

**A SURVEY OF THE SURFSHOP INDUSTRY IN HAWAII**

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## INTRODUCTION

Of the many marine recreational and sporting activities that take place in Hawaii, probably the most visible of these activities is surfing. Surfing, in the forms of bodysurfing, surfboarding, and windsurfing, has gained international popularity in recent years with Hawaii as a recognized leader in this sport. Although surfing is highly visible in magazines, newspapers, television, and on the beaches of Hawaii, the economic impact of surfing as an industry that provides goods and services to its many participants and the public has never been intensively studied. This report is intended to describe various aspects of this industry and the problems it faces.

## METHOD OF STUDY

When this study began, surfshops were defined as shops that sell equipment used by persons who surf. Shops that sell surfboards or sailboards and associated accessories were clearly within the scope of the study. Bodysurfers do not require any accessories to participate in this sport. However, many bodysurfers use foot fins and hand paddles to enhance their rides down waves. Other types of boards are also used. These include kneeboards, similar in design, shape, and function to surfboards but ridden by kneeling on the deck, paipos, wooden or plastic boards ridden while lying prone on the board, and boogie boards, similar to paipos but made of foam. Although equipment such as these are sold in shops that specialize in surfboards and sailboards, more fins and boogie boards are sold by general sports equipment outlets or sporting departments of general retail stores (e.g., Sears Roebuck, J.C. Penney). To include the broad range of stores that provide this type of equipment would have required a larger amount of resources than planned for this survey. Thus, the study focused primarily on shops that sold surfboards or sailboards.

This survey of shops was conducted by personal interview. Of the 30 surfshops listed in the telephone directory on the island of Oahu and still in operation, 18 were contacted and agreed to participate in the survey. Fifteen of the persons interviewed were owners of their shops and three were employed as managers. The survey instrument consisted of a two-part questionnaire (Appendix 1). The first part consisted of questions regarding the specific characteristics of each shop such as breakdown of sales, number of employees, and breakdown of expenses. The second part consisted of questions relating to the business environment and problems faced by individual shops and the industry as a whole.

## RESULTS

### General Characteristics of the Surfshop Industry

The first important characteristic of the industry is that the location of surfshops is concentrated in three distinct areas. Of the 30 surfshops on the island of Oahu, 13 are located on the "south shore" (i.e., Honolulu to Pearl City), 10 are located on the "north shore" (the Haleiwa and Sunset Beach area), and 7 are located in the Kailua area (i.e., the windward side of the island). Of the 13 shops located on the "south shore," 9 are located within a 5-mile radius.

The second important characteristic of the industry is that there are three distinct revenue size categories of shops: (1) over \$1 million in sales; (2) between \$300,000 and \$500,000 in sales; and (3) \$250,000 and less in sales. When the study began, owners/managers interviewed indicated which shops were in the first two categories. Since the number was small (Figure 1), all the shops in the two larger revenue categories were surveyed. The other 10 firms interviewed fell into the last category. However, two of the firms surveyed are not "shops" as defined by the study. One firm is primarily a wholesaler of supplies to surfboard and sailboard manufacturers and the other is a "factory" for surfboards. The data from these firms were not aggregated with those from the other shops but information provided by the two owner/managers of these shops has been included in the discussion portion of the study. Most of the results in the following sections are presented by revenue category.

The third major characteristic of the industry is that surfboards are the main promotional vehicle used by retail shops to establish their identity in the market. A large portion of each shop's surfboard inventory is composed of boards that display the shop's name or logo (i.e., boards made specifically for each shop). The shops use a "testimonial" approach in marketing. By having well-known surfers and windsurfers use accessories and equipment bearing the name of the shop, demand for these and other items which also bear the shop's name or logo is generated by other surfers and non-surfers. T-shirts bearing a picture of a lightning bolt, which is the logo of a surfshop, and shorts with "OP," which stands for "Ocean Pacific," a clothes manufacturing company, are examples of items that were originally marketed to surfers and windsurfers specifically but are now marketed to the general subteen, teen, and young adult population.

The sponsorship of individuals and/or teams by the surfshops is a means of reinforcing the identification of a shop's name with popular surfers and their equipment. Surfshops sponsor individuals who compete in either amateur or professional surfing events through a variety of means. Shops usually provide boards and equipment to their amateur surfers, and depending on the individual surfer's record, may even provide clothes and trips to

