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THE DEMOGRAPHICS OF SPECIAL
EVENTS IN WALLA WALLA

PART I: RESULTS OF A SURVEY AT
FEAST WALLA WALLA, ON APRIL 12, 2008

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The Demographics of Special Events in Walla Walla

Part I: Results of a Survey at FEAST WALLA WALLA, on April 12, 2008

**Karl Storchmann, Keith Cushner, Peter Griffin, Alexander Higgins, Micah Jarnot,
Shawn Kelly, Andrew Knox, Johanna Lirman, Christopher Lukes, Michael
MacCully, Jesus Reyes, Patricia Robinson, Erik Trefzger, Andrea Wendel and
Kimberly Wetter**

The first annual FEAST Walla Walla was held on Saturday, April 12, 2008 in downtown Walla Walla. The FEAST is a gastronomic and sensory event in a heated, canopied venue covering First Avenue, between Main Street and Alder. Over 50 vendors offered samples of their wares including 16 fine restaurants and food purveyors, 29 wineries, and 10 artists. More than 400 visitors attended the event.

In order to get an impression about the socio-demographic characteristics of FEAST visitors, we interviewed them using the questionnaire attached in the appendix. The questionnaire distinguishes between local visitors and visitors from out of town.

(1) Basic Demographics

As reported in Table 1, we interviewed a total of 91 parties representing 299 people. The average party size of visitors from Walla Walla was 3.00. In contrast, the average group size of out-of-town visitors was about 15% larger, i.e., 3.48 people.

For both visitor groups from Walla Walla and from out of town the majority of the forms were filled out by women (56.8% for Walla Walla, 51.9% for non-Walla Walla). It is unknown if these shares are representative for the visitors as a whole or simply the result of a selection bias (e.g., women are more likely to fill out the form).

Table 1
Basic sample demographics

Number of Parties	
- from Walla Walla	37
- from out of town	54
total	91
Number of People per Party	
- from Walla Walla	3.00
- from out of town	3.48
Number of Visitors	
- from Walla Walla	111
- from out of town	188
total	299
Gender (share of female)	
- from Walla Walla	56.8%
- from out of town	51.9%

Table 2
Age and age distribution

	<21	21-30	31-40	41-50	51-60	61-70	70+	average age ¹
local visitors	0.0%	16.2%	13.5%	32.4%	29.7%	5.4%	2.7%	45.3
from out of town	1.9%	7.7%	5.8%	34.6%	38.5%	9.6%	1.9%	48.7

¹ Computed using the mean value of each bracket; 18 for <21 and 75 for 70+.

Table 2 presents the age distribution of local visitors and those from out of town. The average visitor from both groups is in his or her mid- to late-40s. Out-of-town visitors are on average slightly older than local visitors (48.7 vs. 45.3 years). In addition, the age distribution of local visitors is substantially more uniform than those of out-of-town visitors. While more than 73% of the out-of-town visitors cluster within the 40-60 year age range, this is only 62% for locals.

The most apparent distinction between locals and out-of-town visitors, however, is their annual income. While local visitors report an average annual income of \$84,100, out-of-town visitors report incomes that average at \$129,000 per year. This is some 53% higher than the local figure and more than twice the state's mean and median incomes.

Table 3
Income level and distribution
in \$1000 per year

	0-20	20-40	40-60	60-80	80-100	100-150	150-200	200+	average ¹
local visitors (n=33)	2.9%	17.6%	11.8%	26.5%	17.6%	14.7%	2.9%	5.9%	84.1
from out of town (n=48)	2.1%	0.0%	14.6%	18.8%	10.4%	22.9%	10.4%	20.8%	129.0

¹ computed using the mean value of each bracket; \$250,000 for \$200+

(2) Where do visitors come from?

As shown in Table 1, we interviewed 37 parties from Walla Walla and 54 from out of town. Figure 1 breaks up the visitor parties by 3-digit ZIP code.¹ Not surprisingly, the dominating ZIP code is 993xx, i.e., Walla Walla and the Tri-Cities.

Figure 1

All FEAST 2008 Visitor Parties by 3-Digit ZIP-Code
n=76

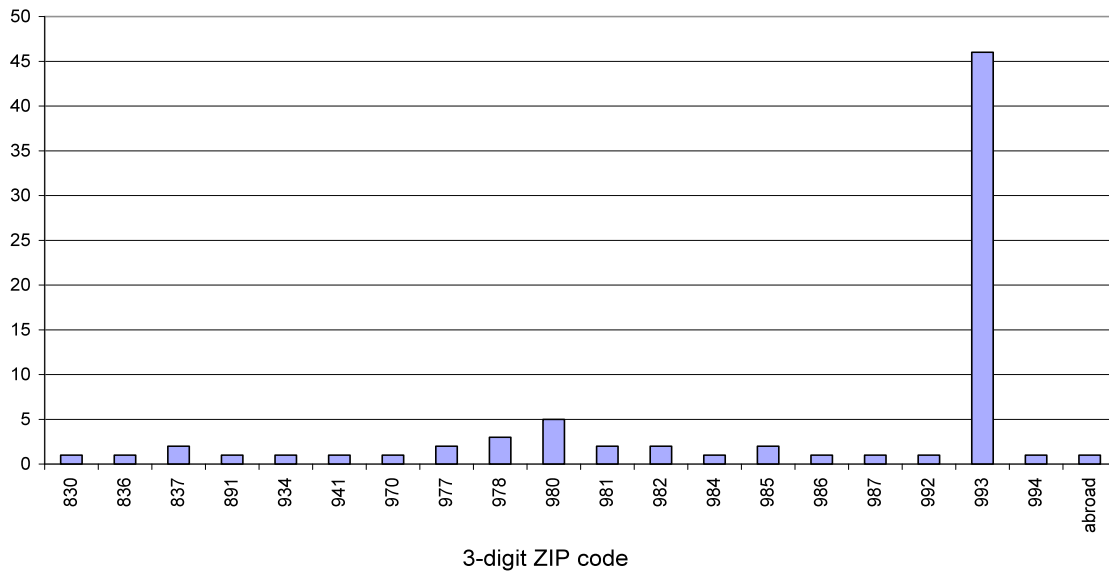
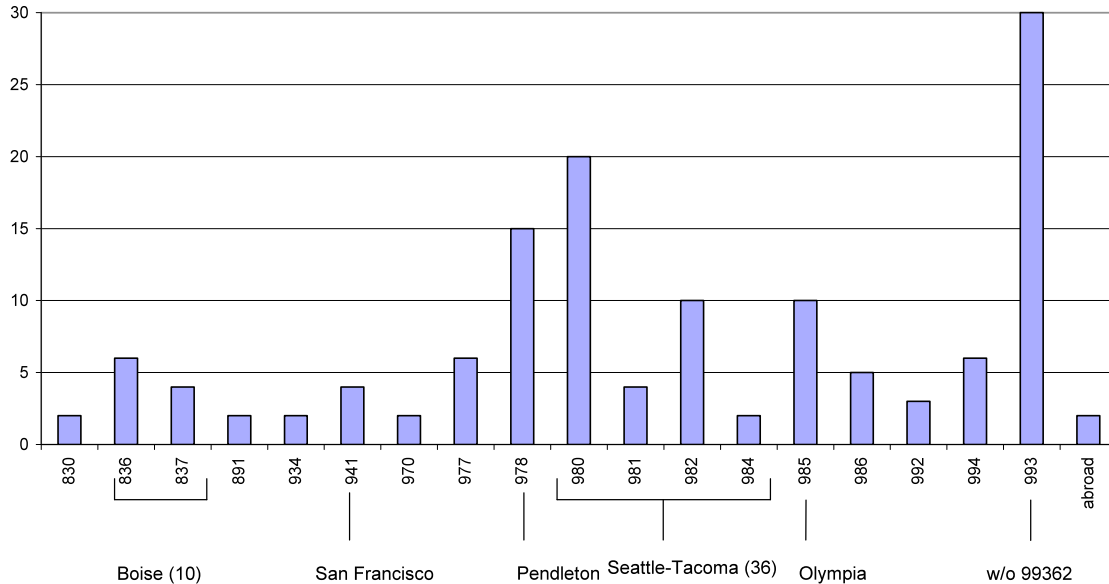


Figure 2 shows the ZIP code distribution for out-of-town visitors only and accounts for the party size.

