City and County of San Francisco

Office of the Controller – Office of Economic Analysis

Establishing an Alcohol Mitigation Fee: Economic Impact Report

Item #100865

Office of Economic Analysis

August 4, 2010

Summary of Findings

- The proposed legislation imposes a fee on wholesale alcohol distributors in San Francisco, to recover some of the City's alcohol attributable costs.
- The fee will most likely be passed on to retailers and consumers, resulting in a decline in consumer spending at bars, restaurants, liquor stores, and other retailers.
- The net economic impact will be neutral, as job losses associated with the loss of consumer spending will be offset by job gains or retentions in the public sector.
- The proposed fee level may not account for all alcohol consumption in San Francisco. Lowering the fee by 25% could help ensure the City does not recover more fee revenue than its costs.

Legislation Details

- The proposed legislation would impose a fee on the distribution of alcoholic beverages within San Francisco.
- The fee would be assessed at the rate of $0.076 per ounce of ethanol (alcohol) sold. Because the fee is assessed on the volume of ethanol, the fee will effectively be higher on beverages containing higher concentrations of alcohol.
- This fee is intended to recover alcohol-related costs the City incurs, particularly public health services. California cities may impose fees to recover costs of providing specific services, providing a nexus exists between the fee and the service.
- The fee is supported with a nexus study prepared by the Lewin Group, released in June, 2010.

Summary of Nexus Study Findings: Attributable Costs

- The nexus study identified $18.1 million in alcohol-attributable costs in the Public Health and Fire Departments.

Service	Attributable Costs ($M)
San Francisco Department of Public Health	
Sobering Center	$1.0
Mobile Assistance Patrol (MAP) Van Service	$0.1
Community Substance Abuse Services (CSAS) Substance Abuse Treatments	$7.2
Community Substance Abuse Services (CSAS) Other Interventions	$2.9
Unreimbursed SF General Hospital Services	$1.8
Jail Health Medical Triage and Sobering Cell Checks	$0.6
San Francisco Fire Department	
Unreimbursed Costs for EMS Transports to Destinations Other Than the Sobering Center	$2.9
Unreimbursed Costs for EMS Transports to the Sobering Center	$1.0
Total annual unreimbursed service costs	$17.7
+ Administrative costs	$0.4
Total attributable costs	$18.1

Summary of Nexus Study Findings: Fee Calculation

- Based on average California alcohol consumption, the nexus study estimates 356.8 million alcoholic drinks are consumed in San Francisco annually.
- At 0.6 oz. of alcohol per drink, this translates into 214 million ounces of alcohol. $18.1 million in costs divided by 214 million ounces leads to a maximum allowable fee of $0.0845 per ounce of alcohol.
- The proposed fee of $0.076 would recover approximately 90% of the City's costs, or $16.3 million, according to the nexus study.

Estimating San Francisco Alcohol Consumption

- The nexus study derived its fee level by assuming that San Francisco residents consume alcohol at the California average, and that residents are responsible for all alcohol consumption in the city.
- While this assumption is reasonable, because it reflects the available hard data, it may be prudent to try and account for the amount of alcohol consumed by tourist and visitors, since San Francisco is a major visitor destination.
- Considering San Francisco has 250% of the per capita restaurant and bar employment of California, it may be cautious to base the fee on an estimate of local consumption that is 25% higher, as detailed on the next page.

San Francisco Per Capita Consumption Estimate Details

	Value	Percentage
California alcohol sales in retail trade establishments, 2002 ($000)	$7,180,278	59%
California alcohol sales in bars & restaurants, 2002 ($000)	$4,940,254	41%
Price of alcohol in bars & restaurants relative to retail trade establishments[1]	375%	
Estimated share of California alcohol sales by volume in retail trade establishments		84%
Estimated share of California alcohol sales by volume in bars & restaurants		16%
Per capita employment in San Francisco bar and restaurant industry relative, to California[2]	250%	
San Francisco's per capita alcohol consumption from retail trade, relative to California per capita total		84%
San Francisco's per capita alcohol consumption from bars and restaurants, relative to California per capita total		40%
San Francisco's total per capita alcohol consumption, relative to California per capita total		124%

[1] – Based on OEA assumptions of retail price ratios in San Francisco.
[2] – Employment Development Department, Industry Statistics.

