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Contacts

EIA's Electricity Supply & Uranium Statistics & Product Innovation Team prepared this report. If you have questions about this report, email us.

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Introduction

In this report, EIA provides detailed data on uranium marketing activities in the United States from 2015 through 2020 and summary data back to 1996.

Data in this report are based on information reported on Form EIA-858, *Uranium Marketing Annual Survey*. Form EIA-858 survey collects data on contracts, deliveries (during the report year and projected for the next 10 years), enrichment services purchased, inventories, use in fuel assemblies, feed deliveries to enrichers (during the report year and projected for the next 10 years), and unfilled market requirements for the next 10 years.

Previous editions of this report are available on our website.

Definitions for terms in this report are available in our Energy Glossary.

Uranium purchases and prices

Owners and operators of U.S. civilian nuclear power reactors (civilian owner/operators, or COOs) purchased a total of 48.9 million pounds U_3O_8e (equivalent[1]) of deliveries from U.S. suppliers and foreign suppliers during 2020, at a weighted-average price of $33.27 per pound U_3O_8e. The 2020 total of 48.9 million pounds U_3O_8e was 1% higher than the 2019 total of 48.3 million pounds U_3O_8e. The 2020 weighted-average price of $33.27 per pound U_3O_8e was 7% lower than the 2019 weighted-average price of $35.59 per pound U_3O_8e (Table 1) and the lowest price since 2007.

The vast majority of uranium delivered in 2020 was of foreign-origin with Canada the top source at 22.4% of total deliveries, edging out Kazakhstan which had 22.1% of total deliveries. Uranium originating in Kazakhstan, Russia, and Uzbekistan accounted for 47% of total uranium purchased by U.S. COOs in 2020. Canadian-origin uranium and Australian-originan uranium together accounted for 34% (Table 3).

COOs purchased three material types of uranium for 2020 deliveries from 35 sellers (Table 4, Table 24). During 2020, 24% of the uranium delivered was purchased under spot contracts at a weighted-average price of $28.70 per pound. The remaining 76% was purchased under long-term contracts at a weighted-average price of $34.74 per pound (Table 7). Spot contracts are contracts with a one-time uranium delivery (usually) for the entire contract, and the delivery typically occurs within one year of contract execution (signed date). Long-term contracts are contracts with one or more uranium deliveries to occur at least a year following the contract execution (signed date) and as such may reflect some agreements of short and medium terms as well as longer term.

New and future uranium contracts

In 2020, COOs signed 39 new purchase contracts with deliveries in 2020 of 12 million pounds U_3O_8e at a weighted-average price of $25.21 per pound (Table 8).

[1]Uranium quantities are expressed in the unit of measure U_3O_8e (equivalent). U_3O_8e is triuranium octoxide (or uranium concentrate) and the equivalent uranium-component of uranium hexafluoride (UF_6) and enriched uranium.

COOs report minimum and maximum quantities of future deliveries under contract to allow for the option of either decreasing or increasing quantities. At the end of 2020, the maximum uranium deliveries for 2021 through 2030 under existing purchase contracts for COOs totaled 194 million pounds U_3O_8e (Table 10). Also at the end of 2020, unfilled uranium market requirements for 2021 through 2030 totaled 188 million pounds U_3O_8e (Table 11). These contracted deliveries and unfilled market requirements combined represent the maximum anticipated market requirements of 382 million pounds U_3O_8e over the next 10 years for COOs.

Uranium feed, enrichment services, uranium loaded

In 2020, COOs delivered 34 million pounds U_3O_8e of natural uranium feed to U.S. and foreign enrichers. U.S. enrichment suppliers received 48% of the feed, and the remaining 52% was delivered to foreign enrichment suppliers (Table 13). Fourteen million separative work units (SWU)[2] were purchased under enrichment services contracts from 14 sellers in 2020 (Table 16, Table 25). The average price paid by the COOs for the 14 million SWU was $99.51 per SWU in 2020, 9% lower than the 2019 average price of $109.54 per SWU. In 2020, the U.S.-origin SWU share was 29%, and the foreign-origin SWU accounted for the remaining 71%. Foreign-origin SWU included 23% from Russia, 13% from the Netherlands, 9% from the United Kingdom and 8% from Germany (Table 16).

Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors during 2020 contained 48.6 million pounds U_3O_8e, compared with 43.2 million pounds U_3O_8e loaded during 2019. During 2020, 18% of the uranium loaded during 2019 was U.S.-origin uranium, and 82% was foreign-origin uranium (Table 18).

Uranium foreign purchases/sales and inventories

U.S. suppliers (brokers, converters, enrichers, fabricators, producers, and traders) and COOs purchase uranium each year from foreign suppliers. Together, foreign purchases totaled 39.6 million pounds U_3O_8e in 2020, and the weighted-average price was $33.79 per pound U_3O_8e (Table 19). U.S. suppliers and COOs also sold uranium to foreign suppliers. Together, foreign sales totaled 9.9 million pounds U_3O_8e in 2020, and the weighted-average price was $29.57 per pound U_3O_8e (Table 21).

Year-end commercial uranium inventories represent ownership of uranium in different stages of the nuclear fuel cycle (in-process for conversion, enrichment, or fabrication) at domestic or foreign nuclear fuel facilities. Total U.S. commercial inventories (including inventories owned by COOs, U.S. brokers, converters, enrichers, fabricators, producers, and traders) were 123.1 million pounds U_3O_8e at the end of 2020, down 6% from 130.7 million pounds at the end of 2019. Commercial uranium inventories owned at the end of 2020 by COOs totaled 107.2 million pounds U_3O_8e, a 5% decrease in inventories from the year-end 2019 level. Uranium inventories owned by U.S. suppliers (converters, enrichers,

[2] Separative work unit (SWU): The standard measure of enrichment services. The effort expended in separating a mass F of feed of assay x_f into a mass P of product assay x_p and waste of mass W and assay x_w is expressed in terms of the number of separative work units needed, given by the expression $SWU = WV(x_w) + PV(x_p) - FV(x_f)$, where V(x) is the *value function*, defined as $V(x) = (1 - 2x)\ 1n((1 - x)/x)$.

fabricators, producers, brokers and traders) totaled 16.0 million pounds U_3O_8e at the end of 2020, down 9% from 2019 year-end levels (Table 22).

Table S1a. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1996–2020

Delivery year	Total purchased	Purchased from U.S. producers	Purchased from U.S. brokers and traders	Purchased from other owners and operators of U.S. civilian nuclear power reactors, other U.S. suppliers, (and U.S. government for 2007) [1]	Purchased from foreign suppliers	U.S.-origin uranium	Foreign-origin uranium	Spot contracts [2]	Short, medium, and long-term contracts [3]
1996	**47.3**	5.8	13.3	1.9	26.4	**8.3**	**39.0**	**9.1**	**38.3**
1997	**42.0**	5.7	9.9	3.0	23.4	**8.1**	**33.9**	**5.5**	**36.5**
1998	**42.7**	6.5	10.5	4.5	21.3	**7.2**	**35.6**	**7.8**	**34.9**
1999	**47.9**	5.2	10.4	5.6	26.8	**11.4**	**36.5**	**8.0**	**40.0**
2000	**51.8**	3.6	9.1	8.8	30.4	**13.3**	**38.6**	**10.4**	**39.1**
2001	**55.4**	2.3	11.7	11.4	30.0	**13.2**	**42.2**	**14.4**	**40.0**
2002	**52.7**	1.5	13.4	5.7	32.2	**6.2**	**46.5**	**8.6**	**41.4**
2003	**56.6**	0.6	10.5	8.3	37.2	**10.2**	**46.4**	**8.2**	**46.7**
2004	**64.1**	0	13.2	12.2	38.7	**12.3**	**51.8**	**9.2**	**53.3**
2005	**65.7**	W	10.4	W	39.4	**11.0**	**54.7**	**6.9**	**58.8**
2006	**66.5**	0	13.9	12.6	40.0	**10.8**	**55.7**	**6.3**	**59.4**
2007	**51.0**	0	9.8	7.6	33.5	**4.0**	**47.0**	**6.6**	**43.7**
2008	**53.4**	0.6	9.4	6.3	37.2	**7.7**	**45.6**	**8.7**	**42.8**
2009	**49.8**	W	11.1	W	36.8	**7.1**	**42.8**	**8.1**	**41.0**
2010	**46.6**	0.4	11.7	1.9	32.6	**3.7**	**42.9**	**8.2**	**37.9**
2011	**54.8**	0.6	14.8	1.1	38.4	**5.2**	**49.6**	**12.0**	**42.3**
2012	**57.5**	W	11.5	W	37.6	**9.8**	**47.7**	**8.1**	**48.9**
2013	**57.4**	W	12.8	W	37.4	**9.5**	**47.9**	**11.3**	**46.1**
2014	**53.3**	W	17.1	W	34.4	**3.3**	**50.0**	**14.5**	**38.8**
2015	**56.5**	W	13.9	W	38.2	**3.4**	**53.1**	**11.3**	**43.2**
2016	**50.6**	W	7.9	W	39.5	**5.4**	**45.2**	**10.6**	**37.0**
2017	**43.0**	W	4.5	W	34.4	**2.9**	**40.1**	**6.2**	**36.6**
2018	**40.3**	W	3.9	W	33.0	**3.9**	**36.4**	**6.5**	**33.4**
2019	**48.3**	W	4.4	W	39.2	**W**	**W**	**10.5**	**37.8**
2020	**48.9**	W	6.4	W	38.4	**W**	**W**	**11.8**	**37.0**

- - = Not applicable. W = Data withheld to avoid disclosure of individual company data. NA = Not available.

[1] Includes purchases between owners and operators of U.S. civilian nuclear power reactors along with purchases from other U.S. suppliers which are U.S. converters, enrichers, and fabricators.

[2] Spot Contract: A one-time delivery (usually) of the entire contract to occur within one year of contract execution (signed date).

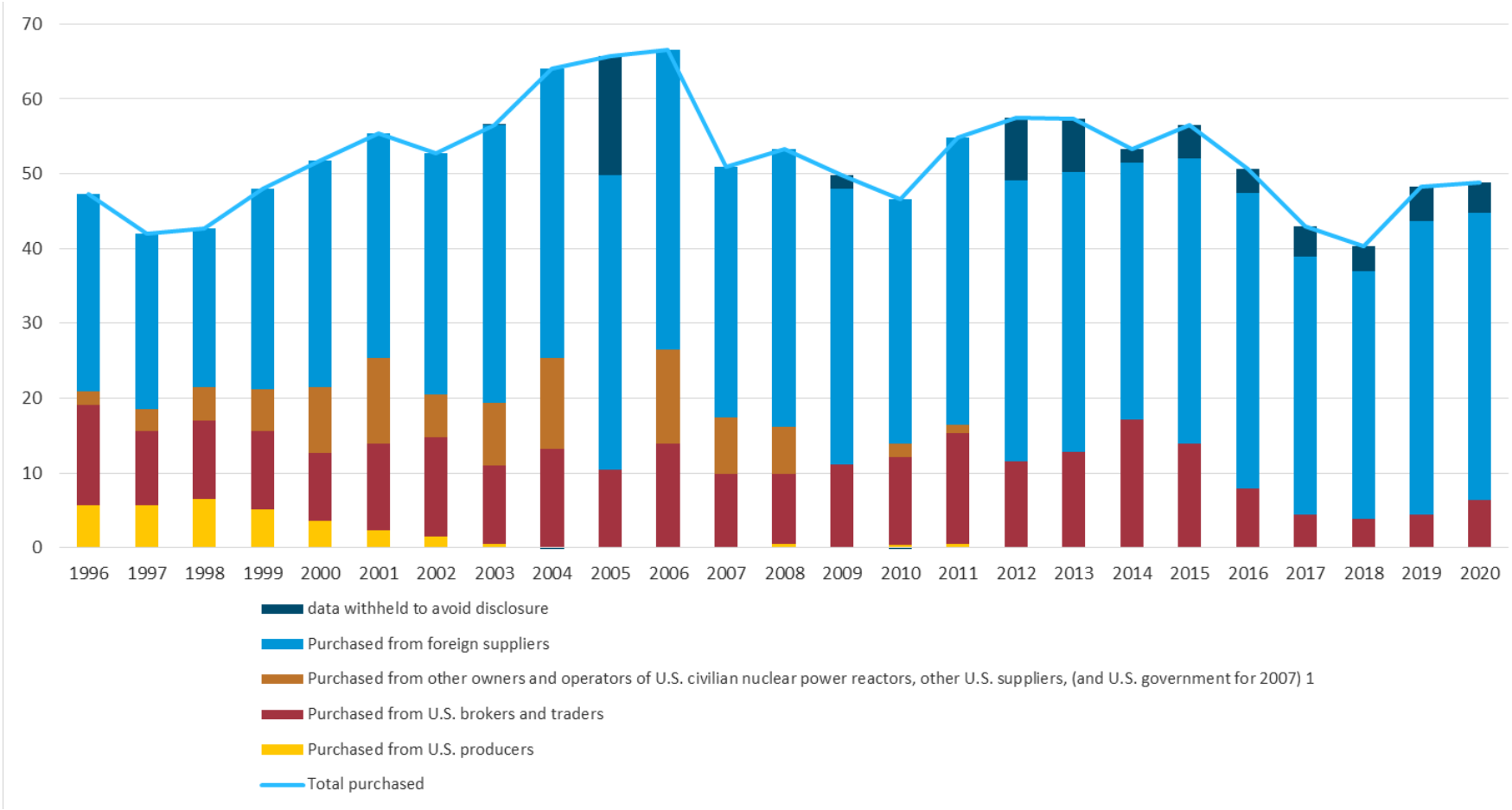
[3] Short-, medium-, and long-term Contracts: One or more deliveries to occur after a year following contract execution (signed date).

Notes: *Other U.S. Suppliers* are U.S. converters, enrichers, and fabricators. Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration: *Uranium Industry Annual*, Tables 10, 11 and 16, 1996-2002 and Form EIA-858, *Uranium Marketing Annual Survey,* 2003-2020

Figure S1. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1996–2020

million pounds U_3O_8e equivalent



[1] Includes purchases between owners and operators of U.S. civilian nuclear power reactors along with purchases from other U.S. suppliers which are U.S. converters, enrichers, and fabricators.

Sources: U.S. Energy Information Administration: *Uranium Industry Annual* reports, 1996–2002 and Form EIA-858, *Uranium Marketing Annual Survey* 2003–2020.

Table S1b. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1996–2020

Delivery year	Total purchased (weighted-average price)	Purchased from U.S. producers	Purchased from U.S. brokers and traders	Purchased from other owners and operators of U.S. civilian nuclear power reactors, other U.S. suppliers, (and U.S. government for 2007) [1]	Purchased from foreign suppliers	U.S.-origin uranium (weighted-average price)	Foreign-origin uranium (weighted-average price)	Spot contracts [2] (weighted-average price)	Short-, medium-, and long-term contracts [3] (weighted-average price)
1996	**14.12**	14.20	13.36	14.98	14.45	**14.62**	**14.02**	**14.22**	**NA**
1997	**12.88**	13.60	12.31	W	12.91	**13.36**	**12.78**	**11.61**	**NA**
1998	**12.14**	13.61	11.95	W	11.97	**13.37**	**11.90**	**10.56**	**NA**
1999	**11.63**	13.93	11.54	W	11.47	**12.24**	**11.47**	**9.52**	**NA**
2000	**11.04**	14.81	11.28	10.45	10.65	**11.52**	**10.88**	**8.54**	**11.70**
2001	**10.15**	13.26	10.44	9.98	9.86	**10.50**	**10.05**	**7.92**	**10.96**
2002	**10.36**	13.03	10.21	W	10.37	**10.89**	**10.29**	**9.29**	**10.58**
2003	**10.81**	14.17	11.05	10.16	10.82	**10.81**	**10.81**	**10.10**	**10.94**
2004	**12.61**	- -	12.08	11.30	13.15	**11.87**	**12.76**	**14.77**	**12.24**
2005	**14.36**	W	13.76	W	14.70	**15.11**	**14.21**	**20.04**	**13.70**
2006	**18.61**	- -	20.49	W	18.62	**17.85**	**18.75**	**39.48**	**16.38**
2007	**32.78**	- -	34.10	W	32.36	**28.89**	**33.05**	**88.25**	**24.45**
2008	**45.88**	75.16	39.62	W	48.49	**59.55**	**43.47**	**66.95**	**41.59**
2009	**45.86**	W	41.88	W	46.68	**48.92**	**45.35**	**46.45**	**45.74**
2010	**49.29**	47.13	44.98	42.24	51.30	**45.25**	**49.64**	**43.99**	**50.43**
2011	**55.64**	58.12	53.29	52.50	56.60	**52.12**	**55.98**	**54.69**	**55.90**
2012	**54.99**	W	54.44	W	54.40	**59.44**	**54.07**	**51.04**	**55.65**
2013	**51.99**	W	50.44	W	51.93	**56.37**	**51.13**	**43.83**	**54.00**
2014	**46.16**	W	42.90	W	47.62	**48.11**	**46.03**	**36.64**	**49.73**
2015	**44.13**	52.35	44.67	W	44.66	**43.86**	**44.14**	**36.80**	**46.04**
2016	**42.43**	48.86	50.56	W	44.85	**43.92**	**42.26**	**29.62**	**46.11**
2017	**38.80**	48.77	41.80	20.02	41.16	**35.55**	**39.04**	**22.36**	**40.99**
2018	**38.81**	46.59	52.51	W	39.82	**45.26**	**38.11**	**27.51**	**40.99**
2019	**35.59**	W	48.16	W	36.28	**W**	**W**	**27.89**	**37.73**
2020	**33.27**	W	30.09	W	35.27	**W**	**W**	**28.70**	**34.74**

- - = Not applicable. W = Data withheld to avoid disclosure of individual company data. NA = Not available.

[1] Includes purchases between owners and operators of U.S. civilian nuclear power reactors along with purchases from other U.S. suppliers, which are U.S. converters, enrichers, and fabricators.

[2] Spot Contract: A one-time delivery (usually) of the entire contract to occur within one year of contract execution (signed date).

