

2020 State of the Ethanol Industry

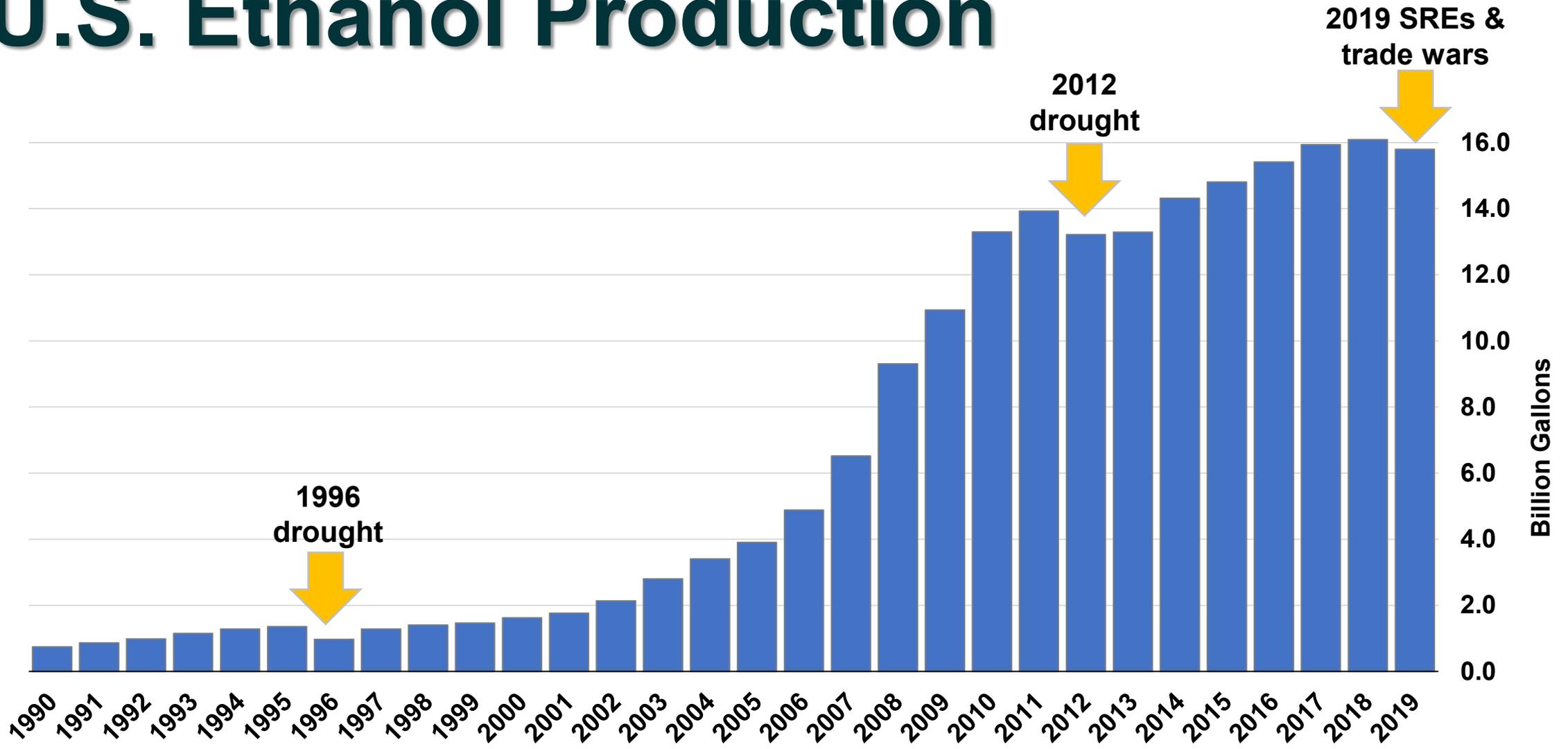
Geoff Cooper
President & CEO
Renewable Fuels Association