¹ Since the ZIP code for 15 parties is unknown the sample size is only 76.

Figure 2

**Non-Walla Walla FEAST 2008 Visitors by 3-Digit ZIP-Code
n=135**



The 2008 FEAST event attracted visitors from six states (WA, OR, CA, NV, WY, ID). People came from as far as Las Vegas, San Francisco, and Paso Robles.

Thirty out-of-town visitors originate from the 993xx ZIP code area (almost entirely from the Tri-Cities) making it the single most important regional tourist source for Walla Walla's FEAST event. However, almost twice as many visitors came from the combined Seattle-Tacoma-Olympia (ZIP codes 980, 981, 982 and 984). In fact, more than a third of all out-of-town visitors come from the Seattle-Tacoma-Olympia area. Other important tourist sources are the Pendleton (978) and the Boise area (836, 837).

(3) How do people hear about the FEAST event?

Overall, most people learned about the FEAST event from a friend a family member or through the print media (newspaper). However, the way that information finds its way to local and non-local visitors is very different. Local visitors mainly rely on the local newspaper; only 2.2% of all local visitors mentioned the internet as source of information. This is significantly different for out-of-town visitors: the Internet is the third most important source of information, after word-of-mouth information and the print media.

Table 4
How did people hear about the FEAST event?

	friend, family	print media	TV/radio	internet	wine tasting, store	participant, volunteer	walked by
local visitors	25.3%	44.0%	2.2%	2.2%	5.5%	19.8%	1.1%
out of town	33.3%	22.8%	4.1%	21.6%	8.2%	0.0%	9.9%

(4) How do people get to the FEAST event?

Some 32.7% of all local visitors walked to the FEAST event, while 67.3% used their cars. Surprisingly, not a single visitor mentioned *bicycle* as his or her means of transportation.

The overwhelming majority of out-of-town visitors arrived by car: 11.7% arrived by airplane and more than a third of those used a private plane.

Table 5
How did people arrive at the FEAST event?

	on foot	by car	airplane ¹
local visitors	32.7%	67.3%	0.0%
out of town	0.0%	86.8%	13.2%

¹ for combined travel such as airplane and car we only considered the long distance mode (e.g., airplane)

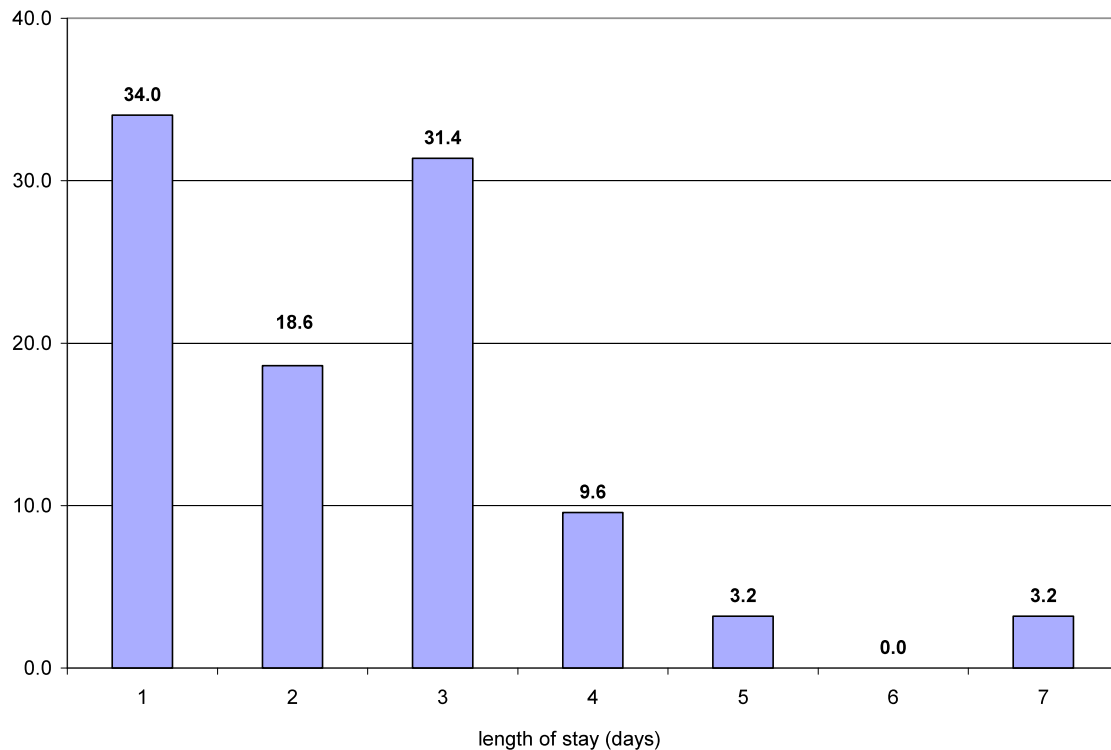
FEAST Visitors from Outside of Walla Walla

(5) How long do out-of-town visitors stay?

FEAST visitors stayed between 1 and 7 days in Walla Walla. The average visit lasted 2.46 days (unadjusted for party size). Adjusted for party size the average stay was 2.42 days indicating that the length of stay is probably independent of party size.

Figure 3 depicts the distribution of visit lengths. Accordingly, 84% of all visitors stay between 1 and 3 days in Walla Walla.

