



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

August 29, 2017

S. 1405

Federal Aviation Administration Reauthorization Act of 2017

*As ordered reported by the Senate Committee on Commerce, Science, and Transportation
on June 29, 2017*

SUMMARY

S. 1405 would authorize appropriations, through 2021, for activities of the Federal Aviation Administration (FAA) and other federal programs related to civil aviation. The bill also would increase contract authority for the Airport Improvement Program (AIP).

CBO estimates that implementing S. 1405 would cost \$68.8 billion over the 2017-2027 period, assuming appropriation of the authorized and estimated amounts. Enacting the bill would increase both direct spending and revenues; however, CBO estimates that those increases would be insignificant. Because the bill would affect direct spending and revenues, pay-as-you-go procedures apply.

CBO estimates that enacting S. 1405 would not significantly increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

S. 1405 would impose intergovernmental and private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) but CBO estimates that the cost of the mandates on public entities would fall below the annual threshold established in UMRA for intergovernmental mandates (\$78 million in 2017, adjusted annually for inflation). CBO estimates that the aggregate cost of the mandates on private entities would exceed the annual threshold established in UMRA for private-sector mandates (\$156 million in 2017, adjusted annually for inflation).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary effect of S. 1405 is shown in the following table. The costs of this legislation fall within budget function 400 (transportation).

	By Fiscal Year, in Millions of Dollars											2017-	2017-
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2022	2027
INCREASES IN SPENDING SUBJECT TO APPROPRIATION													
FAA Operations													
Authorization Level	0	10,123	10,233	10,341	10,453	0	0	0	0	0	0	41,150	41,150
Estimated Outlays	0	9,009	9,917	10,225	10,436	1,145	312	105	0	0	0	40,733	41,150
Air Navigation Facilities and Equipment													
Authorization Level	0	2,877	2,889	2,906	2,921	0	0	0	0	0	0	11,593	11,593
Estimated Outlays	0	1,295	1,962	2,404	2,675	1,512	930	495	233	88	0	9,847	11,593
Airport Improvement Program ^a													
Authorization Level	0	0	0	0	0	0	0	0	0	0	0	0	0
Estimated Outlays	0	637	2,120	3,025	3,448	2,976	1,459	638	263	38	0	12,204	14,600
Research, Engineering, and Development													
Authorization Level	0	175	175	175	175	0	0	0	0	0	0	700	700
Estimated Outlays	0	156	170	173	175	19	5	2	0	0	0	693	700
Essential Air Service													
Authorization Level	0	175	175	175	175	0	0	0	0	0	0	700	700
Estimated Outlays	0	105	158	175	175	70	18	0	0	0	0	683	700
Other Activities													
Estimated Authorization Level	0	23	23	23	23	0	0	0	0	0	0	92	92
Estimated Outlays	0	14	21	23	23	9	2	0	0	0	0	90	92
Total Changes													
Estimated Authorization Level	0	13,373	13,495	13,620	13,747	0	0	0	0	0	0	54,235	54,235
Estimated Outlays	0	11,215	14,347	16,024	16,932	5,731	2,726	1,239	496	125	0	64,249	68,835

INCREASES IN DIRECT SPENDING

Airport Improvement Program ^a													
Budget Authority	0	400	400	400	400	400	400	400	400	400	400	1,600	3,600
Estimated Outlays	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes: FAA = Federal Aviation Administration; components may not sum to totals because of rounding.

a. Budget authority for the Airport Improvement Program is provided as contract authority, a mandatory form of budget authority; however, outlays from that contract authority are subject to limitations on obligations specified in annual appropriation acts and are therefore considered discretionary.

BASIS OF ESTIMATE

For this estimate CBO assumes that S. 1405 will be enacted near the end of 2017 and that appropriations will be provided as specified by the bill. Estimated outlays are based on historical spending patterns for the FAA and related activities.

