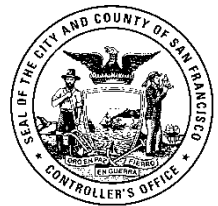


**Yellow Pages Distribution
Pilot Program:
Economic Impact Report**

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City and County of San Francisco

Office of the Controller - Office of Economic Analysis

Yellow Pages Distribution Pilot Program: Economic Impact Report

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Main Conclusions

Several companies currently distribute Yellow Pages directories to residences and businesses in San Francisco. The proposed legislation would create a three-year pilot program that modifies how a Yellow Pages may be distributed within the city. Under the legislation, distribution could only occur when an occupant physically receives delivery of a Yellow Pages, or when a Yellow Pages is dropped off in response to a request. The program would essentially change the Yellow Pages from a near-ubiquitous advertising medium delivered to every home and business, into an "opt-in" publication.

This transition can be expected to reduce the distribution of Yellow Pages directories in San Francisco. This will affect the economy in three main ways:

1. by impacting the cost of and the sales generated by Yellow Pages advertising
2. by reducing the expenditures of Yellow Pages publishers within the city
3. by reducing city's cost of recycling Yellow Pages directories.

From the perspective of the local business that uses the Yellow Pages to advertise, the primary effect of the legislation will be to make the Yellow Pages a more narrowly-tailored, cost-effective, advertising medium. A reduction in the number of directories that are distributed will reduce publishers' costs, and should lead directly to reduced advertising rates in this competitive industry. Business customers would no longer pay, through their advertising rates, for the distribution of directories that will not be used. Yet because the most avid Yellow Pages users will be those most likely to opt-in, the sales impact of the Yellow Pages will not decline as much as the cost of its advertisements. As a result, the sales impact per dollar spent on Yellow Pages advertising will can be expected to rise.

Since fewer people will possess a Yellow Pages in the future if the legislation is enacted, sales generated by Yellow Pages advertisements will certainly decline, but this does not mean that consumer spending in San Francisco as a whole will decline. Yellow Pages-generated sales account for approximately 4% of all taxable sales in San Francisco. This small fraction suggests that the sales channels that account for the other 96% have the capacity to absorb for any decline in Yellow Pages-generated sales. The net effect on local businesses will be to reduce their advertising costs while holding overall sales constant.

The city will also experience a small net benefit from the reduced cost of recycling Yellow Pages directories, if fewer are distributed. These costs are underwritten by waste disposal ratepayers, and savings should reduce rates, leaving ratepayers will more to spend in the local economy.

The primary negative economic impact of the legislation is the reduction of economic activity from the publishers themselves, who will no longer hire contractors to distribute the directories. However, the bulk of the publishers' expenditures on Yellow Pages takes place outside of San Francisco, and therefore this negative effect is expected to be small.

Many environmental policies involve a trade-off between environmental benefits and economic costs. This proposed legislation, however, generates both environmental and economic benefits. It will reduce the city's waste and recycling costs, as well as fostering a more efficient business advertising system in San Francisco.

INTRODUCTION

Details of the Legislation

Several companies currently distribute Yellow Pages directories in San Francisco. The proposed legislation would create a three-year pilot program that modifies how a Yellow Pages may be legally distributed within the city. Under the legislation, distribution could only occur under one of two scenarios:

1. When an occupant physically receives delivery of a Yellow Pages.
2. When a Yellow Pages is dropped off in response to a request from an occupant.

Distributors are free to devise any mechanism for potential recipients to make a request, and there are no restrictions on the distribution of multiple Yellow Pages directories to businesses or other areas open to the public that might wish to host them, such as public libraries.

In addition, a business or resident need only request a Yellow Pages once in order to automatically receive new directories each year of the three-year program.

Finally, the legislation also calls for the City to conduct a public program regarding the environmental impact of commercial phone directories and the existence of alternatives.

In essence, the program would convert the Yellow Pages from a near-ubiquitous advertising medium that is delivered to every residence and business in San Francisco, to an "opt-in" program in which occupants must affirmatively state a desire to receive a Yellow Pages. There are currently two major Yellow Pages directory publishers—AT&T and Valley Yellow Pages—which would be most directly affected by this legislation. Several smaller publishers operate in San Francisco, but do not currently deliver door-to-door.

