Non-Environmental Effects of the Bay Area Green Business Program

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Abstract The Bay Area Green Business Program (Program) certifies businesses in and around San Francisco that voluntarily improve their environmental performance by adopting green business measures. This research explored the non-environmental effects of the certification on businesses and whether or not the businesses' savings in energy, solid waste, hazardous waste, and water had been implemented before or after certification. Addressing these issues is important because non-environmental effects may differ from those the Program intends to have and could potentially change noncertified businesses decision to seek certification. Knowing if the businesses adopted environmental performance measures before or after certification will help in understanding if the Program is improving the environmental performance of each business it certifies, or if the Program is "greening" the industry by giving certified businesses advantages over non-certified ones. Interviews were conducted with certified green automotive repair shop owners in Alameda County to answer the questions above. Results found the majority of certified shops paid lower utility bills, had a positive relationship with regulators, and benefited from the certification by being up to date on recent environmental standards and thereby avoided penalties from non-compliance. These effects may encourage non-certified shops to seek certification, but are not entirely consistent with non-environmental effects the Program intends to have on the businesses it certifies. Additional results found a majority of shops were practicing green business measures before certification, suggesting the Program does not improve the environmental performance of individual businesses, but instead changes the dynamics of the auto repair shop industry by giving certified shops advantages over non-certified shops.

Introduction

The Bay Area Green Business Program is a voluntary environmental performance certification program that was started in 1996. Local governments, utilities, environmental agencies, and business representatives in the San Francisco Bay Area coordinate the program, which offers interested businesses a framework for improving their environmental performance to go above and beyond mandatory industry regulations. The Bay Area Green Business Program (Program) has certified over 475 businesses and public agencies across seven different counties in the Bay Area. Potential benefits of the green business certification include advertising opportunities, reduced operating costs, assistance with coming into compliance with mandatory industry regulations and developing a positive relationships with regulators. The certification standards are updated on a continuous rolling basis so as to address the most recent and important environmental problems associated with each business sector. The green business standards include four areas of focus: good housekeeping and pollution prevention, solid waste reduction, energy savings, and water savings.

The certification process is voluntary and does not involve any fees. The Program does not usually seek out businesses to certify. Instead, an interested business owner must contact their local county coordinator. Businesses may become aware of the Program from a neighboring certified business, their local compliance inspector, or their customers. The county coordinator sends the interested business an application form and a checklist specific to their industry sector (e.g. wineries, hotels, copiers, automotive services). Each environmental improvement option on the checklist is called a "green business measure." The Program claims to streamline the regulation process for certified businesses by organizing local compliance inspectors from all of the necessary environmental agencies (e.g. Berkeley City Toxics Commission, East Bay Municipal Utility District, PG&E, Fire Department) and sending them to the businesses to conduct their audits all at once. The Program county coordinator and the local compliance inspectors work with the business to help it comply first of all with mandatory environmental regulations, then with at least the minimum number of measures that must be adopted in each category (good housekeeping and pollution prevention, solid waste reduction, energy savings, and water savings) to gain the certification. The green business checklist is flexible and can be customized for the individual business to meet the standards in a variety of ways. Measures that the business had already implemented can count towards their certification. Every three years, the Program re-certifies the businesses to make sure they are still meeting the standards.

The Bay Area Green Business Program's mission is to assist, recognize and promote businesses and government agencies that volunteer to operate in a more environmentally responsible way and offer businesses and agencies an easy-to-use framework for improving environmental performance. However, to encourage businesses to become certified, the Program also claims the certification has the following benefits: promoting the business to the public, enhancing the company's image, improving operating procedures, saving money by conserving resources, helping businesses gain a competitive edge in their market, streamlining the regulation process, promoting a positive relationship with local compliance inspectors, and avoiding non-compliance liabilities (Bay Area Green Business Program 2005, elect. comm., Evans 2004, pers. comm.). However, no research has been done to determine if these benefits exist. Additionally, there may be effects of the certification process that the Program coordinators are not A question that needs to be addressed is: What non-environmental aware of. performance effects does the certification have on businesses that become certified green? Non-environmental performance effects of the certification may be opposite of what the Program claims. For example, the relationship with local compliance inspectors may deteriorate because the regulator must hold the certified business to higher environmental standards than before. The Program may be unaware of nonenvironmental performance effects such as the business owner learning about various environmental issues. It is important to identify all of the effects of the certification because they could impact non-certified businesses' decision to pursue the certification. I interviewed the owners of certified businesses to determine what effects the certification has aside from changing businesses' environmental performance.

