

The Marijuana Policy Landscape

Beau Kilmer, PhD

Co-Director, **RAND Drug Policy Research Center**
Senior Policy Researcher, **RAND Corporation**
Professor, **Pardee RAND Graduate School**

Mexico City
June 19, 2014



Roadmap

- **Brief overview of changes in marijuana policy**
- **Design considerations for legal marijuana:
The eight P's**

Insights based on many collaborations

- B. Kilmer, J. Caulkins, R. Pacula, R. MacCoun, & P. Reuter. (2010). Altered state? Assessing how marijuana legalization in California could influence marijuana consumption and public budgets. OP-315. Santa Monica, CA: RAND.
- J. Caulkins, B. Kilmer, R. Pacula, R. MacCoun, & P. Reuter. (2012). Design considerations for legalizing cannabis: Lessons inspired by analysis of California's Proposition 19. Addiction.
- J. Caulkins, A. Hawken, B. Kilmer, & M. Kleiman. (2012). Marijuana legalization: What everyone needs to know. New York: Oxford University Press.
- R. Pacula, B. Kilmer, A. Wagenaar, F. Chaloupka, & J. Caulkins. (2014). Developing public health regulations for marijuana: Lessons from alcohol and tobacco. American Journal of Public Health.
- B. Kilmer. (2014). Policy designs for cannabis legalization: Starting with the eight P's. American Journal of Drug and Alcohol Abuse.

Others available at dprc.rand.org

What is happening now is unprecedented

The screenshot shows the top portion of a news article on the Seattle Times website. At the top left, it says "Thursday, March 13, 2014" and "49°F". The main header reads "The Seattle Times Local News" with a sub-header "Winner of Nine Pulitzer Prizes". A navigation bar includes links for Home, News, Business & Tech, Sports, Entertainment, Food, Living, Homes, Travel, and Opinion. Below this is a promotional banner for digital access: "GET UNLIMITED DIGITAL ACCESS 8 WEEKS FOR JUST \$1" with a "Subscribe today" button. A secondary navigation bar lists "IN THE NEWS" topics: Obamacare deadline, Weekend getaways, 1st curved coin, We Day, and Bye-bye Golden Tate. The article's metadata indicates it was originally published on November 8, 2012, and modified on November 7, 2012. The main headline is "Voters approve I-502 legalizing marijuana", followed by a sub-headline: "Washington state voters made history Tuesday by legalizing the recreational use of marijuana." The author is identified as Jonathan Martin. On the right side, there are social media sharing options (Facebook, Twitter, LinkedIn, and a plus sign), a "Recommend" button showing 4.9k, and options for "Comments (491)", "E-mail article", and "Print".

Thursday, March 13, 2014 TRAFFIC 49°F

The Seattle Times Local News
Winner of Nine Pulitzer Prizes

Home | News | Business & Tech | Sports | Entertainment | Food | Living | Homes | Travel | Opinion

GET UNLIMITED DIGITAL ACCESS 8 WEEKS FOR JUST \$1 [Subscribe today](#)

IN THE NEWS: [Obamacare deadline](#) | [Weekend getaways](#) | [1st curved coin](#) | [We Day](#) | [Bye-bye Golden Tate](#)

Originally published November 8, 2012 at 10:26 PM | Page modified November 7, 2012 at 5:16 PM

Voters approve I-502 legalizing marijuana

Washington state voters made history Tuesday by legalizing the recreational use of marijuana.

By [Jonathan Martin](#)

Share: [f](#) [t](#) [in](#) [+](#)
[Recommend](#) 4.9k

Comments (491)
E-mail article
Print

What is happening now is unprecedented

Thursday, March 13, 2014 | TRAFFIC | 49°F

The Seattle Times Local News
Winner of Nine Pulitzer Prizes

Home | News | Business & Tech | Sports | Entertainment | Food | Living | Homes | Travel | Opinion

GET UNLIMITED DIGITAL ACCESS 8 WEEKS FOR JUST \$1 [Subscribe today](#)

IN THE NEWS: Obamacare deadline | Weekend getaways | 1st curved coin | We Day | Bye-bye Golden Tate

Originally published November 8, 2012 at 10:26 PM | Page modified November 7, 2012 at 5:16 PM

Voters approve I-502 legalizing marijuana

Washington state voters made history Tuesday by legalizing recreational use of marijuana.

