A FEASIBILITY STUDY
OF THE PROPOSED CARROLL COLLEGE PUB

by
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in partial fulfillment
of the requirements for
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This thesis for honors recognition has been approved for the Department of Business Economics.

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April 10, 1972
ACKNOWLEDGMENTS

I would like to express my gratitude to Mr. Jack Moore for the cost estimate of the Colonial Club, to Mr. Don Sinnott for the plans and cost estimates of the pub locations on campus, to Mr. Charles Sullivan and the students of Carroll College for their cooperation, and to Mr. Dan Chapple for his advice throughout the writing of this paper.
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INTRODUCTION

With the passage of the nineteen year old amendment of the Montana State Constitution, it became feasible for the first time for colleges in the state of Montana to serve beer on campus. Mr. Charles Sullivan, newly elected President of the Associated Students of Carroll College, was interested in determining if the serving of beer could be profitable on the Carroll campus. After realizing the scope of this project, it was determined the whole study could be the subject of an Honors Thesis.

A pub on a college campus would be unique in Montana. Prior to 1971 the legal drinking age in Montana was twenty-one which made a large percentage of college students under the legal age. The lowering of the legal age to nineteen made most college students able to legally drink beer. Given this large number of students in an established beer market, it seemed that Carroll College should investigate the possibility of having an on-campus pub to earn money for a special fund of the Associated Students.

Although on-campus pubs may be unique for Montana, it is not the case for the rest of the United States. According to the United States Brewer's Association report, twelve states and the District of Columbia have licensed pubs on campus or serve beer in Student Unions. In several states
action is being taken to get licensed pubs on campus, and three states not having on-campus pubs allow beer on campus in dormitories or fraternities.

"College administrators, students, and local officials generally agree that the procedures and regulations adopted for the purchase of beer on campus and governing student conduct have worked extremely well. The few problems that have arisen have been handled by faculty/student advisors with a minimum of publicity."¹ Directors of on-campus pubs in Colorado state that the sale of beer on campus "... gives parents and faculty an opportunity to see that beer does not create problems."² From these reports, it seems that beer is being sold on campus elsewhere in the United States and creating no serious problems.

This study will determine if a pub on the Carroll College campus (for reasons of simplicity to be referred to hereafter as the Carroll Pub) could be licensed and operated at a profit. Three possible locations for the Carroll Pub will be considered: (1) constructing a new building on the eastern edge of the campus between St. Charles Hall and the Physical Education Center; (2) moving the old Colonial Supper Club into the same location; or (3) locating the pub in the snack bar area of the basement of the Commons.

For financial reasons discussed later in the study, it

²United States Brewers Association, Summary of On Campus Sales of Beer in Colorado.
was decided the best site for the Carroll Pub would be the basement of the Commons. For this reason most of the considerations about the location of the Carroll Pub will be made concerning the basement of the Commons.
LEGAL ASPECT

The sale of beer on the Carroll College campus would fall under the jurisdiction of the State Liquor Control Act of Montana as administered by the Montana Liquor Control Board. This board has "... control and regulation ... of the manufacture, sale, and distribution of beer"\(^3\), as defined in the Montana Beer Act. Since only beer would be sold in the Carroll Pub, the provisions of the State Liquor Control Act covering the sale of liquor would not apply. In this section, the various aspects of the Montana Beer Act and other matters concerning the sale of beer on the Carroll campus will be presented.

The first step in legally acquiring beer on campus would be to apply to the Montana Liquor Control Board for a permit to possess and sell beer in a retail capacity and tender with such an application the $200.00 retail licensing fee plus a $50.00 fee to cover processing and issuing of the permit. The Board will review the application and consider "... the general reputation of said place of business, the reputation and character of the employees conducting said business; whether or not the applicant personally conducts and supervises said business or whether the applicant entrusts the

\(^3\)Montana, Liquor Control Laws (1966), sec 4-101.
management and supervision to others; the health and sanitary conditions of the premises." It will then find the applicant qualified or unqualified and will or will not issue a license accordingly. The possession of this license gives the holder the right to sell beer in bottles or on draught "... to be consumed on the premises" or to furnish beer to the public "... for consumption off premises of such retailer."

Such a license can be issued to a Montana corporation that has existed for at least one year as a Montana corporation prior to making application. At first it was thought that the Associated Students of Carroll College could incorporate as a non-profit corporation and have the license issued in its name. This could not be done for at least two reasons: (1) The officers and members of the Associated Students change on a year to year basis and the Liquor Control Board would be hesitant to issue a license to any corporation whose membership and officers did not have some degree of permanence; (2) More important is the fact that many freshmen who are members of the Associated Students are not nineteen and it is unlawful for any wholesaler to sell beer to a corporation some of whose members are under nineteen years of age. This leaves the alternative of having the license issued in the name of Carroll.

6Ibid., sec. 4-329.
College or of the Carroll College Foundation, both of which are Montana corporations in existence over one year.

The premises where the beer is sold must be adequate with respect to equipment and facilities and include:

1) separate toilet facilities for male and female patrons, which facilities are clean and sanitary and meet the standards of state and local health and sanitation agencies; 2) provision for thoroughly washing and cleaning glasses and other equipment used in dispensing of drinks; 3) sufficient exit facilities in addition to the usual entrance or entrances to provide adequate escape in case of fire.  

If the Carroll Pub were newly constructed, a qualified architect would be consulted and these matters included in the new building. The two other possibilities considered by this study are existent buildings in which adequate toilet facilities, provision for washing and cleaning of glasses, and exit facilities already are present.

The limit on the number of beer licenses in any city is determined on the basis of population of the city in which the pub is to be located, as shown by the last official United States census. As of February 9, 1972, there were still six on-premise beer licenses available in the city of Helena. Assuming the Carroll Pub qualified, it would be issued a license if one were available. If a license were not available, Carroll would have to wait until one became available

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or purchase a license from an existing owner and have it transferred to the Carroll Pub with the consent of the Montana Liquor Control Board.