2020 National Ethanol Conference
Houston, Texas





U.S. Ethanol Production

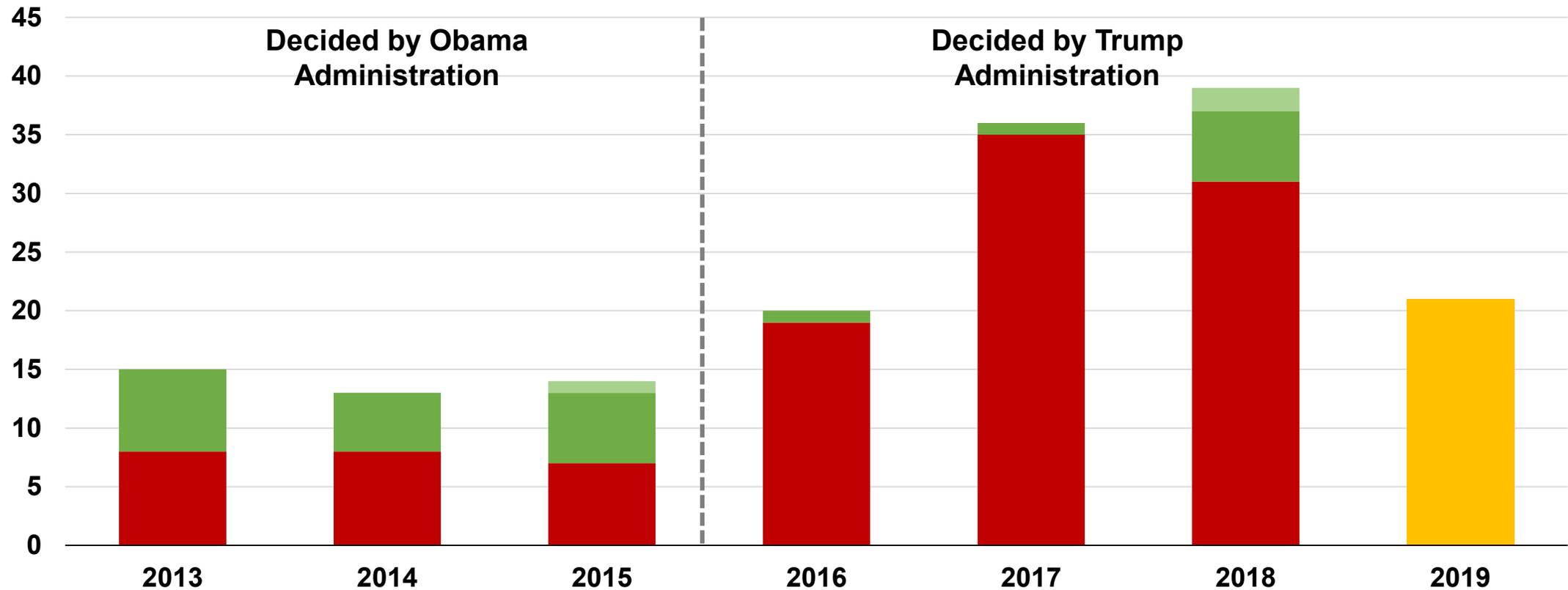


Source: Energy Information Administration (2019 estimate based on Jan.-Nov.)

