
“Fracking”

— Dr. Robert Leonard —

Is “fracking” the term most commonly used by
the general public? **Yes**

Is “fracking” a slang term? **No**

“Fracking” is the common term and is not slang.

This conclusion is supported by analyses of:

- Data from **dictionaries**
 - Large **databases** that reflect how language is used
 - Data from **Colorado newspapers**
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Dictionary

— “Fracking” and “Hydraulic Fracturing” —

Dictionaries

Source	“fracking” entry?	...labeled informal/slang?	“hydraulic fracturing” entry?
Collins English Dictionary	yes	no	yes
Dictionary.com	yes	no	yes
Encyclopedia Britannica	yes	no	no
Macmillan English Dictionary	yes	no	no
Merriam-Webster	yes	no	yes
Oxford English Dictionary	yes	no	yes (but listed under “hydraulic”)

Examples of slang/informal entries: Merriam-Webster Dictionary

buck ^{1 of 6} noun (1)

'bək

plural bucks

Synonyms of *buck* >

1 a informal

(1) : DOLLAR sense 3b

| I only had a *buck* in my pocket.

| Dinner cost twenty *bucks*.

(2) : a sum of money especially to be gained

| make a quick *buck*

also : MONEY → usually used in plural

| making the big *bucks*

b US slang → used in place of "hundred" in combination with other numbers

... as much at ease going 40 in First as it is doing a *buck*-twenty [=120 miles an hour] down the freeway ...

— Hot Rod

chillax verb

chil-lax ^{chi-'laks}

chillaxed; chillaxing; chillaxes

intransitive verb

slang

: to calm down : RELAX

Examples: Merriam-Webster Dictionary

fracking noun

frack·ing (ˈfrɑːkɪŋ)

: the injection of fluid into shale beds at high pressure in order to free up petroleum resources (such as oil or natural gas)

frack (ˈfræk) verb

Examples: Merriam-Webster Dictionary

hydraulic fracturing noun

: **FRACKING**

The gas-fired plants come courtesy of the revolution in *hydraulic fracturing* ("fracking"), which has delivered a vast supply of low-cost natural gas to an electricity market that has struggled with steadily rising coal prices since 2001.

—Jerry Taylor and Peter Van Doren

Recent Examples on the Web

The news adds to concerns about natural gas companies' *hydraulic fracturing*, commonly called fracking.

—Joseph Calamia, *Discover Magazine*, 3 Sep. 2010

Corpus Analysis

— Which term is more commonly used? —

Reference Corpora

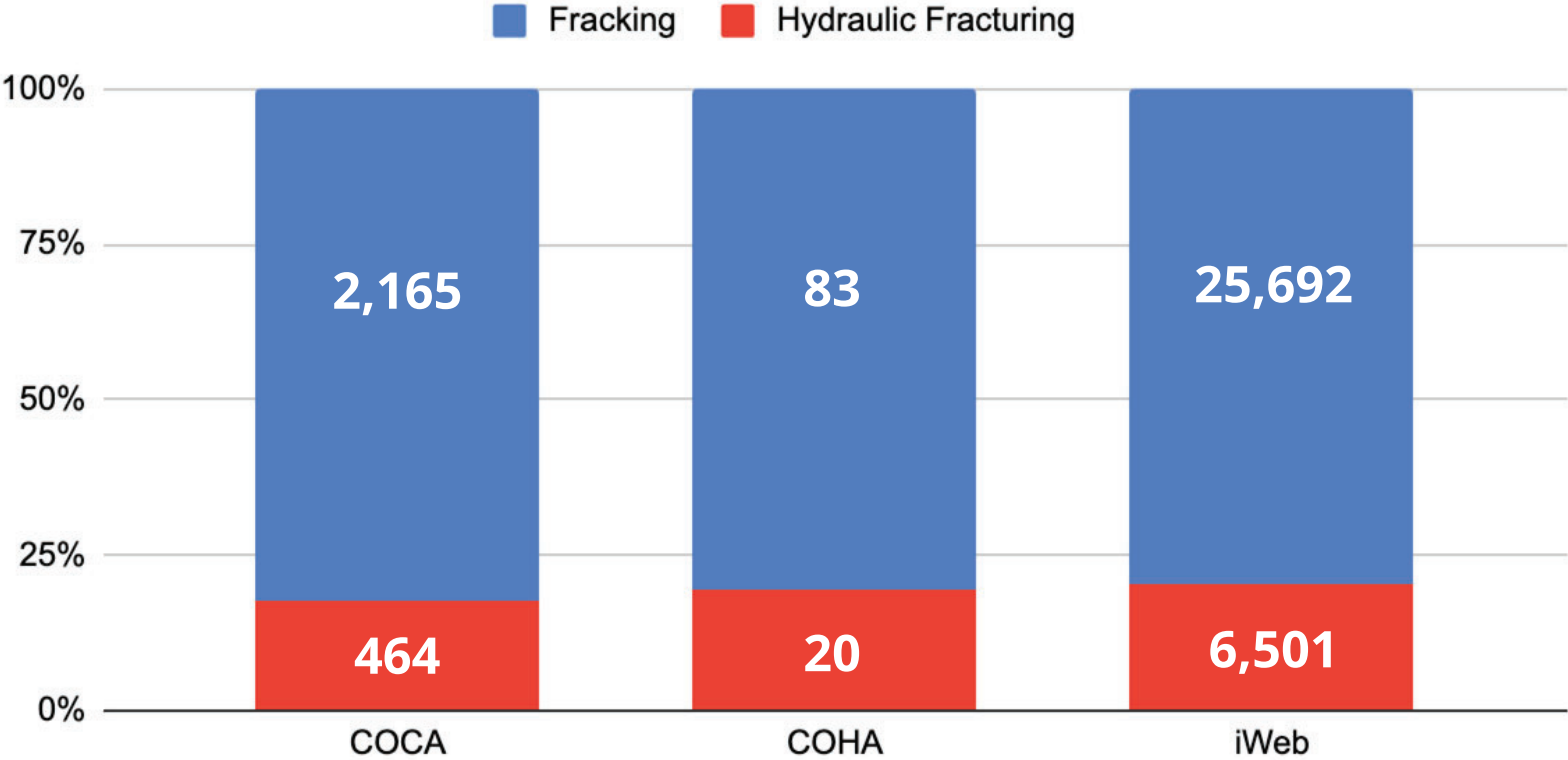
1. Corpus of Contemporary American English (COCA)
(1 billion words)
 2. Corpus of Historical American English (COHA)
(475 million words)
 3. iWeb (international corpus of websites)
(14 billion words)
-

