



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

November 12, 2012

S. 810 **Great Ape Protection and Cost Savings Act of 2011**

*As ordered reported by the Senate Committee on Environment and Public Works
on July 25, 2012*

SUMMARY

The Great Ape Protection and Cost Savings Act of 2011 would prohibit invasive research on a great ape, as well as the transport or breeding of great apes to be used in such research within and outside of the United States. For great apes that are owned by or are under the control of the federal government, the bill also would require their permanent retirement and lifetime care in a suitable sanctuary. In addition, the bill would establish the Great Ape Sanctuary System Fund to support the construction, renovation, and operation of the sanctuary system. Civil monetary penalties collected as a result of violations of the bill would be used to endow the Great Ape Sanctuary System Fund.

CBO estimates that implementing S. 810 would cost \$56 million over the 2013-2017 period, assuming appropriation of the necessary amounts. Because fines may be collected as a result of violations of this legislation, there could be an increase in revenues and direct spending; therefore, pay-as-you-go procedures apply. However, CBO estimates that any effects on revenues and direct spending would be insignificant for each year.

S. 810 would impose intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) by prohibiting invasive research on great apes, unless authorized by the research task force established in the bill. Based on information from public and private entities, including research institutions, CBO estimates that the cost of the mandates would be small and would not exceed the intergovernmental or private-sector thresholds established in UMRA (\$73 million and \$146 million, respectively, in 2012, adjusted annually for inflation).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of S. 810 is shown in the following table. The costs of this legislation fall within budget function 550 (health).

	By Fiscal Year, in Millions of Dollars					2013-2017
	2013	2014	2015	2016	2017	
CHANGES IN SPENDING SUBJECT TO APPROPRIATION^a						
Estimated Authorization Level	30	4	8	7	7	56
Estimated Outlays	9	25	8	7	7	56

a. Enacting S. 810 could affect revenues and direct spending from the collection and spending of fines, but CBO estimates that any such effects would be insignificant for each year.

BASIS OF ESTIMATE

At present, CBO understands that the National Institutes of Health (NIH) is the only federal agency that provides financial support for research that involves the use of great apes, namely chimpanzees, for invasive research. NIH also supports research that involves the use of chimpanzees for behavioral and observational studies. Under the bill, chimpanzees intended for use in invasive research would be retired; other chimpanzees would remain available for behavioral and observational research. Based on a 2011 report by the Institute of Medicine and National Research Council of the National Academies, CBO estimates that about 440 government-owned chimpanzees are available for use in invasive research.

Implementing S. 810 would require start-up expenditures to establish a suitable sanctuary with sufficient capacity to accommodate the retired chimpanzees and transport them to the sanctuary, as well as ongoing costs for the care of the chimpanzees in the sanctuary. In addition, the budgetary effect of S. 810 would include any difference between the cost to NIH of invasive research that uses chimpanzees and the cost of alternative methods of conducting such studies.

For this estimate, CBO assumes that S. 810 will be enacted near the end of calendar year 2012 and that the necessary amounts will be appropriated near the beginning of calendar year 2013 and near the start of each subsequent fiscal year. CBO estimates that implementing S. 810 would cost \$56 million over the 2013-2017 period, assuming appropriations of the necessary amounts.

It is unclear whether S. 810 would authorize appropriations for the existing sanctuary program for retired great apes. The amount authorized for that program is capped at a cumulative total of \$30 million. CBO expects that cap will be reached by 2014. This estimate reflects the incremental cost of expanding the existing sanctuary program to

accommodate chimpanzees retired under S. 810, but does not incorporate the cost of continuing to operate the existing program after the cumulative cap on funding is reached.

The bill would allow civil monetary penalties against any person who violates the bill three or more years after the date of enactment. Also, it would permit the expenditure of the amounts collected without subsequent appropriation action. For this estimate, CBO assumes that the affected chimpanzees would be retired and housed in a suitable sanctuary by that deadline. As a result, CBO estimates that any increases in both revenues (from civil monetary penalties) and direct spending from the amounts collected would be insignificant.

Construction and Transportation Costs

The bill would require that all retired apes be placed in suitable sanctuaries as outlined in the Chimpanzee Health, Improvement, Maintenance & Protection (CHIMP) Act of 2000. CBO has identified only one existing sanctuary that meets the requirements of the CHIMP Act. However, that sanctuary has space for less than one-quarter of the chimpanzees expected to retire under the legislation. CBO estimates that expansion of that facility and transportation of the retired chimpanzees to the facility would cost about \$30 million over three years, beginning in 2013. (Transportation costs account for less than \$500,000 of that amount.)

If a new sanctuary were established instead of expanding the existing sanctuary, the construction costs could be substantially higher and the three-year deadline for complying with the requirements of S. 810 probably would not be met. Non-compliance could result in the collection of substantial civil monetary penalties and direct spending of the amounts collected.

Cost of Caring for Chimpanzees

Under S. 810, CBO assumes that all chimpanzees would be moved to the sanctuary by December 2015. The estimate assumes that there is space for less than one-quarter of the chimpanzees estimated to be retired under the bill. Those chimpanzees could be moved immediately to the sanctuary upon enactment of the bill. The remaining chimpanzees would be moved as suitable living space becomes available. In addition, the estimate assumes that the costs for care of the chimpanzees will rise with inflation, but that the population of retired chimpanzees will decline as a result of chimpanzee mortality. CBO

estimates that caring for the retired chimpanzees in the sanctuary would cost about \$26 million over the 2013-2017 period, assuming the appropriation of the necessary funds.

Cost of Alternatives to Invasive Research

By many estimates, chimpanzees and humans share approximately 98 percent of their DNA and are susceptible to many of the same infections. As a result, for some disease research, the chimpanzee is the only established non-human, animal model in which to test innovative new medicines and to understand the immune response to those medicines. While the National Institutes of Health could seek an exception for the use of a chimpanzee model in such circumstances from the Great Ape Research Task Force established under S. 810, it is unclear if an exception would be granted. The cost of developing and using alternative models for such research would probably exceed the cost of testing with existing chimpanzee models. However, because NIH is not required to develop alternative models and could either prolong the development of such models or shift their research priorities, CBO cannot determine what the net change in research spending might be over the next five years. As a result, CBO estimates that the provision that would prohibit invasive research using chimpanzees would not have a significant net effect on research spending by NIH.

PAY-AS-YOU-GO CONSIDERATIONS

The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. CBO estimates that the net changes in revenues and direct spending that are subject to those pay-as-you-go procedures under S. 810 would be insignificant.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

S. 810 would impose intergovernmental and private sector mandates as defined in UMRA by prohibiting invasive research on great apes unless authorized by the research task force established in the bill. Public and private entities, including research institutions, that use, breed, house, or transport great apes for invasive research would be prohibited from continuing those activities. Based on information from public and private research institutions, CBO estimates that the cost of the mandate would be small and would not exceed the annual thresholds established in UMRA for intergovernmental or private-sector mandates (\$73 million and \$146 million, respectively, in 2012, adjusted annually for inflation).

ESTIMATE PREPARED BY:

Federal Costs: Jamease Miles and Martin von Gnechten

Impact on State, Local, and Tribal Governments: Melissa Merrell and Sandra Treviño

Impact on the Private Sector: Danielle Parnass and Amy Petz

ESTIMATE APPROVED BY:

Holly Harvey

Deputy Assistant Director for Budget Analysis