Sea Grant Economic Benefits
2019 Examples Digest

Welcome to the 2019 Economic Benefits Examples Digest. This digest has been created by the 2020 NSGO Socioeconomic Specialist Knauss Fellow to support and enhance future reporting by expanding program's access to examples written by their colleagues. Thank you to those programs who were willing to share their entries from the 2019 reporting year.

For this year's digest, we have selected a subset of economic benefits examples that represent a broad range of topic areas, geographic regions, and economic valuation methodologies. While all the entries are strong, they also represent a spectrum of effort, from relatively simple to more detailed and complex. This collection was not curated with the intent to create a 'best of' list, it is intended as a 'likely to be useful' list that reflects recent themes, discussions, and questions raised by programs. What was chosen or not chosen is not a value judgement on the entries themselves, rather, we chose to highlight examples that we think will be helpful because they differ from the examples already shared in the economic valuation methodology guides, spark ideas for new valuations, or offer an opportunity to provide additional feedback that can enhance future practice. Ultimately, we hope that this will help all programs with their valuation efforts and economic stories.

Economic valuation for program reporting purposes is not an exact science, and our understanding of valuation does evolve and change each year. As an annual digest, this document is designed to reflect continual learning. *This document is meant to be a helpful tool and we want to emphasize that it is not formal guidance.* These examples are meant to support thinking on this topic, but do not necessarily provide a road map for a "perfect" valuation. Please tune in to the monthly Economic Valuation Community of Practice calls for more discussion of economic benefits and valuation approaches. We welcome your feedback on this document and how it might be improved for next year's iteration.

Thank you!

Maggie Chory – National Sea Grant Office Socioeconomic Specialist (2020 Knauss Fellow)
Alison Krepp – National Sea Grant Office Social Science and Economics Lead

Environmental Literacy and Workforce Development:

Opportunity Cost Valuation of a Workshop: "The Climate on the Classroom Teachers on the Estuary (TOTE) program offered field-based professional development for teachers on watershed and estuary topics. Co-organized by the Great Bay National Estuarine Research Reserve, the University of New Hampshire Cooperative Extension, and NH Sea Grant, teachers became familiar with a 5-week unit plan on climate change, aligned to Next Generation Science Standards and Common Core standards, and also learned about estuary science. The workshop series was offered at no charge to the 14 participants, who

each spent 16 contact hours in the workshops. The majority of the teachers were middle school teachers, whose 2019 OES wage for NH was $60,290. This gives an hourly rate estimate of $39.66 (based on a conservative overestimate of 190 contracted teacher days-NH Dept. of Education). Based on the value of the teachers' time to attend the workshop, it has a total value of 14 participants x 16 hours contact ea. x $39.66 = $8,883.84

> **Why we chose this example:** This is a good example to talk about attribution. NH Sea Grant is claiming the full value of this workshop, although it was a joint effort between multiple entities. This is acceptable under the performance measure guidance because the other organizations are non-Sea Grant, and NHSG played an essential role in the event - it would not have happened without Sea Grant involvement. Had the partnership been between multiple Sea Grant programs, the economic benefit should have been attributed based on program contribution to avoid double counting for the purposes of reporting.

Travel Cost Valuation of a Workshop: MASGC hosted a half-day workshop to address stakeholder questions related to Harmful Algal Blooms, solicit feedback on current resources, and to provide a platform for scientists, policy makers, regulators, and stakeholders to engage with one another. The results of the workshop were compiled into a report that was provided to all participants, made available online, and used by the granting organization to make adjustments to their online data portal. A total of 82 individuals participated from across the northern Gulf. Though the actual mileage traveled by each participant is unknown, participants did list the state in which they primarily worked. Distances traveled were calculated from centralized locations from within each state within the Gulf to Mobile, AL. Distances were estimated as follows, FL=83 mi., AL=10 mi., MS=55 mi., LA=150 mi., from TX or further 500 mi. Travel times were then calculated based on an average of 60 mph for out-of-state travel and 40 mph for in-state travel. A mileage reimbursement rate of $0.545 was applied based on AL state reimbursement rates at the time of the workshop and the assumption that transit took place in both directions (to and from). The workshop lasted approximately 4 hrs. The average hourly wage in Alabama during 2019 was $15.18/hr. For those that came from out-of-state $60/day per diem was applied. Total value was then calculated as mileage costs (distance*0.545) + time in transit ((distance/speed)*2)*15.18) + time in workshop (workshop hrs*15.18) + per diem (60).

