CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

May 25, 1999

S. 342
National Aeronautics and Space Administration Authorization Act for Fiscal Years 2000, 2001, and 2002

As ordered reported by the Senate Committee on Commerce, Science, and Transportation on May 5, 1999

SUMMARY

S. 342 would authorize appropriations for the National Aeronautics and Space Administration (NASA) for fiscal years 2000 through 2002 and establish federal policies related to those activities. The bill would authorize the agency to sign mutual waivers of liability with domestic entities for activities associated with the space station under certain terms and conditions. It also would authorize NASA to convey property acquired under cooperative agreements to participants in those agreements. NASA would have to prepare several reports related to the space station, including an annual report on the station's costs that would have to be verified by the General Accounting Office (GAO). Other provisions would affect NASA's acquisition of data from commercial vendors, procurement practices, data disclosure, and use of surplus federal property. Finally, S. 342 would prohibit the launch of any payload with obtrusive space advertising by existing and prospective licensees of commercial space transportation systems.

CBO estimates that appropriation of the specified amounts would result in additional discretionary spending of $41.5 billion over the 2000-2004 period. Implementing S. 342 could affect direct spending and receipts; therefore, pay-as-you-go procedures would apply. CBO estimates, however, that any such effects would not be significant over the next five years.

S. 342 contains no intergovernmental mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments. The bill would impose a new private-sector mandate, but CBO estimates that the cost of this mandate would not exceed the statutory threshold established by UMRA ($100 million in 1996, adjusted annually for inflation).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

CBO estimates that implementing S. 342 would increase discretionary spending by a total of $41.5 billion over the 2000-2004 period, assuming appropriation of the authorized amounts. Authorizing mutual waivers of liability for the space station and allowing NASA to convey tangible property under cooperative agreements could each affect direct spending, but in both cases we estimate that the budgetary effects would not be significant over the 2000-2004 period. Provisions barring the licensing of space payloads with obtrusive advertising could affect receipts, but we estimate that the effects would not be significant. The estimated budgetary impact of S. 342 is shown in the following table. The costs of this legislation fall within budget functions 250 (general science, space, and technology) and 400 (transportation).

	By Fiscal Year, in Millions of Dollars					
	1999	2000	2001	2002	2003	2004
SPENDING SUBJECT TO APPROPRIATION						
NASA Spending Under Current Law						
Budget Authority [a]	13,665	0	0	0	0	0
Estimated Outlays	13,670	5,195	718	285	0	0
Proposed Changes						
Authorization Level	0	13,583	13,967	14,214	0	0
Estimated Outlays	0	8,417	13,138	13,843	5,415	717
NASA Spending Under S. 342						
Authorization Level [a]	13,665	13,583	13,967	14,214	0	0
Estimated Outlays	13,670	13,612	13,856	14,128	5,415	717

a. The 1999 level is the amount appropriated for that year.

BASIS OF ESTIMATE

Spending Subject to Appropriation

For the purposes of this estimate, CBO assumes that appropriations will be provided near the beginning of each fiscal year and that outlays will follow NASA's historical spending patterns. CBO estimates that GAO's cost to review NASA's accounting of space station costs would not be significant. The provisions regarding cross-waivers of liability and the conveyance of property under cooperative agreements could affect discretionary spending, as explained below, but CBO expects that any such effects would not be significant over the 2000-2004 period.

Direct Spending (including Offsetting Receipts)

Cross-waivers of Liability. Affirming NASA's authority to enter into reciprocal waivers of liability could affect direct spending because it would limit certain claims filed by or against the federal government in the event of an accident or other incident involving the space station. According to NASA, this waiver authority would primarily involve potential users of the space station, such as scientific researchers or commercial companies that may want to send payloads or personnel on the space station. Under such cross-waivers, the federal government would pay for losses or damages to federal employees or property, and the cooperating parties would pay for any losses or damages to their employees or property, regardless of who is responsible for the losses.

