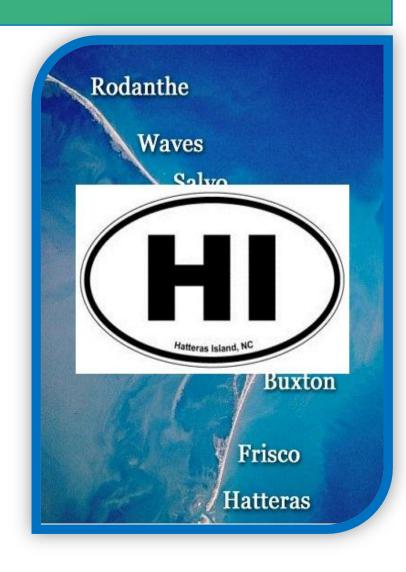
HATTERAS ISLAND ECONOMIC IMPACT

Presented to

Outer Banks Visitors Bureau

By Brent Lane July 2013



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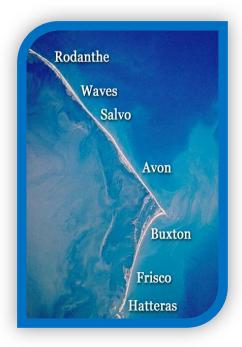
ASSESSMENT SUMMARY

This Hatteras Island Economic Impact Assessment was performed from January until May 2013 to describe and calculate the regional economic contributions of Hatteras Island.

The research was sponsored by the Outer Banks Visitors Bureau. Brent Lane, economic researcher (University of North Carolina), served as Project Research Director.

Study Region

The study region for the Hatteras Island Economic Impact Assessment included the area from Oregon Inlet to the north and Hatteras Inlet to the south. The study region encompassed the unincorporated communities of Rodanthe, Waves, Salvo, Avon, Buxton, Frisco and Hatteras Village.



Economic Impacts Summary

The assessment found that Hatteras Island generated the following economic impacts:

Hatteras Island Tourism Industry Economic Impact

- Tourism Expenditures: \$204 million in 2011
- Employment: Accounted for 2,618 jobs
- Payroll: Generated a total payroll of \$41 million
- Taxes: Contributed \$10.3 million in state taxes and \$9.4 million in local taxes

Hatteras Island Real Estate Economic Contribution

- **Property Value**: 8,572 parcels accounting for \$2.1 billion in 2013; however this amount is expected to rebound to a value between \$2.1 and \$3 billion
- **Property Taxes**: Hatteras Island real estate generated more than \$9 million annually in Dare County property taxes.
- Occupancy Receipts and Taxes: Generated Occupancy Receipts of \$106 million in 2012 and tax collections of \$5.3 million (despite a two month closure of road access on NC12).

Hatteras Island Brand Value Contribution

- **OBX Brand Value**: Iconic imagery and experiences of Hatteras Island contribute \$35 million to an Outer Banks "brand" valued at \$100 million
- Most important to "first time" OBX visitors attracted by heritage, recreation, and natural resources closely identified with Hatteras Island



RESEARCH GOAL AND STUDY REGION

The goal of the Hatteras Island Economic Impact Assessment was to answer a simple question: "How much, and in what ways, does Hatteras Island contribute to the economy of the Outer Banks?" But while the question could be stated simply, the question posed several challenges to answer.

Hatteras Island is already recognized as making an important, though unquantified, contribution to the tourism industry that dominates the Outer Banks economy. But tourism spending is not Hatteras Island's only means of economic impact. It also contributes in other ways — real estate values, market branding, taxes — that also needed to be captured to accurately describe its economic impact.



Study Region

The study region for the Hatteras Island Economic Impact Assessment included the area defined from Oregon Inlet to the north and Hatteras Inlet to the south. The study region encompassed the following unincorporated communities: Rodanthe, Waves, Salvo, Avon, Buxton, Frisco and Hatteras Village.

The permanent resident population of Hatteras Island's is small and has grown only slowly for the past two decades. From a population of 3,814 in 1990, the island's resident population increased by only 13% to 4,322 by the 2010 US Census. In contrast, the population all of Dare County (including Hatteras Island) grew by 49% in the same period.

This slow rate of growth in fulltime residents understates the area's expanding "economic footprint". In fact the scale of the Hatteras Island tourism industry supports an economy disproportionately larger than the resident population suggests.

During peak tourism periods, Hatteras Island can have more 50,000 visitors daily, with an increasing share of them lodging on the island in recent years as the number of rental properties grew dramatically for most of the past decade.

The result has been a corresponding increase in Hatteras Island businesses. Of the 697 firms identified on Hatteras Island in the research project, over 75% - more than 500 firms – had started or located there since 2000.

ASSESSMENT RESEARCH METHODS

Existing statistics allow for the size and impact of the Dare County economy to be reasonably and regularly calculated. However, such information is rarely collected below the level of the county, and certainly not for unincorporated communities that compose Hatteras Island.