The establishment of a pub is further limited by city zoning laws. Carroll College is located in a Public Land and Institution Zone (PLI Zone), but the fact that beer pubs are not allowed in PLI Zones could be overcome. Mr. Don Kinney, Director of Planning for the city of Helena, gives his opinion that "... a non-profit beer drinking establishment on the Carroll College campus which is used for students, faculty, alumni, and their guests would be a permitted use in a PLI Zone." If the beer was for sale to the general public as in the case of a beer drinking establishment, the pub would not be allowed in the PLI Zone. There would be no restrictions as to how far the premises would have to be from a church or school, since such restrictions apply only to retail liquor licenses and not to beer licenses. Also in response to a letter by Mr. Leo Walchuk, the Federal Government felt there would be no difficulty with putting a pub in a building built with Federal funds as long as it complied with state law and school policy.

The Board can also deny the issuance of a retail license if it determines "... that the premises proposed for licensing are off regular police beats and cannot be properly policed

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by local authorities. 9 In an interview with the Helena Chief of Police, it was stated a Carroll Pub would have to provide access to the Helena police. Mr. Ward Shanahan, the college's attorney, agreed that access would have to be provided to the Helena police and that a separate entrance might have to be made directly into the lower level of the Commons if the Carroll Pub were located there. This access would separate the Carroll Pub from the rest of the Commons (Bookstore, etc.), provide only one main entrance and exit into the Carroll Pub, and provide a better means of checking incoming customers.

The Carroll Pub would not be able to sell or give beer to any person under nineteen years of age or employ anyone under nineteen years of age as a bartender. The penalty for violation of this law is a fine of not less than $100 or more than $500 or imprisonment in the county jail for not less than 30 days or more than 6 months or both a fine and imprisonment. In addition, at the discretion of the Montana Liquor Control Board, any retailer may have his license revoked for a period of not more than 6 months.

The Pub must be closed for business on Sunday from 2 a.m. to 1 p.m. and any other day between 2 a.m. and 8 a.m. and also must be closed on state and national primary and general election days.

90p. Cit., Liquor Control Laws, sec. 4-333.
There are some practical questions left unanswered by this study that would have to be answered just prior to applying for a license. What area of the Commons would be licensed for beer drinking — the snack bar and lounge area or the snack bar, lounge area, and dance area? Eighteen year old Carroll students must be allowed in the Carroll Pub. How will they be kept from drinking beer? Will a single entrance be required to a Carroll Pub located in the basement of the Commons? All these questions to some extent are related to each other in that they all have a bearing on how the management of the Carroll Pub would ensure that a person under age or a non-Carroll person was not served. The smaller the licensed area and the fewer the entrances, the easier to control who drinks; but the more control, the less the Carroll Pub will be conducive to creating a proper drinking atmosphere. These questions must be answered in such a manner that control is ensured but at the same time a free, happy atmosphere maintained.

From all indications, it seems the Carroll Pub could be issued a retail beer license but only if it existed as a non-profit establishment for Carroll students, faculty, alumni, and guests. Any of the three proposed locations meet the required health and sanitary conditions. The license would have to be issued in the name of Carroll College or of the Carroll College Foundation. This would place a great deal
of legal responsibility on the college in making sure that only "Carroll people" of legal age were served while at the same time maintaining the required atmosphere.
LOCATION OF THE PUB

The most suitable location for the Carroll Pub was mainly determined by its payback period. The time value of money was ignored. Payback period is a "... measure of the time it will take to recoup in the form of cash from operations the original dollars invested." 10 With a high risk business such as the Carroll Pub, the payback period should be small and not exceed at maximum three to four years. A loan to finance construction of the Carroll Pub could be obtained from a local bank only if Carroll College co-signed for the loan. Father Harrington, President of Carroll College, felt this would amount to the college's borrowing the money, and due to the present financial condition of the college and risk involved, the college would not be willing to co-sign for the loan. The only other means of raising the necessary initial capital would be in the form of a student fee. In each of the proposed locations consideration was given for adequate room for games and entertainment, but the overriding consideration in each case was financial.

The first location considered for the Carroll Pub was a new building constructed on the eastern edge of the Carroll campus between St. Charles Hall and the Physical Education Center. Two sets of plans were drawn up by Mr. Don Sinnott,

an architect for the firm of Morrison-Maierle and Associates. Plan 1 would provide for one large serving area, whereas Plan 2 would be on two levels dividing the serving area into four parts which could be used as a pub, a dining area, a meeting room, and a game room. Two exterior plans were also available (see Appendix I), Plan 1 and Plan 2. Cost estimates for the two would be about $16.50 per square foot plus the cost of the external sanitary system. Mr. Sinnott estimated that, based on the number of students that could be served, there should be between 4000 and 5000 square feet included in this pub under either Plan 1 or Plan 2. At $16.50 a square foot, 4096 square feet would cost $67,584.00, and 5040 square feet would cost $83,160.00 plus the cost of the external sanitary system in both cases. Using an expected net profit of about $3000.00 per year from the Carroll Pub, an amount determined in the financial aspect of this study, it would take between 22 and 28 years to pay off this building, ignoring interest. This payback was considered out of reason by a group composed of Mr. Charles Mandeville, Mr. Dan Chapple, Mr. Charles Sullivan, and Mr. Doug Petesch. Building a pub in this manner was decided against.