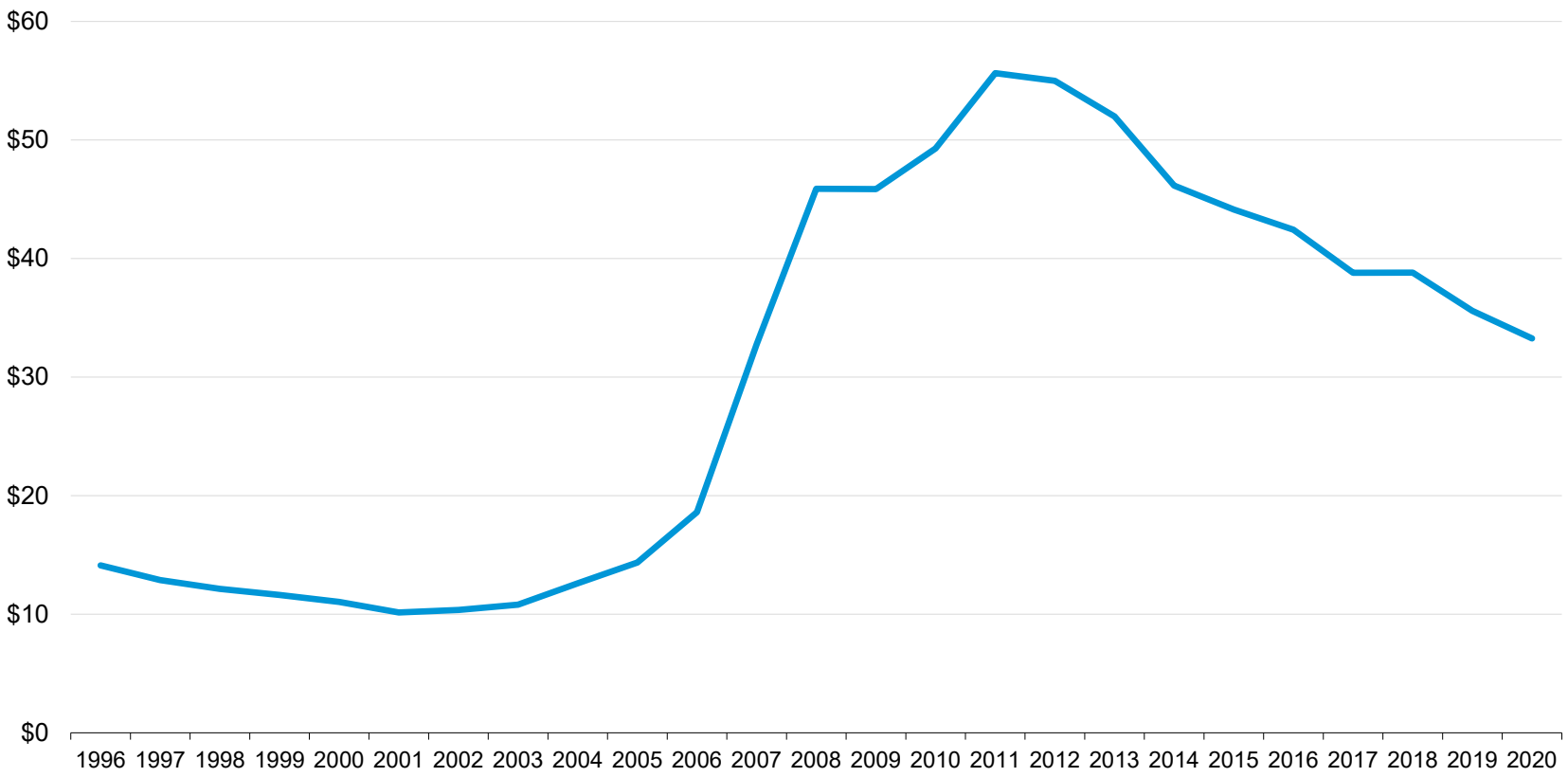
[3] Short-, medium-, and long-term Contracts: One or more deliveries to occur after a year following contract execution (signed date).

Notes: *Other U.S. Suppliers* are U.S. converters, enrichers, and fabricators. Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Sources: U.S. Energy Information Administration: *Uranium Industry Annual*, Tables 10, 11 and 16, 1996-2002 and Form EIA-858, *Uranium Marketing Annual Survey*, 2002-2020

Figure S2. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear power reactors, 1996–2020

dollars per pound U_3O_8e equivalent



Source: U.S. Energy Information Administration: *Uranium Industry Annual* reports, 1996-2002 and Form EIA-858, *Uranium Marketing Annual Survey*, 2003-2020

Table S2. Uranium feed deliveries, enrichment services, and uranium loaded by owners and operators of U.S. civilian nuclear power reactors, 1996–2020

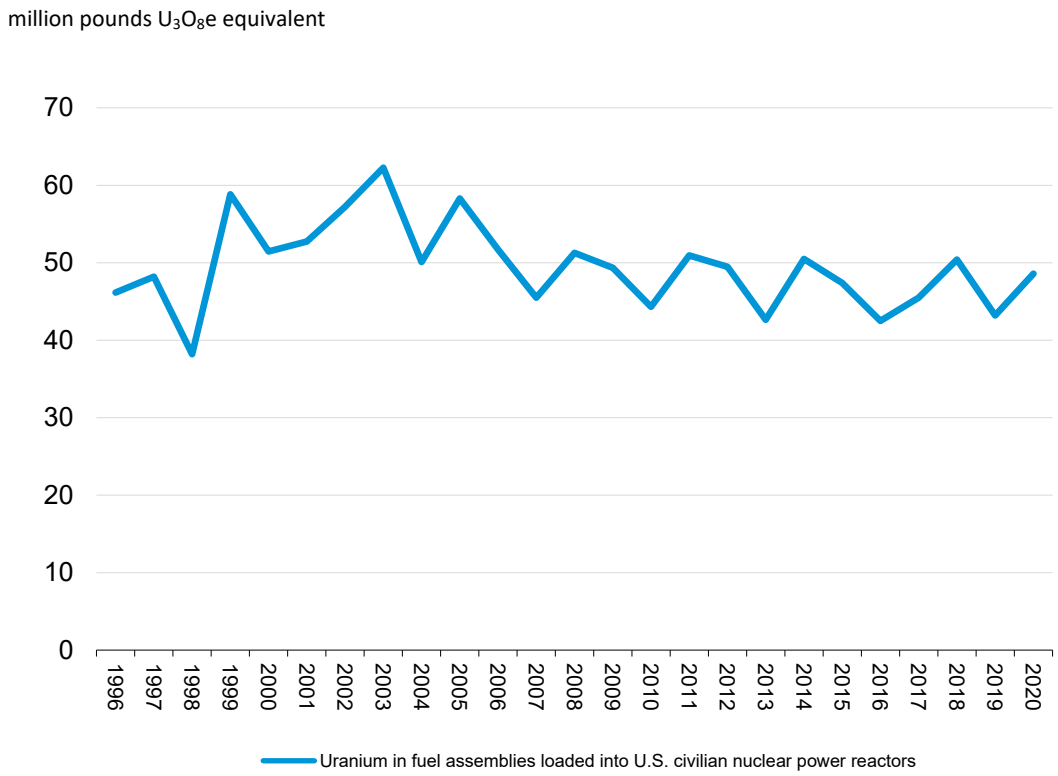
	Million pounds U3O8 equivalent		Million separative work units (SWU)			
Year	Feed deliveries by owners and operators of U.S. civilian nuclear power reactors	Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors	U.S.-origin enrichment services purchased	Foreign-origin enrichment services purchased	Total purchased enrichment services	Average price (US$ per SWU)
1996	49.1	46.2	8.0	3.2	**11.2**	-
1997	40.3	48.2	6.0	2.9	**8.9**	-
1998	40.6	38.2	5.7	4.4	**10.1**	-
1999	43.9	58.8	4.6	5.4	**10.0**	-
2000	47.8	51.5	5.2	6.6	**11.8**	-
2001	47.3	52.7	1.3	9.1	**10.4**	-
2002	54.7	57.2	1.7	9.8	**11.5**	-
2003	49.3	62.3	1.7	10.3	**12.0**	-
2004	53.4	50.1	1.4	10.4	**11.8**	-
2005	52.9	58.3	1.1	10.3	**11.4**	-
2006	56.6	51.7	1.6	11.8	**13.4**	**106.57**
2007	49.0	45.5	1.5	12.7	**14.2**	**114.58**
2008	43.4	51.3	1.9	10.7	**12.6**	**121.33**
2009	51.9	49.4	4.1	13.1	**17.2**	**130.78**
2010	45.5	44.3	2.3	11.5	**13.8**	**136.14**
2011	51.3	50.9	2.4	12.4	**14.8**	**136.12**
2012	52.1	49.5	3.3	12.3	**15.6**	**141.36**
2013	47.4	42.6	3.9	8.5	**12.3**	**142.22**
2014	41.9	50.5	3.8	9.2	**12.9**	**140.75**
2015	41.4	47.4	4.1	8.8	**12.9**	**136.88**
2016	43.1	42.5	4.8	9.5	**14.3**	**131.00**
2017	33.8	45.5	5.6	7.3	**12.9**	**125.43**
2018	33.4	50.4	5.0	10.0	**15.0**	**115.42**
2019	38.3	43.2	5.3	8.0	**13.3**	**109.54**
2020	34.4	48.6	4.1	10.0	**14.1**	**99.51**

- = No data reported.

Notes: Totals may not equal sum of components because of independent rounding. Average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration: *Uranium Industry Annual*, Tables 22, 23, 25, and 27, 1996-2002 and Form EIA-858, *Uranium Marketing Annual Survey*, 2003-2020

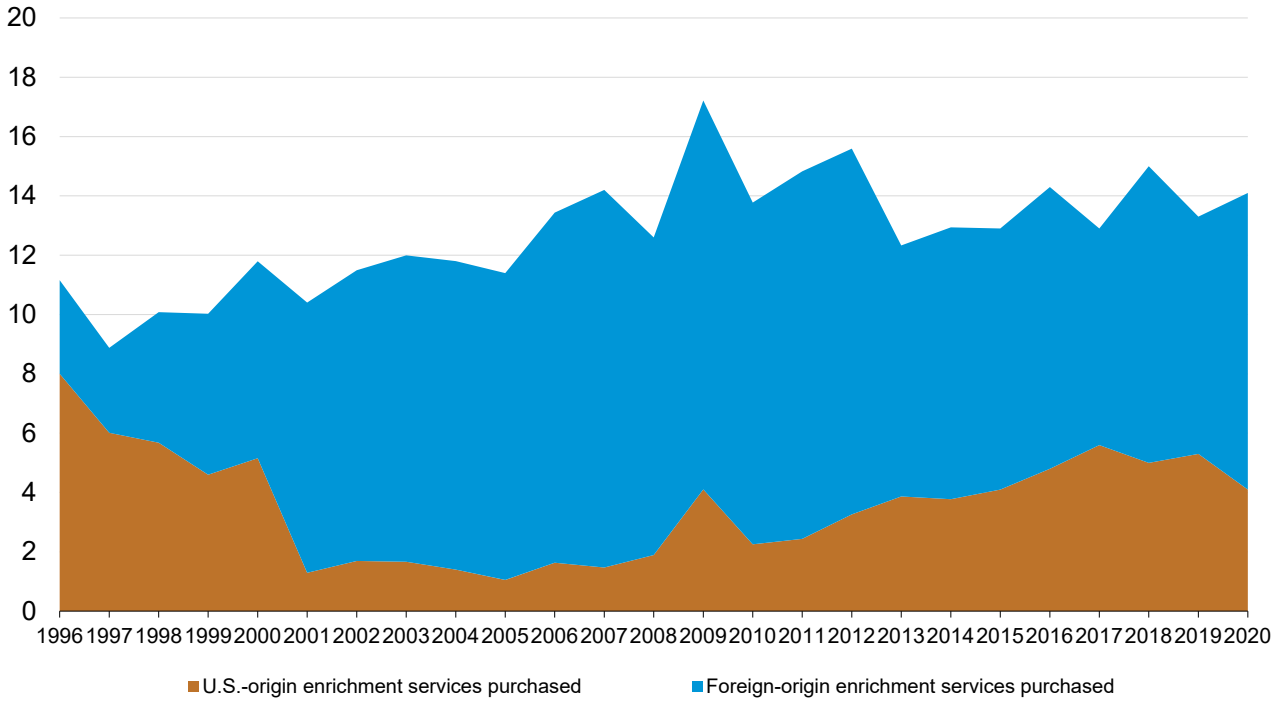
Figure S3. Uranium loaded into U.S. civilian nuclear power reactors, 1996–2020



Source: U.S. Energy Information Administration: *Uranium Industry Annual* reports, 1996-2002 and Form EIA-858, *Uranium Marketing Annual Survey*, 2003-2020

Figure S4. Uranium enrichment services purchased by owners and operators of U.S. civilian nuclear power reactors, 1996–2020

million separative work units (SWU)



Source: U.S. Energy Information Administration: *Uranium Industry Annual* reports, 1996-2002 and Form EIA-858, *Uranium Marketing Annual Survey*, 2003-2020

Table S3a. Foreign purchases, foreign sales, and uranium inventories owned by U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors, 1996–2020

Delivery year	Foreign purchases by U.S. suppliers	Foreign purchases by owners and operators of U.S. civilian nuclear power reactors	Total foreign purchases	U.S. broker and trader purchases from foreign suppliers	Foreign sales	U.S. supplier owned uranium inventories	Owners and operators of U.S. civilian nuclear power reactors owned uranium inventories	Total commercial uranium inventories
1996	21.7	23.7	**45.4**	**17.8**	**11.5**	13.9	66.1	**80.0**
1997	20.4	22.5	**43.0**	**15.7**	**17.0**	40.4	65.9	**106.2**
1998	22.6	21.1	**43.7**	**21.7**	**15.1**	70.7	65.8	**136.5**
1999	21.0	26.6	**47.6**	**19.2**	**8.5**	68.8	58.3	**127.1**
2000	17.4	27.5	**44.9**	**15.8**	**13.6**	56.5	54.8	**111.3**
2001	18.7	28.0	**46.7**	**18.3**	**11.7**	48.1	55.6	**103.8**
2002	22.7	30.0	**52.7**	**18.6**	**15.4**	48.7	53.5	**102.1**
2003	18.2	34.9	**53.0**	**15.8**	**13.2**	39.9	45.6	**85.5**
2004	30.2	35.9	**66.1**	**26.4**	**13.2**	37.5	57.7	**95.2**
2005	27.0	38.5	**65.5**	**24.0**	**20.5**	29.1	64.7	**93.8**
2006	26.1	38.7	**64.8**	**24.0**	**18.7**	29.1	77.5	**106.6**
2007	21.6	32.5	**54.1**	**18.9**	**14.8**	31.2	81.2	**112.4**
2008	24.1	32.9	**57.1**	**21.3**	**17.2**	27.0	83.0	**110.0**
2009	26.7	32.2	**58.9**	**26.8**	**23.5**	26.8	84.8	**111.5**
2010	25.0	30.4	**55.3**	**24.7**	**23.1**	24.7	86.5	**111.3**
2011	19.3	35.1	**54.4**	**19.6**	**16.7**	22.3	89.8	**112.1**
2012	20.2	36.0	**56.2**	**20.2**	**18.0**	23.3	97.6	**120.9**
2013	23.2	34.1	**57.3**	**W**	**18.9**	21.3	113.1	**134.4**
2014	24.2	34.4	**58.6**	**W**	**20.0**	18.7	114.0	**132.7**
2015	27.2	36.9	**64.1**	**26.1**	**25.7**	14.3	121.1	**135.5**
2016	22.1	28.5	**50.7**	**22.1**	**17.2**	16.7	128.0	**144.6**
2017	16.9	25.2	**42.1**	**14.1**	**14.0**	17.8	123.9	**141.7**
2018	18.3	23.2	**41.5**	**18.9**	**13.9**	19.3	111.2	**130.5**
2019	21.2	21.8	**42.9**	**20.8**	**11.7**	17.5	113.1	**130.7**
2020	15.0	24.6	**39.6**	**14.4**	**9.9**	16.0	107.2	**123.1**

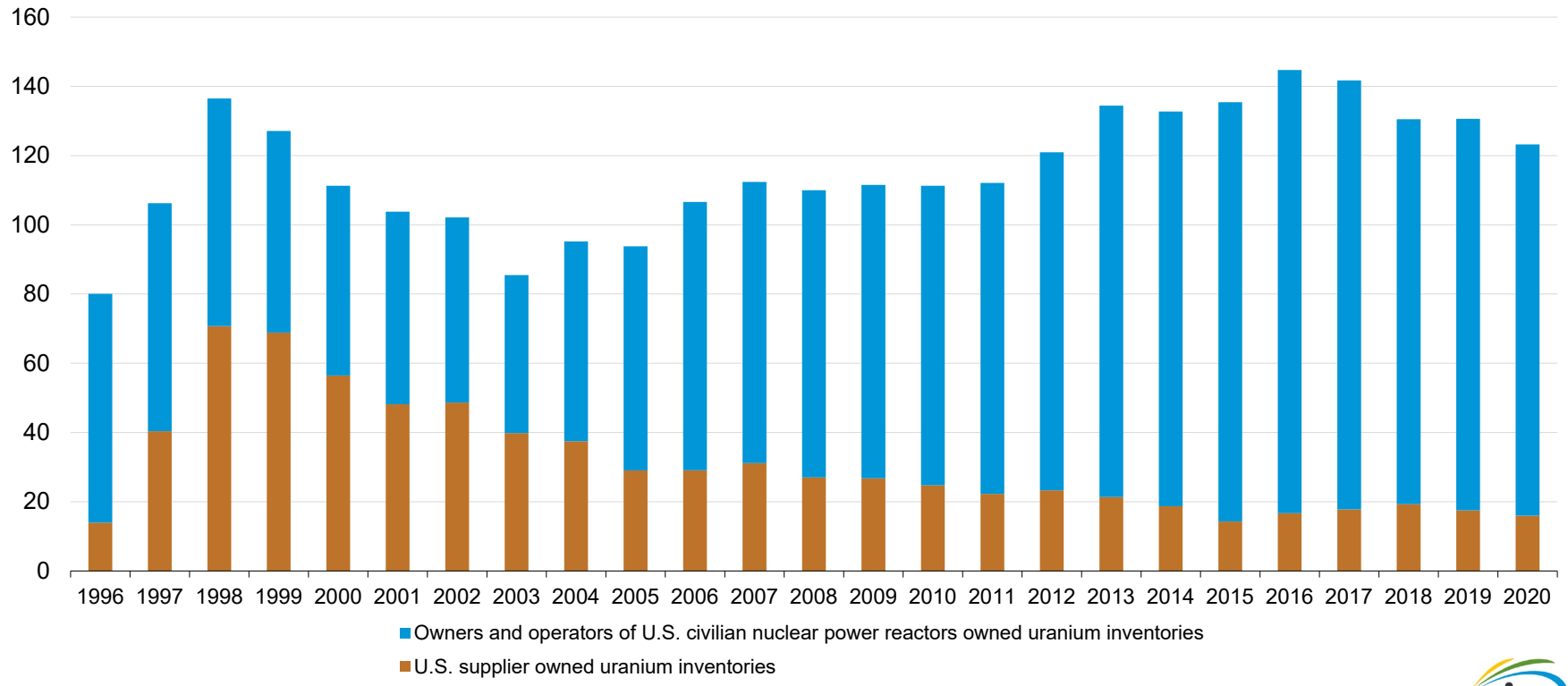
W = Data withheld to avoid disclosure of individual company data.

Notes: Totals may not equal sum of components because of independent rounding. Foreign purchase: A uranium purchase of foreign-origin uranium from a firm located outside the United States. Foreign sale: A uranium sale to a firm located outside the United States.