Rather than studying the Hatteras Island economy from the "top down" using conventional statistics, it was necessary to take a "bottom up" approach focusing on the businesses, real estate and tangible/intangible "brand" assets that collectively constitute Hatteras Island's economic impact. Comparing this data to the broader regional economy enabled the calculation of Hatteras Island's specific contribution.



Hatteras Island Tourism Industry Cluster Modeling

Industry clusters – such as the tourism cluster of the Outer Banks economy - describe the diverse matrix of businesses that supply each other, as well as consumers. An analysis of the Hatteras Island tourism industry cluster was performed to examine the scale and scope of the island's participation in the Outer Banks tourism economy.

Regional Tourism Impact Model

The research project required the construction of an initial model of the regional tourism economy within which Hatteras Island impacts accrue. Dare County was selected as the appropriate regional economy for impact assessment and a model of the region's tourism economy was built through integration of existing quantitative and qualitative tourism data from state and regional sources.

Hatteras Island Real Estate Value contribution

Hatteras Island was once a remote, barely accessible and undeveloped region of the Outer Banks. In recent decades that situation has changed remarkably. As a result properties on the island make up a significant portion of Dare County's property tax base and occupancy tax receipts. The research examined Hatteras Island's real estate portfolio to calculate its aggregate economic value.

Hatteras Island OBX Brand Value Contribution

"Brand value" addition is an often overlooked economic contribution of particular significance in image conscious industries such as tourism. Several of the most recognizable iconic images and distinct experiences that define the Outer Banks - and North Carolina itself – are unique to Hatteras Island. The research identified frequency and utilization of Hatteras Island imagery to calculate its value contribution to Outer Banks brand.



HATTERAS ISLAND TOURISM INDUSTRY ECONOMIC IMPACT

A substantial component of Hatteras Island's economic impact results from the contribution it makes to tourism in the Outer Banks and within Dare County specifically. But while reliable travel statistics enable the scale of the tourism industry in Dare County to regularly calculated and updated, there is no similar subset of travel statistics just for Hatteras Island.

In order to calculate the tourism industry economic impact of just Hatteras Island, it was necessary to first examine the populations of tourism-related businesses in both Dare County and Hatteras Island. Specifically, the economies of the Dare County and



Hatteras Island needed to be compared in terms of their relative "tourism intensity", or the extent to which tourism industry constitute their respective larger economies. Comparing the shares of the tourism industry present in Dare and Hatteras Island would provide the basis for estimating the economic contribution of Hatteras Island tourism to Dare County and the Outer Banks.

Tourism Industry Cluster Analysis

Industry clusters – such as the tourism cluster of the Outer Banks economy - describe the diverse matrix of businesses that supply each other, as well as consumers, within prescribed sets of common industry groupings and markets. Such clusters often arise as companies develop around geographic proximity to desired resources and provide a variety of goods and services that draw on those resources to meet the market needs of customers. The economic "health" of an industry cluster can be assessed by the extent to which the maximum spectrum of desired goods and services – from low end commodity to high end specialty - are satisfied by the constituent resident population of businesses.

North Carolina has been home to several industry clusters over the past century: large statewide or regional clusters such tobacco products, furniture, and textiles - as well as smaller localized industry clusters such as hosiery, boatbuilding, and even pickles. In each instance the availability of an abundant local resource was combined with human



capital such as skilled labor, entrepreneurs and investors to create and grow thriving economies selling value-added goods to instate and non-North Carolina customers. In the process such clusters created wealth and employment through the attraction of "new money" into their local economies.

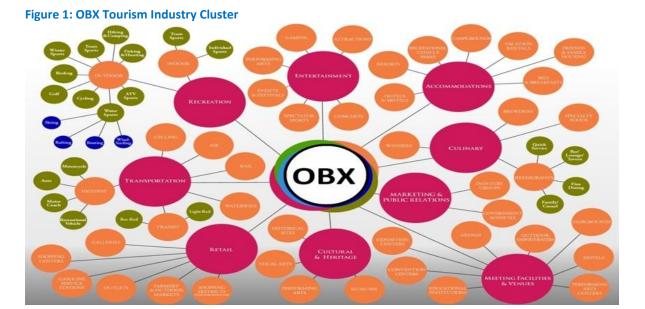
Outer Banks tourism is another example of an industry cluster. The multitude of natural and cultural resource offerings of the region are the basis for a wide range of goods and services provided by firms to the visitors these attractions draw.

Economists have defined the tourism industry cluster through classifications of businesses that directly serve tourists.

