Impact of Work Climate on Realtors

REF 736 Project 2

University of Southern Mississippi

Background information:

Work climate is defined as the "workplace environment." It is essential to employee satisfaction and productivity levels. Research has shown that the work environment is the most crucial factor in employee satisfaction. (Lawson, 2012)

Realtors, for the purpose of this project, will be viewed as professionals who work in the real estate business.

This project will attempt to develop and critique a sampling plan for gathering data that would examine the impact of the work climate on realtors.

I. **Population of Realtors** (information for generalization purposes)

A. Definition: Realtors are real estate professionals

a. Types of realtors include brokers, sales agents, broker associates, appraisers and other similar professionals.

B. According to the National Association of Realtors®, there are approximately **2.5M** real estate agents/brokers in U.S.

a. Subset - there were **1,187,786 members** of the National Association of Realtors® as of May 31, 2016.

C. **Target Population** (survey focus) and **Operational Definition**

a. Realtors who are current members of the National Association of Realtors® are the target population

i. Self-employed realtors who are NOT working within an association would be excluded because of the need to assess their work climate(s) and this would be different if the

realtors were working alone; therefore, not generalizable to the entire population using the independent variable of work climate.

ii. Consideration of including office personnel in the survey as "informants" may be helpful in determining/further validation of opinions of the work climate since they may spend more time in the office and contribute to the work climate.

II. Specific Sampling Frame

Sampling frames should be comprehensive, calculate the person's probability of being selected, and reflect the rate of occurrence on the population.

A. Comprehensive:

a. The National Association of Realtors® maintains a comprehensive list of realtors who have current membership. A report is generated monthly and listed by state.

b. Specific names/addresses of the current 1,187,786 members are not listed publicly, but can be obtained by a member of the National Association of Realtors. *Guess I need a friend who is a member.

c. However, NAR maintains a public list of REALTORS® State and Local Boards. These are organized by State and then by State Association. The addresses and phone numbers (some emails) are made public; therefore, these could be contacted for specific information regarding number of employed realtors. Time

consuming for the researcher (and several assistants), but attainable. Great cost to researcher in time and resources.

d. These addresses would then be used for address-based sampling for mail-out surveys

B. Probability of being selected:

a. Since the number of realtors, who are members of the National Association of Realtors®, vary from 176,141 in California to 1,726 in North Dakota, a disproportionate sample could easily be randomly drawn. The probability of randomly selecting a realtor from CA would be much greater than selecting a realtor from ND; therefore, this situation must be strongly considered and measures taken to reduce chance of coverage error. In the above situation, the target population would not be accurately reflected in the sample frame.

C. Rate of Occurrence:

a. The proposed sampling frame includes only those realtors who are members of the NAR which are a less than half of the entire estimated population of realtors. They are all "realtors" but may not be held to the same standards as proposed by the National Association of Realtors®.

III. Optimal Sample Size

Sample size is important. Too large, we may have wasted limited resources. Too small, we may not be able to prove statistical significance even if there is one and would have wasted time and money. (Ruel, Wagner, & Gillespie, 2016)

A. Guides

   a. Desired level of confidence = 95%

   b. Margin of Error = +/- 3%

   c. Variability of Population = 50/50

   d. Size of population = 1,187,786

B. Results from Dillman, Smyth, and Christian chart (2014), Raosoft®, qualtrics and SurveyMonkey

   a. Recommended sample size = 1,066

IV. Selection Procedure

My construct is to examine the impact of work climate on realtors. I could create a sample that looks like the population of realtors with specific characteristic of membership in NAR; however, this does not take into account other variables such as:

- gender (there are more females than male realtors)
- tenure (median tenure at present firm is 5 years)
- education (ranges from high school graduate to graduate degree and above)
- affiliation with firms (independent contractor, employee or other)

Therefore, I would use probability sampling so that my results from the sample can be inferred to the target population and error could be more evenly distributed.

V. Sampling Method

In this particular study, whereas my dependent variable is realtors who live/work across the United States and the number of realtors vary greatly from state to state, I would consider a stratified probability method. Particularly, I think the proportional sampling method may be most appropriate in determining impact of work climate in the realtors' who live in various areas of the United States. I picked the characteristic of realtors to be those who are "confirmed members of NAR" and ensured those would be represented in the population. To do this, I would:

A. Determine # in Population N = 1,187,786

   a. I would divide entire realtor population among 4 regions of U.S.

Population	Northeast	South	Midwest	West
Realtors as member of NAR	208,331	453,573	190,404	335,478
	N= 1,187,786			

   b. My recommended sample size is 1,066 (as determined by sample-size calculators)

B. Determine what proportion of 1,187,786 is 1,066

   a. 1,066 / 1,187,786 = **.00089747**

C. Multiply answer (.00089747) by each section and place in correct cell

Sample	Northeast	South	Midwest	West
Realtors as member of NAR	186.97 (187)	407.07 (407)	170.89 (171)	301.08 (301)
	n = 1,066			

D. Then, I would prepare questionnaires in proper manner to be mailed to addresses obtained from the public list of REALTORS® State and Local Boards located on the National Association of Realtors® website.

E. A response rate should be calculated in order to determine total number of questionnaires to send out to obtain the 1,066 optimal sample size.

VI. Further Discussion and Other Thoughts

A. Simple random sampling could be used to pull a sample from the NAR member-realtors because every member has an equal and independent non-zero chance of being selected because the names/addresses are listed on the current website. There would be a greater chance for the realtors who live in states with drastically higher number of NAR members to be chosen even if randomly drawn; therefore, weighting the sample would be appropriate to help correct for chances that are not equal.

B. Because we know that every realtor who receives a questionnaire regarding his/her work climate will not respond, a response rate should be calculated so that I will know the total number of questionnaires to mail. Most sources state approximately 20% will respond to mail outs; therefore, I would need to mail an additional 80% (or 853 additional questionnaires).

When added to the 1,066, I should mail a total of 1919 questionnaires. At 47¢ a stamp times 2 for return postage, would cost $1803.86 plus the cost of envelopes. Using the proportional sampling method, I would not send equal number of additional questionnaires, but the percentage that is appropriate to each region.

C. I would hope to get a response rate of 90% in order to be able to increase the likelihood that the sample reflects the population. I understand this is rare, especially with mail outs. I would reasonably expect around 50% response rate and hope to increase that with follow up phone calls.

D. I have concern about how I would be able to establish trust with the realtors. Asking questions about their work climate could get personal. Of course I would assure confidentiality, but I could offer the results and help them understand that the better the work climate, the better the productivity.

    a. Non-response bias could possibly occur given the IV being workplace climate. This profession is known for extreme demands of the realtors' time; therefore, many may be too busy or not in the office to go through mail very often.

    b. Follow-up phone calls in regions that appear to be lower than needed could be helpful.

E. Tentative Budget Total of $3970.41

    a. Envelopes ~ $34.39/box of 500 (4 boxes) = $137.56

    b. Postage $1803.86

c. Paper ~ 10-ream case $28.99
d. May have to pay for access to the list or pay someone to help organize the lists that are available to the public. $10 per hr. x 80 hrs. = $800
e. Additional hours for follow up calls = $800
f. Misc./unforeseen costs = $400
g. Researcher's time and effort = priceless ☺

References

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