ECONOMIC IMPACT ASSESSMENT

How the Legislation Would Affect the Economy

Yellow Pages publishers distribute the directories free to the public. They earn revenue by selling advertising space to local businesses. These businesses in turn invest in Yellow Pages advertising because they believe that this advertising will increase their sales.

Revenue received by Yellow Pages publishers pays their labor, rent, and capital costs. The OEA understands that the two major Yellow Pages publishers that distribute in San Francisco, AT&T and Valley, have the bulk of their Yellow Pages-related employment and expenditures outside of San Francisco, and thus the bulk of the economic impact of these companies is felt outside of San Francisco.

Yellow Pages directories are re-issued annually, and under San Francisco's recycling laws, old volumes must be recycled. Because recycling is not a profitable activity, it is subsidized by businesses and residents through their waste disposal charges. Any reduction in the quantity of Yellow Pages recycling would reduce the city's aggregate cost of recycling. Through the City's rate-setting process with its waste disposal contractor, reduced recycling costs should result in reduced fees for ratepayers.

Any reduction in the number of Yellow Pages directories that are distributed in San Francisco will therefore affect the economy in three major ways:

1. By impacting the price of business advertising, and the sales generated by that advertising.
2. By reducing the direct local expenditures of Yellow Pages publishers in the city.
3. By reducing the amount, and ultimately the cost, of recycling in the city.

An assessment of each of these impacts is made in the sections that follow.

Expected Opt-In Behavior

The ultimate economic impact of this legislation will be largely determined by the answers to two questions:

- What percentage of local residents and businesses will request a Yellow Pages, if the legislation is enacted?
- What percentage of current Yellow Pages sales will these requesters account for?

San Francisco's pilot program would be the first "opt-in" program for Yellow Pages directories in the country. Thus, there is no experience from comparable programs elsewhere. CRM Associates, an economics firm specializing in the impact of Yellow Pages marketing, has

estimated that between 10-15% of businesses and residences opting in is typical, with 25% being an upper-end estimate. In lieu of hard data, this analysis assumes 20% of current recipients will request a Yellow Pages, and the distribution of directories will decline 80%, across all publishers, in San Francisco.

It is highly unlikely that sales from Yellow Pages will decline as much. A well-known truism in marketing and other branches of economics is that a majority of revenues comes from a minority of customers. This is the so-called "80/20 rule", which simply reflects the fact that most businesses have customers with varying degrees of loyalty. What this rule means in this context is the most devoted users of Yellow Pages will be the ones most likely to opt-in, and that the use of Yellow Pages, and sales resulting from Yellow Pages, will not decline by anything approaching 80%, even if physical distribution of the directories does.

An alternative explanation, which cannot be entirely dismissed, is that Yellow Pages use is event-driven—an immediate need for a moving company, a lawyer, an emergency plumber, etc.—and these events cannot be known in advance. According to this perspective, it is more likely that anyone who has used a Yellow Pages at all in the past year is equally likely to have an event that generates sales.

On the basis of both of these arguments, this analysis assumes that the 20% of current Yellow Pages recipients that opt-in will generate sales from Yellow Pages ads that total 42% of current sales from those ads.

Again, these figures are not based on hard data. What is most important, in understanding the economic impact in qualitative terms, is that a significant reduction in the physical distribution of Yellow Pages should be expected, but the reduction in sales generated by Yellow Pages advertising will be *less* significant.

A reduction in the number of Yellow Pages distributed will, in the first instance, reduce the cost to Yellow Pages publishers of providing directories within San Francisco. An 80% reduction in the number of Yellow Pages directories in San Francisco should reduce the cost of producing and distributing the books by a similar percentage. In other words, the industry's cost per directory should not change if the policy is enacted.

Because the industry is a competitive one, this reduction in costs will ultimately find its way into a reduction in advertising rates and revenue. Even if the total number of ads sold is the same, competition among publishers will drive advertising rates down to a level normalize profit levels, given the industry's reduced San Francisco costs.

