the 518 times that Option #2 (Open Space) was chosen, cost does appear to be a significant factor. The bottom right cell shows when Option #2 was \$15 cheaper than Option #1 and only \$5 more than Option #3, Option #2 was chosen a disproportionately high number of times. As you move up and to the left in the table, Option #2 is getting relatively more expensive as compared to the other two options, and it is indeed chosen less often.

Table 4.4. Choice Experiment Results: Respondents that Choose Option 1 (Option 1 was chosen 978 times).

		Cost Difference: Option 1 less Option 3			
		\$20	\$15	\$10	\$5
Cost	\$15	7%	0%	0%	0%
Difference:	\$10	6%	5%	0%	0%
Option 1	\$5	7%	4%	5%	0%
less	\$0	10%	8%	5%	6%
Option 2	-\$5	0%	8%	7%	5%
	-\$10	0%	0%	6%	4%
	-\$15	0%	0%	0%	6%

Note: Green represents higher values; red represents lower values.

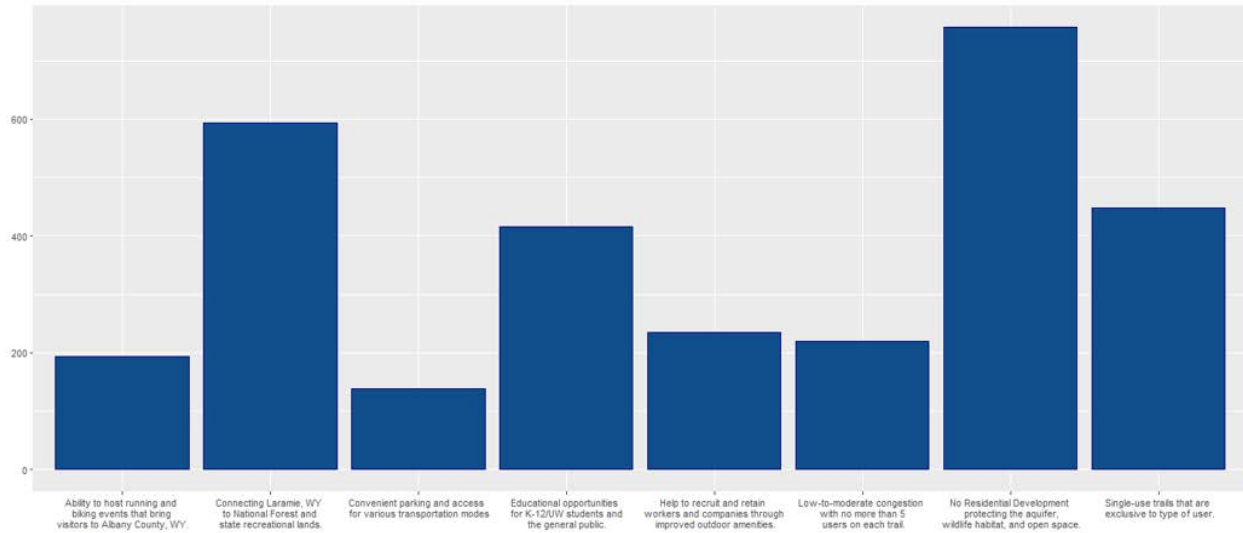
Table 4.5. Choice Experiment Results: Respondents that Choose Option 2 (Option 2 was chosen 518 times).

		Cost Difference: Option 2 less Option 3			
		\$20	\$15	\$10	\$5
Cost	\$15	3%	0%	0%	0%
Difference:	\$10	6%	2%	0%	0%
Option 2	\$5	6%	4%	2%	0%
less	\$0	12%	6%	4%	2%
Option 1	-\$5	0%	15%	5%	3%
	-\$10	0%	0%	12%	7%
	-\$15	0%	0%	0%	12%

Note: Green represents higher values; red represents lower values.

The primary advantage of a choice experiment is that it allows for estimation of the value for individual attributes (in dollars). To do this, requires a survey design whereby attribute levels are randomly varied across choices. This was not the approach taken in this study. In this study, respondents were instead presented with three fixed bundles of hypothetical attributes for Pilot Hill with an associated cost and asked to choose the preferred option. To identify the value of the various Pilot Hill attributes, we asked respondents to choose the three most preferred attributes of Pilot Hill. The results are shown below in Figure 4.5. The most preferred attributes for Pilot Hill (in order) were: (1) protecting the area from residential development, (2) connecting Laramie to National Forest land state recreational lands, and (3) single-use trails.

