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Community Economic Impacts of Interpretive Centers:

A Case Study of the Northern Great Lakes Visitor Center

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Originally conceived in the 1980s, constructed in the mid-1990s, and open to the public in 1998, the Northern Great Lakes Visitor Center just outside of Ashland, Wisconsin showcases the natural history of the Lake States and provides educational, interpretive, and community programs for its visitors. Regularly attracting nearly 125,000 visitors a year, this Center serves as a conduit for outdoor recreation in the region and provides significant economic impacts to local businesses, supports local jobs, and helps improve the vitality of host communities.

The Community Economic Impacts of Interpretive Centers: A Case Study of the Northern Great Lakes Visitor Center

Executive Summary

The Northern Great Lakes Visitor Center (NGLVC), located just outside of Ashland, Wisconsin, is a unique nationally recognized interpretive center that showcases the entire Northern Great Lakes Region of Minnesota, Wisconsin and Michigan. The Center's mission is to provide information, programs, and services to ensure that people can connect with the historic, cultural and natural resources unique to this region.

Another important role of the Center is its ability to act as a visitor center and a stimulator of greater recreational use on nearby public and private lands. Thus, the Center also contributes to the economy of Northern Wisconsin by attracting visitors and their dollars; encouraging greater use of the region's public and private recreational opportunities.

Nearly 15 years have elapsed since the Center's opening in 1998. This report is written to provide an assessment of the Center's current (2012) contribution to the economy of Northern Wisconsin. The Center stimulates rural economic development by attracting visitors to the area and then directing them out to public lands and area businesses.

This assessment utilizes visitation, expenditure, and operational budget data as contributions applied to input-output models of the Bayfield and Ashland County economy to develop estimates of the economic impacts resulting from the Northern Great Lakes Visitor Center. The Center is located in Bayfield County, though it is only two miles from the Ashland County line, so the impact is shared by both counties. We outline both tourism and institutional impacts of the Center.

Results suggest that the Center provides a modest amount of economic stimulus and makes a solid contributes to local business activity. Specifically, highlights of our findings include:

- The Visitor Center attracts an average of roughly 125,000 visits each year to its programs, interpretive exhibits, meeting rooms, and educational events. Of

these, roughly 91,000 visits can be linked to non-local recreational visitors, or people who are not residents of Bayfield or Ashland Counties.

- These non-local visitors spent roughly $5.1 million in Bayfield and Ashland Counties in 2012.
- The total economic impact of this private sector stimulus (non-local visitor spending) can be measured in terms of 84 local jobs and $1.6 million in locally accrued employee compensation.
- The primary local businesses affected by non-local visitors spending money locally included food service and drinking places, hotels and motels, local amusements, and local retailers (gas stations, convenience stores, and general merchandisers).
- The operational budget of the Center contributes almost $725,000 to the regional economy each year in employee salaries, supplies & expenses, and maintenance & upkeep.
- This amount of operational expense can be linked to roughly 16 local jobs, $550,000 in local employee compensation, and over $825,000 in gross regional output.
- While the scope of this project phase focused on market-based economic impacts of the Center, future work needs to begin to document the important non-market and social capital effects of the Center within nearby communities.

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The Community Economic Impacts of Interpretive Centers: A Case Study of the Northern Great Lakes Visitor Center

Introduction

The Northern Great Lakes Visitor Center (NGLVC), located just outside of Ashland, Wisconsin, is a unique nationally recognized interpretive center that showcases the entire Northern Great Lakes Region of Minnesota, Wisconsin and Michigan.[1] The Center's mission is to provide information, programs, and services to ensure that people can connect with the historic, cultural and natural resources unique to this region (UW-Extension 1988; 1989b). In the Executive Summary of an inaugural proposal to the U.S. Congress (UW-Extension 1989a, page ii), it further describes the Center's:

> *"… goals [as] integrated by three common themes: the interactions between people, the land and natural resources; the consequences of unwise and short-term exploitation of natural resources; and the need to develop long-term sustainable resource uses."*

Further, the initial concept, written almost 25 years ago, envisioned that the Center would also contribute to the economy of Northern Wisconsin by attracting visitors and their dollars; encouraging greater use of the region's public and private recreational opportunities.

