#### I. **Total U.S. Trade with the World**

In 2020, both U.S. exports and imports decreased from 2019. This is the second consecutive year of decreasing, mainly due to the worldwide Covid-19 Pandemic. In 2020, U.S. exports totaled \$1.4 trillion, a 12.9% (\$211.8 billion) decrease from 2019; U.S. imports totaled \$2.3 trillion, a 6.4% (\$161.0 billion) decrease; and the trade deficit was \$905.2 billion at a record high, a 5.9% (\$50.8 billion) increase.

In 2020, both U.S. export value and import value were below the average value of the proceeding five years not adjusted for inflation.



	2015	2016	2017	2018	2019	2020	2015-2019 Average		
EXPORTS	\$1,503,328.3	\$1,451,459.7	\$1,547,195.4	\$1,665,688.5	\$1,643,160.9	\$1,431,406.4	\$1,562,166.6		
Δvalue		-\$51,868.7	<i>\$95,735.7</i>	\$118,493.1	-\$22,527.6	-\$211,754.5			
∆pct		-3.5%	6.6%	7.7%	-1.4%	-12.9%			
MPORTS	\$2,248,811.4	\$2,186,785.9	\$2,339,591.3	\$2,537,729.3	\$2,497,531.5	\$2,336,579.1	\$2,362,089.9		
∆value		-\$62,025.5	\$152,805.4	\$198,138.0	-\$40,197.8	-\$160,952.3			
∆pct		-2.8%	7.0%	8.5%	-1.6%	-6.4%			
ALANCE	(\$745,483.0)	(\$735,326.2)	(\$792,395.9)	(\$872,040.8)	(\$854,370.6)	(\$905,172.8)	(\$799,923.3)		
∆value		\$10,156.8	(\$57,069.7)	(\$79,644.9)	\$17,670.2	(\$50,802.1)			
∆pct		-1.4%	7.8%	10.1%	-2.0%	5.9%			
	Values in Millions of U.S. Dollars. Source: U.S. Census Bureau USATrade Portal March 15, 2021								



In 2020, the top commodity sectors were the same for both exports and imports compared with 2019. Of the \$1.4 trillion in U.S. exports to the World in 2020, the top commodity sectors were machinery and mechanical appliances (24.1%), chemicals, plastics and leather products (16.8%), and transportation equipment (13.3%).

In 2020, of the \$2.3 trillion in U.S. imports from the World, the top commodity sectors were machinery and mechanical appliances (29.6%), chemicals, plastics and leather products (15.0%) and transportation equipment (12.1%).

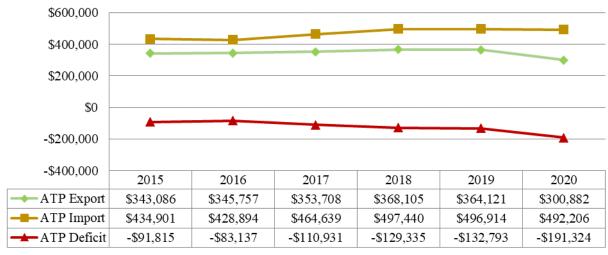




### Analysis of U.S. Trade in Advance Technology Products (ATP)<sup>1</sup>

In 2020, U.S. ATP exports were \$300.9 billion, a 17.4% (\$63.2 billion) decrease from 2019; the U.S. ATP imports were \$492.2 billion, a 0.9% (\$4.7 billion) decrease; and the ATP trade deficit was \$191.3 billion, a 44.1% (\$58.5 billion) increase, setting a new record.

The U.S. ATP Trade with the World 2015 - 2020 \$million



Source: Website of U.S. Census Bureau, Foreign Trade Statistics, retrieved on March 15, 2021

<sup>&</sup>lt;sup>1</sup> Advanced Technology Products (ATP): about 500 of some 22,000 Harmonized System (HS) commodity classification codes contain products from a recognized high technology category (e.g., biotechnology).



In 2020, the largest categories of U.S. ATP exports were Aerospace with \$82.6 billion, (27.4% of the total); followed by Information and Communication with \$81.8 billion (27.2%) and Electronics with \$50.8 billion, 16.9% of the total ATP exports.