Yellow Pages Distributors

CRM Associates has estimated that all Yellow Pages publishers in San Francisco together earn between \$15-\$20 million per year in advertising revenue. This analysis uses \$17.5 as a midpoint estimate, and 40% as a rough estimate of the gross margin. Gross margin is the level of profitability of the industry, and equals revenue less total costs divided by revenue. Again, the exact gross margin is not critical; the important point is that the market will restore this level of gross profitability after it adjusts to an opt-in system. The same competitive forces that set the gross margin now should act to restore it to that level after the market adjusts.

As detailed in Table 1, if the \$17.5 million in revenue and 40% gross margin is correct, and (as estimated by Yellow Pages publishers) 1.2 million directories are distributed within San Francisco annually, then the industry's aggregate costs of supplying San Francisco are \$10.5 million and the cost per book is \$8.75. Assuming that cost per book stays the same, and there is an 80% reduction in books distributed, then the industry's total cost of supplying the opt-in consumers will be \$2.1 million. If competition forces the industry's gross margin to a level of 40%, then advertising rates will be driven down to the point where total industry advertising revenue falls to \$2.9 million, an 80% decline. The industry therefore would stand to lose \$14.6 million in advertising revenue, which would of course appear to its local business customers as a \$14.6 million savings in aggregate advertising costs.

TABLE 1		Impact of the Legislation on Yellow Pages Publishers		
	Current System	Opt-In System	Difference	
Ad Revenue	\$17.5	\$2.9	(\$14.6)	
Gross Margin	40%	40%	\$0.0	
Gross Cost of Goods Sold	\$10.5	\$2.1	(\$8.4)	
COGS/Book	\$8.75	\$8.75	\$0.0	

Business Customers and Other San Francisco Businesses

The impacts on San Francisco businesses that advertise in the Yellow Pages will be mixed. On one hand, their aggregate costs of advertising in the Yellow Pages will decline significantly. On the other hand, as discussed above, they will see reduced sales through the Yellow Pages channel. Because Yellow Pages advertising costs are projected to fall more (to 20% of current) than sales generated by the Yellow Pages (to 42% of current), because the most devoted users of the Yellow Pages are most likely to opt-in, the sales return on investment of the Yellow Pages will actually rise with an opt-in system, even as overall sales generated by the Yellow Pages declines.

As Table 2 indicates, CRM estimates that there may be \$437 million in sales generated by the Yellow Pages within

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San Francisco. This estimate is based on an assumption that the average Yellow Pages advertisement generates sales equal to 25 times its cost. This sales ROI estimate was obtained, by CRM Associates, by tracking the number of phone calls, and resulting sales, to business telephone numbers that are only advertised in the Yellow Pages.

Assuming the Yellow Pages-generated sales declines to 42% of current sales, total sales figure with an Opt-In system would be \$183.8 million. Assuming a drop in costs of 80% would, as discussed in the previous section, lead to Opt-In total costs of \$2.9 million. Because costs decline more than sales, the sales ROI of the Yellow Pages will actually rise, to \$62.5 per dollar invested.

TABLE 2		Impact of the Legislation on Local Business Customers of the Yellow Pages		
	Current System	Opt-In System	Difference	
Sales from YP Ads	\$437.5	\$183.8	(\$253.8)	
/ Annual Spending on YP Ads	\$17.5	\$2.9	(\$14.6)	
YP Sales / \$ Spent	25	62.5	37.5	

From the perspective of the local business customer that uses the Yellow Pages to advertise, the primary effect of the legislation will be to make the Yellow Pages a more narrowly-targeted, cost-effective advertising medium. Business customers would no longer be forced to pay, through their advertising rates, for the production and distribution of directories that will not be used or will not generate sales. Yellow Pages-generated sales will fall, but costs will fall more, and consequently businesses will receive more sales per dollar invested in the Yellow Pages.

They will also, of course, have the ability to invest their savings from lower Yellow Pages rates into a wide variety of other local advertising media. Depending on how effective those alternative media are relative to the Yellow Pages, an individual business may see its overall sales increase, or decline. It is impossible to predict how each business customer would react.

It is clear, however, that although total sales through the Yellow Pages can be expected to decline, this does not represent any net loss to the overall San Francisco economy. Advertising does not create personal income, and reduced advertising in one medium does not reduce spending at local businesses as a whole.