By Jonathan Martin

THE DENVER POST weather DENVER, CO

News - Sports - Business - Entertainment - Lifestyles - Opinion - Politics - YourH

HOT TOPICS: Daily Digest Missing Jet Union Station Reboot Shannon Sharpe Tulo Plunked ST.P

Print Email

BUSINESS

Legalized marijuana set to become a big Colorado industry

By Steve Raabe
The Denver Post

POSTED 12/30/2012 12:01:00 AM MST
UPDATED 01/04/2013 12:15:41 PM MST

35 COMMENTS

What is happening now is unprecedented

Thursday, March 13, 2014

The Seattle Times Local News
Winner of Nine Pulitzer Prizes

Home | News | Business & Tech | Sports | Entertainment | Food | Living | Homes | Travel | Opinion

GET UNLIMITED DIGITAL ACCESS 8 WEEKS FOR JUST \$1 [Subscribe today](#)

IN THE NEWS: Obamacare deadline | Weekend getaways | 1st curved coin | We Day | Bye-bye Golden Tate

Originally published November 8, 2012 at 10:26 PM | Page modified November 7, 2012 at 5:16 PM

Voters approve I-502 legalizing marijuana

Washington state voters made history Tuesday by legalizing recreational use of marijuana.

By Jonathan Martin

THE DENVER POST

News - Sports - Business - Entertainment - Lifestyles - Opinion - Politics - YourH

HOT TOPICS: Daily Digest | Missing Jet | Union Station Reboot | Shannon Sharpe | Tulo Plunked | ST.P

Print | Email

BUSINESS

Legalized marijuana set to start big Colorado industry

By Steve Raabe
The Denver Post

POSTED 12/30/2012 12:01:00 AM MST
UPDATED 01/04/2013 12:15:41 PM MST



Not even the Netherlands goes this far



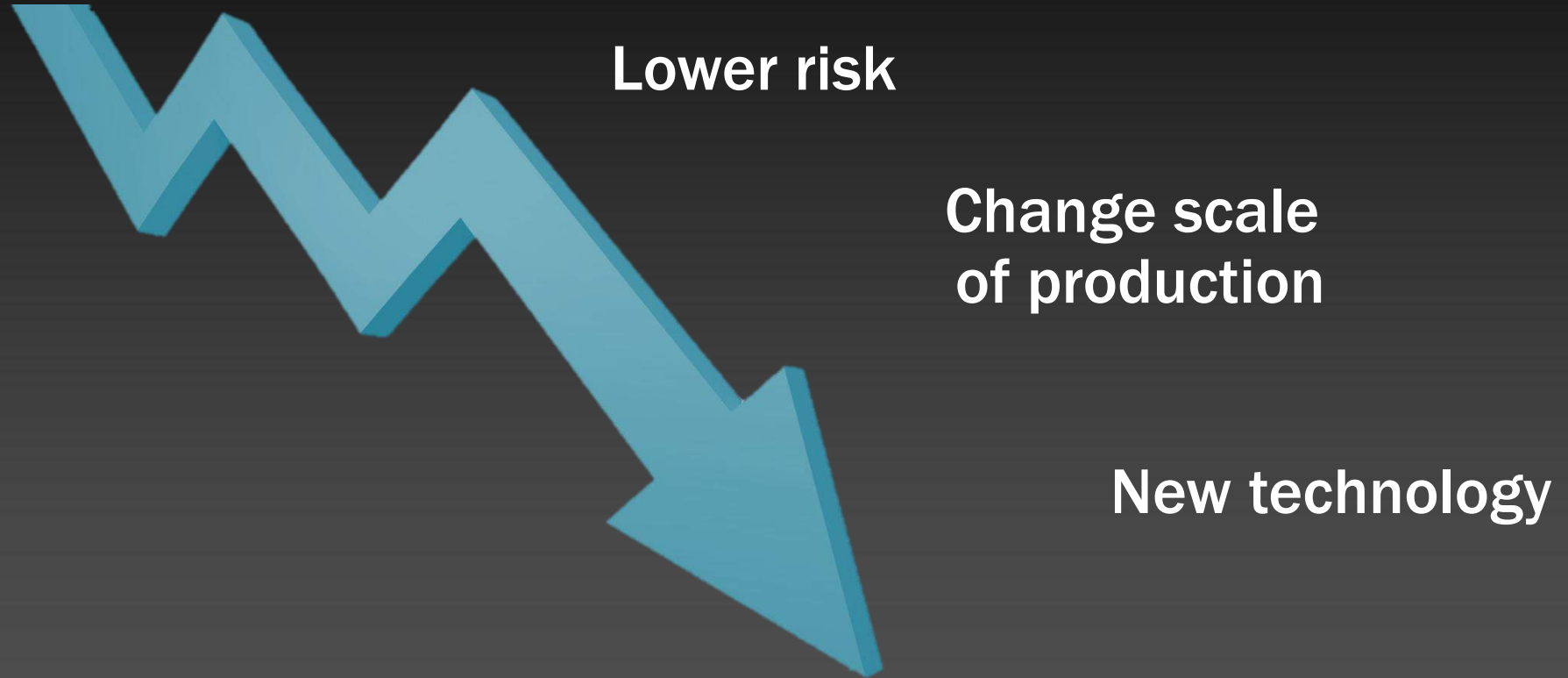
But this is still illegal under U.S. federal law