Spending Subject to Appropriation

S. 1405 would authorize appropriations for FAA programs and related activities totaling \$54.2 billion over the 2018-2021 period. The bill also would provide contract authority (a mandatory form of budget authority) for the AIP. Assuming appropriation of amounts specifically authorized and estimated to be necessary (including outlays from the obligation limitations for AIP that are consistent with levels of contract authority under the bill), CBO estimates that discretionary spending would total \$57.3 billion over the next 10 years.

FAA Operations. S. 1405 would authorize the appropriation of \$10.1 billion in 2018 and \$41.2 billion over the 2018-2022 period for FAA operations, primarily for salaries and expenses related to operating the air traffic control system and carrying out regulatory and safety-related activities. (Funding for FAA Operations in 2017 totals \$9.6 billion.) CBO estimates that the resulting outlays would total \$41.2 billion over the next 10 years.

Air Navigation Facilities and Equipment. S. 1405 would authorize the appropriation of \$2.9 billion in 2018 and \$11.6 billion over the 2018-2021 period for programs to maintain and modernize infrastructure and systems for communication, navigation, and surveillance related to air travel. (Funding for those activities in 2017 totals about \$2.9 billion.) CBO estimates that the resulting outlays would total \$11.6 billion over the next 10 years.

Airport Improvement Program. Through the AIP, the FAA provides grants to public-use airports for projects to enhance safety and increase airports' capacity for passengers and aircraft. Funding for the program is provided as contract authority (a mandatory form of budget authority), but outlays are subject to limits specified in annual appropriation acts and are therefore considered discretionary. (See the discussion of AIP under the heading "Direct Spending" for more details on the budgetary treatment of the program.)

S. 1405 would provide \$3.35 billion in contract authority for the AIP in 2018 (the same amount provided for 2017) and \$3.75 billion for each of fiscal years 2019 through 2021. Assuming that the obligation limitations on AIP spending, as set forth in annual appropriation acts, are equal to the amounts of contract authority provided for those years, CBO estimates that discretionary outlays would total \$14.6 billion over the 2018-2027 period.

Research, Engineering, and Development. S. 1405 would authorize the appropriation of \$175 million in 2018 and \$700 million over the 2018-2021 period for the FAA’s research activities aimed at developing technologies to enhance the safety, economic competitiveness, and environmental performance of aviation-related infrastructure and systems that comprise the U.S. national airspace. (Funding for those activities in 2017 totals \$177 million.) CBO estimates that the resulting outlays would total \$700 million over the 2018-2027 period.

Essential Air Service. S. 1405 would authorize the appropriation of \$175 million in 2018 and \$700 million over the 2018-2021 period for the Essential Air Service program, through which the Department of Transportation (DOT) makes payments to air carriers that provide service to certain rural communities. (Discretionary funding for such payments in 2017 totals \$150 million.) CBO estimates that the resulting outlays would total \$700 million over the 2018-2027 period.

Other Activities. CBO estimates that implementing other provisions of S. 1405 would cost \$92 million over the 2018-2027 period. That amount includes:

- \$40 million specifically authorized for grants to help small communities enhance air service;
- \$24 million specifically authorized for the FAA to develop technologies to mitigate the risk that unmanned aircraft systems pose to airports and infrastructure related to air navigation;
- \$20 million specifically authorized for the FAA to enforce safety-related requirements on operators of unmanned aircraft systems;
- \$4 million specifically authorized for efforts to raise awareness of safety issues related to operating unmanned aircraft systems;
- \$2 million specifically authorized for applied research related to advanced materials used in aircraft; and
- \$2 million in estimated authorizations for DOT and the Government Accountability Office (GAO) to complete a variety of administrative activities, studies, and reports.