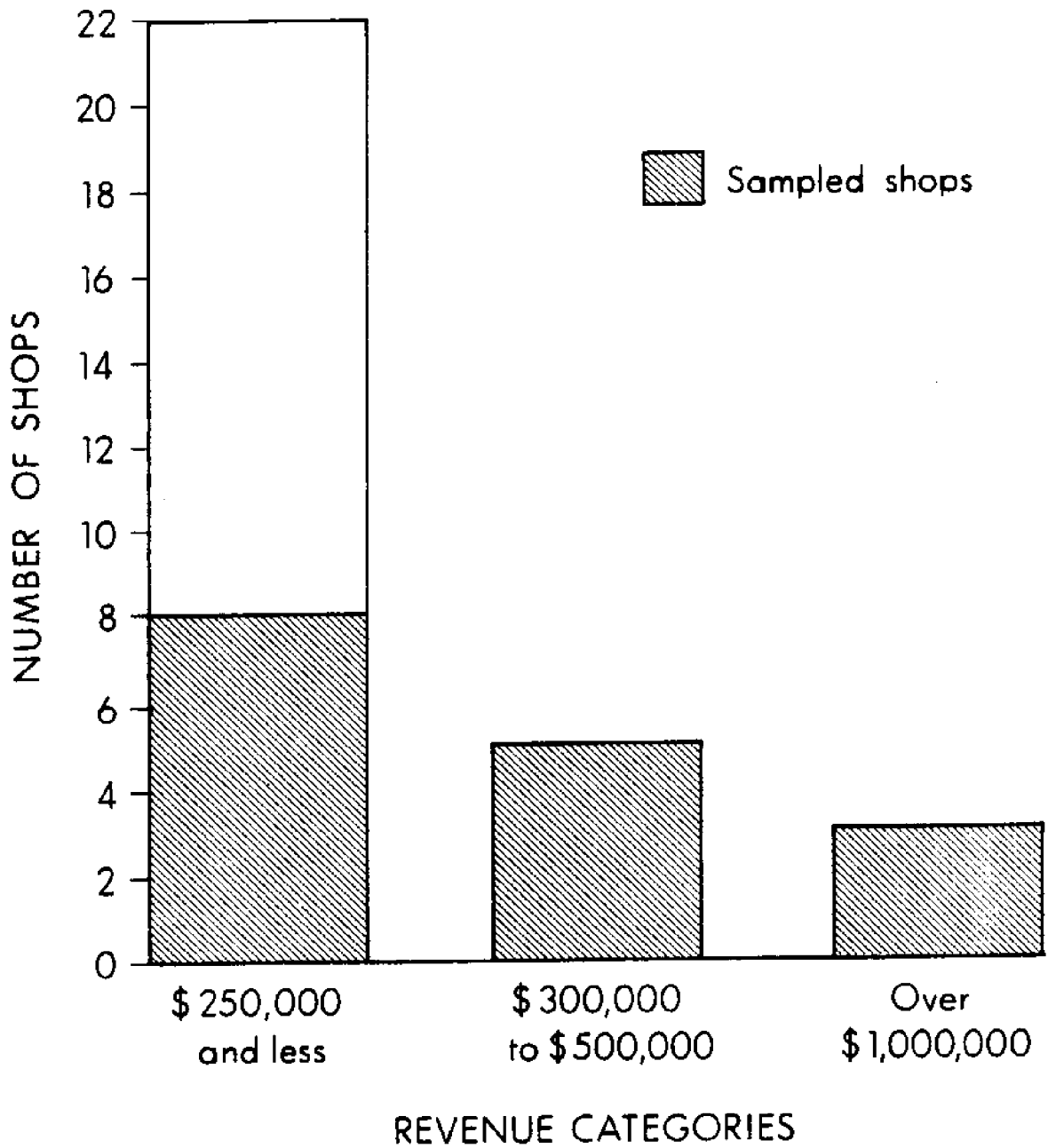


Figure 1. Number of shops in different revenue categories

various events. Professional surfers receive all the above-mentioned items plus a salary. For the professional surfer, incentives such as bonuses and a larger salary are based on his/her placement in professional surfing events, the number of appearances made in surf movies, and visibility in surfing or general interest magazines. In return, professional surfers are required to be available for promotional and advertising "spots" and must wear or use the clothes, equipment, and accessories provided by the shops. Thus, there is a concentrated effort to induce the public to perceive a close association between the well-known amateur or professional surfer, his/her equipment, and the shop that sponsors him or her.

Since the surfboards or sailboards are the major items for shops to project an image and establish an identity, it was anticipated that the majority of shops would closely monitor the production of their boards, especially in terms of quality control. However, a surprising characteristic of the industry is that a large proportion of the labor in the production of boards is hired on a subcontract basis. Except for the manufacture of the polyurethane foam blanks, which are the basic material used, all the tasks in the production of a finished board must be done by hand, requiring a large labor input. The steps involved include: shaping a foam blank, sanding, laminating the blank with fiberglass cloth, "hot coating" (applying a coat of resin which adds strength to the board), another sanding, and the application of a finishing resin for the "gloss coat." Recently, the airbrushing of artwork after the shaping has become an additional task in the production of a quality board. Each of these tasks requires individual attention. Although the technology of producing a board is well known (Shaw, 1983), the expertise of the shaper, sander, glasser, and artist, adds to the value of the board. In fact, the board is usually autographed by the shaper (the task of shaping is considered the most demanding in skill) and sometimes by the glasser or the artist. So, a shop that has boards made by persons who are respected artisans and workmen may demand higher prices. This "craft" aspect in the production of boards appears to be one of the reasons why the individual workers involved are more comfortable as subcontractors rather than salaried employees. Since these subcontractors also produce boards on their own, it is possible to find boards with subcontractors' private logos in the surfshops alongside boards with the shop's logos, made by the same subcontractor.

Many of the owners of the shops which expect to gross \$250,000 and less in sales revenues are involved in either the shaping or glassing of the boards they sell. But subcontracting of work not done by the owners themselves, is a common occurrence. There are four "factories" for boards in the industry. A "factory" is defined as a location where all the tasks to produce surf and sailboards for a shop are performed. In three of the four factories, all the persons performing the tasks are on a subcontract basis. So all the boards sold with the shops' logos are, at least partially, a product of subcontracted labor.



Some of the shops sell licenses to shops on the mainland or in foreign countries (Japan, South Africa, Australia, and Brazil) which also manufacture surfboards and sailboards. These shops are licensed to place the Hawaii shops' logos or trademarks on their boards. Fees are collected on every board that carries the firms' logos. This licensing strategy is one of the ways that the industry has been able to exploit the overseas market without incurring large capital and management costs in establishing factories or shops in distant locations.

### Ownership of the Surfshops

Table 1 presents the number of sampled surfshops organized as sole proprietorships, partnerships, and corporations. As expected, the shops in the larger revenue categories are organized primarily in the forms of corporations or partnerships while 30 percent of the shops in the lowest revenue category are organized as sole proprietorships. However, 30 percent of the surfshops in this category are organized as corporations as well, probably reflecting the advantages of the corporation in reducing personal liabilities when conducting business. Every shop is owned by a separate legal firm except for two shops which are owned by the same corporation. It was found that two other shops operate under the same management system although each shop is a separate legal entity.

TABLE 1. TYPE OF LEGAL ORGANIZATION OF SAMPLED SURFSHOPS BY, REVENUE CATEGORIES

Type of Legal Organizations	Annual Revenue Categories of Shops		
	\$250,000 and Less	\$300,000 to \$500,000	Over \$1,000,000
Sole proprietorship	3	0	0
Partnership	2	3	0
Corporation	3	2	3
<b>TOTAL NO. OF SURFSHOPS SAMPLED</b>	<b>8</b>	<b>5</b>	<b>3</b>

The average number of years that an owner (or major stockholder) has been in business is approximately 7.5 years. In the sample taken, it was found that an individual's time as an owner ranged from a minimum of 2 months to a maximum of 20 years. When analyzed by revenue categories (Table 2), it was found that the shops with larger revenues were owned by the more experienced individuals.