The Bay Area Green Business Program seems to be having a positive influence on the environmental performance of businesses. As stated above, it is the Program's mission to improve the environmental performance of businesses. In 1999, after only 35 shops had been certified, the Alameda County Green Business Program found that although the

individual green businesses were practicing environmentally sound measures, what was significant was the total amount of energy, solid waste, hazardous waste, and water that the certified businesses together saved (Alameda County Green Business Program, 1999). Since 1999, no studies have been done to determine how the Program impacts the environmental performance of the businesses it certifies. As explained above, the green business standards allow businesses to count measures they already had in place towards their certification. Due to the current lack of research and flexibility in the standards, it is uncertain whether or not the certification is in fact impacting the environmental performance of the businesses. The following question should be addressed: how many environmental performance measures had the businesses already implemented prior to certification and how many measures did the certification lead the business to adopt? If the certification leads individual businesses to adopt new resource-saving practices, then the Program is effectively accomplishing its goal of improving businesses' impact on the environment. However, if the businesses had already implemented the resource-saving practices necessary to become certified prior to gaining certification, then the Program may be having some effect other than its mission to improving businesses' impact on the environment. As explained above, The Bay Area Green Business Program claims the certification simplifies the regulation process of complying, decreases the risk of noncompliance penalties and provides marketing, cost saving, and networking advantages. The certification may also allow businesses to charge a premium price for their services. If these advantages are in fact results of becoming a green business, the Program may be changing the dynamics of the entire industry by selecting certified businesses to be more competitive than non-certified businesses. As the non-certified businesses lose their competitive edge or are penalized for non-compliance with environmental regulations, the entire industry may eventually become "green" by default. Essentially, the Program may have the potential to cause an entire business sector to become green not by changing each individual businesses' impact on the environment, but by rewarding the certified businesses with certain advantages and forcing the businesses that do not become certified to close. Another question that needs to be answered is: is the certification working at the level of changing individual businesses' environmental performance or is it working at a level of changing the industry as a whole? To answer

the two questions stated above, I asked the owners of certified businesses whether or not they had adopted resource saving practices prior to certification and how the certification affected their costs, revenues, marketing abilities, and ease of complying with environmental regulations.

Methods

Given the time constraints of this research project, I decided to focus on one business sector from one bay area county: the automobile repair industry in Alameda County. This sector has the longest history of certification, the largest number of certified businesses, and the measures are most applicable to this sector because the Program originally targeted only automotive repair shops before expanding to certify other types of businesses. I intended to focus my study further by interviewing all the auto shops in only two Alameda County cities, Albany and Berkeley (a total sample size of 13 shops) because these those cities are relatively close to UC Berkeley and readily accessible for me to interview. Due to unforeseen time constraints, and two shops being unable to participate in my study, I ultimately interviewed six shops located in Albany and Berkeley.

I asked the following questions during the interview to determine what non-environmental effects the certification has on businesses and to understand how the certification changed the business' costs, revenues, marketing abilities, and ease of complying with environmental regulations.

- Why did you originally decide to become certified and have you met that goal?
- Have you noticed a change in your relationship with local compliance inspectors?
- How did the regulation process change, if at all, from becoming certified?
- How did your costs change as a result of becoming certified, both in the short term and the long term?
- Was adopting the green business measures expensive or cost effective?
- Has certification allowed you to charge a premium price on the same services you offered before and in what way did your prices change?
- Did you see more customers after becoming certified?
- What have you learned through the process of becoming a Green Business?

• Were there any other changes you made to your business as a result of becoming certified?

To measure the change in environmental performance and to determine whether or not the business had already adopted resource saving practices prior to certification I asked the following questions:

- Would you have considered your business to be "green" before you became certified?
- Did you market your business as green prior to certification?
- Were you doing any of the Green Business Measures prior to your certification?
 If so, which ones?
- Of the measures you adopted to become certified, which do you think had the biggest environmental impact?

The majority of the interviews were conducted in person at the auto shop. Only one interview was conducted over the phone because the shop owner could not set a definite appointment time. The interviews lasted anywhere from 15 minutes to 1 hour, depending on how much time the shop owner had to talk, and how much the shop owner elaborated on their answers. Answers were recorded by hand during the interview. No answers were recorded on cassette or videotape. The interview was transferred to an electronic version immediately following the interview.