Small Refinery Exemptions

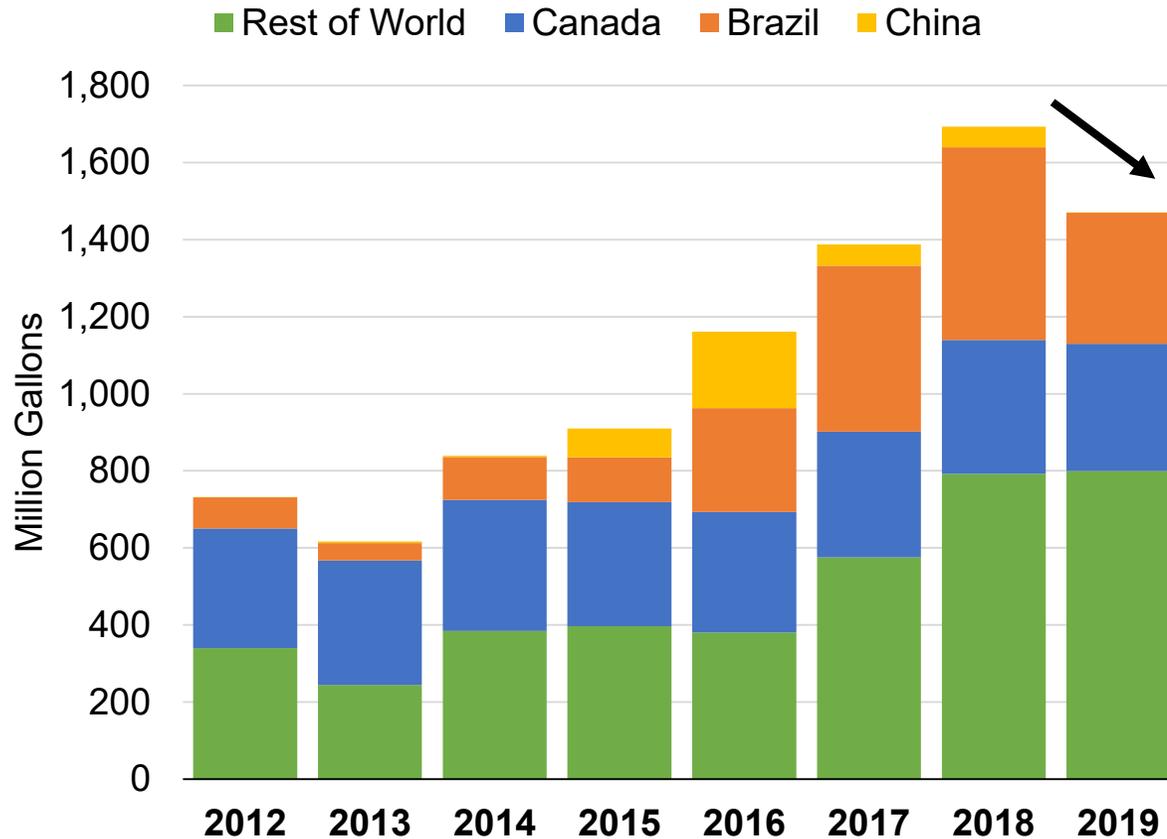
Small Refiner Exemption Petition Decisions