TABLE 2. NUMBER OF YEARS OWNERS OF SURFSHOPS IN SAMPLE HAVE BEEN IN INDUSTRY BY REVENUE CATEGORIES

No. of Years in Industry	Annual Revenue Categories of Shops		
	\$250,000 and Less	\$300,000 to \$500,000	Over \$1,000,000
1 to 5	7	0	0
5 to 10	0	2	1
Over 10	1	3	2
<b>TOTAL NO. OF SURFSHOPS SAMPLED</b>	<b>8</b>	<b>5</b>	<b>3</b>

Surveyed owner/managers were asked to estimate the cost of entering the industry. They responded with the minimum amount needed to assure a high probability that the shop would be a "success" (Table 3). The investment estimated to start a shop is substantial, with the total amount projected to be approximately \$37,625. Nearly half of this investment would initially finance the shop's inventory of clothes and accessories. Many of the owner/managers noted that clothes and accessories companies are reluctant to extend credit to a newly-opened shop and probably the entire inventory would be purchased with cash. The cash-on-hand needed was estimated to be 33 percent of the investment. Since the sales of a shop are dependent on its reputation, which is primarily a function of the "grapevine" operating among surfers, the time period for a shop to establish itself, 6 months to a year, would require a large amount of cash to see it through this period. Deposits for the building and land and the purchase of equipment accounted for 18 percent of total investment while legal and organizational fees amounted to only 2 percent.

TABLE 3. AVERAGE INVESTMENT NEEDED TO ENTER SURFSHOP INDUSTRY

Assets	Amount	Percentage
Cash on hand	\$12,500	33
Building deposit or lease	3,525	9
Inventory	17,500	47
Equipment (office or shop)	3,437	9
Legal and organizational Fees	663	2
<b>TOTAL</b>	<b>\$37,625</b>	<b>100</b>

#### Revenues and Sales of the Industry

The shops' average expected revenues in 1983 are presented in Table 4. The shops in the lowest revenue category expected average annual revenues of \$97,700, the shops in the medium revenue category expected \$349,000, and the shops in the largest revenue category expected \$1,750,000. Using these statistics, it is estimated that the surfshop industry will generate approximately \$9,140,000 of retail sales revenues on Oahu (Appendix 2) and \$391,019 in general excise and wholesale taxes to the State of Hawaii (Appendix 3).

TABLE 4. AVERAGE EXPECTED REVENUES AND STANDARD DEVIATION FOR 1983, BY REVENUE CATEGORIES

	Annual Revenue Categories of Shops		
	\$250,000 and Less	\$300,000 to \$500,000	Over \$1,000,000
Average expected revenues	\$97,700	\$349,000	\$1,750,000
Standard deviation of expected revenues	\$72,750	\$ 28,810	\$ 433,010

Of the 18 firms interviewed in the survey, it was found that at least four of the firms export boards to the mainland or foreign countries, mainly Japan. The total value of the boards exported by the four firms is estimated to be approximately

\$650,000, relatively small compared to the industry's retail sales on Oahu. Using an average of \$300 per board, this represents approximately 2,000 boards being exported. The total number of exported boards and their value could not be estimated since the owner/managers interviewed were uncertain regarding this segment of the industry outside of their individual efforts.

The breakdown of the retail sales into categories revealed some interesting relationships between revenue size and product categories (Table 5). A surprising result is the inverse relationship between revenues generated from the sale of boards (surfboards, sailboards, and boogie boards) and the total revenues generated by the shops. Shops in the lowest revenue category generated 46 percent of their total revenues from the sale of boards; shops in the medium revenue category and the largest revenue category received only 25 percent and 22 percent of their total sales from the sale of boards.

TABLE 5. PERCENTAGE BREAKDOWN OF SALES FOR THE INDUSTRY BY REVENUE CATEGORIES

Sales Categories	Annual Revenue Categories of Shops		
	\$250,000 and Less (%)	\$300,000 to \$500,000 (%)	Over \$1,000,000 (%)
Surfboards	38	18	17
Sailboards	2	4	3
Boogie boards	6	3	2
Accessories	16	23	29
Clothing	23	28	34
Rentals and lessons	13	14	8
Miscellaneous	2	10	7
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>

As shops generate larger revenues, a higher proportion of their sales is produced by accessories and clothing. In the lowest revenue category, accessories and clothing accounted for only 16 percent and 23 percent respectively of total sales; in the medium revenue category, these product categories were 23

percent and 28 percent; and in the largest revenue category, they generated 29 percent and 34 percent of sales, a combined total of more than 60 percent of sales revenues.

The category of "rentals and lessons" is a category of services rather than goods that some shops provide to their customers. Shops in the lowest and medium revenue categories receive 13 percent and 14 percent of their sales from these services, while shops in the largest revenue category receive only 8 percent. The "miscellaneous" product category includes items like kayaks, canoe paddles, scuba equipment, skateboards and skateboard accessories (i.e., equipment for other sports besides surfing). This category accounts for only 2 percent of the sales for shops in the lowest revenue category, 10 percent of the sales for shops in the medium revenue category, and 7 percent of the sales for shops in the largest revenue category. It appears that smaller shops (in terms of revenues) diversify their sales mix by actively promoting and selling services such as rentals and lessons. Since larger shops are able to finance larger inventories, they diversify their product line with other ocean sports' equipment rather than provide services. These results may also suggest that the smaller surfshops cater to consumers who may be characterized as being "serious" surfers while the larger shops market to consumers with more general interests.

When analyzing the data by type of shop (i.e., whether a shop catered to "regular" surfers or windsurfers), there are large differences between the proportions sold in each product/service category (Table 6). One of the most noticeable differences is that the windsurfshops do not sell any other types of boards besides sailboards, while surfshops sell all types -- surfboards, sailboards, and boogie boards -- as a rule. The sale of boards accounts for 35 percent of total surfshop sales while windsurfshops receive only 13 percent of their sales from these categories.

The largest sales category for windsurfshops is "rentals and lessons" which earned them 46 percent of their total sales. The second largest category of sales for windsurfshops is the "accessories" category which amounts to 37 percent of their total sales, while the categories of "clothing" and "miscellaneous" generate only 3 percent and 1 percent. For surfshops, the second largest category of sales is "clothing" with 30 percent; "accessories" accounts for only 19 percent of total sales.