Figure 4.5. Number of Times a Pilot Hill Attribute was Chosen as Most Important



Note: The categories along the horizontal axis (from left to right) are: (1) Ability to host running and biking events that bring visitors to Albany County, WY; (2) Connecting Laramie, WY to National Forest and state recreation lands; (3) Convenient parking and access for various transportation modes; (4) Educational opportunities for K-12/ UW students and the general public; (5) Help to recruit and retain workers and companies through improved outdoor amenities; (6) Low-to-moderate congestion with no more than 5 users on each trail; (7) No residential development protecting the aquifer, wildlife habitat, and open space; and (8) Single-use trails that are exclusive to type of user (i.e., hikers, bikers, and horse riders).

Regional Non-Market Valuation Estimates

Next, we extrapolate the household-level economic value estimates to calculate a total regional economic value of Pilot Hill. To do this, we take the conservative approach and adjust household WTP down by a factor of 3 to account for hypothetical bias (Loomis, 2010). Stated preference surveys have been shown to often elicit higher WTP values than are estimated in revealed preference situations. The adjusted household value from the contingent valuation analysis is then multiplied by the number of households to calculate the total economic value of Pilot Hill in each region. The estimated economic value for households is a weighted average from users (per trip value \times number of expected trips) and non-users (estimated donation level). Table 4.6 below shows the calculations and the total regional economic value of Pilot Hill.

The total regional economic value for Pilot Hill is \$456,180 per year. This is a conservative estimate because we used an aggressive adjustment factor for hypothetical bias. We do note, however, that selection bias is a possibility in that some individuals who did not complete the survey, for example due to time constraints or attitude toward Pilot Hill, may have a systematically lower WTP for Pilot Hill. We did not attempt to correct for this potential bias.

Table 4.6. Calculations for Regional Economic Valuation of Pilot Hill

Regions	No. of Households	Avg. Value (\$) per HH w/ Hypothetical Bias	Adjusted Avg. Value (\$) per HH	Regional Valuation (\$\$)
Albany, WY	15,944	\$74.13	\$24.71	\$395,212
Rawlins, WY	6,204	\$36.00	\$12.00	\$74,448
Casper, WY	32,799	\$27.21	\$9.07	\$297,487
Cheyenne, WY	48,920	\$43.20	\$14.40	\$704,448
Northern CO	241,692	\$32.58	\$10.86	\$2,624,775
Western NE	16,572	\$31.61	\$10.54	\$174,614
Total	362,131			\$4,270,984

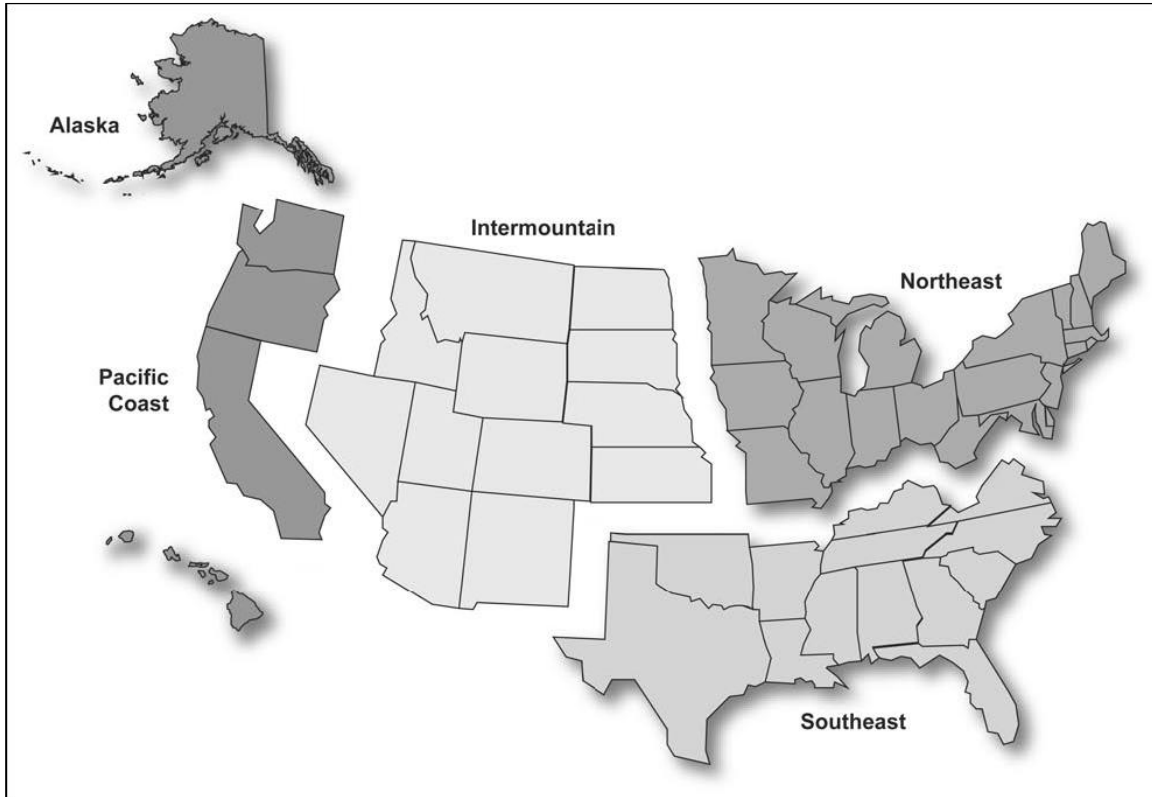
Notes: The average Pilot Hill estimated value is a weighted average of non-users (\$7.68 donation), moderate users (5 visits per year, \$11.30 per visit, \$56.51 per year), and frequent users (20 visits per year, \$6.57 per visit, \$131.40 per year). The weights are based on the proportion of the sample that are non-users, moderate users who plan to use Pilot Hill between 1-10 times per year, and frequent users who plan to use Pilot Hill between 11-50+ times per year.