Nearly 15 years have elapsed since the Center's opening in 1998. This report is written to provide an assessment of the Center's current (2012) contribution to the economy of Northern Wisconsin. The Center stimulates rural economic development by attracting visitors to the area and then directing them out to public lands and area businesses. It simultaneously interprets the culture of the area to provide deeper experiences of meaning for visitors and connects them to nature in the area through first-hand experiences. Experiential learning opportunities are provided for thousands of students of all ages through interactions with exhibits,

[1] The Center is a partnership between the USDA Forest Service, National Park Service (USDI), US Fish & Wildlife Service (USDI), Wisconsin Historical Society, Friends of the Center Alliance, LTD, and University of Wisconsin - Extension. The Center offers a range of services including visitor information, interpretive exhibits, a history center and archives, educational films, wildlife viewing along two three-quarter-mile interpretive boardwalk trails, five-story observation tower, interactive displays, bookstore, gift shop, meeting rooms, and auditorium for special events. The Center also offers special events and programming on a variety of local, regional and national topics.

trails and offerings like agroforestry test plots, native plant gardens and interpretive panels. Experiential learning is also offered in scores of organized programs ranging from science for primary age students, birding and nature fests, natural adventure and children's forest classes and activities. The NGLVC offers a public platform for partner organizations and area groups and organizations that link with the NGLVC partners. Examples are as diverse as public outreach to engage citizens in activities that improve water quality on Fish Creek sponsored by the Chequamegon Bay Area Partnership, the Sigurd Olson Environmental Institute and the Forest Service, an agroforestry demonstration plot sponsored by the National Agroforestry Center and the University of Wisconsin - Extension, a place-based climate change exhibit with associated electronic kiosk, on-line curriculum and continuing teacher training sponsored by the NGLVC partners, NOAA, the Wisconsin Coastal Management Program and the Great Lakes Indian Fish and Wildlife Commission. Public programs are as diverse as panel discussions on mining, to candidate debates, to wolf and fish management hearings, to baby showers and memorial services.

The NGLVC began as a simple idea. The public should be offered area information easily accessed near U.S. Highway 2 in Northern Wisconsin. A grassroots movement developed that lobbied local, state and national leaders for funding and support for such a facility; a visitor center. From the original report to Congress (UW-Extension 1989a), the proposed Center would be placed in the middle of the Northern Great Lakes Region, surrounded by and showcasing a wide variety of outdoor recreation opportunities (see Figure 1). As support grew and state and national leaders were successfully engaged, the scope of the project grew into what the NGLVC is today; a 37,000 square foot multiple use facility that is used by residents and visitors year round. Interestingly the original grassroots group changed from an organization designed to obtain a facility into a friends group with 501(c)3 status that operates a retail store, takes tax deductible donations, and employs people in every department to maintain and improve operations at the NGLVC. The Friends of the Center Alliance, LTD. is a full partner at the NGLVC, making the NGLVC a federal, state and local, public and private partnership operating for the good of the Chequamegon Bay Region.[2]

The NGLVC has become an important strand of the tapestry that is the culture and economy of the Chequamegon Bay Region. Although the Center has existed since

[2] The Chequamegon Bay Region is an area on the Southern shore of Lake Superior that involves near-lake portions of both Ashland and Bayfield Counties and gives an outward identity to nearby communities.

1998, the economic impact of the center has not yet been formally estimated. To this end, we seek to document patterns of usage and assess the importance of the Center to the local economy, examining market-based impacts associated with both visitor expenditures and operational expenses.