In 2020, Flexible Manufacturing exports increased 13.8% and Nuclear Technology increased 7.5% from 2019.

In 2020, Aerospace decreased 40.2% and Weapons<sup>2</sup> (including certain instruments and apparatus) decreased 37.0% from 2019.

U.S. ATP Exports to the World (\$million)								
ATP Category	2015	2016	2017	2018	2019	2020	% of the Total	% change from 2019
Biotechnology	\$17,153	\$18,176	\$19,015	\$21,469	\$24,048	\$23,553	7.8%	-2.1%
Life Science	\$29,947	\$28,948	\$29,592	\$30,976	\$31,771	\$31,173	10.4%	-1.9%
Opto-Electronics	\$4,724	\$4,542	\$4,750	\$5,380	\$4,908	\$4,380	1.5%	-10.8%
Information &								
Communications	\$94,827	\$93,177	\$94,430	\$96,211	\$91,640	\$81,779	27.2%	-10.8%
Electronics	\$42,010	\$43,407	\$46,167	\$45,843	\$47,554	\$50,765	16.9%	6.8%
Flexible Manufacturing	\$16,055	\$16,456	\$20,111	\$20,215	\$17,546	\$19,966	6.6%	13.8%
Advanced Materials	\$2,280	\$2,391	\$2,806	\$2,991	\$2,994	\$2,764	0.9%	-7.7%
Aerospace	\$131,299	\$133,673	\$131,900	\$140,213	\$138,154	\$82,558	27.4%	-40.2%
Weapons	\$3,672	\$3,910	\$3,939	\$3,980	\$4,442	\$2,800	0.9%	-37.0%
Nuclear Technology	\$1,118	\$1,077	\$998	\$826	\$1,064	\$1,144	0.4%	7.5%
Grand Total	\$343,086	\$345,757	\$353,708	\$368,104	\$364,121	\$300,882		-17.4%

Source: Website of U.S. Census Bureau, Foreign Trade Statistics, retrieved on March 15, 2021

<sup>&</sup>lt;sup>2</sup> The ATP category for Weapons includes items of "Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories" in a ddition to "Arms and ammunition, parts and a ccessories thereof."



#### II. **Exports to the World subject to US Government Filing Requirements**

In 2020, U.S. exported \$1.4 trillion in goods, of which \$39.4 billion (2.8% of the total exports) was exported under a government license:

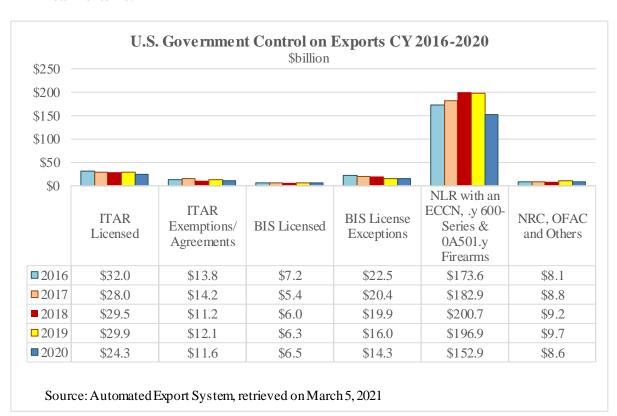
- \$6.5 billion was licensed by BIS, an increase of 4.6%, \$288.4 million more compared to 2019;
- > \$24.3 billion was licensed under ITAR, a decrease of 18.8%, \$5.6 billion less; and
- ▶ \$8.6 billion was licensed by NRC, OFAC and other government agencies, a decrease of 11.7% \$1.1 billion less.

