Hey Public Health People: Let’s Tax Weed

Patrick Oglesby, J.D., M.B.A., Founder, Center for New Revenue
Who gets $? Gangs, ganjapreneurs, or government?

Pat Oglesby New Revenue
Public Health Criteria for Taxing Cannabis

Patrick Oglesby, J.D., M.B.A., Founder, Center for New Revenue
How Will Revenue Serve Cannabis Policy?

Patrick Oglesby, J.D., M.B.A., Founder, Center for New Revenue
+ 

= ?
Cannabis revenue

Why?
What kind?
How much?

$ Exernalities
Internalites
Why?

What are we mad at?
Externalities

- “Dangerous”?
Externalities

- “how many people can get stoned and still have a great state or a great nation?”
Other Externalities

- Kids
- Smell
- Mexican gangs turn to harder drugs
Internalities?
Internalities?

- One panel here:
  perception:
  “lazy, dangerous, and stupid.”
Internalities

- Is paternalism OK?

- What about positive internalities?
Why?

[Revenue]
Externalities
Internalities
Will taxes discourage use?

Inelastic demand: $$$ Revenue
Elastic demand: Less consumption
Goals of revenue tools:

- Price – keep it up
- Products – nudge toward safer ones
- Promotion – keep it down

[Revenue for programs]
Other Cannabis Revenue Players

Consumers
Sellers
Public
Problems with taxing marijuana

Regressivity
Cannabis revenue

Why?
What kind?
How much?

$ Exernalities Internalites
Revenue Sources from Weed

- Monopoly profits
- Excise taxes
- 280E – nondeductibility of selling expenses
- General taxes
- Fines
- Fees
- [Exceptions beyond medical cannabis]
Not Just Tax: Government Monopoly
Government Monopoly = Safety?

Culture
Consumer preferences
Federal law
Government Monopoly and Legality

North Bonneville, Washington
LSU and Southern U.
Uruguay hearsay

$1.30 retail price per gram
~ $0.90 to producer
~ $0.40 to pharmacy – retailer
Government??
“A small fraction goes to the government”
Government retail stores in
  Quebec
  Nova Scotia
  PEI
  New Brunswick
  BC (alongside private)
  Ontario (online government; private storefronts)
“An examination of Washington’s experience even suggests state ownership of pot stores might boost the public coffers”
Medical cannabis & revenue
Tax medical cannabis?

- (Or charge more in government stores?)
Tax medical cannabis?

Medical: Positive internalities

But

Recreational: Negative externalities
Tax medical cannabis?

How do we know it’s medical?
Exempt medical from tax?
“medicines, medicinal preparations, food products, flavors, flavoring extracts, or perfume containing distilled spirits, **which are unfit for beverage purposes.**”
Blumenauer bill medical tax exemption

- “approved by the Food and Drug Administration for sale for therapeutic purposes and is marketed and sold solely for such purpose.” -- H.R. 1823, last Congress
Arguments against tax break for medical

- Revenue
- Impostors
- Administrability
- Affordability
- Self-victimization
Argument against medical tax break -- Revenue
Argument against medical tax break --
Faking sickness
Argument against medical tax break -- Administrability

Laws To Tax, fn 213: **Statutory** pain levels: “chronic,” “severe,” “severe chronic,” “debilitating,” and “intractable”
Argument against medical tax break -- affordability

And license fees
Argument against medical tax break -- affordability

General price decrease with legalization

Strain: AK-47
Grade: A
Price: $100 / OZ.
Argument against medical tax break -- affordability

????????
Argument against medical tax break -- Self-Victimization
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<td>10%</td>
<td>6.25% on recreational</td>
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<td>Mass</td>
<td>No</td>
<td>13.75%</td>
<td>6% all</td>
</tr>
<tr>
<td>Michigan</td>
<td>No</td>
<td>10%/3%</td>
<td></td>
</tr>
<tr>
<td>Oregon</td>
<td>No</td>
<td>20%</td>
<td>6.85% on recreational</td>
</tr>
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<td>$26.24/oz.</td>
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</tr>
<tr>
<td>Washington</td>
<td>No</td>
<td>37%</td>
<td></td>
</tr>
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</table>
WHAT to excise-tax?