5. Benefit Transfer Analysis and Benchmarking

The benefit transfer method relies on secondary data and a synthesis of the literature to estimate nonmarket economic values by transferring available information from original studies already completed. There are two main approaches to benefit transfer: value transfer and function transfer. In a value transfer, a single point estimate, range of multiple point estimates, or measure of central tendency from multiple point estimates (e.g., an average value), is transferred from studies where primary research was conducted, to the site of interest, here Pilot Hill. In a function transfer, a statistical function based on the existing literature is used to implement the transfer of a benefit measure. Function transfers can be based on a benefit or demand function from a single study in the existing literature, or on a meta-regression function, which summarizes the value estimates reported in multiple studies in a statistical function.

In this section, the valuation of hiking, mountain biking, and wildlife viewing is calculated using a meta-analysis of studies. Meta analysis utilizes information from a greater number of studies, thus providing more rigorous measures of central tendency (Rosenberger and Loomis, 2001). Pilot Hill characteristics used in calculating the valuation are location in Intermountain region (shown in Figure 5.1) and other public land (not national forest). The calculation produced by United States Geological Survey (USGS) is expressed in 2014 dollars. However, in table 5.1, amounts are expressed in 2020 dollars.

Figure 5.1. United States Geological Survey’s Regions of Benefits Transfer Studies



Depending on the scenario and activity being examined, Table 5.1 suggests that the valuation of activities facilitated by Pilot Hill ranges between \$1.4 million and \$5.1 million. Valuation of the clean water provided through aquifer protection ranges between \$600,000 and \$3.8 million.

Table 5.1. Nonmarket Economic Valuation by Activity and Use Scenario

	Meta-Regression Function Transfer Values	Low Use	Medium Use	High Use
Hiking	\$56.32	\$1,689,600	\$3,379,200	\$5,068,800
Mountain Biking	\$46.28	\$1,388,400	\$2,776,800	\$4,165,200
Wildlife Viewing	\$52.84	\$1,585,200	\$3,170,400	\$4,755,600

Table 5.2. Nonmarket Economic Valuation of Clean Water

	Minimum	Maximum
WTP per Household/Year 2020 USD	\$37	\$238
Albany County Valuation	\$585,034	\$3,796,347

6. Discussion

As we interpret the economic impact estimates, it is important to remember that these numbers rely on hypothetical scenarios and percentages of non-local visits that might not materialize in the absence of active Pilot Hill event planning and marketing. The scenarios presented can be thought of as representing different levels of investment and development within the recreation area. For example, investing in trail amenities such as restroom facilities, park benches, access to water, and/or a playground have been shown to increase the attraction of a recreation area for a wider variety of users including families (Fourth Economy, 2014). Robust programming and promotional activities are key to attracting both local and non-local visitors. Thinking specifically of Pilot Hill's amenities, there is potential to attract visitors that travel for historical tourism or that are interested in nature reserves. In addition, special events such as trail running, bike tours, and geocaching can serve as catalysts to increase visits to the area. Improving connectivity between Pilot Hill and the downtown Laramie area can create opportunities for joint programming with established events, e.g., Brewfest, County Fair, Jubilee Days.