Secondly, moving the old Colonial Club building into the same spot was considered. Mr. Jack Moore, a qualified appraiser, estimated it would cost about $68,180.00 (See Appendix I) to purchase, move, repair, and locate the Colonial Club on the Carroll campus. This would mean a payback of about 22 to 23
years. The building has about 3840 square feet of floor area, but it is divided up in a manner that would not have suited a Carroll Pub. Also the Colonial Club was over twenty years old, and heavy additional repairs could be expected in the year after purchase. Because of the high payback period, age of the building, and unsuitability of its floor plan, moving the Colonial Club was also decided against by the above group.

This left only the alternative of locating the Carroll Pub in an existing College building. The buildings on the Carroll campus were considered, and the only suitable place seemed to be the basement of the Commons, where the snack bar was already located. Mr. Sinnott drew up a floor plan (see Appendix I) which entailed locating the Pub's kitchen and walk-in cooler in the storage room behind the present snack bar and lowering the present counter. Booths would be put along the east wall of the snack bar area and pool tables on the west wall. A television would be placed in the under surface of the ceiling, and games would also be available. This Carroll Pub resembled the drawing in Appendix I. To remodel the snack bar area in this manner would have cost between $15,000.00 and $20,000.00. This would mean a payback of five to seven years ignoring interest.

Another alternative available would be remodeling the snack bar just enough to initiate beer sales. This would mean putting in a walk-in cooler, beer taps, and additional furniture.
After looking over the snack bar area, the three local beer distributors agreed it would cost from $2000 to $4000 to carry out this plan depending on whether we bought the cooler new or second-hand, the cost of the tables and chairs used, and how much of the work could be done by volunteer student labor. This would require a payback of about one year, ignoring interest.

The latter alternative would be preferable to the $15,000.00-$20,000.00 remodeling of the snack bar. A single $5.00 fee paid by the students of Carroll would be enough to construct the above pub where three to four $5.00 fees or one $15.00 to $20.00 fee would be required in the other case. If the Carroll Pub then proved financially unsuccessful, neither Carroll College nor the students would lose any great amount of money. If it proved successful, a portion of the profits could be used to improve the Carroll Pub providing booths, additional games, and other features the students might want.

In response to a question on the second questionnaire distributed, 275 of 420 students or about 65% said they would be willing to pay the $5.00 fee. This survey indicates a majority of the students of Carroll would be willing to pay the $5.00 fee that would cover the cost of initiating the sale of beer in the basement of the Commons.
FINANCIAL ASPECT

It was stated in the previous section that the potential customers of any Carroll Pub would be limited to Carroll students, faculty, alumni, and guests. Given this limited number of available customers, this section will analyze the prospective sales of the Carroll Pub to determine the amount of profit that can be expected.

That the Carroll Pub could serve as a social gathering place for students was taken into account in this study. The ability of the Carroll Pub to create an atmosphere where students could come to have a good time, and the availability of activities to students other than drinking beer would increase the possibility of the Carroll Pub being financially successful. For this reason, the Carroll Pub was planned so it would include a television, pool tables, games, and occasionally dances and other entertainment. However, in this study only the sale of draught beer will be considered in determining profit. Pool and other games have been placed in the basement of the Commons without establishing a pub. Also, the major expenses involved will be as a result of initiating draught beer sales and draught beer will be the main means of paying these expenses and providing a profit. Any income coming from pool and other games can be considered additional income independent of the establishment of a Carroll Pub.
When first the possibility of having a pub at Carroll occurred, it was immediately asked where to locate this pub and how much it would cost. After considering the question more closely, it was realized that any location for the pub would be dependent on whether the students of Carroll wanted a pub and how much they would spend in this pub. For this reason, a questionnaire (see Appendix II) was distributed in the Spring of the 1971-1972 school year to on-campus Carroll students by the Resident Assistants of the three college residence halls, Borromeo, Guadalupe, and St. Charles. The questionnaire had as its purpose to determine whether Carroll students were in favor of the pub, how much they would spend at this pub, how much they thought a twelve ounce glass of beer should cost, and whether they would be willing to pay more per glass for added services to make the pub more social in nature. The response to the first questionnaire was fairly good, reaching 315 on-campus students out of a total of about 600, or a little over 50%.

The first questionnaire was followed with another questionnaire (see Appendix II) in March, 1972, distributed in the same manner, to determine if the results of the first questionnaire had changed to any significant degree. The second questionnaire had three main purposes: to determine if students were still in favor of the pub, if the students would be willing to pay a single $5.00 fee to construct this pub, and how much the students would expect to spend at this pub.
The response to the second questionnaire was better than the first, being responded to by 420 of 592 on-campus students or about 77%.

In the first survey 10 of 315 students or about 3% were opposed to a pub on campus, and 97 of 420 or about 23% opposed the pub in the second survey. Although a smaller per cent of the students polled were in favor of the pub the second time, still three out of every four students surveyed were in favor of the pub. As indicated by the surveys, the students of Carroll are in favor of a pub on campus.

In determining how much would be spent at this pub, another problem was faced. It was known that Carroll students spent a considerable amount of money on alcohol, but it was not known just how much. In the first questionnaire, three questions were devoted to finding out how much was spent. The first two were tied together. Their specific purpose was for students to estimate how many cans of beer they drank per week and how much they spent per week on beer. By letting the student fill in the amount, it was felt he would be more honest than if he checked off a category. Also, by having him estimate both the number of cans drunk and the amount spent per week, it was felt that where contradictions occurred the two could be studied together to get a more nearly true answer. For example, if the student said he drank on the average three beers per week and spent $1.50, it would be realized the $1.50 was probably too high and the three beer
figure was used. The third question was to determine the most and the least they would expect to spend per week at the Carroll Pub. These questions were intended to indicate a range within which the student would most likely spend his money.