■ Granted ■ Denied ■ Pending ■ Ineligible

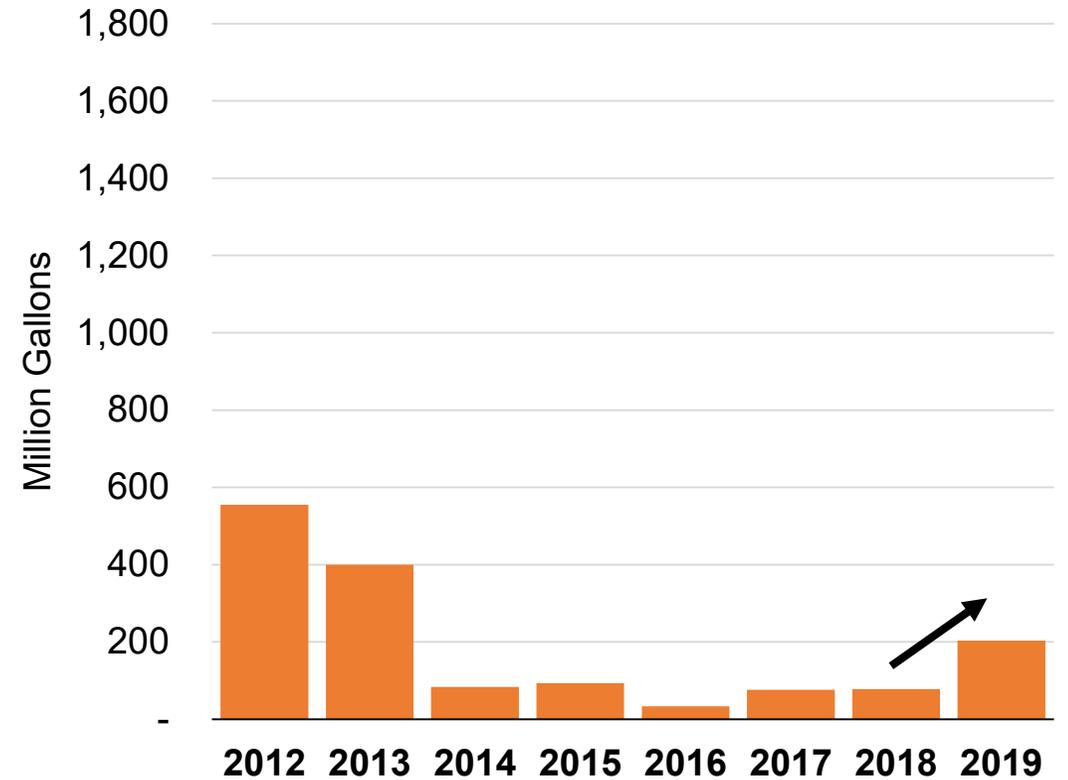


Ethanol Exports and Imports

U.S. Ethanol Exports to Brazil, Canada, China, and Rest of World



U.S. Ethanol Imports

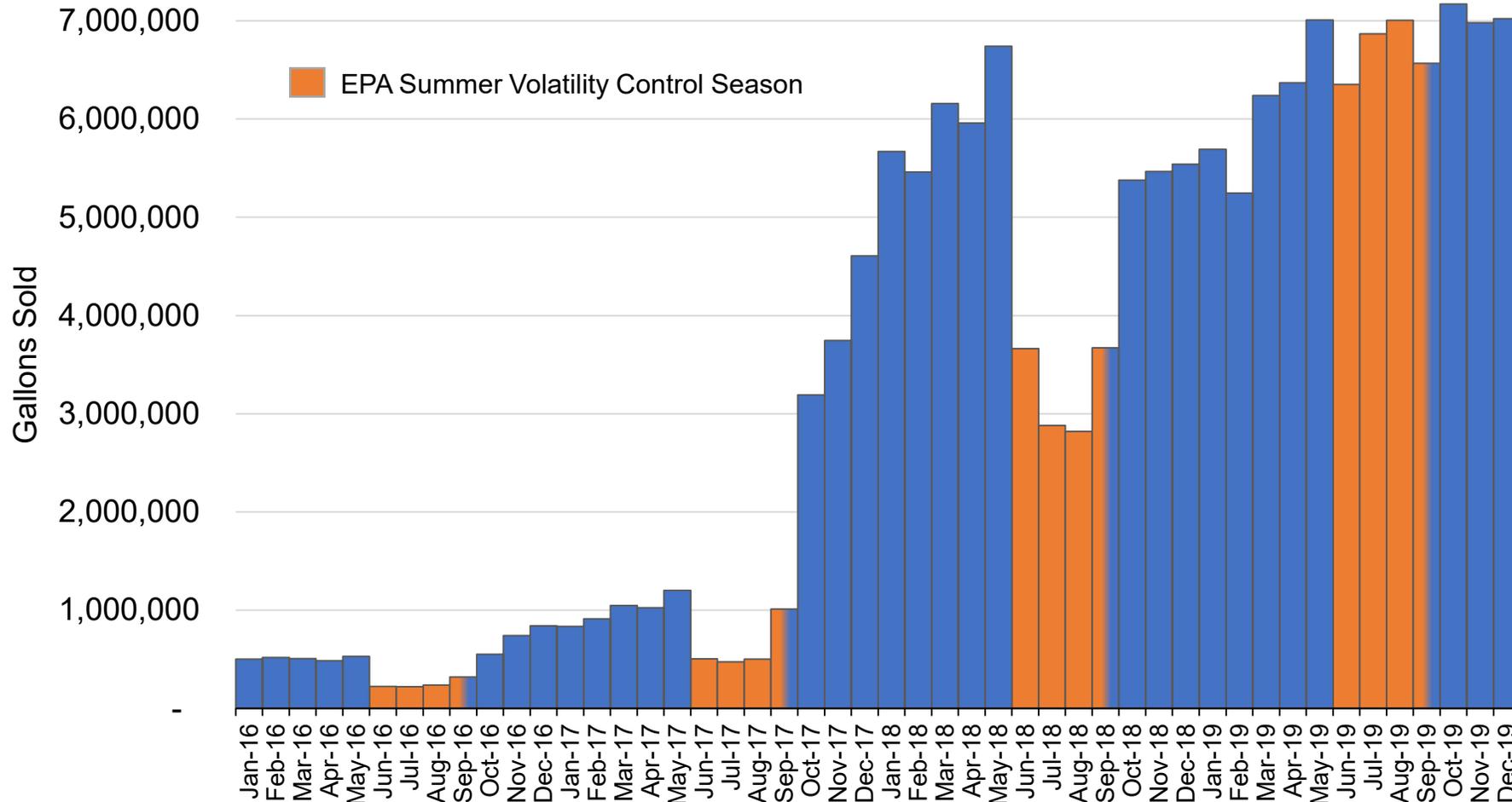


2019 Economic Impacts

- **68,684** direct jobs
- **280,327** indirect and induced jobs
- **\$43 billion** contribution to gross domestic product (GDP)
- **\$23 billion** in household income
- **\$8 billion** in tax revenues
- Displaced **559 million barrels** of imported crude oil, keeping more than **\$30 billion** in U.S. economy

