A recent study of 865 randomly selected students from a large university found that 42.5% had student loans. The purpose of the study was to examine the effects of student loan burdens on the choice of a career. A student with a large debt may be more likely to choose a field where starting salaries are high so that the loan can be more easily repaid.

The following table classifies students by field of study and whether or not they had a loan:

<table>
<thead>
<tr>
<th>Student Loan</th>
<th>Agriculture</th>
<th>Child develop/ Liberal arts</th>
<th>Engineering</th>
<th>Liberal arts and education</th>
<th>Mgt</th>
<th>Science</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32</td>
<td>37</td>
<td>98</td>
<td>89</td>
<td>24</td>
<td>31</td>
<td>57</td>
</tr>
<tr>
<td>No</td>
<td>35</td>
<td>50</td>
<td>137</td>
<td>124</td>
<td>51</td>
<td>29</td>
<td>71</td>
</tr>
</tbody>
</table>

Suppose we consider “having a student loan” a “success”:

1. a. Proportion of students in Agriculture with a student loan (risk):
   
   b. Proportion of students in Management with a student loan (risk):

   c. Relative risk:

Interpretation:

2. a. Calculate the odds of a student in Agriculture having a student loan:

   b. Calculate the odds of a student in Management having a student loan:

   c. Calculate the odds ratio of having a student loan for Agriculture students compared to Management students: