Recommendations to the 90th Meeting of the Inter-American Tropical Tuna Commission

27 June to 1 July 2016, La Jolla, California, United States

A brief from

The Inter-American Tropical Tuna Commission (IATTC) is responsible for the conservation and management of tunas, sharks, and other highly migratory species in the eastern Pacific Ocean. It is the obligation of Member States to enforce strict compliance with measures approved by the Commission.

The Pew Charitable Trusts calls on Members and Cooperating Non-Members at the 90th Meeting of the IATTC to take these critical actions:

- Implement strong conservation and management measures for tuna species.
 - Agree on effective, science-based catch limits and an appropriate long-term rebuilding and management plan for Pacific bluefin tuna.
 - Establish appropriate and precautionary target and limit reference points for all tuna species and set timelines for implementing harvest strategies.
 - Commit to effective management of fish aggregating devices (FADs) to reduce their impact on vulnerable species.
 - Ensure that catches and practices by longline vessels are verifiable and legal.
- Adopt conservation and management measures to protect sharks.
 - Prohibit the retention of biologically vulnerable shark species, particularly silky and hammerhead sharks.
 - Limit the mortality of other shark species, including blue, thresher, and shortfin mako sharks, to sustainable levels.
- Improve compliance and target illegal, unreported, and unregulated (IUU) fishing.
 - Strengthen port State measures.
 - Ensure that the IUU vessel list is effective and up to date.
 - Strengthen the effectiveness of the IATTC's vessel monitoring system.
 - Effectively implement the requirement for International Maritime Organization (IMO) numbers to more easily identify and monitor vessels.
 - Ban all forms of transshipment at sea.
- Conduct an IATTC performance review.

Implement strong conservation and management measures for tuna species

Pew continues to be concerned about the health of tuna populations in the eastern Pacific Ocean. The current catch and effort-based limits are not sufficient to protect the populations of several commercially and ecologically important tuna stocks. Pacific bluefin tuna is severely depleted, and the catch of tropical tunas continues to rise. Precautionary, science-based catch limits and gear controls are critical to safeguarding these depleted tuna populations.

Agree on effective, science-based catch limits and an appropriate long-term rebuilding and management plan for Pacific bluefin tuna

The status of Pacific bluefin continues to worsen, and the IATTC must act immediately to reduce mortality in the Convention area. The latest stock assessment conducted in 2016 shows that the population is at just 2.6 percent of its historic size and overall fishing mortality is still at least 20 percent higher than sustainable levels. This finding means that the overfishing that has driven the stock down by 97.4 percent across the Pacific continues despite clear evidence that the population is more depleted than previously thought. Additionally, projections from the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean show that under current conditions, the catch limits now in place have a less than 1 percent chance of returning the population to healthy levels over the next 20 years.

It is clear that IATTC Resolution C-14-06, as drafted, is not adequate to effectively protect or rebuild the Pacific bluefin population. This year, the Commission must act proactively and begin implementing long-term measures that will ensure the species' recovery. Pew calls on the Commission to:

- End overfishing of Pacific bluefin by reducing commercial catch limits by at least 20 percent from current levels and by requiring an equal reduction in recreational catch.
- Agree to implement a Pacific-wide, long-term recovery plan that will return the Pacific bluefin population to 25 percent of its unfished biomass (BO) by 2025 with a 75 percent or greater probability. This plan should be in place no later than the 2017 Commission meeting.
- Agree on a clear timeline and process for:
 - Approving management objectives and target and limit reference points for Pacific bluefin no later than the 2018 Commission meeting.
 - Approving candidate harvest control rules and performing a management strategy evaluation no later than the 2020 Commission meeting.
- Implement strong monitoring and enforcement measures, including an electronic catch documentation system, full observer coverage during transfer to ranches and during harvest, and authorized vessels lists.
- Ensure that the recovery plan and management measures are effective, complementary, and applied consistently on both sides of the Pacific, as required in Article XXIV of the IATTC's Antigua Convention.

Establish appropriate and precautionary target and limit reference points for albacore, bigeye, Pacific bluefin, skipjack, and yellowfin tuna, and set timelines for implementing harvest strategies

The Antigua Convention, in force since 2010, requires the Commission to apply the precautionary approach. That calls for setting target and limit reference points in accordance with the United Nations Fish Stocks Agreement (FSA) and the Code of Conduct for Responsible Fisheries adopted by the Food and Agriculture Organization

(FAO) of the United Nations. Reference points and associated harvest strategies should be designed to prevent overfishing and to rebuild or maintain tuna populations at healthy, sustainable levels.

Several other regional fishery management organizations (RFMOs) have begun the harvest strategy process, agreeing on timelines for implementing key elements, including management objectives, reference points, and harvest control rules. Currently, the IATTC has agreed only on interim target and limit reference points for the tropical tunas. Member governments have not discussed reference points for the remaining species. In addition, the interim reference points that have been set are not consistent with the FSA, as they treat maximum sustainable yield (MSY) as a target, rather than a limit.

The Commission and secretariat should abide by the 2014 agreement to use the management strategy evaluation process to test a range of candidate reference points for tropical tunas, and then use the same approach for the other species under their purview. With increasing catch of tuna across the eastern Pacific, there can be no delay in implementing effective reference points and associated management measures.

In light of that agreement and considering the IATTC's mandate to apply the precautionary approach, Pew calls on the Commission to:

- Agree to a process and timeline for developing harvest strategies, including precautionary reference points and harvest control rules, for all tuna species within the Convention area.
- Develop limit reference points for all tuna species, such as F_{MSY} (the maximum fishing mortality to maintain MSY), and target reference points that are consistent with the Antigua Convention, the FSA, and the FAO Code of Conduct for Responsible Fisheries.



Commit to effective management of FADs to reduce their impact on vulnerable species

Currently, the IATTC has no limits on numbers of FAD deployments or sets, and the number of sets in 2015 was the highest on record. At the same time, more of these floating objects are being abandoned by purse seine vessels each year. Unrecovered FADs wash up on beaches or degrade until they sink, polluting the marine environment.

The rapid increase in FAD use also has large impacts on the tuna species in the eastern Pacific. More bigeye are caught in the purse seine fishery than by longline vessels targeting the species. Nearly all (99 percent) of the bigeye caught in the purse seine fishery are caught using FADs.¹ The acceleration in their use complicates analysis of data on the purse seine effort in fishery assessments. No reliable index of relative abundance for skipjack in the eastern Pacific exists, which hampers research on and management of the species.

Although the Commission has taken small steps in addressing FADs, it needs to recognize the urgency of the issues raised. IATTC Resolution C-15-03,² adopted last year, pushed back the start date for FAD recording and reporting requirements by two years. It also postponed the process that will lead to management of this fishing gear. With FADs playing a significant role in the rapid increase in overall catch of tuna in the eastern Pacific, the Commission cannot continue to delay action.

The IATTC Scientific Advisory Committee (SAC) also recognized the need to make immediate progress on FAD management. After considering the data on FAD deployments, sets, and recoveries, as well as the latest scientific information on the impact on tuna in the eastern Pacific, the SAC recommended that work should continue "with the objective of designing a management plan for FADs as soon as possible."

Because of the increasing number of FADs used in the region and their negative impact on the bigeye population, Pew calls on the Commission to:

- Ensure that Members abide by the FAD marking requirements to improve stock assessments, determine the extent of FAD use, and inform research on the potential impact of FADs on ocean ecosystems.
- Ensure that recommendations on FAD management be discussed no later than the 2017 Commission meeting, in response to the SAC call for development of a plan as soon as possible.
- Develop management options that limit FAD sets to levels that avoid overfishing of juvenile bigeye tuna.
- Review compliance with FAD measures annually and require action to address instances of noncompliance.

Ensure that catches and practices by longline vessels are verifiable and legal

Unlike purse seine vessel catches, longline vessel catches and practices—such as transshipment at sea are difficult to verify. The current low level of observer coverage, coupled with a paper-based catch and transshipment reporting system that can take weeks to process, limits the options for near real-time monitoring and enforcement.

To ensure that longline catches are verifiable and legal, Pew calls on the Commission and its Members to:

- Require electronic reporting for all longline fishing vessels on the IATTC Regional Vessel Register.
- Require 100 percent observer coverage, including through the use of electronic monitoring, for longline fishing vessels on the IATTC Regional Vessel Register.

Adopt conservation and management measures to protect sharks

Every year, an unsustainable number of sharks, about 100 million, are caught and killed in commercial fisheries.³ Whether this catch is highly sought after or unintended and unwanted, managers must take immediate action to counter declining shark populations and stem the resulting damage to marine ecosystems.

The IATTC must make it a priority to urgently reduce shark mortality. Until measures are in place to ensure that both targeted and incidental catch of sharks is sustainable, harvest of these animals should be avoided. Those caught should be released alive whenever possible. Fishing gear that increases the likelihood of shark catch, such as wire leaders and shark lines, should be prohibited, and research should be undertaken to determine the best means of avoiding shark catch.

The Commission should also adopt the global standard of fins-attached landings for sharks, to allow for better enforcement of its prohibition on shark finning (Resolution C-05-03).

Prohibit the retention of biologically vulnerable shark species, particularly silky and hammerhead sharks

The silky shark (*Carcharhinus falciformis*) is the shark species most commonly caught by purse seine vessels, though it is also caught in longline fisheries. The International Union for Conservation of Nature (IUCN) Red List of Threatened Species has classified silky sharks as Near Threatened globally. In the eastern-central and southeastern Pacific, however, these sharks have been classified as Vulnerable to extinction.⁴ Forty-nine nations, including Panama, support a proposal to list this species on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) at the CITES Conference of the Parties this September. That listing would require that international trade in silky sharks be sustainable and legal. It also would help enforce compliance with RFMO measures.

At this year's Scientific Advisory Committee meeting, experts presented evidence of the poor state of silky shark stocks and the lack of sufficient data to properly evaluate and manage them. As in the past, the SAC emphasized this year the urgent need for precautionary management action for this species; the latest science finding is that silky shark populations have declined in the IATTC-managed fisheries since the mid-1990s, with recent variations in catch levels attributed to stock movements and not population increases.

Silky sharks require immediate action to promote recovery of the stock. These sharks produce few young and are considered among the most vulnerable to both purse seine⁵ and longline⁶ fishing gear. Faced with similar information and advice about silky shark declines, the Western and Central Pacific Fisheries Commission adopted a measure in December 2013 to prohibit retention of these sharks. Considering the SAC and IATTC scientific staff's 2016 advice on the state of the silky shark stock and the need for precautionary measures, the IATTC should match this action and prohibit retention of these sharks while making collection of better information a priority to help determine what level of mortality is sustainable.

Hammerhead sharks are targeted for their highly valued fins or are caught as bycatch. They are among the top shark species caught in the eastern Pacific's purse seine and longline fisheries. In addition, juvenile and neonate hammerheads are targeted in coastal fisheries, particularly with gillnets. The IUCN Red List classifies scalloped (*Sphyrna lewini*) and great hammerheads (*S. mokarran*) as Endangered and smooth hammerheads (*S. zygaena*) as Vulnerable to extinction. The parties to CITES recognized the need to protect scalloped, great, and smooth hammerheads in March 2013, when they adopted proposals to include them on CITES Appendix II.



With those listings now in force, the IATTC must help Member States meet the Convention's requirements. Given the status and vulnerability of hammerhead sharks and the current lack of scientific advice to set sustainable catch levels, a precautionary prohibition on retention of hammerhead sharks (*S. spp.*) should be adopted at this year's IATTC meeting. That would follow the example of the International Commission for the Conservation of Atlantic Tunas.

The IATTC also must improve data collection for all shark species, focusing on fisheries and vessels for which a lack of information has been identified. That would ensure that conventional stock assessments and other indicators of stock status can be developed and used to better inform management of all sharks caught in IATTC fisheries.

Pew calls on to the Commission to:

- Prohibit retention of silky sharks and request that the SAC collect and analyze data to determine levels of catch and trade that could be sustainable.
- Prohibit retention of all hammerhead sharks and ask the SAC to collect and analyze data to determine levels of catch and trade that could be sustainable.
- Make better data collection for all shark species a priority.

Limit the mortality of other shark species, including blue, thresher, and shortfin mako sharks, to sustainable levels

Other species, including blue, thresher, and shortfin mako sharks, also are being caught at unsustainable levels. For example, one recent study showed that standardized catch rates of longline fleets in the North Pacific have declined significantly for blue sharks (by 5 percent a year) and mako sharks (by 7 percent a year).⁷ Thresher sharks face a similarly dire situation in the eastern-central Pacific; they have experienced an 83 percent reduction in abundance throughout the IATTC fisheries.⁸ Fifty-two nations support a proposal to add thresher sharks (*Alopias spp.*) to CITES Appendix II to ensure that continued trade is sustainable.

The IATTC should put in place precautionary measures to limit mortality of these species. Catches should be limited to current levels while the SAC assesses what level of catch would be sustainable for each.

Pew calls on the Commission to:

• Implement precautionary measures to limit mortality of shark species, including blue, thresher, and shortfin mako sharks, to sustainable levels.

Improve compliance and target IUU fishing

Illegal, unreported, and unregulated fishing is a threat around the globe,⁹ and the eastern Pacific is no exception. To address loopholes in IATTC policies, Members should act on measures that would strengthen controls at port.

Strengthen port State measures

Port State measures (PSMs) are instrumental to prevent the entry of illegal fish into the world's markets and help eliminate economic incentives for illegal operators. The U.N. Agreement on Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing (PSMA), a key tool in efforts to halt IUU fishing globally, recently entered into force. Many IATTC Members continue to work toward ratifying the PSMA, amid recognition of the regional and global benefits that will come as more nations agree to abide by the Agreement.¹⁰



In other parts of the world, implementation of port State measures, along with timely information-sharing, regional cooperation, and transparency, has demonstrated the effectiveness of port controls in keeping illegally caught fish out of the market¹¹ Pew encourages IATTC Members that have not yet initiated action to ratify the PSMA to do so.

In addition, a number of RFMOs have adopted and strengthened their port State control requirements in recent years.¹² The IATTC still does not have a port inspection scheme, despite five years of discussions on various proposals that have been adapted to the needs of Member countries. This represents a serious gap in regional efforts to stop IUU fishing.

The Commission should consider establishing a special fund to assist developing country Members in effectively implementing port State measures in the short or medium term.

Pew calls on the Commission and its Members to:

- Ratify and implement the PSMA so they can stop IUU fishing vessels at port.
- Adopt minimum standards for port inspections effective by 1 January 2017.
- Establish a special fund to help developing nation Members implement port State measures.

Ensure that the IUU vessel list is effective and up to date

The Commission should continue to improve Resolution C-15-01 so the IUU vessel list can help deter illegal practices in the Convention area. In 2015, the Commission clarified and strengthened the rules for listing IUU vessels, but it continued to exempt those less than 23 meters in length from consideration. Vessels of all sizes engage in IUU fishing, and violations of IATTC rules by those less than 23 meters long also undermine efforts to exploit marine living resources sustainably.

In addition, Resolution C-15-01 allows the addition of IUU vessels only at the Commission's annual meeting. Without the ability to add vessels between meetings, rogue vessels can continue their operations for months until they are listed.

Pew calls on the Commission to:

- Ensure that the listing criteria for the IUU vessel list apply to all vessels, regardless of size.
- Permit the listing of vessels between meetings, so that any active vessel found to be fishing illegally can be duly identified.

Strengthen the effectiveness of the IATTC's vessel monitoring system

Vessel monitoring systems (VMSs) are an integral component of fisheries management and monitoring, control, and surveillance regimes. They play a central role in fighting IUU fishing in regulated fisheries. VMS data provide valuable information for scientific stock assessments, particularly when data are supplied frequently. Furthermore, real-time catch documentation data, reported through VMS, can help track fisheries products from hook to plate when correlated with landings.

The Commission mandates that all vessels 24 meters or longer be equipped with a satellite-based VMS, which transmits data to the flag State.¹³ Other States, however, may also have a legitimate interest in accessing some of the VMS data for enforcement and scientific purposes. The Commission should take steps to establish a centralized system, which would receive and collate all VMS data provided by member States. The system would make sure to address confidentiality concerns. In recognition of the rights of coastal states, the Commission should ensure that these states have access to VMS data from all Member State vessels fishing in their waters.

Pew calls on the Commission to:

- Require that vessels fishing in waters under the jurisdiction of a coastal State transmit VMS data automatically and in real time to that State's Fisheries Monitoring Center.
- Take steps to establish a centralized VMS, which would receive and collate VMS data provided by Member States.

Effectively implement the IMO number requirement to help identify and monitor vessels

As of 1 January 2016, all vessels that are at least 100 gross tons/gross register tonnage fishing in the eastern Pacific must have IMO numbers.¹⁴ This requirement is essential to ensuring the effective monitoring and control of fishing vessels at sea and in port. Currently, 64 percent of vessels that size on the Regional Vessel Register have IMO numbers. In addition, the Register provides complete information for some vessels, but for others the information does not correspond to the requirements set in Resolution C-14-01. Pew calls on the Commission and its Members to:

- Take all necessary steps to ensure that there is no further delay in complying with this obligation.
- Cooperate with the IATTC secretariat to update and provide complete information for the IATTC Regional Vessel Register.

Ban all forms of transshipment at sea

At-sea transshipment continues to provide opportunities to avoid proper catch reporting and launder IUUcaught fish. The IATTC should introduce a ban on all forms of transshipment at sea until the Commission has clear evidence that such operations do not assist IUU fishing. Such a measure would require a robust monitoring system that ensures full transparency and that observers be aboard offloading and receiving vessels. It would call for comprehensive Commission oversight of all transshipment operations in the Convention Area.

To continue combating illegal fishing in the Convention Area, Pew calls on the Commission to:

• Ban all forms of transshipment at sea until measures are in place that ensure full transparency and accountability, including observer coverage on both the offloading and receiving vessel.

Conduct an IATTC performance review

In 2006, the resumed Review Conference on the United Nations Fish Stocks Agreement urged RFMOs to undertake reviews of their performance and identify areas needing improvement. The assessments should compare performance with publicly transparent criteria based on the FSA as well as other relevant instruments. Reviews should be conducted by independent evaluators. Ten years later, while the other tuna RFMOs have completed at least a first performance review, the IATTC has not. In a sign of progress since the 2015 Commission meeting, the first performance review is underway and a draft report is expected to be presented at this year's annual meeting. At this point, however, the review remains incomplete.

Pew calls on the Commission to:

• Rapidly complete the first performance review in order to ensure that the IATTC is operating effectively under its mandate.