Further, as Pilot Hill plans different events and programs, it might be useful to keep in mind that visitor spending and number of nights spent in a community depends on available activities. For example, a study of visitors in Grand County, Colorado (Summit Economics, 2017), suggests that the share of overnight visitors that engage in hiking (17%), sightseeing (16%), and watching wildlife (11%) is significantly higher than the share of overnight visitors that engage in cross country skiing (2%), horseback riding (2%), and hunting (0.6%).

Beyond the economic impact and valuation listed in this report, Pilot Hill has other impacts that are harder to quantify. For example, increased health and wellness among local residents that are now able to easily access a trail system that connects them to a national forest. The CDC lists improved cardiovascular health as a benefit for communities having hiking trails. Similarly, Pilot Hill can potentially play a role in attracting and retaining a skilled workforce. The economic development literature suggests that environmental amenities such as opportunities for recreational activities are strongly associated with rural population change (Deller et al. 2001).

Finally, in order to track the impact of Pilot Hill over time, the organization might consider repeating this analysis in the future with primary data instead of hypothetical scenarios. As such, and in order to increase the accuracy of the estimates provided in this report, the organization might consider monitoring the amount of recreation area visitation and collecting information on visitor expenditures either through QR codes available on signage at Pilot Hill or volunteers administering surveys on smart devices. The organization might also consider keeping track of attitudes and behaviors towards the recreation area through comprehensive regional surveys that include visitors and non-visitors and/or through public meetings where the goal is to engage the community and listen to comments and feedback as the different stakeholders forge and work towards a common vision for the recreation area.

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Wyoming Survey & Analysis Center
UNIVERSITY OF WYOMING



College of Business
Center for Business
and Economic Analysis

September 10th, 2021

Address block

Dear <city> Resident,

Your household address was randomly selected to participate in a study developed by the University of Wyoming's Center for Business and Economic Analysis (CBEA) and the Pilot Hill Committee in Laramie, WY. The purpose of this study is to perform an economic analysis regarding the use of the Pilot Hill recreation area outside Laramie, WY. Everyone who completes will be entered in a drawing for a new iPad, to be drawn in early October.

The survey should take approximately 8 minutes or less. You don't have to answer any questions you don't want to, and you can end the survey at any time. **We hope that you will take a few minutes to help us out with this vital project, regardless of if you have ever heard of Pilot Hill.**

To access the online survey, please visit: <http://wysac.uwyo.edu/pilohill>

and enter your households unique passcode (case sensitive): <code>

Or, you may use your mobile phone to scan the QR code on the bottom of this letter.

Your participation in this survey is voluntary. Refusal to participate will not affect any benefits to which you are otherwise entitled. You may skip any question that you do not want to answer. All of your responses will be kept confidential.

For more information about the survey or if you have any trouble accessing the online survey, you may contact me directly via email (harnisch@uwyo.edu).

Sincerely,

Brian Harnisch
Senior Research Scientist
Wyoming Survey & Analysis Center (WYSAC)
University of Wyoming

Community focus groups

Objectives

- Determine if language is understandable for the possible respondents.
- Determine if the levels and the payment vehicle is credible.
- Determine if the information provided is sufficient.

Script

Welcome and explanation of the purpose.

“Hello, thank you for coming today. My name is **David Aadland** and I’m here with **Irene Zapata Moran**. We are with the Center for Business and Economic Analysis at the University of Wyoming. We are designing a survey to measure how much people like you value outdoor recreational spaces such as Pilot Hill. The purpose of this initial session is to gather information that will help us develop a final survey for Pilot Hill. Specifically, we are interested in whether the potential survey questions are understandable, and the scenarios we will be describing are credible. “

“First, we are going to play a video that introduces the Pilot Hill project. Then we will continue with a brief discussion.”

[Play video]

Questions

Opening questions:

1. Please tell us your name and your favorite outdoor activity.
2. What features do you think a recreational area such as Pilot Hill should have?