> **Why we chose this example:** There are times and circumstances under which Sea Grant's ability to collect information regarding its participants is limited. This example transparently lays out a reasonable set of assumptions, like the distance traveled from each state, as well as accompanying data sources, to arrive at an approximate and defensible valuation for this workshop.

Travel Cost and Opportunity Cost of a Workshop: Oil Spill Workshop: USC Sea Grant hosted a regional workshop as part of a multi-partner national initiative on oil spill impacts and preparedness. This workshop hosted 60 participants and focused on a pipeline spill that occurred in a nearby county in 2019. Sea Grant’s efforts are valued at $25,973.34 based on travel costs from a wide range of city, state and federal stakeholders, knowledge sharing of the impacts of the oil spill, providing a platform to create new networking opportunities, and further developing response and communication plans to mitigate future

risk. USC Sea Grant also shared recommendations created from this workshop with the national initiative and synthesized it into a report that the National Institutes of Health recognized and publicly recommended as oil spill preparedness reading material. USC SG conservatively estimates that the average miles traveled for each attendee was 386.22 miles at a rate of $0.575/per mile based on state/fed mileage rates. 60 attendees gave up an average of 10.6 hours of their time to participate in this event, valued at an average rate of $312.87 based on the state's mean hourly rate of $29.47. Note: this event was not overnight.

> **Why we chose this example:** This example incorporates both a travel cost valuation and the opportunity cost of participants' time while at the workshop. It also highlights some qualitative outcomes of the workshops, such as recommendations recognized by the NIH. While good on its own, this example could be made even stronger by providing more detail about how the averages for mileage and time were calculated. For example, were the participants asked how far they traveled?

Increased Earnings from a NMFS-Sea Grant Fellowship: Hawaii Sea Grant confirmed one former fellow from the NOAA Fisheries-Sea Grant joint Graduate Fellowship Program in Population and Ecosystem Dynamics, attained a job in their desired field of marine research. The fellow earned a Ph.D. degree in Marine Biology from the University of Hawaii at Manoa in 2019, and secured a postdoctoral researcher position at the NOAA Alaska Fisheries Science Center based in Seattle. The three year NOAA Fisheries-Sea Grant joint Graduate Fellowship Program in Population and Ecosystem Dynamics provides support to students interested in careers related to marine ecosystem and population dynamics, with a focus on modeling and managing systems of living marine resources. The fellowship gives PhD students extensive research experience, helps them develop a network of connections, and increases their credibility as job candidates in their field. Sea Grant made a substantial contribution both financially and through a mentorship capacity to train the fellow. We are equating this full-time, three year program to the equivalent of three years of graduate education. Based on Koropeckyj et al.'s (2017) conservative estimate showing a 12.2 percent earnings differential (which we attribute at about 6.1 percent per year of graduate school) for advanced degrees over college degrees, we assume that the NOAA Fisheries-Sea Grant joint Graduate Fellowship results in a $16,245 earnings differential per year of work (based on an 18.3 percent markup on base median earnings of $88,770 for life scientists, calculated from 6.1 percent over each year of graduate school). Using the following equation, we conservatively estimate the increased earnings for this fellow over their first two years of working is $32,490: ($16,245 increased earnings differential per year of graduate school) X (2 years of salary).

1. Koropeckyj, S., C. Lafakis, and A. Ozimek. 2017. The Economic Impact of Increasing College Education. Available at: https://www.amacad.org/sites/default/files/academy/multimedia/pdfs/publications/researchpapersmonographs/CFUE_Economic-Impact/CFUE_Economic-Impact.pdf.
2. Data are from the Occupational Employment Statistics (OES) program, U.S. Bureau of Labor Statistics (BLS). Average of median wage for life scientists. (May 2020). https://www.bls.gov/oes/current/oes_nat.htm#19-0000

> **Why we chose this example:** This example closely follows the Workforce Development: Increased Earnings from Fellowships methodology, and clearly explains all of the steps taken to reach the total valuation. It also illustrates how this methodology can be applied to fellowships other than Knauss Fellowships and the sources used are clearly cited.