Source: U.S. Energy Information Administration: *Uranium Industry Annual*, Tables 28, 29, 30 and 31, 1996–2002 and Form EIA-858, *Uranium Marketing Annual Survey*, 2003–2020

Figure S5. Total commercial uranium inventories of U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors, 1996–2020

million pounds U_3O_8e equivalent



Source: Energy Information Administration: *Uranium Industry Annual* reports, 1996–2002 and Form EIA-858 *Uranium Marketing Annual Survey,* 2003–2020

Table S3b. Weighted-average price of foreign purchases and foreign sales by U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors, 1996–2020

Delivery year	Foreign purchases by U.S. suppliers	Foreign purchases by owners and operators of U.S. civilian nuclear power reactors	Total foreign purchases (weighted-average price)	U.S. broker and trader purchases from foreign suppliers (weighted-average price)	Foreign sales (weighted-average price)
1996	11.78	14.41	**13.15**	**11.78**	**14.20**
1997	10.61	12.89	**11.81**	**10.71**	**12.39**
1998	10.50	11.96	**11.19**	**10.77**	**12.05**
1999	9.42	11.45	**10.55**	**9.60**	**11.97**
2000	8.45	10.68	**9.84**	**8.61**	**8.48**
2001	8.98	9.87	**9.51**	**8.87**	**8.79**
2002	9.65	10.37	**10.05**	**9.59**	**10.04**
2003	10.19	10.79	**10.59**	**10.19**	**10.39**
2004	11.21	13.13	**12.25**	**11.15**	**12.63**
2005	15.11	14.63	**14.83**	**15.68**	**20.70**
2006	20.28	18.66	**19.31**	**21.61**	**32.87**
2007	36.59	32.58	**34.18**	**39.88**	**55.47**
2008	33.30	47.46	**41.30**	**35.39**	**45.62**
2009	34.80	46.55	**41.23**	**34.88**	**41.48**
2010	41.30	51.69	**47.01**	**41.23**	**42.78**
2011	48.80	56.87	**54.00**	**49.27**	**49.05**
2012	46.80	54.08	**51.44**	**47.08**	**47.57**
2013	43.25	51.64	**48.24**	**W**	**42.75**
2014	39.13	47.62	**44.11**	**W**	**35.69**
2015	40.68	44.70	**42.96**	**40.77**	**39.29**
2016	36.03	44.08	**40.45**	**36.09**	**33.66**
2017	31.11	41.12	**37.09**	**29.93**	**25.19**
2018	30.90	39.32	**35.73**	**30.84**	**26.02**
2019	33.17	36.28	**34.77**	**33.43**	**27.16**
2020	31.27	35.33	**33.79**	**31.51**	**29.57**

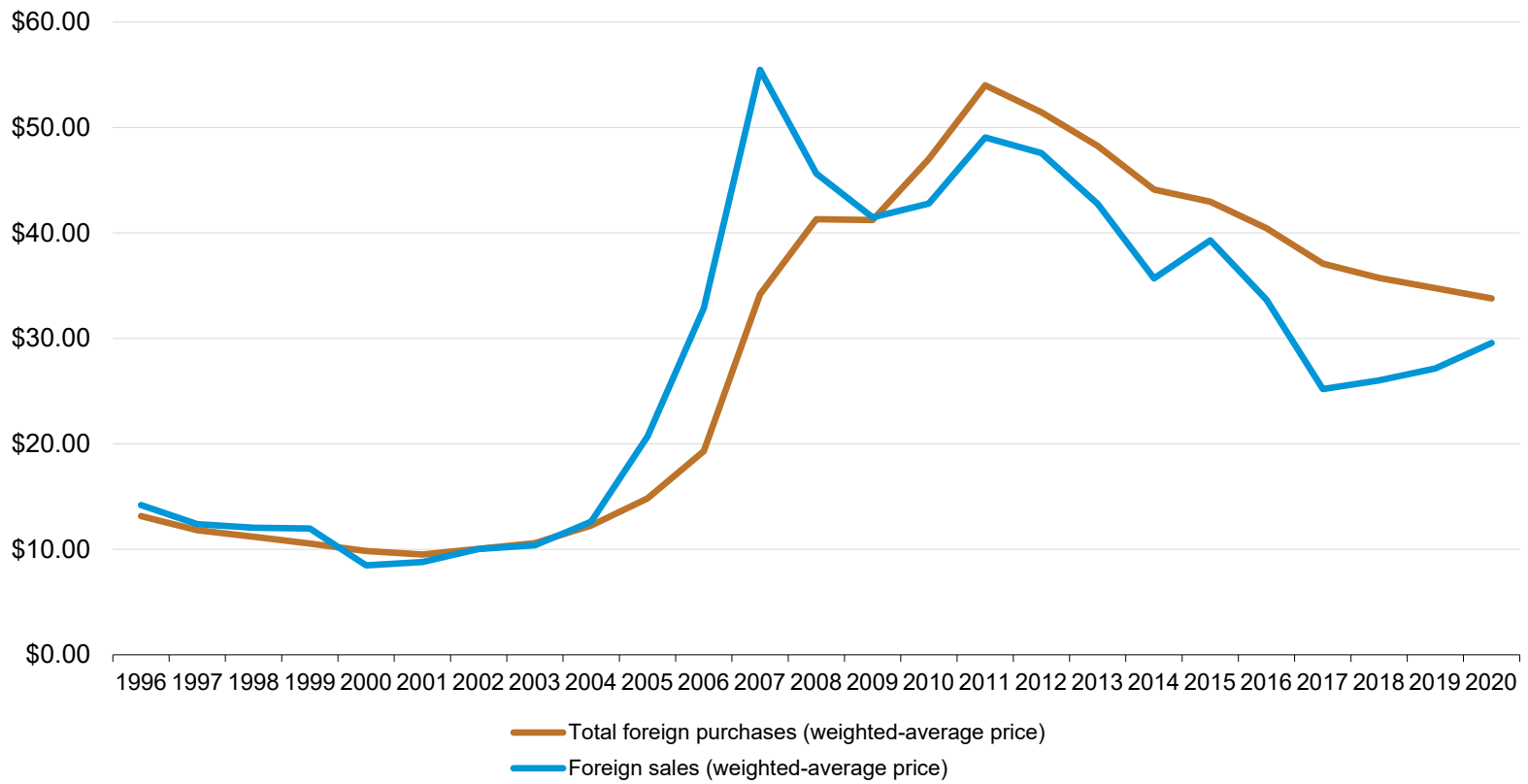
W = Data withheld to avoid disclosure of individual company data.

Notes: Totals may not equal sum of components because of independent rounding. Foreign purchase: A uranium purchase of foreign-origin uranium from a firm located outside the United States. Foreign sale: A uranium sale to a firm located outside the United States. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration: *Uranium Industry Annual,* Tables 28, 29, 30, and 31, 1996–2002 and Form EIA-858, *Uranium Marketing Annual Survey* , 2003–2020

Figure S6. Weighted-average price of foreign purchases and foreign sales of uranium, 1996–2020

dollars per pound U_3O_8e equivalent



Source: U.S. Energy Information Administration: *Uranium Industry Annual* reports, 1996–2002 and Form EIA-858, *Uranium Marketing Annual Survey,* 2003–2020

Table 1. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by supplier and delivery year, 2015–2020

thousand pounds U_3O_8 equivalent; dollars per pound U_3O_8 equivalent

Deliveries	2015	2016	2017	2018	2019	2020
Purchased from U.S. producers						
Purchases of U.S.-origin and foreign-origin uranium	1,455	2,169	1,762	1,520	W	W
Weighted-average price	52.35	48.86	48.77	46.59	W	W
Purchased from U.S. brokers and traders						
Purchases of U.S.-origin and foreign-origin uranium	13,852	7,862	4,548	3,897	4,395	6,412
Weighted-average price	44.67	50.56	51.80	52.51	48.16	30.09
Purchased from other owners and operators of U.S. civilian nuclear power reactors						
Purchases	W	W	W	W	W	W
Weighted-average price	W	W	W	W	W	W
Purchased from other U.S. suppliers						
Purchases of U.S.-origin and foreign-origin uranium	W	W	W	W	W	W
Weighted-average price	W	W	W	W	W	W
Purchased from foreign suppliers						
Purchases of U.S.-origin and foreign-origin uranium	38,184	39,469	34,384	33,044	39,208	38,418
Weighted-average price	44.66	44.85	41.16	39.82	36.28	35.27
Total purchased by owners and operators of U.S. civilian nuclear power reactors						
Purchases of U.S.-origin and foreign-origin uranium	**56,524**	**50,595**	**43,033**	**40,293**	**48,328**	**48,934**
Weighted-average price	**44.13**	**42.43**	**38.80**	**38.81**	**35.59**	**33.27**

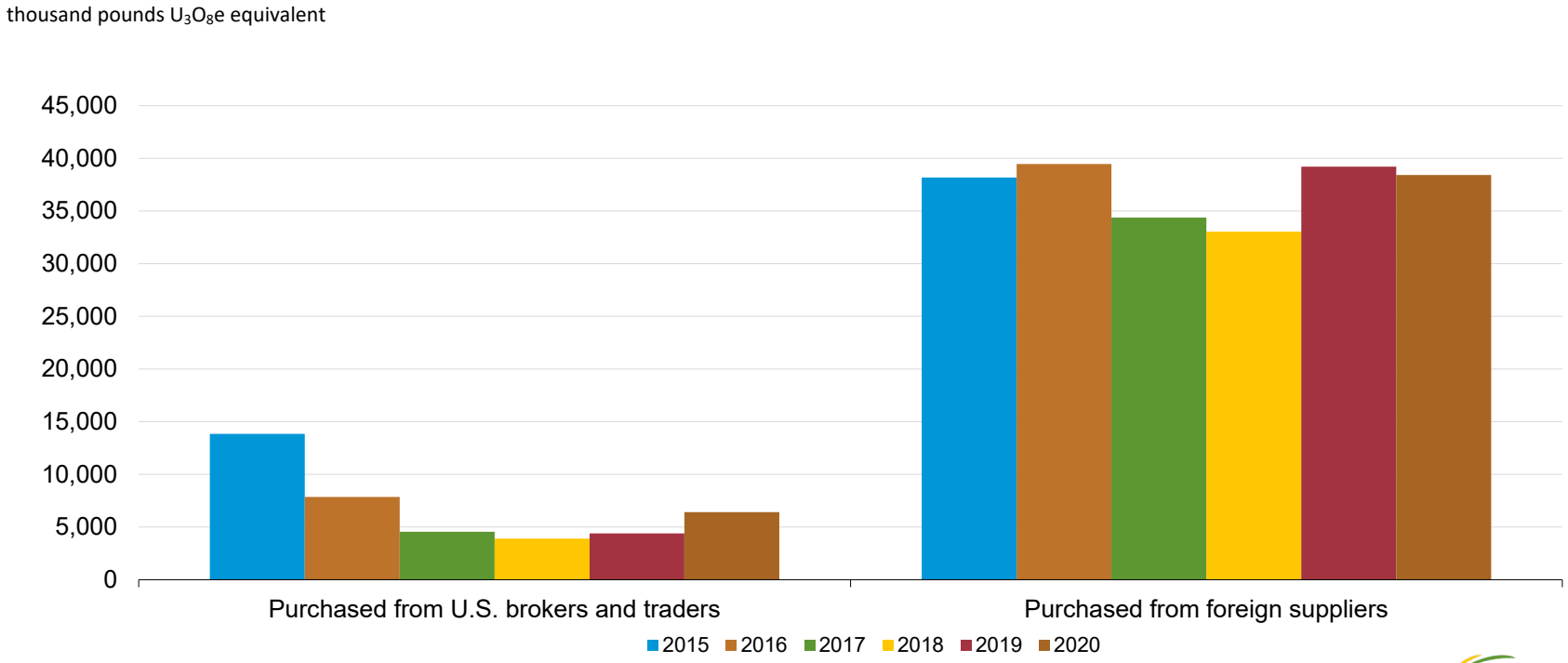
W = Data withheld to avoid disclosure of individual company data.

-- = Not applicable.

Notes: *Other U.S. Suppliers* are U.S. converters, enrichers, and fabricators. Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2015–2020)

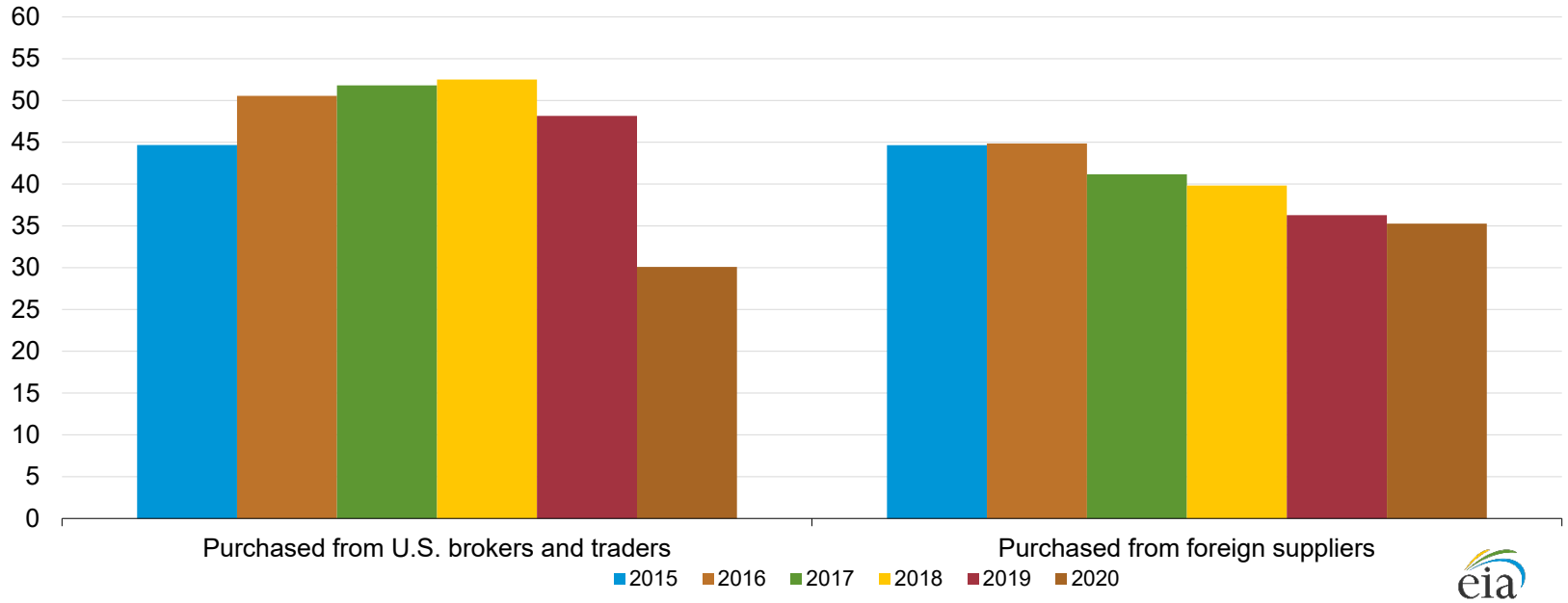
Figure 1. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by supplier and delivery year, 2015–2020



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2015–2020)

Figure 2. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear power reactors by supplier and delivery year, 2015–2020

dollars per pound U_3O_8e equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2015–2020)

Table 2. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2015–2020

thousand pounds U_3O_8e equivalent; dollars per pound U_3O_8e equivalent

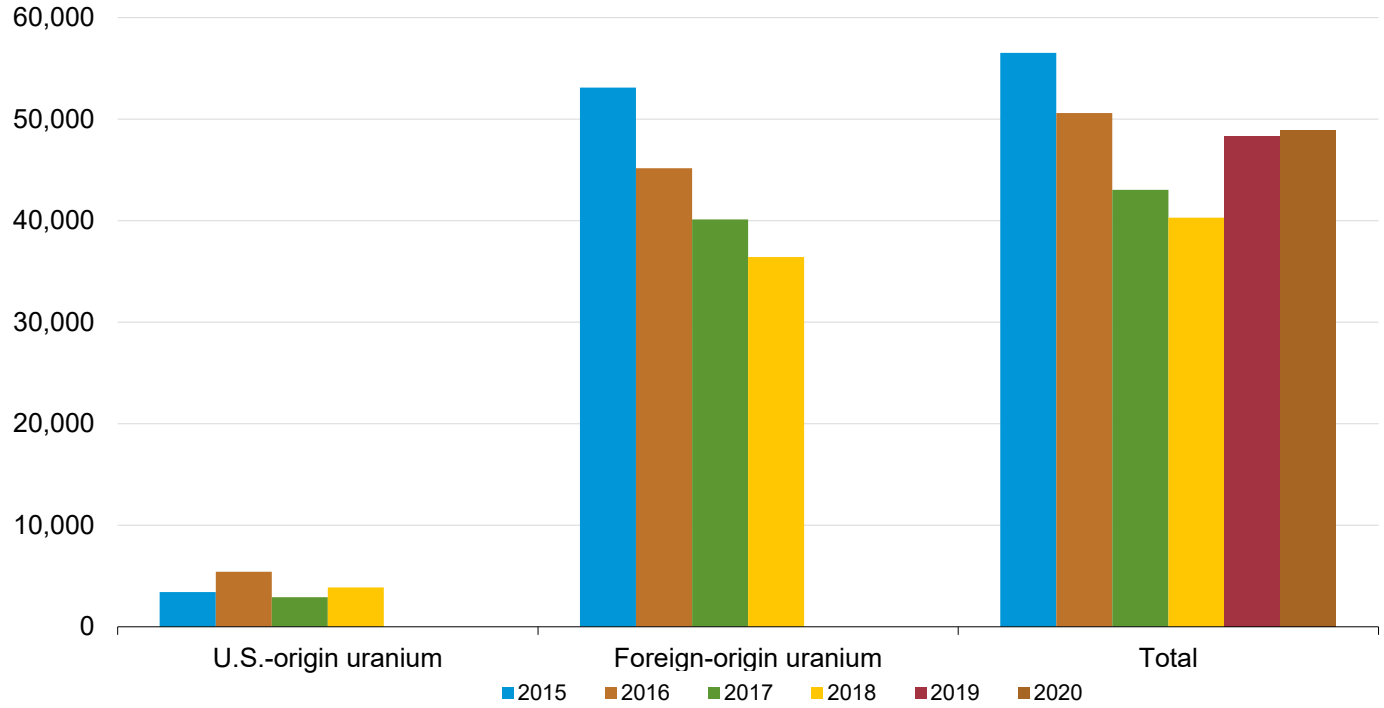
Deliveries	2015	2016	2017	2018	2019	2020
U.S.-origin uranium						
Purchases	3,419	5,424	2,916	3,878	W	W
Weighted-average price	43.86	43.92	35.55	45.26	W	W
Foreign-origin uranium						
Purchases	53,106	45,171	40,117	36,415	W	W
Weighted-average price	44.14	42.26	39.04	38.11	W	W
Total						
Purchases	**56,524**	**50,595**	**43,033**	**40,293**	**48,328**	**48,934**
Weighted-average price	**44.13**	**42.43**	**38.80**	**38.81**	**35.59**	**33.27**

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2015–2020)

