

**Interactive service workers' occupational health and safety and access to health services, methodology report**

**Mikael Jansson, Bill McCarthy, Cecilia Benoit**

**mjansson@uvic.ca**

**December 6, 2013**

**Data, Variables and Methods**

We collected the data for this study three service occupations-- food and beverage server, hairstylist, sex worker between May 2003 and December 2008. We limited our sample to workers aged 19 or older, delivered the service directly to the client, and received payment directly from the client and earned tips as part of their income. For sex workers and hairstylists we also required that potential participants had direct physical contact with the client.. The potential respondent must have worked in at his/her respective job (i.e., food and beverage server, hairstylist, sex worker) for a minimum of one year. Thus, our sex worker sample excluded people who provided services exclusively over the internet or telephone. We also required that food and beverage servers work in establishments that serve alcohol. We included managers and small business owners if they provided direct service to customers and regularly received tips.

We used a comparative design and gathered data from two locations: the Census Metropolitan Area of Victoria, British Columbia, Canada and two of the counties that are part of the greater metropolitan region of Sacramento, California, United States. We choose these two urban areas for several reasons: they are located in countries that share many features but which have different labor codes and prostitution laws; they are the largest urban centers to which we had easy access; we had previous contacts with agencies that worked with sex workers in Victoria and were able to establish similar relationships in Sacramento; and the two areas share several political and demographic features. For example, both have a large proportion of government workers, higher than national median incomes, higher than national mobility rates, higher than national average education, and sizable minority populations (the population in Victoria is somewhat older with 18 percent aged 65 or older, compared to 12 percent in Sacramento).

The selection of potential participants from the three occupations we studied presented a number of problems. First, there were no population lists for people employed in sex work or serving jobs; there were lists of licensed hairstylists in California and British Columbia. The list in British Columbia was held by the professional association for hair stylists and this association refused requests for access to the list. Second, the stigma associated with sex work and the illegality of many of the activities it involves requires additional steps to locate and recruit people.

Second, each occupation involves a wide array of businesses that serve customers from all economic classes: hairstyling occurs in chain stores, in rented chairs in independent salons, and in the homes of owner-operated businesses; food and beverage serving takes place in independent upscale restaurants, small diners and pubs, as well as in large chains; and sex work occurs in escort agencies, clubs and erotic massage parlors, as well as in private homes and on the street. Although lists for some of these businesses can be constructed (e.g., from chamber of commerce and phone directories or through on-line searches), the available information is typically dated and contains many foreign entries.

To overcome these problems we used stratification techniques and random and sampling strategies to locate potential respondents.

Each of these occupations involves a wide array of businesses: hairstyling occurs in chain stores, in rented chairs in independent salons, and in the homes of owner-operated businesses; food and beverage serving takes place in large chains, and independent restaurants ranging from upscale restaurants to small diners and pubs. In sex work, the location where the worker meets the client is often separated from the location where the sex service is delivered. Many sex workers meet their clients through escort agencies, at clubs and erotic massage parlors, as well as in private homes and on the street. Although lists for some of these businesses can be constructed (e.g., from chamber of commerce and phone directories or through on-line searches), the available information is typically dated and contains many foreign entries.

In California we drew an initial random sample of 553 from a list of licensed stylists; however, when we used current reverse directories to confirm names and

addresses, 70 percent (385) of the entries had non-deliverable or non-verifiable addresses. Of the remaining 168, another 32 percent (54) no longer worked as stylists but maintained their licenses for other reasons. Of the remaining 114, 18 percent (21) agreed to an interview, 31 percent declined, and 62 percent did not respond

We continued to draw names randomly from the list until (2283), in conjunction with techniques described below, we obtained the desired sample of 100 stylists. From our mailings we booked 82 interviews; 141 people contacted us and told us that they were no longer working as a stylist; 292 letters were returned for an invalid address; and 32 people told us they were not interested.

We also used municipal business lists to generate a sample of hair styling, barbering and related businesses. The original list for Sacramento had 1853 listings (phone numbers only) but many of these were non-working numbers and the list included stylists, barbers and businesses selling hair products such as from shampoo and wigs. We cleaned the list and drew a random sample of 50 salons and barbershops. We also generated a list of Sacramento area businesses that supplied products to stylists (n=44). We contacted a random sample of these businesses and asked them to put up a poster advertising the study.