Record E15 Sales

Minnesota Monthly E15 Sales



Nationwide
E15 sales were
approximately
500 million
gallons in
2019



Seven Days in December

- **“Phase One” trade deal reached with China**
- **EPA publishes final 2020 RVO with (some) SRE reallocation**
- **EPA withdraws problematic RFS “reset” proposal**
- **EPA announces it will revisit 500 MG remand volume**
- **USDA commits to biofuel infrastructure program and EPA promises to streamline E15 regulatory burdens**
- **House passes USMCA**
- **President signs spending bill with biofuel tax extenders**



“The only thing worse than being blind is having sight but no vision.”

—Helen Keller

The “Three Es”

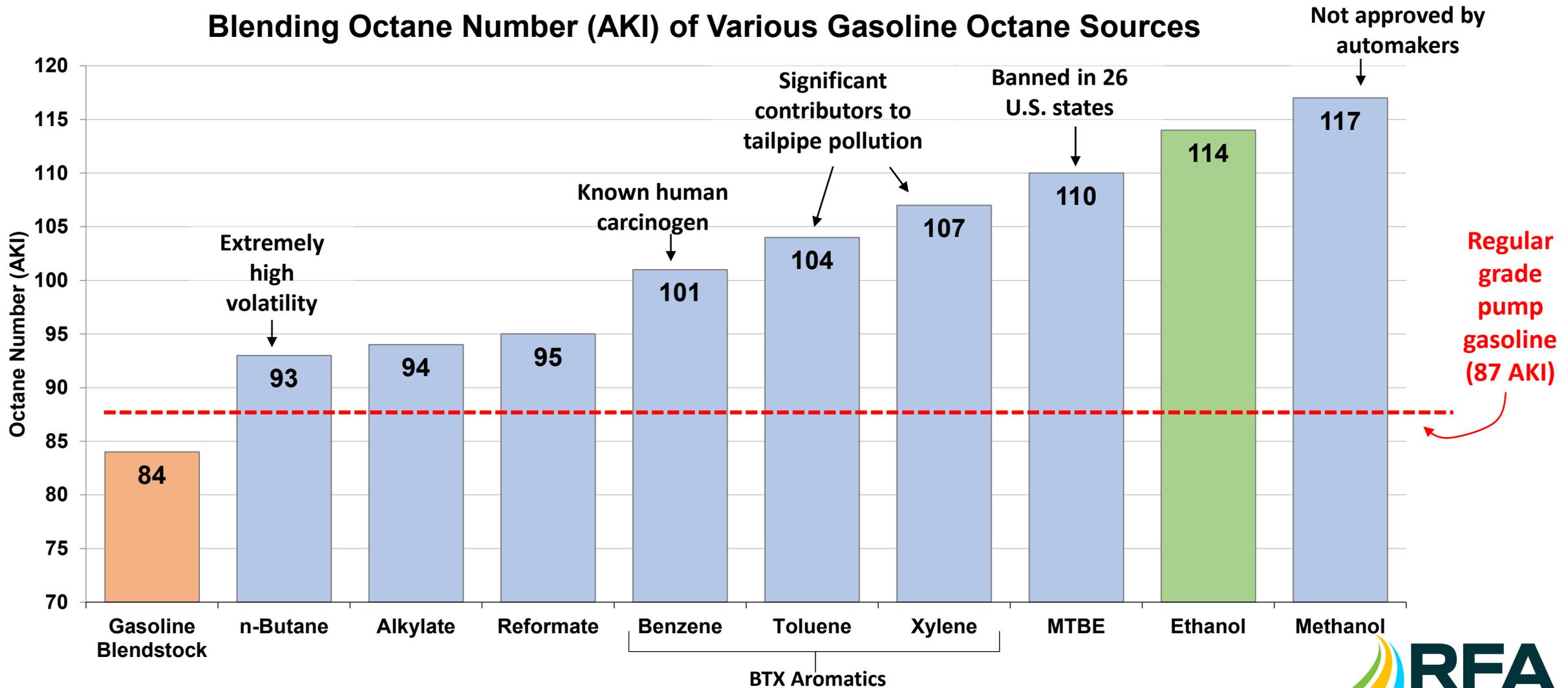
- **Energy Security**
- **Economic Development**
- **Environmental Benefits**

The “Three Cs”