These differences in the sales composition between the two types of shops are probably due to the inherent differences between surfing and windsurfing. Windsurfing (i.e., sailboarding) which is actually riding a surfboard with a sail, requires much more equipment and accessories than surfing. Owner/managers interviewed estimate that the basic equipment required to participate in windsurfing costs approximately \$1,000 to \$1,500.

TABLE 6. PERCENTAGE BREAKDOWN OF SALES BY TYPE OF SHOP

Sales Categories	Type of Shop	
	Surfshop (%)	Windsurfshop (%)
Surfboards	30	0
Windsurfboards	1	13
Boogie boards	4	0
Accessories	19	37
Clothing	30	3
Rentals and lessons	10	46
Miscellaneous	6	1
<b>TOTAL</b>	<b>100</b>	<b>100</b>

Equipment needed for surfing, which is only the surfboard, costs approximately \$275 to \$350 retail. This accounts for the large proportion of windsurfshop sales generated by accessories. Due to the large amount of equipment needed to windsurf and the considerable investment that must be put into the equipment, windsurfshops are able to rent windsurf equipment and sell lessons to beginning windsurfers for a large portion of their total sales. Regular surfing, on the other hand, appears to require much more natural motor skill rather than technical skill. So surfers learn by surfing, with the amount of time needed to become proficient at this sport depending on the individual surfer's natural talent and strength, while windsurfers are taught how to windsurf since it requires more technical skill.

Another difference between windsurfshops and surfshops is the proportion of customers who are "local" (reside on Oahu) and those who are tourists. Sixty-one percent of surfshop customers are local while 39 percent are tourists. Local customers account for 35 percent of the total windsurfshop customers while 65 percent of the customers are tourists. This large proportion of tourists may also account for the large amount of rentals and lessons sold by the windsurfshops.

Many of the persons interviewed pointed out that windsurfshops and surfshops sell to different types of customers. Windsurfshop owner/managers described their market as composed of

both males and females who are 25 to 50 years of age and who belong to the upper middle class in terms of income. Surfshops describe their customers as being of both sexes (although they concede that the individuals who surf are usually male), between 12 and 25 years of age, and like most young people, with very little or no income of their own. Because of these differences, windsurfshops and surfshops do not compete for customers, and individuals who surf when they are young, are likely to become windsurfers as they grow older and more affluent.

Both the windsurfshops and the surfshops are highly dependent on sales from repeat customers (Table 7). Sixty-five percent of the customers of windsurfshops and 43 percent of surfshop customers are repeat customers. Thus, this switching from surfing to windsurfing by customers as they get older is a concern of many surfshops.

TABLE 7. PERCENTAGE OF TYPE OF CUSTOMERS BY TYPE OF SHOP

Type of Customers	Type of Shop	
	Surfshop (%)	Windsurfshop (%)
Local customers	61	35
Tourists	39	65
Repeat customers	43	65

Besides the switching behavior from surfing to windsurfing (or to other ocean sports) as consumers grow older, other consumer characteristics concern surfshop owner/managers. For instance, traditionally, surfing has been considered a "macho" sport, and though there are a number of well-known amateur and professional women surfers at present, they are vastly outnumbered by male surfers in both categories. Windsurfing, on the other hand, has always promoted itself as a sport to be enjoyed by both men and women. So windsurfshops have double the potential market compared to surfshops through this marketing and advertising strategy. Another characteristic of concern to the surfshops is the age of their consumers. Many of the individuals surveyed noted that the customers who frequent their shops have become younger and younger in recent years. As a result, the surfshops have been forced to "keep up" with fads that have swept the sport. An example is the design of surfboards which has changed drastically over the past few years. Surfboards, when they were first developed, did not have a tailfin (called a

"skeg"), but by the 1950s, a single tailfin was standard equipment on the board. In the past 5 years, however, the surfboard industry has begun to produce boards with two, three, four, and sometimes five tailfins. Today's surfboards have also become much shorter and lighter compared to the boards used in the 1960s. They are much more colorful with decals and airbrush artwork to appeal to younger surfers. Although sailboards are evolving to a shorter and lighter size, windsurfers appear to be much more stable in their tastes, and the viability of a windsurfshop does not appear to be dependent on having the "hottest" or most popular items available like the surfshops. With the inclusion of windsurfing in the Olympics, some of the persons interviewed felt that the design and dimensions of sailboards will become even more stable.

### **Expenses and Costs**

The breakdown of shops' expenses appears to differ according to their revenue category. Shops whose revenues are \$250,000 and less, experience proportionately higher fixed costs as compared to the shops in the medium and large revenue categories. Fixed expenses which include rent, insurance, and interest, account for 11 percent, 5 percent, and 7 percent of the total expenses of shops in the low, medium, and large revenue categories (Table 8).

The two largest expenses for all shops regardless of revenue category are the cost-of-sales and labor expense categories. Cost-of-sales accounts for 58 percent, 68 percent and 59 percent of the total expenses for the shops in the low, medium, and large revenue categories. Shops in the medium revenue category spend a relatively large portion, 68 percent, of total expenses in this category. Shops in the low revenue category sell a large portion of their merchandise on consignment which may account for their low cost of sales expense; however, only two shops in the medium revenue category sell merchandise on consignment. Volume discounts which may be available to the shops in the large revenue category may not be available to shops in the medium revenue category. This may be another reason why cost of sales accounts for such a large portion of total expenses for shops in the medium revenue category compared to the other shops.

The labor expense category accounts for 15 percent, 16 percent, and 13 percent of total expenses for shops in the low, medium, and large revenue categories. Again, shops in the medium revenue category spend the largest proportionate amount for labor compared to shops in the other two categories. Since shops in the low revenue category are usually owner-operated and compensation is in the form of profit, the labor expense in the form of salaries and wages would not reflect total labor cost. Shops in the large revenue category probably specialize their labor, making it possible to increase the efficiency of this resource and lower labor costs.