Questions about hiking/biking trails:

3. Do you plan to use the hiking/biking trails at Pilot Hill?
4. Do you think it is important to have separate trails for hiking and separate trails for biking?
5. If you were to use Pilot Hill trails, how important is the number of people on the trail? How many people would you need to meet during a day hike or bike ride before you considered the trail crowded?

Questions about open space protection (aquifer protection and wildlife habitat conservation):

6. When you hear the words “aquifer protection”, what comes to mind?
7. When you hear the words "wildlife habitat conservation", what comes to mind?

Baseline without the Pilot Hill Project. The Pilot Hill project is an effort to limit the residential development in the open space that connects Laramie to Pole Mountain. Without the Pilot Hill project, it is presumed that the open space would have been subject to residential development. This development would have resulted in a loss of wildlife habitat and potentially contaminated the aquifer.

8. Is the baseline level of development understandable?
9. If I say that the Pilot Hill project will provide **50%** more aquifer protection than the baseline scenario, does that make sense to you?
10. If I say that Pilot Hill project will provide **50%** more habitat conservation than the baseline scenario, does that make sense to you?

Questions about educational opportunities:

11. When you hear the words “educational opportunities” provided by Pilot Hill, what comes to mind?

Questions about the payment vehicle:

12. Currently, visitors and residents do not pay to use the Pilot Hill recreations area. There are no plans to charge residents or visitors. Hypothetically, if projects like Pilot Hill were to request payment, do these methods sound reasonable?
 - a. An entrance fee of \$3 - \$5 per day?
 - b. An annual donation of \$20 - \$40 dollars?

“Thanks for your willingness to participate in this session. Do you have any final questions or comments?”

Expert focus group

Objectives

- Address appropriate language for the attributes and levels.
- Define the possible hypothetical levels in each attribute.

Script

Welcome and purpose of the focus group.

“Thank you for joining us today. My name is **David Aadland** and I’m here with **Irene Zapata Moran**. We are with the Center for Business and Economic Analysis at the University of Wyoming. We are designing a survey to measure how much people value outdoor recreational spaces such as Pilot Hill. The purpose of this initial session is to determine the appropriate language and levels for each attribute.

A brief introduction of Pilot Hill project is explained in the following video.”

[Play video]

“The attributes that are important to the Pilot Hill organization are:

- The number of trails, types of use of the trails (multi-use or exclusive), and trail congestion.
- Habitat conservation.
- Aquifer protection.
- Educational opportunities.
- Connectivity to Pole Mountain recreation area.
- Preserving open space and wildness.
- Accommodating non-motorized modes of transportation on site.”

Next, we will share the focus group script we will be using for community members and are asking your opinion of the questions (**in bold**).

Questions for community members and experts.

Opening questions:

- Please tell us your name and your favorite outdoor activity.
- What features do you think a recreational area such as Pilot Hill should have?

Questions about hiking/biking trails:

- Do you plan to use the hiking/biking trails at Pilot Hill?
- Do you think it is important to have separate trails for hiking and separate trails for biking?
- If you were to use Pilot Hill trails, how important is the number of people on the trail?
- How many people would you need to meet, say for an hour-long hike, before you considered the trail crowded?
- **Do you think “the number of people you meet on the trail” is a good measure of congestion?**

Questions about aquifer protection:

- When you hear the words “aquifer protection”, what comes to mind?
- If I say that the Pilot Hill project will provide **XX%** more aquifer protection (**manner and levels defined after experts focus group**), does that make sense to you?
- **What is the best way to describe aquifer protection and how can it be measured: the area protected, water quality improvement, etc.?**
- **What levels of protection are realistic?**

Questions about wildlife habit conservation:

- When you hear the words "wildlife habitat conservation", what comes to mind?
- If I say that Pilot Hill project will provide **XX%** more habitat conservation (**manner and levels defined after experts focus group**), does that make sense to you?
- **What is the best way to describe habitat conservation and how can it be measured: number of species protected, the size of the area protected, etc.?**
- **What levels of conservation are realistic?**

Questions about educational opportunities:

- When you hear the words “**educational opportunities**” provided by Pilot Hill, what comes to mind?
- **What types of educational opportunities for Pilot Hill are or will be available?**
- **What levels are realistic?**

Questions about the payment vehicle:

- Currently, visitors and residents do not pay to use the Pilot Hill recreations area. There are no plans to charge residents or visitors. Hypothetically, if projects like Pilot Hill were to request payment, do these methods sound reasonable?
 - An entrance fee of \$3 - \$5 per day?
 - An annual donation of \$20 to \$40 dollars?