In Victoria, we started with lists of hair dressers in the 13 different municipalities that make up the Victoria CMA. These lists were supplied to us by these municipalities and were based on their lists of business licenses. Based on these lists we started out with 352 names of businesses. From this list we deducted: Businesses that were not hair related (4), business that were closed (5), businesses that were located in residential areas and there were no phone listings nor sign at the location (19), duplicate licenses at same

location (18) and those businesses that were hair related but do not cut hair (5). After deleting these 51 business we ended up with a final (business) population size of 301. We stratified these salons and barbershops based on the number of seats, data we obtained by calling the business or by manually canvassing locations licensed for hairdressing. We used a similar approach to draw stratified samples of Sacramento and Victoria food and beverage businesses. The Sacramento list contained 1819 entries but included any business that prepared food for direct sale (including fast food chains). We used our local knowledge to clean the list and draw a random sample of 50 businesses. In Victoria, our business list was limited to places that had a license to serve alcohol and food and included the number of seats in each business. Based on the official list of 864 businesses licensed to serve alcohol we excluded 264 establishments. Either because they were out of the geographic area (n=62), stores that sold sealed alcohol containers (n=56), were private or semi-private or seasonal (n=70) and additional licenses for establishments with more than one license (n=76). The remaining 420 establishments had a total of 69,126 seats. All remaining establishments were ordered by the number of seats and then we created ten different categories with an equal number of total seats in each category based on the logic that the number of seats is closely related to the number of servers in the establishment. Our goal was to obtain an equal number of workers in each category. We then sampled establishments within each of these ten categories with the aim to recruit 10 workers from each of the ten categories (n=100)

In Sacramento our list contained all restaurants and did not have details on the number of seats. We cleaned the list of foreign elements as best we could (based on personal knowledge).

We used a similar approach for some types of sex industry workplaces (e.g., escort services) in Victoria; in Sacramento, one county issues licenses for “adult businesses” and we used the aforementioned procedures to contact the 25 of 71 businesses listed that had a physical mailing address (as opposed to a P.O. box). We sent information packages to managers of the selected businesses and explained the nature of the study and our selection criteria. Where possible we followed up with onsite visits to talk about our project and to ask them to post flyers in staff lunchrooms or other places where employees would see them.

We supplemented these sampling approaches with an array of techniques. We placed advertisements for the study in local newspapers and in particular in newspapers that advertised sex work (e.g., massage and escort services). We sent email messages to sex workers who advertised on local web-sites and left phone messages for those who advertised in local newspapers. We made contact with social service agencies that worked with sex workers and asked them to post notices about our project and to refer clients. Recruitment material indicated that the study was supported by the researchers’ university, the name of the funder, that it focused on work and health, and that participants would be offered a \$25 honorarium. We also used *respondent-driven sampling* (Heckathorn 1997, 2002) a variation on snow-ball sampling. In respondent-driven sampling, respondents serve as “seeds.” After their interviews, seeds receive recruitment coupons that describe the study and invite others to an interview. The seeds and any subsequent recruits who enlist additional respondents receive a small fee for each peer who participates in the study. Payment occurs at the respondent’s next interview (Heckathorn 2002). Respondent-driven sampling assumes that members of hidden or rare

populations often belong to the same networks and are more likely to respond to the appeals of their peers than those of unfamiliar researchers. Limiting the number of secondary respondents enrolled by seeds avoids the problem in snowball sampling of differential recruitment caused by some seeds recruiting far more, or fewer, respondents than others (Heckathorn et al. 2002). [Find the number of respondents who were referrals (and the number who referred others...ie. was it just that a few used all their referral cards, or did many respondents refer only one person?) How many referral cards did we give out and how many came back?] Seeds added 20 respondents in Sacramento (9 from styling, 8 from serving, and 3 from sex work), and 38 in Victoria, (6 from styling, 10 from serving and 22 from sex work).

Our goal was to recruit one hundred workers in each occupation in each city for a sample size of 600. We spent approximately 24 months recruiting respondents. We collected data four times with a preferred time between waves of four months; however, the time period varied considerably because of difficulties in scheduling follow-ups. In Sacramento, we collected data from 303 respondents: 95 sex workers, 110 servers, and 98 stylists. In Victoria we collected data from 305 participants: 121 sex workers, 116 servers and 68 stylists. We began collecting data in Victoria in June 2003 and Sacramento in June 2004. We collected our last first wave interview two years later in June 2006 in Sacramento (February 2006 in Victoria). Our second wave ran from November 2004 to April 2008; Wave three started in May 2005 and ended in July 2008; and Wave Four began in November 2005 and was completed in August 2008.