Price – “Ad valorem”?  
THC?  
Weight of plant parts?  
Number of plants?  
Square feet of canopy?  
Electricity used?
Taxing by price

- Easy to start
- No need for pre-collection cash flow to set up a more sophisticated method
- Vermont Revenue Department -- “for the sake of administrative effectiveness and efficiency.”
- May piggyback on retail sales tax
Oakland, CA, July 21, 2009: 1.8 percent of gross receipts

<table>
<thead>
<tr>
<th>Result</th>
<th>Votes</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Yes</td>
<td>40,439</td>
<td>80.0%</td>
</tr>
<tr>
<td>No</td>
<td>10,107</td>
<td>20.0%</td>
</tr>
</tbody>
</table>
Taxing by price

- Critique of Vermont stance – “knowingly implement a policy which is defective by design simply because any alternative would require the Vermont Department of Taxes to work a little bit harder than they’d like to.”

Price (Ad valorem) Base: Problems

- Relationship & quantity discounts
- Free pot with pipe (bundling)
- Predictable price collapse
Price (Ad valorem) Base: Problems

- Relationship & quantity discounts
Bundling discounts: (Free pot with pipe or membership deals)
Price (Ad valorem) Base: Problems

- Predictable price collapse
Recreational Marijuana Prices

Price per Gram

Source: CO Dept of Revenue, Portland Business Journal, WA Econ and Rev Forecast Council, OLCC, Oregon Office of Economic Analysis

WA Retail
OR Retail

CO Wholesale
WA Processor
OR Wholesale

Jan-15  Jan-16  Jan-17  Jan-18
Taxing by price

Correlation with potency?

Doubling potency from 10 to 20 percent increases the price by much less than 2X.

-- Drs. Ben Hansen, Keaton Miller, & Caroline Weber:
<table>
<thead>
<tr>
<th></th>
<th>Tax-incl. price per gram</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>Log experience</td>
<td>0.041</td>
</tr>
<tr>
<td></td>
<td>(0.089)</td>
</tr>
<tr>
<td>Log population</td>
<td>0.112</td>
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<tr>
<td></td>
<td>(0.093)</td>
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<tr>
<td>Competitors within 10km</td>
<td>-0.030</td>
</tr>
<tr>
<td></td>
<td>(0.17)</td>
</tr>
<tr>
<td>CBD concentration</td>
<td>0.221</td>
</tr>
<tr>
<td></td>
<td>(.017)</td>
</tr>
<tr>
<td>THC concentration</td>
<td>0.188</td>
</tr>
<tr>
<td></td>
<td>(0.007)</td>
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<tr>
<td>Fixed effects</td>
<td>Weekly</td>
</tr>
<tr>
<td>N</td>
<td>63,979,845</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.260</td>
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</tbody>
</table>
Table 2: Legal marijuana prices and THC

<table>
<thead>
<tr>
<th></th>
<th>Log tax-incl. price per gram</th>
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<tbody>
<tr>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>Log experience</td>
<td>0.0062</td>
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<tr>
<td></td>
<td>(0.0101)</td>
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<tr>
<td>Log population</td>
<td>0.0078</td>
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<tr>
<td></td>
<td>(0.0094)</td>
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<tr>
<td>Competitors within 10km</td>
<td>-0.0029</td>
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<tr>
<td></td>
<td>(0.18)</td>
</tr>
<tr>
<td>CBD concentration</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>THC concentration</td>
<td>0.0205</td>
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<tr>
<td></td>
<td>(0.0008)</td>
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<tr>
<td>Fixed effects Weekly</td>
<td>63,979,845</td>
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<tr>
<td>$R^2$</td>
<td>0.175</td>
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</tbody>
</table>
Tax base – THC Potency?
Tax Marijuana by Potency?

The Molecular Structure of THC (delta-9-tetrahydrocannabinol)
### Federal liquor tax, per proof gallon -- potency

<table>
<thead>
<tr>
<th>Year</th>
<th>1934</th>
<th>1938</th>
<th>1940</th>
<th>1942</th>
<th>1944</th>
<th>1951</th>
<th>1985</th>
<th>1991</th>
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<tbody>
<tr>
<td></td>
<td>$2.00</td>
<td>$2.25</td>
<td>$3.00</td>
<td>$6.00</td>
<td>$9.00</td>
<td>$10.50</td>
<td>$12.50</td>
<td>$13.50</td>
</tr>
</tbody>
</table>
Federal liquor tax -- potency

Fifth of liquor:
100 proof: $13.50/5 = $2.70
80 proof: $2.70 \times 0.80 = $2.14
Alcohol potency results

These rates translate into taxes of about 10 cents for each ounce of pure alcohol in beer, 7 cents in wine, and 21 cents in spirits.
Why not potency?
Fungible concentrate – Use potency?
Tax base – Weight of various parts of plant?
Taxing by weight

Correlation with potency?
Base: Weight?
CO: Bud (flowers): 25¢/gram
v. Trim (leaves): 11¢/gram
Base in Nevada

- Flower — 75 cents a gram
- Trim — 20 cents a gram
- Small bud — 50 cents a gram
- Wet whole plant — 7 cents a gram.