Figure 3. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2015–2020

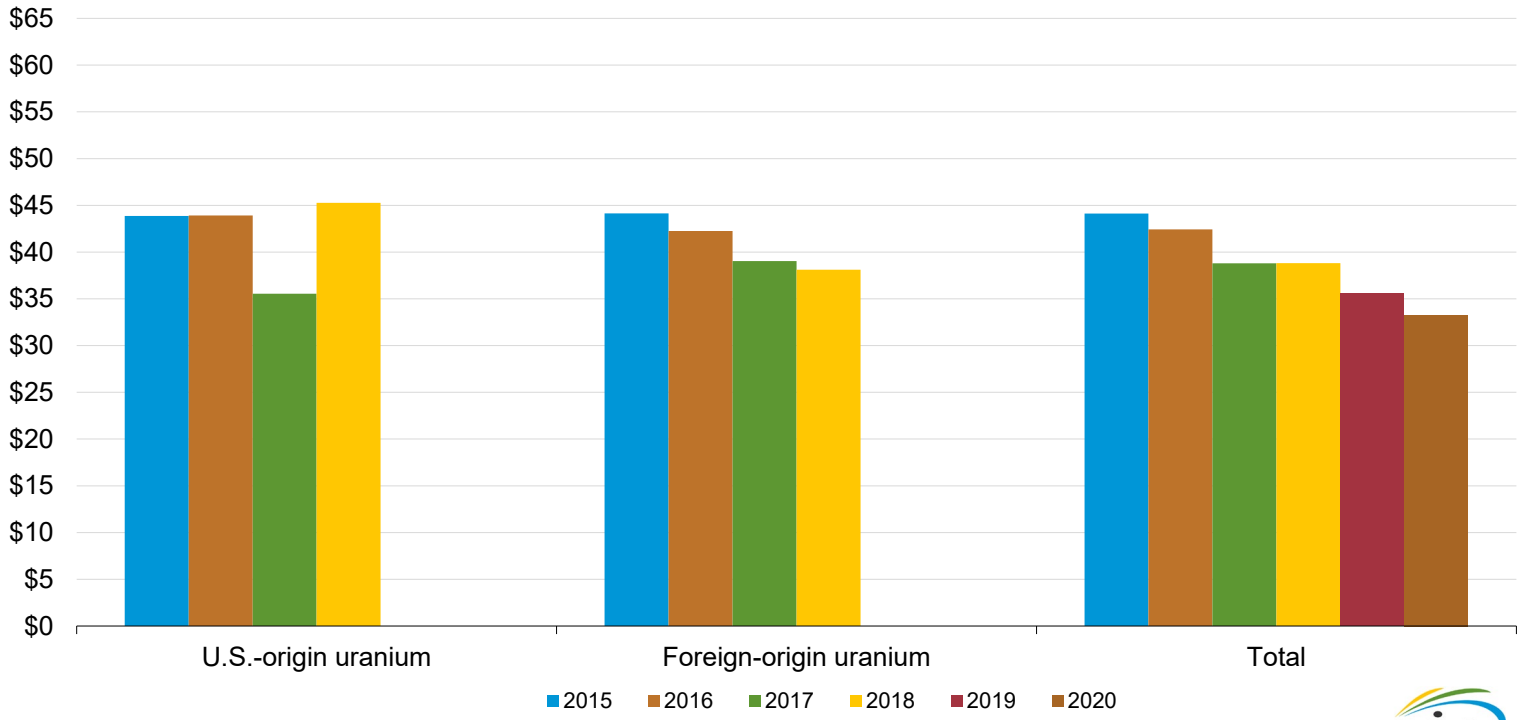
thousand pounds U_3O_8e equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2015–2020)

Figure 4. Weighted-average price of uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2015–2020

dollars per pound U_3O_8e equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2015–2020)

Table 3. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin country and delivery year, 2016–2020

thousand pounds U_3O_8e equivalent; dollars per pound U_3O_8e equivalent

	Deliveries in 2016		Deliveries in 2017		Deliveries in 2018		Deliveries in 2019		Deliveries in 2020	
Origin country	**Purchases**	**Weighted-average price**	**Purchases**	**Weighted-average price**	**Purchases**	**Weighted-average price**	**Purchases**	**Weighted-average price**	**Purchases**	**Weighted-average price**
Australia	8,963	43.05	8,129	42.44	7,167	40.24	8,504	35.39	5,597	39.86
Brazil	W	W	0	--	0	--	0	--	0	--
Bulgaria	W	W	0	--	0	--	0	--	0	--
Canada	11,119	43.22	14,048	40.63	9,556	37.74	10,172	33.06	10,976	35.05
China	W	W	0	--	W	W	0	--	W	W
Czech Republic	W	W	0	--	0	--	0	--	0	--
Germany	W	W	0	--	0	--	W	W	0	--
Hungary	0	--	W	W	0	--	0	--	0	--
Kazakhstan	10,806	39.91	4,638	38.30	8,168	40.98	8,760	35.69	10,828	33.37
Malawi	519	41.38	W	W	0	0.00	0	--	W	W
Namibia	1,993	44.30	1,040	38.46	2,178	40.42	2,450	40.40	2,517	35.28
Niger	1,032	44.12	1,971	49.53	W	W	998	41.21	W	W
Portugal	0	--	0	--	0	--	0	--	0	--
Russia	6,539	43.85	7,068	31.54	5,360	31.71	7,365	27.31	8,064	25.73
South Africa	1,169	43.75	W	W	W	W	0	--	0	--
Ukraine	W	W	W	W	0	--	0	--	0	--
United Kingdom	0	--	0	--	0	--	0	--	W	W
Uzbekistan	2,030	39.18	2,148	37.17	2,540	37.83	4,365	38.99	3,940	35.93
unknown	W	W	W	W	W	W	W	W	W	W
Foreign total	**45,171**	**42.26**	**40,117**	**39.04**	**36,415**	**38.11**	**W**	**W**	**W**	**W**
United States	5,424	43.92	2,916	35.55	3,878	45.26	W	W	W	W
Total purchases	**50,595**	**42.43**	**43,033**	**38.80**	**40,293**	**38.81**	**48,328**	**35.59**	**48,934**	**33.27**

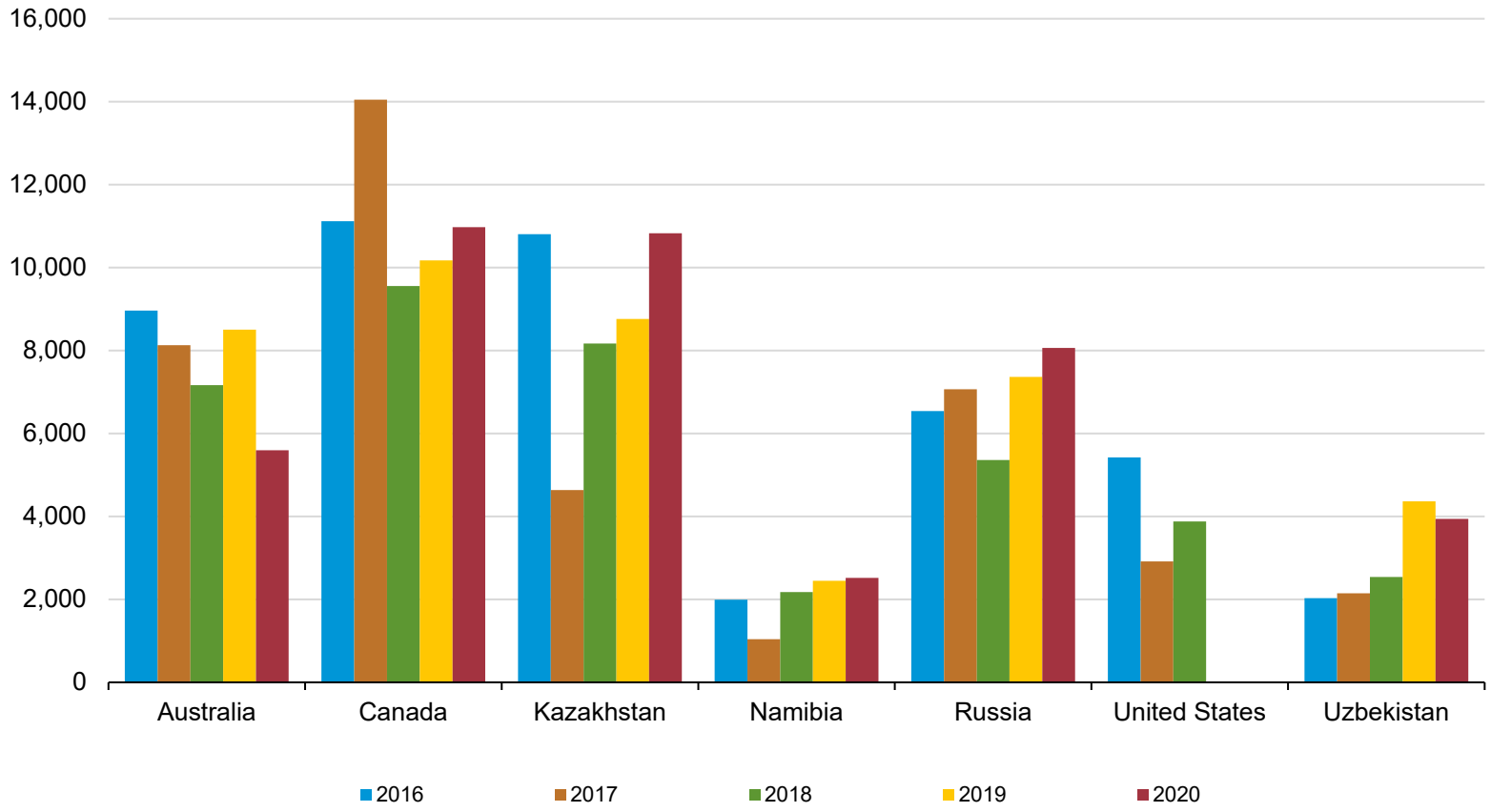
W = Data withheld to avoid disclosure of individual company data. -- = Not applicable.

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Figure 5. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by selected origin country and delivery year, 2016–2020

thousand pounds U_3O_8e equivalent



Source: U.S. Energy Information Administration: Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Table 4. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by origin and material type, 2020 deliveries

thousand pounds U_3O_8e equivalent; dollars per pound U_3O_8e equivalent

Deliveries	Uranium concentrate	Natural UF_6	Enriched UF_6	Natural UF_6 and Enriched UF_6	Total
U.S.-origin uranium					
Purchases	W	W	W	W	W
Weighted-average price	W	W	W	W	W
Foreign-origin uranium					
Purchases	W	W	W	W	W
Weighted-average price	W	W	W	W	W
Total					
Purchases	**22,483**	**10,714**	**15,736**	**26,450**	**48,934**
Weighted-average price	**34.39**	**37.98**	**28.48**	**32.33**	**33.27**

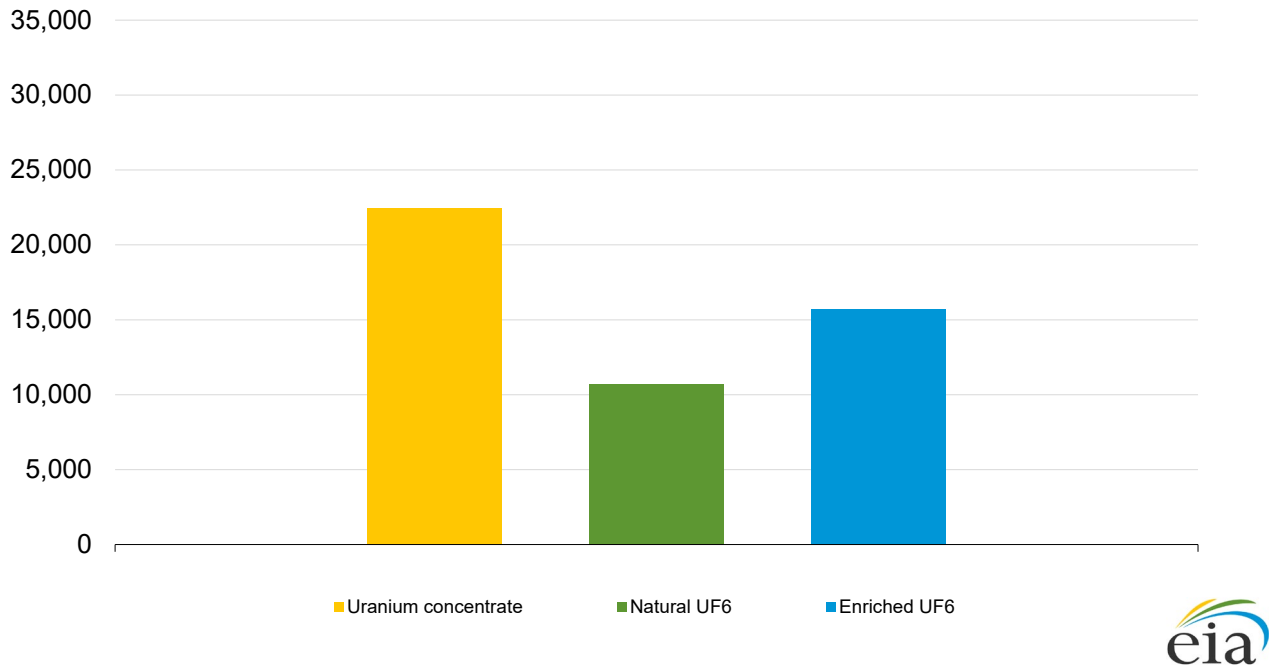
W = Data withheld to avoid disclosure of individual company data.

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation. Natural UF_6 is uranium hexafluoride. The natural UF_6 and enriched UF_6 quantity represents only the U_3O_8 equivalent uranium-component quantity specified in the contract for each delivery of natural UF_6 and enriched UF_6. The natural UF_6 and enriched UF_6 weighted-average prices represent only the U_3O_8 equivalent uranium-component price specified in the contract for each delivery of natural UF_6 and enriched UF_6, it does not include the conversion service and enrichment service components.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

Figure 6. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by material type, 2020 deliveries

thousand pounds U_3O_8e equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

Table 5. Average price and quantity for uranium purchased by owners and operators of U.S. civilian nuclear power reactors by pricing mechanisms and delivery year, 2019–2020

dollars per pound U_3O_8 equivalent; thousand pounds U_3O_8 equivalent

	Domestic purchases [1]		Foreign purchases [2]		Total purchases	
Pricing mechanisms	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**
Contract-specified (fixed and base-escalated) pricing						
Weighted-average price	W	W	W	W	37.33	35.82
Quantity with reported price	W	W	W	W	30,294	30,166
Spot-market pricing						
Weighted-average price	W	W	W	W	25.03	29.43
Quantity with reported price	W	W	W	W	9,788	5,498
Other pricing						
Weighted-average price	W	W	W	W	41.77	29.06
Quantity with reported price	W	W	W	W	8,220	13,207
All pricing mechanisms						
Weighted-average price	**W**	**35.92**	**W**	**35.33**	**35.59**	**33.27**
Quantity with reported price	**W**	**10,474**	**W**	**38,397**	**48,303**	**48,871**
Total quantity	**W**	**10,516**	**W**	**38,418**	**48,328**	**48,934**

[1] A uranium purchase of both U.S.-origin uranium from a firm located in the United States.

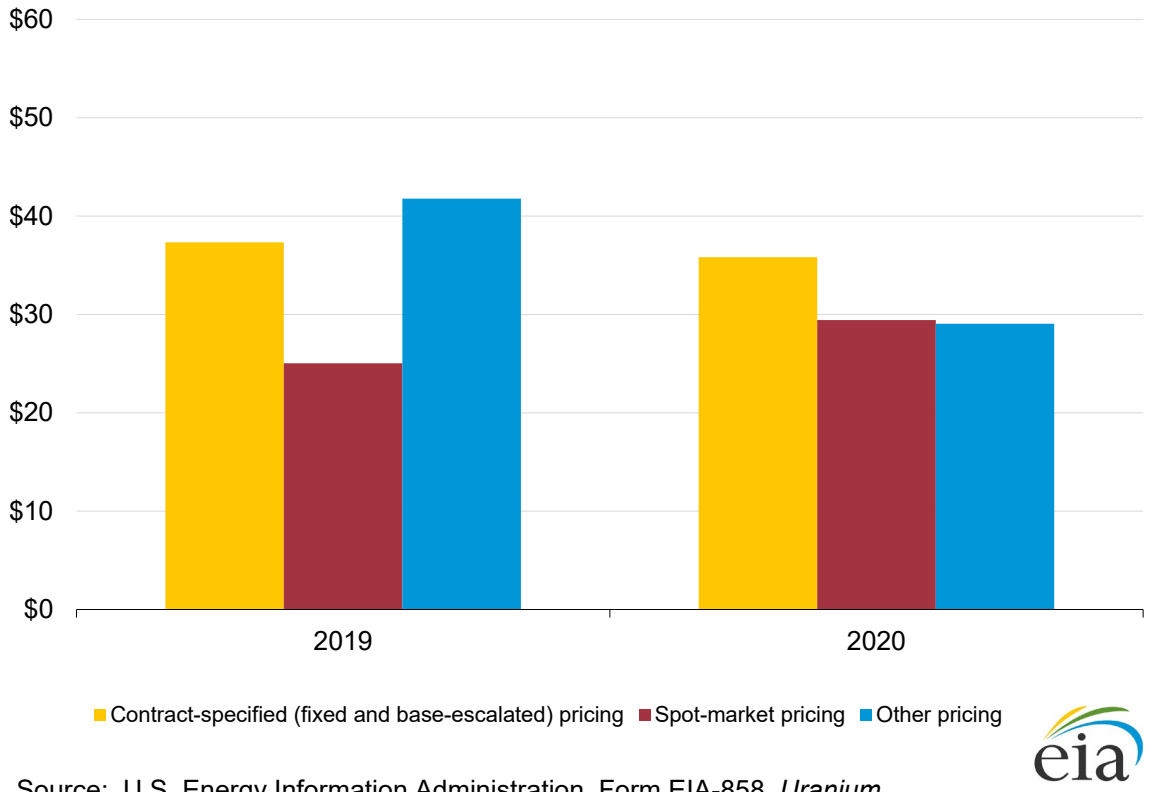
[2] A uranium purchase of foreign-origin uranium from a firm located outside of the United States.

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2019–2020)

Figure 7. Average price for uranium purchased by owners and operators of U.S. civilian nuclear power reactors by pricing mechanisms and delivery year, 2019–2020

dollars per pound U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2019–2020)

Table 6a. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors ranked by price and distributed by quantity, 2018–2020 deliveries

thousand pounds U_3O_8 equivalent; dollars per pound U_3O_8 equivalent

	Deliveries in 2018		Deliveries in 2019		Deliveries in 2020	
Quantity distribution [1]	**Quantity with reported price**	**Weighted-average price**	**Quantity with reported price**	**Weighted-average price**	**Quantity with reported price**	**Weighted-average price**
First	4,985	20.69	6,038	19.84	6,109	15.09
Second	4,985	26.13	6,038	24.69	6,109	23.9
Third	4,985	28.18	6,038	26.47	6,109	25.58
Fourth	4,985	33.78	6,038	28.69	6,109	28.75
Fifth	4,985	40.04	6,038	32.8	6,109	31.45
Sixth	4,985	44.93	6,038	41.2	6,109	35.29
Seventh	4,985	49.24	6,038	47.93	6,109	45.92
Eighth	4,985	67.46	6,038	63.14	6,109	60.22
Total	**39,881**	**38.81**	**48,303**	**35.59**	**48,871**	**33.27**

[1] Distribution divides total quantity of uranium delivered (with a price) into eight distributions by price (sorted from lowest to highest) and provides the quantity-weighted average price for each distribution.