In most cases the students indicated they expected to spend more money per week in the Carroll Pub than the average amount of money they spent per week at other beer pubs. This result, in addition to the discrepancies between the average amount spent and number of beers drunk per week, led to using the lower figure from the results of the first two question. By using the lower figure, the risk of using too optimistic a sales volume based on the data received would be avoided. In addition, if the Carroll Pub could be shown to be profitable at the lower figures, there is a greater chance it will be profitable in actual existence.\(^{11}\)

The results of the first questionnaire (see Table 1) were divided into six classes tying the number of beers and amount spent together. The amounts and number of beers reflect the price and number of cans of beer in half a six-pack, one six-pack, half-a-case, one case, and over one case.

\(^{11}\)Off-campus students were not included in this survey. An attempt was made through the first questionnaire to survey these students by setting up voting stations on the Carroll campus. This proved ineffective as only 76 of approximately 400 students or 19\% were reached. No other method of reaching these students seemed feasible. The ignoring of off-campus students makes the estimates of sales volume more conservative and any amount spent by these students can be expected to raise total sales rather than lower it.
<table>
<thead>
<tr>
<th>CLASSES</th>
<th>FREQUENCIES</th>
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</thead>
<tbody>
<tr>
<td>Number of Beers</td>
<td>Amount Spent</td>
</tr>
<tr>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>1-3</td>
<td>$0.01-$0.75</td>
</tr>
<tr>
<td>4-6</td>
<td>$0.76-$1.50</td>
</tr>
<tr>
<td>7-12</td>
<td>$1.51-$3.00</td>
</tr>
<tr>
<td>13-24</td>
<td>$3.01-$6.00</td>
</tr>
<tr>
<td>Over 24</td>
<td>Over $6.00</td>
</tr>
<tr>
<td>TOTALS</td>
<td></td>
</tr>
</tbody>
</table>
These classes were given in the second questionnaire and the student was asked to check how much he would spend per week. In this way, the amounts spent in the second questionnaire were made to correspond to the classes of the first questionnaire (see Table 2).

To make these on-campus statistics more meaningful, they were broken down further into four categories: upperclass men, upperclass women, freshman men, and freshman women. This was done since many freshmen at the beginning of the school year are eighteen and not of legal age but turn nineteen sometime during the year. By separating the freshmen a gross sales figure, which would take this fact into account, could be more easily determined. The separation of men from women would help break the total sample into groups in which the results of the two surveys could be more easily compared.

From the first to the second questionnaire, the results seem to indicate that students are spending more on beer during the 1971-72 school year (see Table 3). The per cent of students in the two lower classes ($0 and $0.01-.75) fell from 54.6% in the first survey to 32.2% in the second survey. Where 80.9% of the students in the first survey lay in the three lower classes ($0, $0.01-.75, and $0.76-1.50), only 61% did so in the second survey. In summary, there seems to be an upward shift from the $0-.75 class range to the $1.50-6.00 class range.

The means and estimates of the mean for the four groups stayed in the same order in both surveys (see Table 4).
### TABLE 2

**RESULTS OF SECOND QUESTIONNAIRE**

<table>
<thead>
<tr>
<th>CLASSES</th>
<th>F R E Q U E N C I E S</th>
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<tr>
<td></td>
<td><strong>Total</strong></td>
</tr>
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<td></td>
<td>Survey</td>
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<tr>
<td>Number of Beers</td>
<td>Amount Spent</td>
</tr>
<tr>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>1-3</td>
<td>$0.01-.75</td>
</tr>
<tr>
<td>4-6</td>
<td>$0.76-1.50</td>
</tr>
<tr>
<td>7-12</td>
<td>$1.51-3.00</td>
</tr>
<tr>
<td>13-24</td>
<td>$3.01-6.00</td>
</tr>
<tr>
<td>Over 24</td>
<td>Over $6.00</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
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</tr>
</tbody>
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### TABLE 3

**PER CENT OF STUDENTS IN EACH CLASS**

<table>
<thead>
<tr>
<th>CLASSES</th>
<th>SURVEY I</th>
<th></th>
<th></th>
<th>SURVEY II</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>Percent of Total</td>
<td>Cumulative Percent</td>
<td>f</td>
<td>Percent of Total</td>
<td>Cumulative Percent</td>
</tr>
<tr>
<td>$0</td>
<td>68</td>
<td>21.6%</td>
<td>21.6%</td>
<td>67</td>
<td>16.0%</td>
<td>16.0%</td>
</tr>
<tr>
<td>0.01 - .75</td>
<td>104</td>
<td>33.0</td>
<td>54.6</td>
<td>68</td>
<td>16.2</td>
<td>32.2</td>
</tr>
<tr>
<td>.76 -1.50</td>
<td>83</td>
<td>26.3</td>
<td>80.9</td>
<td>121</td>
<td>28.8</td>
<td>61.0</td>
</tr>
<tr>
<td>1.51-3.00</td>
<td>35</td>
<td>11.1</td>
<td>92.0</td>
<td>99</td>
<td>23.6</td>
<td>84.6</td>
</tr>
<tr>
<td>3.01-6.00</td>
<td>14</td>
<td>4.4</td>
<td>96.4</td>
<td>48</td>
<td>11.4</td>
<td>96.0</td>
</tr>
<tr>
<td>Over 6.00</td>
<td>11</td>
<td>3.6</td>
<td>100.0</td>
<td>17</td>
<td>4.0</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>315</td>
<td><strong>100.0%</strong></td>
<td></td>
<td><strong>420</strong></td>
<td><strong>100.0%</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Survey</td>
<td>Upperclass Women</td>
<td>Freshman Women</td>
<td>Upperclass Men</td>
<td>Freshman Men</td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------</td>
<td>------------------</td>
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<td>--------------</td>
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<tr>
<td><strong>FIRST QUESTIONNAIRE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>$1.08</td>
<td>$.77</td>
<td>$1.07</td>
<td>$1.43</td>
<td>$1.50</td>
<td></td>
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<tr>
<td>Standard Deviation</td>
<td>1.41</td>
<td>.96</td>
<td>1.44</td>
<td>1.73</td>
<td>1.93</td>
<td></td>
</tr>
<tr>
<td>Estimate of Mean(^{12})</td>
<td>.93-1.24</td>
<td>.61-.94</td>
<td>.75-1.39</td>
<td>1.04-1.82</td>
<td>.87-2.14</td>
<td></td>
</tr>
<tr>
<td><strong>SECOND QUESTIONNAIRE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>$1.68</td>
<td>$1.09</td>
<td>$1.39</td>
<td>$1.88</td>
<td>$2.25</td>
<td></td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.78</td>
<td>1.20</td>
<td>1.43</td>
<td>1.91</td>
<td>2.33</td>
<td></td>
</tr>
<tr>
<td>Estimate of Mean(^{12})</td>
<td>1.51-1.85</td>
<td>.87-1.32</td>
<td>1.07-1.72</td>
<td>1.57-2.19</td>
<td>1.78-2.72</td>
<td></td>
</tr>
</tbody>
</table>