In 2020, \$28.1 billion (2.0% of the total exports) was exported under a government license exception/exemption/agreement:

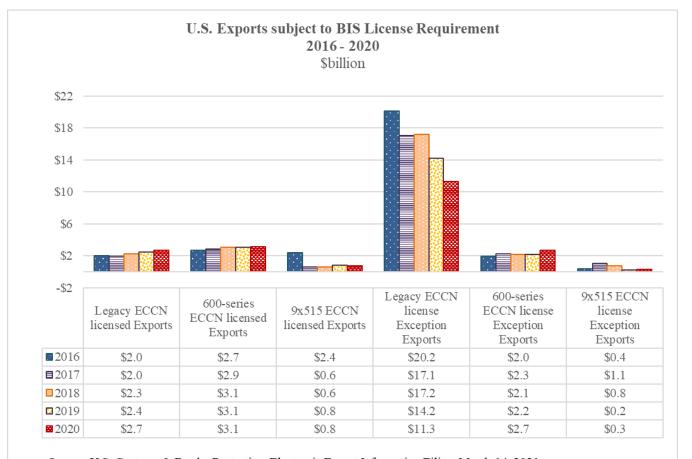
- > \$14.3 billion was under BIS license exceptions, a decrease of 10.8%, \$1.7 billion less compared to 2019: and
- \$11.6 billion was under ITAR license exemption/agreements, a decrease of 4.9%, \$569.7 million less.

In 2020, \$152.9 billion (10.7% of the total exports) was exported under No License Required (NLR):

- > \$152.6 billion was under NLR with an ECCN reported (not including EAR99), a decrease of 28.8%, \$44.0 billion less compared to 2019; and
- > \$278.0 million was under NLR for 600-Series .y subparagraph items, a decrease of 13.5%, \$43.4 million less.
- ➤ \$10.0 million (0.001% of the total exports) was exported under NLR for 0A501.y subparagraph firearms items.







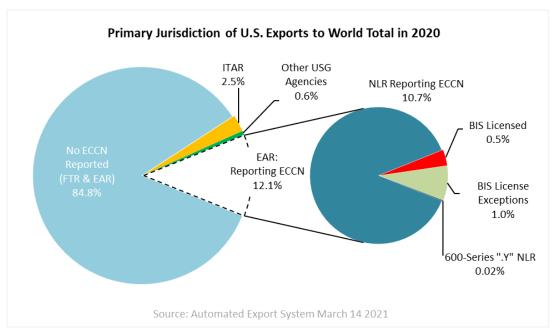
Source: U.S. Customs & Border Protection, Electronic Export Information Filing, March 14, 2021



	World Tot	al		
		2018	2019	2020
	Department of State	\$40,756.1	\$42,071.5	\$35,879.0
	Other USG Agencies	\$9,163.1	\$9,700.7	\$8,565.4
	Department of Commerce	\$1,615,769.3	\$1,591,388.6	\$1,386,952.0
	BIS Licensed	\$5,955.5	\$6,256.0	\$6,544.4
	BIS License Exceptions	\$19,863.7	\$16,009.7	\$14,278.2
	NLR reporting an ECCN	\$200,441.0	\$196,588.5	\$152,624.2
	NLR not reporting an ECCN	\$1,389,215.4	\$1,372,213.0	\$1,213,227.1
	600-Series ".y" subparagraph NLR	\$293.8	\$321.4	\$278.0
	0A501 ".y" subparagraph Firearms NLR	\$0.0	\$0.0	\$10.0
Values i	n Millions of U.S. Dollars. Source: Automated Export System		March 1, 2021	

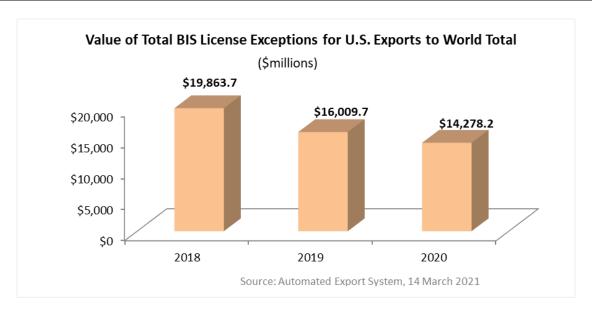
### In 2020, of \$1.4 trillion in U.S. exports to the World:

- \$20.8 billion (1.5% of the total exports) were subject to a BIS license requirement:
  - o 0.5% was exported under a BIS license.
  - o 1.0% was exported under a BIS license exception.
- \$152.9 billion (10.7%) were exported under No License Required (NLR) with an ECCN reported and NLR for 600-series .y subparagraph items as well as 0A501 .y subparagraph firearms items.
  - o 10.7% was exported under NLR with an ECCN reported;
  - $\circ$  0.02% was exported under NLR for 600-series .y subparagraph items; and
  - 0.001% was exported under NLR for 0A501.y subparagraph firearms items.