From a budgetary perspective, such cross-waivers would preclude the collection of offsetting receipts (a credit against direct spending) in cases where the government otherwise would sue another party and collect damages. At the same time, these cross-waivers would preclude federal payments (which could be mandatory or discretionary spending) to other parties in cases where the federal government otherwise would be liable for damages. Because the space station will be a first-of-a-kind vehicle, CBO has no basis for predicting whether any incidents involving claims will occur or, if an incident did occur, whether this provision would result in a net cost or savings to the federal government relative to current law. NASA considers the risk of such incidents to be very low because of the safety and quality controls that will be imposed on all materials and experiments used on the space station. CBO estimates that the budgetary effects of this provision, if any, would not be significant until after the space station becomes operational, which under NASA's current plans will not be until fiscal year 2004.

Property Conveyance. Provisions allowing NASA to convey tangible property to a participant in a cooperative agreement could result in a loss of offsetting receipts from the sale of surplus property, but CBO estimates that such costs would not be significant over the 2000-2004 period. Under current policy, such property is jointly owned unless otherwise specified in the agreement. If the government has an ownership right, disposal is governed by federal acquisition laws and regulations, which may result in any surplus property being sold to the private sector. According to NASA officials, cooperative agreements usually do not involve much tangible property, although there are exceptions, such as the cooperative agreement for the X-33, a prototype vehicle to be used to test technologies for a reusable launch vehicle. CBO expects that any loss of offsetting receipts resulting from this provision would not be significant until after 2004 because of the time involved in completing research and disposing of surplus property. In the long run, the cost of this provision would depend on the uses and value of the property involved in future cooperative agreements.

Such conveyances could reduce NASA's cash contribution to a cooperative agreement if the participant would receive property that has value. However, a reduction in NASA's contribution would reduce discretionary spending only if appropriations were reduced by the amount of any savings.

Receipts

Violations of the prohibition on obtrusive space advertising could result in the collection of civil penalties, but CBO estimates that any additional receipts would not be significant. The Department of Transportation has never collected a penalty for a violation of the licensing and related requirements of the commercial space transportation program.

PAY-AS-YOU-GO CONSIDERATIONS

The Balanced Budget and Emergency Deficit Control Act sets up pay-as-you-go procedures for legislation affecting direct spending and receipts. While several provisions could affect direct spending or receipts, CBO estimates that these effects would not be significant over the 2000-2004 period.

ESTIMATED IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS

S. 342 contains no intergovernmental mandates as defined in UMRA and would impose no costs on state, local, or tribal governments. Some of the money authorized by the bill would be used for research and development at academic institutions, including public colleges and universities.

ESTIMATED IMPACT ON THE PRIVATE SECTOR

The bill would impose a new private-sector mandate as defined by UMRA. CBO estimates that the cost of complying with the mandate would not exceed the annual threshold established under UMRA for private-sector mandates ($100 million in 1996, adjusted annually for inflation).

S. 342 would prohibit license-holders for commercial space launches from launching a payload containing advertising to be placed in outer space that would be recognized by people on Earth without the aid of a telescope or other technological device. Information provided by the Department of Transportation indicates that no license-holders are preparing to launch such advertising. Therefore, CBO estimates that this new private-sector mandate would impose no direct costs.

PREVIOUS CBO ESTIMATE

On May 17, 1999, CBO transmitted a cost estimate for H.R. 1654, the National Aeronautics and Space Administration Authorization Act of 1999, as ordered reported by the House Committee on Science on May 13, 1999. Differences between the estimates are attributable to differences in the two bills. For example, the House bill does not include provisions that would authorize cross-waivers of liability with cooperating parties to the space station, allow the conveyance of property acquired under cooperative agreements, or regulate advertising on space transportation vehicles. The House and Senate bills would authorize similar total funding levels for NASA. CBO estimated that implementing H.R. 1654 would cost just under $41 billion over the 2000-2004 period, while the estimated costs of S. 342 total $41.5 billion over the same period.

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