NV taxes by the unit:
- Immature plants ($15)
- Seeds (($0.90)
- Pre-rolls ($0.75)

Base: Weight AND Price in Canada

- National tax: Greater of $1 per gram or 10% of price
- Some provinces: Monopoly profits
REPORT
OF THE
INDIAN HEMP DRUGS COMMISSION,
1893-94.

President:
The Hon’ble W. MACKWORTH YOUNG, M.A., C.I.I., First Financial Commissioner,
Punjab.

Members:
1. Mr. H. T. GILLANWELU, Solicitor, Fiscal Dept., Bengal.
2. Dr. A. H. L. FRASER, M.A., Commissioner, Anthropological Division, Central Provinces.
3. Surgeon-Major C. J. H. WALKER, Professor of Chemistry, Medical College, and Chemical
   Inspector to Government, Calcutta; Ophthalmic Medical Inspector to Government,
   Calcutta.
4. Raja SADHU SUCHARITAR ROY, of Calcutta, Bengal.
5. RAJWAH BAHADUR SINGH, Advocate, C.I.E., Patna.
6. JILA NOMAL CHAND, of Muzafarpur, North-Western Provinces.

Secretary:
Mr. H. J. NAISTY, Under-Secretary to the Government of Bengal, Financial and Municipal
Departments.

SIMLA:
PRINTED AT THE GOVERNMENT CENTRAL PRINTING OFFICE.
1894.
British India and weight tax

- Choor is ganja from which the woody fiber has been removed.

...ticular sorts, but the fact that the consumption of choor increased very largely (from 424 maunds to 1,369 maunds) during the past year owing to the discovery that it was more lightly taxed in proportion to the amount of narcotic matter present in it, would seem to...
Other excise tax bases

Number of plants
Mendocino: $50 per plant

Pharmaceutical-grade RFID tags track each marijuana plant seed-to-sale.
Other excise tax bases

Canopy area
2010 1st California wave Non-price tax base

- Square footage taxes from $10 to $25
- Some indexed for inflation
Other excise tax bases

Electricity
Indoor Conditions

- **Temperature:** 82F day, 68-70F night
- **Light levels:** 25,000-100,000 lux
  (= hospital operating room = 500x reading)
- **Relative humidity:** 40-50%
- **Air changes per hour:** 30
  (~8x that of laboratory, 60x a modern home)
- **Irrigation water temperature:** 70F
- **Drying:** 50% RH @ 70-80F
- **CO₂ = 1500 ppm** (>4x ambient)

**Power density:** ~200W/sf (like a data center)
45% tax on electricity usage over 600% of Baseline – Arcata CA
Revenue Sources from Weed

- Excise taxes
- Monopoly profits
- 280E – nondeductibility of selling expenses
- General taxes
- Fines
- Fees
No deduction or credit shall be allowed for any amount paid or incurred during the taxable year in carrying on any trade or business if such trade or business (or the activities which comprise such trade or business) consists of trafficking in controlled substances (within the meaning of schedule I and II of the Controlled Substances Act) which is prohibited by Federal law or the law of any State in which such trade or business is conducted.
Federal nondeductibility

No deduction for advertising or sales function
1982: For federally illegal drugs, no income tax deduction except cost of goods sold
Thank you

Pamela Trangenstein, Jennifer Whitehill, Marina Jenkins, David Jernigan, and Megan Moreno

ptrang@bu.edu
Advertisements vs. Promotions

Advertisements is an openly sponsored, non-personal message to promote or sell a product, service or idea.

Promotions are focused on cannabis social media “business pages.”
Limitations on social media ads are currently sparse.