Figure 3
Length of visit in Walla Walla
adjusted by party size, n=188, in %

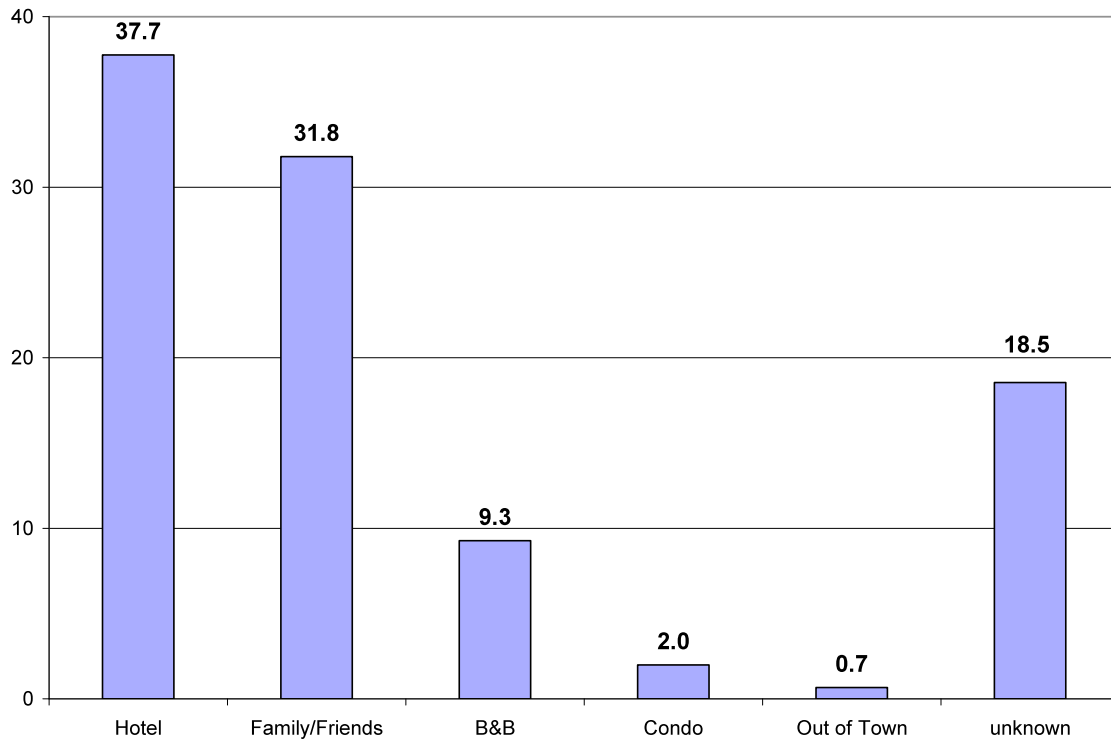


(6) Where do out-of-town visitors stay?

About 38% of all out-of-town FEAST visitors stayed in a hotel, another 9% checked into a Bed & Breakfast (Figure 4). About 32% stayed with friends or family; 2% stayed at their own house and less than 1% stayed outside of Walla Walla (Pendleton). Another 14.9% of all out-of-town visitors did not answer the question. The ZIP code data suggest only a third of them live within a one-hour drive (Kennewick). We assume that these

people returned home.

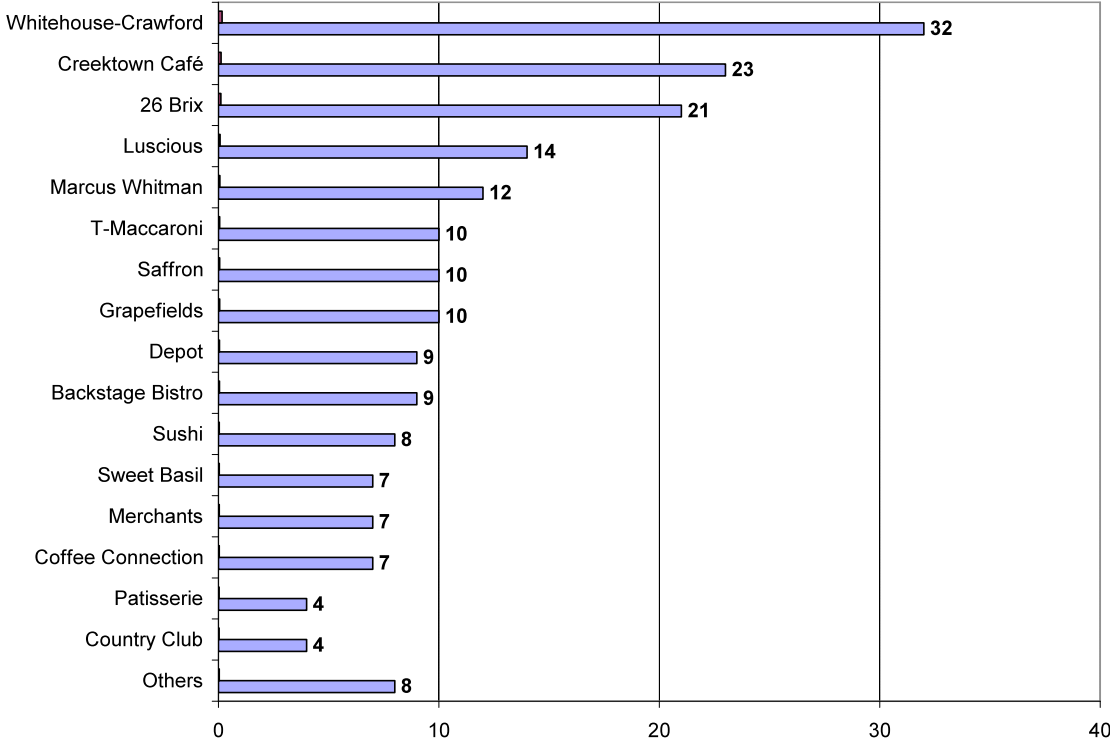
Figure 4
Where do out-of-town visitors stay?
answers weighted by party size, in %



(7) Where do out-of-town visitors eat?

In response to the question “What restaurant do you eat in?” we received a total of 195 entries (multiple answers were possible; weighted by group size) exhibiting a substantial degree of inequality. Assuming that each entry means one meal, *Whitehouse-Crawford* by far benefited the most from the FEAST event (Figure 5). Second are *Creektown Café* and *26 Brix*. These three restaurants combined received almost 40% of all entries. In addition, there were 13 more eating places with more than 2 entries.

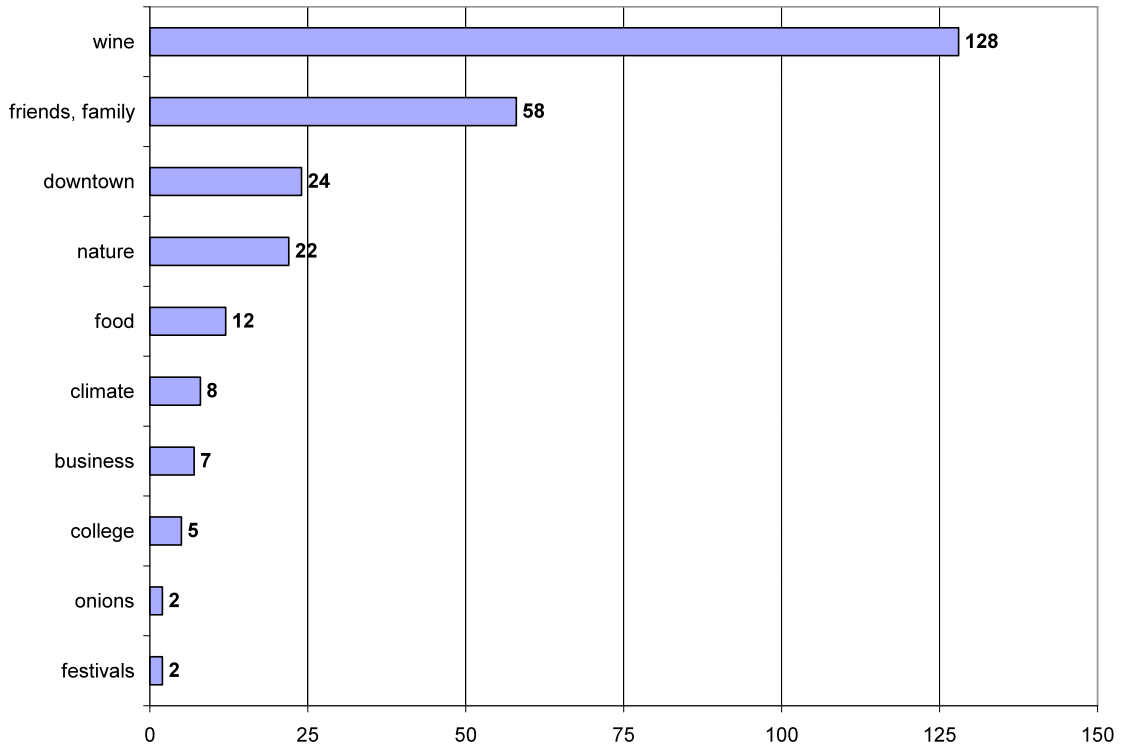
Figure 5
Where do out-of-town visitors eat?
answers weighted by party size



(9) What attracts out-of-town visitors?