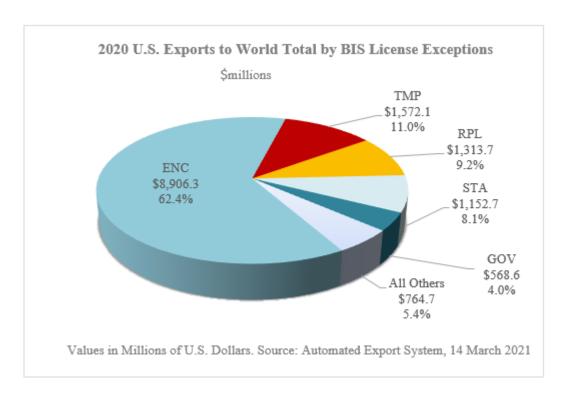


In 2020, U.S. exports to the World shipped under a BIS license exception totaled \$14.3 billion, a decrease of 10.8% (\$1.7 billion) from 2019.

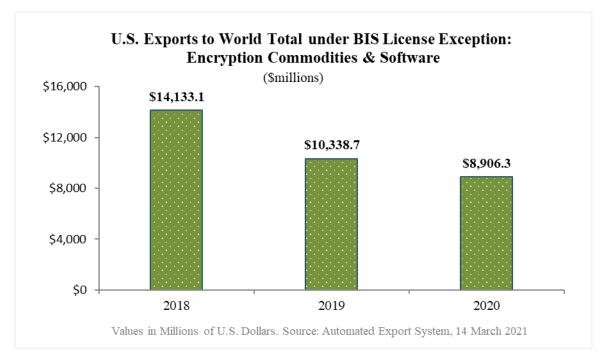


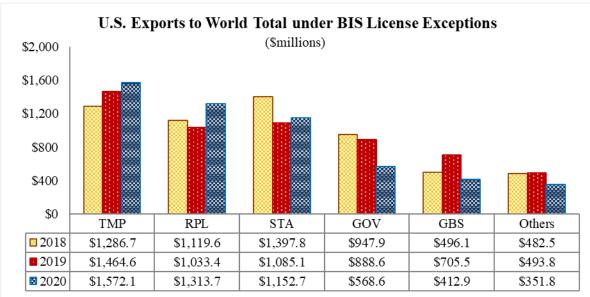


In 2020, the top license exception, Encryption Commodities, Software and Technology (ENC) totaled \$8.9 billion (62.4% of all license exceptions), followed by Temporary imports, exports, re-exports and transfers (in-country) (TMP) at \$1.6 billion (11.0%) and Servicing and replacement of parts and equipment valued at \$1.3 billion (9.2%).









Note: The BIS License Exception for Encryption is excluded from this chart

Values in Millions of U.S. Dollars. Source: Automated Export System, 14 March 2021



	Top T	en ECCN	ls by Value to World Total (\$millions)								
	#1	9A610 Military Aircraft and Related Commodities									
	#2	9A515	Spacecraft and Related Commodities								
	#3	9A619	Military Gas Turbine Engines and Related Commodities								
넗	#4	3A611	3A611 Military Electronics								
Ä	#5	9A001	A001 Aero Gas Turbine Engines								
ᄗ	#6	0A501	Firearms (except 0A502 shotguns) and related commodities as follows (s								
	#7	7A003	Inertial Navigation Systems (Gimballed/Strapdown)								
	#8	0A606	Ground Vehicles and Related Commodities								
	#9	7A103	Instrumentation, Navigation Equip./Systems Not								
	#10	3A001	Electronic Components								

Note: ECCN descriptions have been truncated: please review Commerce Control List for full description