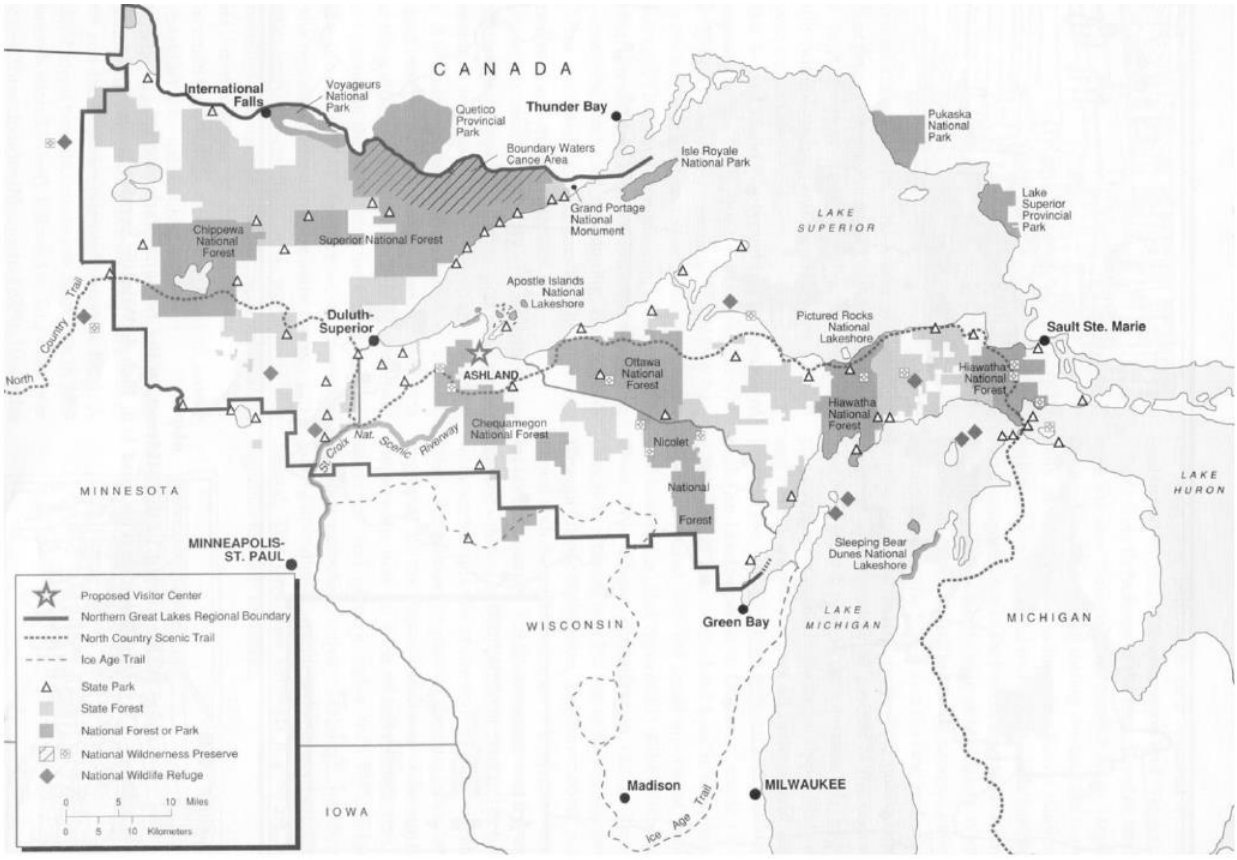

Figure 1. Location of the then-proposed Northern Great Lakes Visitor Center with Federal, State, and local land holdings (source: University of Wisconsin – Extension 1989a, page 15).

This report sets out to estimate the economic impact of the Northern Great Lakes Visitor Center. It seeks to identify the extent to which non-local recreational visitors to the Center spend money within the local economy, how this spending impacts local firms, and how this stimulus translates into new jobs and income for local residents. Further, we provide estimates of the impact that operation of the Center has on the regional economy of Bayfield and Ashland Counties.

In order to inform our efforts, we conducted a literature review of applied research focused on sites and centers comparable to the NGLVC. This work yielded a variety of useful results. Peer-reviewed articles and other scholarly works primarily

addressed national parks or wildlife preserves; facilities usually much larger in terms of physical size that draw visitors from a larger region as compared to the NGLVC. Non-peer-reviewed or informally published "grey" literature included economic information associated with some of these larger parks or preserves. Also included in our review were studies that looked into impacts associated with museums, libraries, and historical societies. Some literature was focused on regional impact, while others had statewide or even national focus. In addition, some studies looked at a single site, while others examined multiple related sites within a region. There were few sources that represented a perfect comparison, but all had at least some characteristics in common with the NGLVC. This literature review is included as Appendix A.

As background to our approach in estimating the economic impacts of the Center, our logic follows the work of others in a straightforward fashion. Visitors from outside the area spend money inside the area impacting local businesses in a manner that would not occur if they did not visit. Local residents who recreate will spend money in the locality regardless of whether or not they recreate. It is recognized that local resident spending is just as important as non-resident recreational visitor spending to local enterprise. However for economic impact analysis, a non-resident buying a gallon of milk represents new money to the region, hence is considered economic impact while a local resident buying the same gallon of milk is recirculated currency and not considered economic impact.

Visitation is the first part of analyzing recreation-based economic impacts. As discussed above, visitation can be counted in different ways. We chose to use average annual recreational and non-local Center visitation during the 14 years since opening. Visitation was then multiplied by spending per whatever visitation unit is used. As long as the per-unit spending matches the unit of visitation, these various methods are comparable and equally valid. The analysis also utilized spending profiles; statistical estimates of what purchases are made by recreational visitors. Total spending is broken down into amounts spent by business categories. Economic models use business spending patterns to estimate differences in employment, purchases, and other spending between hotels, restaurants, and other service-oriented businesses in the area.

This report is organized into three subsequent sections with Appendices. Following this introduction, we outline methods and data used to estimate economic impacts. We then describe results of this applied case study research highlighting our estimates of economic impact. This is further broken down into visitor spending

impact and institutional (operational) impact. We then conclude with a section that summarizes what we did and outlines relevant further research needs and policy implications that will assist in more comprehensive assessments of the role of the Center in fostering regional economic vitality.

Methods and Data used

The methods used to estimate economic impact of the Northern Great Lakes Visitor Center on the Bayfield and Ashland County economy relied on two initial estimates of economic stimulus. This included (1) non-local recreation-oriented visitor spending and (2) institutional spending for operating the Center.