In addition, the bill would authorize the FAA to collect and spend fees charged to offset the administrative costs of certain regulatory activities. The FAA has broad general authority to collect and spend fees for a variety of such activities, which are credited as offsetting collections (reductions to discretionary spending) and spent soon thereafter, resulting in no significant net budgetary effect. Based on information from the agency, CBO expects that

any increase in fees collected and spent under S. 1405 would be small, and that resulting changes in net federal spending would be negligible in any given year.

Direct Spending and Revenues

S. 1405 would provide contract authority for the Airport Improvement Program (AIP) through fiscal year 2021. The FAA Extension, Safety and Security Act of 2016 provided the FAA with \$3.35 billion in contract authority through September 30, 2017. Pursuant to provisions of law that govern CBO's baseline projections, funding for certain expiring programs—such as contract authority for AIP—is assumed to continue beyond the scheduled expiration date for budget projection purposes. Consistent with that practice, CBO's baseline incorporates the assumption that AIP contract authority over the 2018-2027 period will remain at the 2017 level of \$3.35 billion per year.

S. 1405 would provide \$3.75 billion for each of fiscal years 2018 through 2021—\$400 million more than the amount currently projected for each of those years. Consistent with the law for projecting contract authority, we assume that, under S. 1405, contract authority for AIP would continue to be provided after 2021 and would remain at the higher level of \$3.75 billion a year. Under that assumption, CBO estimates that contract authority under S. 1405 would exceed the levels of contract authority already projected in the CBO baseline by \$3.6 billion over the 2018-2027 period. (Because spending from contract authority is controlled by obligation limitations specified in annual appropriation acts, outlays from the AIP are considered discretionary.)

Finally, S. 1405 would establish new civil and criminal penalties and modify existing ones for various violations of aviation-related laws and regulations. As a result, enacting the bill could increase revenues from such penalties. Because any criminal penalties collected under the bill could be spent, without further appropriation, for programs to benefit victims of crimes, enacting the bill also could increase direct spending. Based on an analysis of information from the FAA about the limited number of cases likely to be involved, however, CBO estimates that any increases in revenues and direct spending under S. 1405 would not exceed \$500,000 in any year.

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 any net changes in direct spending outlays and revenues under S. 1405 would be insignificant in any year.

INCREASE IN LONG-TERM DIRECT SPENDING AND DEFICITS

CBO estimates that enacting the legislation would not significantly increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

S. 1405 would impose intergovernmental and private-sector mandates as defined in UMRA. Based on information from the FAA, public airport operators, and state aviation agencies, CBO estimates that the cost of the mandates on public entities would fall below the annual threshold established in UMRA for intergovernmental mandates (\$78 million in 2016, adjusted annually for inflation). Based on analyses of information from the Department of Transportation and industry experts, CBO estimates that the aggregate cost of the mandates on private entities would exceed the annual threshold established in UMRA for private-sector mandates (\$156 million in 2017, adjusted annually for inflation).

Mandates That Apply to Both Public and Private Entities

The bill would require public and private operators of unmanned aircraft systems to maintain records of the name and contact information for each person on whose behalf the UAS has been operated. The bill also would require public and private providers of helicopter ambulance services to report additional information to the FAA. CBO expects that the cost of maintaining records and reporting information would be small.

Other Effects on Public Entities

The bill would benefit public airports by authorizing funds for airport improvement programs and by allowing more airports to charge passenger facility fees that support airport improvement projects. Any costs those entities incur to meet grant requirements would result from complying with conditions of federal assistance.

Mandates That Apply to Private Entities Only

The bill also contains private-sector mandates on air carriers, operators and manufacturers of unmanned aircraft systems, and other entities such as operators of hot air balloons.

Requirements on Air Carriers

The bill would prohibit an air carrier from imposing fees—such as check baggage fees and change or cancellation fees—that are unreasonable or disproportional to the costs incurred by the carrier, as determined by the Secretary of Transportation. According to data from

the Department of Transportation, airlines collected more than \$7 billion in 2016 from baggage fees and change fees. A small reduction in those fees—less than 2 percent—would result in a loss in revenues of more than \$100 million annually. Although actual costs (measured as a loss in income) would depend on future regulations, CBO estimates that the cost of the mandate would be substantial.

