



**UNODC**

Oficina de las Naciones Unidas  
contra la Droga y el Delito



Centro de Excelencia para  
INFORMACIÓN ESTADÍSTICA DE GOBIERNO,  
SEGURIDAD PÚBLICA, VICTIMIZACIÓN Y JUSTICIA

# Measuring illicit financial flows (IFFs) related to drug markets in Mexico

# CONTENT

## 1. MEASURING INWARD IFFs (2015-2018)

### 1.1 HEROIN

FORMULA

DATA

MEASUREMENT

### 1.2. COCAINE AND METAMPHETAMINE

FORMULA

DATA

MEASUREMENT

## 2. MEASURING OUTWARD IFFs (2015-2018)

### 2.1. COCAINE

FORMULA

DATA

MEASUREMENT



**UNODC**

Oficina de las Naciones Unidas  
contra la Droga y el Delito



Centro de Excelencia para  
INFORMACIÓN ESTADÍSTICA DE GOBIERNO,  
SEGURIDAD PÚBLICA, VICTIMIZACIÓN Y JUSTICIA



# 1. MEASURING INWARD IFFs

## 1.1. INWARD IFFS RELATED TO HEROIN

### FORMULA [SUPPLY-BASED MODEL]

#### **INWARD IFFs**

= *Quantities exported from Mexico (EXP) x export prices*

*Where:*

*EXP = PRODUCTION – CONSUMPTION – SEIZURES*

*Where:*

*PRODUCTION = AREA x YIELD*

# Potential production of heroin

## Average value of heroin production, per year

	2015	2016	2017	2018
<b>Opim gum production (kg)</b>	420,210	405,720	492,660	450,800
<b>Opium gum seizures (kg)</b>	1,306	226	943	337
<b>Amount of opium gum after seizures (kg)</b>	418,904	405,494	491,717	450,463
<b>Amount of pure heroin potentially produced (kg)</b>	53,228	51,524	62,480	57,238

## Heroin seizures

The estimated production was obtained from the heroin and morphine seizures shown in the table below.

### **Average value estimated after seizures, per year**

<b>Production of pure heroin (kg)</b>	53,228	51,524	62,480	57,238
<b>- Seizures of pure heroin (kg)</b>	140.219	125.249	82.335	126.247
<b>- Seizures of morphine converted into heroin (kg)</b>	51.49	32.18	3.86	0
<b>= Net pure heroin available (kg)*</b>	53,036	51,367	62,394	57,112

Source: UNODC, *Annual Report Questionnaires*

\*After seizures

# National consumption of heroin

## Average estimations of heroin consumption in Mexico

Year	Size of the Mexican population from 12 to 65 years  (A)	Annual prevalence of heroin use in the general population (%)  (B)	Number of heroin users  C = AxB	Average annual amount of pure heroin consumed per user (grams)  (D)	Amount of pure heroin consumed (kg)  E = CxD
2015	87,613,033	0.10	87,613	28	2,453.16
2016	88,793,995	0.10	88,794	28	2,486.23
2017	89,923,511	0.10	89,924	28	2,517.86
2018	91,004,934	0.10	91,005	28	2,548.14

## Heroin exports from Mexico

To estimate exports, domestic consumption was subtracted from the amount of pure heroin available net.

### Average exports of pure heroin from Mexico (in kg)

	2015	2016	2017	2018
<b>Net pure heroin available</b>	53,036	51,367	62,394	57,112
<b>- National consumption of pure heroin</b>	2,453.2	2,486.2	2,517.9	2,548.1
<b>= Exports</b>	50,583	48,880	59,876	54,564



## Elements for Estimating Inward Heroin-Related IFFs (2015)

Three types of heroin are processed in Mexico: black tar, white and brown powder. Therefore, the calculation of the value of exports depends on the type of heroin and its proportion.