Non-local recreation-oriented visitor spending was developed using a variety of data sources. We used 14 years of visitation data (1999-2012) and 2011 data on visitor type (NGLVC 2013) to develop an annual average visitation level. Our estimates then removed non-recreational visits (meeting room attendance) to focus on visits by travelers attending for leisure, or recreation-oriented visits. This non-recreation visitation amounted to roughly 5.3 percent of total visits during 2011. Once recreation-oriented visits were isolated, we then focused on identifying origin of visitors using 2011 visitation data and removed local visitors who originated from within Bayfield and Ashland Counties. Our interest with this was to focus on private sector stimulus resulting from non-locals coming into this two county region and spending "new" money in the local economy. The 2011 visitation data suggested that roughly 61.4 percent of recreation-oriented visitors were from outside of Wisconsin. Further, of the remaining visitors from Wisconsin, an estimate (Haveri 2013) suggested that 40 percent of these were from outside of the Ashland and Bayfield region. Using this approach, we estimated a total of 90,775 annual non-local recreation-oriented visits to the NGLVC.

This level of visitation was then applied to an average individual daily expenditure pattern obtained from the National Visitor Use Monitoring survey (White and Goodding 2012). Specifically, we used estimates on per party per trip overnight spending (ibid, page 34), average nights per trip (ibid, page 49), and average persons per party (ibid, page 45) to arrive at an estimate for individual per person daily expenditure. In summary, the method used to expand existing data into an annual amount of non-local expenditure is summarized in Table 1. These are survey-based

estimates of how money was spent during the visit so this can be applied to the appropriate business sector. We used estimates from White and Gooding, 2012 who analyzed the nation-wide National Visitor Use Monitoring survey. They report a spending pattern exhibited by recreation visitors like ones visiting Northern Wisconsin, spending could be broken down in the manner outlined in Table 1.

Estimates were found to be statistically accurate for all regions of the contiguous 48 United States. For the assessment of economic impacts resulting from visitor spending, non-local trip expenditures derived using values for the Chequamegon-Nicolet National Forest (see White and Goodding 2012) and allocated to the normalized nonlocal overnight visitor expenditure pattern from the National Visitor Use Monitoring System (see Table 1).

Table 1. Expenditure patterns per trip party and on an individual daily basis used to estimate regional economic impacts of visitation to the Northern Great Lakes Visitor Center.

Spending Category	Trip Spending Per Party	Individual Daily Spending
Hotels and motel services, including casino hotels	$99.98	$18.52
Restaurant, bar, and drinking place services	$61.77	$11.44
All retail	$28.78	$5.33
Wholesale trade distribution services	$22.93	$4.25
Amusement parks, arcades, and gambling recreation	$18.42	$3.41
Other amusements and recreation	$8.28	$1.53
All other	$50.10	$9.28
Total	$290.27	$53.75

Source: White and Goodding (2012), pages 34, 45, and 49 with application of USDA Forest Service nonlocal spending profiles available from authors.

The annual visitation level and expanded level of annual non-local visitor spending are summarized in Table 2. These nonlocal expenditures (on an individual daily basis) were then applied to a regional input-output model of Bayfield and Ashland Counties (combined) constructed using IMPLAN. Detail of the input-output modeling can be obtained from the authors. It is important to note that only the non-local portion of expenditures infused into the Bayfield and Ashland County region from outside were used as the demand shock for input-output modeling.

Table 2. Visitation, individual daily expenditure, and expansion to annual non-local expenditures of recreational visitors to the Northern Great Lakes Visitor Center.

Characteristic	Value
Average NGLVC Annual Visitation	124,754
Non-local NGLVC Annual Visitation	90,775
Average Individual Daily Expenditure	$53.75
Total Annual Non-local Expenditure	$5,127,000

To develop estimates of local institutional spending resulting from operating the Center, we used data from the Center's budget (NGLVC 2013) which identified (1) common costs, (2) salaries, (3) utilities, (4) administration, (5) local contracts and services, and several miscellaneous items relevant to center operation. A total of $723,845, represented the annual amount of non-local government spending to operate the center as outlined in Table 3. This reflects another form of economic stimulus to the Bayfield and Ashland County region that originates from non-local government spending from either Madison (State of Wisconsin), or Washington, DC (Federal spending) and used to operate the Northern Great Lakes Visitor Center.

Table 3. Institutional spending by the Northern Great Lakes Visitor Center

Category	Value
Salaries	$544,430
Utilities	$83,674
Office and cleaning supplies	$31,266
Contracted services (snow, exhibit maintenance, etc.)	$54,657
Training	$2,000
Marketing and web site maintenance	$5,318
Other miscellaneous	$2,500
Total Annual Spending	$723,845

These two forms of economic stimulus (visitor spending and institutional spending) were then used as upfront exogenous contributions to the regional economy. These represent demands to local business activity that would not be present except for the existence of the Northern Great Lakes Visitor Center. To estimate this contribution to local business activity, we used an input-output model of a combined Bayfield and Ashland County economy constructed using IMPLAN 3.0.9.2 (MIG 2012). A

total multiplier approach was used in running the impact models. The full description of input-output modeling as a standard method used to develop estimates of regional economic impacts is beyond the scope of this report but readily available in standard textbooks on the topic (Shaffer et al. 2004; Chapter 15).