Increased Earnings from a Graduate Research Fellowship: MISG awarded two graduate research fellowships to two master's candidates. This fellowship provided recipients with the chance to conduct research projects on topics of their choice. The first fellow has since received her degree and is now employed with the Pacific Northwest Laboratory in Washington state as a Data Analyst, and the second fellow has received her degree and is employed at the Western Upper Peninsula Planning and Development Region (WUPPDR) as an Assistant Regional Planner. Based on Koropeckyj et al.'s conservative estimate showing a 6.1% increase in earning differential for advanced degrees compared to college degrees, we assume that the MISG Graduate Research Fellowship resulted in a $5,503 earning differential for life scientists (Life Scientists, Washington: https://www.bls.gov/oes/current/oes191029.htm) and a $4,076 earning differential for regional planners (Urban and Regional Planners, Michigan: https://www.bls.gov/oes/current/oes193051.htm) based on the 6.1% markup on the base salaries of $90,220 and $66,820, respectively. We conservatively estimate the increased earnings for these two MISG Graduate Research Fellows over two years as follows:

Life Scientist: ($5,503 increased differential earning per year of work) x (2 years of salary) x (200% for two-year program) x (1 Fellow) = $22,012

Regional Planner: ($4,076 increased differential earning per year of work) x (2 years of salary) x (200% for two-year program) x (1 Fellow) = $16,304

$22,012 + $16,304 = $38,316 total increased earnings for MISG Graduate Research Fellows

> **Why we chose this example:** This example clearly applies the increased earnings for each of the fellows based on the type of job they landed post-fellowship. While clear, the transparency of this example could be enhanced by including a sentence with additional detail about the support provided to the fellows that can further explain the 200% “education adjustment factor” that is applied in the calculations. For example, a sentence along the lines of “we are equating these full-time, two-year programs to the equivalent of two years of graduate education” would help more transparently lay out the assumptions that are being made with this valuation.

Sustainable Fisheries and Aquaculture:

Cost Savings from New Technology: Oregon Sea Grant-supported researchers installed a pilot Salinity Monitoring Station (cost of $6,300) in Newport, Oregon’s Yaquina Bay as part of a larger project to make an ocean forecast webapp (Seacast; bit.ly/2ImYyEg) more relevant to fishermen. Crab vessels docked in bays sometimes pump ocean water into holds to keep crab alive while they wait to offload their catch. If

the water salinity is too low, however, the crabs die, causing severe economic losses. Previously, water salinity information was not available. After using the station's real-time salinity data, Oregon commercial Dungeness Crab fishermen provided feedback on its impact during the 2019 season. Feedback from crabbers revealed that the salinity data was critical for decision-making. In one incident, multiple boats in Yaquina Bay, waiting to deliver crabs, learned that the salinity values were too low and decided not to pump. With some vessels holding more than 100,000 pounds of crab valued at $4.75/pound, losses could have reached more than $1,000,000 on this day alone. Given the success of the station, it was gifted to the Newport Fishermen's Wives, a nonprofit organization best suited to maintain the flow of salinity information to the local crab fleet.

> **Why we chose this example:** This entry presents an opportunity to talk about recurring benefits. The program presents a reasonable and defensible claim based on the information provided. Additionally, the program is transparent in sharing that the station has now been gifted to another entity. This information provides clarity that ORSG can claim this benefit in 2019 but it would not be able to do so in 2020 because the new entity is now responsible for operating the station.

Cost Savings from Technical Assistance: Alaska Sea Grant Marine Advisory seafood specialists worked with 2 Alaskan food processing companies to approve their processing methods resulting in cost savings to the companies in terms of consulting fees and lab time. One company received 5 hrs of consulting x $200/hr along with 4 days of lab time valued at $500/day. The second company ASG worked with received 10 hours of consulting time x $200/hr. The total cost savings realized by the two companies equates to $5000 calculated in the following way - (5 hours of consulting x $200/hr) + (4 days lab time x $500/hr) + (10 hours of consulting x $200/hr) = $5,000

> **Why we chose this example:** This example clearly lays out the calculations that are being done to reach the total economic benefit of $5,000. The valuation could be enhanced by including a source for the $200/hr and $500/day figures. For example, is $200/hr the average consulting hourly wage in the state or industry? Is lab time based on the facility's fee or an average rate for lab time?

