Impact of Sugary Beverage Taxes

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Sugary Beverage Tax Public Hearing
Standing Committee on Finance and Portfolio Committee on Health
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Overview

- Mexico’s experience with sugary beverage tax
- General arguments about employment impact of sin taxes
- Empirical evidence on employment impact of:
  - Sugary beverage taxes in Mexico, US
  - Tobacco taxes in South Africa
Mexico’s Successful Experience with a Sugary Beverage Tax
Soda Consumption & Obesity
Selected Countries

Source: Soda consumption from Euromonitor, 2011; Obesity prevalence from OECD Health Data, 2005
SSB tax in Mexico Implemented January 2014

• Excise tax of 1 peso per litre (~10% increase in price) on all non-alcoholic beverages with added sugar
  – Excludes 100% juices and beverages with artificial sweeteners
  – Paid by the producer
Impact of Tax on Prices

- Tax passed on to consumers in higher prices
- Overshifting of tax on carbonated beverages
- Relatively larger increase on smaller containers
- Amount of price increase varies by region

Impact of Tax on Purchases
Year One (2014)

- **6% decline** in purchases of **taxed beverages** in 2014 compared to pre-tax trends
- Reduction of 12% by December
- **4% increase** in purchases of **untaxed beverages**

Colchero MA, Popkin BM, Rivera JA, Ng SW. Beverage purchases from stores in Mexico under the excise tax on sugar sweetened beverages: observational study. BMJ 2015;352
Purchases of taxed beverages reduced in all SES groups

- Reductions in purchases greatest among lowest SES households

- 9% decline in 2014

Colchero MA, Popkin BM, Rivera JA, Ng SW. Beverage purchases from stores in Mexico under the excise tax on sugar sweetened beverages: observational study. BMJ 2015;352
Impact of Tax on Purchases
Year One (2014)

• Greatest impact on heaviest consumers
  – Highest purchasers:
    • 31% of households, purchased average of 157 liters of SSB/capita/yr
      – 10% reduction in purchases following tax
  – Middle purchasers:
    • 40% of households, purchased average of 60 liters of SSB/capita/yr
      – 8% reduction of taxed beverages post-tax
  – Light and non purchasers:
    • Remaining households; small impact on light purchasers

Ng SW, Rivera J, Popkin B, Colchero MA. Did high purchasers respond differently to the excise tax on sugar-sweetened beverages in Mexico?
Impact of Tax on Purchases
Year Two (2015)

Average 2-year post-tax difference = -7.6%

- Consistent with year 1 findings
- Reductions greatest among low income households

Colchero MA, Rivera J, Popkin B, Ng SW. Sustained consumer response: evidence from two-years after implementing the sugar sweetened beverage tax in Mexico. In press at Health Affairs
Impact of Tax on Sales
Mexico, 2007-2016

Impact on SSB sales consistent with reductions in purchases:

- 6% drop in 2014
- 8% drop in 2015
- 11% drop in first half of 2016

5.2% increases in bottled water sales

OLS- Adjusted for seasonality, the global indicator of the economic activity


Impact of Tax on Health

- A 10% reduction in SSB consumption associated with the tax would lead in 10 years to:
  - Cases of **diabetes** prevented: **189,300**
  - **Strokes and myocardial infarctions** prevented: **20,400**
  - **Premature deaths** averted: **18,900**
  - **Savings**: **$983 million** international dollars

- Higher effect among the age group: 35-44

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Summary of Mexico’s Experiences

• Households reduced purchases of taxed beverages and increased purchases of untaxed beverages
• Greatest reductions among lowest income households and those with higher purchases
• Reductions in both purchases and sales larger in 2015 than in 2014
• Consumption declines likely to produce significant reductions in disease, deaths and healthcare costs.
• Revenues: US$953.9 million in 2014; US$1,12 billion in 2015
• A larger, 2 pesos/liter (20%) tax would have larger impact
• Using some of the new tax revenues for obesity prevention would lead to even greater impact
Research Team & Funding

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Employment Impact of Sin Taxes
Sin Taxes and Jobs

Industries argue that production and consumption of their products makes a significant economic contribution

• employment in farming, manufacturing, distribution, retailing, and related sectors

• multiplier effects as income earned in these jobs is spent on other goods & services
Sin Taxes and Jobs

Industry-sponsored studies tell only part of story:

• Focus on the gross impact:
  • New tax or tax increase will lead to decreased consumption of taxed product
  • Results in loss of some jobs dependent on production of taxed product
  • Exaggerated effect of industry specific job losses on jobs in other sectors

• Ignore the net impact:
  • Money not spent on taxed product will be spent on other goods and services
  • New/increased tax revenues spent by government
  • **Offsetting job gains in other sectors**
Industry-sponsored studies projecting employment impact of sugary beverage tax in South Africa:

