Chapter 2 BUREAU-LEVEL ECONOMIC CONTRIBUTIONS

Each bureau within the Department adds to Interior's overall economic contributions. The Bureau of Land Management's multiple-use mission allows it to have an effect in recreation as well as mineral, timber, renewable energy, and rangeland resource management. The Bureau of Reclamation is a major water supplier as well as the second largest producer of hydropower in the western states and supports the production of a large proportion of the nation's high-value crops. The National Park Service and U.S. Fish and Wildlife Service's land and wildlife protection mandates create substantial recreation and tourism opportunities, which in turn support jobs for hundreds of thousands of Americans. The Bureau of Ocean Energy Management, the Bureau of Safety and Environmental Enforcement, and the Office of Surface Mining's more focused duties on resource extraction (and protection of the environmental resources that might be impacted by such activities) enable them to have a substantial effect on the economy, both in the public and private sectors. The U.S. Geological Survey science informs management of water, mineral, energy, and biological resources, as well as mitigation and adaptation to climate change and preparation for natural hazards. Finally, The Bureau of Indian Affairs, the Bureau of Indian Education, and the Office of Insular Affairs focus on social and infrastructure needs as well as providing programs that help educate and train workers in America's territories and Indian communities.

In a nutshell

- Table 2 1 provides a bureau-level summary of economic contributions. More detailed information on economic contributions by each bureau follows the table.
- These sectors do not represent the entire suite of Interior's influence: bureaus affect other sectors through additional programs and activities, e.g., land acquisition, construction, road building, education, law enforcement, and conservation activities.

The following bureau-level analysis presents the contribution of Interior's programs and activities on major economic sectors, which in this report include recreation, energy and minerals, timber, grazing, and water. These sectors do not represent the entire suite of Interior's influence: bureaus affect other sectors through additional programs and activities, e.g., land acquisition, construction, road building, education, law enforcement, and conservation activities. However, information was not readily available for some of these activities, and some were not included because of their relatively small effect on the economy. If all of Interior's activities were included in the analysis, the contributions may be considerably higher. Efforts will continue to be made to expand the scope of Interior activities presented in future economic reports.

Table 2-1 provides a bureau-level summary of economic contributions. More detailed information on economic contributions by each bureau follows the table. Additional assumptions and the methods for deriving these estimates can be found in Appendices 7 and 8.

Table 2-1. Summary Economic Contributions by Bureau

	Budgeted Amount (billions, $2011)	Total Economic Contribution (billions, $2011)	Total Domestic Jobs Supported (jobs)
Payroll			
National Park Service	1.49	2.41	16,984
Fish and Wildlife Service	0.71	1.14	8,050
Bureau of Land Management	0.73	1.19	8,351
Bureau of Reclamation	0.39	0.63	4,449
Bureau of Ocean Energy Management, Regulation & Enforcement	0.10	0.17	1,190
Indian Affairs	0.53	0.87	6,096
US Geological Survey	0.71	1.16	8,148
Office of Surface Mining	0.05	0.07	522
Other Interior Offices	0.41	0.66	4,680
Subtotal DOI Payroll (~81,000 employees in 2011)	5.13	8.30	58,471*

* In 2011, DOI's payroll supported about 81,000 employees (direct jobs), as well as 58,471 indirect and induced jobs throughout the Nation. For more information, please see Page 197.

Grants, Payments, and Tribal Support			
Grants and Payments to non-Federal Entities[1]	4.22	10.14	83,638
Support for Tribal Governments	0.48	1.17	9,504
Subtotal Grants, Payments and Tribal Support	4.70	11.30	93,143

[1] Grants & Payments to States, excluding payments via U.S. Treasury

	Inputs (DOI Activity)	Outputs Resulting from DOI Activity	
Production Inputs			
Bureau	**Sales Value (billions, $2011)**	**Total Economic Contribution (billions, $2011)**	**Total Domestic Jobs Supported (jobs)**
National Park Service Recreation[1]	12.13	31.08	258,416
Fish and Wildlife Service Recreation	1.59	4.22	34,529
Bureau of Indian Affairs Oil, gas and coal	3.31	9.63	96,080

	Inputs (DOI Activity)	Outputs Resulting from DOI Activity	
Bureau	**Sales Value (billions, $2011)**	**Total Economic Contribution (billions, $2011)**	**Total Domestic Jobs Supported (jobs)**
Irrigation water	0.39	0.95	8,791
Grazing	0.04	0.08	1,370
Timber	0.04	0.56	4,069
Other minerals	0.30	0.86	15,434
Bureau of Land Management			
Oil, gas and coal	32.34	119.57	558,976
Geothermal	0.16	0.61	3,029
Hardrock/Other Locatable Minerals	6.41	15.57	82,040
Other Minerals	2.02	4.79	25,453
Grazing	0.52	1.41	16,954
Timber	0.02	0.66	3,420
Recreation	3.38	7.04	58,942
Wind		0.10	688
Solar		1.37	6,747
Bureau of Reclamation			
Hydropower	1.08	1.59	4,981
Irrigation water	13.63	32.40	223,186
M&I water	2.30	5.35	32,296
Recreation	2.37	6.31	51,596
Bureau of Ocean Energy Management, Regulation & Enforcement	52.36	121.00	734,500
Subtotal Bureau Production Contributions	134.42	365.15	2,221,498
Total	144.24	384.72	2,372,927

[1] Source for NPS data: Stynes, Daniel J., 2011. "Economic Benefits to Local Communities from National Park Visitation and Payroll, 2010"

BUREAU OF LAND MANAGEMENT

Bureau Role

The Bureau of Land Management's (BLM) mission is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. The BLM was established in 1946 through the consolidation of the General Land Office and the U.S. Grazing Service. The BLM carries out a variety of programs for the management and conservation of resources on 248 million surface acres and 700 million subsurface acres of mineral estate. In addition, the BLM is responsible for performing cadastral surveys on all Federal and Indian lands, and it carries out the Secretary's mineral operations on 56 million acres of Indian trust lands. BLM's public lands make up about 16 percent of the total land surface of the United States and almost 40 percent of all land managed by the Federal Government, making the BLM the nation's largest land manager.

Interior also administers the Payments in Lieu of Taxes (PILT) program, which is presented within BLM's contributions because BLM manages a significant amount of land subject to PILT. In FY 2011, current and permanent PILT payments totaled $375 million. PILT payments are used by states to fund education and other programs. In FY 2011, PILT payments supported an estimated 7,615 jobs and contributed to nearly $894 million in economic output.

BLM lands also provide substantial opportunities for generating and transmitting renewable energy. As these resources are developed over time, considerable economic activity can be expected to occur.

Baseline Economic Information

BLM's management of Federal lands contributed about $151 billion in economic output to the national economy and supported over 756,000 American jobs.

Budget ($ billions)

2010 Actual	2011 Actual	2012 Enacted
1.17	1.15	1.13

Payroll (FY 2011)

Total Annual Payroll (billions, $2011)	Estimated Annual Contribution from Payroll (billions, $2011)	Estimated Additional Jobs Supported from Payroll (jobs)
0.73	1.19	8,351

Major Economic Contributions

	Visitors	Value (billions, $2011)	Estimated Economic Contribution (billions, $2011)	Estimated Number of Jobs Supported (jobs)
Recreation	57,783,168	3.38	7.04	58,942
Oil, Gas, & Coal		32.34	119.57	558,976
Hardrock/Other Locatable Minerals		6.41	15.57	82,040
Other Minerals		2.02	4.79	25,453
Timber		0.02	0.66	3,420
Grazing		0.52	1.41	16,954
Geothermal		0.16	0.61	3,029
Wind Energy			0.10	688
Solar Energy (site construction only)			1.37	6,747
Total	57,783,168	44.87	151.12	756,250

Grants and Payments

	2011 Enacted (billions, $2011)	Estimated 2011 Economic Contribution (billions, $2011)	Estimated 2011 Total Jobs Supported (jobs)
General Fund Payment to Counties and Native Corporations	0.08	0.18	1,524
Payments to States and Counties from Shared Receipts including SNPLMA Payments	0.01	0.03	287
Total Grants and Payments	0.09	0.21	1,811

NATIONAL PARK SERVICE

Bureau Role

In 1872, the Congress designated Yellowstone National Park as the nation's first "public park or pleasuring ground for the benefit and enjoyment of the people." The subsequent establishment of the National Park Service (NPS) on August 25, 1916, reflected a national consensus that natural and cultural resources must be set aside for public enjoyment and preserved for future generations. As stated in the original authorizing legislation, the NPS's mission is to "conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations" (16 U.S.C. 1).

The National Park system comprises 397 areas covering more than 84 million acres in every state (except Delaware), the District of Columbia, American Samoa, Guam, Puerto Rico, and the U.S. Virgin Islands. In its entirety, the National Park system represents, interprets, and preserves both natural and cultural sites that are testaments to the nation's history, and offer an array of opportunities for much needed respite, reflection, and outdoor recreation to the American public.

Baseline Economic Information

NPS provides an important contribution to the national economy, contributing $31.1 billion in recreation-related economic output and supporting over 258,000 American jobs.

Budget ($ billions)

2010 Actual	2011 Actual	2012 Enacted
2.76	2.61	2.58

Payroll

Total Annual Payroll	Estimated Annual Contribution from Payroll	Estimated Additional Jobs Supported from Payroll
(billions, $2011)	(billions, $2011)	(jobs)
1.49	2.41	16,984

Major Economic Contributions[1]

	Visitors	Value	Estimated Economic Contribution	Estimated Number of Jobs Supported
		(billions, $2010)	(billions, $2010)	(jobs)
Recreation[2]	281,303,769	12.13	31.08	258,416

[1] The estimates presented for NPS are from Stynes, Daniel J., "Economic Benefits to Local Communities from National Park Visitation and Payroll, 2010." 2010 was the most recent year available.
[2] Recreation includes visitation at NPS units in American Samoa, Guam, Puerto Rico, and U.S. Virgin Islands.

Grants and Payments

	2011 Enacted	Estimated 2011 Economic Contribution	Estimated 2011 Total Jobs Supported
	(billions, $2011)	(billions, $2011)	(jobs)
Heritage Partnership Program	0.02	0.04	333
Historic Preservation Fund[1]	0.05	0.14	994
LWCF State Grants w/ GOMESA	0.05	0.12	803
Other NPS Grants[2]	0.01	0.01	100
Total Grants and Payments	0.12	0.31	2,230

[1] The FY 2011 total for the Historic Preservation Fund was $54.4 million. This included $8.0 million for Indian Tribes, and $46.4 million for states and territories. This report did not estimate the contributions for the $3.1 that went to territories.
[2] Other NPS Grants include American Battlefield Sites Matching Grants, Japanese-American Confinement Site Grants, Native American Graves Protection Act Grants, Challenge Cost Share, and Chesapeake Bay Gateway Grants.

U.S. FISH AND WILDLIFE SERVICE

Bureau Role

The U.S. Fish and Wildlife Service is the government agency dedicated to the conservation, protection, and enhancement of fish, wildlife and plants, and their habitats. It is the only agency in the Federal Government whose primary responsibility is management of these important natural resources for the American public. The Service also helps ensure a healthy environment for people through its work benefiting wildlife, and by providing opportunities for Americans to enjoy the outdoors and our shared natural heritage.

The Service is responsible for implementing and enforcing some of our Nation's most important environmental laws, such as the Endangered Species Act, Migratory Bird Treaty Act, Marine Mammal Protection Act, North American Wetlands Conservation Act, and Lacey Act. The Service fulfills these and other statutory responsibilities through a diverse array of programs, activities, and offices that function to:

- Protect and recover threatened and endangered species
- Monitor and manage migratory birds
- Restore nationally significant fisheries
- Enforce federal wildlife laws and regulate international wildlife trade
- Conserve and restore wildlife habitat such as wetlands
- Help foreign governments conserve wildlife through international conservation efforts
- Distribute hundreds of millions of dollars to states, territories and tribes for fish and wildlife conservation projects

The Service also manages the 150 million acre National Wildlife Refuge System, the world's preeminent system of public lands devoted to protection and conservation of fish and wildlife and their habitats. The 555 units of the Refuge System receive over 40 million visitors each year who participate in hunting, fishing, wildlife observation and photography, environmental education and interpretation, and other outdoor recreation activities. Within the Fisheries program, the Service operates 70 National Fish Hatcheries, which in conjunction with Fish Health Centers and Fish Technology Centers restore native aquatic populations, mitigate for fisheries lost as a result of federal water projects, and support recreational fisheries throughout the United States.

The vast majority of fish and wildlife habitat is on non-Federal lands. The Partners for Fish and Wildlife, Partners in Flight, Sport Fishing and Boating Partnership Council, and other FWS partnership activities foster aquatic conservation and assist in voluntary habitat conservation and restoration.

Baseline Economic Information

FWS's refuge lands attract millions of visitors and were estimated to contribute over $4.2 billion in annual economic output and over 34,000 jobs from recreation-related spending.

Budget ($ billions)

2010 Actual	2011 Actual	2012 Enacted
1.65	1.51	1.48

Payroll

Total Annual Payroll (billions, $2011)	Estimated Annual Contribution from Payroll (billions, $2011)	Estimated Additional Jobs Supported from Payroll (jobs)
0.71	1.14	8,050

Major Economic Contributions

	Visitors	Value (billions, $2011)	Estimated Economic Contribution (billions, $2011)	Estimated Number of Jobs Supported (jobs)
Recreation	45,360,579	1.59	4.22	34,529

Grants and Payments

	2011 Enacted (billions, $2011)	Estimated 2011 Economic Contribution (billions, $2011)	Estimated 2011 Total Jobs Supported (jobs)
Boating Infrastructure Grants	0.01	0.03	258
Clean Vessel Act Grants	0.01	0.03	258
Coastal Wetlands Conservation	0.04	0.08	717
Cooperative Endangered Species Conservation Funds	0.07	0.17	1,415
Federal Aid in Wildlife Restoration, Payments to States	0.38	0.91	7,602
Multinational Species Conservation Fund	0.01	0.02	203

Grants and Payments

	2011 Enacted (billions, $2011)	Estimated 2011 Economic Contribution (billions, $2011)	Estimated 2011 Total Jobs Supported (jobs)
National Outreach Program	0.01	0.03	258
National Wildlife Refuge Fund (current and permanent)	0.02	0.04	322
North American Wetlands Conservation Fund	0.04	0.09	774
Sport Fish Restoration, Apportionment to States	0.36	0.86	7,159
State and Tribal Wildlife Grants	0.05	0.11	934
Coastal Impact Assistance Program	0.09	0.22	1,881
Other[1]	0.03	0.06	543
Total Grants and Payments	1.11	2.66	22,322

[1] Other Grants and Payments include: Fish and Wildlife Foundation, Fish Commission and Boating Council, Hunter Education and Safety Grant Program, Multi-State Conservation Grant Program, and Neotropical Migratory Bird Conservation.

BUREAU OF RECLAMATION

Bureau Role

The Bureau of Reclamation (Reclamation) has a mission is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public. Reclamation is the largest supplier and manager of water in the 17 western states west of the Mississippi, excluding Alaska and Hawaii. It maintains 476 dams and 348 reservoirs with the capacity to store 245 million acre-feet of water. These facilities deliver water to one in every five western farmers to irrigate about ten million acres of land, and provide water to over 31 million people for municipal and industrial (M&I) uses as well as other non-agricultural uses. Reclamation is also the nation's second largest producer of hydroelectric power, generating 40 billion kilowatt hours of energy each year from 58 power plants. In addition, Reclamation's facilities provide substantial benefits to recreation and fish and wildlife habitats.

In addition to the economic effects of Reclamation activities identified above, Reclamation facilities reduce the amount of flood damage occurring to property located in the flood plain below these facilities. Although the economic effects of providing protection from flooding are not estimated using expenditure data as are the above activities, Reclamation facilities provide a positive effect to the economy by allowing funds to be spent on alternative activities rather than rebuilding or replacing property damaged or destroyed by flood events. Flood damage reduction values of $1.2 million per year are estimated on an annual basis for each region based on estimates obtained from the U.S. Army Corps of Engineers. Because flood damage reduction values vary widely from year to year depending on runoff levels, the values are averaged over a number of years to obtain an annual estimate. Further examination of the data collection methodology and uniformity could ensure a greater measure of confidence in the accuracy of the data.

Secretarial Order 3297, issued in February 2010, established the WaterSMART Program calling for coordination across agencies, to integrate energy and water policies, and to ensure the availability of sound science and information to support decisions on sustainable water supplies. The WaterSMART Program includes funding for cost-shared grants for water and energy management improvement projects, basin-wide efforts to evaluate current and future water supplies and demands, Title XVI Water Reclamation and Reuse projects, the establishment and expansion of collaborative watershed groups, and smaller-scale water conservation activities through the Water Conservation Field Services Program. Reclamation also supports the WaterSMART Clearinghouse website as a resource to provide leadership and assistance in coordinating with states, Indian Tribes, and local entities to integrate water conservation and sustainable water strategies.