What effective advertising does is divert consumer spending towards the businesses that use it, and away from businesses that use less-effective forms. If the \$437 million estimate for Yellow Pages-generated sales in San Francisco are correct, that would represent approximately

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4% of taxable sales in San Francisco. This means 96% of sales are initiated through some process other than the Yellow Pages. Clearly, San Francisco residents and businesses have ample alternatives to identify and connect with the businesses they need.

Having said that, it is not true that every business in San Francisco will necessarily benefit from the policy. It is certainly possible that a business that particularly benefits from Yellow Pages advertising could find itself with reduced sales, if no other advertising medium can access its target market in the same way. Advertising is a dynamic industry, however, with evolving technologies and consumer patterns creating challenges for traditional media. The gap in the market created by an opt-in Yellow Pages distribution system could very well stimulate innovation in more-effective forms of local business marketing.

Recycling

The projected 80% reduction in Yellow Pages distribution in San Francisco will reduce the City's recycling burden and should reduce, in turn, ratepayers charges for recycling. Recology, the City's waste disposal contractor, has reported that Yellow Pages are particularly expensive to recycle, at \$300 per ton. If this rate is accurate, given an average weight of slightly over 4 pounds per directory, an 80% reduction in recycling would lead to annual savings to the city of approximately \$600,000 per year (Table 3).

While not insignificant, these savings are much less than what local business customers can be expected to save through reduced Yellow Pages advertising rates. In fact, the cost of the proposed public outreach program could very well consume a large portion of the recycling savings, limiting their economic benefit.

TABLE 3		Impact of the Legislation on City Recycling Costs		
	Current System	Opt-In System	Difference	
Annual Books Recycled (million)	1.2	0.24	-0.96	
/ Books / Ton	485	485	0	
Tons of books recycled	2,475	495	-1,980	
x Recycling cost per ton	\$300	\$300	0	
Total Annual Recycling Cost (\$M)	\$0.74	\$0.15	(\$0.59)	

CONCLUSIONS

Summary of Economic Impacts

These three distinct economic impacts, on the publishers, local business customers, and recycling, can be considered together to present a total economic impact on the city's economy and on jobs in San Francisco. Using the OEA's REMI model of the city's economy, estimates can be made of the multiplier effects, on jobs and overall economic activity, that will occur with the three major impacts:

1. a reduction of economy-wide business advertising costs, while economy-wide business sales remain constant. The resulting savings will be invested by local businesses, possibly in new advertising, which will result in the net creation of 131 jobs and a \$15.4 million expansion in the city's economy.
2. a reduction of recycling costs, which in time will reduce ratepayer recycling charges. This will create a very slight increase in consumer spending in San Francisco, generating 3 jobs and \$0.3 million in economic growth.
3. Reduction in the Yellow Pages publisher's local economic spending, which is a negative impact on the local economy. Publishers incur out-of-town expenses in sales, manufacturing, and corporate operations, and San Francisco-based expenditures in delivery. Without clear data on the geographical breakdown, the OEA assumed that 20% of all publisher expenditures occur in San Francisco. Such a level of activity reduction would lead to a loss of 20 full-time equivalent jobs, and a \$3.1 decline in the city's gross product. It is important to note that even if 100% of the publishers expenditures were based in the city, the negative economic impact of reduced publishing would not outweigh the positive impact of more efficient advertising, and net impact would still be positive.

Considering all of these impacts together, the OEA's best estimate of the net impact of the legislation is the creation of 115 jobs, and an expansion of the city's economy by \$12.6 million annually, over the three-year life of the pilot program.

TABLE 4	Summary of Economic Impacts	
Business Customer Impact		
Annual Change in Spending on Advertising (\$M)		(\$14.6)
Citywide Employment Change		131
Gross City Product Change (\$M)		\$15.4
Recycling Impact		
Annual Reduction in Recycling Costs / Increase in Consumer Spending (\$M)		(\$0.6)
Citywide Employment Change		3
Gross City Product Change (\$M)		\$0.3
Distributor Impact		
Change in Local Distributor Expenditures (\$M)		(\$2.9)
Citywide Employment Change		-20
Gross City Product Change (\$M)		(\$3.1)
Sum of Impacts		
Citywide Employment Change		115
Gross City Product Change (\$M)		\$12.6

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