\(^{12}\) Estimate of the mean indicates within a 95% confidence interval the true average amount spent on beer per person each week.
Freshman men seem to drink the most followed by upperclass men, freshman women and upperclass women. In every case, the standard deviation was greater than the mean indicating the samples were not normal. In a normal distribution about two-thirds of the sample fall within one standard deviation on each side of the mean. In both the samples, by moving one standard deviation on each side of the mean, it would make the left-hand boundary negative and out of the bounds of the survey. This indicates the sample is heterogeneous rather than normal.

The fact that the sample is heterogeneous and that about one of every five students indicated they will not drink at all shows that there is a high degree of risk concerning the amount expected to be spent.

Given this high risk, conservative gross sales figures were determined using the weighted mean of the lower bound of the estimate of the mean of the first survey and the lower bound of the estimate of the mean of the second survey. The formula for the weighted mean is

$$\bar{x} = \frac{\sum(x \cdot w)}{w}$$

where $\bar{x}$ is the weighted mean, $w$ is the number in each group, and $x$ is the mean of that group. In the case of upperclass women, the estimate of the mean for the first survey is $$.61-.94$$ for the 129 women surveyed, and for the second survey, it is $$.87-1.32$$ for the 108 women surveyed (see Tables 1, 2 and 4).
Applying the above formula to the two surveys, the weighted mean for upper class women equals:

\[
\bar{x} = \frac{(.61 \times 129) + (.87 \times 108)}{129 + 108} = \frac{78.69 + 93.96}{237} = .72
\]

Taking the above mean (see Figure 1) times the number in each group for the first and second survey, results in a gross sales figure in each survey for that group. For upper class women, this sales figure is $.72 \times 129 \text{ or } 92.88 for the first survey and $.72 \times 108 \text{ or } 77.76 for the second survey. Applying the above procedure also to freshman women, upperclass men, and freshman men, a sales figure is determined for each of the above groups in each survey. Taking the sum of the above sales figures, results in a conservative gross sales figure for each survey (see Table 5).

### TABLE 5

**EXPECTED GROSS SALES**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean of Estimate of Mean</th>
<th>Second Survey Number in Group</th>
<th>Amounts</th>
<th>First Survey Number in Group</th>
<th>Amounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upperclass Women</td>
<td>$.72</td>
<td>108</td>
<td>77.76</td>
<td>129</td>
<td>92.88</td>
</tr>
<tr>
<td>Freshman Women</td>
<td>.90</td>
<td>72</td>
<td>32.40</td>
<td>76</td>
<td>34.20</td>
</tr>
<tr>
<td>Upperclass Men</td>
<td>1.39</td>
<td>147</td>
<td>204.33</td>
<td>75</td>
<td>104.25</td>
</tr>
<tr>
<td>Freshmen Men</td>
<td>1.53</td>
<td>93</td>
<td>71.15</td>
<td>35</td>
<td>26.78</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td>420</td>
<td>$385.64</td>
<td>315</td>
<td>$258.11</td>
</tr>
</tbody>
</table>

13Only half the amount obtained for the freshmen is used since freshmen upon arrival at Carroll are usually eighteen and approximately half come of legal age during the school year.
Using the gross sales figures from Table 5, we can construct a profit and loss statement to get some idea of how successful the Carroll Pub would be (see Table 6).

All expenses shown are determined on an incremental rather than total cost basis. The expenses shown are those the Carroll Pub would have to pay. The expenses of establishing a pub on campus which would not be actually paid by the pub are ignored.

The number of half barrels (15 gallons per barrel) sold is determined by dividing gross sales by the expected gross sales from a half barrel of beer sold at 25¢ per glass or $49.50. This figure is taken from a draught beer profit chart furnished by the local beer distributors. The number of half barrels is then multiplied by the cost of a half barrel of beer, $15.50. A selling price of 25¢ per glass is used since, in the first questionnaire, it was the most frequently given "fair" price for a twelve ounce glass of beer, and it is a price cheaper than charged by either the Pub or the Suds Hut, the Carroll Pub's two chief competitors.