TABLE 8. PERCENTAGE BREAKDOWN OF TOTAL EXPENSES FOR THE INDUSTRY BY REVENUE CATEGORIES

Expense Categories	Annual Revenue Categories of Shops		
	\$250,000 and Less (%)	\$300,000 to \$500,000 (%)	Over \$1,000,000 (%)
<b>Fixed Expenses</b>			
Rent	9	4	5
Insurance	2	1	1
Interest	0	0	1
<b>Total fixed expenses</b>	<b>11</b>	<b>5</b>	<b>7</b>
<b>Variable Expenses</b>			
Cost-of-sales	58	68	59
Utilities	3	2	2
Labor	15	16	13
Maintenance	1	0	0
Promotion and advertising	2	1	4
Taxes	5	5	4
Miscellaneous	5	3	11
<b>Total variable expenses</b>	<b>89</b>	<b>95</b>	<b>93</b>
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>

Proportional amounts of the remaining expenses are similar among the shops in the three different revenue categories. However, the "miscellaneous" expense category is 11 percent of total expenses for shops in the large revenue category, while it is only 5 percent and 3 percent for shops in the low and medium revenue categories. This is due to the inclusion of depreciation expense in this category. Shops in the large revenue category require durables such as vans, microcomputers, and other office equipment which are not needed by the smaller shops. These durables are depreciated during their lifetimes which, in turn, increases the miscellaneous category.

When shops are categorized by type, surfshop or windsurf-shop, distinct differences between the breakdown of their expenses become evident (Table 9). First, the fixed expenses of

surfshops account for 11 percent of their total expenses, compared to only 5 percent for the windsurfshops. Differences in rents account for this. Most of the windsurfshops are located in Kailua while a majority of the surfshops are located on the south shore. Commercial property on the south shore commands a much higher rent than the windward side. So on the average, surfshops are expected to spend more on rent compared to windsurfshops.

TABLE 9. PERCENTAGE BREAKDOWN OF TOTAL EXPENSES BY TYPE OF SHOP

Expense Categories	Type of Shop	
	Surfshop (%)	Windsurfshop (%)
<b>Fixed Expenses</b>		
Rent	8	2
Insurance	2	3
Interest	1	0
<b>Total fixed expenses</b>	<b>11</b>	<b>5</b>
<b>Variable expenses</b>		
Cost-of-sales	56	50
Utilities	3	2
Labor	16	18
Maintenance	1	1
Promotion and advertising	4	4
Taxes	5	5
Miscellaneous	4	15
<b>Total variable expenses</b>	<b>89</b>	<b>95</b>
<b>TOTAL</b>	<b>100</b>	<b>100</b>

The cost of sales category is 56 percent of total expenses for surfshops compared to 50 percent for windsurfshops. On the other hand, windsurfshops spend proportionately more for labor, 18 percent, and for miscellaneous expenses, 15 percent, compared to surfshops which spend only 16 percent of their total expenses for labor and 4 percent for miscellaneous expenses. The large differences between these two types of shops may be explained by

the large amount of lessons and rental services provided by wind-surfshops compared to surfshops. These services require wind-surfshops to keep large inventories of equipment that incur large depreciation costs, thus increasing the miscellaneous expense category. To provide lessons, windsurfshops must hire teachers which also increases their labor expense relative to surfshops. Thus differences in the breakdown of total expenses may be explained by not only the amount of revenues a shop generates, but also by its type.

### Employment

The number of persons employed by the shops vary greatly according to the revenue size of the shops (Table 10). The

TABLE 10. AVERAGE NUMBER OF FULL-TIME/PART-TIME EMPLOYEES AND WAGES AND SALARIES EARNED, BY REVENUE CATEGORIES

	Annual Revenue Categories of Shops		
	\$250,000 and Less	\$300,000 to \$500,000	Over \$1,000,000
No. of full-time employees (40 hrs/wk)	2.6	4.4	11.0
No. of part-time employees (0 to 20 hrs/wk)	0.8	2.4	4.0
No. of part-time employees (20 to 40 hrs/wk)	0.6	0.8	6.0
<b>Total Employees*</b>	<b>4.0</b>	<b>8.0</b>	<b>21.0</b>
No. of employees paid by salary	2.0	3.2	5.3
No. of employees paid by hourly wage	2.0	4.8	15.7
Avg. monthly salary (\$)	680.00	1,080.00	1,400.00
Avg. hourly wage (\$)	3.50	4.40	5.25

\*Includes owner/managers of shops

average number of employees ranges from four for the low revenue category of shops, to eight for the medium revenue category, and twenty-one for shops with large revenues. The number of employees who are compensated by salaries ranges from 2 to 3.2 to 5.3 for shops in the low, medium, and large revenue categories. The number of employees on hourly wages ranges from 2 to 4.8 to 15.7 for shops in the low, medium, and large revenue categories.

As shops generate larger revenues, they also pay higher salaries and hourly wages. Shops in the lowest revenue categories pay an average of \$680 in salaries and \$3.50 in hourly wages compared to shops in the medium revenue category which pay an average of \$1,080 in salaries and \$4.40 in hourly wages. Shops in the large revenue category pay an average of \$1,400 in salaries and \$5.25 in hourly wages. Again, if shops are organized as sole proprietorships or partnerships, the owners' labor is not compensated by salaries or hourly wages but by profit. So the salary and wage figures for shops in the low and medium revenue categories may be depressed compared to the salaries and wages given by shops in the large revenue category.

A distinct characteristic of the individuals employed in the surfshop industry (including owner/managers) is their youth (Table 11). For shops in the low revenue category, an average of 25 percent of their employees are between 16 to 24 years old. The proportion of employees in this age group rises to nearly 60 percent for shops in the medium revenue category and to nearly 67 percent for shops in the large revenue category. Shops in the low and medium revenue categories do not employ any individuals

TABLE 11. AVERAGE NUMBER OF EMPLOYEES IN VARIOUS AGE GROUPS BY REVENUE CATEGORIES

Age Groups*	Annual Revenue Categories of Shops		
	\$250,000 and Less	\$300,000 to \$500,000	Over \$1,000,000
16 to 24	1.0	4.6	13.3
25 to 34	2.0	2.8	7.0
35 to 44	1.0	0.6	0.7
45 to 54	0.0	0.0	0.0
Over 55	0.0	0.0	0.0

\*Includes owner/managers of shops

older than 44 years of age while shops in the large revenue category do not employ any individuals older than 55. The age composition of the employees reflects the market which the industry services -- namely, a youth-oriented market. The ages of the owners of the shops reflect, however, the natural aging of persons who surfed in the 1960s, started little shops in the 1970s, and are now established and respected entrepreneurs in the business community as they reach their middle years (Segami, 1983).