As described by the North American Industry Classification System (NAICS), used by business and government to classify business establishments according to type of economic activity, the categories of activities in the tourism industry cluster include, but are not always limited to:

- Air transportation and services
- Sea, coastal transportation
- Taxi and limousine service
- Charter and ground passenger transportation
- Scenic and sightseeing water transportation
- Automotive rental
- Travel arrangement and reservation services
- Performing arts companies

- Spectator sports
- Promoters of performing arts and sports
- Museums, historical sites, zoos, and parks
- Amusement parks and arcades
- Traveler accommodation
- RV parks and recreational camps
- Rooming and boarding houses
- **Drinking places**
- Restaurants and Other Eating Places



The businesses in a tourism industry cluster (Figure 1) serve not only tourists directly, but also constitute a network of "buyers and suppliers" that trade goods and services among each other. A healthy, dynamic industry cluster can be thought of a wide ranging interwoven "net" of firms that serve a target market.



Industry Cluster Insights

Gaps in an industry cluster may represent examples of unfulfilled market opportunities where potential or demonstrated customer/tourists demand is going unsatisfied. When that is the case, not only may the visitor experience have been lessened, but the "opportunity gap" also represents loss revenue and employment benefits for the Outer Banks regional economy.

Industry cluster analysis builds on conventional economic impact methods by using public as well as proprietary data sources to conduct business-level economic assessments. Identifying and describing the businesses that collectively compose an economy allows for a more specific, more "particular" understanding of the scope as well as depth of that industry's presence. For example, there are vastly different economic diversification implications between a regional industry that employs 2,000 people at only two companies versus the same total number at 20 firms. Cluster analysis makes those distinctions.

Examining the cluster at the company level can also discern potential areas of either over-population where too many businesses may be trying to serve the same customers, or cluster categories where a paucity of resident businesses may suggest areas of potential new growth. Additional evidence for these "cluster gaps" may be discerned from research such as "visitor satisfaction" surveys when unmet market articulated desires are described. In such instances combining tourism market data with cluster analysis can be useful in guiding economic development efforts toward these "targets of opportunity".

Hatteras Island's Tourism Industry Cluster

Databases of Dare County and Hatteras Island-specific tourism industry cluster classified companies were compiled from multiple sources to permit comparative analysis of their relative numbers and distributions (Figure 2). A total of 747 companies directly involved in the tourism industry cluster sectors were identified in Dare County. These firms represented almost 14% of all (5,372) Dare County businesses.

| Tourism Cluster Classified Companies | | | | | | |
|--------------------------------------|---------|------|--------|--|--|--|
| Dare County vs. Hatteras Island | | | | | | |
| | Tourism | All | Share | | | |
| Dare County | 747 | 5372 | 13.91% | | | |
| Hatteras Island | 177 | 697 | 25.39% | | | |

Figure 2: Relative Tourism Cluster Densities

Of the 697 businesses identified on Hatteras Island, 177 firms - more than 25% - were specifically tourism industry cluster companies. By this measure, Hatteras Island has a much "denser" tourism cluster as a larger share of all its businesses are within the cluster definition. (Appendixes A & B)



Hatteras Island Cluster Participation

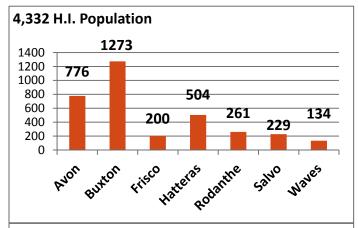
Cluster analysis is a useful device for examining the geographic distribution of industrial and other economic activities. It is common that within a specific regional economy, business activities in a cluster will be distributed unevenly as shared location considerations often serve to aggregate or dissipate development patterns.

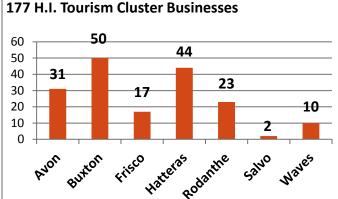
The tourism cluster of Hatteras Island exhibits this phenomenon. The distribution of both the companies directly involved in the regional tourism cluster, and the jobs employed by those firms, differ greatly across the communities of Hatteras Island.

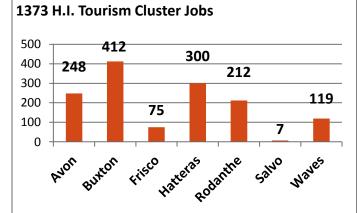
With the largest population in the area, it may not be surprising that Buxton is home to the most tourism cluster businesses and jobs. Avon, with the second largest population actually lags behind significantly behind the smaller community of Hatteras Village in businesses and employment.

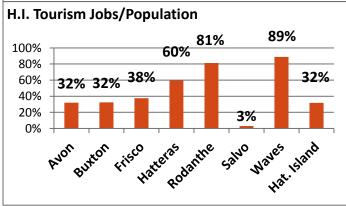
While they are among the smallest of Hatteras Island's communities, Rodanthe and Waves also participate significantly in the tourism cluster. In fact, they can be considered to have the most intensely tourism cluster-based local economies on the island.

This is revealed by comparing their populations to their number of tourism cluster jobs. Adjusted for population, Waves has the highest level of tourism cluster employment per capita (89%) followed by Rodanthe (81%). While Buxton has the most tourism companies and jobs, its per capita employment in the cluster (32%) is only at the level of all of Hatteras Island (32%).