Reference Corpora: Analysis

Corpus	fracking	hydraulic fracturing
Corpus of Contemporary American English (COCA)	2,165	464
Corpus of Historical American English (COHA)	83	20
iWeb	25,692	6,501
“commonly known as ...”	35*	0
“better known as ...”	11	0
“best known as ...”	1	0

*includes 7 occurrences of “more commonly known as fracking”

Reference Corpora: “fracking” and “hydraulic fracturing” frequencies



Reference Corpora: Analysis Examples (COCA)

Under the law, companies that use a drilling technique called hydraulic fracturing -- **commonly known as fracking** -- to tap gas deposits in shale would have been free to drill even in areas where local officials had voted against wells. - *publicintegrity.org*

On Sept. 24, President Skorton and Glenn Altschuler, Vice President of University Relations co-authored *Forbes* article entitled, "**Fracking**: A Role for Universities." - *The Cornell Daily Sun*

Engineers in areas without much water, such as Basel, sometimes create boreholes by way of **hydraulic fracturing, or "fracking,"** which involves forcefully injecting water to create fissures. - *Popular Science*

Reference Corpora: Analysis Examples (COHA)

“Thanks to **hydraulic fracturing -- or fracking, as it's often called** -- America's shale fields are now capable of yielding massive quantities of previously inaccessible natural gas.” - *Popular Mechanics*

“The industry is also reaping massive benefits from the federal money that set off the explosion of **hydraulic fracturing, or fracking**, the controversial technology used to squeeze gas and oil from shale deposits.” - *Mother Jones*

“**Formally called hydraulic fracturing, fracking** has allowed drillers to make money off sandstones and shales that had been considered too ‘tight’ for the gas and oil to flow freely into wells.” - *Science News*

Reference Corpora: Analysis Examples (iWeb)

“Hydraulic fracturing, **commonly known as fracking**, is a method used to extract underground natural gas using high-pressure injections of fluid...”
- *chem.info*

“Hydraulic fracturing -- **better known as fracking** -- is a technique that uses high-pressure fluids to "fracture" and extract gas...” - *tomdispatch.com*

“... in exporting American-style hydraulic fracturing the controversial, environmentally damaging technique **best known as fracking** to countries all over the world.” - *theintercept.com*