	Top T	en ECCNs by Value to World Total (\$millions)								
	#1	5A002 Systems/Equip./Integrated Circuits for Info Sec								
	#2	9A610 Military Aircraft and Related Commodities								
2	#3	N/A No ECCN is required for License Exceptions TMP								
ō	#4	9A619 Military Gas Turbine Engines and Related Commodities								
PT	#5	7A611 Navigation and Avionics equipment and systems, and "parts," "component								
9	#6	5B002 "Information Security" test, inspection and "production" equipment								
(iii	#7	3A611 Military Electronics								
	#8	3A001 Electronic Components								
	#9	EAR99 Items subject to the EAR that are not elsewhere controlled								
	#10	9A515 Spacecraft and Related Commodities								

Note: ECCN descriptions have been truncated: please review Commerce Control List for full description

	Top T	en ECC	Ns by Value to World Total (\$millions)							
	#1	9A991	9A991 Aircraft N.E.S. and Gas Turbine Engines not Controlled by 9A001 or 9A1							
_	#2	5A992	A992 Equipment not controlled by 5A002 (see List of Items Controlled).							
ģ	#3	3B991	Other Mfg/Test Equip. Not Controlled By 3B							
M		4A994	Computers Not Controlled By 4A001 or 4A003							
with	#5	5A991	Telecommunication Equip. Not Controlled by 5A001							
<b>3</b>	#6	3A991	Electronic Devices and Components							
	#7	3B992	Equip. for the Inspection/Testing of Components not Controlled buy 3B0							
	#8	2B999	Specific Processing Equip., N.E.S.							
	#9	7A994	Other Navigation Direction Finding Equip Not Controlled under 7A003							
	#10	3A999	Specific Processing Equip., N.E.S.							

Note: ECCN descriptions have been truncated: please review Commerce Control List for full description



	Top T	en ECCI	Ns to World Total by Shipment Count
	#1	9A610	Military Aircraft and Related Commodities
	#2	0A501	Firearms (except 0A502 shotguns) and related commodities as follows (s
	#3	9A619	Military Gas Turbine Engines and Related Commodities
SEI	#4	2B230	Pressure Transducers
ICENSE	#5	3A611	Military Electronics
10	#6	0A606	Ground Vehicles and Related Commodities
	#7	0A505	Ammunition as follows (see List of Items Controlled)
	#8	2B350	Chemical Manufacturing Facilities and Equip.
	#9	0A504	Optical sighting devices for firearms (including shotguns controlled b
	#10	7A103	Instrumentation, Navigation Equip./Systems Not
Not	#8 #9 #10	2B350 0A504 7A103	Chemical Manufacturing Facilities and Equip.  Optical sighting devices for firearms (including shotguns controlled b

Note: ECCN descriptions have been truncated: please review Commerce Control List for full description

	Top T	en ECCI	Ns to World Total by Shipment Count
	#1	5A002	Systems/Equip./Integrated Circuits for Info Sec
	#2	9A610	Military Aircraft and Related Commodities
S	#3	N/A	No ECCN is required for License Exceptions TMP
ō	#4	0A501	Firearms (except 0A502 shotguns) and related commodities as follows (s
P	#5	EAR99	Items subject to the EAR that are not elsewhere controlled
(CEP	#6	9A619	Military Gas Turbine Engines and Related Commodities
命	#7	3A001	Electronic Components
	#8	3A611	Military Electronics
	#9	9A991	Aircraft N.E.S. and Gas Turbine Engines not Controlled by 9A001 or 9A1
	#10	5B002	"Information Security" test, inspection and "production" equipment

Note: ECCN descriptions have been truncated: please review Commerce Control List for full description