Hatteras Island Tourism Cluster Surplus/Gap Analysis

As previously discussed, another value of industry cluster analysis is the ability to discern possible over- or under-population of certain business areas of the cluster. An area of cluster "surplus" might be a sector in which too many businesses are trying to serve the same customers. Equally, a sector of cluster "gap" might represent unmet market demand.

Determining excess or insufficiency of supply is ultimately determined by market forces themselves. Unfortunately, those forces are only most apparent when available supply exceeds customer demand as businesses close due to excess competition or inadequate revenues. Less apparent is when a market demand or customer desire is unsatisfied. Identifying these situations can be the most useful information for businesses seeking to locate or expand, which is especially useful in guiding economic development efforts.



| Table 1: Hatteras Island Tourism Cluster | | | | |
|--|------------------------|--|--|--|
| Surplus | Gap | | | |
| Camping | Ground transportation | | | |
| Museums/Historic Sites | Travel Services | | | |
| Boat Charters | Performing Arts | | | |
| Accommodations | Spectator Sports | | | |
| | Drinking Places | | | |
| | Restaurants | | | |

One means to investigate cluster surpluses and gaps is to compare one regional cluster to another comparable cluster. A surplus/gap analysis for Hatteras Island's tourism industry cluster was performed by comparing its cluster population of businesses with that of the rest of Dare County. This analysis revealed suggested areas of both surplus and gaps in the Hatteras Island tourism cluster that warrant deeper investigation.

Hatteras Island has 177 companies

in its tourism cluster while Dare County has 747 companies in the same cluster. Therefore, the business population of Hatteras Island's cluster is 31% of Dare County's. But the types of businesses in those clusters are not evenly distributed, suggested that there are types of tourism firms on Hatteras Island that are either over-represented - "surplus", or under-represented - "gap" in its tourism cluster.



The most pronounced examples of either surplus or gap categories are itemized in Table 1. This information is suggestive but not definitive. Other factors, such as differing customer profiles, scale of business operations, or innate resources, could explain the relative differences between the composition of Hatteras Island's and Dare County's tourism clusters.

Orange Blossom

Bakery & Cafe

Hatteras Island

Dare

Hatteras Island Tourism Cluster Density

This analysis found that of the 5,372 businesses in Dare County, almost 14% (747 out of total 5372 firms) were defined as being in the tourism cluster.

Hatteras Island, as a subset of the Dare County economy, necessarily had fewer tourism cluster businesses (177), but they constituted a far larger share (25%) of all Hatteras Island firms than throughout Dare County.

Hatteras Island

In economic terms, the tourism cluster of Hatteras Island has a "cluster density index" of 1.83 (25.4/13.9 = 1.83) as compared to Dare County as a whole. Hatteras Island's "cluster density index" (Figure 3) is key to

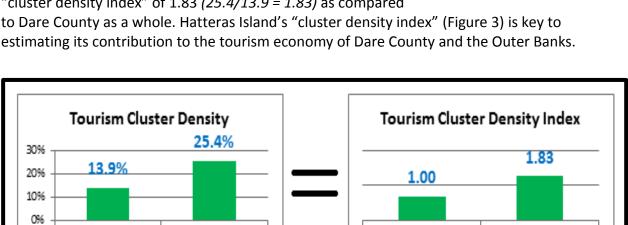


Figure 3: Cluster Density Index

Dare



Calculating Hatteras Island Tourism's Economic Impact

Benefits from tourism are the largest primary form of economic impact that Hatteras Island contributes to the Outer Banks region. But calculating that economic impact is complicated by the absence of tourism data specific to Hatteras Island. Such information is rarely collected below the level of the county, and certainly not for unincorporated communities that compose Hatteras Island.

calculation of Hatteras Island's specific contribution.



Rather than studying the Hatteras Island economy from the "top down" using conventional statistics, it was necessary to take a "bottom up" approach focusing on the businesses, real estate and tangible/intangible "brand" assets that collectively constitute Hatteras Island's economic impact. Comparing this data to the broader regional economy enabled the

Existing statistics allow for the size and impact of the Dare County economy to be reasonably and regularly calculated. As the economic impact of Hatteras Island is inherently a subset of that of Dare County as a whole, a measurement of the proportional levels of tourism economic activity between Hatteras Island and Dare County enables a calculation of the impacts that occur within Dare County attributable to Hatteras Island.



Measuring the Economic Impact of Tourism

The economic impact of the tourism industry in North Carolina and each of its 100 counties is calculated annually by the Research Department of the US Travel Association for the N.C. Department of Commerce's Division of Tourism, Film and Sports Development. Impacts are calculated using the appropriately named "Travel Economic Impact Model" (TEIM) which measures the impact of travel on the U.S. economy at the national, state and local levels.