In response to the question “What are Walla Walla’s major attractions” we received 268 entries (multiple answers were possible; weighted by group size). As shown in Figure 6, almost half of them mentioned *wine* as the main reason for a Walla Walla visit (47.8%). *Wine* is followed by *friends and family* (58 entries = 21.6%), *downtown* (24 entries = 9.0%) and *nature* (22 entries = 8.2%). At least for visitors attending the FEAST, *onions* and the *festival* were not the main reason for coming to Walla Walla.

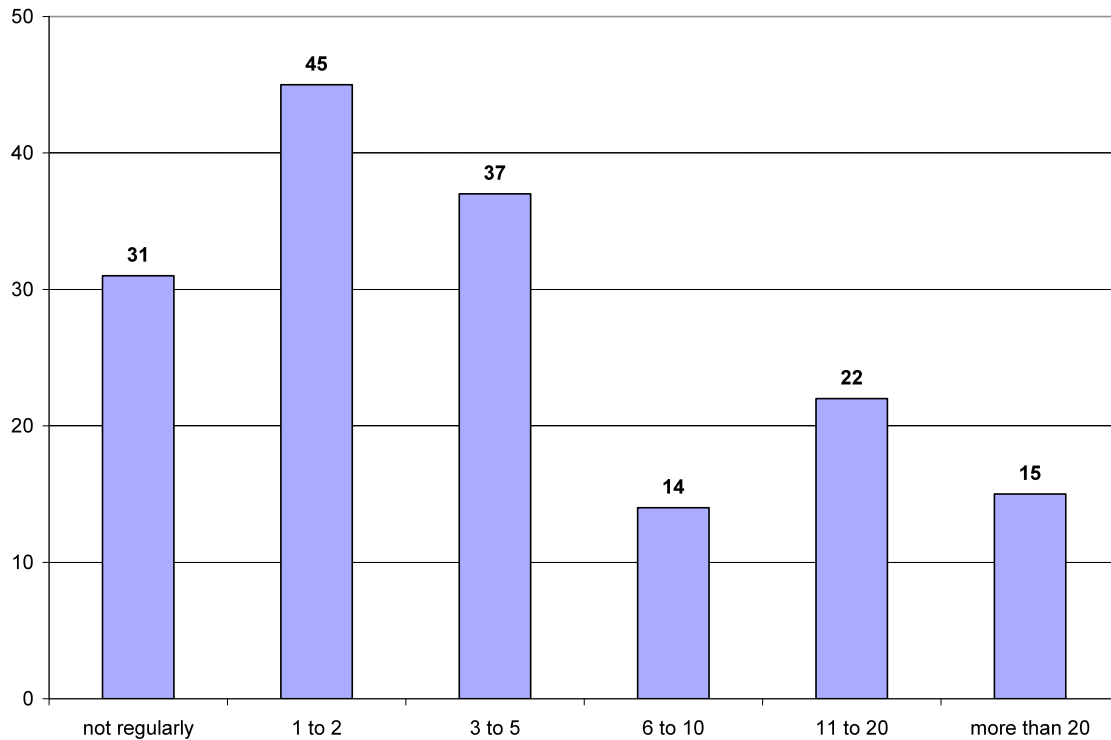
Figure 6
What attracts out-of-town visitors most?
answers weighted by party size



(10a) How often do out-of-town visitors visit Walla Walla?

We received 164 answers to the question “How often do you visit Walla Walla” (weighted by group size). As reported in Figure 7, 31 (18.9%) of the responding visitors do not visit Walla Walla regularly, i.e., more than 80% of all out-of-town FEAST attendees are frequent Walla Walla visitors. In fact, half of all out-of-town FEAST attendees (82 people) visit Walla Walla 1 to 5 times per year. There were also 61 entries that reported more than 6 visits per year.

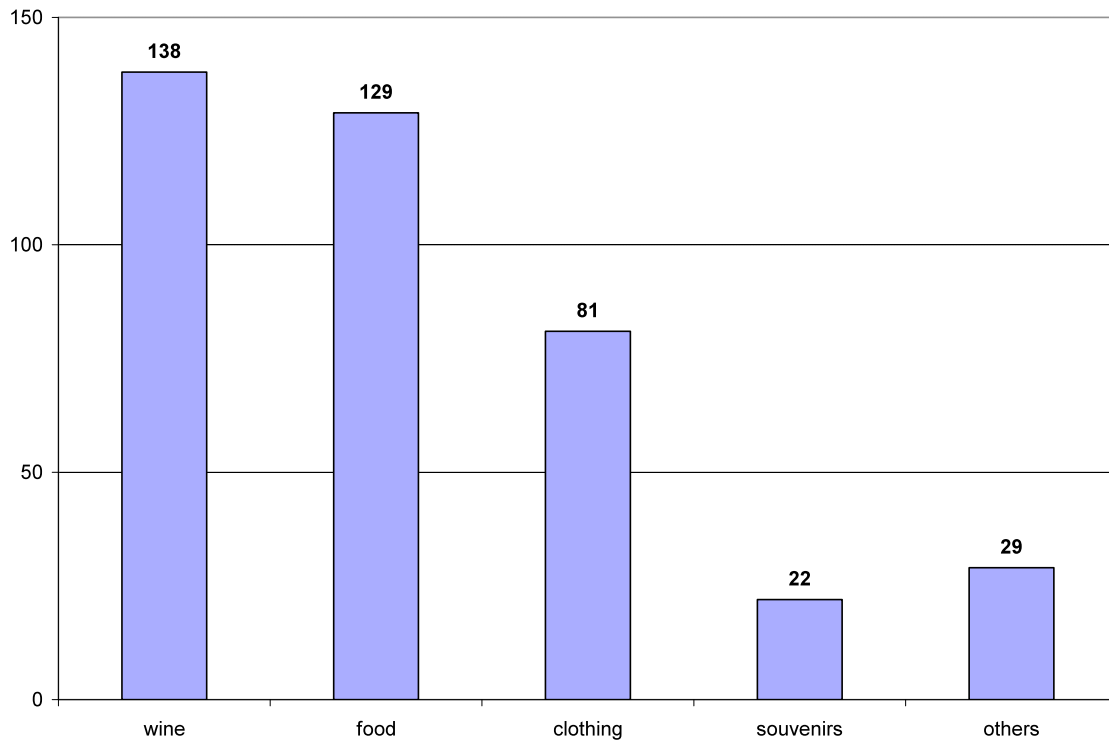
Figure 7
How often per year do you visit Walla Walla?
answers weighted by party size



(10b) What do out-of-town visitors buy?