For the assessment of economic impacts resulting from visitor spending, non-local use expenditures were allocated to seven specific industrial sectors. For the institutional spending, sectors were specified to reflect the cost structure of operation. Each sector into which expenditures were allocated is represented by unique 3 to 6 digit North American Industry Classification System (NAICS) codes and is specific to the sector structure of IMPLAN 3.

Standard categories of economic impacts included *output* (or the aggregate impact on regional economic activity), *value added* or *income* (that portion of total output that accrues locally), and *employment* (total numbers of jobs created) locally.[3] The county-level input-output model used to calculate total impacts estimated multiplier effects measured as direct, indirect, and induced impacts. These were uniquely calculated and reported for output, income, and employment. Direct effects result from amounts spent to purchase goods and services in the regional economy (non-local spending in the region). Indirect effects relate to inter-industry transactions resulting from those non-local visitor purchases (direct effects). Induced effects include the increase in local income resulting from the direct and indirect effects and their subsequent effects on local consumption.

The extent of these round-by-round "multiplier" effects will depend on fundamental characteristics of the regional economy. In general, larger and more diverse regional economies will exhibit higher levels of economic multiplier effects. Conversely, smaller and less diverse regional economies will exhibit relatively lower multiplier effects. These economic multiplier generalizations reflect alternative levels of regional economic "leakage" and "capture". For example "leakage" might be dollars spent by restaurant owners to purchase food not grown locally. "Capture" would be their profit on selling meals prepared with both local and non-local food. The extent of impact relates to regional export/import balances that differ by region.

[3] Output includes all economic activity related to visitor spending including intermediate purchased inputs, income or value added, and imported inputs. Income most clearly reflects the impacts felt by local residents and includes four components: (1) employee compensation, (2) proprietor's income, (3) other property income, and (4) indirect business taxes. Employment measures total jobs created and includes full-time, part-time and seasonal jobs.

In general, the Bayfield and Ashland County region is a relatively small and less diverse rural economy that exists in close proximity to the Duluth/Superior (75 miles) and Minneapolis/St. Paul (200 miles) metropolitan areas.

Results

The regional economy of Bayfield and Ashland Counties in northern Wisconsin is characteristically rural.[4] This 2,520 square mile region exists in the outwash plains, rolling hills and forests of the south-shore of Lake Superior. Demographically, this two-county region has a resident population of roughly 31,000 within 14,000 households (2011). In 2011, total regional employment was just over 18,500 jobs generating total personal income of roughly $970 million USD. This income was made up of employee compensation ($498 million), proprietor's income ($67 million), property-type income ($285 million), and indirect business taxes ($69 million). The average household income in the region was just under $73,000.[5] The top employment sectors of the regional economy included state and local government, food services and drinking places, individual and family services, real estate establishments, private colleges, nursing and residential care facilities, construction, general retail merchandise, and medical services. Estimates for the regional economic impact of the Center reflect both non-local recreational visitor spending and institutional spending in the form of Center operations. For purposes of reporting, we present both sets of estimates separately.

Impacts of Visitor Spending

Using the previously identified non-local private sector demand stimulus resulting from visitor spending, the input-output model of the two county region estimates and tracks jobs and resulting income for local residents of Ashland and Bayfield County. Results from the regional model suggest that these impacts are fairly modest relative to the overall size of the regional economy. Economic impacts resulting from non-local visitors to the Northern Great Lakes Visitor Center are summarized in Table 4.

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[4] Data for this section is from a regional model of Bayfield and Ashland Counties constructed using 2010 county-level data from IMPLAN 3 (MIG 2011). A description of the specific methods used to estimate local economic impacts in this region can be obtained from the authors of this report.

[5] This value reflects a broad variety of income types that include employee compensation, proprietor's income, and other property type income. Also, it reflects the average (or mean) household income which differs and is higher than the median household income (or mid-point of a ranked list of household incomes).

Table 4. Economic impacts associated with annual spending of non-local recreation-oriented visitors to the Northern Great Lakes Visitor Center (in 2013 total jobs and USD respectively).

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	63	$1,094,000	$1,841,000	$3,509,000
Indirect Effect	11	$260,000	$518,000	$963,000
Induced Effect	10	$238,000	$483,000	$834,000
Total Effect	84	$1,592,000	$2,842,000	$5,306,000

Source: IMPLAN 3 model results constructed using an aggregated Bayfield and Ashland County region. Specific modeling details can be obtained from the authors.