Jobs and Business Support and Creation: Virginia Sea Grant extension staff at Virginia Tech provided support to five seafood companies in Virginia. This direct technical assistance aided multiple companies by processing 1,500 samples to address potential issues with meeting state environmental/health guidelines and helped ensure proper sanitation protocols. The extension partners helped one company implement new protocols, trained managers and personnel, and hosted follow-up meetings to verify the protocols were meeting current seafood safety guidelines. One seafood processing company was sustained, including two operational managers - Annual Mean Wage for First-line Supervisor of Production and Operating Workers (BLS Occupation Code 51-1010; May 2019) = $64,340 per person. This yields a total economic benefit of $64,340 x 2 = $128,680.

Why we chose this example: This example clearly indicates how Sea Grant "sustained" the jobs within the seafood processing company - by offering direct technical assistance through processing samples, implementing new protocols, training personnel, and holding follow up meetings.

Job and Business Support and Creation: Twelve individuals certified in Seafood HACCP through NYSG indicated in their post training survey that their job would be supported or at least one new job would be created as a result of the training. Estimated median wages from the U.S. Bureau of Labor Statistics (BLS) employment statistics webpage (occupational code: Food Quality Control Inspectors) is $36,780 per person. (12*36,780) = $441,360. Seven individuals certified in Seafood HACCP through NYSG indicated in their post training survey that their company would stay in business or they would open a new business as a result of the training. Estimated median wages from U.S. Bureau of Labor Statistics (BLS) employment statistics webpage (occupational code: Food Quality Control Inspectors) is $36,780 per person. Assuming that each business had at least 1 employee we estimate an economic value of 7*36,780 = $257,460

Why we chose this example: NYSG is succinct and transparent with the details in this entry, it includes both the data sources and calculations associated with the valuation. This entry also goes one step beyond the basics by using a post-training survey to increase the example's defensibility. It would be defensible for the program to claim this benefit without doing a post-training survey but its inclusion enhances the entry's rigor.

Increased Revenue Through Creating a New Market: PRSG efforts provided economic opportunities for fishermen by the development of a lionfish market at restaurants. Activities to develop a market for lionfish included providing fishermen with lion-fishing gear, and the creation of a recipe book on how to cook lionfish, to convince fishermen to start to fish for the species. Lionfish was considered a pest and is now caught by fishermen and sold at restaurants. Close to 30 fishermen are taking advantage of this opportunity and selling to 10 to 15 restaurants (before hurricane María there were close to 30 to 35 restaurants selling lionfish). Even though this may not look like a significant economic impact, each fisherman takes home an extra $50 weekly due to the sale of lionfish to restaurants. This represents increased revenue of $78,000 in 2019 ($50/week X 52 weeks per year X 30 fishermen = $78,000). The restaurants are also receiving an economic benefit from the sale of lionfish since customers are looking for places where they can taste this new delicacy. Measuring the economic gain of restaurants is more difficult but we know it is real. After the earthquakes and the pandemic many restaurants closed and PRSG is helping fishermen market lionfish to individual homes by directly connecting individuals.

Why we chose this example: This entry goes beyond just an economic valuation for 2019 and provides useful qualitative context about other results of the program activity that are not as easily quantifiable. This helps tell a compelling story about SG's work and its impacts - both realized in 2019 (economic gain to fishermen from selling lionfish to restaurants) and the anticipated pivot in 2020 due to the pandemic (fishermen selling lionfish direct to consumers).

Healthy Coastal Ecosystems:

Consultant Services Savings: Each year dozens of coastal dunes and coastal banks are threatened by projects that could degrade their functions. The WHSG Extension Program provides a no-cost site visit and assessment to towns in southeastern Massachusetts to help ensure that the natural and beneficial functions of coastal landforms are sustained. In 2019, WHSG staff provided 39 such site visits, which saved the towns from having to hire a private consultant. Based on six comparable contracts between towns and local consulting firms, we estimate that an average site visit cost is $7,620. Therefore, the total economic benefit for this program is 39 visits x $7,620 per visit or $297,180.

> **Why we chose this example:** Sea Grant programs are not always comfortable doing a direct comparison between a business/provider and a Sea Grant service that is free or provided at a reduced price. This example illustrates how a program can use an average of comparable services in a defensible manner - 'six comparable contracts between towns and local consulting firms' - without providing business/provider specific information.

