**Case: AgriComp**

**Abstract:** AgriComp, a supplier of computer systems for farmers, has surveyed it dealers on whether to change its procedure for settling warranty claim disputes. Currently local dealers handle warranty services for customers via local repair followed by a reimbursement claim to AgriComp. Denied claims follow an internal company appeal process. Dealers have been complaining about the fairness of the appeal process and in a recent survey were asked to respond to an alternative process, an impartial mediator. The student is asked to review survey results and determine whether the costly external mediator process would be worth implementing to keep the dealers happy.

How/When to Use

This case offers a chance for students to deal with the data before it is crosstabulated (Chapter 16). Nothing very fancy is required, but the students will need to recognize that a crosstabulation is in order (or at the very least that some separate tabulations are needed). The dealer preferences are different for those who have used the existing appeals process than for those who haven't. The more they've used the process (Use 0, Use 1, Use 2, Use 3), the less they perceive a need for change. If the data are tabulated in the aggregate, this trend is not apparent.

Discussion Question:

1. Jody wonders just how important the process is to the dealers? Was there widespread discontent or had he just heard from a few malcontents at the dealers' meeting?

You can start with a question like "How do the dealers feel?" and follow it up with "Do all of the dealers feel that way?" This will normally bring out a cross tabulation or something like the series of MINITAB dotplots given below. Then you should turn the discussion to how best to summarize or display the conclusions. Either some sort of crosstabulation (using appropriate percentages instead of counts) or plots like those below will work. The main point is to be sure students don't simply declare a "significant" lack of independence and let it go at that. They should have to say something about what kind of dependence they find, not just assert the absence of independence.

The more the dealers have used the existing appeals process, the less they agree with the statement that it should be replaced, so it appears that Jody was hearing from some malcontents. The cross-tabulation of responses by number of uses is given on the next page. The corresponding chi-squared is 82.16 on 12 degrees of freedom, so something is clearly going on. Students may offer a variety of summaries of just what is going on, and you should prompt them for such summaries if all they offer is chi-squared. The general trend is illustrated by such diagrams as the dotplots given on the page following the crosstabulation.

**Crosstabulation (count) of REP by USE**

**USE**

**REP 0 1 2 3**

**+------+------+------+------+**

**1 | 12 | 12 | 4 | 6 |34**

**+------+------+------+------+**

2 | 6 | 27 | 18 | 12 |63

**+------+------+------+------+**

**3 | 8 | 18 | 16 | 18 |60**

**+------+------+------+------+**

**4 | 4 | 9 | 8 | 52 |73**

**+------+------+------+------+**

**5 | 1 | 12 | 12 | 37 |62**

**+------+------+------+------+**

**31 78 58 125 292**

**USE (percent)**

**REP 0 1 2 3**

**+------+------+------+------+**

**1 | 38.7 | 15.3 | 6.9 | 4.8 |34 11.6%**

**+------+------+------+------+**

2 | 19.4 | 34.6 | 31.0 | 9.6 |63 21.6%

**+------+------+------+------+**

**3 | 25.8 | 23.1 | 27.6 | 14.4 |60 20.5%**

**+------+------+------+------+**

**4 | 12.9 | 11.5 | 13.8 | 41.6 |73 25.0%**

**+------+------+------+------+**

**5 | 3.2 | 15.5 | 20.7 | 29.6 |62 21.2%**

**+------+------+------+------+**

**31 78 58 125 292**

**100.0 100.0 100.0 100.0**

**Dotplot of REP by USE**

## USE 0 ((Each dot represents 3 points)

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**1 2 3 4 5**

**USE 1**

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**1 2 3 4 5**

**USE 2**

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**1 2 3 4 5**

**USE 3**

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**1 2 3 4 5**