- **Clean Octane**
- **Carbon Reduction**
- **Choice & Competition**

Ethanol's Octane Advantage

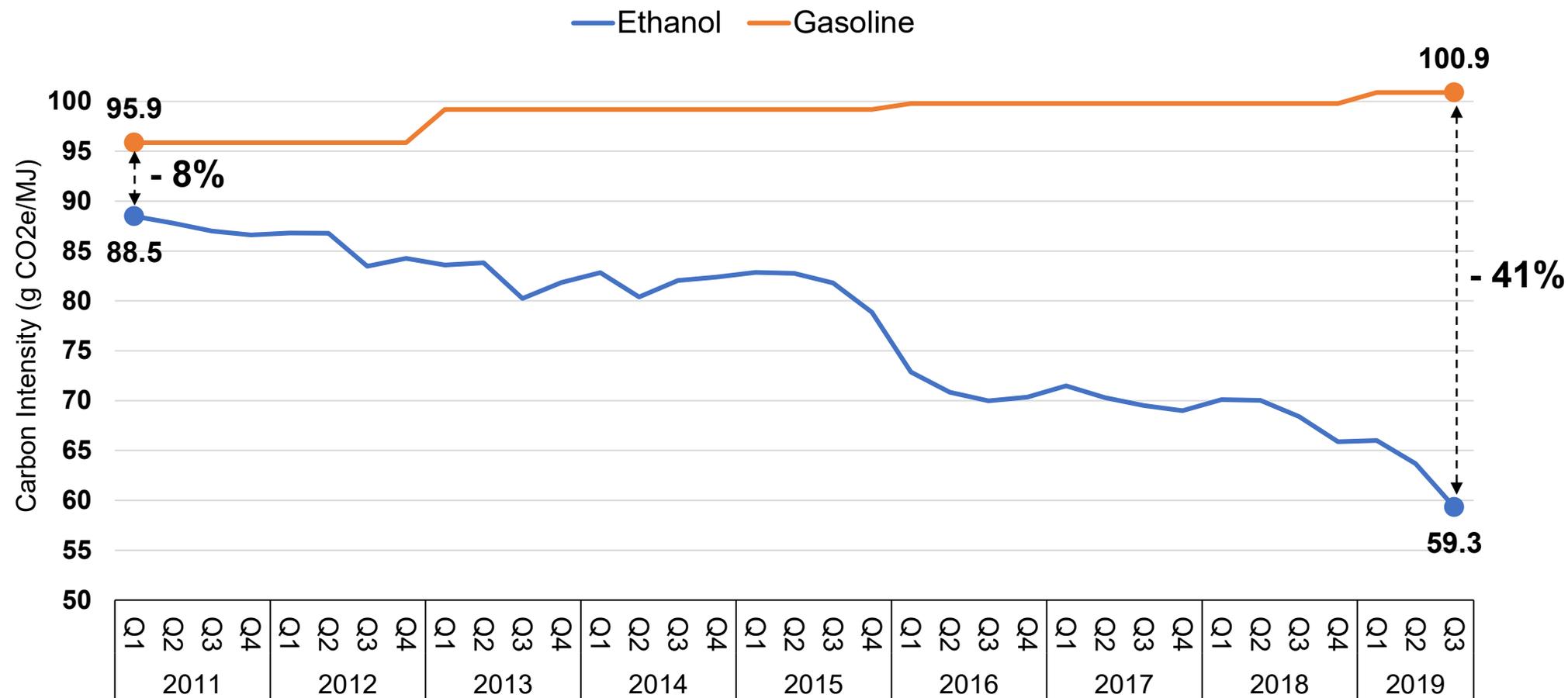
Blending Octane Number (AKI) of Various Gasoline Octane Sources



Sources: RFA; DOE; Chevron; MathPro, Inc.

Ethanol Carbon Intensity in California

Carbon Intensity of Gasoline and Ethanol Under California LCFS



“While the law of competition may be sometimes hard for the individual, it is best for the race...”

—Andrew Carnegie



Low Carbon Octane Standard

- **Nationwide minimum octane requirement (preferably 98 RON)**
- **Source of octane boost must reduce GHG emissions**
- RVP regulatory parity for all ethanol blends
- Streamlining EPA's fuel certification process
- Substantially revising EPA emissions models (e.g., MOVES)
- Retail infrastructure compatibility with higher blends
- CAFE/GHG credits for FFVs and HOLC optimized vehicles