	Top T	en ECCI	Ns to World Total by Shipment Count
	#1	9A991	Aircraft N.E.S. and Gas Turbine Engines not Controlled by 9A001 or 9A1
_	#2	5A992	Equipment not controlled by 5A002 (see List of Items Controlled).
ည်	#3	4A994	Computers Not Controlled By 4A001 or 4A003
E	#4	5A991	Telecommunication Equip. Not Controlled by 5A001
with	#5	3B991	Other Mfg/Test Equip. Not Controlled By 3B
8	#6	7A994	Other Navigation Direction Finding Equip Not Controlled under 7A003
	#7	3A991	Electronic Devices and Components
	#8	3A992	General Purpose Electronic Equip. Note Controlled by 3A002
	#9	3A999	Specific Processing Equip., N.E.S.
	#10	3B992	Equip. for the Inspection/Testing of Components not Controlled buy 3B0

Note: ECCN descriptions have been truncated: please review Commerce Control List for full description



### III. Licensing to the World subject to US Government Filing Requirements

In 2020, BIS reviewed **38,203** license applications valued at **\$219.4** billion for exports and re-exports for tangible items, software and technology, an increase of 15.9% (5,234 more) from 32,969 in 2019.

- Approved licenses totaled 32,996, an increase of 17.0% (4,797 more). The approval rate was 86.4%;
- Denied licenses applications totaled 415, an increase of 12.2% (45 more). The denied rate was 1.1%; and
- Return without action (RWA) totaled 4,792, an increase of 8.9% (392 more). The RWA rate was 12.5%.

In 2020, BIS reviewed 1,216 applications for Deemed Export, a decrease of 7.1% (93 less) from 1,309 in 2019.

	2016	2017	2018	2019	2020	% of the total by decision		% of the Grand Total license applications	% change from 2019	Change from 2019
Grand Total license applications	38,467	34,710	35,889	34,278	39,419				15.0%	5,141
			Total lice	ense applicat	ions for dee	med export				
						<u> </u>				
Total	1,476	1,525	985	1,309	1,216				-7.1%	-93
Approved	1,377	1,394	824	1,113	1,068	87.8%		3.1%	-4.0%	-45
Denied	13	24	11	3	6	0.5%			100.0%	3
RWA	86	107	150	193	142	11.7%			-26.4%	-51
				ions for tang		oftware and tech	nology			
				ĺ						
Total	36,991	33,185	34,904	32,969	38,203				15.9%	5,234
Approved	30,980	28,204	29,633	28,199	32,996	86.4%		96.9%	17.0%	4,797
Denied	311	301	277	370	415	1.1%			12.2%	45
RWA	5,700	4,680	4,994	4,400	4,792	12.5%			8.9%	392
								100.0%		
	De	tailed Licen	se Informati	on regarding	Tangible it	ems, software an	d technology			
	2016	2017	2018	2019	2020	% of the total by decision	% of the total for tangible items	% of the Grand Total license applications	% change from 2019	Change from 2019
Total license applications for								- 11		
legacy ECCNs	22,352	17,362	20,539	19,274	17,141		44.9%		-11.1%	-2,133
Approved	17,836	14,017	16,657	15,809	13,549	79.0%		43.5%	-14.3%	-2,260
Denied	233	244	240	323	336	2.0%			4.0%	13
RWA	4,283	3,101	3,642	3,142	3,256	19.0%			3.6%	114
Total license applications for 600- series items	13,493	14,582	12 479	12,907	12,501		32.7%		-3.1%	-406
Approved	13,493	13,134	13,478 12,181	11,669	11,405	91.2%	32.1%	31.7%	-3.1%	-264
Denied	12,247	13,134	29	40	52	0.4%		31./%	30.0%	12
RWA	1,190	1,409	1,268	1,198	1,044	8.4%			-12.9%	-154
Total license applications for	1,190	1,409	1,200	1,190	1,044	0.470			-12.970	-13-
9x515 items	1,146	1.241	887	788	833		2.2%		5.7%	45
Approved	897	1,053	795	721	735	88.2%		2.1%	1.9%	14
Denied	22	18	8	7	7	0.8%			0.0%	(
RWA	227	170	84	60	91	10.9%			51.7%	31
Total license applications for										
Firearms items					7,728		20.2%			
Approved					7,307			19.6%		
Denied					20					
RWA					401					
							100.0%	96.9%		
	Sor	irce: Comme	ce U.S. Expo	rts Exporter S	Support Syste	m, retrieved on M				