Table: Sacramento Months between Waves

	W1=>W2	W2=>W3	W3=>W4
Range	4-42	4-29	3.5-32
Average	8.8	6.7	5.8

Median	5	5	5
Mode	4	5	5

We used several techniques to minimize attrition. These included: collecting contact telephone numbers for respondents and significant others at the first wave interview; phoning respondents periodically between waves to maintain contact; posting advertisement on websites accessed by sex workers; placing ads in newspapers that asked respondents to contact us; and establishing study-specific phone numbers and email addresses so respondents could contact the study.

We also offered to conduct follow-up interviews over the phone or by mailing interview packets. We used this strategy when respondents were very difficult to get in touch with (e.g., they did not answer our calls), they said they were too busy for an in-person interview, they kept putting off setting a date for the interview, or kept missing and/or canceling interview appointments. In Sacramento, 21 people completed a second wave interview by mail (5 sex workers, 7 servers, 9 stylists).

In Sacramento, we lost 84 respondents who were still eligible after W1 (n=305), for a W4 sample of 221. Of those 84, we lost 40 (48%) due to invalid contact information at some point between waves (80% of these cases involved sex workers), 3 (4%) died, 13 (15.5%) said they were no longer interested, 5 (6%) just kept scheduling and rescheduling, and 23 (27%) either did not respond to our contacts or the reason was unclear. We lost 15% of respondents between Waves 1 and 2, 9% between Waves 2 and 3, and 6% between Waves 3 and 4. Overall, we retained 81% of servers, 44% of sex workers, and 89% of stylists for Waves 2 through 4. We did not drop respondents from the study if they moved from the region or changed their occupation.

Table: Sacramento Reasons for Respondent Attrition

<b>Reasons Lost</b>	1-2	1-2	1-2	2-3	2-3	2-3	3-4	3-4	3-4	Tot	% total
	Svrs	SW	Styl	Svrs	SW	Styl	Svrs	SW	Styl		
No valid contact info	6	18	1	3	8	0	1	3	0	40	47.62
Deceased	0	2	1	0	0	0	0	0	0	3	3.57
No longer interested	0	3	7	1	1	0	1	0	0	13	15.48
Missed appoint, couldn't reschedule	0	2	0	1	2	0	0	0	0	5	5.95
No response to contacts	0	5	1	3	3	2	3	6	0	23	27.38
Total lost between waves	6	30	10	8	14	2	5	9	0	84	
of occupation lost	6.12	31.58	8.93	8.70	21.54	1.96	5.95	17.65	0.00		
	1-2	2-3	3-4								
Total lost between waves	46	24	14								
%lost between waves	15.08	9.27	5.96								
	Svrs	SW	Styl.								
Total lost overall by occupation	19	53	12								
% lost overall by occupation	19.39	55.79	10.71								

\*\*Numbers include only those eligible after Wave 1 (n=305)

Our interviews were conducted by a research team that in addition to us, included graduate students and former sex workers (two in Sacramento). We had hired former sex workers for an earlier study and found that some but not all respondents preferred to be interviewed by someone who had worked in that area (some of the people in our team had also worked in the food and beverage (three in Sacramento) and styling industries); respondents could also request a male or female interviewer.

In Sacramento, there were four male and eight female interviewers. Male interviewers completed 326 interviews and females did 616 (70 were completed by mail, and 8 interviews for W2 had unidentified interviewers in the project files). The average number of interviews per interviewer was 78, the median 75. However, five interviewers

(three women, two men) did fewer than 40 interviews each, while five did more than 100 each (three women, two men).

At each wave, we interviewed respondents and they completed a self-report questionnaire. We chose this combination of methods because many respondents from hard-to-reach populations find personal interviews more satisfying than telephone or mailed studies and because we wanted to allow them to answer some questions privately (Mangione et al., 1982); however, many respondents preferred that the interviewer read them the questions and record their answers. This preference may have reflected their desire to continue with the approach established at the start of the interview or their discomfort with reading. Respondents receive an honorarium at the start of each interview and signed an informed consent form. We tape-recorded interviews unless respondents declined or because of a technical problem (21 in Victoria and 24 in Sacramento; 19 from the sex industry, 19 from serving, and 7 from styling). In Sacramento, 184 respondents (83%) of fourth wave respondents said that they could be contacted in the future. Of the remaining 37 respondents, 11 asked that they not be contacted, and 25 asked for more time to think about it. The majority (183, about 83%) of respondents said they would like to know about the study's findings.