Endnotes

- 1 Inter-American Tropical Tuna Commission, Stock Status Indicators for Fisheries of the Eastern Pacific Ocean (2014), http://www.iattc.org/ Meetings/Meetings2014/MAYSAC/PDFs/SAC-05-11c-Indicators-of-stock-status.pdf.
- 2 Inter-American Tropical Tuna Commission, "Resolution C-15-03: Collection and Analyses of Data on Fish Aggregating Devices" (June 2015), http://www.iattc.org/PDFFiles2/Resolutions/C-15-03-Amendment-C-13-04-FADs.pdf.
- 3 Boris Worm et al., "Global Catches, Exploitation Rates, and Rebuilding Options for Sharks," *Marine Policy* 40 (2013): 194-204, doi:10.1016/j.marpol.2012.12.034.
- 4 Hilario Murua et al., "Preliminary Ecological Risk Assessment (ERA) for Shark Species Caught in Fisheries Managed by the Indian Ocean Tuna Commission (IOTC)," IOTC-2012-WPEB-31 (2012), http://ebfmtuna-2012.sciencesconf.org/file/23488.
- 5 Ibid.
- 6 Enric Cortés et al., "Ecological Risk Assessment of Pelagic Sharks Caught in Atlantic Pelagic Longline Fisheries," Aquatic Living Resources 23 (2010): 25–34, doi:10.1051/alr/2009044.
- 7 Shelley C. Clarke et al., "Population Trends in Pacific Oceanic Sharks and the Utility of Regulations on Shark Finning," *Conservation Biology* 27, no. 1 (2013): 197-209, http://onlinelibrary.wiley.com/doi/10.1111/j.1523-1739.2012.01943.x/full.
- 8 Peter Ward and Ransom A. Myers, "Shifts in Open-Ocean Fish Communities Coinciding With the Commencement of Commercial Fishing," *Ecology* 86 (2005): 835-47, doi:10.1890/03-0746.
- 9 The United Nations General Assembly has repeatedly stated that "IUU fishing remains one of the greatest threats to fish stocks and marine ecosystems and continues to have serious and major implications for the conservation and management of ocean resources, as well as the food security and the economies of many States, particularly developing States." UNGA Resolution 69/109, para. 56, http:// www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/69/109.
- 10 Ibid., paras. 67 -71. See also "G-7 Foreign Ministers' Declaration on Maritime Security in Luebeck, 15 April 2015," para. 9, news release, http://www.auswaertiges-amt.de/EN/Infoservice/Presse/Meldungen/2015/150415_G7_Maritime_Security.html?nn=479796; Western Central Atlantic Fishery Commission, "Resolution WECAFC/15/2014/9 on the Implementation of the Port State Measures Agreement and the FAO Voluntary Guidelines on Flag State Performance in the Region" (2 July 2014), http://www.wecafc.org/ en/recommendations-and-resolutions/resolutions.html; and Food and Agriculture Organization, Taller Regional relativo a la "Implementación del Acuerdo FAO del 2009 sobre Medidas del Estado Rector del Puerto destinadas a prevenir, desalentar y eliminar la Pesca Ilegal No Declarada y No Reglamentada (pesca INDNR)," Montevideo, Uruguay (October 2014), http://www.fao.org/americas/ noticias/ver/es/c/253747. Most recently, the Central America Fisheries and Aquaculture Organization and The Pew Charitable Trusts launched a joint project --PESCAPUERTOS --aimed at assessing the capacity needs of their member countries to implement the PSMA.
- 11 The Maritime Executive, "Poaching Vessel Kunlun Detained in Thailand," March 17, 2015, http://www.maritimeexecutive.com/article/ poaching-vessel-kunlun-detained-in-thailand.
- 12 See Indian Ocean Tuna Commission, "Resolution 10/11: Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, and Unregulated Fishing" (2010), http://www.iotc.org/cmm/resolution-1011-port-state-measures-prevent-deter-and-eliminate-illegalunreported-and; South East Atlantic Fisheries Organization, "Conservation Measure 2/11: Port State Measures to Prevent, Deter, and Eliminate Illegal, Unreported, And Unregulated Fishing" (2011), integrated in Chapter VI of SEAFO's new system of observation, inspection, compliance, and enforcement (2014), http://www.seafo.org/Management/Conservation-Measures; Commission for the Conservation of Antarctic Marine Living Resources, "Conservation Measure 10-03: Port Inspections of Fishing Vessels Carrying Antarctic Marine Living Resources" (2012), http://www.ccamlr.org/sites/drupal.ccamlr.org/files//10-03_2.pdf; International Commission for the Conservation of Atlantic Tunas, "Recommendation 12-07: Recommendation by ICCAT for an ICCAT Scheme for Minimum Standards for Inspection in Port" (2012) http://www.iccat.int/Documents%5CRecs%5Ccompendiopdf-e%5C2012-07-e.pdf; North East Atlantic Fisheries Commission, "PSMA-Aligned Port State Measures" (2013); South Pacific Regional Fisheries Management Organization, "Conservation and Management Measure 2.07: Minimum Standards of Inspection in Port" (2014), https://www.sprfmo. int/assets/Fisheries/Conservation-and-Management-Measures/CMM-2-07,pdf; and Commission for the Conservation of Southern Bluefin Tuna, "Resolution for a CCSBT Scheme for Minimum Standards for Inspection in Port" (2015), https://www.ccsbt.org/sites/ ccsbt.org/files/userfiles/file/docs_english/operational_resolutions/Resolution_Minimum_Port_Inspection_Standards.pdf.
- 13 Inter-American Tropical Tuna Commission, "Resolution C-14-02: Resolution (Amended) on the Establishment of a Vessel Monitoring System (VMS)" (July 2014), https://www.iattc.org/PDFFiles2/Resolutions/C-14-02-Vessel-Monitoring-Systems-VMS.pdf.
- 14 Inter-American Tropical Tuna Commission, "Resolution C-14-01: Resolution (Amended) on a Regional Vessel Register" (July 2014), https://www.iattc.org/PDFFiles2/Resolutions/C-14-01-Regional-Vessel-Register.pdf.

For further information, please visit:

pewtrusts.org/ip

Contact: Alexis Jackson, senior associate Email: ajackson@pewtrusts.org Project website: pewtrusts.org/ip

The Pew Charitable Trusts is driven by the power of knowledge to solve today's most challenging problems. Pew applies a rigorous, analytical approach to improve public policy, inform the public, and invigorate civic life.