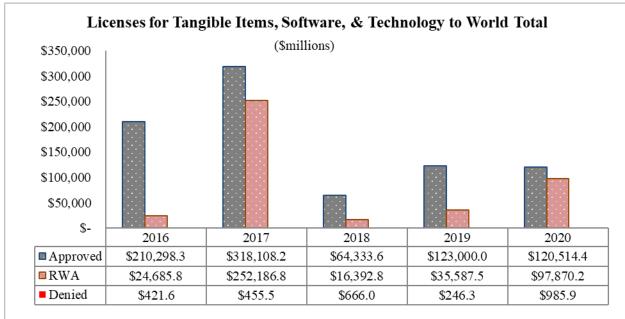
Section III: BIS Licensing to the World



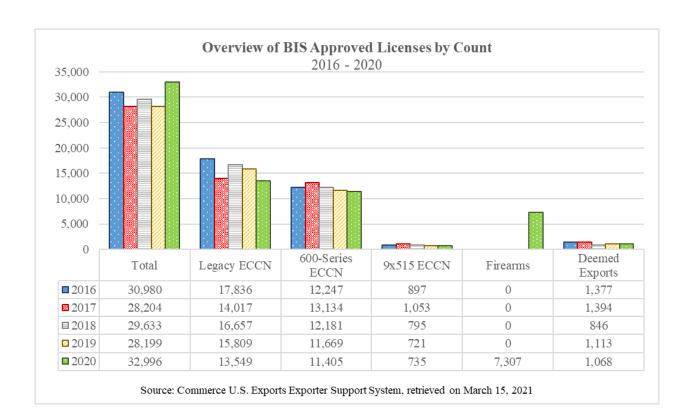
# BIS Licenses for Tangible Items, Software and Technology for the World by License Count (Excluding Deemed Export)



Source: Commerce U.S. Exports Exporter's Support System: March 15, 2021





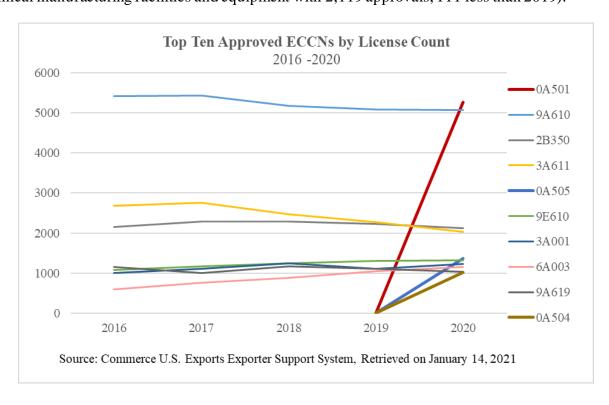


Analysis of BIS Licensing to the World



In 2020, three ECCNs created by the USML to the CCL regulatory change on firearms items made to the top ten approved ECCNs list. The top approved ECCN was 0A501 for firearms (except 0A502 shotguns) and related commodities with 5,273 approvals. The top two ECCN was 9A610 for Military aircraft and related commodities with 5,071 approvals (7 less than 2019); followed by 2B350 for Chemical manufacturing facilities and equipment with 2,119 approvals, 111 less than 2019).

Analysis of BIS Licensing to the World



**Top Ten Approved ECCNs by License Count** 

Top Ten Approved Ecens by License Count								
ECCN	2016	2017	2018	2019	2020	Change from 2019		
0A501				0	5,273	5273		
9A610	5,419	5,429	5,179	5,078	5,071	-7		
2B350	2,159	2,290	2,289	2,230	2,119	-111		
3A611	2,681	2,765	2,465	2,276	2,036	-240		
0A505				0	1,369	1,369		
9E610	1,084	1,176	1,240	1,309	1,323	14		
3A001	1,002	1,110	1,240	1,113	1,236	123		
6A003	590	761	884	1,045	1,150	105		
9A619	1,148	1,001	1,167	1,116	1,030	-86		
0A504				0	1,020	1,020		
	·	,	,	0	1,020	1,020		

Note: ECCN ranking is based on 2020 data.