TYPE OF HEROIN	% OF HEROIN TYPE	AMOUNT IN SOUTHWEST BORDER (A)	ADJUSTED PRICE AT THE SOUTHWEST BORDER(B)	ADJUSTED PRICE WITHIN THE U.S. (C)
BLACK TAR	0.38	9,610.78	40,080.16	96,727.45
WHITE POWDER	0.60	15,174.92	120,240.48	96,727.45
BROWN POWDER	0.02	505.83	70,140.28	96,727.45
TOTAL		25,291.53		

## 1.2 THE INWARD IFFS RELATED TO COCAINE AND METAMPHETAMINE

### FORMULA [DEMAND-BASED MODEL]

#### **INWARD IFFs**

*= Quantities exported from Mexico (EXP) x export prices*

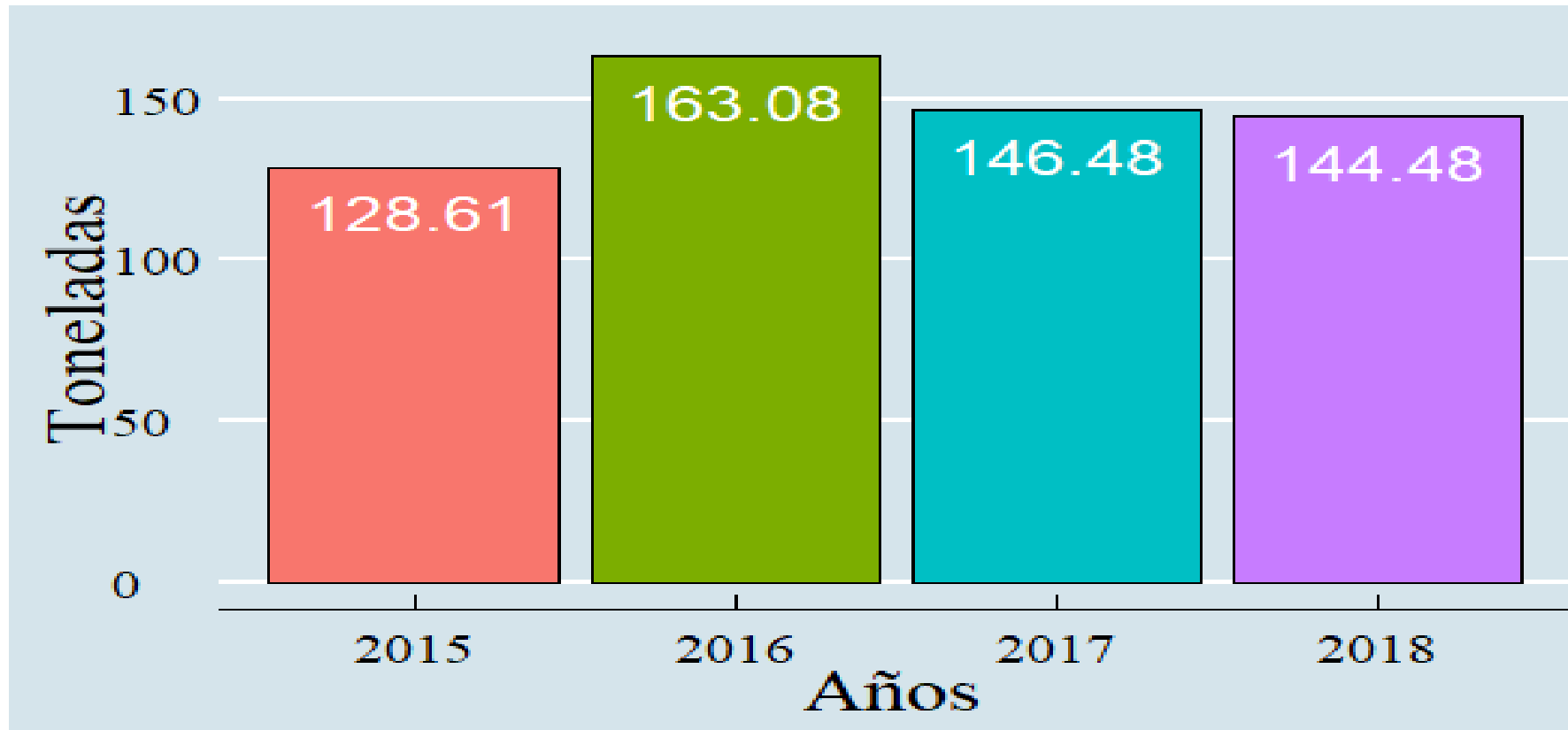
*Where:*

*EXP = quantities consumed and seized by the importing country x Connection coefficient between Mexico and the United States*

# Seizures and consumption of the US

The key elements for estimating cocaine exports from Mexico to the United States using a demand-based approach require combining U.S. data on consumption and quantities of cocaine seized over the period 2015-2018.

**U.S. seizures and consumption of pure cocaine, average value, in metric tons**



## Connection coefficient (cocaine)

Seizure data were not used because the available seizures do not provide information broken down by country of origin. Therefore, the corresponding qualitative information was reviewed.

### Coefficient of connection between Mexico and the U.S.. (cocaína)

Source	Date
UNODC, <i>Transnational Organized Crime in Central America and the Caribbean (2012)</i>	80%
DEA, <i>National Drug Threat Assessment (2015)</i>	87%
White House, <i>Global Cocaine Trafficking Report (2017)</i>	90%
ONDCP, <i>National Drug Control Strategy (2020)</i>	86%, 88%, 89% and 91% (2015, 2016, 2017 and 2018)