### **CONCERNS OF THE INDUSTRY**

Due to the differences in their target markets and their sales mix, the concerns of surfshops and windsurfshops are listed separately. The three major concerns voiced by the surfshops include: (1) the large number of surfboards that are produced and sold by individuals who compete with "legitimate" shops by producing boards in unregulated environments and/or selling their products on a cash-only basis to avoid paying taxes; (2) the image of surfers as "bums" and drug-users; and (3) the lack of private and public support in Hawaii for the sport of surfing. Windsurfshops identified their conflict with the public sector over the use of beaches, specifically Kailua Beach, as their major concern.

#### **Surfshop Concerns**

##### Illegal manufacture of boards by backyard producers

Surfboards and sailboards compose about 33 percent of the sales revenues generated by surfshops. This represents about \$3,000,000 in sales this year. Although this amount represents more than 10,000 boards (Appendix 4), the concern most often voiced by individual owner/managers is the number of surfboards sold through "illegal" channels (i.e., boards that are sold on a cash basis to customers so these producers pay no taxes or the manufacture of boards takes place in a garage or backyard where Occupational Safety and Health Administration [OSHA] regulations required for the safety of employees are not followed).

An estimated 12,000 boards are produced in Hawaii annually according to the owner/managers interviewed. Using this estimate, it is projected that 12 to 13 percent of the boards manufactured in Hawaii this year will not pass through either "legitimate" retail surfshops or "legitimate" factories. This percentage is small but this was not the case last year (1982). When the economy is in a recession, as it was last year, board sales made by illegal, or backyard producers, grow to a level where the survival of surfshops, especially shops in the low or medium revenue categories, is threatened. In a strained economy these backyard producers are able to compete successfully with the retail shops by reducing the price of boards by approximately 35 percent. Since they do not have any overhead or tax expenses

and are not, in a sense, committed to the long-term survival of their operation, they are able to charge such a low price. Last year, the estimated proportion of boards sold by backyard producers ranged from 20 percent to 50 percent of the total number of boards manufactured in the state (2,000 to 6,000 boards). If a maximum of 6,000 boards and an average value of \$325 per board is assumed, this represents \$1,950,000 estimated total revenues lost. This amount represents more than 20 percent of the 1983 industry sales and approximately \$78,000 lost in general excise tax revenues.

Most of the owner/managers interviewed felt that the public agencies (e.g., police and state tax officials) were lax in monitoring the activities of the backyard producers and more effort on the part of these agencies was needed to control production of the illegal boards. Private efforts by firms in the industry have been unsuccessful. Police have been previously notified of the illegal manufacture of boards, but only warnings or nominal fines have been imposed on these backyard producers. Due to the small amount of space needed and the portability of the equipment involved in the manufacture of boards, backyard operations are able to move and begin production again in less than a day or two after being warned or fined. Without constant surveillance on the part of the authorities, backyard production continues unchecked.

Another major concern of the surfshops is the perception held by the general public that surfers are "bums" and drug users. As noted earlier, the relationship between the individual surfer and his equipment, and the shops that sell the equipment is a major marketing tool used by the industry to promote its products. So individual shops constantly search for young surfers who are identified by their peer group as superior athletes to promote products sold by the shop. However, as a sport that found much of its popularity during the drug and "drop-out" era of the 1960s, some of the surfers who became well-known were found to be involved in the use of drugs. This image of surfers as mavericks who drop out of mainstream society to sit on the beach waiting for waves and who are members of the drug culture has remained to the present. Because of this poor image, parents do not encourage their children to participate in surfing as a sport and instead, veer them into other sports like football and baseball, the more "acceptable" sports.

To combat this image, some of the surfshops have imposed a minimum scholastic grade-point average as a requirement for young amateur members of their surfteams. The surfteam members are asked to show their report cards and those with low grades are not allowed to remain on the team. Several of the owner/managers expressed a desire to establish an association similar to the National Scholastic Surfing Association (NSSA) which is located in California. Amateur surfers who belong to this association are given scholarships for their college education based on their surfing ability and their scholastic records in high school.

This provides an incentive for promising athletes to enter the sport and encourages young surfers to excel in both school and surfing. The surfshops anticipate that an organization such as this would change the public's perception of surfers over time.

An associated problem is the lack of public support for the sport of surfing in Hawaii. Many owner/managers feel that public support through the schools, in cooperation with an organization like the NSSA, or the sponsorship of surfteams by schools, would increase young people's participation in the sport and keep them interested in school activities. Although the Hawaii Surfing Association (HSA) sponsors amateur surfing events, public sponsorship from the county and state governments would further increase interest in the sport on the amateur level. The surfshop owner/managers feel that other organizations like the Chamber of Commerce, Hawaii Visitors Bureau, and private companies involved in tourism should be encouraged to participate in sponsoring surfing events on both the amateur and professional levels.

Benefits derived from professional surfing events were not investigated by this study. But some of the benefits that accrue to the state are dollars spent in Hawaii for the filming of championship events and the promotion of Hawaii through the national telecasts of these events. Hawaii, which is perceived as the "Mecca" of surfing, is also promoted by professional surfers who live in Hawaii and participate in professional events on the mainland and/or in foreign countries.

Professional surfing events worldwide were once organized from Hawaii through the International Professional Surfing league (IPS). At the end of 1982, the management of the world professional tour was switched to the Association of Surfing Professionals (ASP) with headquarters in California. Hawaii's professional surfing tour is still organized locally but world circuit sanctions must now come from California. There is some concern that the organizational move from Hawaii to California may place more emphasis on areas outside of Hawaii and hurt the sport locally, and in turn, the local surfshop industry. If more support was given by the public sector, at least for professional events such as in Australia and South Africa, it is felt that the direct and indirect benefits to Hawaii from surfing would increase substantially.

### **Windsurfshop Concerns**

Windsurfshops are concerned about the inequitable treatment that they feel they are receiving from the City and County of Honolulu regarding the use of public beaches and parks, Kailua Beach in particular. As noted earlier, a majority of the windsurfshops are located in Kailua, on the windward side of Oahu. This is primarily due to the fact that Kailua Beach offers almost

perfect conditions for windsurfers, especially beginning windsurfers. The waters are usually placid and the winds blowing across the waters are fairly steady and moderate. Because of these conditions, Kailua Beach allows beginning windsurfers to acquire basic windsurfing skills in a short period and offers advanced surfers opportunities to refine the skills they already have.