### 2020 Top Ten Denied ECCNs by License Count Value Denied **ECCN** \$million Description applications Items subject to the EAR that are not elsewhere EAR99 controlled 110 \$144.1 Electronic components and specially designed 3A001 components \$70.8 2B350 23 Chemical manufacturing facilities and equipment \$26.3 9A610 Military aircraft and related commodities 22 \$14.6 Technology for the "development", "production", or "use" of electronic devices, "parts" or "components" controlled by 3A991, general purpose electronic equipment controlled by 3A992 or manufacturing and test equipment controlled by 3B991 or 3B992, or 3E991 materials controlled by 3C992 16 \$15.0 Armored and protective "equipment" and related 1A613 commodities 15 \$0.5 "Software" "specially designed" for the "development", "production" or "use" of electronic devices, "parts" or "components" controlled by 3A991, general purpose 3D991 electronic equipment controlled by 3A992, or manufacturing and test equipment controlled by 3B991 and 3B992: or "software" "specially designed" for the "use" of equipment controlled by 3B001.g and .h. \$185.6 15 14 5D002 Software for information security \$3.2 5D992 Information Security, software not controlled by 5D002 14 \$2.0 6A003 14 \$0.9 Cameras Source: Commerce U.S. Exports Exporter Support System, retrieved on January 14, 2021

Analysis of BIS Licensing to the World

CY2020

Description

Voluntary Disclosure

Licenses

Total exports not reporting an ECCN

**Total Exports** 

Total Subject to

ITAR Subject to Other

Gov. Agencies

**AES License Type** 

C30

VDC

\$1,431,406,391,928

\$35,879,031,814

\$8,565,370,271

-12.9%

-14.7%

-11.7%

Percentage Change from

previous year

**Percentage Description** 

	Total of Licensed	\$6,544,412,600	0.5%	total licensed/total exports
C35	LVS	\$18,325,803	0.1%	
C36	GBS	\$412,915,692	2.9%	
C37	CIV	\$44,760,790	0.3%	
C38	TSR	\$578,694	0.004%	
C40	TMP	\$1,572,147,346	11.0%	
C41	RPL	\$1,313,675,242	9.2%	
C42	GOV	\$568,593,074	4.0%	
C43	GFT	\$1,541,475	0.01%	
C44	TSU	\$92,808,677	0.7%	
C45	BAG	\$786,218	0.01%	
C46	AVS	\$32,605,030	0.2%	
C50	ENC	\$8,906,326,753	62.4%	
C51	AGR	\$136,695,928	1.0%	
C53	APP	\$9,160,700	0.1%	
C54	SS-WRC	\$4,292,810	0.03%	
C57	VEU	\$2,406,601	0.02%	
C58	CCD	\$600	0.000004%	
C59	STA	\$1,152,734,772	8.1%	
C62	SCP	\$7,855,966	0.1%	
		<b>4112702121</b>	1.0%	total license exceptions/ total exports
Total (	of BIS License Exceptions	\$14,278,212,171		total license exceptions/ total subject to license requirement
	ct to BIS license requirement ed and License Exceptions)	\$20,822,624,771	1.5%	total subject to license requirement/ total exports
C33	NLR reporting an ECCN	\$152,624,246,163	10.7%	NLR reporting an ECCN/ total exports
C60	NLR for .y subparagraph 600-series	\$278,027,004	0.02%	NLR for .y subparagraph 600-series/ total exports
C63	NLR for 0A501 .y subparagraph Firearms	\$9,951,111	0.001%	NLR for 0A501 .y subparagraph Firearms/ total exports
	Total of NLR	\$152,912,224,278	10.7%	total NLR with an ECCN/ total export

\$1,213,227,140,794

Source: U.S. Census Bureau, Foreign Trade Division and Automated Export System

Summary of U.S. Exports to World Total Calendar Year 2020

% of Total Exports

2.5%

0.6%

Percentage of Total

100.0%

CY2019

Value

\$1,643,160,852,937

\$42,070,213,453

\$9,700,728,106

\$6,542,186,751

\$2,225,849

Detailed Summary of EAR-Controlled Exports