We received 399 entries in response to the question “What do you buy?” (multiple answers were possible). It is not surprising that wine and food combined comprised more than two-thirds of all purchases. In addition, more than 20% of all purchases were directed towards clothing.

Figure 8
What do FEAST visitors buy?
adjusted by party size, multiple answers possible, n=399



(11) How much do out-of-town visitors spend?

Overall, the average spending of a FEAST visitor from out of town was \$445.44 (unadjusted for party size) or \$433.15 (adjusted for party size), as reflected in Table 6.

Since the answers to the question “How much money did you spend in Walla Walla this visit?” depend on the length of stay, we calculated average daily expenditures. As shown in Table 6, there is a wide range in daily spending, from \$25 to \$2000. The average daily expenditure is \$214.83 (unadjusted for party size).

However, average daily expenditure may depend on party size because some cost

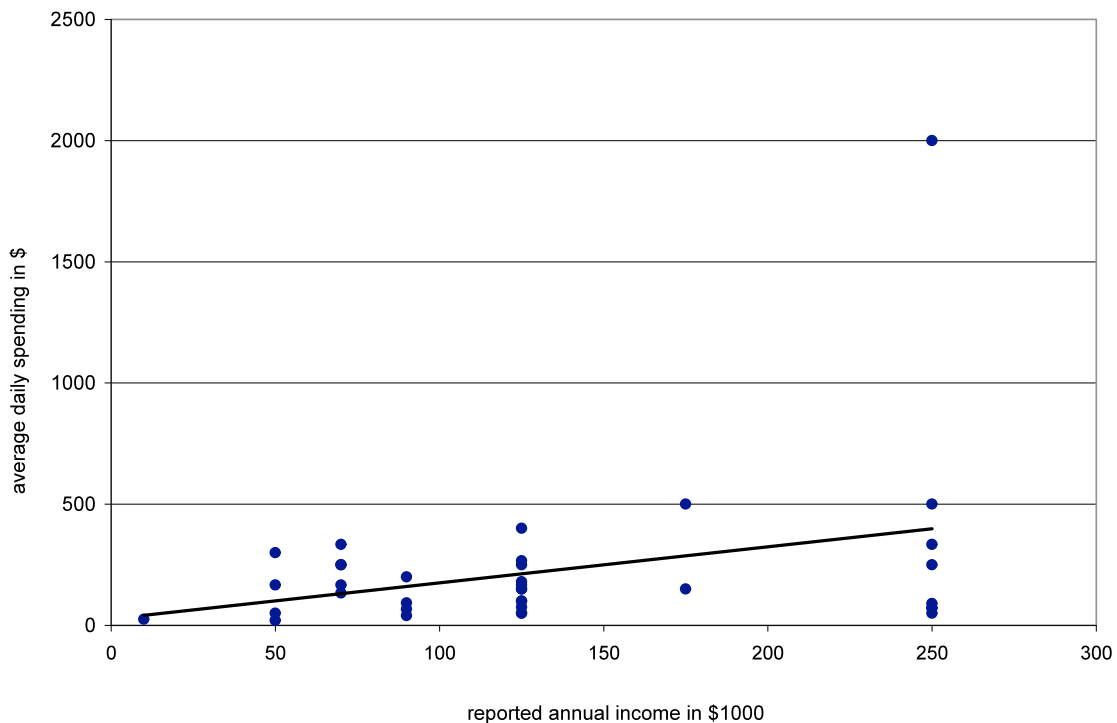
components are quasi-fixed and may be shared (e.g., hotel room, travel by car). We therefore also computed an average expenditure that is weighted by party size. Since the group-size-adjusted average of \$208.65 is scarcely different from the unadjusted average, we did not find evidence for cost sharing of larger visitor groups.

Table 6
How much do out-of-town visitors spend in Walla Walla?
 in \$

	min	max	average
average per visitor unadj. by party size	75	2,000	445.44
average per visitor adj. by party size	75	2,000	433.15
daily average per visitor unadj. by party size	25	2,000	214.83
daily average per visitor adj. by party size	25	2,000	208.65

Figure 9 depicts the relationship between reported income and average daily spending. At first glance, the upward sloping regression line indicates a positive connection.

Figure 9
Reported Income and Average Daily Spending



This appears consistent with the regression analysis (Table 7). In column (1) we report the estimates of a regression of the natural logarithm of average daily spending on reported annual income. Since the equation is specified as log-linear all coefficients can be interpreted as roughly percentage marginal changes. Thus, the income coefficient of 0.004 suggests that an increase of income by one unit (\$1,000) has a 0.4% impact on average daily spending in Walla Walla. However, the income variable is significant only at the 10.4% level, shedding some doubt on the relationship between income and daily spending. As shown in column (2), our results in (1) are mainly driven by one outlier (one person's average daily spending of \$2,000). When we remove this outlier, the income-spending relationship becomes utterly insignificant. In column (3) and (4) we added the length of the visit and the party size as additional explanatory variables. The underlying hypotheses are that long-term visitors spend less per day than short-term visitors and that daily spending per capita is smaller in larger groups. The estimates, however, do not find any support for these hypotheses. In fact, as reported in column (4), adjusted for income and length of stay group size has a positive effect on average daily spending per visitor (significant at the 1.1% level). From the estimates we infer that one additional member per party results in an increase in average spending by approximately 16%.

Table 7
Determinants of average daily spending

	dependent variable: ln(average daily spending)				
	(1) all income data	(2) without income outlier	(3) without income outlier	(4) without income outlier	(5) without income outlier
constant	4.43*** (14.15)	4.57*** (13.56)	4.66*** (11.12)	4.08*** (8.20)	4.31*** (9.07)
annual income	0.004 (1.67)	0.002 (0.88)	0.002 (0.88)	0.002 (1.01)	0.003 (1.45)
length of stay			-0.03 (-0.36)	-0.03 (-0.30)	-0.09 (-1.11)
party size				0.16** (2.74)	0.14** (2.51)
Visitors from Walla Walla area ¹					-0.49 (-1.20)
Seattle- Tacoma					-0.12 (-0.34)
Boise area					0.78* (2.03)
CA, NV ²					-0.41 (-1.05)
R2	0.09	0.04	0.04	0.14	0.26
n	36	35	35	35	35

heteroskedasticity-consistent t-statistics in parentheses. significance levels *** (1%), ** (2%), * (5%), + (10%); ¹ ZIP code 993 without Walla Walla plus ZIP code 978 (Pendleton area); ² Paso Robles, San Francisco, Las Vegas

We are also interested in whether visitors from certain regions spend more than others (adjusted for party size, length of stay and income). The estimates, as reported in column (5), suggest that—with the exception of the Boise region—the regional origin of FEAST visitors does not matter. Adjusted for party size, income, and length of stay, visitors from Boise tend to spend 78% more than other visitors (significance level 5.0%).