- **U.S. DOJ has decided not to block implementation**
- **Sends a signal to other states and countries**
- **Federal policy can change**

Design considerations: Eight P's

1. Production

Legalization will drive down production and distribution costs



California black market “farm gate” price per lb.
\$2,000

	price per lb.
California black market “farm gate”	\$2,000
Legalize indoor home-production only	< \$400

	price per lb.
California black market “farm gate”	\$2,000
Legalize indoor home-production only	< \$400
Legalize outdoor industrial grows in US	< \$40

Design considerations: Eight P's

1. Production

2. Profit Motive

U.S. alcohol model is not the only alternative

- Home production
- Co-ops or collectives
- Non-profit organizations with public health focus
- State monopolies

Design considerations: Eight P's

1. Production

2. Profit Motive

3. Promotion

Promotion poses enormous challenges

- **Competition & profit -> incentives to promote**
- **Think about promotion in communities and in stores**
- **Countering promotion can be difficult in the U.S.**
 - Will be banned in Uruguay

Design considerations: Eight P's

1. Production
2. Profit Motive
3. Promotion
4. Prevention

Design considerations: Eight P's

1. Production

2. Profit Motive

3. Promotion

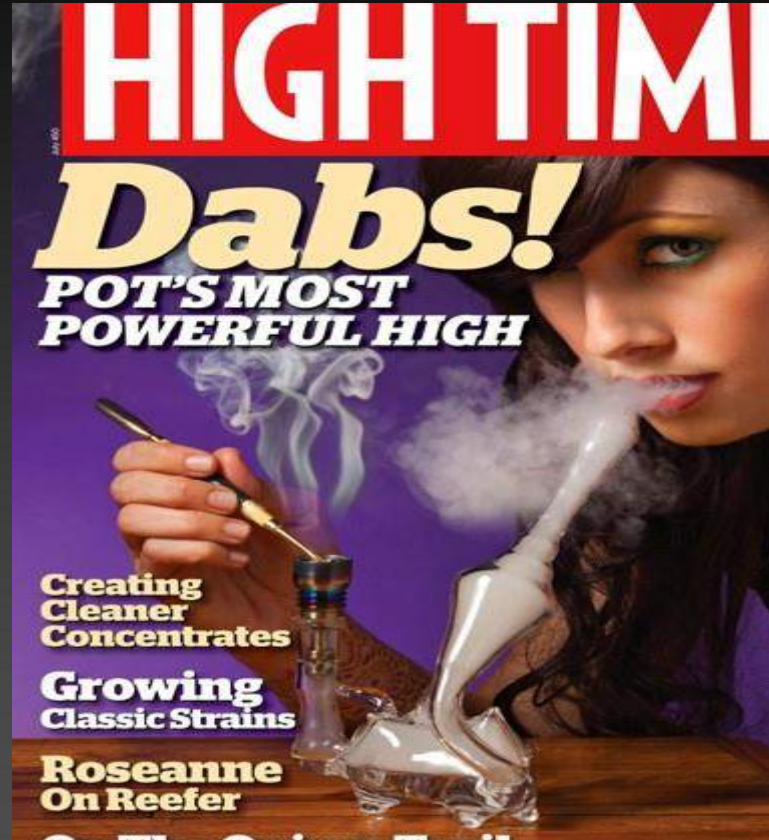
4. Prevention

5. Potency

Should THC levels be regulated?

- **THC is the main intoxicant, also responsible for increasing anxiety and panic attacks**
- **Mexican marijuana is 4-8% THC, sinsemilla sold in stores typically ranges from 10-25% THC**
- **Dutch are discussing limiting THC at 15%**

Hash oil wax/shatter being used to “Dab”



Hash oil wax/shatter being used to “Dab”

**Goal is not to create a panic about “dabs”;
may just be a small-scale regional fad that
won’t last.**

**Since we really don’t know anything about
prevalence or consequences, researchers
should look into this.**



CBD is now getting more attention

- **CBD is a cannabinoid that is believed to offset some of the effects of THC**
- **Breeding for maximum THC decreased CBD levels**
 - Eg., Burgdorf, Kilmer, & Pacula, 2011
- **Emerging discussion about THC:CBD ratios**