- Oxford Economics:
  - Ignores job creation due to consumer substitution away from tax products to untaxed products
  - Ignores job creation resulting from government spending of new tax revenues

- Econex:
  - Ignores job creation resulting from government spending of new tax revenues

*Industry estimates of gross impact do not reflect overall impact on South African economy*
Employment Impact of Sugary Beverage Taxes
Employment Impact of Sugar-Sweetened Beverage Taxes

Lisa M. Powell, PhD, Roy Wada, PhD, Joseph J. Persky, PhD, and Frank J. Chaloupka, PhD

Sugar-sweetened beverages (SSBs) are the leading source of added sugar in the American diet and are associated with increased risk of type 2 diabetes, cardiovascular disease, dental caries, osteoporosis, and obesity.\(^1\)\(^{-4}\) From 1988–1994 to 1999–2004, average daily caloric intake of SSBs increased from 157 to 203 kilocalories among adults and from 204 to 224 kilocalories among children aged 2 to 19 years.\(^5\)\(^{-6}\) Recently, SSB consumption prevalence fell across all age groups from 1999–2000 to 2007–2008, although the prevalence of sports and energy drinks increased and heavy SSB consumption (≥ 500 kcal/day) in-

Objectives. We assessed the impact of sugar-sweetened beverage (SSB) taxes on net employment.

Methods. We used a macroeconomic simulation model to assess the employment impact of a 20% SSB tax accounting for changes in SSB demand, substitution to non-SSBs, income effects, and government expenditures of tax revenues for Illinois and California in 2012.

Results. We found increased employment of 4406 jobs in Illinois and 6654 jobs in California, representing a respective 0.06% and 0.03% change in employment. Declines in employment within the beverage industry occurred but were offset by new employment in nonbeverage industry and government sectors.

Conclusions. SSB taxes do not have a negative impact on state-level employment, and industry claims of regional job losses are overstated and may mislead lawmakers and constituents. (Am J Public Health. 2014;104:672–677. doi:10.2105/AJPH.2013.301630)
Key Findings

• Model the impact of a 20% tax on sugary beverages

• Sugary beverage tax would lead to net job gains in both states
  • 4,406 job increase in Illinois
  • 6,654 job increase in California

Employment Impact of Mexico’s Sugary Beverage Tax

- Monthly and quarterly data on overall unemployment and employment by sector were analyzed to assess impact of taxes
- **NO DECREASE IN TOTAL EMPLOYMENT** in the manufacturing sector for beverages and nonessential foods following the implementation of sugary beverage and junk food taxes
- **NO CHANGE IN EMPLOYMENT IN COMMERCIAL STORES** (micro, small, medium or large stores) selling food and beverages after implementation of taxes
- **NO INCREASE IN UNEMPLOYMENT RATES** in the country after the taxes were implemented.

Employment changes associated with the implementation of the sugar-sweetened beverage and the nonessential energy dense food taxes in Mexico: [https://www.insp.mx/epppo/blog/4206-sugar-sweetened-beverages.html](https://www.insp.mx/epppo/blog/4206-sugar-sweetened-beverages.html)
Guerrero-Lopez CM, Molina M, Colchero MA (under review). Employment changes associated with the implementation of the sugar-sweetened beverage and the nonessential energy dense food taxes in Mexico.
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Employment Impact of Tobacco Taxes
Tobacco Taxes and Employment in South Africa

- Economics of Tobacco Control Project, University of Cape Town (1999)
  - Static input–output model
  - Domestic consumption expenditures eliminated
  - Expenditures allocated based on recent quitter and average spending patterns
  - Government spending maintained by increasing other taxes.
- Net gain of 50,236 jobs in 1995
  - Similar finding of net job gain under alternative scenarios
“In nearly all countries, national tobacco control policies will have either no effect or a net positive effect on overall employment because any tobacco-related job losses will be offset by job gains in other sectors”
Tobacco Taxes and Jobs

Concerns about job losses in tobacco sector have been addressed using new tax revenues:

- Turkey, Philippines among countries that have allocated tobacco tax revenues to helping tobacco farmers and/or those employed in tobacco manufacturing make transition to other livelihoods through crop substitution programs, retraining programs
Conclusions

• Mexico’s peso per litre tax on sugary beverages effective in reducing SSB purchases and sales
  • Particularly among lowest income group and heavier SSB consumers
• Sugary beverage taxes do not lead to net job losses
  • Consistent with experiences from tobacco taxes
• Additional economic benefits likely to result from tax-induced changes in behavior
  • Reduced health care spending, increased productivity, enhanced development