Labor is based on the number of employees and hours the Carroll Pub could be expected to be open (see Table 7). These hours would correspond to the hours set by law for a pub to be legally open, correspond to the hours used by most other colleges selling beer on campus, and also include the maximum hours beer could be expected to be served at Carroll. Provided for are lunchtime, the night hours, and a happy hour on Friday.
<table>
<thead>
<tr>
<th>Gross Sales</th>
<th>Survey II</th>
<th>Survey I</th>
</tr>
</thead>
<tbody>
<tr>
<td>$385.64</td>
<td>$258.11</td>
<td></td>
</tr>
</tbody>
</table>

| Cost of Beer (7.8 half barrels) | 120.90 | 80.60 |
| (5.2 half barrels)              |        |       |
| Net Sales                       | $264.76 | $177.51 |

**Expenses:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Survey II</th>
<th>Survey I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor</td>
<td>$40.59</td>
<td></td>
</tr>
<tr>
<td>Janitorial</td>
<td>75.00</td>
<td></td>
</tr>
<tr>
<td>Manager</td>
<td>35.00</td>
<td></td>
</tr>
<tr>
<td>Glassware</td>
<td>3.75</td>
<td></td>
</tr>
<tr>
<td>License(^{14})</td>
<td>8.33</td>
<td></td>
</tr>
</tbody>
</table>

**Total Expenses**

<table>
<thead>
<tr>
<th></th>
<th>Survey II</th>
<th>Survey I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>162.67</td>
<td>162.67</td>
</tr>
</tbody>
</table>

**Net Profit per week**

<table>
<thead>
<tr>
<th></th>
<th>Survey II</th>
<th>Survey I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$102.09</td>
<td>$14.84</td>
</tr>
</tbody>
</table>

**Yearly Profit\(^{15}\)**

<table>
<thead>
<tr>
<th></th>
<th>Survey II</th>
<th>Survey I</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$102.09 per week x 30 weeks = $3,062.70</td>
<td>$14.84 per week x 30 weeks = $445.20</td>
</tr>
</tbody>
</table>

\(^{14}\) Time value of money ignored.

\(^{15}\) The Carroll Pub would be open an average of fifteen weeks per semester taking into account vacations such as Easter and Thanksgiving and the three weeks off between semesters.
### TABLE 7

**TOTAL MAN HOURS WORKED**

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours Open</th>
<th>No. of Hours</th>
<th>Em. Hours</th>
<th>Man Hrs.</th>
<th>No. of Days</th>
<th>Total Man Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday-Thursday</td>
<td>11am-1pm, 7pm-12</td>
<td>7</td>
<td>2</td>
<td>14</td>
<td>4</td>
<td>56</td>
</tr>
<tr>
<td>Friday</td>
<td>11am-1pm, 4-5pm</td>
<td>10</td>
<td>3</td>
<td>30</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>7 pm-2 am</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturday</td>
<td>7 pm-2 am</td>
<td>9</td>
<td>3</td>
<td>27</td>
<td>1</td>
<td>27</td>
</tr>
<tr>
<td>Sunday</td>
<td>7 pm-12</td>
<td>5</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>123 hours</td>
</tr>
</tbody>
</table>

These hours could be decreased depending on business and the students' needs, and less employees could be required. But in constructing a conservative profit and loss statement, the maximum number of hours and employees that could be required are used.

The students working at this pub would qualify for work-study. According to the *College Work-Study Program Manual*, "An institution's on-campus project is that part of the College Work-Study Program which provides services for the institution itself. This includes employment for any nonprofit entity which is under the governing board of the institution. Employment in such university-owned activities as ... the student union, and the like should be classified as on-campus employment. Even though these activities may charge a fee for their
services, they represent a typical institutional activity and may be classified as part of the institution's on-campus project.\textsuperscript{16} The beer license would be issued in the name of Carroll College and the Carroll Pub would be under the governance of Carroll College. The students managing the games now located in the lower level of the Commons can qualify for work-study. Mr. A. Hunthausen, the College Financial Aid Officer, was of the opinion that students working in the Carroll Pub would fall in the same category and, therefore, qualify for work-study. Under the Federal Work-Study Program, the government pays eighty percent of the cost of the labor and the college or employer the remaining twenty per cent.

Work-study at this time pays $1.65 per hour, and applying this hourly rate to the total man hours in Table 7, gross wages of $202.95 (123 hours times $1.65/hour) are computed. The Carroll Pub's share of this amount would be 20\% or $40.59.

Janitorial service would be required seven days a week to clean up the Carroll Pub. Total costs for janitor labor and supplies would be about $500.00 per month. Currently, the above janitorial cost for the basement of the Commons is equally shared by Carroll College and the Food Service. The Carroll Pub would assume the college's share, making the Pub's cost about $250.00 per month. The Carroll Pub would be open

nine months per year (September to May), thus a total janitor cost of $2,250.00 would be necessitated. Breaking this total janitor cost down into the thirty weeks that the Carroll Pub would be open, one would find that it would equal $75.00 per week.

The management of the Carroll Pub is a very important concern. In the final analysis whether the Carroll Pub makes money or not is dependent on how well it is managed. The Carroll Pub will be profitable only when school is in session. Therefore, the manager would have to be hired for nine months a year rather than twelve. On-campus pubs in Colorado are managed by either the Food Service Director or a student manager. The manager of the Carroll College Food Service has said that he would not be interested in managing the Carroll Pub because of the problem of controlling the eighteen year old drinking. This leaves the alternative of hiring a student manager. The only college in Colorado showing a profit on beer sales is Regis College in Denver whose pub has a student manager. A good student manager would be more aware of the needs of Carroll students and more effective in promoting the Carroll Pub. A student manager should receive more pay than the other employees because of his added responsibility. Such a student could be given full tuition to manage the Carroll Pub. The cost of tuition for the 1971-1972 school year ($525.00 per semester) would be apportioned over the fifteen weeks per semester that the pub was in operation.
Glassware expense takes into account the cost resulting from the breakage and theft of pitchers and glasses. This amount is based on the approximate theft and breakage incurring by the Pub, a retail beer establishment in Helena. It includes one case of glasses (36 per case) at $4.50 per case and two cases of pitchers (6 per case) at $4.00 per case each month.

The amount for license expense is the $250.00 paid each year to the Montana Liquor Control Board for a retail beer license apportioned over the thirty weeks of operation.

Electricity to operate the compressor, for lighting, and the like would be provided by Carroll College. Also, the Commons is already covered by school insurance and would continue to be covered at no additional cost to the Carroll Pub. An added expense to the Carroll Pub could result from additional insurance cost due to the fact beer was not previously served in the basement of the Commons.