Design considerations: Eight P's

1. Production

2. Profit Motive

3. Promotion

4. Prevention

5. Potency

6. Purity

Need to give serious thought to:

- **Molds and contaminants**
- **Additives and flavored products**
- **Will it be legal to infuse marijuana products with nicotine or alcohol?**

Hash-oil solutions now used in e-cigarettes

Google Translate x OpenVape x

openvape.com

HOME LOCATIONS FAQ CONTACT US FACEBOOK TWITTER INVEST **g.e.pen**

o.pen VAPE VAPORIZER PENS

the inside counts. lifetime warranty.

simple & discreet. No buttons or dials. No odor. Enjoy your privacy.

atomizer. the perfect puff. stylus.

o.pen vape
o. *it's what's inside that counts.*

TEXT VAPE TO 20300

t f e

SAMSUNG
OPEN O VAPE
FOLLOW @OPENVAPE
LIKE OPENVAPE

Design considerations: Eight P's

1. Production

2. Profit Motive

3. Promotion

4. Prevention

5. Potency

6. Purity

7. Price

Price matters

- **Influences consumption and revenues**
- **10% decline in price leads to ~3% increase in marijuana participation**
 - Pacula, 2010; Gallet, 2013

Options to elevate price

Require product testing

Reduce competition

Impose taxes



Taxes and regulations may not fully offset decline in price

- If taxes are too high, there will be evasion
- There are alternatives to taxing by weight
 - E.g., ad valorem, % THC, THC:CBD ratio
- Optimal tax today may not be optimal in future

Design considerations: Eight P's

1. Production

2. Profit Motive

3. Promotion

4. Prevention

5. Potency

6. Purity

7. Price

8. Permanency

How easy will it be to change policies?

- **Early adopters will probably suffer growing pains**
- **Raises questions about how much flexibility to build into the taxation and regulatory regime**

Another idea to consider: Sunset clause

- As sunset date approaches, legislature or voters could vote to sustain the law or try something else
- Could give jurisdictions an escape clause to overcome the lobbying muscle of the new industry

Concluding thoughts

- **These truly are uncharted waters**
- **Reasonable people can disagree about marijuana legalization**
- **Must collect detailed baseline information NOW!**



Drug Policy Research Center