Considering San Francisco's larger bar and restaurant industry leads to a 24% higher estimate of alcohol consumption, or 268 million ounces.

Economic Impact Factors

- The fee will directly fall on wholesale distributors in San Francisco, who will face a choice of trying to reduce their payments to suppliers, reducing their income, or trying to pass the fee on to local retail outlets (bars, restaurants, liquor stores, grocery stores, etc).
- Because the San Francisco wholesale market is a small share of the national market, local wholesalers will not likely be able to force national and global suppliers to lower their wholesale price.
- On the other hand, because local retail outlets cannot avoid purchasing alcohol from a distributor who has to pay the fee, they similarly cannot evade a pass-through of the fee, via higher wholesale prices.
- Retail outlets will most likely attempt to pass the fee on to final consumers, in the form of higher retail prices. Higher retail prices can be expected to reduce the consumption of alcoholic beverages, depending on the fee's impact on consumer prices, and the sensitivity of consumer demand to price rises.
- Ultimately the fee will most likely result in reduced spending at retail outlets of alcohol due to reduced demand, reduced consumer spending on other commodities, and higher public sector spending.

Fee Impacts on Alcohol Consumption: Per-Serving Price Impacts

- Understanding how consumers will react requires an analysis of how the fee would affect retail prices.
- The fee is assessed per ounce of pure ethanol. Using standard conversion factors relating to alcohol concentration in beverages, and serving sizes, an estimate of maximum per-serving price increases can be made.
- The proposed fee translates into an estimated 4.1 cents per serving increase in the price of beer, a 5.9 cents increase per glass of wine, and 4.7 cents increase in the price of a distilled spirit beverage.

Beverage Type	Fee per ounce of ethanol	x	Ounces of ethanol per ounce of beverage[1]	x	Ounces of beverage per serving	=	Fee per Serving
Beer	$0.076		0.045		12		$0.041
Wine	$0.076		0.129		6		$0.059
Distilled Spirits	$0.076		0.411		1.5		$0.047

[1] – Nexus Study. Ethanol Conversion Coefficients used in the NIAAA's Alcohol Epidemiologic Data System.

Fee Impacts on Alcohol Consumption: Restaurants and Bars

- Retail prices of alcohol are very different at different types of outlets. Beverages served at bars and restaurants are far more expensive than the same beverages purchased at a liquor store.
- Because of this, the fee is projected to have a much smaller impact on price and consumption at bars and restaurants, between 0.6% and 1.1% depending on the type of beverage.
- This is projected to reduce consumption at these establishments from between 0.3% (for beer) to 1% (for wine).

Beverage Type	Fee per Serving	Retail Price per Serving - Onsale[1]	**% Price increase attributable to fee**	Elasticity of Demand [2]	**Change in Consumption**
Beer	$0.041	$3.75	**1.1%**	-0.30	**-0.3%**
Wine	$0.059	$6.00	**1.0%**	-1.00	**-1.0%**
Distilled Spirits	$0.047	$8.00	**0.6%**	-1.50	**-0.9%**

[1] – OEA assumptions, based on average prices of $5 per pint of beer, $6 per glass of wine, $8 per spirits cocktail.
[2] – cited in Chaloupka, F.J., Grossman, M., and H. Saffer. 2002. "The Effects of Price on Alcohol Consumption and Alcohol-Related Problems" Alcohol Research and Health 26:1, 22-34.

Fee Impact on Alcohol Consumption: Grocery and Liquor Stores

- Alcoholic beverages purchased at grocery and liquor stores are cheaper, and the fee will have a greater effect on price and consumption from these establishments.
- The fee is projected to raise prices by 2.4% for wine to 4.1% for beer.
- This is projected to reduce consumption by between 1.2%, for beer, to 5.9%, for distilled spirits.