In 1972, ordinance number 82-28 was passed by the Honolulu City Council regarding park use permits. The ordinance makes it unlawful "for any person, within the limits of any public park, to: ... sell or offer for sale any services, merchandise, article, or thing, whatsoever ...." This prohibits windsurfshops from offering services such as renting sailboards and giving lessons on Kailua Beach. However, on Waikiki Beach, concessions are permitted to rent surfboards and sell lessons to tourists. Because of this, many of the windsurfshop owner/managers feel that the City and County is clearly discriminating against them.

The shops' owner/managers agree that the rights of the public over commercial enterprises must be protected. But windsurfing is an activity that is similar to scuba diving. Commercial scuba diving and snorkeling activities were approved in 1983 by the City Council as recreational activities that are complementary to the facilities of other parks on Oahu and have since been allowed to use public facilities, beaches and parks, on a permit basis. Because this ordinance is causing shops to lose considerable revenues (one shop estimated that it was losing \$200 a day in revenues from rentals and lessons), it may be appropriate for the City and County to re-evaluate this matter concerning the use of Kailua Beach by windsurfshops.

### CONCLUSIONS

The retail surfshop and windsurfshop industry on Oahu is expected to gross over \$9,000,000 in sales this year and contribute approximately \$437,000 in taxes to the State of Hawaii. It provides valued goods and services to both local residents and tourists. Through its sponsorship of amateur and professional surfers, the surfshop industry has input into other industries, such as the making of surf movies, and promotes Hawaii through television and magazines that cover surfing and windsurfing sports events. In terms of employment, the industry generates benefits by providing jobs to young persons who are traditionally underemployed.

Individual shops are entering the export market, but with more public support, the industry may be able to expand this market at a much faster rate. The marketing of surf and windsurfing equipment is dependent on the visibility of Hawaii's individual surfers and windsurfers in both amateur and professional events on foreign beaches and also on Hawaiian beaches. Direct and indirect benefits from public and private support of



surfing and windsurfing in Hawaii will accrue to other industries such as tourism as well as the surfshop industry. Thus, public support through the sponsorship of high school surfteams and amateur surfing and windsurfing events would encourage the development of scholars and athletes in Hawaii, generate benefits throughout the economy, and promote a sport that is highly identified with the tropical climate and marine environment of Hawaii.

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## **APPENDICES**



## APPENDIX 1. SURFING INDUSTRY SURVEY

### General Questions

1. How many years have you been in the surfing business:
  - a. As an owner of your own shop? \_\_\_\_\_
  - b. As a manager of another shop? \_\_\_\_\_
  - c. As an employee in another shop? \_\_\_\_\_
  
2. Is this business a (please check one of the following):
  - a. Sole proprietorship? \_\_\_\_\_
  - b. Partnership? \_\_\_\_\_  
If yes, how many partners are involved? \_\_\_\_\_
  - c. Corporation? \_\_\_\_\_
  
3. How many years has this shop been operating at this location? \_\_\_\_\_
  
4. How many branch outlets are there? \_\_\_\_\_
  
5. Are there seasonal fluctuations in your sales? \_\_\_\_\_  
If so, please describe:
  
  
6. How much do you expect your gross sales to be in 1983?  
\$ \_\_\_\_\_
  
7. What percentage of the total sales will come from the following products?
  - a. Surfboards \_\_\_\_\_%
  - b. Windsurfboards \_\_\_\_\_%
  - c. Boogie boards \_\_\_\_\_%
  - d. Accessories (wax, leashes, fins, etc) \_\_\_\_\_%
  - e. Clothing & jewelry \_\_\_\_\_%
  - f. Miscellaneous (repairs, etc.) \_\_\_\_\_%

Total: 100 %

8. Which wholesalers or producers supply the following to your firm?
- a. Surfboards:
  - b. Windsurfboards:
  - c. Boogie boards:
  - d. Accessories:
  - f. Clothing & jewelry:
9. What is your mark-up on items purchased from wholesalers or producers? \_\_\_\_\_%
10. Are any items in your inventory sold on a consignment basis?  
 Yes \_\_\_ No \_\_\_  
 If yes, please list which items:

If yes, what percentage of the retail price is your commission? \_\_\_\_\_%

11. What percentage of your customers are:
- a. Local \_\_\_\_\_%
  - b. Tourists \_\_\_\_\_%
  - Total: 100 %
12. What portion of your sales are from repeat customers?  
 \_\_\_\_\_%
13. How many employees do you have (include yourself)?
- a. Full-time \_\_\_\_\_
  - b. Part-time
    - 1) 0 to 20 hrs/wk \_\_\_\_\_
    - 2) 20 to 40 hrs/wk \_\_\_\_\_
    - Total: \_\_\_\_\_

14. How many of your employees are paid by:
- a. Salary \_\_\_\_\_  
 What is the average salary per month? \$\_\_\_\_\_
- b. Hourly wage \_\_\_\_\_  
 What is the average hourly wage? \$\_\_\_\_\_
15. How many of your employees are in the following age categories (please include yourself)?
- a. 16 to 24 years old \_\_\_\_\_
- b. 25 to 34 years old \_\_\_\_\_
- c. 35 to 44 years old \_\_\_\_\_
- d. 45 to 55 years old \_\_\_\_\_
- e. Older than 55 \_\_\_\_\_
16. Do you ever hire contract labor? Yes \_\_\_ No \_\_\_  
 If yes, what services do they provide to your firm?
17. Of your total expenses, what percentage would be due to the following expenses:
- a. Fixed expenses:
- 1) Rent or lease of building or land \_\_\_\_\_%
- 2) Insurance \_\_\_\_\_%
- 3) Interest \_\_\_\_\_%
- b. Variable expenses:
- 1) Cost-of-Sales \_\_\_\_\_%
- 2) Utilities \_\_\_\_\_%
- 3) Labor expenses:
- a) Wages and salaries \_\_\_\_\_%
- b) Commissions \_\_\_\_\_%
- c) Contract Labor \_\_\_\_\_%
- 4) Maintenance and repairs \_\_\_\_\_%

5)	Taxes	_____ %
6)	Advertising	_____ %
7)	Miscellaneous	_____ %
	Total:	100 %

18. If you were to begin your business today, how much would you need for the following categories?

- a. Cash on hand \$\_\_\_\_\_
- b. Building, deposit for rent of shop, renovation of premises \$\_\_\_\_\_
- c. Inventory \$\_\_\_\_\_
- d. Equipment (racks, cabinets, office machines) \$\_\_\_\_\_
- e. Legal work and licenses \$\_\_\_\_\_

**The Business Environment**

- 1. How does your present financial situation compare to last year?
- 2. How do you expect next year's financial situation to look?
- 3. Do you know of any other surfshops that have recently gone out of business? Yes \_\_\_ No \_\_\_  
If so, why do you think this happened?