Table 8
Correlation matrix of total visitor spending and its determinants

	spending (total)	income	length of stay	party size	Boise	California	local visitors ¹	Seattle
spending (total)	1.00							
income	-0.02	1.00						
length of stay	0.34	-0.06	1.00					
party size	0.44	-0.11	-0.01	1.00				
Boise	0.63	-0.15	0.23	0.18	1.00			
California	-0.06	0.27	0.23	-0.04	-0.06	1.00		
local visitors ¹	-0.18	0.11	-0.49	0.01	-0.14	-0.14	1.00	
Seattle	0.00	-0.11	0.30	0.04	-0.12	-0.12	-0.28	1.00

¹ ZIP code 993xx without Walla Walla plus ZIP code 978xx (Pendleton area)

Table 8 reports the correlation between total spending per capita and its various determinants. Naturally, total spending is positively correlated with the length of the visit ($r=0.34$). But we also see a positive correlation between spending and group size and Boise. In contrast to common beliefs, the correlation between visitors coming from Seattle and reported incomes is negative suggesting that the average income of visitors from the Seattle area is below the average of all FEAST visitors. The matrix reports the highest incomes for visitors from California (San Francisco, Paso Robles, Las Vegas) and the lowest income for visitors from Boise.

As expected, local visitors (from ZIP code 993xx (w/o 99362) and Zip code 978xx) exhibit a negative correlation with “length of stay” while all other visitors show positive coefficients. Visitors from Boise appear to visit in above-average party sizes ($r=0.18$).

In Table 9 we display the estimates of a model that specifies total spending as a function of regional variables only. We now do not adjust for length of stay and party size. Instead, these variables are now absorbed by the four regional variables.

We again confirm the positive effect for visitors from Boise. The Boise-coefficient of 1.8 suggests that the total spending of a Boise visitor is 80% larger compared to a non-Boise visitor. As we know from Table 7 and 8, this is due to higher per capita daily spending, longer visits and larger party sizes.

Table 9
Determinants of Total Spending

	dependent variable : ln(total spending)
constant	6.70*** (24.65)
visitor from local area	-0.83 (-1.53)
Seattle-Tacoma	0.29 (0.62)
Boise	1.80*** (5.75)
California & Las Vegas	-0.04 (-0.07)
R2	0.23
n	38

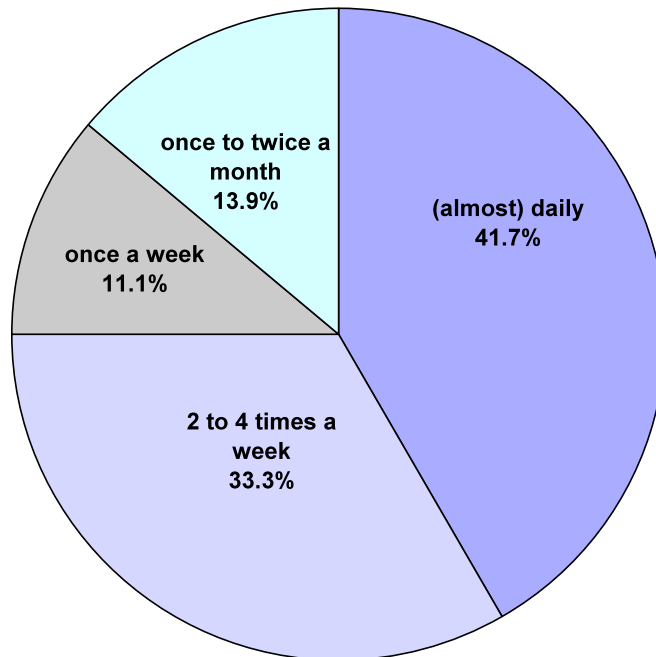
FEAST Visitors from Walla Walla

For all questions concerning visitors from Walla Walla, we did not weight the answers with respect to party size. We interpret the answers as personal statements because we do not assume that the person filling out the questionnaire can speak on behalf of his or her entire party.

(12) How often do you go downtown?

We received 36 answers to this question. As shown in Figure 10, the overwhelming majority of local FEAST attendees visits downtown Walla Walla at least 2-4 times week. Only 5 attendees (13.9%) visit downtown less than once a week.

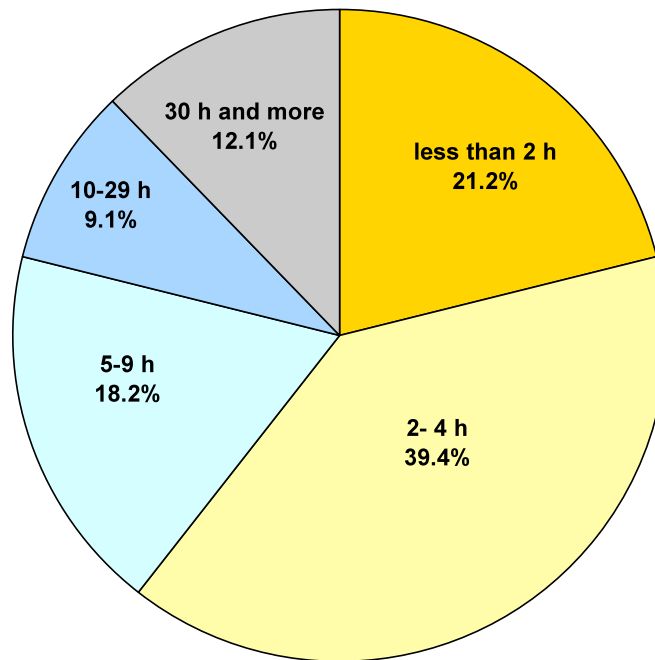
Figure 10
How often do you go downtown?



(13) How much time per week do you spend downtown?

Given the variance in downtown visits, this question yielded a wide range of answers, from 25 minutes to 50 hours. Figure 11 summarizes the answers and the distribution.

Figure 11
How much time per week to you spend downtown?

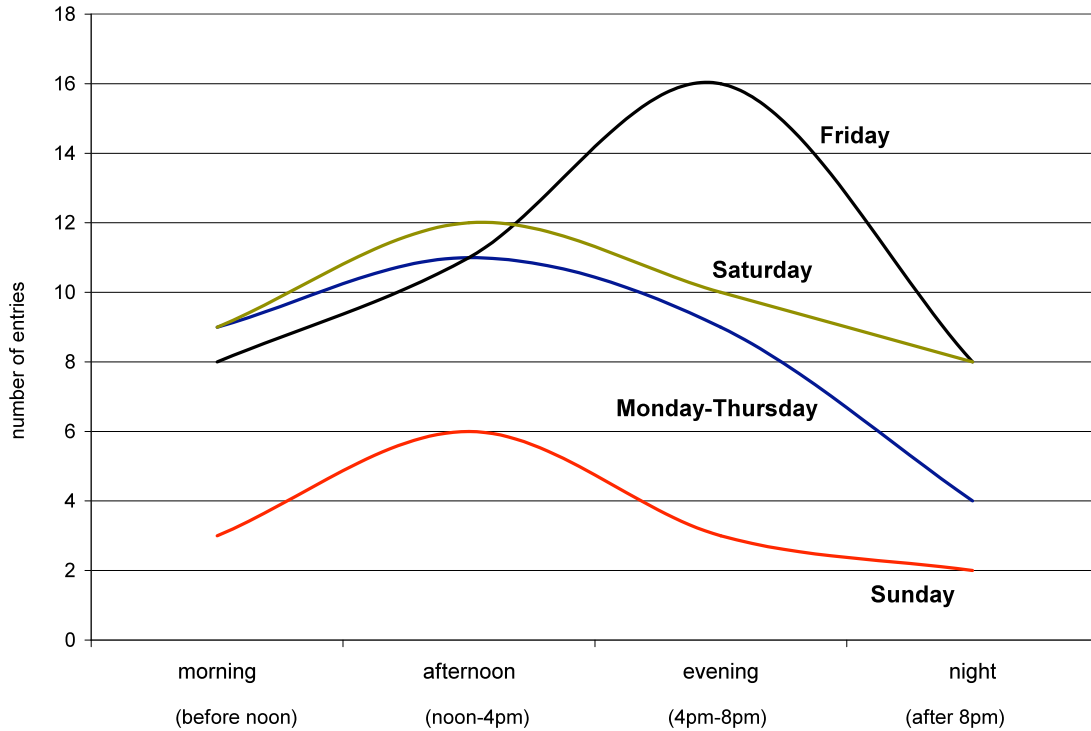


(14) When do you go downtown?