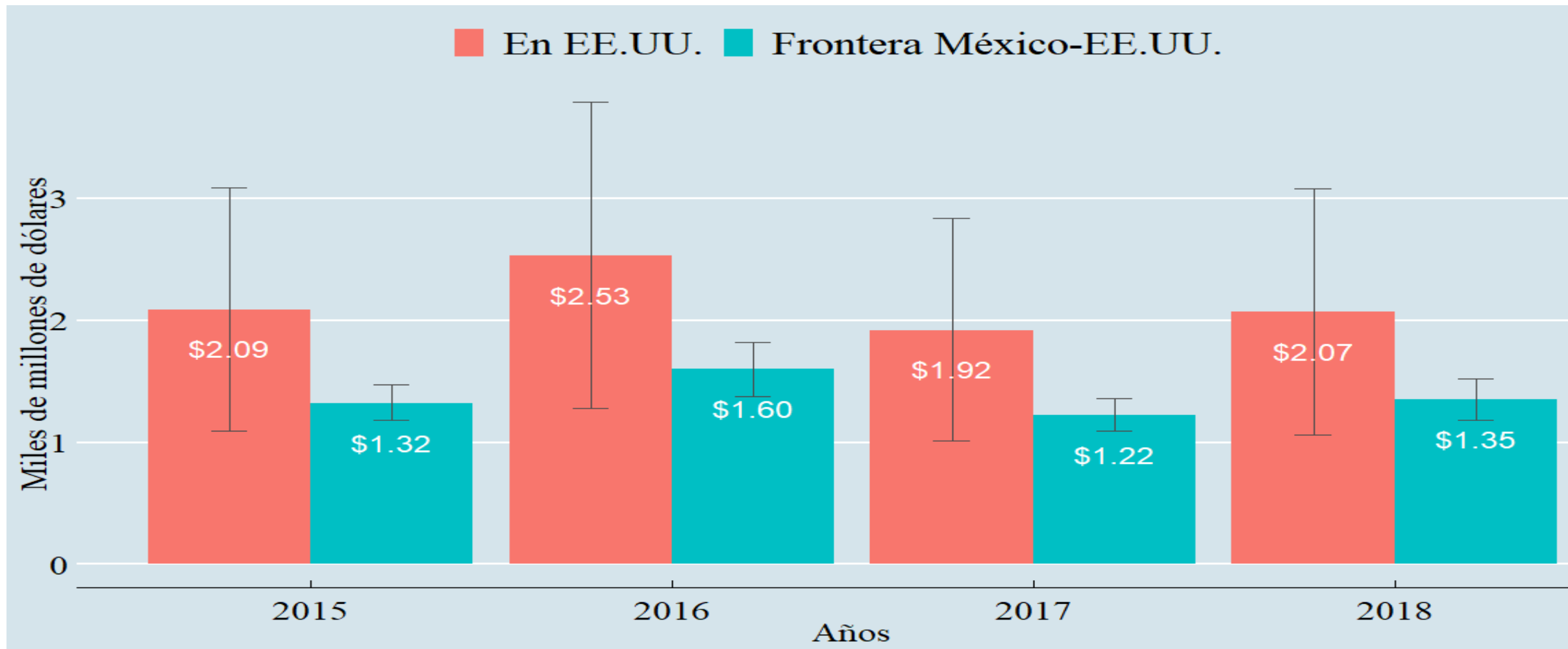
# Cocaine exports from Mexico

## Average estimates of pure cocaine exports from Mexico (tons)

Year	Pure quantities consumed in the USA  (A)	U.S. seized quantities adjusted for purity  (B)	Total consumption + seizures  $C = A + B$	Coefficient of connection between Mexico and the U.S.  (D)	Quantities exported from Mexico  $E = C \times D$