Baseline Economic Information

Reclamation's management and recreation activities contribute $46 billion in economic output, and support about 312,000 jobs.[6]

[6] The jobs figure reported for the Bureau of Reclamation in the previous report (FY 2010) was erroneously reported as 415,978 jobs. This figure should have been 357,069 jobs. The source of the errors were in the employment

Budget ($ billions)

2010 Actual	2011 Actual	2012 Enacted
1.10	1.06	1.05

Payroll

Total Annual Payroll (billions, $2011)	Estimated Annual Contribution from Payroll (billions, $2011)	Estimated Additional Jobs Supported from Payroll (jobs)
0.39	0.63	4,449

Major Economic Contributions

	Visitors	Value (billions, $2011)	Estimated Economic Contribution (billions, $2011)	Estimated Number of Jobs Supported (jobs)
Recreation	50,090,170	2.37	6.31	51,596
Hydropower		1.08	1.59	4,981
Irrigation		13.63	32.40	223,186
M&I Water		2.30	5.35	32,296
Total	50,090,170	19.39	45.64	312,059

Grants and Payments

	2011 Enacted (billions, $2011)	Estimated 2011 Economic Contribution (billions, $2011)	Estimated 2011 Total Jobs Supported (jobs)
Boulder Canyon Project Payments to AZ, NV	0.001	0.001	12
Water Reclamation and Reuse Program	0.022	0.052	439
Water SMART Grants	0.033	0.078	667
Total Grants and Payments	0.055	0.131	1,119

estimates for M&I water, listed as 78,479 jobs, which should have been 32,296 jobs and in the employment estimates for hydropower which were listed as 19,581 and should have been 7,126.

BUREAU OF INDIAN AFFAIRS, BUREAU OF INDIAN EDUCATION, AND THE OFFICE OF INDIAN ENERGY AND ECONOMIC DEVELOPMENT

Bureau Role

Indian Affairs (IA) bureaus and offices in the U.S. Department of the Interior are under the direction of the DOI Assistant Secretary-Indian Affairs. Their general mission is to uphold and strengthen the United States government's unique legal and political relationship with the Nation's Federally recognized American Indian and Alaska Native tribes. This relationship has been specified, throughout the history of the United States, by the Constitution of the United States, treaties, court decisions, and Federal statutes. Through this government-to-government relationship, Indian Affairs provides services to 566 Federally recognized tribes, either directly or through contracts, grants, or compacts.

IA's greatest challenge and most important goal is to address the severe economic problems that exist in Indian Country, where American Indians and Alaska Natives, among all measured demographic groups within the United States, continue to have the lowest living standards and the highest rates of poverty and unemployment. To address this situation and related socio-economic problems in Indian Country, IA provides critical services to Native American communities while also supporting a wide variety of programs that are committed to enhancing the economic growth of tribes and the financial success of Native American businesses.

BIA Tribal Management/Development Program: This program supports the Native American Fish and Wildlife Society, an organization of tribal biologists and conservation officers that provides needed conservation officer training, technical services to Tribes, and youth programs to introduce Indian youth to careers in the natural resource field.

The two bureaus under the Assistant Secretary-Indian Affairs are the Bureau of Indian Affairs (BIA) and the Bureau of Indian Education (BIE). The BIA's mission is to fulfill the Secretary's trust responsibilities and promote self-determination on behalf of Federally recognized Indian tribes. The BIE's mission is to provide quality education opportunities in American Indian communities. Through these missions, BIA and BIE contribute substantially to economic growth in tribal areas through advances in infrastructure, strategic planning, improved practices of governance, and the development of human capital. In addition, several other IA offices exist within the Office of the Assistant Secretary (AS-IA), though not within the BIA or BIE. These other offices include administrative offices, such as the Office of the Chief Financial Officer and the Office of Human Capital Management, and also include the program-based offices of: Federal Acknowledgement, Homeland Security and Emergency Management, Indian Energy and Economic Development (IEED), Indian Gaming, Regulatory Affairs and Collaborative Action, and Self-Governance. Within IEED five divisions support economic growth in Indian Country—the Divisions of: Energy and Mineral Development, Economic Development, Capital Investment, Workforce Development, and Energy Policy Development. Other program offices within the AS-IA, such as the Office of Indian Gaming and Office of Self-Governance, play important roles as well in promoting the economic development of tribes.

IEED engages with tribes in numerous activities that have direct and indirect impacts on the nation's GDP and employment. Many of these activities are managed directly by tribes through P.L. 93-638 tribal agreements, which support the policy of self-determination, enabling tribes to administer projects independently.

The BIA and BIE provide services directly or through contracts, grants, or compacts to a service population of 1.7 million American Indians and Alaska Natives who are members of 566 Federally recognized Indian tribes. The role of BIA and BIE has changed significantly in the last three decades, reflecting a greater emphasis on Indian self-determination. Programs are funded and operated in a highly decentralized manner, with about 90 percent of all appropriations expended at the local level, and at least 50 percent of appropriations provided directly to tribes and tribal organizations through grants, contracts, and compacts for tribes to operate government programs and schools.

Indian Affairs is working with more than 59 tribes on almost 69 projects involving both renewable and conventional energy production. Highlights include a Waste to Energy (WTE) facility at Oneida (WI), a hydro-electric project at Cherokee (OK), a woody biomass project at Fond du Lac (MN),a hydro-electric project at Flathead (MT), a wind project at Campo (CA), a solar project at Hualapai (AZ), and a utility sized geothermal energy project at Pyramid Lake (NV). Cumulatively, these seven projects have the potential to generate more than 440Mw of clean electricity and create approximately 450 construction jobs and approximately 175 full time jobs when the projects are completed.

Economic contributions are measured for the following programs energy, minerals, forestry, and irrigation, as well as employment and training programs, regional economic development incubators, loan guarantees to native-owned businesses, and trust land resource management.

Baseline Economic Information

Indian Affairs empowers Native Americans by providing resources to tribes across the country. IA's efforts contribute over $12 billion in economic activity and support nearly 126,000 jobs, many of them on Indian lands. Sufficient information to develop detailed estimates for this report was not available for a number of ongoing activities generating economic and employment contributions. Other activities include construction (schools, roads, and other facilities), irrigation, job training, support for the development of mineral materials activities, and hydropower production.

Loan guarantee programs, while not involving direct expenditures, can create jobs and have economic impacts. The Indian Guaranteed Loan Program guarantees up to ninety percent of loans for Indian-owned enterprises. These enterprises contribute to the economies of Federally recognized tribal reservations or service areas. In FY 2011, the Department guaranteed $78 million in loans that were issued by banks for a variety of economic development activities. These are loans that the private sector otherwise would not have made to Native borrowers, according to lenders' written statements in the loan guaranty application. This program requirement ensures that loan guarantees enable economic activity for Indian businesses that would otherwise not take place. Loans guaranteed by the full faith and credit of the U.S. Government do not count against legal lending limits, thus this guaranty program may increase the total credit available to be loaned. These loan guarantees are estimated to contribute about $214 million in economic activity and support about 1,400 jobs.