Beverage Type	Fee per Serving	Retail Price per Serving - Retail [1]	**% Price increase attributable to fee**	Elasticity of Demand [2]	**Change in Consumption**
Beer	$0.041	$1.00	**4.1%**	-0.30	**-1.2%**
Wine	$0.059	$2.50	**2.4%**	-1.00	**-2.4%**
Distilled Spirits	$0.047	$1.20	**3.9%**	-1.50	**-5.9%**

[1] – OEA assumptions based on average prices of $6 per six-pack of beer, $12 per bottle of wine, $20 per 750 ml (25 oz.) bottle of distilled spirits.
[2] – cited in Chaloupka, F.J., Grossman, M., and H. Saffer. 2002. "The Effects of Price on Alcohol Consumption and Alcohol-Related Problems" Alcohol Research and Health 26:1, 22-34.

Fee Impact on Alcohol Consumption: Impacts on Total Fee Revenue

- Applying the projected reductions in consumption to estimates of how much alcohol is consumed across different beverage types and retail distributors leads to an estimate of how much total alcohol consumption will decline because of the fee, and how much fee revenue will be generated.
- The table below suggests annual consumption is expected to decline by 6 million ounces, or 2.2%, and the proposed fee could generate $19.9 million in revenue. This estimate is uncertain because the estimate of alcohol consumption in San Francisco is uncertain, and also as because of under-compliance, particularly in the first year.
- If this estimate was correct, it would exceed the allowable costs detailed in the nexus study, and it is likely that the City would need to reduce the fee level in the future.

	Consumption without fee (M oz.) [1]	Consumption impact of fee[2]	Consumption with fee (M oz.)	Fee per oz.	Fee Revenue
Bars & Restaurants					
Beer	38	-0.3%	38	$0.076	$2.9
Wine	20	-1.0%	20	$0.076	$1.5
Distilled Spirits	26	-0.9%	26	$0.076	$1.9
Total					
Liquor & Grocery Stores					
Beer	84	-1.2%	83	$0.076	$6.3
Wine	43	-2.4%	42	$0.076	$3.2
Distilled Spirits	56	-5.9%	53	$0.076	$4.0
Total	268		262		$19.9

[1] – Using NIAAA assumptions of alcohol consumption by beverage type, and estimated San Francisco consumption. See pages 6-7.
[2] – See pages 10 and 11.

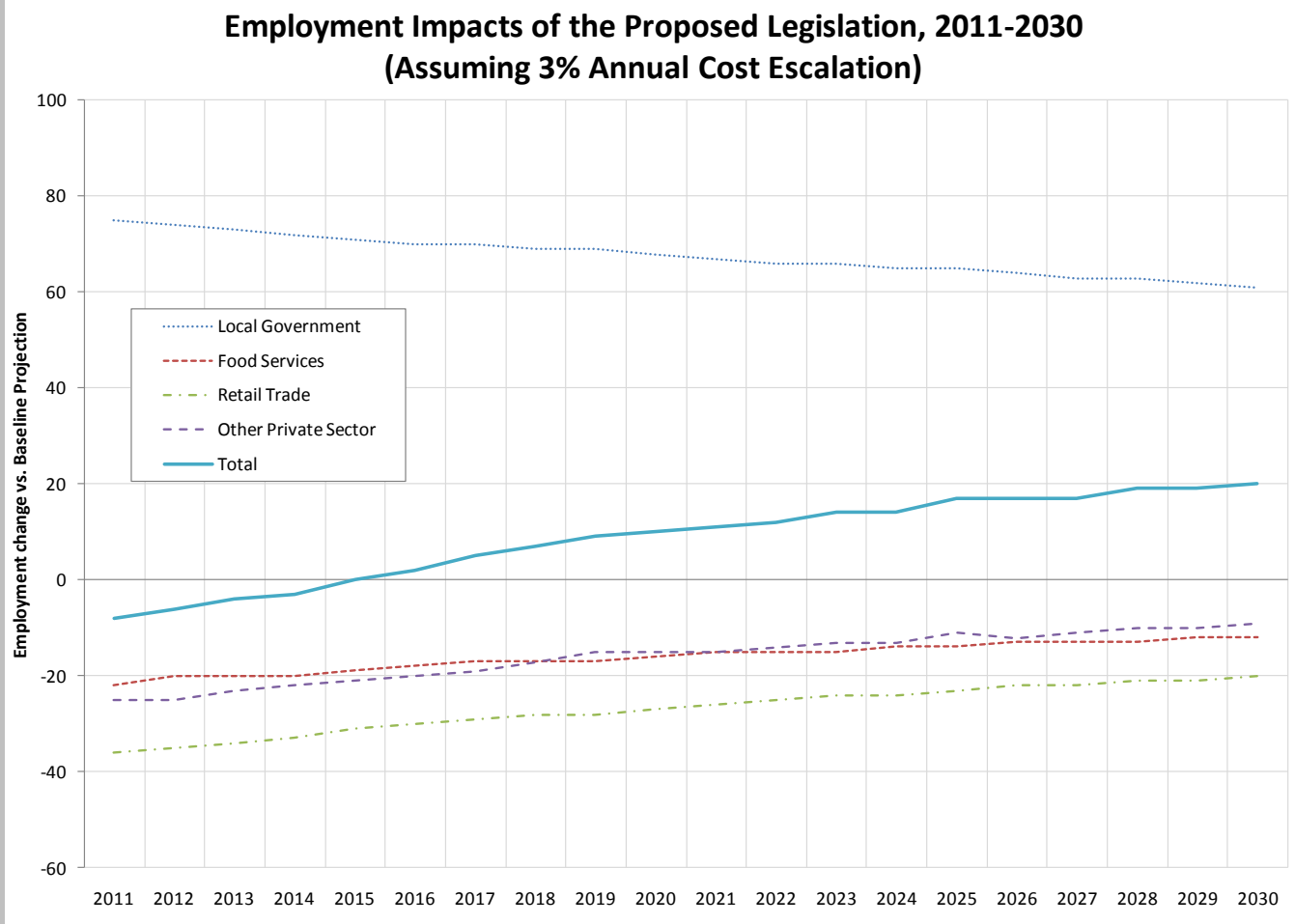
Fee Impact on Alcohol Consumption: Impacts on Consumer Spending