- An increase in local taxes of \$10 per year.

“Thanks for your willingness to participate in this session. Do you have any final questions or comments?”



Thank you for agreeing to participate in the survey. The survey is designed by the Center for Business and Economic Analysis (CBEA) at the University of Wyoming on behalf of the Pilot Hill committee. We are interested in responses from people like you, people in Albany County and in the surrounding region. The survey should take approximately 8 minutes or less. You don't have to answer any questions you don't want to, and you can end the survey at any time. We hope that you will take a few minutes to help us out with this vital project, regardless of where you live or if you have ever heard of Pilot Hill.

Press 'Next' to continue.

Next

Background

The Pilot Hill Recreation and Wildlife Habitat Management Area is just east of Laramie, WY and provides sweeping scenic vistas, important wildlife habitat, and interesting natural features – from deep ravines to limestone cliffs and conifer forests. This entire area overlies a key portion of the Casper Aquifer recharge area, a unique geologic feature that naturally filters rain and snow to provide a primary drinking water source for residents and visitors to Albany County, WY.

For more than a century this area served as a working landscape for the Warren Livestock Company. In the fall of 2020, the property was sold to the State and the University of Wyoming and leased to Albany County with an agreed upon intent of maintaining the land as open space, providing wildlife habitat protection and non-motorized recreational access for the benefit of all of southeastern Wyoming.

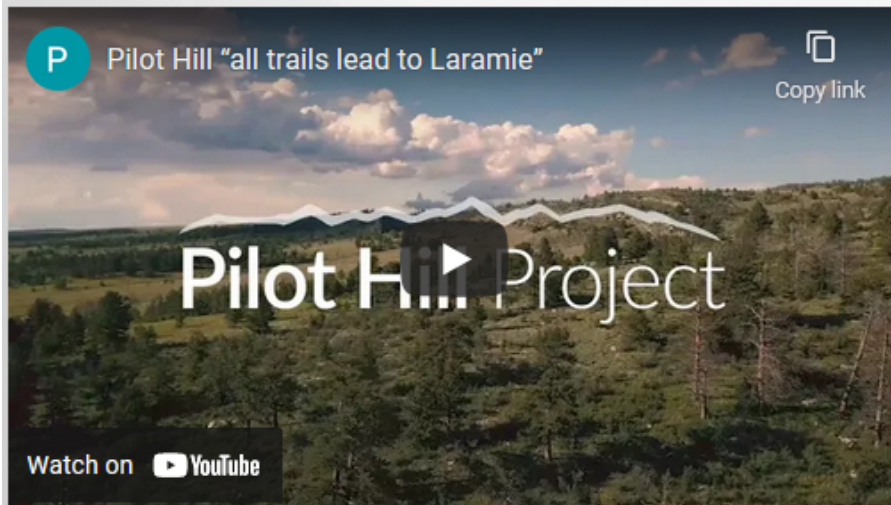
Prev.

Next

Background (con't)

Pilot Hill connects Laramie neighborhoods to almost eleven square miles of open space in the foothills and to over 65,000 additional acres of National Forest Lands in the Laramie Range. Protecting the area from residential development, Pilot Hill preserves a unique landscape, helps to protect an important aquifer resource, and provides open space for recreation, education, and wildlife habitat.

We hope you will take a minute to watch the informational video below for more information about Pilot Hill. You may also [click here to see a map of the area](#). (.pdf will open in a new tab or window - close that window to return to this screen).



How frequently do you hike, run, bike, or horseback ride in the outdoors?

- Never
- A few times per year
- A few times per month
- A few times per week
- Daily

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Before this survey, were you aware of the Pilot Hill recreation area in Albany County, WY?

Yes

No

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Next

How many times per year do you expect to use the Pilot Hill recreation area?

Not at all

1-2 times

3-10 times

11-50 times

More than 50 times

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Next

In general, which do you feel is more important to the region:

Economic Development

Environmental Protection

Prev.

Next

When answering the next question, please treat your response as if you were making a real decision that requires a payment and reduces your budget available for other items such as housing, transportation, food, etc. Also, keep in mind there are no current plans to actually charge users of Pilot Hill recreation area.

Would you be willing to pay \$20 per visit to support the Pilot Hill recreation area as currently planned?