A large part of the mineral production supported by Indian Affairs comes from construction aggregate, including crushed rock, as well as sand and gravel, with BIA issuing business permits for sand and gravel production. Mineral data from the Office of Natural Resources Revenue (ONRR) are limited to those "sand and gravel" operations where a lease was issued. ONRR does not have information for permits.

Budget ($ billions)

2010 Actual	2011 Actual	2012 Enacted
2.61	2.59	2.53

Payroll

Total Annual Payroll (billions, $2011)	Estimated Annual Contribution from Payroll (billions, $2011)	Estimated Additional Jobs Supported from Payroll (jobs)
0.53	0.87	6,096

Major Economic Contributions

	Value (billions, $2011)	Estimated Economic Contribution (billions, $2011)	Estimated Number of Jobs Supported (jobs)
Oil, Gas, and Coal	3.31	9.63	96,080
Other minerals (e.g., construction aggregate)	0.30	0.86	15,434
Irrigation	0.39	0.95	8,791
Timber	0.04	0.56	4,069
Grazing	0.04	0.08	1,370
Other activities *(e.g., job training, hydropower, etc.)*	These activities are associated with substantial economic and employment impacts on reservations. Additional information is needed to develop economic impact and employment impacts for these activities.		
Total	4.09	12.08	125,744

Support for Tribal Governments

	2011 Enacted (billions, $2011)	Estimated 2011 Economic Contribution (billions, $2011)	Estimated 2011 Total Jobs Supported (jobs)
Loan guarantees	0.08	0.21	1,376
Self-governance Compacts	0.15	0.35	3,024
Contract Support	0.22	0.52	4,457
Aid to Tribal Governments	0.03	0.08	647
Total	0.48	1.17	9,504

BUREAU OF OCEAN ENERGY MANAGEMENT, REGULATION AND ENFORCEMENT

In response to the Deepwater Horizon explosion and resulting oil spill in the Gulf of Mexico, the Obama administration implemented the most aggressive and comprehensive reforms to offshore oil and gas regulation and oversight in U.S. history. These reforms included a reorganization of the former Minerals Management Service (MMS) into two new agencies and one new office: the Bureau of Ocean Energy Management (BOEM), the Bureau of Safety and Environmental Enforcement (BSEE), and the Office of Natural Resources Revenue (ONRR). ONRR is dedicated to the function of revenue collection, and reports to the Assistant Secretary for Policy, Management, and Budget, keeping this function insulated from the safety and resource management functions. The reorganization process was completed on October 1, 2011 with the establishment of BOEM and BSEE. For an interim period during the re-organization, the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) handled the functions for which BOEM and BSEE are now responsible. As these organizations together composed BOEMRE during fiscal year 2011, we provide a brief description of their separate missions below, and report their economic contributions and budget together.

BUREAU OF OCEAN ENERGY MANAGEMENT

The BOEM seeks to balance economic development, energy independence, and environmental projection through OCS oil and gas leasing, renewable energy development, and environmental reviews and studies. The bureau is responsible for developing the Five-Year OCS Oil and Natural Gas Leasing Program, leasing OCS oil and gas blocks, and OCS plan approval for exploration and development operations. The BOEM is also responsible for renewable energy leasing and permitting of offshore wind, current, and hydrokenetic energy projects.

BUREAU OF SAFETY AND ENVIRONMENTAL ENFORCEMENT

The BSEE protects the environment, and promotes safety and conservation of offshore resources through its regulatory oversight and enforcement of OCS oil and gas drilling, production and inspection operations. The BSEE is also responsible for oil spill response, including standards for offshore operators' spill response plans and conducting oil spill drills and equipment inspections, as well as technical research and decommissioning. To secure proper training and up to date knowledge for its offshore inspectors, the BSEE operates the National Offshore Training and Learning Center.

Baseline Economic Information

Together the BOEM and the BSEE manage access and development of OCS mineral resources to help meet the nation's energy needs while balancing the protection of the human, marine, and coastal environments. Currently (as of March 2012), the two agencies administer 6,607 active mineral leases on 36 million OCS acres, and oversee production from nearly 3,200 OCS facilities. The Federal OCS contributes about 10 percent of the natural gas and 30 percent of the crude oil produced domestically. Production from OCS leases generates billions of dollars in revenue for the Federal Treasury and state governments. Energy and minerals production from offshore areas in 2011 was estimated to contribute around $121 billion in economic output and supported about 734,500 American jobs.

Budget ($ billions)*

2010 Actual	2011 Actual	2012 Enacted
0.19	0.22	0.14

*Combined BOEM and BSEE budget totals.

Payroll

Total Annual Payroll (billions, $2011)	Estimated Annual Contribution from Payroll (billions, $2011)	Estimated Additional Jobs Supported from Payroll (jobs)
0.10	0.17	1,190

Major Economic Contributions

	Value* (billions, $2011)	Estimated Economic Contribution (billions, $2011)	Estimated Number of Jobs Supported (jobs)
OCS Oil and Gas	52.36	121.00	734,500

*This value is less than the sales value because of the portions of profits from OCS operations that leave the U.S.

These budget figures are for general fund appropriates for BOEMRE (formerly MMS, currently BOEM and BSEE) and exclude appropriated offsetting collections from rental revenues, cost recovery fees and inspection fees.

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Bureau Role

The Office of Surface Mining Reclamation and Enforcement (OSM) was established by mandate of the Surface Mining Control and Reclamation Act of 1977 to address environmental and public safety concerns associated with surface coal mining. Coal has played a central role in the history of the Nation's industrial and economic development. The OSM mission is to ensure that, through a nationwide regulatory program, coal mining is conducted in a manner that protects citizens and the environment during mining, and restores the land to beneficial use following mining.