The bill would impose several additional mandates on air carriers, which CBO estimates would not impose substantial costs. Specifically, the bill would require that air carriers:

- Establish training for employees and rest requirements for flight attendants;
- Prepare a fatigue risk management plan for flight attendants and an employee assault prevention and response plan;
- Disclose information about ancillary fees in a standardized format, provide information about seat selection, and provide phone numbers and links for consumers to make complaints;
- Comply with prohibitions on involuntary deplaning of passengers
- Assist pregnant customers and customers with disabilities, as directed in regulatory revisions;
- Provide information to customers about the rights of passengers with disabilities and policies concerning oversold flights;
- Ensure that medical kits contain supplies for treating children in emergencies, if determined to be appropriate by the FAA;
- Report more information related to accidents to the FAA.

The bill also would direct the FAA to assess standards for flight data recovery and to revise those standards as appropriate. The standards would impose a mandate if they were revised to establish new requirements for flight data recorders. Based on a study from GAO, CBO estimates that the cost of the mandate could total tens of millions of dollars.

Requirements on Unmanned Aircraft Systems

The bill also would require some unmanned aircraft systems offered for sale to comply with safety standards to be adopted by the FAA or an alternative approval process. That requirement would impose a mandate on manufacturers of unmanned aircraft systems.

Based on information from the FAA, CBO estimates that the mandate could apply to about 350,000 unmanned aircraft systems annually. The total cost of the mandate on manufacturers would depend on the nature and scope of the standards to be issued by the FAA, but could be substantial considering the number of units affected by the mandate. Additionally, the bill would direct manufacturers of unmanned aircraft systems to provide a statement of compliance and other information if requested by the FAA. CBO estimates that the cost per manufacturer to provide such statements would be small.

The bill also would establish a test on aeronautical knowledge and safety for operators of some unmanned aircraft systems and restore a requirement for some operators of unmanned aircraft systems for recreational purposes to register with the FAA. CBO expects that the cost to complete a test and to register with the FAA would be small.

Mandates on Other Entities

Manufacturers of Aircraft. The bill would require manufacturers to install a secondary cockpit barrier on new aircraft for passenger air carriers in the United States. Some industry experts indicate that the cost of secondary barriers could range from \$5,000 to \$12,000. Based on information from industry sources, CBO estimates that the cost of installing such barriers would total no more than \$15 million annually.

Ticket Agents. The bill would impose a mandate on ticket agents with annual revenues of \$100 million or more by requiring them to meet minimum customer service standards that would be established in future regulations. The bill would direct the Secretary to consider, at a minimum, establishing standards consistent with all customer service and disclosure requirements applicable to air carriers. Based on information from a regulatory analysis conducted by the FAA of a similar rule to adopt minimum customer service standards, CBO estimates that the cost of the mandate would total less than \$1 million annually.

Operators of Hot Air Balloons. The bill would require operators of hot air balloons to obtain a medical certificate. Based on information from industry sources, CBO estimates that each certificate would cost operators about \$200 and that the total cost of the mandate would equal less than \$1 million annually.

Operators of General Aviation Aircraft. The bill also could require owners and operators of general aviation aircraft to report additional information to the FAA following an accident. CBO expects that the incremental cost to comply with the mandate would be small.

PREVIOUS CBO ESTIMATES

On July 11, 2017, CBO transmitted a cost estimate for H.R. 2997, the 21st Century Aviation Innovation, Reform, and Reauthorization Act, as ordered reported by the House Committee on Transportation and Infrastructure on June 27, 2017. Both bills would authorize appropriations for activities of the FAA. Differences in our estimates of spending subject to appropriation reflect differences in the periods of time covered by each bill and the scope of activities authorized.

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