Recreational Value of a Beach Clean-Up: Ohio Sea Grant hosted 15 total beach clean-up events. A study of the economic value of a marine debris-free beach (https://marinedebris.noaa.gov/sites/default/files/2019.07.Econ_.Impacts.Marine.Debris.complete.wFN_30Aug2019_508.pdf) found that the value of a clean beach is $30.46 in our region based on increased visitors and resulting economic revenue. On average, after a beach clean-up, beaches stay clean for 4 days. We note this varies based on high vs low-traffic beaches, but that is why we used an average. Therefore the 15 beach clean-up events resulted in 60 days of debris-free beaches (15*4=60) and an economic benefit of $1,828 (60*$30.46).

> **Why we chose this example:** Many Sea Grant programs host beach clean-ups and this example is a clearly executed benefit transfer for an ecosystem service valuation of recreation. The source cited includes values specific to OH beaches, providing strong alignment for its use here. Additionally, the assumptions made are well described. Note: the report cited above also included beaches in DE, MD, AL, and Orange County CA.

Ecosystem Service Valuation of Beach Restoration: A Hawaii Sea Grant extension agent serves as the Waikiki Beach Management Coordinator. In 2019 the agent provided leadership, technical expertise, and project coordination essential for the implementation of a beach restoration project at Kuhio Beach in Waikiki that transferred 0.6198 acre-foot (1,000 cubic yards) of sand from a nearby basin to restore the beach. Several studies have estimated that the total volume of Waikiki Beach ranges between 400,000-500,000 cubic yards (Eversole, 2018; Miller and Fletcher, 2003; Sea Engineering, 2020; Wiegel, 2002). Taking 450,000 cubic yards as the average this value equals 278.93 acre-foot. Two economic impact analyses, one in 2007 (Hospitality Advisors, LLC., 2008) and a follow-up study conducted in 2016 (Tarui et. al., 2018) estimate the economic value of Waikiki Beach as the tourism-related revenues that would be lost annually if the beach completely eroded. The analyses estimated the value (lost

revenue) of Waikiki Beach at $1.948 billion and $2.222 billion, respectively, based on economic and visitor arrival data. Using a conservative approach, Hawaii Sea Grant opted to use the lower value of the range ($1.948 billion) to be conservative in its valuation. Thus, the value of Waikiki Beach is estimated to be $1.948 billion/278.93 acre-foot = $6.983 million/acre-foot. Using these values, Hawaii Sea Grant estimates that the agent's Kuhio beach restoration project, which restored 0.6198 acre-foot of Waikiki Beach, can be valued in the following way: $6.983 million/acre-foot x 0.6198 acre-foot = $4.328 million. In summary, Hawaii Sea Grant conservatively estimates that its (leadership/technical assistance/oversight) of the Kuhio Beach project supported $4.328 million in tourism-related revenue that would have been lost had the restoration not occurred.

Citations

1) Eversole, D., Egged, R., Habel, S., Lemmo, S., Romine, B. Waikīkī Beach Management Plan Oahu, Hawaii. Final report for the Waikīkī Beach Special Improvement District Association. May, 2018. University of Hawaii, Sea Grant College Program.
2) Hospitality Advisors, LLC. (2008). Economic Impact Analysis of the Potential Erosion of Waikīkī Beach. Final Report prepared for Waikīkī Improvement Association. https://www.wbsida.org/waikiki-beach-economic-study
3) Miller, T. L. and Fletcher, C.H. (2003) Waikiki: Historical Analysis of an Engineered Shoreline. Journal of Coastal Research. V.19.4.
4) Sea Engineering, 2020. Environmental Impact Statement Preparation Notice. Waikīkī Beach Improvements. March, 2020. Prepared for the Hawaii Department of Land and Natural Resources, Office of Conservation and Coastal Lands. Sea Engineering, Inc. (Page 10-11).
5) Tarui, N., M. Peng, and D. Eversole. (2016). Economic Impact Analysis of the Potential Erosion of Waikīkī Beach: A 2016 Update. University of Hawai'i Sea Grant College Program. Hawai'i Sea Grant publication reference number: UNIHI-SEAGRANT-GG-16-04.
6) Wiegel, Robert. L., November 15, 2002. Waikīkī, Oahu, Hawai′i, An Urban Beach, Its History From a Coastal Engineering Perspective. Hydraulic Engineering Laboratory. University of California, Berkeley Technical report UCB/HEL 2002-1 (Pages 9-11).