2015	108	20.61	128.61	0.86	110.61
2016	145	18.08	163.08	0.88	143.51
2017	121	25.15	146.48	0.89	130.37
2018	125	19.70	144.48	0.91	131.48

# Inward IFFs related to cocaine trafficking

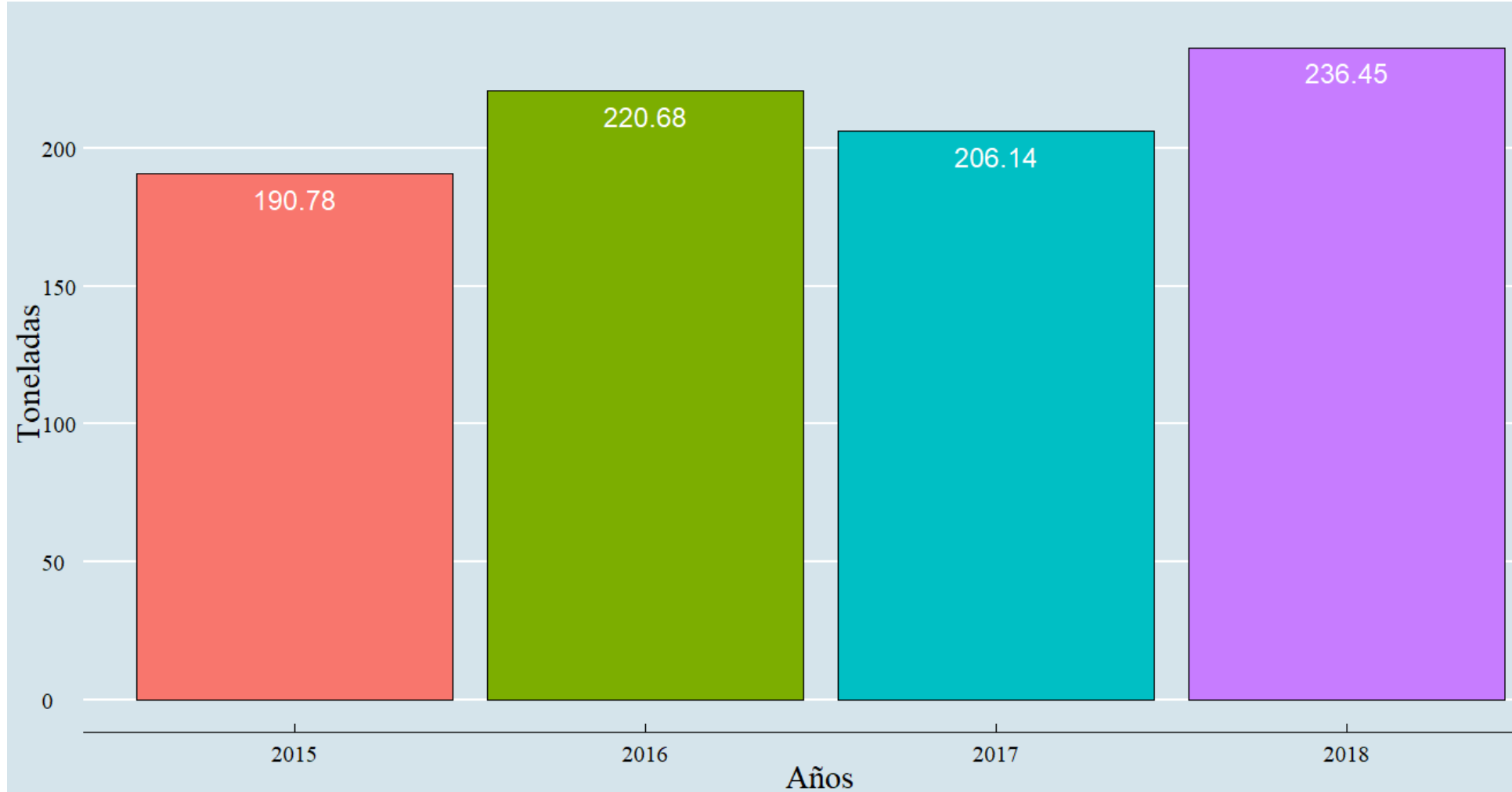
Inward IFFs from drug exports were estimated at the border and within the U.S.