The fact that the Food Service operated the snack bar and that the Associated Students sold beer in the same area would require an agreement between the two as to responsibility for the sale of beer, control over the area, janitorial expenses, and the like.

From Table 6, a breakeven analysis can be constructed to show the point of sales volume where total revenues and total expenses are equal (see Figure 2). The breakeven point is determined by the formula: Sales = Variable Expenses + Fixed
FIGURE 2
COST-VOLUME-PROFIT CHART

Glasses Sold

Dollar Amounts

Sales
Net Profit Area
Total Expense
Breakeven Point
$239.25 or 957 glasses
Fixed Expense
Variable Expense

0 250 500 750 1000 1250 1500

400 -
300 -
200 -
100 -
Expenses. Sales would be based on a sales price of $.25 per glass of beer. Fixed expenses equal the total expenses of $162.67 from Table 6. Variable expenses of $.08 a glass are determined by dividing the cost of a half barrel of beer ($15.50) by the number of 12 ounce glasses of beer in a half barrel (192). The number of glasses is taken from a draught beer profit chart furnished by local beer distributors. If \( x \) equals the number of units to be sold to breakeven, then

\[
\begin{align*}
$.25x &= .08x + 162.67 \\
.17x &= 162.67 \\
x &= 957 \text{ glasses.}
\end{align*}
\]

The Carroll Pub would require about $240.00 (957 glasses x $.25 per glass) in gross sales (4.9 half barrels) each week or about $7,180.00 per year to breakeven.

How do these prospective results compare with other colleges that have on-campus pubs? The best comparison can be made using Colorado schools, the first of which were licensed in 1968, but in Colorado the legal drinking age is eighteen. A Summary of Campus Sales of Beer in Colorado, a report prepared by the United States Brewers Association Field Services Department, states, "I would caution anyone from spending a large amount of money for campus beer installations as it seems apparent that the outlets are not making large amounts of money. Some put beer on campus thinking it would be a great revenue raiser and they are mostly disappointed."\(^{17}\) Three of the colleges

in Colorado that have on-campus pubs were contacted by telephone. Colorado School of Mines in Golden, Colorado, built a $60,000.00 pub in the Student Union and lost from $6,000.00-$8,000.00 last school year. Colorado College in Colorado Springs, Colorado, sells beer only on Friday and Saturday nights in the Student Union Dining Hall. Sales amount to about one-half barrel each night and they make about $6.00 profit per night. The Food Service Manager at Colorado College, Mr. Fred Eckles, strongly advised against putting beer on campus. Regis College in Denver, Colorado, is the only on-campus pub in Colorado that seems to be making money. It is a private college of about 1,500 students, and total costs to attend amount to about $2,500.00 per year. Regis spent $7,500.00 to fix up a special room in the Student Union. Last year under student management they made about a $3,000.00 profit, but to do this they had to undersell the local beer establishments and were very promotion minded. They have a television, juke box, and different games such as pinball and bowling machines. They also have Friday afternoon happy hours and special nights such as Ladies Night where women can buy beer for $1.00 a pitcher. The student manager said they did a good business at the beginning, but it started to decline, and they had to come up with new promotions to get the students to continue coming back.

The yearly profits arrived at from the Profit and Loss Statement (see Table 6) seem to be similar to those of Regis
College. Our study assumes that Carroll people will come to our pub initially and continue to do so. As the Regis College manager stated, after the novelty wears off, new promotions have to be used to have the students continue coming back. This is where a manager is all important. If he does a good job of promotion, the students will support the pub; if he does not, there is a good chance student support will be lacking. Also, with a student manager, the management would change on a year-to-year basis. Just because a manager does a good job this year does not mean next year's manager will do as good a job. This also increases the risk. Another fact indicated by the United States Brewers Association study is that "... after the issue is won, the students want to go off-campus." How much of the drinking involves getting away from the campus was not able to be determined, and this could have a very negative effect on profits.

This section of the study indicates that Carroll students seem to be in favor of an on-campus pub and spend a large amount of money each week on beer. However, the survey indicates that the prospective customers of the Carroll Pub are a very heterogeneous group with about twenty per cent being non-drinkers. This would make the Carroll Pub a high risk business requiring yearly sales of about $7,180.00 to breakeven. Added to the results of on-campus pubs in Colorado, this would

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seem to indicate that contrary to initial expectations the profit made by a Carroll Pub, if any, would be no great amount.
CONCLUSION

From this study, it is clear that Carroll College could be issued a retail beer license for a non-profit pub serving only Carroll students, faculty, alumni, and guests. Beyond this point, the study was conducted under a number of assumptions: (1) eighteen year olds would have to be allowed in the Carroll Pub but kept from drinking beer; (2) to be feasible, the Carroll Pub would have to be profitable from the sale of draught beer only; (3) all data were analyzed as conservatively as possible ignoring the time value of money; (4) the Carroll Pub would be student managed; and (5) social benefits of the Carroll Pub would have little bearing on the final decision. There are many reasons against constructing a Carroll Pub using these assumptions: (1) there would be the constant and difficult problem of keeping eighteen year old Carroll students from drinking; (2) under student management, the success of the Carroll Pub could vary from year to year depending on the quality of the manager and the original promotions he developed; (3) of the on-campus pubs in Colorado, only one was making a significant profit, and the report of the USBA stated the pubs are not making large amounts of money; (4) the results of the sample conducted were heterogeneous indicating high uncertainty concerning the amount students could be expected to spend at the Carroll Pub; and (5) the
surveys were not able to take into account how much beer drinking is done as the result of a desire to get off campus. Based on the above assumptions and reasons, a Carroll Pub is not feasible as the risk involved would be too great to justify the profits that could result.