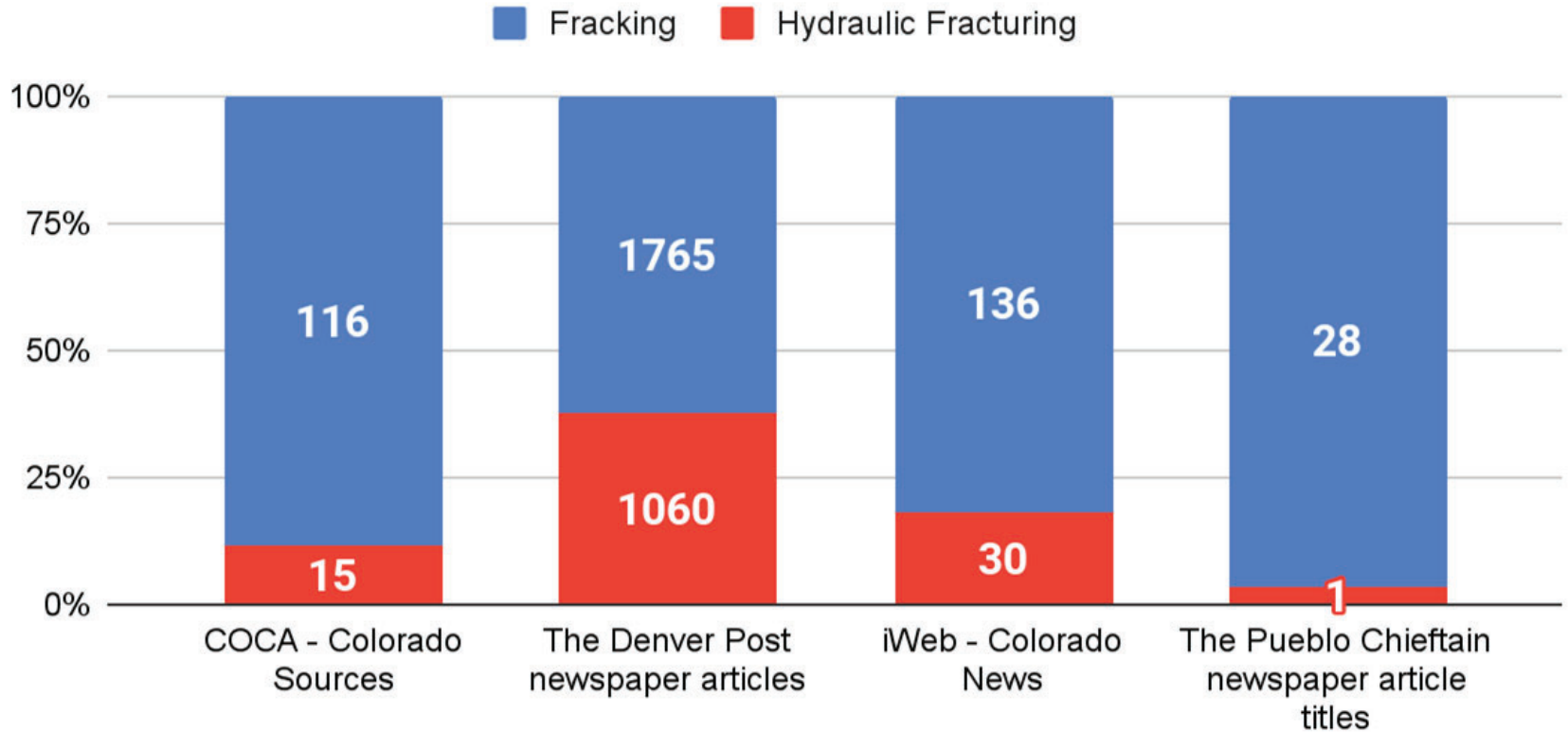
Specialized Colorado Corpora

- The **COCA - Colorado Sources** corpus includes hits on all sources from the COCA reference corpus with either “Colorado” or “Denver” in the name (e.g. CBS News Colorado; *The Colorado Independent*).
- **The Denver Post newspaper articles** corpus includes all article results on *The Denver Post*'s website that appear under searches for “fracking” and/or “hydraulic fracturing.”
- The **iWeb - Colorado News** corpus includes hits on nine widely circulated Colorado daily newspapers that are included in the iWeb reference corpus.
- **The Pueblo Chieftain newspaper articles titles** corpus includes all titles of articles on the *Pueblo Chieftain*'s website that appear under searches for “fracking” and/or “hydraulic fracturing”. This corpus dates back to the year 2000.