\*\*The estimates were based on the following proportions: 40 to 60% of the exported quantities are sold at the average wholesale prices of the United States, and (ii) up to 60% of 40% are sold at the prices of the US-Mexico border. (New York Times Magazine, How a Mexican Drug Cartel makes it billions, 2012)

# Seizures and consumption of metamphetamine

**U.S. seizures and consumption of pure methamphetamine, average value, in metric tons**



# Coefficient of connection between Mexico and the U.S. (methamphetamine)

**Lower limit** : “Including Illegal Activity in the U.S. National Economic Accounts”

**Average value**: “Meth Precursor Chemicals from China: Implications for the United States, Us China Economic and Security Review Commission (2016)

**Upper limit**: the pilot used the proportions of seized methamphetamine that DEA determined had been manufactured through phenyl-2-propanone (P2P), a chemical precursor frequently used by Mexican DTOs after pseudoephedrine was banned in Mexico.

## Range of the coefficient of connection

Minimum value	Average value	Maximum value
85%	90%	98%

Rachel Soloveichik, Including Illegal Activity in the U.S. National Economic Accounts, July 2019.

Sean O’Connor, Meth Precursor Chemicals from China: Implications for the United States, Us China Economic and Security Review Commission, 2016

DEA, National Drug Threat Assessment, 2018





**UNODC**

Oficina de las Naciones Unidas  
contra la Droga y el Delito



Centro de Excelencia para  
INFORMACIÓN ESTADÍSTICA DE GOBIERNO,  
SEGURIDAD PÚBLICA, VICTIMIZACIÓN Y JUSTICIA



## **2. MEASURING THE OUTWARD IFFs**

## 2.1 THE OUTWARD IFFs RELATED TO COCAINE FORMULA

### **OUTWARD IFFs**

*= (Quantities imported by Mexico (IMP) x import prices) + (Quantities imported by Mexico x cost of transportation)*