Example Restrictions in Washington

The WA Liquor Control Board marijuana advertising rules (WAC 314-55-155) state:

"Please use social media with caution and be mindful not to appeal to, or solicit, viewers under the age of 21. If possible, please restrict views to adults age 21 and older."
Advertising and maybe marketing

But

Insurance, transportation, rent, clerks’ wages
Honorable Cory Gardner
United States Senate
SR-354
Washington, D.C. 20510

Dear Senator Gardner:

This is in response to your request dated November 14, 2017, for a revenue estimate of an amendment to the “Tax Cuts and Jobs Act,” as reported by the Senate Committee on Finance. Your proposal would amend section 280E of the Internal Revenue Code such that it does not apply to trades or businesses consisting of “marijuana sales conducted in compliance with State law.” Relative to the bill as reported by the Senate Finance Committee, we estimate that your proposal will have the following effects on Federal fiscal year budget receipts:

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</tr>
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<tbody>
<tr>
<td></td>
<td>-0.2</td>
<td>-0.3</td>
<td>-0.4</td>
<td>-0.4</td>
<td>-0.5</td>
<td>-0.6</td>
<td>-0.7</td>
<td>-0.7</td>
<td>-1.9</td>
<td>-5.0</td>
<td></td>
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Revenue Sources from Weed

- Excise taxes
- Monopoly profits
- 280E – nondeductibility of selling expenses
- [General taxes]
- [Fines]
- Fees
Fees
A. Dispensary with four (4) to five hundred (500) qualified patients or Caregivers: shall pay a nonrefundable annual regulatory fee for the actual cost for administering and implementation of OMC Chapter 5.80, up to an amount not to exceed five thousand dollars ($5000.00).
Patient licenses
Exceptions beyond medical

- Homegrown?
- Small business?
Homegrown exception?

CO: yes; WA: no.
### Section 9.04.136 of the Berkeley CA Municipal Code

<table>
<thead>
<tr>
<th>Taxable Square Feet</th>
<th>Maximum Tax Rate</th>
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<tbody>
<tr>
<td>First 3000 square feet</td>
<td>$25 per square foot</td>
</tr>
<tr>
<td>All square feet over 3000</td>
<td>$10 per square foot</td>
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Via AP:

U.S. Sen. John Kerry says he wants to give the country’s 1,500 small beer makers a tax break.

Kerry introduced a bill to the Senate on Wednesday that would reduce the excise tax for small breweries from $7 to $3.50 per barrel for the first 60,000 barrels of beer produced each year.

For every additional barrel up to 2 million, the bill would lower the excise tax from $18 to $16.
How much?

- What do externalities and internalities warrant?
- But this dynamic market starts from zero
- How do we maximize revenue (Laffer curve)?
How much?

- What do externalities and internalities warrant?
How much?

- This dynamic market starts from zero
This dynamic market starts from zero

- Setting tax rates in the face of inevitable price declines?
Adjusting rates – English tobacco tax

In pence/lb. 1600, 1602, 1620
How much?

- How do we maximize revenue (Laffer curve)?
“A gallon of whiskey [bore] $11 tax. You could make it for 75 cents to a dollar and sell it for $3 or $4.”
Golenbock, *American Zoom*
Rates depend on . . . how much enforcement
Allen St. Pierre when at NORML:
“Consumers will pay whatever vice tax society wants so long as the taxes are sufficiently low enough so as not to foster an untaxed and unregulated black market in cannabis production and sales.”

– [https://newrevenue.org/2016/04/12/4669/](https://newrevenue.org/2016/04/12/4669/)
We conclude a retail tax rate on marijuana of 37 percent remains on the correct side of the Laffer curve.

The Taxation of Recreational Marijuana: Evidence from a Reform in Washington State

Benjamin Hansen*
University of Oregon, NBER, IZA

Keaton Miller*
University of Oregon

Caroline Weber*
University of Oregon
Revenue amounts -- 2017 only

Colorado: $217 million
Washington $314 million

Both > $43 per capita per year
“UCLA Anderson’s Brett Hollenbeck and Yale’s Kosuke Uetake . . . suggest that around the country, states could pull more money from retail weed than their current tax structures allow.”

(Documents/sites/faculty/reviewpublications/research/wa_taxation.pdf)
Predictions

- Title for session indicated view of future and evolution
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Predictions

- Cannabis’s lobbyists will prevail like alcohol’s.
- Government monopoly will not expand in outside USA.
- Marijuana advertising will become tax-deductible.
- Law enforcement is critical.
- Taxing only by price is untenable in the long run.
- Taxing bud or flower by THC won’t prevail.
- Medical marijuana will be partly tax exempt.