4. What problems do you face in operating your business that you feel could be alleviated by the state or the county government?

5. What are the major problems that you face in operating a successful enterprise?



**APPENDIX 2. ESTIMATION OF TOTAL GROSS SALES REVENUES GENERATED BY SURFSHOP INDUSTRY ON OAHU**

1. Estimation of average revenue per shop:

$$\bar{y}_{st} = \frac{\sum N_h \bar{y}_h}{N} = \sum \frac{N_h}{N} \bar{y}_h$$

where

$\bar{y}_{st}$  = average revenue per shop based on stratified sample;  
 $N_h$  = number of shops in strata h;  
 $N$  = number of shops in total industry; and  
 $\bar{y}_h$  = average revenue per shop in strata h.

So,

$$\bar{y}_{st} = [(3/30)1.75] + [(5/30).349] + [(22/30).0977] = \$304,747$$

2. Estimation of total revenues generated by industry on Oahu:

$$\hat{Y}_{st} = N(\bar{y}_{st})$$

where

$\bar{y}_{st}$  = total revenues based on stratified sample.

So,

$$\hat{Y}_{st} = 30(304,747) = \$9,142,410$$

3. Estimation of standard deviation of estimate for total revenues:

$$\sqrt{V(\hat{Y}_{st})} = \sqrt{\sum N_h(N_h - n_h) \frac{s_h^2}{n_h}}$$

where

$\sqrt{V(\hat{Y}_{st})}$  = standard deviation of estimate for total revenues; and  
 $s_h^2$  = variance of estimate of average revenue per shop in strata h.

So,

$$\sqrt{v(\hat{y}_{st})} = \sqrt{[3(3-3)(72,750^2/3) + 5(5-5)(28,810^2/5) + 22(22-8)(433,010^2/8)]}$$
$$= \$451,402$$

**APPENDIX 3. ESTIMATION OF EXCISE AND EMPLOYEE INCOME TAX REVENUES FROM THE SURFSHOP INDUSTRY ON OAHU**

1. Excise taxes on retail sales:
 

Industry Retail Sales x .04 =		
\$9,142,410 x .04 =		\$365,696
  
2. Excise taxes on export sales:
 

Export sales x .005 =		
\$650,000 x .005 =		3,250
  
3. Excise taxes on manufactured board materials:
 

Total number of boards manufactured in Hawaii annually	= 12,000	
Multiplied by the average cost of materials	x \$ 110	
Total cost of materials:	\$1,320,000	
Cost of materials x .005 =		
\$1,320,000 x .005 =		6,600
  
4. Excise taxes on retail sales products:
 

Retail sales less board sales =	\$6,164,727	
Divided by the average markup factor (1+.9)	÷ 1.9	
Wholesale value of sales	\$3,244,593	
Wholesale value x .005 =		
\$3,244,593 x .005 =		16,223

5. Income taxes from employees on salaries:

Taxes<sup>1</sup> on estimated average yearly salary of \$9,828.00<sup>2</sup>, assuming 2 exemptions, filing jointly with no other income or deductions x estimated total employees on salary

$$\$349 \times 75.9 = 26,489$$

6. Income taxes from employees on hourly wages:

Taxes on estimated average annual wage of \$5,975<sup>3</sup>, assuming 1 exemption, filing single with no other income or deductions x estimated total employees paid by hourly wages

$$168 \times 115.2 = 19,353$$

Total sales and income taxes received  
by the State of Hawaii

\$437,612

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<sup>1</sup>Income taxes based on 1982 tax rates

<sup>2</sup>Average monthly salary (based on stratified sample) of

\$819 x 12 months = \$9,828

<sup>3</sup>Average hourly salary (based on stratified sample) of

\$3.83 x 30 hours per week x 52 weeks = \$5,975

**APPENDIX 4. ESTIMATION OF NUMBER OF BOARDS CHanneled THROUGH LEGAL OUTLETS**

1. Average percentage of retail sales generated by sale of boards:

$$\bar{Y}_{st} = \sum \frac{N_h}{N} \bar{Y}_h$$

where

$\bar{Y}_{st}$  = average percentage of gross sales generated by sale of boards;  
 $N_h$  = number of shops in strata h;  
 $N$  = number of shops in total industry; and  
 $\bar{Y}_h$  = average percentage of gross sales generated by sale of boards per shop in strata h.

So,

$$\bar{Y}_{st} = [(3/30)17] + [(5/30)18] + [(22/30)38] = 32.57\%$$

2. Total amount of sales generated through the sale of boards:

$$\begin{aligned} \text{Gross retail sales} \times \bar{Y}_{st} &= \\ \$9,142,410 \times 32.57\% &= \$2,977,683 \end{aligned}$$

3. Total number of boards sold by retail shops:

$$\begin{aligned} \text{Sales generated through the sale of boards} \div \text{average retail price of board} &= \\ \$2,977,683 \div \$350 &= 8,508 \end{aligned}$$

4. Total number of boards exported:

$$\begin{aligned} \text{Sales from export sales}^1 \div \text{average wholesale price of board} &= \\ \$650,000 \div \$300 &= 2,016 \end{aligned}$$

5. Total number of boards channeled through legal outlets:

$$\begin{aligned} \text{Total number of boards sold by retail shops} + \text{total number of boards exported} &= \\ 8,508 + 2,016 &= 10,524 \end{aligned}$$

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<sup>1</sup>Sales determined from interviews.