These economic impacts are focused within local business sectors that cater to visitors. Sometimes referred to as the local hospitality sectors, these include service businesses such as restaurants and taverns, overnight accommodations (hotels, motels, and campgrounds), and entertainment. Also included are local retail businesses and wholesale business interests. Economic impacts flowing into the top 10 local business sectors are summarized in Table 5.

Table 5. Top 10 local business sectors affected by annual spending of non-local recreation-oriented visitors to the Northern Great Lakes Visitor Center and their levels of economic impact (in 2013 total jobs and USD).

Local Business Sector	**Employment (in total jobs)**	**Labor Income**	**Value Added**	**Output**
Food services and drinking places	25	$361,000	$560,000	$1,123,000
Hotels and motels, including casino hotels	25	$423,000	$859,000	$1,635,000
Amusement parks, arcades, & gambling	6	$95,000	$110,000	$200,000
Other amusement and recreation industries	4	$34,000	$76,000	$134,000
Services to buildings and dwellings	2	$15,000	$26,000	$66,000
Real estate establishments	2	$6,000	$102,000	$114,000
Retail Stores - Food and beverage	1	$30,000	$43,000	$57,000
Wholesale trade businesses	1	$55,000	$99,000	$132,000
Retail Nonstores - Direct and electronic sales	1	$8,000	$20,000	$39,000
Retail Stores - General merchandise	1	$19,000	$30,000	$39,000

Source: IMPLAN 3 model results constructed using an aggregated Bayfield and Ashland County region. Specific modeling details can be obtained from the authors.

Note from this table that there are distinct differences in the types of jobs creates by local business sector. For instance, visitor spending in the local area within food

services and drinking places supports roughly 25 jobs with an average annual labor income of about $14,400. This compares to an annual average labor income of about $16,900 in hotels and motels and roughly $55,000 in wholesale trade businesses. These results are consistent with previous work that reports on employment quality for hospitality sectors in Wisconsin (Marcouiller and Xia 2008).

Impacts of Institutional Spending

The model on institutional spending generated estimates of the economic impacts associated with operation of the Center and was primarily focused on wages and salaries of Center employees. A smaller amount of durable and maintenance goods and services also makes up the stimulus tracked within the institutional spending model. An overview of the economic impacts of Center operations are outlined in Table 6.

Table 6. Economic impacts associated with annual institutional spending from non-local sources for operation of the Northern Great Lakes Visitor Center (in 2013 total jobs and USD respectively).

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	13	$468,000	$542,000	$536,000
Indirect Effect	0	$1,000	$2,000	$4,000
Induced Effect	3	$82,000	$166,000	$288,000
Total Effect	16	$551,000	$710,000	$827,000

Source: IMPLAN 3 model results constructed using an aggregated Bayfield and Ashland County region. Specific modeling details can be obtained from the authors.

Note from this table that an additional 16 jobs are supported by the operation of the Center. This translates into more than a half million dollars of employee compensation that results from the Center itself. On average, these jobs pay more than $34,000 per year. The sectors within which these jobs are primarily found are government agencies and departments (mostly State and Federal) but also include professional medical services, local retail and personal services, and real estate. The top 10 sectors affected by operation of the Center and the estimate of economic impacts are summarized in Table 7.

Table 7. Top 10 local business sectors affected by annual institutional spending from non-local sources for operation of the Northern Great Lakes Visitor Center (in 2013 total jobs and USD respectively).

Local Business Sector	Employment (in total jobs)	Labor Income	Value Added	Output
Employment and payroll only	13	$466,000	$538,000	$526,000
Food services and drinking places	<1	$6,000	$10,000	$20,000
Real estate establishments	<1	$1,000	$13,000	$15,000
Offices of physicians, dentists, and other health practitioners	<1	$11,000	$11,000	$18,000
Nursing and residential care facilities	<1	$4,000	$5,000	$7,000
Retail Stores - Food and beverage	<1	$3,000	$4,000	$6,000
Individual and family services	<1	$1,000	$1,000	$3,000
Retail Stores - General merchandise	<1	$3,000	$4,000	$6,000
Private hospitals	<1	$5,000	$5,000	$11,000
Securities, commodity contracts, investments, and related activities	<1	<$1,000	<$1,000	$11,000

Source: IMPLAN 3 model results constructed using an aggregated Bayfield and Ashland County region. Specific modeling details can be obtained from the authors.

