**Department of Legislative Services**
Maryland General Assembly
2006 Session

# FISCAL AND POLICY NOTE

Senate Bill 160 (Senator Stone, *et al.*)
Education, Health, and Environmental Affairs

**Human Cloning Prohibition Act of 2006**

This bill prohibits "human cloning" and establishes criminal and civil penalties for violators.

## Fiscal Summary

**State Effect:** Potential significant increase in general fund revenues due to the bill's civil penalty provision. Potential minimal increase in general fund expenditures due to the bill's criminal penalty provision.

**Local Effect:** Potential increase in revenues and potential minimal increase in expenditures due to the bill's criminal penalty provision.

**Small Business Effect:** None.

## Analysis

**Bill Summary:** A person may not knowingly: (1) perform or attempt to perform human cloning; (2) participate in an attempt to perform human cloning; (3) transfer or receive the product of human cloning; or (4) transfer or receive, in whole or in part, any oocyte, embryo, fetus, or human somatic cell for the purpose of human cloning.

A person may not be restricted from conducting or attempting to conduct scientific research not specifically prohibited by this bill. A person may conduct or attempt to conduct scientific research that uses nuclear transplantation or other cloning techniques to

produce: molecules, DNA, cells other than human embryos, tissues, organs, plants, or animals other than humans.

A violator is guilty of a felony and on conviction is subject to a maximum of 10 years in prison, a $100,000 fine, or both. A violator also is subject to a maximum civil penalty of $1 million or a maximum of two times the gross pecuniary gain resulting from the violation, whichever is greater. A civil penalty must be paid into the State general fund. If any person fails to pay any penalty assessed under this bill, a civil action for recovery of the penalty may be brought by the State. The bill may not be construed to give a person a private right of action. A violation of the bill is grounds for the denial of an application for, denial or renewal of, or revocation of any license, permit, certification, or any other form of permission required to practice or engage in any trade, occupation, or profession regulated by the State.

**Current Law:** Statute does not specifically authorize, ban, or otherwise regulate embryonic and fetal research. In the absence of State law, privately funded embryonic and fetal research can be conducted in Maryland without regulation.

**Background:** There are two categories of stem cells: adult stem cells (*e.g.,* those derived from specific human tissues such as skin cells); and embryonic stem cells. Embryonic research, including stem cell research, involves the destruction of a fertilized ovum. Embryonic stem cells currently hold the most promise for research but also are more controversial because of their source: fetal tissue; surplus embryos from in vitro fertility procedures; and embryos created by techniques utilized in human cloning technology – somatic cell nuclear transfer.

In August 2001, President Bush limited federal funding for embryonic stem cell research to existing embryonic stem cell lines. Such stem cells are derived from unused embryos from in vitro fertilization donated for research purposes. A Stem Cell Registry maintained by the National Institute of Health lists the 78 stem cell lines that are eligible for federal funding. In addition, President Bush maintained the ban on federal funds for research involving the destruction or creation of embryos. However, such research can continue with the use of private funds, within the bounds of state law. The President's Council on Bioethics continues to study and advise the President on the issue of stem cell research.

In April 2005, the National Academies published Guidelines for Human Embryonic Stem Cell Research, which are a set of detailed suggestions for how institutions that conduct human embryonic stem cell research should regulate that research. The guidelines describe how institutions should proceed with human embryonic stem cell research and what types of research should be allowed under what circumstances.

Reports last year in the *Journal of Scien*ce and the *New York Times* described Harvard Stem Cell Institute researchers' efforts to create embryonic stem cell lines without using or producing embryos. However, final research results are not yet available.

Twelve states – Arkansas, California, Connecticut, Indiana, Iowa, Massachusetts, Michigan, New Jersey, North Dakota, Rhode Island, South Dakota, and Virginia – have laws prohibiting cloning. Arkansas, Indiana, Iowa, Michigan, North Dakota, and South Dakota prohibit both reproductive and therapeutic cloning. California, Connecticut, Massachusetts, New Jersey, and Rhode Island prohibit only reproductive cloning. While Virginia prohibits reproductive cloning, it is unclear whether the state also prohibits therapeutic cloning. Arizona prohibits the use of public funds for reproductive or therapeutic cloning. Missouri prohibits the use of state funds for human cloning research which attempts to develop embryos into a child.

*Penalties*

Generally, with certain statutory exceptions, felony offenses are heard in the circuit courts. All jury trials are heard in the circuit courts.

**State Revenues:** General fund revenues could potentially increase significantly depending on the number of civil penalties imposed. The number of people paying civil penalties is expected to be minimal. The criminal cases would only be heard in circuit courts.

**State Expenditures:** General fund expenditures could increase minimally as a result of the bill's incarceration penalty due to more people being committed to Division of Correction (DOC) facilities and increased payments to counties for reimbursement of inmate costs. The number of people convicted of this proposed crime is expected to be minimal.

Persons serving a sentence longer than 18 months are incarcerated in DOC facilities. Currently, the average total cost per inmate, including overhead, is estimated at $1,974 per month. This bill alone, however, should not create the need for additional beds, personnel, or facilities. Excluding overhead, the average cost of housing a new DOC inmate (including medical care and variable costs) is $341 per month. Excluding medical care, the average variable costs total $134 per month.

Persons serving a sentence of one year or less in a jurisdiction other than Baltimore City are sentenced to local detention facilities. For persons sentenced to a term of between 12 and 18 months, the sentencing judge has the discretion to order that the sentence be served at a local facility or DOC. The State reimburses counties for part of their

incarceration costs, on a per diem basis, after a person has served 90 days. State per diem reimbursements for fiscal 2007 are estimated to range from $17 to $65 per inmate depending upon the jurisdiction. Persons sentenced to such a term in Baltimore City are generally incarcerated in DOC facilities. The Baltimore City Detention Center, a State-operated facility, is used primarily for pretrial detentions.

**Local Revenues:** Revenues could increase, perhaps significantly, as a result of the bill's monetary criminal penalty provisions from cases heard in the circuit courts. The number of persons convicted of this proposed crime is expected to be minimal. These cases would only be heard in circuit courts.

**Local Expenditures:** Expenditures could increase minimally as a result of the bill's incarceration penalty. Counties pay the full cost of incarceration for people in their facilities for the first 90 days of the sentence, plus part of the per diem cost after 90 days. Per diem operating costs of local detention facilities are expected to range from $33 to $119 per inmate in fiscal 2007.

## Additional Information

**Prior Introductions:** An identical bill, SB 272 of 2005, received a hearing in the Senate Education, Health, and Environmental Affairs Committee, but no further action was taken.

**Cross File:** HB 1462 (Delegate Haddaway, *et al.*) – Health and Government Operations.

**Information Source(s):** Department of Health and Mental Hygiene, Department of Public Safety and Correctional Services, National Conference of State Legislatures, Department of Legislative Services

**Fiscal Note History:** First Reader - February 20, 2006
ncs/jr

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