We are interested not only in the level of downtown visits but also in their distribution over time. As displayed in Figure 12, the number of downtown visits varies substantially with the day of week and the time of day.

The number of downtown visits on Sundays is approximately 50% lower than on weekdays. In contrast, the number of Saturday and especially Friday visits is much higher than weekday visits. In addition, Fridays exhibit a diurnal pattern that is significantly different from the rest of the week. In fact, it is the only day of the week with more evening than afternoon visits.

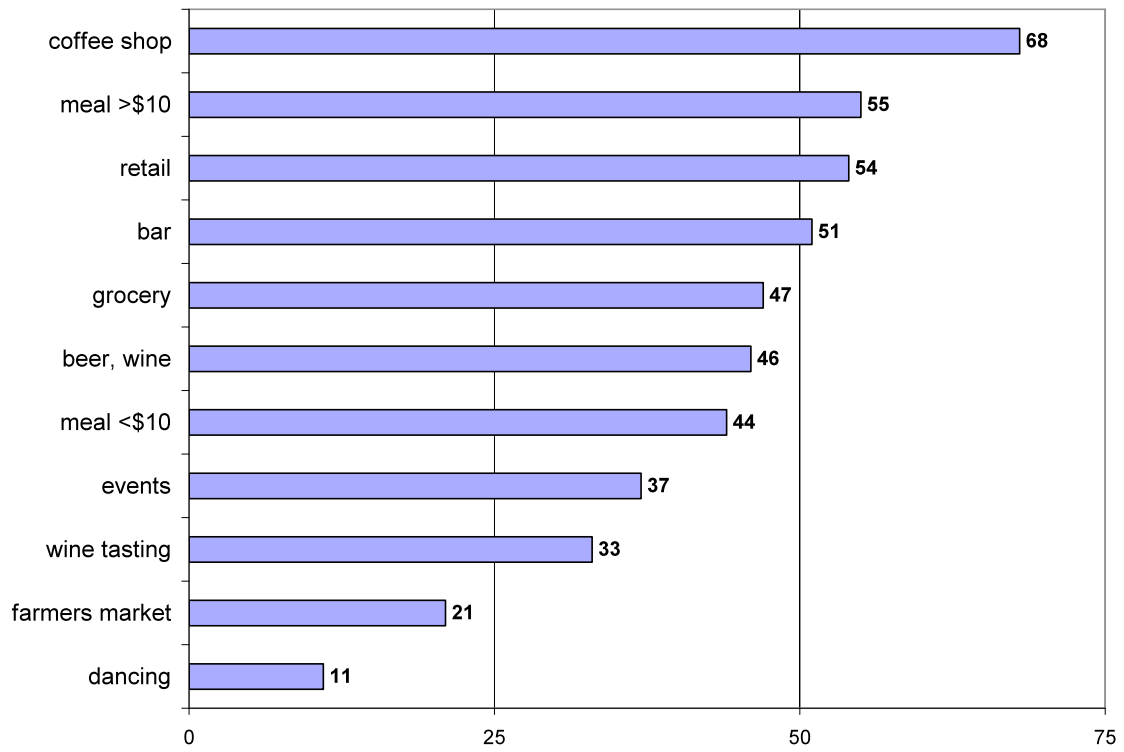
Figure 12
When do you go downtown?



(15) How often do you go downtown for a certain purpose?

Only a fraction of the interviewees answered this question. Since it is *a priori* unclear how to assess missing entries, we do not compute an average visitation frequency by purpose. However, we can assign weighted frequency values to each purpose and rank the purposes. In this manner, we assigned 5 points for *daily*, 4 points for *2-4 times per week*, 3 points for *once a week*, 2 points for *1-2 times per month* and 1 point for *once in 6 months*. We treated the entry *almost never* like a missing entry and disregarded it. As shown in Figure 13, drinking a coffee is the most common downtown activity followed by *meals >\$10* and *retail*.

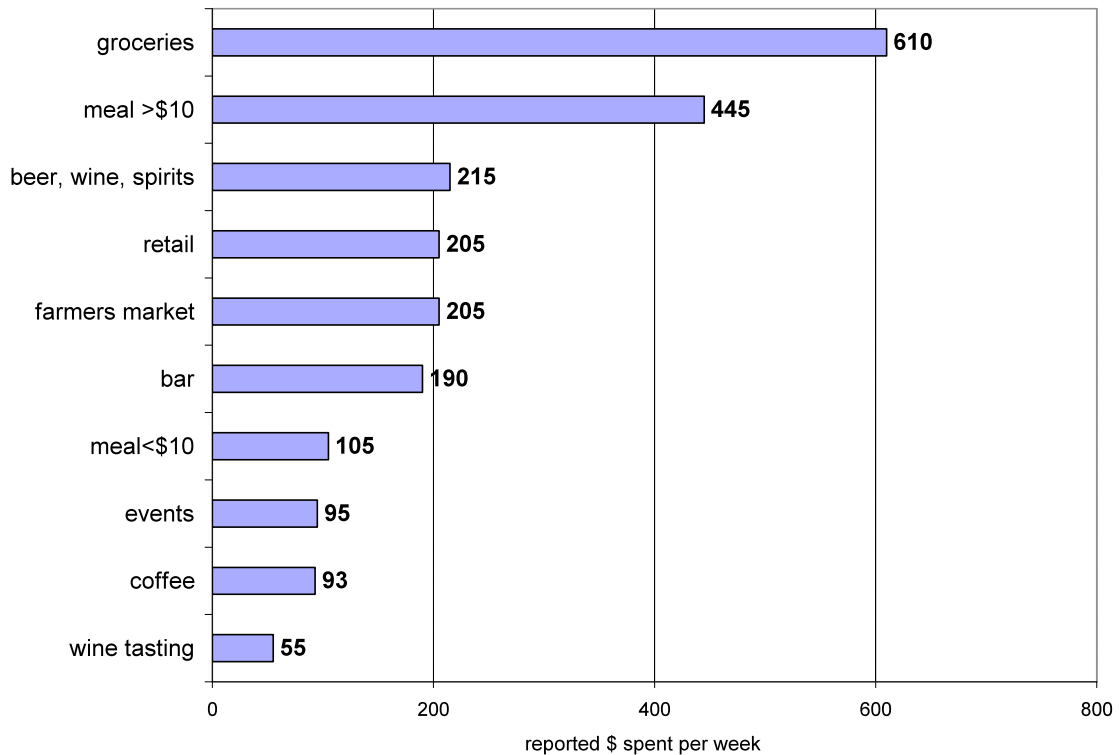
Figure 13
Downtown visits by purpose
weighted entries



(16) How much money do you spend for each purpose?