The TEIM is a disaggregated model comprised of 16 travel categories, including lodging, food, retail, public transportation, auto

transportation, and amusement/recreation. The model employs data from a variety of government and proprietary sources and a combination of data inputs derived from U.S federal government and state government, nationally-known private and non-profit travel organizations and other TIA's travel statistics.

In this way it can be viewed as similar to the tourism industry cluster analysis, but approaching the measuring of impact from the "top down" based on aggregate market activity rather than the "bottom up" business-level cluster method.

Economic Impact of Tourism

The TEIM provides annual estimates of travel expenditures and the effect of these expenditures on employment, payroll and tax revenue in North Carolina and at the county level. Those reports demonstrate the strong roles that tourism plays in the economies of the state as well as many counties, and especially in Dare County.

North Carolina

As reported by the North Carolina Department of Commerce's Division of Tourism, Film and Sports Development, North Carolina ranks as the 6th most visited state in the United States. During 2012, visitors traveling to and within the state:

- spent a record \$19.4 billion
- supporting more than 40,000 North Carolina businesses
- directly supporting nearly 200,000 jobs all across the state, and
- generated more than \$1.5 billion in state and local tax revenues

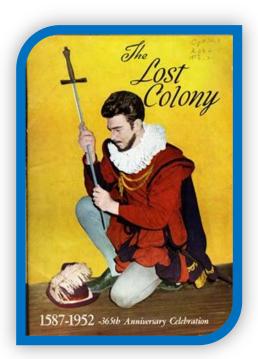
Dare County

The Department also issues county-by-county travel economic impact statistics that are prepared annually by the Research Department of the US Travel Association. The most recent impact statistics for Dare County found that for 2011, (Figure 4) the TEIM estimated that tourism in Dare County:

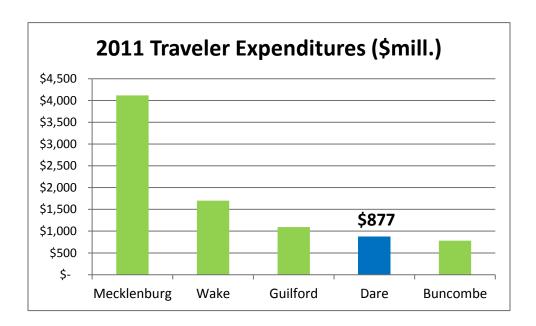
- yielded an economic impact of \$877.18 million
- accounted for more than 11,260 jobs
- produced a \$175.74 million payroll in Dare County directly attributable to travel and tourism; and
- generated an estimated \$85 million in state and local tax revenues

| 2011 TEIM Estimates for Dare County | | | | | | |
|-------------------------------------|---------------|---------------|------------|--------------|--------------|--|
| | Expenditures | Payroll | Employment | State Taxes | Local Taxes | |
| Dare County | \$877 million | \$176 million | 11,260 | \$44 million | \$41 million | |

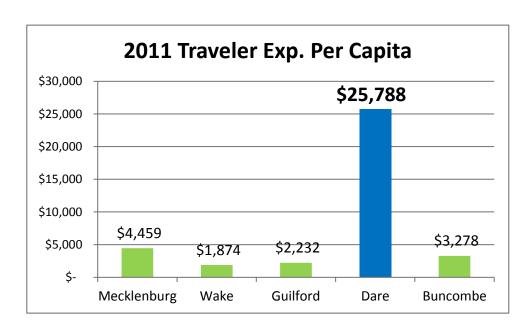
Figure 4: Dare County Tourism Impacts



These impact numbers, while large in absolute terms, are appreciably much more significant when compared to other counties in North Carolina. Dare County ranked 4th in tourism expenditures in 2011, behind only the much larger counties of Guilford, Wake and Mecklenburg.

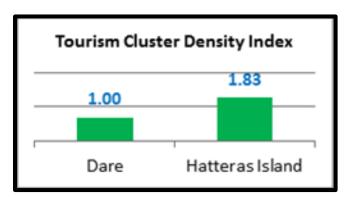


But when those figures are adjusted to take into account Dare County's much smaller population, the true significance of the strength of the county's tourism economy is evident. On a per capita basis, Dare County not only ranked first among North Carolina's 100 counties in tourism expenditures, it's 2011 total was 6X that of second ranked Mecklenburg County.



Deriving Hatteras Island's Tourism Industry Economic Impact

Despite the absence of tourism data specific to the area, the economic impact of Hatteras Island tourism can be derived by combining analysis of its tourism industry cluster with the economic impact measurements for Dare County.



Because the economic impact of Hatteras Island is inherently a subset of that of Dare County, applying the "Tourism Cluster Density Index" calculated for Hatteras Island relative to Dare County isolates the tourism economic impacts that are attributable to Hatteras Island.

The "Tourism Cluster Density Index" calculated for Hatteras Island was 1.83 indexed to Dare County at 1.00. This indicates Hatteras Island tourism expenditures and their resulting economic impacts that on a per capita

basis were 1.83 X those of Dare County.