Yes

No

Next

Would you be willing to pay \$10 per visit to support the Pilot Hill recreation area as currently planned?

Yes

No

Prev.

Next

Please choose the **three** most important features of the Pilot Hill recreation area.

- Connecting Laramie, WY to National Forest and state recreation lands.
- Single-use trails that are exclusive to type of user (i.e., hikers, bikers, and horse riders).
- Low-to-moderate congestion with no more than 5 users on each trail.
- No residential development protecting the aquifer, wildlife habitat, and open space.
- Educational opportunities for K-12/UW students and the general public.
- Convenient parking and access for various transportation modes.
- Ability to host running and biking events that bring visitors to Albany County, WY.
- Help to recruit and retain workers and companies through improved outdoor amenities.

Prev.

Next

Next, we are going to ask you to choose between three **hypothetical** combinations of features for Pilot Hill. You will see three different scenarios, and we are asking you to choose one of the three combinations for each scenarios.

Prev.

Next

Option #1. Pilot Hill with Recreation Trails



Option #1 is similar to the current plan for Pilot Hill. The area will include hiking, biking and horseback riding trails, which connects to National Forest lands.

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Next

Option #2. Pilot Hill as Open Space



Option #2 preserves Pilot Hill as open space with no recreation trails.

Prev.

Next

Option #3. Pilot Hill Lease Ends



For Option #3, Albany County, WY is unable to sustain the Pilot Hill project. The State of Wyoming terminates the current lease and leases for other uses to obtain the highest economic return for the state.

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Next

Now please select which one of the three options you prefer.

Option #1
Pilot Hill with Recreation Trails

This option involves a fee of
\$20 per visit.

Option #2
Pilot Hill as Open Space

This option involves a donation
of **\$15**.

Option #3
Pilot Hill Lease Ends

This option involves no fee or
donation.

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Next

Again, please select which one of the three options you prefer given the new values below.

Option #1
Pilot Hill with Recreation Trails

This option involves a fee of
\$20 per visit.

Option #2
Pilot Hill as Open Space

This option involves a donation
of **\$20**.

Option #3
Pilot Hill Lease Ends

This option involves no fee or
donation.

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Next

Finally, we have just a few questions about you and your household to make sure our survey is representative.

What is your age?

18-24

25-34

35-44

45-54

55-64

65-74

75+

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Next

Are you a parent of a child aged 17 years old or younger?

Yes

No

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Next

Including yourself, how many members live in your household?

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Next

What is your gender?

Male

Female

Other (specify):

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Next

What is the highest level of education you have completed or the highest degree you have attained?

- 12th grade or less
- High school diploma or GED
- Some college, no degree
- Certificate, diploma, or associate degree: Occupational, Tech., Vocational Program
- Associate degree: Academic program
- Bachelor's degree
- Master's degree
- Professional or Doctoral degree (e.g.: PhD, Md, Dds, Edd, Jd, MBA, etc.)

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Next

Are you Hispanic, Latino/a, or Spanish origin?

- Yes
- No

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Next

Which one or more of the following would you say is your race?

White

Black or African American

American Indian or Alaska Native

Asian

Native Hawaiian or Other Pacific Islander

Prev.

Next

Is your annual household income from all sources -

- Less than \$10,000
- \$10,000 to less than \$15,000
- \$15,000 to less than \$20,000
- \$20,000 to less than \$25,000
- \$25,000 to less than \$35,000
- \$35,000 to less than \$50,000
- \$50,000 to less than \$75,000
- \$75,000 to less than \$100,000
- \$100,000 to less than \$150,000
- \$150,000 to less than \$200,000
- \$200,000 or more
- Don't know/not sure

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Next

What is the ZIP postal code where you live?

Prev.

Next

Please also indicate if you would like to be entered in the drawing for a new iPad. All who completed this survey will be eligible to be drawn if they choose. Winners will be contacted via email or phone in early October.

Yes, please enter me in the drawing.

No, do not enter me in the drawing.

Prev.

Next

To enter the drawing for a new iPad, please fill in the form below. We will contact the winner in early October.

First Name

Email:

Phone:

Prev.

Next



Wyoming Survey & Analysis Center
UNIVERSITY OF WYOMING



College of Business
Center for Business
and Economic Analysis

Thank you for taking the time to help us with this very important project. Your survey responses have been submitted.

For more information about the Pilot Hill Project, please visit: <https://pilothon.org/>