> **Why we chose this example:** This entry uses existing economic valuation studies of Waikiki that specifically looked at the area and HISG clearly explained its role relative to project implementation and restoration results. The program was clear in explaining its logic and conservative with the values applied. HISG is fortunate to have existing studies for this example and other programs can look for these opportunities as well keeping in mind that the defensibility/feasibility of a benefits transfer valuation should consider similar geographies, ecosystem functions, land-use patterns, the year(s) of the study (before 2000), and when in doubt, consult an economist.

Increased Property Values from Improved Water Quality: Improving Collaboration in Community Stormwater Management: Minnesota Sea Grant (MNSG) staff served in a leadership role on the Regional Stormwater Protection Team, facilitated the success of the Duluth Urban Watershed Advisory Committee (DUWAC; see impact statement), consulted with cities and townships, and provided time and materials to

organize events, workshops, meetings, and train-the-trainer trainings so communities can minimize flood damage and protect water quality by slowing the speed of stormwater running off the land.

DUWAC activities influenced 12 lakes and many miles of rivers connecting to and including the St. Louis River Estuary (www.pca.state.mn.us/water/duluth-urban-area-streams-watershed). The value of properties around these 12 lakes equals $725M.

A set of economic studies published between 1984 and 2014 (Nicholls and Crompton, 2018; DOI: 10.3390/su10020500) indicate that keeping water quality from degrading conserves an average 7.4% of shore value. This translates to about $54M for the properties surrounding the 12 lakes ($725M X 7.4% = $53.65M).

If we assume that 2% of the quality conservation efforts were made by MNSG (others, e.g., cities, townships, counties, Soil and Water Conservation Districts, Department of Natural Resources, Minnesota Pollution Control Agency, also contributed), the overall value of these efforts is about $1.073M ($53.65M x 2% = $1.073M).

> **Why we chose this example:** This example explains assumptions and illustrates a conservative approach to a large area valuation where the program plays a significant leadership role (12 lakes). It does this by applying the findings from a comprehensive review of studies on water quality and property values from across the US. The transparency of this entry could be further enhanced by providing the data source for the $725M in property values (e.g. zillow, tax records, etc.) and noting the national scale of the study that is cited. Note: Due to the national nature of the study , there is potential for other programs to review its applicability in relation to similar program activities (available at: https://www.researchgate.net/publication/323154443_A_Comprehensive_Review_of_the_Evidence_of_the_Impact_of_Surface_Water_Quality_on_Property_Values).

Resilient Communities and Economies:

Value of Beach Safety: Rip Current Awareness and Beach Safety: Minnesota Sea Grant (MNSG) was instrumental in coordinating beach and water safety messaging for Park Point Beach - the largest beach in the Duluth, Minnesota, area. Along with partners, we hosted ParkPointBeach.org with real-time water, wave and weather information; assisted the city of Duluth with beach safety signage and grant writing that supported lifeguards, and other safety-oriented activities.

This is a critical need because some Minnesotans, especially visitors to Duluth, Minnesota, are largely ignorant of the risks associated with Lake Superior's rip currents and hypothermia. A recent survey by Longwoods International (https://www.visitduluth.com/docs/Longwoods%20Duluth%202015%20Visitor%20Final%20Report.pdf) showed that 1.276 million overnight, marketable trips are made by tourists to Duluth annually and they spend $140 on average per person. This yields a value of $179M. As one of the area's most attractive

summer recreation sites, it is conservative to assume that 20% of these visitors visit Park Point Beach and a beach user survey showed that 66% of these visitors consulted ParkPointBeach.org to assess the safety of beach conditions.

Assuming that 10% of the economic benefit accrues to feeling safe at the beach, the economic benefit of beach safety totals $2.36M. This is a very conservative estimate given the value that people place on avoiding death or serious injury (e.g., Jones-Lee et al., 1985, The Economic Journal, 95: 49-72). Assuming that MNSG played a major role in assuring beach safety and is responsible for 50% of this value, MNSG's contribution should be valued at $1.18M. In addition, MNSG was instrumental in helping the city to secure $75,000 to hire beach lifeguards, yielding a total value of $1.254M. Because lifeguards earn, on average $9.25/hour (https://www.snagajob.com/job-descriptions/lifeguard/) this is equivalent to about 8,000 hours or 4 FTE positions.

> **Why we chose this example:** Though this is a complicated valuation, each of the steps are well-reasoned, cited, and assumptions are clearly explained throughout. This entry illustrates both transparency with its assumptions as well as the use of multiple data sources (tourism survey, beach user survey, job data) in building the case for Sea Grant's role in the creation of the benefit.