One of the objectives of the Surface Mining Control and Reclamation Act is to mitigate the effects of past mining by aggressively pursuing reclamation of abandoned coal mines. OSM collaborates with states and Indian tribes to develop Abandoned Mine Lands (AML) programs, and also provides funding, technical assistance, and oversight to ensure that qualified lands are reclaimed. While OSM has made significant progress in reclaiming abandoned mine land, there are over 200,000 acres on coal-related abandoned mine sites that have yet to be fully reclaimed. These areas constitute an estimated $3.9 billion worth of health and safety problems across the lands of 23 states and three Indian tribes.

Baseline Economic Information

Budget ($ billions)

2010 Actual	2011 Actual	2012 Enacted
0.16	0.16	0.15

Payroll

Total Annual Payroll	Estimated Annual Contribution from Payroll	Estimated Additional Jobs Supported from Payroll
(billions, $2011)	(billions, $2011)	(jobs)
0.05	0.07	522

Grants and Payments

	2011 Enacted	Estimated 2011 Economic Contribution	Estimated 2011 Total Jobs Supported
	(billions, $2011)	(billions, $2011)	(jobs)
Abandoned Mine Reclamation State Grants	0.40	0.98	6,408
State and Tribal Regulatory Grants	0.07	0.16	1,395
Total OSM Grants and Payments	0.46	1.15	7,803

U.S. GEOLOGICAL SURVEY

Bureau Role

USGS scientific information informs societal decisions across almost all sectors of the economy. The information reduces uncertainty and provides input to water, mineral, energy, and biological resource management decisions as well as mitigation and adaptation to climate change and preparation for natural hazards. USGS scientific information has public good characteristics, and as such, is not usually valued in market settings. However, because of its public good nature, the information's value is dependent on it being openly and widely available to the public. For instance, delivery of Landsat data scenes increased from 1.14 million in FY 2009 to 2.45 million in FY 2010 to 2.92 million in FY 2011, after the implementation of free web-based distribution. The large geographic and cyclical coverage of Landsat data makes it well-suited for monitoring and assessing land and resource changes important for land and ecosystem management as well as for responding to disasters and climate change. Integrated assessments that link natural, social, and economic science information are important to increasing the accessibility and use of USGS scientific information.

For example, research on understanding the production, quantity, and value of ecosystem services can inform Interior managers on the impacts of land and resource decisions and the tradeoffs from alternative uses of these lands and resources. USGS programs are organized within six mission areas: climate and land use change, core science systems, ecosystems, energy, minerals, and environmental health, natural hazards, and water.

USGS has a rich culture of mentoring, engaging, employing, and educating youth in the geosciences. Efforts include hiring interns through the National Association of Geoscience Teachers (NAGT) summer cooperative and through the USGS Youth Program using local partnerships between science centers and schools, recruitment at schools in urban areas, and career development programs with colleges and universities. The Native American Relations program provided 24 students an opportunity to participate in USGS research directly related to tribal lands.

Climate and Land Use Change: The USGS undertakes scientific research, monitoring, remote sensing, modeling, synthesis, and forecasting to address the effects of climate and land use change on the Nation's resources. The resulting research and products are provided as the scientific foundation upon which policymakers, natural resource managers, and the public make informed decisions about the management of natural resources on which they and others depend.

Core Science Systems: Data about Earth and its resources are only useful if available in a format that is understandable and accessible. The USGS provides the Nation with ready access to natural science information that supports smart decisions about how to prepare for and respond to natural risks and manage natural resources.

Ecosystems: Ecosystems are integrated systems of organisms interacting with their physical environments, constituting the Earth's biosphere and supporting human existence. Resilient functioning ecosystems support food webs, build soil, enhance crop pollination, purify water, cycle nutrients, detoxify waste, and regulate the atmosphere. The USGS conducts research and monitoring to develop and convey a fundamental understanding of ecosystem function and distributions, physical and biological components

and trophic dynamics for freshwater, terrestrial, and marine ecosystems and the human and fish and wildlife communities they support.

Energy and Minerals, and Environmental Health: The Energy and Minerals, and Environmental Health Activity conducts research and assessments on the location, quantity, and quality of mineral and energy resources, including the economic and environmental effects of resource extraction and use; and conducts research on the environmental impacts of human activities that introduce chemical and pathogenic contaminants into the environment and threaten human, animal (fish and wildlife), and ecological health.

Natural Hazards: Every year in the United States, natural hazards cost lives and billions of dollars in damage. The USGS provides policymakers and the public with a clear understanding of natural hazards and their potential threats to society, and assists with developing smart, cost-effective strategies for achieving preparedness and resilience.

Water: Society depends on fresh and reliable water supplies, as do diverse and fragile ecosystems. To understand the Nation's water resources, the USGS collects hydrologic and water-quality information and provides access to water data, publications, and maps, as well as to recent water projects and events.

Economics as a part of the USGS research portfolio

The USGS is examining ways that economics can be incorporated more effectively into its research portfolio. A workshop was held in June 2011 at the USGS National Center to examine the role of economics at the USGS and to evaluate future directions. Over 70 economists, other scientists, and managers participated in the workshop from all USGS mission areas and from across the Department of the Interior. Participants also included economists and other scientists from other federal agencies, NGOs, and universities.

Secretary Salazar welcomed participants to the workshop in a letter outlining the importance of economics to USGS research and to Interior's efforts to make informed resource management decisions. The discussion made clear the importance of partnerships to USGS economics. Economics adds value to USGS science by serving as a bridge between research and resource management decisions. It translates scientific results that are commonly expressed in biophysical terms into monetary or other valuation metrics that can be used to compare alternative scenarios that cut across market and non-market settings.

USGS Economic Studies

USGS economics can be grouped into four fundamental categories:

1. Valuation studies in which natural resources including ecosystem services are examined so that their value to the Nation can be considered in resource management decisions even if they do not have values determined by traditional markets.
2. Value of scientific information studies that provide insight into how USGS scientific information is used to inform decisions. These studies can help prioritize the use of scarce funding resources in research investments.