Results

Each shop owners' primary reason for becoming certified is shown in Table 1. The shops' answers are shown in the right-hand column and the number of shops that had a similar answer is shown in the left-hand column. The total number of shops that answered the question is shown in the bottom row. For example, one of the primary reasons shop owners had for adopting the green business measures was because they

Primary Motivation for Going Green	
1	Improve the health of the workplace by having
	a chemical free environment
1	Streamline the regulation process
4	Concerned about the environment
6	Total sample size

four out of the six shops had that answer. This example points out a trend: a majority of the shops decided to adopt

green measures because they care about their impact on the environment. A few shops even reported that being environmentally friendly is a philosophical decision people make on their own, and being certified green or not would make little difference on their decision to do all they can to reduce their environmental impact. Some shop owners had additional reasons for being green, but those answers are not shown in Table 1 because they were not the shops' primary motivation. Likewise, in the tables that follow, some shop owners had additional answers and some of the answers shown are not in the shop owners' exact words. Instead, the tables are meant to highlight similarities in answers between different shops and trends in the data.

Table 2 shows the expenditures each business incurred by adopting the measures necessary to become a certified green business. A majority of the shops did not consider

Table 2

	Expenses from Becoming Certified
1	One of the green business measures is
	very costly
5	The green business measures are not
	considerably costly
6	Total Sample Size

the certification to be expensive. Although some shops did purchase new appliances and equipment to qualify for the certification, the shop owners did not think the expenditures were outrageously expensive or unnecessary.

Only one shop complained about the cost of a water-saving measure he adopted to become certified.

In contrast, Table 3 shows the savings each business experienced as a result of lower water, electricity and waste hauling bills after adopting the green business measures. A

Table 3

	Savings in Utility Bills
4	Long term savings from reduced water,
	electric, waste hauling bills
2	No noticeable savings in electricity, water,
	waste hauling bills
6	Total Sample Size

majority of shops owners felt their business saved money in the long run by paying lower utility bills. However, two out of six shops (almost one half of the sample size) did not experience lower bills.

In addition to savings from lower utility bills, Table 4 shows whether or not each business noticed a change in their number of customers. Overall, *none of the shops saw* many new customers as a result of becoming certified green. In addition, none of the shops charge a premium for being a certified green business (not shown in table).

Table 4

	New Customers
3	Saw new customers when Green Business Program was advertising on BART and
	their website. Since advertising stopped, new customers dwindled to a few a year
1	Have seen a steady stream of one or two new customers per year since certification
2	No new customers
6	Total Sample Size

Tables 5 and 6 address how the certification affected the regulation process. A majority of shops felt that becoming certified led to a positive relationship with the regulators (Table 5). "Positive" meaning that the regulators worked with the shop to

Table 5

	Relationship with Regulators
4	Good, regulators understanding,
	work with the business
2	Poor, regulators not understanding
6	Total Sample Size

help it comply with mandatory and green business standards. "Positive" also means the regulators were understanding if the shop was not in full compliance with one or two of the green business measures, as long as the regulator could see the shop was making an effort to meet all the standards. Two out of six shops (almost half the sample size) said that becoming certified led to a worse relationship with regulators (Table 5). "Worse" meaning the regulators had an adversary attitude towards the shop owner and were not understanding if the shop was not in compliance with one or two of the green business measures.

Table 6

	Regulation Process
3	Became streamlined
3	Did not become streamlined
6	Total Sample Size

Table 6 shows that the regulation process became streamlined for only half of the shops. For the other half of the shops, the regulators still come at various times, often unannounced.

There were additional effects of the green business certification not stated in the tables above. The most common, reported by five out of the six shops, is that *the* certification helps shops stay updated on the most recent environmental standards. The shops said this reduces their risk of being shut down or penalized for non-compliance issues.

Tables 7, and 8 address the environmental performance of the businesses before certification. A majority of shops considered themselves to be green before they became

Table 7

Green Before Becoming Certified	
5	Owner considered shop to be
	"green" before certification
1	Owner did not consider shop to
	be "green" before certification
6	Total Sample Size

certified (Table 7). All of the shops had been doing at least one of the green measures before certification (Table 8). The total sample size in Table 8 does not add up to six because some of the shops were doing two or more of the

Table 8

	Pre-Certification Environmental Measures
5	Recycled (oil, antifreeze, scrap metal, cardboard,
	paper, aluminum, glass, and/or plastic)
4	Conserved water and/or electricity
5	Alternative to traditional petroleum naphtha parts
	washing sink
1	No Chemicals

measures. A majority of shops did not market themselves as green or did not have a way to do so before the certification (not in a table).