Summary, Conclusions, and Further Research Needs

For many years people have wondered how the Northern Great Lakes Visitor Center (NGLVC) influences economic development. In this study, we estimated the economic impacts of visitation to and operation of the Center on the regional economy of Ashland and Bayfield Counties. This was accomplished using average visitation levels for the past 10 years matched with secondary data on visitor characteristics and a regional economic model constructed for the project. Results suggest that spending in the region by visitors to the NGLVC average over 5 million dollars per year. Combined with operational expenditures, this infusion of new dollars into the Ashland and Bayfield County economies generates over 6 million dollars of direct, indirect, and induced economic activity, including support for roughly 100 local jobs. In the 15 years since opening, this study suggests that visitors to the NGLVC have spent over 75 million dollars in the region.

It is noteworthy that the NGLVC is able to host an average of nearly 125,000 visitors annually by leading an active partnership consisting of the USDA Forest Service, National Park Service, the U.S. Fish & Wildlife Service, Wisconsin Historical Society, University of Wisconsin-Extension and the Friends of the Center Alliance, LTD. The

NGLVC operates as a federal, state and local, public and private partnership for the benefit of the region. The NGLVC also derives support from Ashland and Bayfield Counties, the Town of Eileen, and scores of local groups and organizations that link with the NGLVC.

Recreational visitors to the NGLVC spend over $50 per person per day. Results of this study suggest that NGLVC visitor spending translates into over 5 million dollars per year in the local economy. This suggests the view that the NGLVC acts as an engine of rural economic development and sustenance for the region. The pooling of federal, state and local funds through a partnership to run a multiple use facility appears to be an efficient way of fostering economic development as resources that support the partnership are drawn from multiple sources. This cooperation through partnership provides, "more bang for the buck" for all partners. Each partner benefits from the partnership.

The USDA Forest Service as lead agency and owner of the NGLVC facility receives what amounts to a subsidy in monetary, staffing and in-kind resources from the other partners. The National Park Service receives a high profile presence at the main gateway to the Apostle Islands National Lakeshore to lure visitors from US Highway 2, up State Highway 13 to the National Lakeshore. The Fish & Wildlife Service receives a prestigious headquarters that greatly increases awareness of and traffic to the Whittlesey Creek National Wildlife Refuge that adjoins the NGLVC grounds. The Wisconsin Historical Society receives a high profile site for its History Center and Archives. The University of Wisconsin - Extension furthers its goal of extending University resources of knowledge creation and dissemination to all parts of Wisconsin. Finally, the Friends of the Center Alliance achieves its goal of continuing NGLVC operations by marshaling public support for the partnership. All partners gain from the expertise of the other partners that in tandem use the NGLVC as a major public platform for partner messages and programs. Finally, the local entities and governments that support the operations at the NGLVC receive a huge return on their annual investment due to the proven impact of the operation of NGLVC in the region.

It is rare for multiple agencies to form public private partnerships that achieve success. This is an example of such a success that has provided, and continues to provide, tangible sustainable economic development to the region.

This scope of this study focused on the community economic impacts of the NGLVC and documents the significant contribution made by the Center to local business

receipts, in support of local jobs, and of additions to local economic vibrancy. What we did not look at, however, were the educational impacts and the impact of NGLVC programs on 'Community Socal Capital' (or as some refer to a 'Cool Community Handprint' - see Appendix A for a definition of these terms). Anecdotally, center staff and participants have seen these types of contributions, but other than program evaluations for select activities, there has not been an effort to systematically gather data to support these observations. A follow-up study is needed to determine the extent and quality of these impacts. This would require a commitment to a systematic collection of data from program participants and Center visitors. This could be accomplished through a quantitative approach with participant surveys, pre & post tests and other instruments. It might also be accomplished through a qualitative study with focus group interviews, case studies, key informant interviews or similar approaches. Either method will be time consuming and will require resources and commitment of the Center staff.

Flora & Flora (2008) noted the importance for a community to work toward the development of a 'sense of place'. From historical interpretive displays to current issues forums, the Center is contributing to a sense of place for the Chequamegon Bay region. To show the total impact of the NGLVC on the region, additional research is needed to complete the picture of a vibrant economic contributor and a 'cool' community asset.

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Appendix A. Literature Review

Overall, the literature we reviewed suggested that destinations with characteristics similar to the NGLVC have net positive economic impacts on the regions in which they are located. Given the range of destinations studied, estimates of economic impact varied considerably. For example, a proposed visitor information center in St. Clair County, Illinois, was estimated to have an annual total economic output of $672,240 on the county (Kaufhold 2007). On a larger scale, the estimated impact of wildlife recreation on the state of Arizona was estimated to be up to $1.5 billion (Southwick and Associates 2003).