3. Benefit-cost analyses that incorporate USGS science to examine the consequences of alternative scenarios and provide resource managers with information on potential tradeoffs.
4. Natural resource (mineral, energy, and other ecosystem services) evaluations examining extraction costs, spatial flows, and consumption patterns.

The studies described in these four categories require the use of scientific information in economic analyses. USGS economics is not envisioned to be a stand-alone activity that is conducted separately from other USGS research. It is seen as an integral part of USGS science in which economics builds on and is integrated with traditional USGS biophysical science. USGS economic studies also rely on partnerships, to provide connections between USGS science and external stakeholders (including Interior resource managers) and to provide access to specialized skills and capacity.

Baseline Economic Information

Budget ($ billions)

2010 Actual	2011 Actual	2012 Enacted
1.11	1.08	1.07

Payroll

Total Annual Payroll (billions, $2011)	Estimated Annual Contribution from Payroll (billions, $2011)	Estimated Additional Jobs Supported from Payroll (jobs)
0.71	1.16	8,148

OFFICE OF INSULAR AFFAIRS

Office Role

The Office of Insular Affairs (OIA) carries out the Secretary's responsibilities for U.S. affiliated insular areas, including the Territories of Guam, American Samoa, the U.S. Virgin Islands, and the Commonwealth of the Northern Mariana Islands, as well as three Freely Associated States: the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau. The OIA assists the insular areas in developing more efficient and effective government by providing financial and technical assistance, and helps manage the Federal Government's relationships with insular areas by promoting appropriate Federal policies. The OIA works to improve the financial management practices of insular governments, maximize economic development opportunities, improve quality and quantity of economic data and increase Federal responsiveness to the unique needs of island communities.

The standards of living in the insular areas are generally lower than in the United States as a whole; U.S. per capita GDP in 2009 was about $46,500, double the $23,515 average for the four U.S. territories. In one territory, per capita GDP is just over a quarter of the national per capita figure. Infrastructure in the insular areas, including school buildings, government offices, roads and airports, is typically not up to national norms. Refurbishing this infrastructure would result in much-needed improvements and generate a significant level of economic value and jobs for the communities concerned.

Accurate and current socioeconomic data are a critical component of informed decision making. To help the territories upgrade their economic data systems, the OIA established a technical assistance agreement with the Bureau of Economic Analysis (BEA) in 2009 to calculate GDP of the territories in the manner it does so for the United States, the 50 states and the District of Columbia (DC). The first set of GDP data for the territories which covered 2002-2007 was released by the BEA in May 2010 and estimates for 2008 and 2009 were released in the summer of 2011. (Estimates for 2010 will be available this summer; the 2002-2009 GDP data for the four territories are posted on the BEA's web site.) The four territories are also included in the County Business Patterns and the Economic Census which the Bureau of the Census carries out. Despite significant progress in improving the quality and quantity of data on the territories in the last few years, much remains to be done. The territories are not included in the Census Bureau's American Community Survey and the Bureau of Labor Statistics' employment and labor force data. Under present arrangements, there is no current information on population, demography and some aspects of income on the territories between the decennial censuses. Lack of current data on crucial aspects of the territories deprives both territorial and Federal leaders from the detail and insight they need to make informed and critical policy decisions.

In an effort to obtain information on the economic contribution of the OIA's grants and programs in the insular areas, the OIA contracted with Research Triangle Institute (RTI) International in October 2011 to update its 2010 findings. The RTI report[7] presents estimates of the impact of grants and payments on employment, employee compensation, and GDP for each of the insular areas. Economic Base Analysis (EBA) was used to estimate the indirect and induced effects of OIA funding in insular areas because no

[7] *Economic Impacts Attributable to FY 2011 Federal Grants and Payments to Seven Insular Areas*, Final Report, RTI International, December 2011. This report is available on-line at www.doi.gov/oia/reports/PDF/OIA_Econ_Impact_2011%28RTI_Dec2011%29.pdf

current input-output models exist for the insular areas. This method differs from that used in the other bureau-level analysis in this chapter, but provides a similar estimate of economic impacts that includes direct, indirect, and induced effects.

OIA provided $429 million in grants and payments directly to the insular areas during FY 2011. This assistance played an important role in the economies of each of these areas by providing financial and technical assistance to promote economic growth, education, public health, and the development of more efficient and effective government. An additional $22.3 million was spent outside the Insular Areas.

Baseline Economic Information

Budget ($ billions)

2010 Actual	2011 Actual	2012 Enacted
0.10	0.10	0.10

Payroll

Economic effects for OIA employees are included in the estimates for the Other Interior Offices in Table 2-1. OIA's 41 employees represent about 1 percent of the "Other Interior Offices" labor force.[8] The contributions associated with these employees were estimated assuming that OIA's contributions represent a similar share of the total contributions of the Other Interior Offices.

Payroll

Total Annual Payroll (billions, $2011)	Estimated Annual Contribution from Payroll (billions, $2011)	Estimated Additional Jobs Supported from Payroll (jobs)
0.004	0.01	48

Grants and Payments

Estimates of the amount of GDP supported by OIA payments are presented in the table below. Based on an analysis of the economics of each insular area, it was determined that for every $1 of GDP directly supported by OIA payments, approximately $3.00 of GDP was supported elsewhere in the insular economy on average. As a result, a significant portion of national GDP is directly and indirectly supported by OIA payments in many insular areas. For example, approximately 55% of total GDP in Micronesia is either directly or indirectly supported by OIA payments.

[8] Most of these 41 OIA employees had a duty station of Washington, DC; the rest were located outside of the Continental United States.