The environmental performance measures that the shops adopted after certification are shown in Table 9. Only one shop owner felt the certification led to significant changes in environmental performance. A majority or the shops owners said they did not

Table 9

	Post-Certification Environmental Measures
4	Shop did not adopt additional environmental practices
	to become certified
1	Certification led shop to adopt one or two new
	environmental practices
1	Certification led shop to adopt many new
	environmental practices
6	Total Sample Size

significantly change their environmental performance to become a green business because the shop had already adopted many of the green business

measures (Table 9). However, the majority of shop owners did learn easier or new ways to accomplish measures the shop had already been doing.

Most shops had suggestions for improving the Green Business Program. A suggestion mentioned by four of the shops was the Program should change it's advertising or do more of it in order to certify more shops and increase the number of customers for the certified shops. Also, one shop owner thought the Program only gave "kudos" to shops for measures they already do and the Program should incorporate more

education into the certification so as to change the shops' environmental performance instead.

Discussion

The data show the majority of certified shops paid lower utility bills, had a positive relationship with regulators, and benefited from the certification by being up to date on recent environmental standards and thereby avoided penalties from non-compliance. These benefits may encourage non-certified shops to seek certification. However, these non-environmental benefits are not entirely consistent with those the Program intends to give businesses it certifies. The Program claims that the certification will also promote the business to the public, help businesses gain a competitive edge in the market and streamline the regulation process. However, the data show that the advertising done by the Program is ineffective in promoting the certified shops to the public because none of the shops saw many new customers. Additionally, none of the shops are gaining a competitive edge by charging a premium for their services, and for at least half of the shops the regulation process is still disorganized and time consuming. Recall, too, that almost half of the interviewed shops did not have lower utility bills and had worse relationships with regulators after certification. Although the Bay Area Green Business Program claims the certification has multiple non-environmental benefits, many of those benefits may not be actually realized by certified automotive repair shops in Albany and Berkeley.

Additional results found a majority of shops were practicing green business measures before certification, suggesting the Program may not be accomplishing its goal of changing the environmental performance of each business it certifies. This has been known to occur in other voluntary environmental certification programs, such as the Sustainable Slopes Program, which unsuccessfully attempted to "green" ski resorts in the western United States (Riviera and de Leon, 2004). However, the Bay Area Green Business Program is unique in that the lack in changes in environmental performance occurred because the shops had already implemented green measures. This may be directly related to the finding that most of the interviewed shops chose to adopt green measures because they are personally concerned about their impact on the environment.

Can we then assume the Green Business Program is not making any changes? Not necessarily. As noted above, the majority of certified shops paid lower utility bills, had a positive relationship with regulators, and benefited from the certification by being up to date on recent environmental standards and thereby avoided penalties from non-compliance. If these non-environmental benefits are indeed realized by certified shops, they may provide certified shops with enough of an advantage over the non-certified shops within the industry to cause the non-certified shops to go out of business. In this way, the Bay Area Green Business Program may be effectively "greening" the automotive repair industry in Alameda County not by changing individual shops as it intends, but instead by selecting the certified shops to successfully force non-certified shops to close.

This study is not comprehensive enough to assume these trends exist throughout the entire Bay Area Green Business Program. More green businesses and different green industry sectors need to be interviewed in order to draw conclusions about the widespread effects of the Program. However, the results in this study do highlight potential negative effects of the certification and areas for improvement. I recommend that the Program focus its efforts on ensuring the certification results in a streamlined regulation process, a positive relationship with regulators, lower operating costs, and promoting the green businesses to the public before the Program certifies more businesses. I also recommend the Program reevaluate its goals. It should either focus on actually changing and improving the environmental performance of the individual businesses it certifies, perhaps by incorporating more education into the certification process, or by certifying shops that are not as personally concerned about the environment. Or, the Program should focus on greening an industry by giving the certified businesses an advantage over non-certified businesses, perhaps by ensuring all of the non-environmental performance benefits are truly realized by the certified businesses.

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