Based on the strength of Hatteras Island's tourism industry cluster relative to Dare County, and adjusting for the population, Hatteras Island tourism generated these economic impacts:

- Tourism Expenditures: During 2011 the Hatteras Island tourism economy generated a base of \$204 million in travel expenditures.
- **Employment:** This activity contributed accounted for 2,618 jobs
- Payroll: The tourism industry generated a total payroll of \$41 million
- Taxes: Hatteras Island's tourism economy contributed \$10.3 million in North Carolina state taxes and \$9.4 million in local taxes





HATTERAS ISLAND'S REAL ESTATE VALUE CONTRIBUTION

Although obvious in specific transactions, the economic importance of aggregate real

estate value is rarely appreciated beyond the county tax assessor's office. But for coastal and tourism industry communities like Hatteras Island especially, real estate values are a significant basis for their regional economic contribution.



Not long ago Hatteras Island was a remote, barely accessible and undeveloped region of the Outer Banks. While it possessed invaluable natural beauty and bountiful fishing resources, its market real estate value was negligible. But in recent decades that situation has changed remarkably.

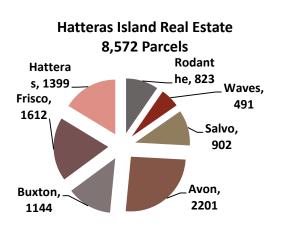
Today on Hatteras Island, real estate value – especially given the value-added development activity of recent

decades, constitutes a substantial addition to the economy and tax base of Dare County and the Outer Banks.

As a result properties on the island make up a significant portion of Dare County's property tax base and occupancy tax receipts. The research examined Hatteras Island's real estate portfolio to calculate its aggregate economic value.



This research examined Hatteras Island's aggregate real estate values, ascertained through publicly available records, to calculate the economic contribution of the island's real estate, resulting tax revenues and occupancy receipts.



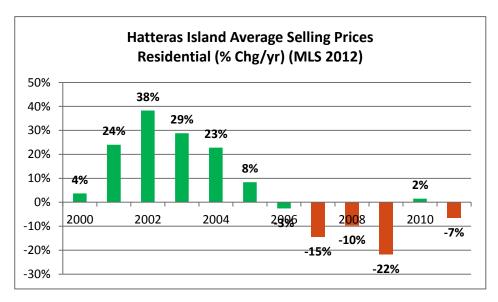
Collectively, Hatteras Island's real estate portfolio consists of 8,572 parcels. The largest number of these parcels are in Avon (2,201), followed by Frisco (1,612) and Hatteras Village (1,399).



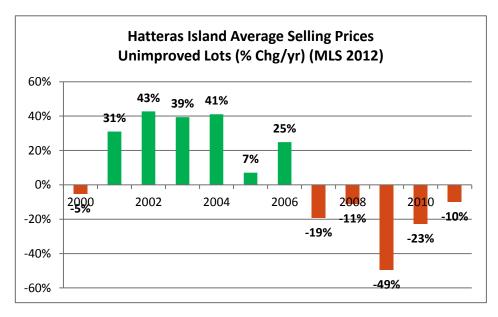


While the long term trend in valuations of the Hatteras Island real estate market has been up, the recent market downturn affected the island's properties particularly hard. Many Hatteras Island properties are affected by ongoing property value tax reassessments that reflect recent market-driven devaluations.

After rising dramatically between 2000 and 2005, the average selling prices of Hatteras Island residential properties has declined in 5 of the last 6 years. This decline has not offset the prior years' gains but the loss in value has been substantial.



The recent downward trend in undeveloped Hatteras Island properties has been similarly pronounced. Six consecutive years of significant selling price increases from 2001 to 2006 have been followed by sharp annual declines over the each of the past five years.



As a result, the current round of county property value reassessments has yielded a preliminary \$2.1 billion in 2013 assessed value for Hatteras Island properties. This represents a 39% reduction of assessed value, down \$1.3 billion from the prior \$3.4 billion value. However this amount is generally expected to be a temporary market reduction with Hatteras Island property values estimated to rebound to a value between \$2.1 and \$3 billion.

Nonetheless, prior to the recent reassessment, Hatteras Island real estate generated more than \$9 million annually in Dare County property taxes.

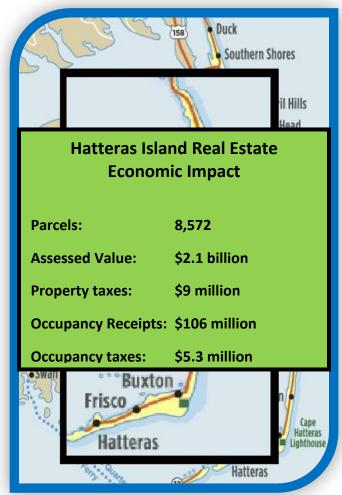
Occupancy Receipts

Dare County collects an "Occupancy Tax" of 5% of gross receipts derived from rental of room, lodging, campsite, or similar accommodation furnished by any hotel, motel, inn, tourist camp including private residences and cottages rented to tourists.