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2018–2020)

Table 6b. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors ranked by price and distributed by purchaser, 2018–2020 deliveries

thousand pounds U_3O_8 equivalent; dollars per pound U_3O_8 equivalent

	Deliveries in 2018			Deliveries in 2019			Deliveries in 2020		
Distribution of purchasers	**Number of purchasers**	**Quantity with reported price**	**Weighted-average price**	**Number of purchasers**	**Quantity with reported price**	**Weighted-average price**	**Number of purchasers**	**Quantity with reported price**	**Weighted-average price**
First	7	5,654	25.84	7	15,010	25.84	7	19,668	26.03
Second	7	15,493	35.01	7	8,825	31.61	7	11,914	31.58
Third	7	10,507	41.81	7	14,352	40.73	7	10,039	38.01
Fourth	7	8,226	51.04	6	10,116	46.24	6	7,250	49.17
Total	**28**	**39,881**	**38.81**	**27**	**48,303**	**35.59**	**27**	**48,871**	**33.27**

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2018–2020)

Table 7. Uranium purchased by owners and operators of U.S. civilian nuclear power reactors by contract type and material type, 2020 deliveries

thousand pounds U_3O_8 equivalent; dollars per pound U_3O_8 equivalent

	Spot contracts [1]		Long-term contracts [2]		Total	
Material type	**Quantity with reported price**	**Weighted-average price**	**Quantity with reported price**	**Weighted-average price**	**Quantity with reported price**	**Weighted-average price**
U_3O_8	7,392	26.84	15,029	38.11	22,421	34.39
Natural UF_6	1,569	28.48	9,145	39.61	10,714	37.98
Enriched UF_6	2,885	33.6	12,852	27.33	15,736	28.48
Total	**11,846**	**28.70**	**37,025**	**34.74**	**48,871**	**33.27**

[1] A one-time delivery (usually) of the entire contract to occur within one year of contract execution (signed date).
[2] One or more deliveries to occur after a year following contract execution (signed date).

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation. UF_6 is uranium hexafluoride. The natural UF_6 and enriched UF_6 quantity represents only the U_3O_8 equivalent uranium-component quantity specified in the contract for each delivery of natural UF_6 and enriched UF_6. The natural UF_6 and enriched UF_6 weighted-average price represent only the U_3O_8 equivalent uranium-component price specified in the contract for each delivery of natural UF_6 and enriched UF_6, it does not include the conversion service and enrichment service components.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

Table 8. Contracts signed in 2020 by owners and operators of U.S. civilian nuclear power reactors by contract type

thousand pounds U_3O_8 equivalent; dollars per pound U_3O_8 equivalent

Purchase contract type (Signed in 2020)	Quantity of deliveries received in 2020	Weighted-average price	Number of purchase contracts for deliveries in 2020
Spot	8,743	28.80	35
Long-term	3,208	15.42	4
Total	**11,950**	**25.21**	**39**

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

Table 9. Contracted purchases of uranium by owners and operators of U.S. civilian nuclear power reactors, signed in 2020, by delivery year, 2021–2030

thousand pounds U_3O_8 equivalent

Year of delivery	Minimum	Maximum
2021	4,315	6,150
2022	3,490	4,438
2023	1,967	2,941
2024	2,679	4,235
2025	2,140	3,540
2026	3,375	5,421
2027	1,788	3,791
2028	W	W
2029	W	W
2030	W	W
Total	**20,856**	**33,607**

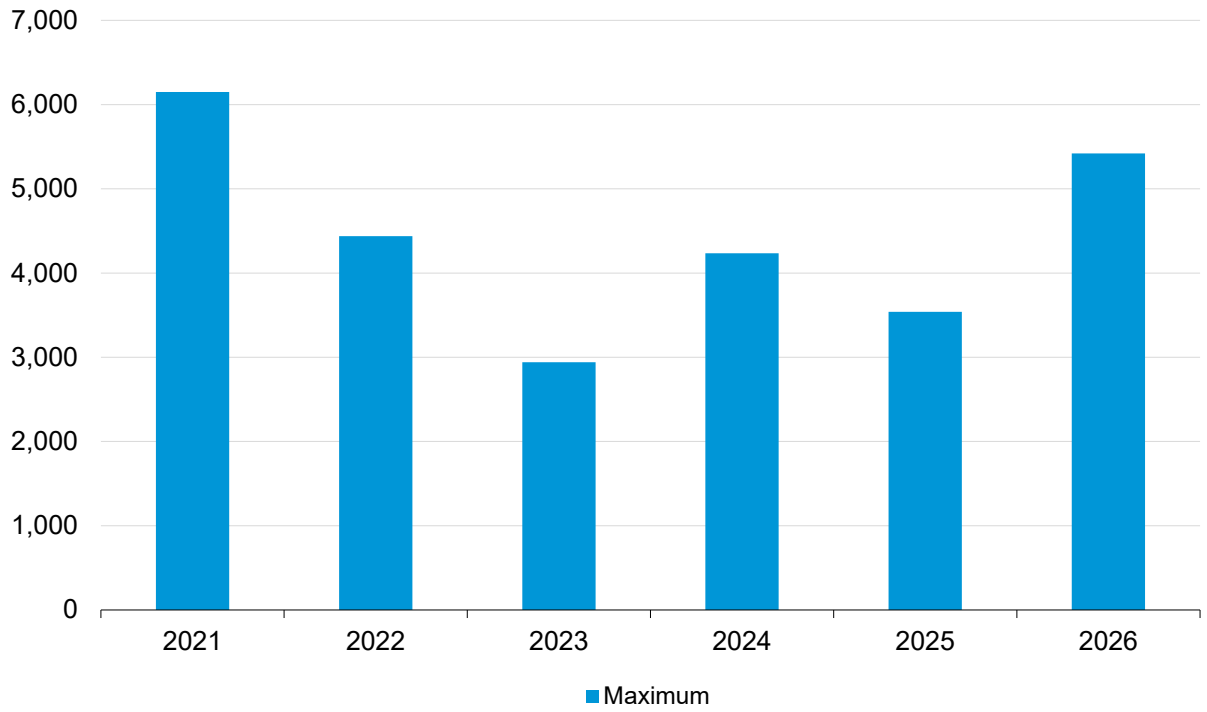
W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

Figure 8. Contracted purchases of uranium by owners and operators of U.S. civilian nuclear power reactors, signed in 2020, by delivery year, 2021–2026

thousand pounds U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

Table 10. Contracted purchases of uranium from suppliers by owners and operators of U.S. civilian nuclear power reactors, in effect at the end of 2020, by delivery year, 2021–2030

thousand pounds U_3O_8 equivalent

	Contracted purchases from U.S. suppliers		Contracted purchases from foreign suppliers		Contracted purchases from all suppliers	
Year of delivery	**Minimum**	**Maximum**	**Minimum**	**Maximum**	**Minimum**	**Maximum**
2021	3,874	4,956	32,968	37,947	36,843	42,904
2022	2,553	3,018	23,349	27,301	25,902	30,319
2023	2,415	3,022	20,981	26,462	23,397	29,484
2024	1,797	2,292	17,388	22,671	19,185	24,964
2025	2,100	2,582	13,163	18,165	15,263	20,747
2026	W	W	W	W	9,591	14,548
2027	W	W	W	W	8,461	12,608
2028	W	W	W	W	5,730	8,325
2029	W	W	W	W	4,418	5,434
2030	W	W	W	W	3,803	4,358
Total	**14,146**	**17,425**	**138,446**	**176,264**	**152,592**	**193,689**

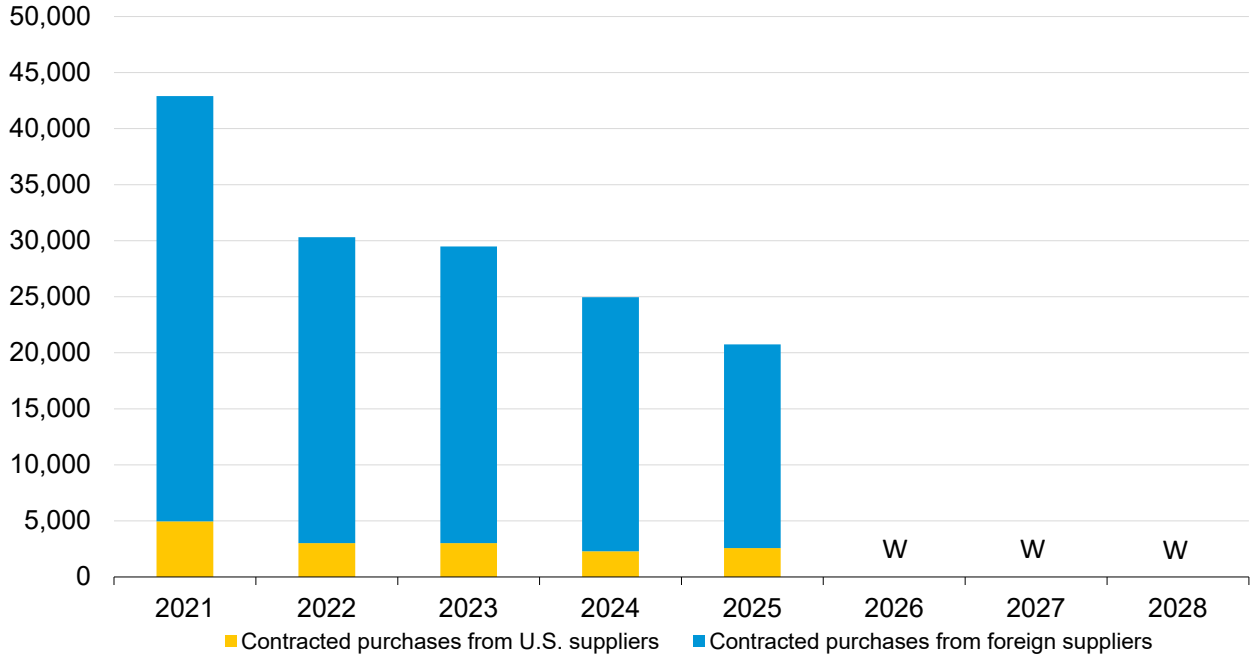
W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

Figure 9. Maximum contracted purchases of uranium from suppliers by owners and operators of U.S. civilian nuclear power reactors, in effect at the end of 2020, by delivery year, 2021–2028

thousand pounds U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)
W = Withheld

Table 11. Unfilled uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, 2020–2030

thousand pounds U_3O_8 equivalent

	As of December 31, 2019		As of December 31, 2020	
Year	Annual	Cumulative	Annual	Cumulative
2020	2,562	2,562	-	--
2021	3,238	5,800	1,013	1,013
2022	9,446	15,246	5,748	6,761
2023	13,123	28,369	11,228	17,989
2024	22,526	50,895	15,995	33,984
2025	25,193	76,087	16,856	50,840
2026	28,887	104,974	19,912	70,752
2027	32,136	137,110	19,323	90,075
2028	35,938	173,049	31,399	121,473
2029	33,528	206,577	32,871	154,345
2030	-	--	33,163	187,507

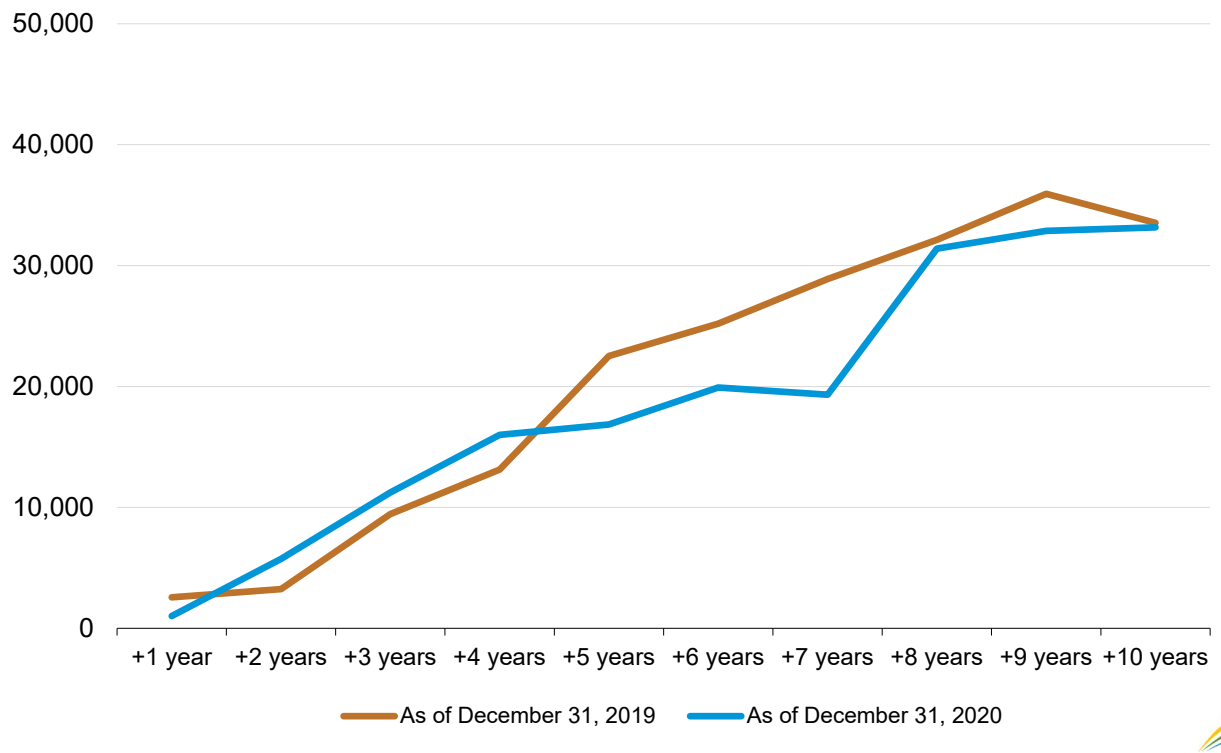
- = No data reported. -- = Not applicable.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2019–2020)

Figure 10. Annual unfilled uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, at the end of 2019 and at the end of 2020

thousand pounds U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2019–2020)

Table 12. Maximum anticipated uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, 2021–2030, at end of 2020

thousand pounds U_3O_8 equivalent

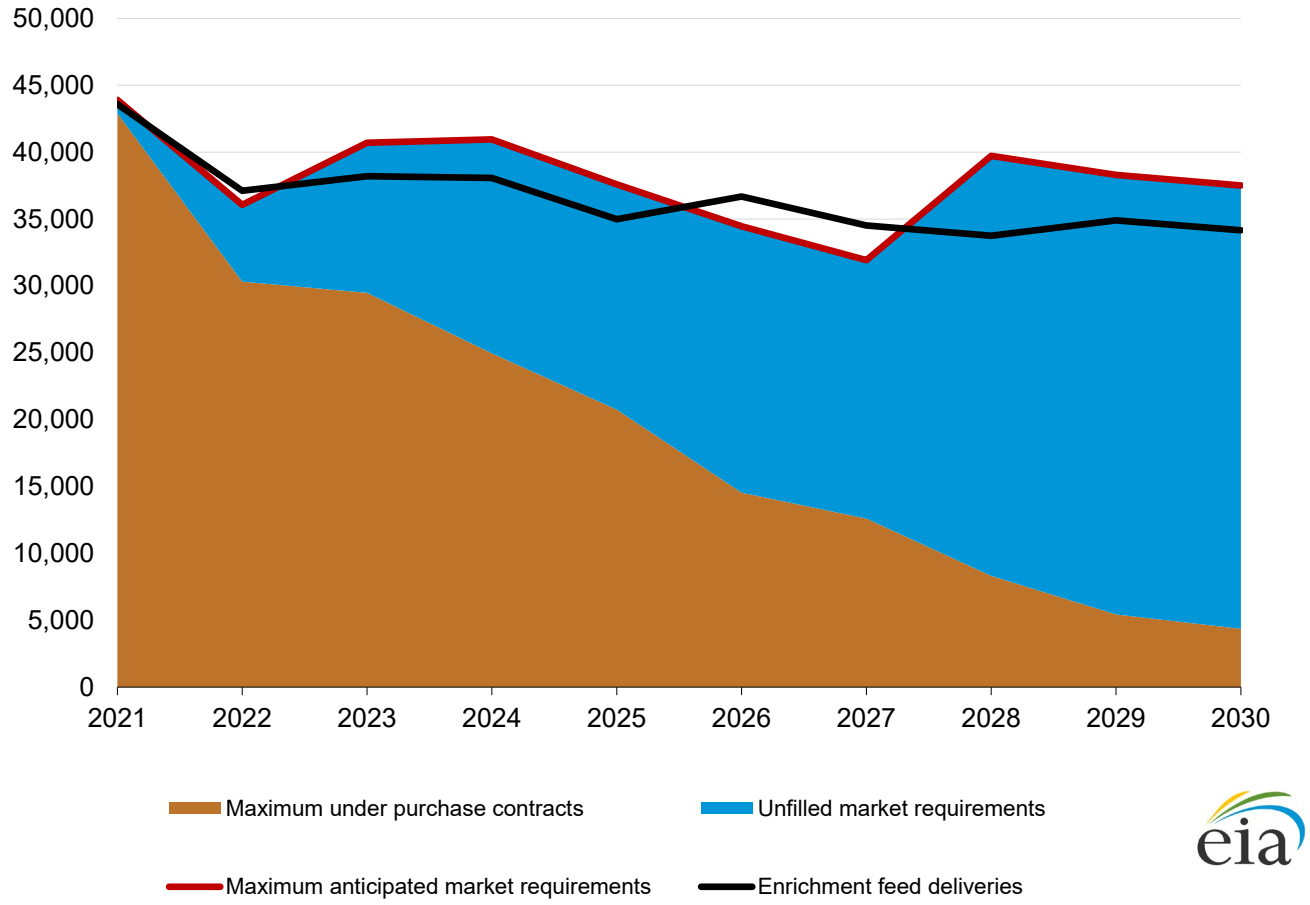
Year	Maximum under purchase contracts	Unfilled market requirements	Maximum anticipated market requirements	Enrichment feed deliveries
2021	42,904	1,013	43,916	43,594
2022	30,319	5,748	36,067	37,126
2023	29,484	11,228	40,712	38,207
2024	24,964	15,995	40,959	38,082
2025	20,747	16,856	37,603	34,989
2026	14,548	19,912	34,460	36,693
2027	12,608	19,323	31,931	34,527
2028	8,325	31,399	39,723	33,755
2029	5,434	32,871	38,305	34,908
2030	4,358	33,163	37,520	34,164
Total	**193,689**	**187,507**	**381,196**	**366,045**

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

Figure 11. Maximum anticipated uranium market requirements of owners and operators of U.S. civilian nuclear power reactors, 2021–2030, at end of 2020

thousand pounds U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

Table 13. Deliveries of uranium feed by owners and operators of U.S. civilian nuclear power reactors by enrichment country and delivery year, 2018–2020

thousand pounds U_3O_8 equivalent

	Feed deliveries in 2018			Feed deliveries in 2019			Feed deliveries in 2020		
Enrichment country	**U.S.-origin**	**Foreign-origin**	**Total**	**U.S.-origin**	**Foreign-origin**	**Total**	**U.S.-origin**	**Foreign-origin**	**Total**
China	W	W	W	W	W	W	W	W	W
France	W	W	W	W	W	W	W	W	W
Germany	W	W	2,206	W	W	W	W	W	W
Netherlands	W	W	3,445	W	W	2,613	0	2,979	2,979
Russia	W	W	2,211	W	W	1,597	W	W	3,291
United Kingdom	W	W	W	W	W	3,818	0	3,601	3,601
Europe [1]	514	7,950	8,463	W	W	7,727	0	3,381	3,381
Foreign total	**876**	**16,422**	**17,298**	**W**	**W**	**18,732**	**232**	**17,758**	**17,990**
United States	3,861	12,285	16,146	W	W	19,536	1,939	14,444	16,382
Total	**4,737**	**28,707**	**33,444**	**4,427**	**33,841**	**38,267**	**2,170**	**32,202**	**34,372**

W = Data withheld to avoid disclosure of individual company data.