Specialized Colorado Corpora

Corpus	fracking	hydraulic fracturing
COCA - Colorado Sources	116	15
<i>The Denver Post</i> newspaper articles	1765	1060
iWeb - Colorado News	136	30
<i>The Pueblo Chieftain</i> newspaper article titles	28	1

Specialized Colorado Corpora: “fracking” and “hydraulic fracturing” frequencies



Specialized Colorado Corpora: Analysis Examples (COCA - Colorado Sources)

“As Pew project Stateline reported last week, each instance of **hydraulic fracturing, or fracking**, includes anywhere from 2 million to 12 million gallons of water.” - *The Colorado Independent*

“Most operators hire oil field service companies, such as Baker Hughes and Halliburton, for drilling and **hydrofracturing, or fracking**, which pumps pressurized fluids into wells to crack rock and release oil.” - *The Denver Post*

“The team will review **hydraulic-fracturing, or fracking**, practices, and the effort includes a citizen-science component.” - *The Denver Post*

A note on “fracking” in article titles...

The first written use of the term “fracking” was in the **title** of an article in *The Oil and Gas Journal* in 1953 ▶

EXPLORATION

“Fracking”—a New Exploratory Tool

by Philip C. Ingalls



REASONS FOR HYDRAULIC FRACTURING SUCCESS. (1) Exposes larger areas. (2) Bypasses zones of reduced permeability. (3) Alters flow pattern.

area enlargement are relatively small. (2) Zones of reduced permeability resulting from drilling and completion techniques are breached to provide a low-resistance path for formation fluids into the well. Most of the spectacular results from fracturing are due to this mechanism. (3) The increasing distances that fluid must creep through low-permeability rock to reach the well

are shortened. Large increases in productivity for uniform but very tight formations can be credited to this result of fracturing.

Initial fracturing work was performed using only 20 bbl of treating fluid carrying about 400 lb of sand. Today the technique has advanced to 2,400 bbl of fluid containing more than 50 tons of propping agent. To answer the question of the relation of the volume of fluid to the length of the fracture radius in tight formations, Roberts gave the following estimates based on 1 lb. of sand per gallon of fluid: 100 ft., 10 to 25 bbl.; 200 ft., 50 to 100 bbl.; 400 ft., 250 to 500 bbl.; and 600 ft., 1,000 to 2,000 bbl.

Today, fracturing operations, which were put on a commercial basis in 1949, are being performed at the rate of nearly 2,000 per month. They are found to be successful in increasing production rates and estimated ultimate recoveries in more than 75 per cent of the wells treated.

Measured in barrels of oil, formation fracturing is comparable to the opening of a large sedimentary basin to production. And, in some of the old shallow producing areas, especially where water is not a problem, it is causing as much excitement.

HIGHLIGHTS OF WEEK'S DEVELOPMENTS
NORTH DAKOTA

The OIL AND GAS JOURNAL

Automatic protection from impact loading on drilling rigs...with help of TIMKEN® bearings



THE Ideal Over-Running Clutch design... able to absorb drilling rig's impact loads. By giving one section the freedom to rotate the driving (powered) shafts, the driving shafts are automatically locked. The driving shafts are locked with perfect safety. Shock loads are eliminated from ball-bearing elements. No need to shut and re-starting the coupling for a fast change-over to the driving shaft. The over-running clutch is a fast and simple lock, pick-up and re-engaging the shaft for the loaded shaft.

To maintain the precise alignment necessary for such a work project, the National Supply Company selected Timken tapered roller bearings. Their tapered contact surfaces let them take radial and thrust loads in any combination. Line contact between rollers and races gives Timken bearings the extra capacity to handle the heaviest loads with ease.

With Timken bearings, friction is practically eliminated. That's because of their fine rolling motion and smooth surface finish. Your machinery will give you longer, more dependable service with Timken bearings. Be sure to specify them in the oil field equipment you build or buy. Look for the trade-mark "Timken" stamped on every bearing. The Timken Roller Bearing Company, Canton, Ohio. Canadian plant: Toronto, Ont. Cable address: "Timken."

TIMKEN
TAPERED ROLLER BEARINGS

HOW THE NATIONAL SUPPLY COMPANY...
Timken tapered roller bearings to meet their "Type A" drive bearing. Check to make sure you get the "best" value by elimination of "dead" weight.

WE HIDE A BALL • NOT SET A BEARING • THE TIMKEN TAPERED ROLLER BEARING TAKES SHOCK AND SHOCK • LIVES IN ANY CONDITION

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Is “fracking” the term most commonly used by the general public? **Yes**
Is “fracking” a slang term? **No**

- “Fracking” is far **more commonly used** than the term “hydraulic fracturing” as attested to by large **reference corpora** of spoken and written American English and **Colorado news sources**
- “Fracking” appears in dictionaries and **it is not labelled as slang**.