Methods varied across the literature we reviewed. Many studies relied on survey-based methods to track visitor spending and then applied subsequent results into input-output models (Carnegie Mellon Center for Economic Development 2006; Huhtala 2007; Mayer et al. 2010; Stynes, Vander Stoep and Sun 2004). Many studies used IMPLAN to conduct the input-output analysis (Labovitz School of Business and Economics 2006; Marcouiller, Preissing, and Alpi 1995; Tuck and Schwartau 2012)

While input-output was by far the most common method used to estimate economic impacts, different approaches were taken as well. For example, Eubanks et al. (1998) calculated the value of the object of study, wildlife watchers around the Platte River in Nebraska, using contingent valuation and willingness-to-pay valuation. The Carnegie Mellon Center for Economic Development (2006) used the cost of time approach to estimate the direct benefits provided by the library that may not be quantifiable otherwise. Examples include the value of borrowing a book from the library and using other free library services.

In addition, the studies we examined collected a wide variety of additional data not directly related to the economic impact analysis. The reasons for collecting other data depended on the practical marketing needs of the tourist destination or the research needs of the authors. The Carnegie Mellon Center for Economic Development (2006) collected data about its user base. Studies by Stynes, Vander Stoep and Sun (2004) and the U.S. Department of the Interior (2006) included a significant amount of data about visitor demographic information, attributes, and interests.

In their data collection and presentation, most of the studies we examined used differing definitions that specified origin and destination. Some distinguished

between local and nonlocal visitors. Others tracked the size of a group and broke the party's expenditures into per-person expenditures, while others did not track the party size. Some studies differentiated between day trippers, overnight visitors, and visitors staying for multiple days. When comparing data across different studies, it is important to bear these distinctions in mind. Another difference is the types of activities that were included in the total economic impact. For example, Southwick and Associates (2003), Kaufhold (2007), and a few others factored in the tax revenues generated by the destination to the economic impact calculation, but this was not calculated in most other studies. Kaufhold (2007) also focused on what was referred to as "net impact," meaning the spending and economic impact of nonlocal visitors only, while most of the other studies calculated "total impact," which included local visitor spending, nonlocal visitor spending, and the operational expenses of the visitor center/destination itself.

There may be a relationship between social capital and sites like the NGLVC that provide a community gathering place and other benefits for people living nearby. Research addressing the notion of a relationship between tourism and social capital is rather limited. In the literature that does exist, social capital is often studied as an independent variable that drives tourism, rather than a product of tourism (McGehee 2010). One such study examined the relationship between tourism-related social capital and other forms of capital. The authors concluded that while residents' perceptions of natural capital or public built capital are not impacted by the presence of tourism-related social capital, tourism-related social capital does have a positive impact of residents' perceptions of cultural capital, political capital, human capital, private built capital, and financial capital (McGehee 2010). Other studies look at how social capital drives some other types of tourism.

Some studies examined the impact of specific types of tourist destinations on the social capital in the surrounding community. Svendsen (2013) described how libraries in rural areas create social capital through bonding and bridging and discusses the importance of multiple institutions in one place in building social and institutional capital. Bryan et al. (2012) considered the social impact and role of museums, concluding that people have different and expanding expectations of museums, which requires new ways to understand and interpret museums' social and economic impact in the community. Andresen (2011) did a study of whether asset-based community development attracts and retain young people. Preliminary results showed that the majority of the young people surveyed had a more positive view of the community as a result of their involvement in a grassroots program

designed to promote, strengthen young people's connections to their community's assets.

The Wisconsin Historical Society maintains an extensive collection of books at the History Center and Archives at the NGLVC. Included in the collection are many books on Native American Culture and the Sigurd Olson Papers. In addition, books in the extensive WHS statewide collection requested by a patron will be transported to the archives at the NGLVC.

Choi and Murray (2010), in their study of sustainable tourism, found that in order to receive the benefits of tourism, avoid its negative impacts, and maintain support for tourism within the community, it is essential to prioritize long-term planning, full community participation, and environmental sustainability in the planning process. Sites such as the NGLVC may look to this research to ensure that they continue to meet community needs and reap the social benefits of tourism.

Cornelia and Jan Flora in their book *Rural Communities* (2008) developed the *Community Capitals Framework* as an approach to analyze how communities work. They suggest that successful communities they studied focused attention on all seven types of capital: natural, cultural, human, social, political, financial and built. Reviewing their framework in relationship to the mission of the NGLVC suggests a strong link between center programs and the development of social and cultural capital and possible additional links with the other capitals.

Rebecca Ryan (2007) in her book 'Live First, Work Second' offers a holistic look at community development that is needed to create 'Cool Communities', that is, communities that are particularly attractive to younger generations. Her 'cool community handprint' suggests seven lenses through which to view your community: Vitality, earning, learning, social capital, cost of lifestyle, after hours and around town. The NGLVC potentially impacts several of these lenses, particularly social capital and learning. It may also serve as a 'third space', a place that is not home - 1st space, or work - 2nd space, but a third place that is important to several of the lenses. Third spaces are places where people like to hang out to socialize, learn, relax, re- energize, network and build community. Evening programs at the NGLVC may serve this function for a segment of the area population.