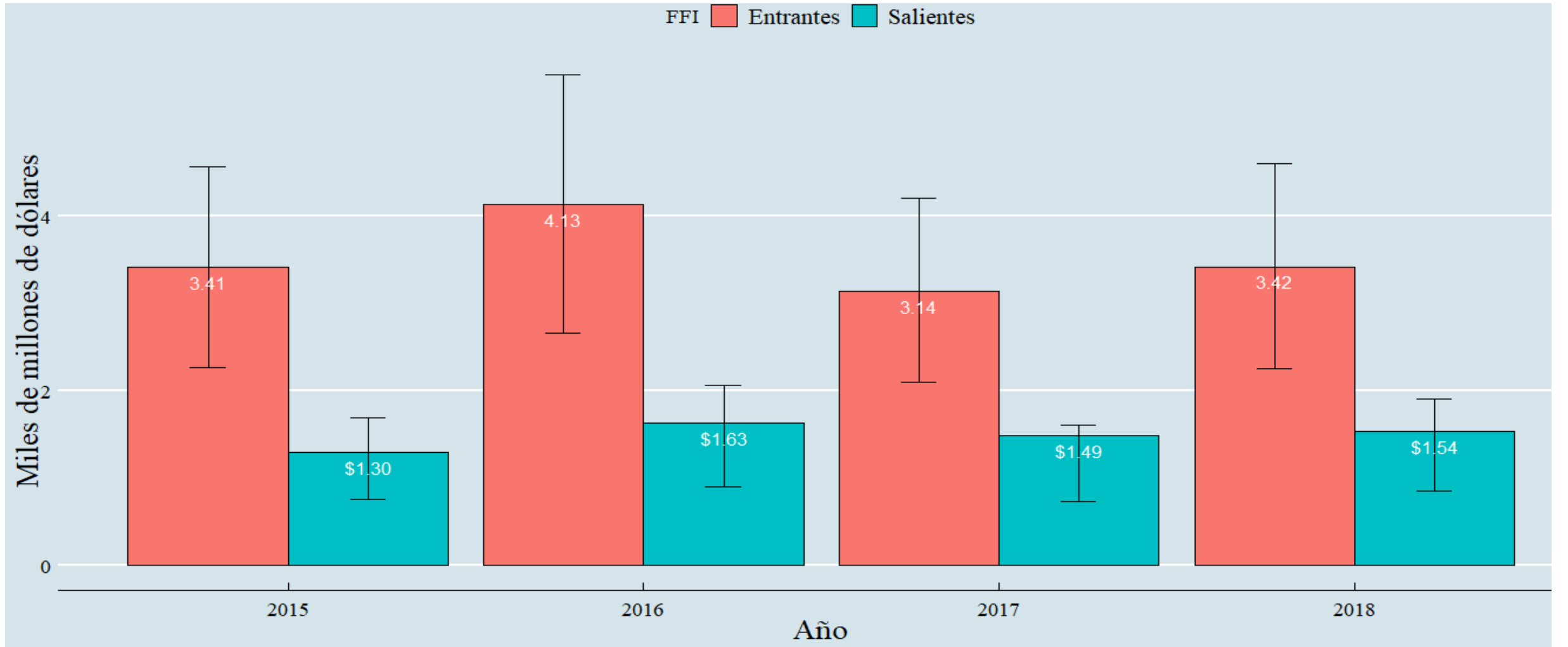
*Where:*

*IMP = CONSUMPTION<sub>MEX</sub> + SEIZURES<sub>MEX</sub> + EXPORTS<sub>MEX</sub>*

## Cocaine consumption in Mexico

Year	Size of Mexican population 12-65 years (A)	Annual prevalence rate (B)	Number of cocaine consumers C = AxB	Amount per capita (D)	Quantities consumed (tons) E = CxD
2015	87,613,033	0.8%	700,904	32	22.4
2016	88,793,995	0.8%	710,352	32	22.7
2017	89,923,511	0.8%	719,388	32	23.0
2018	91,004,934	0.8%	728,039	32	23.3

## Inward and outward IFFs related to cocaine trafficking



## Value of exports, by drug (average 2015-2018)