- The reduced consumption of alcoholic beverages will reduce revenue at retail establishments that sell alcohol in San Francisco. Spending at bars and restaurants is projected to decline by $1.9 million, and spending at liquor and grocery stores by $4.1 million. This is effectively the retail & food service industry's share of the fee that is passed through from wholesalers.
- Consumers will accept the remainder of the $19.9 million pass-through, or $13.9 million. Consumer spending in other sectors of the economy will decline by this amount.

	Consumption Decline (M oz) [1]	Consumption decline (Retail Servings)[2]	Average Retail Price without fee[3]	Spending Decline ($M)
Bars & Restaurants				
Beer	0.1	62,311	$3.75	$0.2
Wine	0.2	106,764	$6.00	$0.6
Distilled Spirits	0.2	125,787	$8.00	$1.0
Total				$1.9
Liquor & Grocery Stores				
Beer	1.0	543,379	$1.00	$0.5
Wine	1.0	558,613	$2.50	$1.4
Distilled Spirits	3.3	1,797,720	$1.20	$2.2
Total				$4.1

[1] – Difference between "Consumption without fee" and "Consumption with fee" on page 12.
[2] – Converting the consumption decline in million ounces of alcohol to a number of retail servings of each beverage.
[3] – See page 10 and 11.

Economy-Wide Impacts on Jobs



The decline in consumer spending will reduce employment in retail trade and food services. The increase in local government spending will increase employment in the public sector, City contractors, and businesses that serve their employees.

The net job effect is essentially zero over the next twenty years. This simulation assumes a 3% annual cost escalation, but the neutral economic impact occurs under a wide range of escalation rate assumptions.

Risk Mitigation and Recommendations

- If alcohol consumption in San Francisco is 25% than estimated in the nexus study, due to tourists and visitors, fee revenue will likely exceed allowable costs.

- Therefore, if the City prudently lowered the proposed fee by 25%, it would reduce the risk of over-collection in the first year. The legislation allows for a fee adjustment by the Controller in later years.

- The proposed fee is projected to generate a decline in consumer spending, along with an increase in City spending. Economically, these two forces effectively neutral one another, and the net impact on employment in San Francisco is negligible.

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