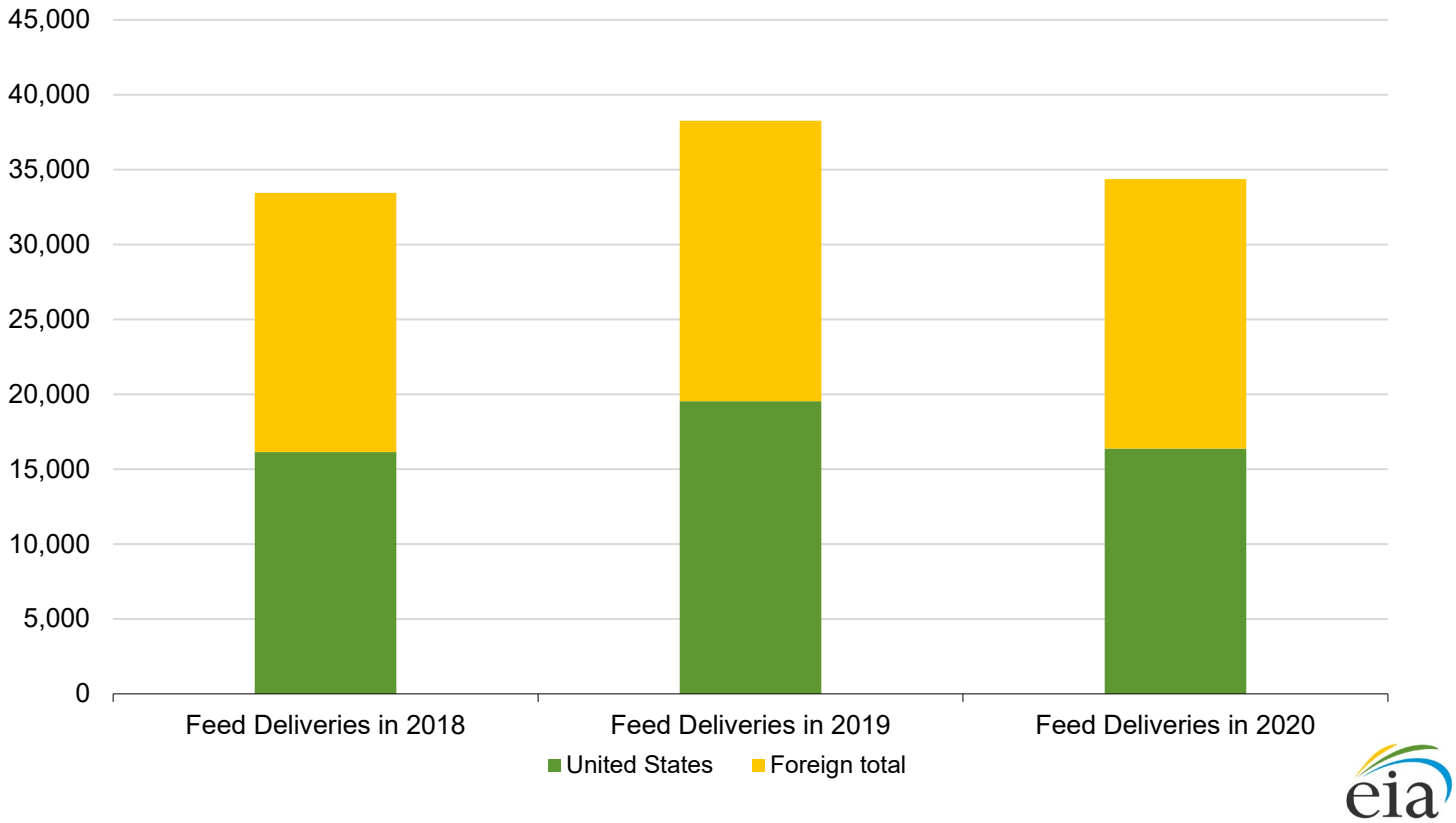
[1] Specific country in Europe was not reported.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2018–2020)

Figure 12. Deliveries of uranium feed for U.S. and foreign enrichment by owners and operators of U.S. civilian nuclear power reactors by delivery year, 2018–2020

thousand pounds U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2018–2020)

Table 14. Deliveries of uranium feed for enrichment by owners and operators of U.S. civilian nuclear power reactors by origin country and delivery year, 2018–2020

thousand pounds U_3O_8 equivalent

	Deliveries in 2018			Deliveries in 2019			Deliveries in 2020		
Origin country of feed	**U.S. enrichment**	**Foreign enrichment**	**Total**	**U.S. enrichment**	**Foreign enrichment**	**Total**	**U.S. enrichment**	**Foreign enrichment**	**Total**
Australia	2,509	3,645	6,153	2,746	5,029	7,775	1,194	3,077	4,271
Brazil	W	W	W	0	0	0	W	W	W
Canada	4,460	4,691	9,151	6,424	6,640	13,064	6,927	4,495	11,422
China	0	0	0	0	0	0	W	W	W
Czech Republic	0	0	0	0	0	0	0	0	0
Kazakhstan	3,556	5,093	8,649	4,222	4,533	8,756	4,421	5,249	9,670
Malawi	W	W	W	W	W	W	0	0	0
Namibia	W	W	1,503	550	495	1,045	W	W	W
Niger	W	W	W	W	W	813	W	W	1,029
Portugal	0	0	0	0	0	0	0	0	0
Russia	W	W	779	W	W	W	W	W	1,303
South Africa	W	W	W	W	W	W	0	0	0
Ukraine	W	W	W	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0	0
Uzbekistan	572	612	1,184	1,028	544	1,572	W	W	W
unknown/other	W	W	W	W	W	W	W	W	W
Foreign total	**12,285**	**16,422**	**28,707**	**W**	**W**	**W**	**14,444**	**17,758**	**32,202**
United States	3,861	876	4,737	W	W	W	1,939	232	2,170
Total	**17,298**	**17,298**	**33,444**	**19,536**	**18,732**	**38,267**	**16,382**	**17,990**	**34,372**

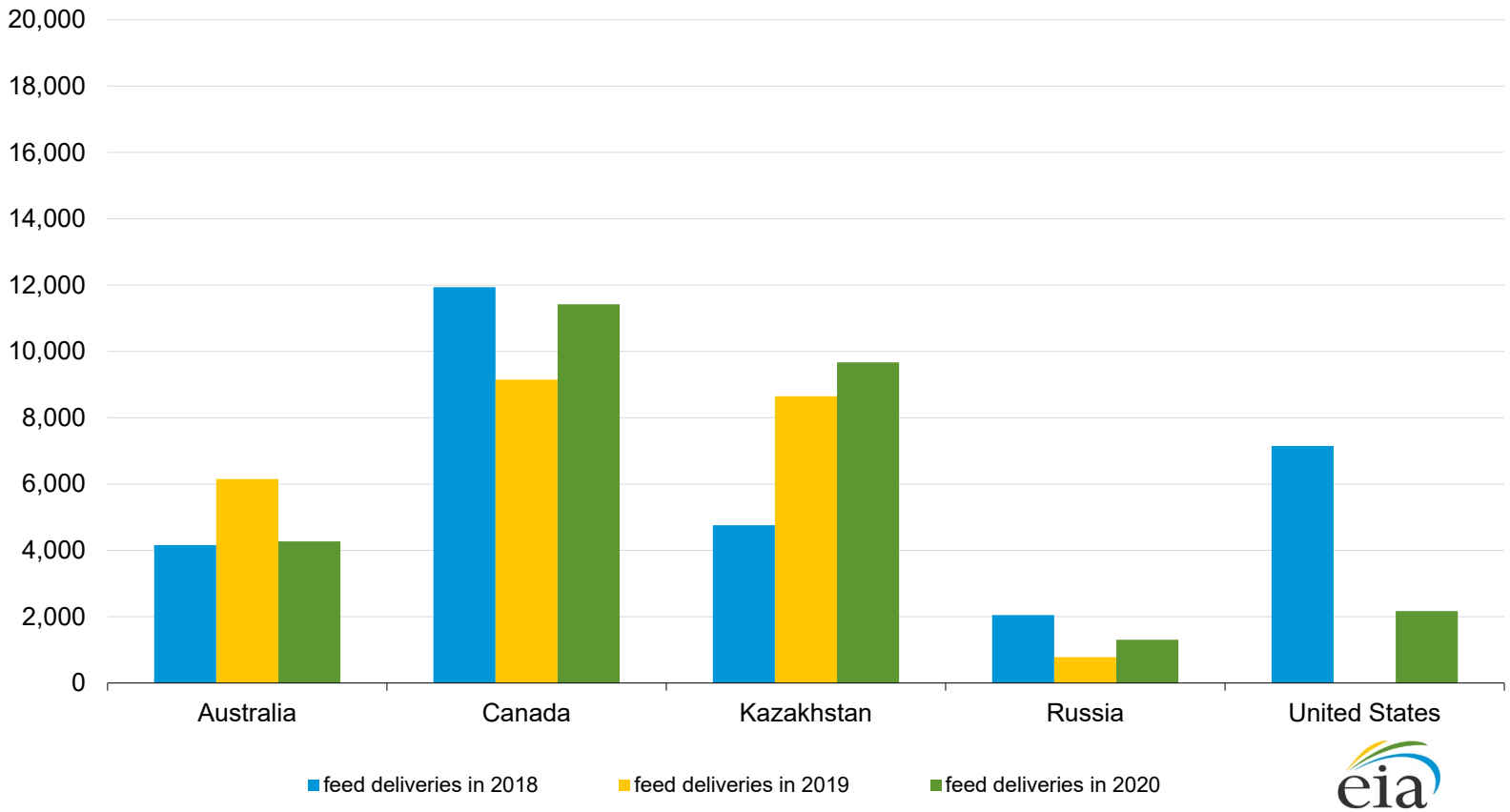
W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2018–20)

Figure 13. Deliveries of uranium feed for enrichment by owners and operators of U.S. civilian nuclear power reactors by selected origin country of feed and delivery year, 2018–2020

thousand pounds U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2018–20)

Table 15. Shipments of uranium feed by owners and operators of U.S. civilian nuclear power reactors to domestic and foreign enrichment suppliers, 2021–2030

thousand pounds U_3O_8 equivalent

	Amount of feed to be shipped		Change from 2019 to 2020	
Year of shipment	As of December 31, 2019	As of December 31, 2020	Annual	Cumulative
2021	43,287	43,594	307	307
2022	39,122	37,126	-1,996	-1,689
2023	39,531	38,207	-1,324	-3,013
2024	40,134	38,082	-2,052	-5,065
2025	36,873	34,989	-1,884	-6,949
2026	37,673	36,693	-980	-7,929
2027	38,408	34,527	-3,881	-11,810
2028	34,773	33,755	-1,018	-12,828
2029	34,254	34,908	654	-12,174
2030	-	34,164	--	--

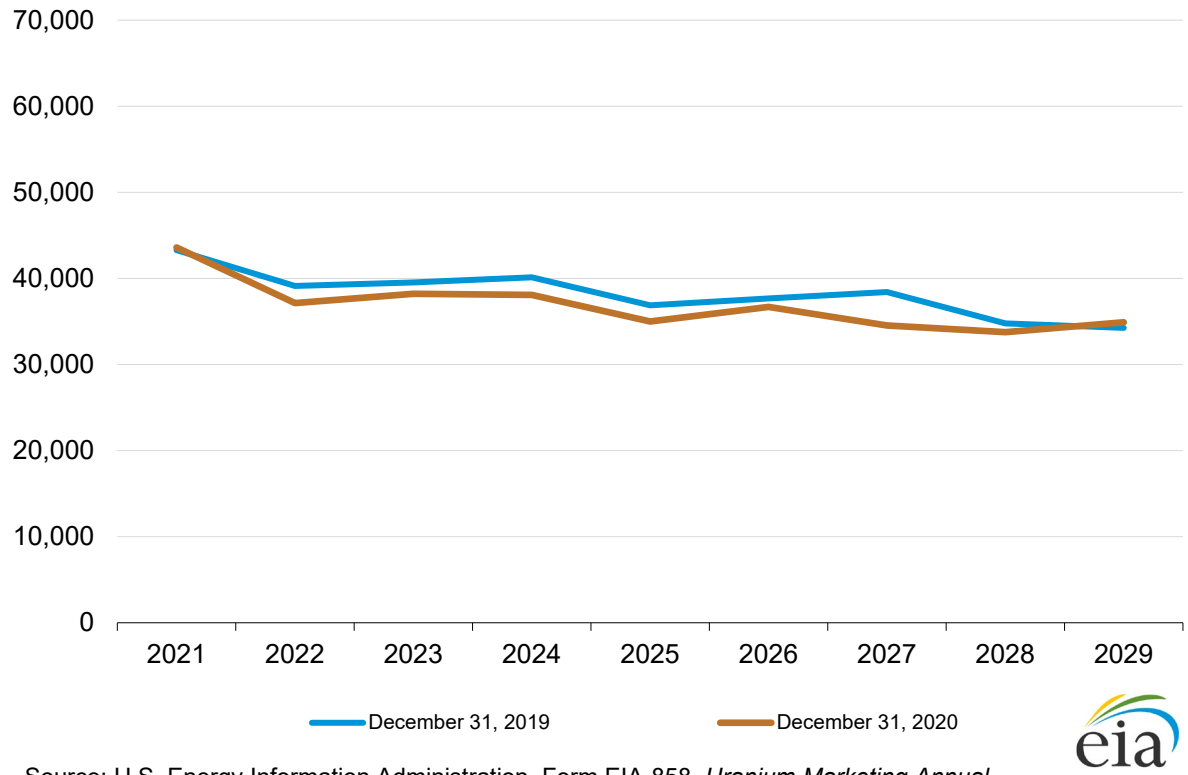
- = No data reported. -- = Not applicable.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2019–20)

Figure 14. Shipments of uranium feed by owners and operators of U.S. civilian nuclear power reactors to domestic and foreign enrichment suppliers, 2021–2029

thousand pounds U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2019–20)

Table 16. Purchases of enrichment services by owners and operators of U.S. civilian nuclear power reactors by origin country and year, 2016–2020

thousand separative work units (SWU)

Country of enrichment service (SWU-origin)	2016	2017	2018	2019	2020
China	W	W	W	W	W
France	0	W	0	W	W
Germany	1,636	437	1,444	1,238	1,175
Netherlands	2,546	1,183	2,864	1,367	1,885
Russia	3,188	2,912	3,473	3,087	3,220
United Kingdom	1,003	1,525	1,544	1,262	1,218
Europe [1]	W	W	W	W	W
Other [2]	W	W	W	W	W
Foreign total	**9,524**	**7,305**	**10,034**	**7,992**	**10,012**
United States	4,756	5,572	4,979	5,289	4,132
Total	**14,280**	**12,877**	**15,013**	**13,281**	**14,144**
Average price (US$ per SWU)	**131.00**	**125.43**	**115.42**	**109.54**	**99.51**

W = Data withheld to avoid disclosure of individual company data.

[1] Specific country in Europe was not reported.

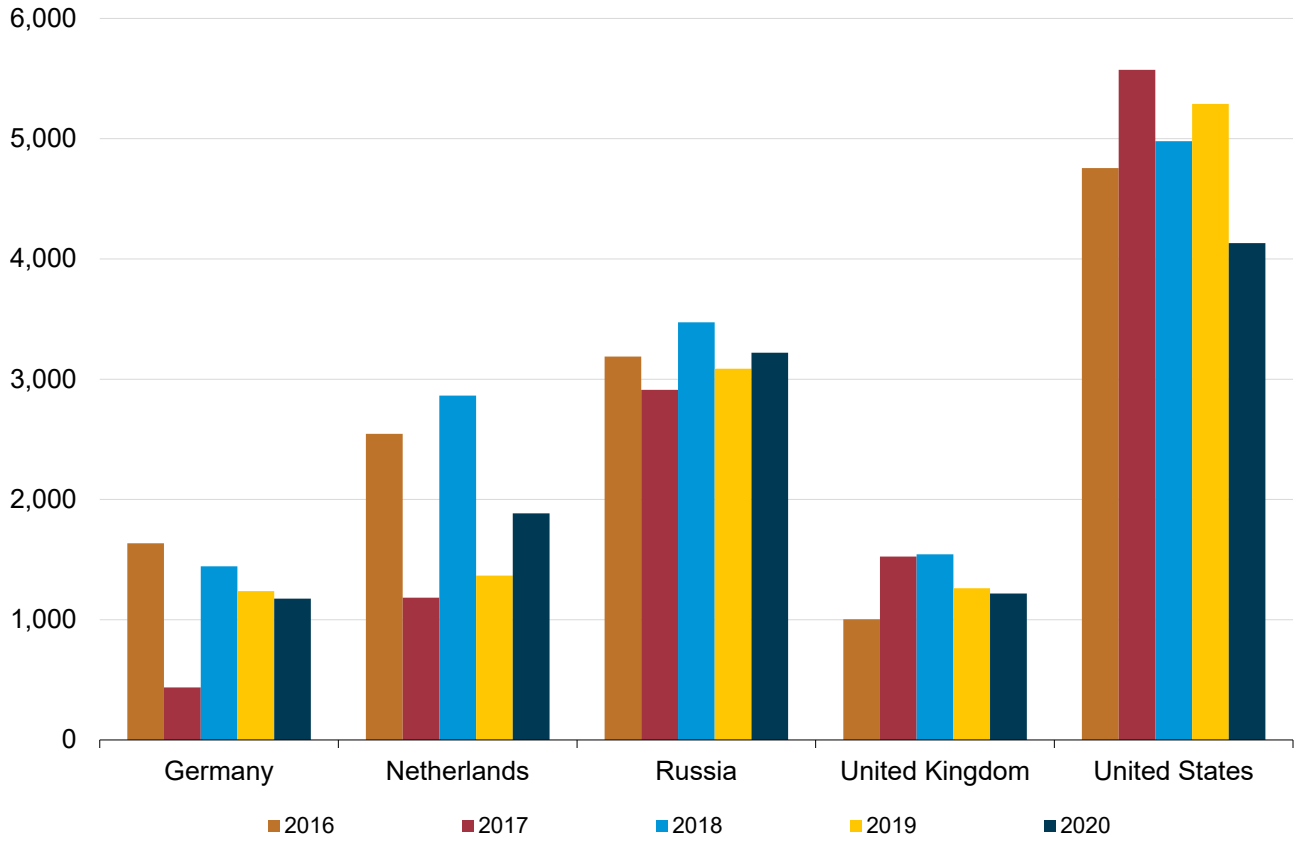
[2] Specific country was not reported.