In 2012 Hatteras Island rental properties and other covered lodgings accounted for gross Occupancy Receipts of \$106 million and estimated occupancy tax collections of \$5.3 million. This amount accrued despite the two month closure of road access on NC12. That closure is estimated to have reduced occupancy receipts for the year by over \$2 million.

Hatteras Island Real Estate Economic Impact

- Property Value: 8,572 parcels accounting for \$2.1 billion in 2013; however this amount is expected to rebound to a value between \$2.1 and \$3 billion
- Property Taxes: Hatteras Island real estate generated more than \$9 million annually in Dare County property taxes.
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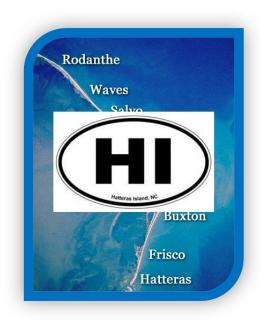


HATTERAS ISLAND OBX BRAND VALUE CONTRIBUTION

"Brand value" is an often overlooked economic contribution of particular significance in image conscious industries such as tourism. Several of the most recognizable iconic images and distinct experiences that define the Outer Banks - and North Carolina itself – are unique to Hatteras Island. The research identified frequency and utilization of Hatteras Island imagery to calculate and monetize its value contribution to the Outer Banks brand.

What is a "Brand"?

Brand is a commonly used but rarely defined concept. Yet consumers rely on the messages that brands convey to inform nearly all of their purchase decisions. How do you define "brand"? Marketing experts will generally answer along the lines of "a brand is your company image". But a brand is more than just a company's image. It also includes both customers' experience and their expectations of the



benefits they will derive from the selection of an identified product or service. At its essence, a brand is both a promise to potential customers and an embodiment of their expectations.

While the concept of brand may be ethereal, the valuing of a brand has accepted methodologies. Brand value is the net present value of future cash flows from a branded product minus the net present value of future cash flows from a similar unbranded or differently branded product.

What is the OBX brand worth?

As in the case of the calculation of Hatteras Island's tourism industry economic impact,

we can assume that the brand value Hatteras Island contributes to the Outer Banks is a subset of the value of the Outer Banks brand itself. This assessment sought to calculate the value of the OBX brand and to describe in what ways and to what level Hatteras Island contributed value to the OBX brand.

While the concept of brand may be ethereal, the valuing of a brand has accepted methodologies. Brand value is the net present value of future cash flows from a branded product

minus the net present value of future cash flows from a similar unbranded or differently branded product.



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The value of the OBX brand was estimated by applying the "net present value" calculation approach to the future stream of economic impacts of the Dare County tourism and adjusting that value by a reasonable imputed "market premium" that differentiated an Outer Banks travel experience from that of a hypothetically similar beach community travel experience elsewhere.

As reported by the North Carolina Department of Commerce, tourism in Dare County is estimated to produce an annual (2011) economic impact of \$877 million. At a 3% discount for the time/value of money, a ten-year stream of similar economic impacts yields a Net Present Value of \$7.48 billion total for the ten year period, and an average annual value of \$748 million.

Parallel calculations were performed for a non-OBX beach economy with a 15% discount. The result of this set of calculations and assumptions yielded an annual value for the <u>Outer Banks brand of \$100 million</u>. While different assumed discount rates would change the calculated brand, as the object of the research was to determine the share contribution made by Hatteras Island, the absolute value assigned for the Outer Banks is not critical.

Calculating Hatteras Island's Brand Value Contribution

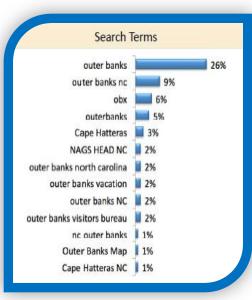
Two approaches to taken to estimate the value contribute by Hatteras Island to the Outer Banks brand. The first repeated the Net Present Value calculations based on the \$204 million in 2011 economic impacts derived earlier for the Hatteras Island tourism industry cluster.

These calculations yielded a Net Present Value for Hatteras Island tourism of \$1.74 billion total for the ten year period, and an average annual value of \$174 million. This amount represented 23% of the Net Present Value for the economic impact of Dare County's tourism. Therefore, at a minimum the direct brand value contribution of Hatteras Island was 23% (or \$23 million) of the estimated \$100 million annual value of the Outer Banks brand.

Hatteras Imagery Study

A second analytic approach was also taken to decrease or increase Hatteras Island's \$23 million direct brand contribution. That approach assessed the extent to which imagery and exhibited experiences distinctly characteristic or intrinsic to Hatteras Island defined visitors' expectations of an Outer Banks visit.