This question is related to the preceding one and many answers were incomplete. We therefore added up all reported amounts and computed a ranking as displayed in Figure 14. Accordingly, *groceries* is the most dollar-intensive downtown activity, followed by *meal >\$10*. When weighted with dollar amounts, *coffee shop* visits, the most favorite downtown activity, drops to rank 9.

Figure 14
Money spent downtown by activity
sum of reported \$ amounts

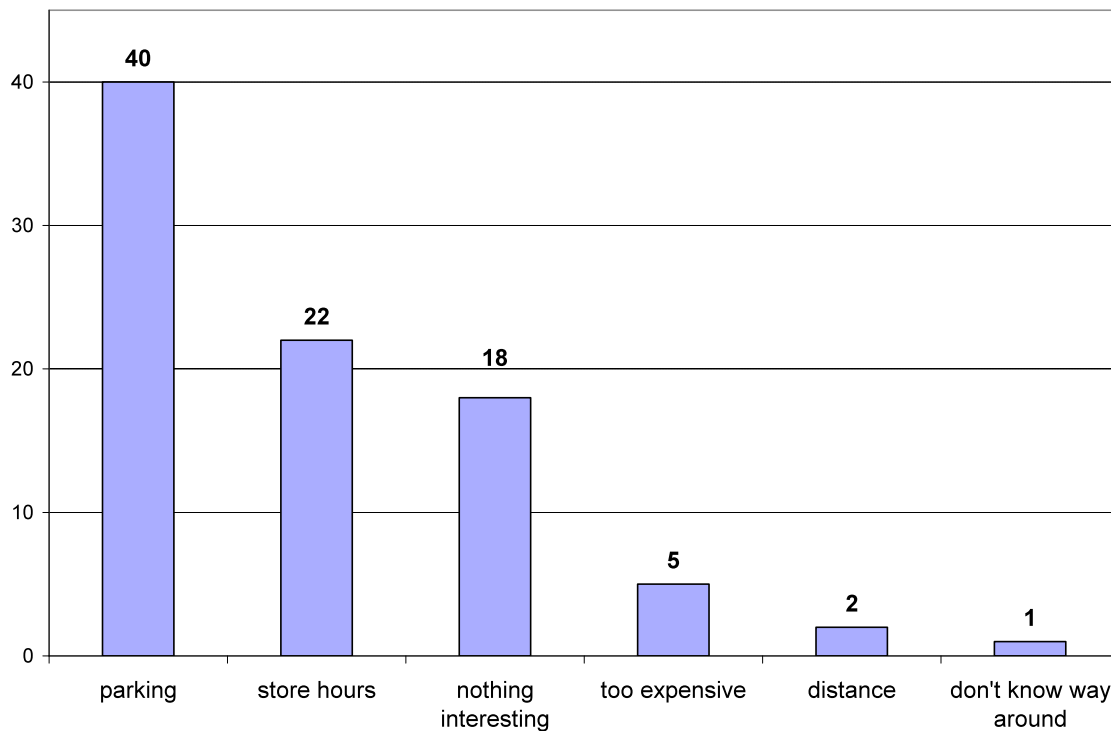


(17) What deters you from going downtown?

We asked people to rank their three main deterrents to going downtown. We weighted the entries linearly and gave the main deterrent 3 points, the second 2 points and the third 1 point.

As shown in Table 10, issues related to parking are by far the most important deterrents from visiting downtown Walla Walla more often. This point received 40 weighted entries, i.e., as much as the second and third entry together. *Inconvenient store hours* and *nothing interesting downtown* were mentioned as the second and third most important deterrents. As for the latter, respondents explicitly mentioned the lack of bars and dance clubs.

Figure 15
Main deterrents from going downtown



(18) When you shop outside of downtown, where do you typically go?

This question was answered in an inconsistent way. Some people mentioned specific stores, while others listed categories such as *supermarkets* or mentioned regions such as *Tri-Cities*. However, the most mentioned stores are Costco, Wal-Mart and Safeway (Plaza).

(19) How much do you typically spend per week outside of downtown?

Of all 37 interviewees, only 15 answered this question. The money amounts ranged from \$25 to \$700. The average amount spent was \$198.33

Visitors from Walla Walla

1. Where are you from? Please enter the ZIP							
2. Age:	Under 21	21-30	31-40	40-50	51 -60	61-70	70+
3. Sex:	Male			Female			
4. What is your annual household income?							
0-20k	20-40k	40k-60k	60-80k	80-100k	100-150k	150-200k	200k+
5. How did you arrive?	on foot		bicycle		car		bus
6. How did you hear about this event?							
7. How big is the party you are here with? enter number							

Current Downtown Activity

1. How often do you go downtown? Please circle the appropriate answer.

(almost) 2-4 times 1 time 1-2 times Once a (almost) Other
 daily per week per week per month semester never _____

2. How much time do you spend downtown per week on average? _____ hours

3. When you do go downtown, what time of day do you typically go? Check all boxes that apply.

	Monday-Wednesday	Thursday	Friday	Saturday	Sunday
Morning (before noon)					
Afternoon (12pm-4pm)					
Evening (4-8pm)					
Night (after 8pm)					

4. How often do you go downtown to... Check one box in each row and fill in a dollar amount.

	(almost) daily	2-4 times per week	1 time per week	1-2 times per month	once a semester	(almost) never	How much do you spend per week on this?
Shop for groceries or necessities							\$
Go to the Farmers Market							\$
Buy beer, wine, or spirits							\$
Go wine tasting							\$
Go to a coffee shop							\$
Eat a meal for < \$10							\$
Eat a meal for > \$10							\$
Shop at a retail store							\$
Attend events (e.g., concert, parade)							\$
Go to a bar							\$
Go dancing							\$
Study							\$
Hang out							\$
Other:							\$

5. Which, if any, of the following things deter you from going downtown?

Please rank your top 3 deterrents, using numbers 1, 2, and 3 (1= biggest deterrent)

- | | |
|--|---|
| <input type="checkbox"/> Distance | <input type="checkbox"/> Parking too difficult |
| <input type="checkbox"/> Too Expensive | <input type="checkbox"/> I don't know my way around |
| <input type="checkbox"/> Store hours are inconvenient/inconsistent | <input type="checkbox"/> Nothing interests me |
| <input type="checkbox"/> Other: _____ | |

6. When you shop outside of downtown, where do you typically go?

Please list stores below (e.g. Walmart, Big 5, Hastings, Supermarkets – except the Safeway on Rose).

7. How much do you typically spend per week outside of downtown? \$ _____

Visitors from Outside of Walla Walla

1. Where are you from? Please enter the ZIP

2. Age: Under 21 21-30 31-40 40-50 51 -60 61-70 70+

3. Sex: Male Female

4. What is your annual household income?

0-20k 20-40k 40k-60k 60-80k 80-100k 100-150k 150-200k 200k+

5. How did you arrive? on foot bicycle car bus airplane

6. How did you hear about today's event?

7. How big is the party you are here with? enter number

8. How long is your Walla Walla visit? enter number of days

8. Where do you stay? family, friends, name hotel, B&B

9. What restaurants do you eat in? name

9. What attracts you to Walla Walla? (wine, nature, family etc.)

10. How often do you visit Walla Walla per year?

11. What do you buy in Walla Walla?

wine clothing food souvenirs others

12. How much money do you spend in Walla Walla this visit?