Notes: Totals may not equal sum of components because of independent rounding. Average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–20)

Figure 15. Purchases of enrichment services by owners and operators of U.S. civilian nuclear power reactors by selected origin country and year, 2016–2020

thousand separative work units (SWU)



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–20)

Table 17. Purchases of enrichment services by owners and operators of U.S. civilian nuclear power reactors by contract type in delivery year, 2020

thousand separative work units (SWU)

Enrichment service contract type	U.S. enrichment	Foreign enrichment	Total
Spot	W	W	1,459
Long-term	W	W	12,685
Total	**4,132**	**10,012**	**14,144**

W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2020)

Table 18. Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors by year, 2016–2020

thousand pounds U_3O_8 equivalent

Origin of uranium	2016	2017	2018	2019	P2020
Domestic-origin uranium	3,204	5,734	4,957	4,051	8,678
Foreign-origin uranium	38,455	39,807	45,399	39,194	39,953
Total	**41,659**	**45,541**	**50,355**	**43,245**	**48,631**

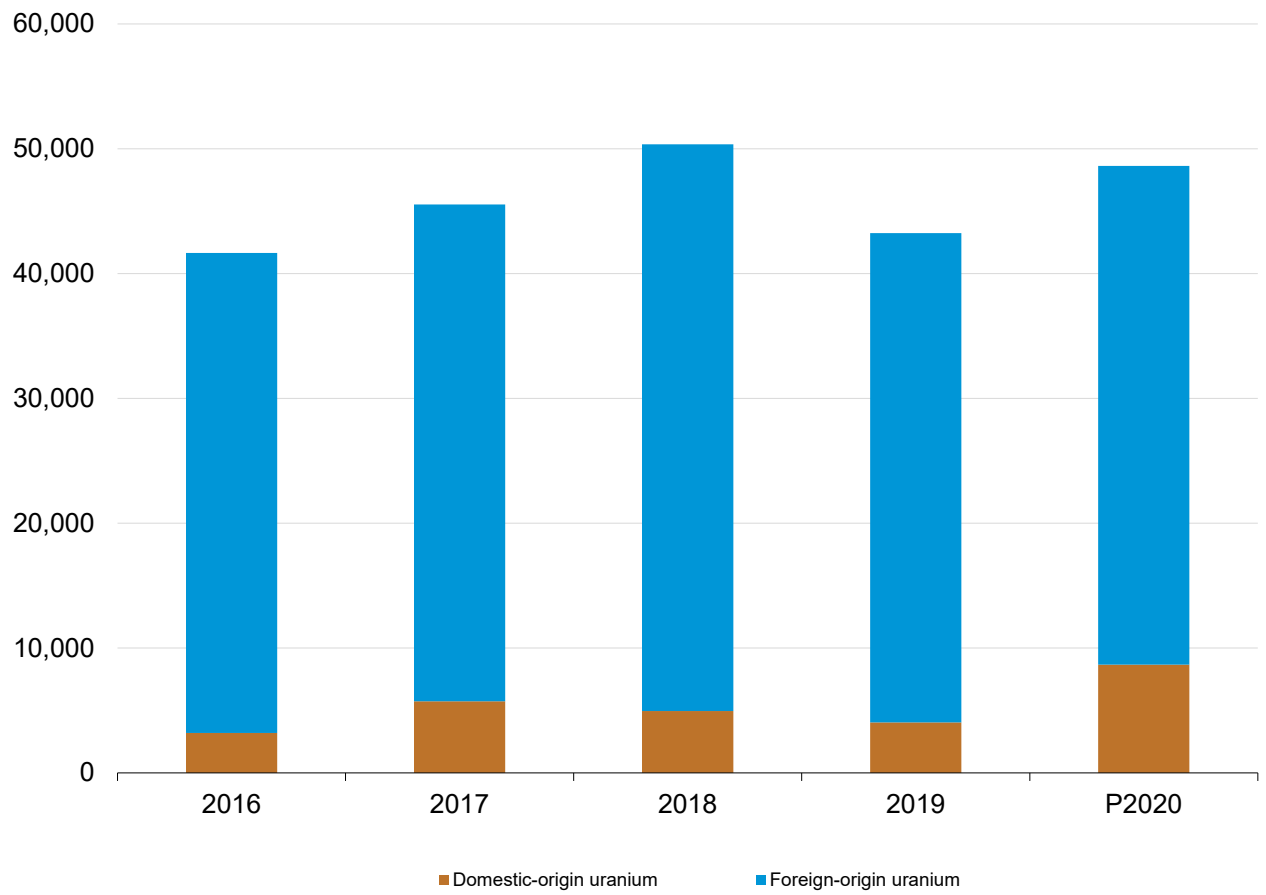
P = Preliminary data. Final 2019 fuel assembly data reported in the 2020 survey.

Notes: Includes only unirradiated uranium in new fuel assemblies loaded into reactors during the year. Does not include uranium removed from reactors that subsequently will be reloaded. Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Figure 16. Uranium in fuel assemblies loaded into U.S. civilian nuclear power reactors by year, 2016–2020

thousand pounds U_3O_8 equivalent



P = Preliminary data. Final 2019 fuel assembly data reported in the 2020 survey.
Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Table 19. Foreign purchases of uranium by U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors by delivery year, 2016–2020

thousand pounds U_3O_8 equivalent; dollars per pound U_3O_8 equivalent

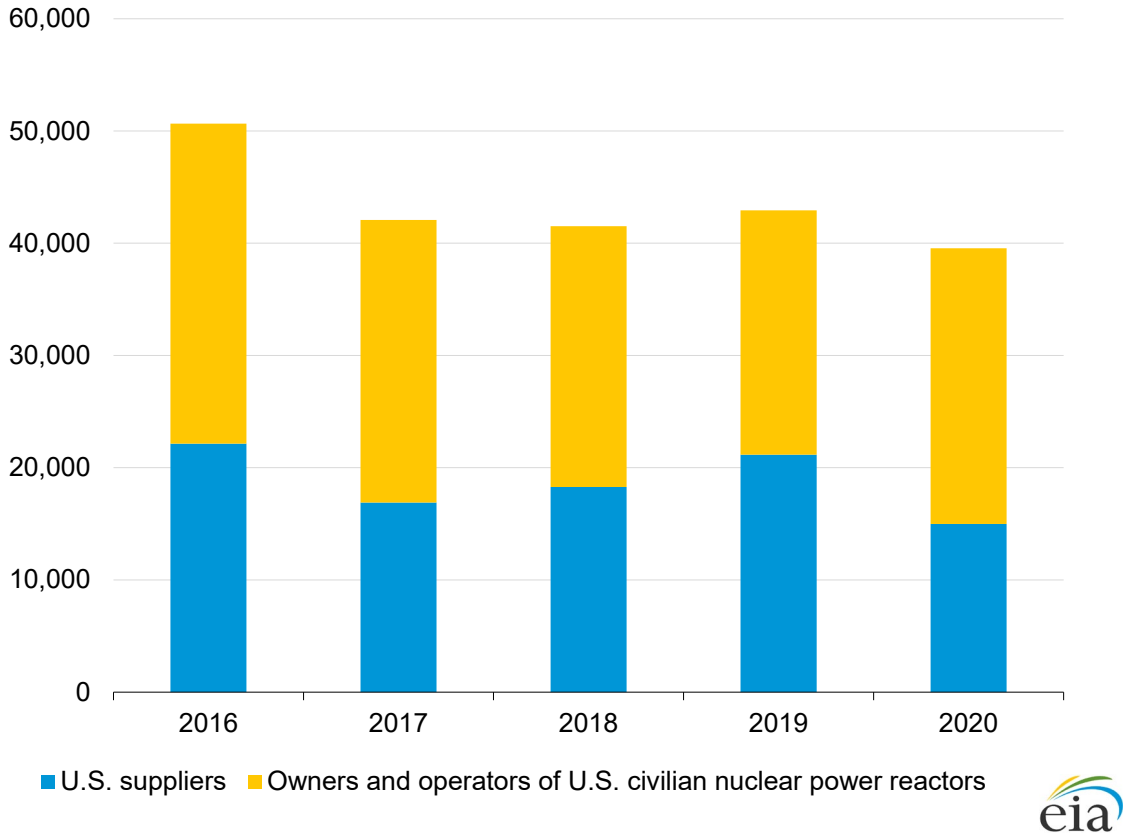
Deliveries	2016	2017	2018	2019	2020
U.S. suppliers					
Foreign purchases	22,138	16,891	18,278	21,160	14,983
Weighted-average price	36.03	31.11	30.93	33.17	31.27
Owners and operators of U.S. civilian nuclear power reactors					
Foreign purchases	28,512	25,187	23,246	21,763	24,572
Weighted-average price	44.08	41.12	39.32	36.28	35.33
Total					
Foreign purchases	50,650	42,078	41,524	42,923	39,555
Weighted-average price	40.45	37.09	35.73	34.77	33.79

Notes: Totals may not equal sum of components because of independent rounding. Foreign Purchase: A uranium purchase of foreign-origin uranium from a firm located outside of the United States. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Figure 17. Foreign purchases of uranium by U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors by delivery year, 2016–2020

thousand pounds U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Table 20. U.S. broker and trader purchases of uranium by origin, supplier, and delivery year, 2016–2020

thousand pounds U_3O_8 equivalent; dollars per pound U_3O_8 equivalent

Deliveries	2016	2017	2018	2019	2020
Received U.S.-origin uranium					
Purchases	3,266	3,501	1,765	W	W
Weighted-average price	26.31	19.88	28.20	W	W
Received foreign-origin uranium					
Purchases	34,046	35,156	34,400	W	W
Weighted-average price	32.71	24.83	30.61	W	W
Total received by U.S. brokers and traders					
Purchases	37,312	38,657	36,165	38,394	34,411
Weighted-average price	32.11	24.38	30.49	33.09	30.14
Received from foreign suppliers					
Purchases	22,088	14,060	18,870	20,757	14,436
Weighted-average price	36.09	29.93	30.84	33.43	31.51

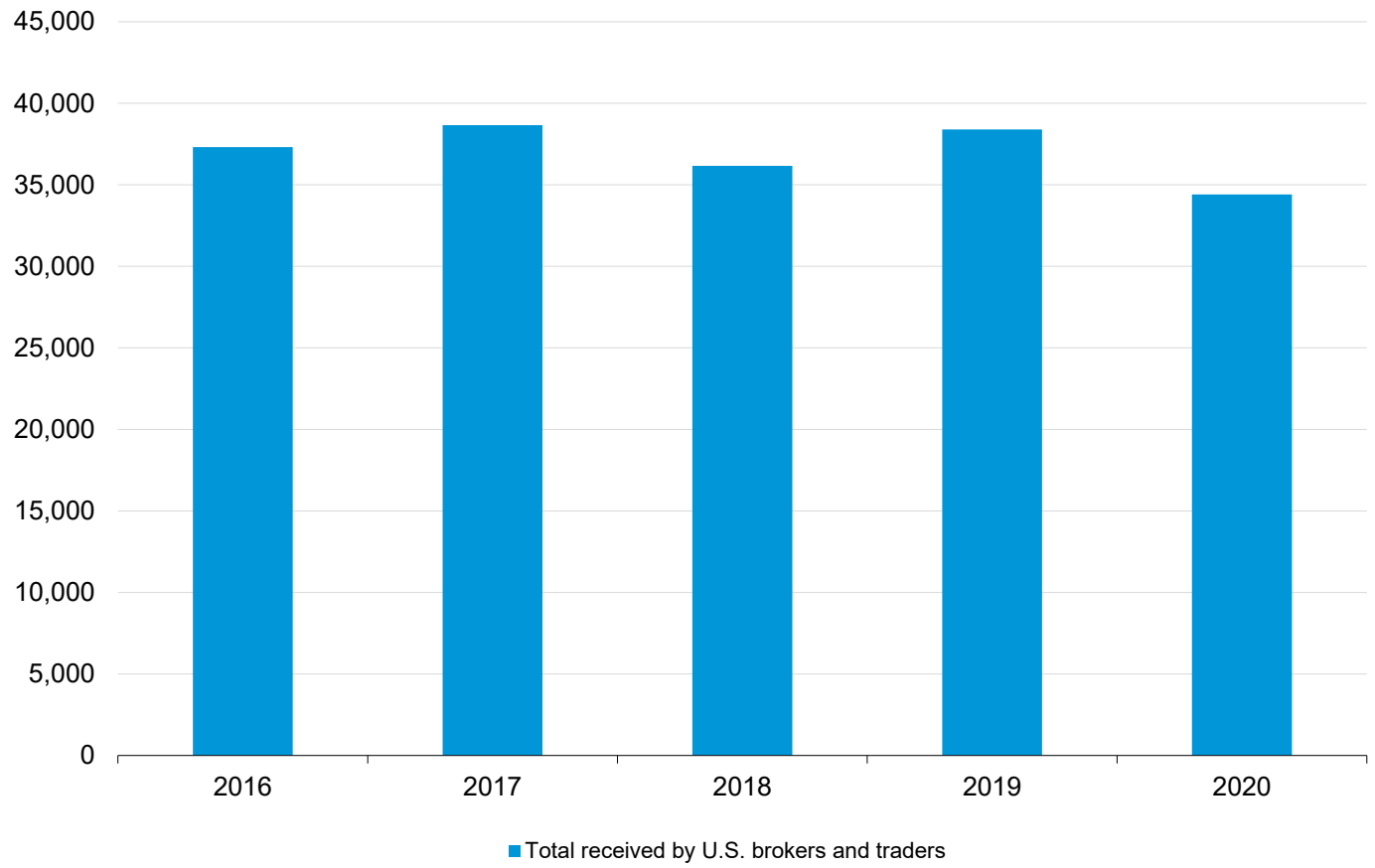
W = Data withheld to avoid disclosure of individual company data.

Notes: Totals may not equal sum of components because of independent rounding. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Figure 18. U.S. broker and trader purchases of uranium by delivery year, 2016–2020

thousand pounds U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Table 21. Foreign sales of uranium from U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2016–2020

thousand pounds U_3O_8 equivalent; dollars per pound U_3O_8 equivalent

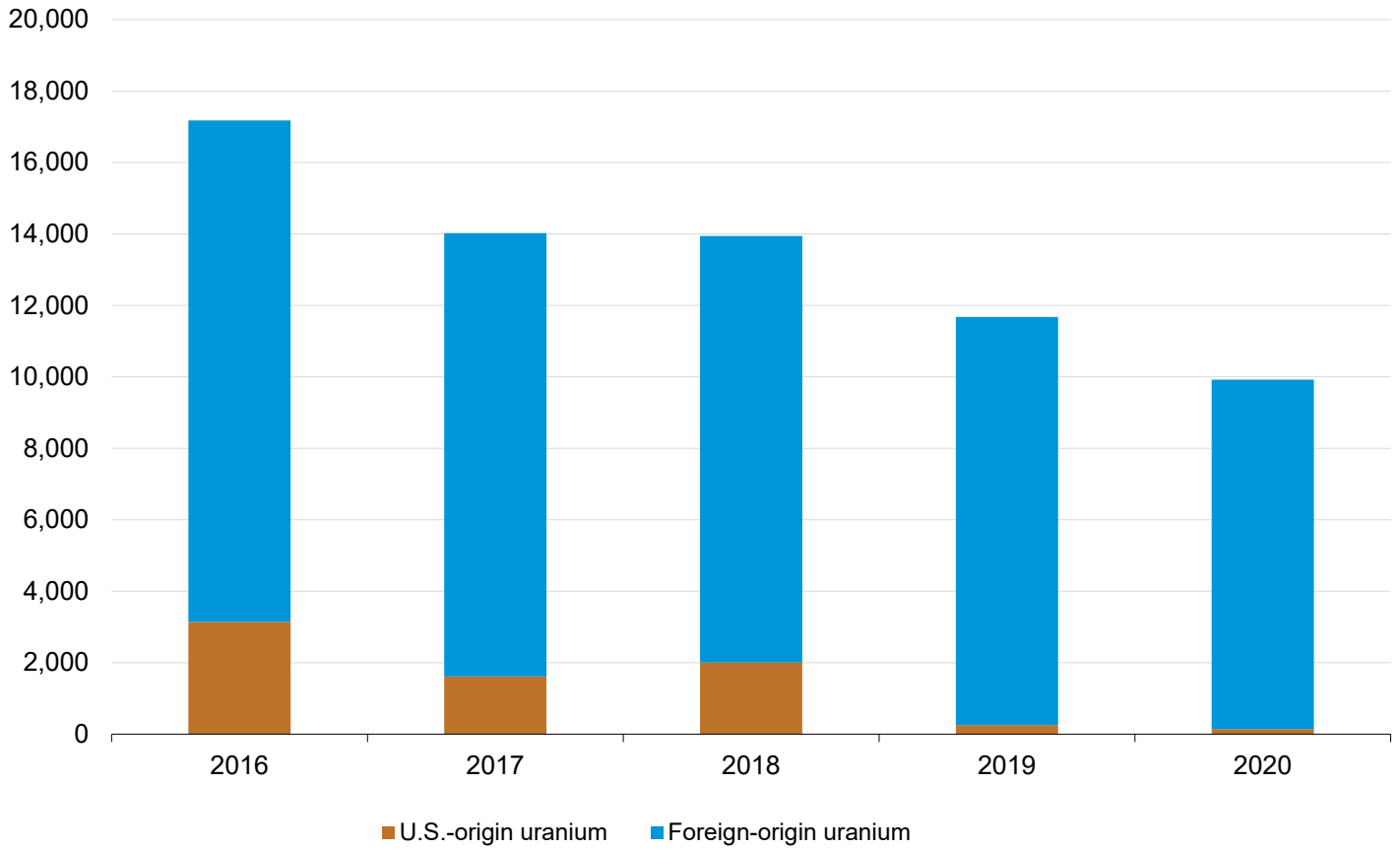
Deliveries to foreign suppliers and utilities	2016	2017	2018	2019	2020
U.S.-origin uranium					
Foreign sales	3,142	1,617	2,004	255	141
Weighted-average price	25.99	27.61	27.66	25.49	29.09
Foreign-origin uranium					
Foreign sales	14,034	12,408	11,942	11,424	9,781
Weighted-average price	35.38	24.88	25.75	27.20	29.58
Total sent:					
Foreign sales	17,176	14,025	13,947	11,679	9,922
Weighted-average price	33.66	25.19	26.02	27.16	29.57
From owners and operators of U.S. civilian nuclear power reactors, U.S. producers, and other U.S. suppliers					
Foreign sales	3,153	3,505	2,589	3,466	990
Weighted-average price	30.26	29.55	28.97	25.76	37.53
From U.S. brokers and traders					
Foreign sales	14,023	10,520	11,358	8,213	8,932
Weighted-average price	34.43	23.74	25.35	27.75	28.69

Notes: *Other U.S. Suppliers* are U.S. converters, enrichers, and fabricators. Totals may not equal sum of components because of independent rounding. Foreign sale: A uranium sale to a firm located outside the United States. Weighted-average prices are not adjusted for inflation.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Figure 19. Foreign sales of uranium from U.S. suppliers and owners and operators of U.S. civilian nuclear power reactors by origin and delivery year, 2016–2020

thousand pounds U_3O_8 equivalent



Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Table 22. Inventories of natural and enriched uranium by material type as of end of year, 2016–2020

thousand pounds U_3O_8 equivalent

	Inventories at the end of the year				
Type of uranium inventory owned by	**2016**	**2017**	**2018**	**2019**	**P2020**
Owners and operators of U.S. civilian nuclear power reactors inventories	**127,964**	**123,850**	**111,174**	**113,146**	**107,157**
Uranium concentrate (U_3O_8)	20,790	20,612	19,270	24,350	21,896
Natural UF_6	53,602	50,615	43,312	40,375	37,806
Enriched UF_6	43,743	43,451	40,107	36,608	40,451
Fabricated fuel (not inserted into a reactor)	9,829	9,173	8,485	11,813	7,004
U.S. supplier inventories	**16,667**	**17,818**	**19,345**	**17,517**	**15,992**
Uranium concentrate (U_3O_8)	7,185	7,174	7,754	7,435	10,776
Natural UF_6	W	4,364	W	W	W
Enriched UF_6	W	6,280	W	W	W
Fabricated fuel (not inserted into a reactor)	0	0	0	0	0
Total Commercial Inventories	**144,631**	**141,668**	**130,519**	**130,662**	**123,149**

P = Preliminary data. Final 2019 inventory data reported in the 2020 survey.