GDP Contribution for FY2011 OIA Payments, by Insular Area

	Direct GDP Contribution (billions, $2010)	Indirect/Induced GDP Contribution (billions, $2010)	Total GDP Contribution (billions, $2010)	National GDP Supported by OIA Payments (%)
American Samoa	0.04	0.04	0.08	11%
Guam	0.10	0.22	0.33	7%
Northern Mariana Islands	0.01	0.03	0.04	5%
U.S. Virgin Islands	0.24	0.62	0.86	20%
Micronesia	0.05	0.09	0.15	55%
Marshall Islands	0.03	0.04	0.06	41%
Palau	0.01	0.02	0.02	14%
Total	0.48	1.05	1.53	14%

Source: Economic Impacts Attributable to Federal Grants and Payments to Seven Insular Areas, Final Report, Prepared for Office of Insular Affairs U.S. Department of the Interior. Research Triangle Institute, December 2011.

Estimates of local employment supported by OIA payments are presented the table below. Based on analysis of the economic structure of each insular area, it was determined that for every job directly supported by OIA payments, approximately 1.90 jobs were supported elsewhere in each insular economy, on average. Base employment multiplier estimates ranged from 1.98 in American Samoa to 3.68 in the Northern Mariana Islands.

Employment Contribution for FY2011 OIA Payments, by Insular Area

	Direct Employment Contribution (jobs)	Indirect/Induced Employment Contribution (jobs)	Total Employment Contribution (jobs)	National Employment Supported by OIA Payments **(%)**
American Samoa	885	867	1,752	11%
Guam	1,550	3,368	4,918	7%
Northern Mariana Islands	372	997	1,369	5%
U.S. Virgin Islands	2,551	6,492	9,043	20%
Micronesia	3,050	5,433	8,483	55%
Marshall Islands	1,872	2,343	4,215	41%
Palau	523	1,061	1,584	14%
Total	10,803	20,561	31,364	16%

Source: Economic Impacts Attributable to Federal Grants and Payments to Seven Insular Areas, Final Report, Prepared for Office of Insular Affairs U.S. Department of the Interior. Research Triangle Institute, December 2011.

In the cases of the Marshall Islands and Micronesia, a significant portion of national employment is directly and indirectly supported by OIA payments. Approximately 55% of total recorded employment in Micronesia was either directly or indirectly supported by OIA payments. These data do not include subsistence agriculture or fishing.

Estimates of the amount of employee compensation supported by OIA payments are presented in the table below. Based on an analysis of the economic structure of each insular area, it was determined that for every $1 of employee compensation directly supported by OIA payments, approximately $2.87 of employee compensation was supported elsewhere in the insular economy, on average. Base employee compensation multiplier estimates ranged from 2.07 in the Marshall Islands to 4.13 in the Northern Mariana Islands.

Employee Compensation Contribution for FY2011 OIA Payments by Insular Area

	Direct Employee Compensation Contribution (billions, $2010)	**Indirect/Induced Employee Compensation Contribution** (billions, $2010)	**Total Employee Compensation Contribution** (billions, $2010)	**National Employee Compensation Supported by OIA Payments (%)**
American Samoa	0.011	0.012	0.023	13%
Guam	0.036	0.092	0.128	8%
Northern Mariana Islands	0.004	0.013	0.017	5%
U.S. Virgin Islands	0.081	0.182	0.263	18%
Micronesia	0.016	0.031	0.047	72%
Marshall Islands	0.021	0.023	0.044	44%
Palau	0.007	0.013	0.020	20%
Total	0.176	0.365	0.542	14%

Source: Economic Impacts Attributable to Federal Grants and Payments to Seven Insular Areas, Final Report, Prepared for Office of Insular Affairs U.S. Department of the Interior. Research Triangle Institute, December 2011.

In the cases of the Marshall Islands and Micronesia, a significant portion of national employee compensation is directly and indirectly supported by OIA payments. For example approximately 72% of total estimated recorded employee compensation in the Federated States of Micronesia is either directly or indirectly supported by OIA payments.

OFFICE OF NATURAL RESOURCES REVENUE

Office Role

The Office of Natural Resources Revenue (ONRR) was established within the Office of the Secretary under the Assistant Secretary for Policy, Management and Budget on October 1, 2010 pursuant to Secretarial Order No. 3306 as part of the reorganization of the former Minerals Management Service (MMS). ONRR performs functions formerly performed by the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE). ONRR collects, accounts for, analyzes, audits, and disburse revenues from energy and mineral leases and other monies owed for the utilization of public resources on Outer Continental Shelf (OCS) and onshore Federal and American Indian lands. ONRR serves as a trustee of the royalty asset from Indian trust properties and as an advocate for the interests of Indian mineral owners, ensuring fulfillment of our Indian trust responsibility. The material below provides information on the major grant and payment programs administered by ONRR.

- Under the Mineral Leasing Act states receive 50 percent of the revenues resulting from the leasing of mineral resources on Federal public domain lands within their borders. Alaska is the exception, receiving a 90 percent share of receipts from Federal mineral leasing in that state (exclusive of the National Petroleum Reserve-Alaska).
- The Federal Oil and Gas Royalty Management Act of 1982 (FOGRMA), as amended, Sections 202 and 205, authorized the Secretary to develop cooperative and delegated agreements with states and tribes to carry out certain inspection, auditing, investigation, or enforcement activities for leases in their jurisdiction. Currently, ONRR has agreements with 10 states and 6 tribes.
- The Energy Policy Act of 2005 created the Coastal Impact Assistance Program (CIAP), which authorized the Secretary of the Interior to allocate $250 million annually to this program for FY 2007 through 2010. These funds are shared among six states (Alabama, Alaska, California, Louisiana, Mississippi, and Texas) and 67 eligible Coastal Political Subdivisions (CPSs) within those states, based upon allocation formulas prescribed in the Act. Funds are awarded from the CIAP account to the states and CPSs as grants for approved coastal impact assistance projects. Distributions into the CIAP account ended in FY 2010; however, program activities such as grant awards and monitoring will continue for several years.

Grants and Payments

	2011 Enacted (billions, $2011)	Estimated 2011 Economic Contribution (billions, $2011)	Estimated 2011 Total Jobs Supported (jobs)
Cooperative and Delegated Audits of Oil and Gas Operations	0.01	0.03	242
Mineral Revenue Payments (includes 8(g) payments to states)	1.99	4.75	40,497
Total Grants and Payments	2.01	4.78	40,739