This analysis drew on previous research commissioned by the Outer Banks Visitors Bureau which surveyed actual and potential



visitors about their means of independent travel planning. A 2010 "Visitor Profiling & Re-Contact Study" by ROI Research found that 84% of respondents who vacationed in the Outer Banks booked their vacation online. Those same respondents reported that the most common on-line search technique was to "Google" the search terms "Outer Banks".

This search technique was replicated to discover and identify the images customers would encounter when investigating and considering an Outer Banks vacation. The answer was that the majority of the first "Outer Banks" images found in such searches that could be identified by locale were images of Hatteras Island locations, activities and heritage. Effectively, for many prospective visitors, the Outer Banks brand – the "OBX promise" – was epitomized by Hatteras Island attractions.



Hatteras Island Key Segment Value Proposition

A second study commissioned by the Outer Banks Visitors Bureau revealed that the Hatteras Island "brand" is critical to attracting prospective "first time" visitors to the Outer Banks. The 2012 "Outer Banks, North Carolina Visitor Appraisal" study by professors at North Carolina State University found that the attractions of Hatteras Island were most highly desired by visitors considering their first vacation travel to the Outer Banks.

Research has found this critical market especially valued heritage, recreation, and natural attractions closely identified with Hatteras Island as demonstrated in the stated preference "Word Cloud" (Figure 5) of the surveyed prospective "first timers".



Figure 5

Hatteras Island OBX Brand Value Contribution

By the definition of a brand as "both a promise to potential customers and an embodiment of their expectations", for many Outer Banks visitors – especially prospective first timers – Hatteras Island represents the experience they are seeking in an Outer Banks visit.

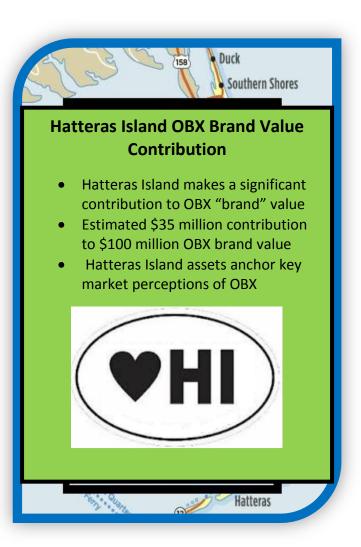
Even those travelers to the Outer Banks who never venture as far south as Hatteras Island were nonetheless drawn to visit the region because the Hatteras Island images encountered in their search process influenced their travel decisions.

Those factors enhanced the estimated contribution Hatteras Island makes to the Outer Banks brand from the base-level of \$23 million based on regional economic impact share to a total estimated \$35 million contribution.



H.I. OBX Brand Value **Contributions**

- **OBX Brand Value**: Iconic imagery and experiences directly associated with Hatteras Island contribute \$35 million of value to an Outer Banks "equity" valued at \$100 million
- First Timer Appeal: Hatteras Island's brand contribution is especially important to attracting prospective "first time" visitors to the Outer Banks.
- **Distinct Value Proposition:** Research has found this critical market especially values heritage, recreation, and natural attractions closely identified with Hatteras Island



ASSESSMENT CONCLUSION

The Hatteras Island Economic Impact Assessment found that Hatteras Island makes a substantial economic contribution to the Outer Banks region and thereby to the state of North Carolina. Hatteras Island's contributions are varied in means and in form, and include but are not limited to the following specified economic impacts:

Hatteras Island Tourism Industry Economic Impact

- **Tourism Expenditures**: During 2011 the Hatteras Island tourism economy generated a base of \$204 million in travel expenditures.
- Employment: This activity contributed accounted for 2,618 jobs
- Payroll: The tourism industry generated a total payroll of \$41 million
- Taxes: Hatteras Island's tourism economy contributed \$10.3 million in North Carolina state taxes and \$9.4 million in local taxes



Hatteras Island Real Estate Economic Contribution

- **Property Value**: Hatteras Island real estate consisting of 8,572 parcels accounting for \$2.1 billion in 2013 assessed value; however this amount is expected to be a temporary market reduction that should rebound to a value between \$2.1 and \$3 billion.
- Occupancy Receipts: Hatteras Island rental properties and other covered lodgings accounted for Occupancy Receipts of \$106 million in 2012 and tax collections of \$5.3 million
- This accrued despite the two month closure of road access on NC12. That closure is estimated to have reduced occupancy receipts for the year by over \$2 million.

Hatteras Island Brand Contribution

- **Brand Value:** Iconic imagery and experiences directly associated with Hatteras Island contribute \$35 million of value to an Outer Banks "brand" valued at \$100 million
- **Distinct Value Proposition**: Hatteras Island's brand contribution is especially important to attracting prospective "first time" visitors to the Outer Banks. Research has found this critical market especially values heritage, recreation, and natural attractions closely identified with Hatteras Island

END