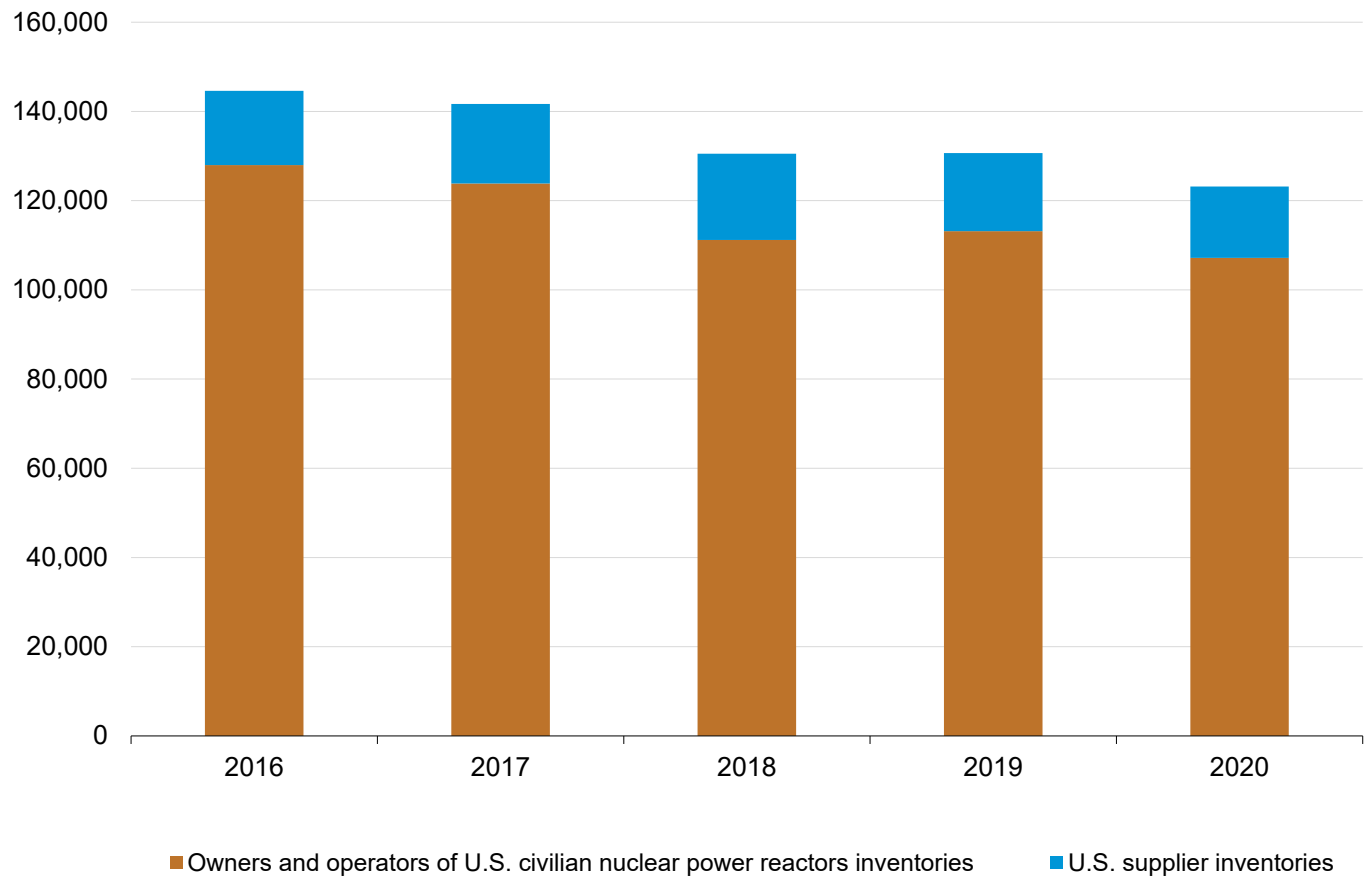
W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2016–2020)

Figure 20. Commercial inventories of natural and enriched uranium as of end of year, 2016–2020

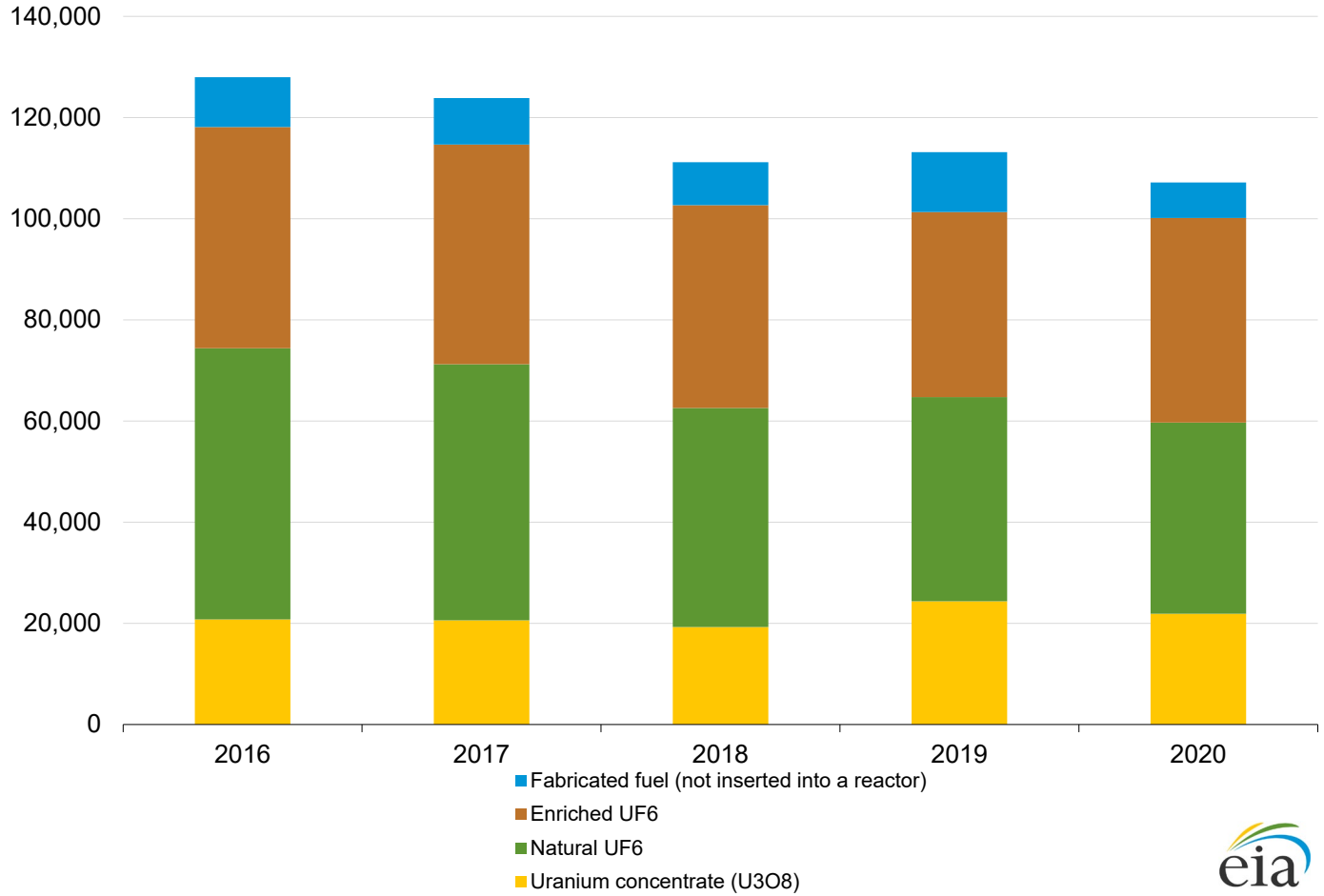
thousand pounds U_3O_8 equivalent



P = Preliminary data. Final 2019 inventory data reported in the 2020 survey.
Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2017–2020)

Figure 21. Owners and operators of U.S. civilian nuclear power reactors inventories by material type as of end of year, 2016–2020

thousand pounds U_3O_8 equivalent



P = Preliminary data. Final 2019 inventory data reported in the 2020 survey.
Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2017–2020)

Table 23. Inventories of uranium by owner as of end of year, 2016–2020

thousand pounds U_3O_8 equivalent

	Inventories at the End of Year				
Owner of uranium inventory	**2016**	**2017**	**2018**	**2019**	**P2020**
Owners and operators of U.S. civilian nuclear power reactors	127,964	123,850	111,174	113,146	107,157
U.S. brokers and traders	7,772	8,519	10,601	9,385	10,884
U.S. converter, enrichers, fabricators, and producers	8,895	9,299	8,743	8,132	5,108
Total commercial inventories	**144,631**	**141,668**	**130,519**	**130,662**	**123,149**

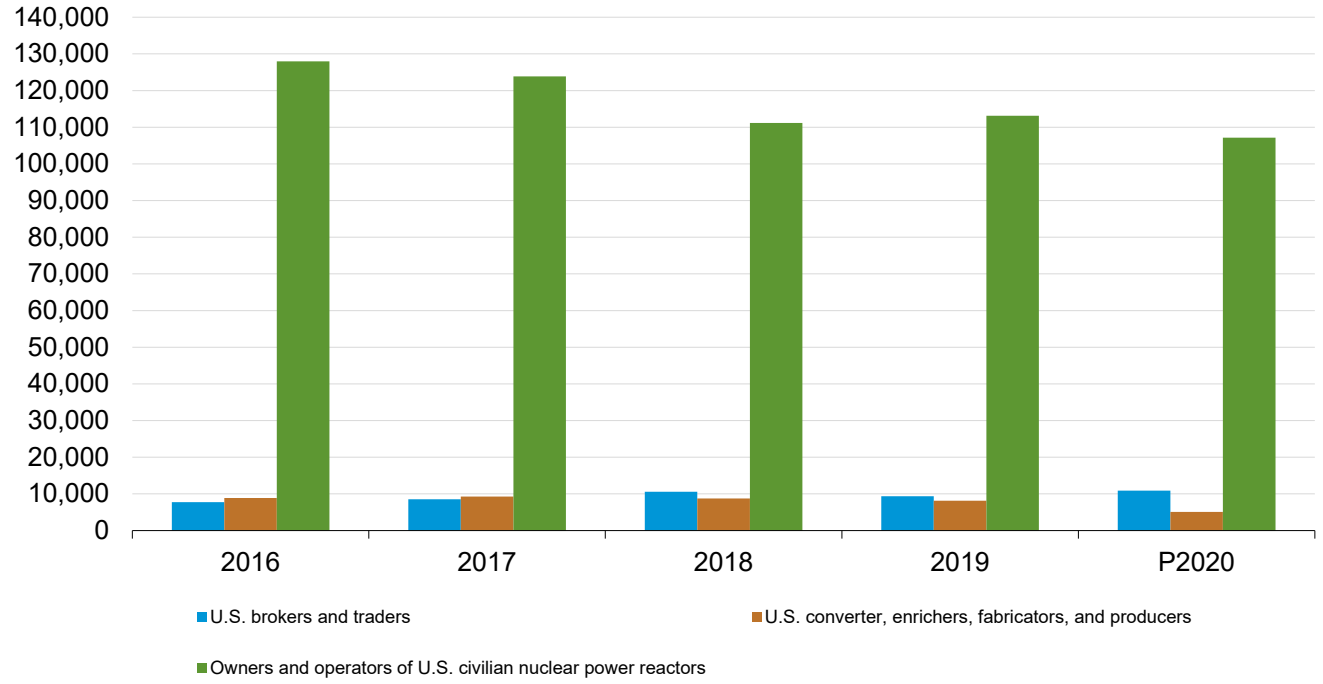
P = Preliminary data. Final 2019 inventory data reported in the 2020 survey.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2017–2020)

Figure 22. Commercial inventories of uranium by owner as of end of year, 2016–2020

thousand pounds U_3O_8 equivalent



P=Preliminary data. Final 2019 inventory data reported in the 2020 survey.
Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2017–2020)

Table 24. Uranium sellers to owners and operators of U.S. civilian nuclear power reactors, 2018–2020

2018	2019	2020
AREVA / AREVA NC, Inc./ AREVA Resources Canada	AREVA / AREVA NC, Inc./ AREVA Resources Canada	AREVA / AREVA NC, Inc./ AREVA Resources Canada/Framatome
ARMZ (AtomRedMetZoloto)	ARMZ (AtomRedMetZoloto)	ARMZ (AtomRedMetZoloto)
BHP Billiton Olympic Dam Corporation Pty Ltd	BHP Billiton Olympic Dam Corporation Pty Ltd	BHP Billiton Olympic Dam Corporation Pty Ltd
CAMECO	CAMECO	CAMECO
CGN Global Uranium Limited	CGN Global Uranium Limited	CGN Global Uranium Limited
ConverDyn	ConverDyn	ConverDyn
Curzon Uranium Trading Limited	Deutsche Bank	Curzon Uranium Trading Limited
Energy Northwest	Energy Fuels Resources, Inc.	Energy USA, Inc.
Energy USA, Inc.	Energy Northwest	Itochu Corporation / Itochu International
Idemitsu	Energy USA, Inc.	Joshua Energy DAC
Itochu Corporation / Itochu International	Itochu Corporation / Itochu International	Kazatomprom
Kazatomprom	Kazatomprom	Louisiana Energy Services LLC
Macquarie Bank	Macquarie Bank	Luminious Designated Activity Company
Mitsui & Co.	Mitsui & Co.	Macquarie Bank
MTM Trading, LLC	MTM Trading, LLC	MTM Trading, LLC
Nufcor International Limited	Nufcor International Limited	Nuclear Fuel Services, Inc.
NUKEM, Inc. / RWE Nukem	NUKEM, Inc. / RWE Nukem	Nufcor International Limited
NYNCO Trading, Ltd.	NYNCO Trading, Ltd.	NUKEM, Inc. / RWE Nukem
Paladin Resources Limited / Paladin Energy	Paladin Resources Limited / Paladin Energy	Orano
Orano, USA	Peninsula Energy / Strata Energy	Peninsula Energy / Strata Energy
Peninsula Energy / Strata Energy	Rio Tinto Uranium Limited	Rio Tinto Uranium Limited
Quasar Resources	Rossing Uranium Limited	TENAM Corporation
Rio Tinto Uranium Limited	SOPAMIN (Société de Patrimoine des Mines du Niger "Heritage Society of Mines in Niger")	TENEX(Techsnabexport)
Rossing Uranium Limited	Southern Cross Resources Australia	TEPCO Resources
TENAM Corporation	TENAM Corporation	TH Kazakatom AG
TENEX (Techsnabexport)	TENEX(Techsnabexport)	Traxys North America, LLC
TEPCO Resources	Traxys North America, LLC	UG U.S.A., Inc.
Traxys North America, LLC	UG U.S.A., Inc.	USEC, Inc. (United States Enrichment Corporation)
UG U.S.A., Inc.	USEC, Inc. (United States Enrichment Corporation)	Uranium Energy Corporation
USEC, Inc. (United States Enrichment Corporation)	Uranerz Energy Corporation	Uranium One
Uranerz Energy Corporation	Uranium One	UrAsia Energy Limited
Uranium One	URENCO, Inc.	URENCO, Inc.
URENCO, Inc.	Ur-Energy / Ur-Energy USA Inc	URENCO, Inc.
Ur-Energy / Ur-Energy USA Inc	Westinghouse Electric Company, LLC	Ur-Energy / Ur-Energy USA Inc
Western Uranium Corporation		WMC Energy BV
Westinghouse Electric Company, LLC		

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2018–2020)

Table 25. Enrichment service sellers to owners and operators of U.S. civilian nuclear power reactors, 2018–2020

2018	2019	2020
Advance Uranium Asset Management	AREVA Enrichment Services, LLC / AREVA NC, Inc.	Advance Uranium Asset Management
AREVA Enrichment Services, LLC / AREVA NC, Inc.	CNEIC (China Nuclear Energy Industry Corporation)	AREVA Enrichment Services, LLC / AREVA NC, Inc.
CNEIC (China Nuclear Energy Industry Corporation)	Energy Northwest	CNEIC (China Nuclear Energy Industry Corporation)
Energy Northwest	LES, LLC (Louisiana Energy Services)	Energy Northwest
LES, LLC (Louisiana Energy Services)	TENAM Corporation	Itochu Corporation
Nukem, Inc.	TENEX (Techsnabexport Joint Stock Company)	LES, LLC (Louisiana Energy Services)
NYNCO Trading, LTD	TENAM Corporation	Nukem, Inc.
TENAM Corporation	UG USA	TENAM Corporation
TENEX (Techsnabexport Joint Stock Company)	URENCO, Inc. (Deutschland GmbH, Nederland B.V., UK Limited)	TENEX (Techsnabexport Joint Stock Company)
URENCO, Inc. (Deutschland GmbH, Nederland B.V., UK Limited)	URENCO USA, Inc.	UG USA
URENCO USA, Inc.	USEC, Inc. (United States Enrichment Corporation)	URENCO, Inc. (Deutschland GmbH, Nederland B.V., UK Limited)
USEC, Inc. (United States Enrichment Corporation)	Westinghouse Electric Company, LLC	URENCO USA, Inc.
Westinghouse Electric Company, LLC		USEC, Inc. (United States Enrichment Corporation)
		Westinghouse Electric Company, LLC

Source: U.S. Energy Information Administration, Form EIA-858, *Uranium Marketing Annual Survey* (2018–2020)