However, under different assumptions, a Carroll Pub could be feasible. If the legal drinking age were lowered to eighteen and the Carroll Pub placed under permanent management, such as the Food Service Director, two of the major problems would be eliminated, and a Carroll Pub could then be possible. If beer were viewed as socially desirable on campus and the profitability of the Carroll Pub were no great concern, then a Carroll Pub would be possible. The sale of canned or bottled beer could be initiated at a lesser cost than draught beer. It is also possible beer could be put on campus in this manner.

This study has been able to determine that Carroll College could sell beer on campus and that Carroll students do drink beer. Beyond this no firm conclusions can be drawn. In the final analysis, the feasibility of the Carroll Pub rests on what purpose it is primarily designed to fulfill. It is only hoped that this study will in some way shed light on the problems that could be expected to arise no matter what final decision is eventually made.
APPENDIX I

Appendix to Location of the Pub
A "PUB" for Carroll College

LOUNGE

STOR
STOR
BAR

KITCHEN

VEST

FP

plan

84 x 60 = 5,040 SF

1/16" = 1' - 0"

38
A "PUB"
for
Carroll College

front

right
A "PUB" for Carroll College

plan

64 x 64 = 4,096 SF

1/16" = 1' - 0"
A "PUB" for Carroll College

front

right
### COST OF COLONIAL CLUB

**ESTIMATE PREPARED BY MR. JACK MOORE**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Cost</td>
<td>$30,000.00</td>
</tr>
<tr>
<td>Moving Cost of Building</td>
<td>12,000.00</td>
</tr>
<tr>
<td>Excavation and Backfill - 500 cu. yds. at $1.50 per yd. (160 ft. Foundation Wall, Footings, and Post Footings)</td>
<td>750.00</td>
</tr>
<tr>
<td>Concrete for Footings, Foundation, and Steps (96 yds. at $70.00 yd. in place)</td>
<td>6,930.00</td>
</tr>
<tr>
<td>Estimated Roof Repair</td>
<td>750.00</td>
</tr>
<tr>
<td>Estimated Wall Repair</td>
<td>1,000.00</td>
</tr>
<tr>
<td>Estimated Floor Repair</td>
<td>750.00</td>
</tr>
<tr>
<td>Electrical Service and Repair</td>
<td>2,500.00</td>
</tr>
<tr>
<td>Plumbing - Water service and hook-up using present well; sewer hook-up to septic tank and drainfield</td>
<td>7,000.00</td>
</tr>
<tr>
<td>Painting - Exterior and Interior patch</td>
<td>2,500.00</td>
</tr>
<tr>
<td>Miscellaneous and Contingency</td>
<td>2,000.00</td>
</tr>
<tr>
<td>Architect's Fee</td>
<td>2,000.00</td>
</tr>
<tr>
<td><strong>TOTAL COST</strong></td>
<td><strong>$68,180.00</strong></td>
</tr>
</tbody>
</table>
APPENDIX II

Appendix to Financial Aspect
This survey is conducted on behalf of the Associated Students of Carroll College. Your help is asked in deciding on the feasibility of a campus beer pub which would be run by you, the students of Carroll College. The MEANINGFULNESS of this questionnaire is dependent on your THOUGHTFUL and HONEST responses to the following questions.

1. Please check the appropriate:
   ( ) male  ( ) off campus resident
   ( ) female  ( ) on campus resident
   ( ) freshman, ( ) sophomore, ( ) junior, ( ) senior

2. Would you patronize the proposed campus pub providing it was well managed, that is, services and prices are comparable to the Pub, Sud's Hut, etc.?
   ( ) yes, ( ) no

3. On the average, how many cans of beer do you drink per week?
   _______________________

4. Estimate how much money per week in the past year you spent on beer while at Carroll.
   $_____________________

5. Given that this on campus pub was "well run" and the lower drinking age of 19, how much would you expect to spend per week next year at your pub?

   Estimate the least you would spend per week. $_____________________

   Estimate the most you would spend per week. $_____________________

6. What price would you consider "fair" for an average size glass of beer (12 oz.)?
   $_____________________

7. Would you be willing to pay an extra 5¢ per glass of beer for added services such as a band on weekends, game room, food service, etc.?
   ( ) no, ( ) yes

8. It is not necessary that your name be known, but if you wish to sign this questionnaire feel free to do so.

   _______________________

THANK YOU VERY MUCH FOR YOUR CO-OPERATION!!!
YOUR HELP IS ASKED IN DECIDING ON THE FEASIBILITY OF AN ON CAMPUS BEER PUB.
THE MEANINGFULNESS OF THIS QUESTIONNAIRE IS DEPENDENT ON YOUR THOUGHTFUL
AND HONEST RESPONSES TO THE FOLLOWING QUESTIONS.

1. Please check the appropriate in each of the following three (3) categories:
a. ( ) MALE  
b. ( ) ON CAMPUS RESIDENT  
c. ( ) FRESHMAN
   ( ) FEMALE  
   ( ) OFF CAMPUS RESIDENT  
   ( ) UPPERCLASSMAN
(If you are a senior graduating this semester please answer the following
questions making the assumption for purposes of this questionnaire that
you would be at Carroll next year.)

2. Are you in favor of establishing an on campus beer pub?
   ( ) YES  
   ( ) NO

3. Would you be willing to pay a $5.00 fee to be used to construct this pub?
   (Assume that if the pub was constructed the fee would not be returned.)
   ( ) YES  
   ( ) NO

4. Given this pub "well run" how much would you expect to spend per week
   at this pub? (Check the appropriate)

   $9  
   $0.01 - $0.75  
   $0.76 - $1.50  
   $1.51 - $3.00  
   $3.01 - $6.00  
   Over $6.00

THANK YOU FOR YOUR CO-OPERATION!


Summary of On-Campus Sales of Beer in Colorado.