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Analysis of Project Management Survey Data

This preliminary analysis was performed by Glenn Black, Associate with Process Quality Associates Inc. based upon data supplied by Mr. XXXX XXXXXXXXXXXX, XX Manager, XXXXXXXXXXXX XXXXXXXXXXXX, Rochester Hills, MI, USA on June 18, 2001.

1. Executive Overview

- a. If these survey results are typical for all project management areas within XXXXXXXX, then XXXXXXXX's current system is *Above Average* in project management excellence.
- b. While 1980's were about Quality, the 1990's were about mergers/acquisitions/globalization, **PQA** predicts the 2000 decade will probably be defined by *velocity*. While most organizations are operating at a JIT Velocity Factor of between 30 to 60, the world-class organizations have achieved a level of 2 to 3. PM, engineering, and order entry/production scheduling systems can have a significant effect on these JIT Velocity Factors. Some organizations have been successful in improving PM velocity by 10% to as high as 50%.
- c. To further improve the current project management system, it is recommended that the following six areas be the focus for further development and improvement:
 - i. Ensure that the required resources (eg. People, staff, critical equipment, etc.) are available when and as soon as required by the project schedule (Question # 3).
 - ii. Mistakes and re-do are a significant problem that requires system improvements for prevention and early detection (Question # 6).
 - iii. Cross-training and flexibility for specialized skills, knowledge, and experience could benefit overall flexibility and redundancy in PM system (Question # 7).
 - iv. Define needs for skilled personnel to meet full (current) capacity requirements & assign sufficient resources (Question # 49)
 - v. Corrective action on known PM system problems needs to be more comprehensive, effective, and consistently applied (Question # 88).

- vi. Calculate your JIT Velocity Factor for the overall organization, and the impact of PM on that Factor. Take appropriate actions to improve.

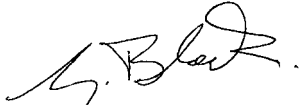
2. Analysis

- a. **Figure 1** shows the frequency distribution for the frequency of occurrence of the various Project Management Undesireable Effects (PMUE's). The mode (most frequently occurring score) is a score of "2" which is *good* when compared to most organizations.
- b. **Figure 2** shows the frequency distribution for the severity scores of the various Project Management Undesireable Effects (PMUE's). This defines how badly that PMUE disturbs the normal PM system, the deliverables, and the expectations of the various stakeholders (ie. customers, employees, suppliers, etc.) The mode (most frequently occurring score) is a score of "3" which is *Significant negative effects*.
- c. **Figure 3** shows the overall priority for the various PMUE's. This overall score is the severity score multiplied by the frequency score. As can be seen, the maximum score is 12 (out of a possible 25), the minimum is 1 (the absolute minimum possible, and the mode is 6. This distribution would generally be considered *Excellent*.
- d. **Figure 4** shows the scores for each of the individual questions. The five items scoring 12 (and therefore are above the threshold action point) can be easily seen. These are the four items mentioned above in the Executive Summary for suggested improvement.
- e. **Figure 5** shows the three Box & Whisker plots for Severity vs. Frequency of Occurrence.
 - i. As can be seen, the low frequency events have skewed distributions to higher severity scores, while the higher frequency events have a skewed distribution towards the lower severity scores.
 - ii. This tends to produce a self-stabilizing risk system, where it neither gets too bad nor too good. You have reached a statistically stable position.
 - iii. If further improvements are desired, you will have to de-stabilize the system, then immediately move it to the next best stability point, and "lock it in" to that new position by building new, improved habits.

- iv. Without this approach, any short term improvement efforts will soon degrade back to the current zone of stability and comfort.

For further analysis, training, or implementation assistance, feel free to contact **Process Quality Associates Inc.** at 1-800-837-7046, or e-mail pqa@pqa.net.

Yours truly,



Glenn Black B.A.Sc. CQE CQA
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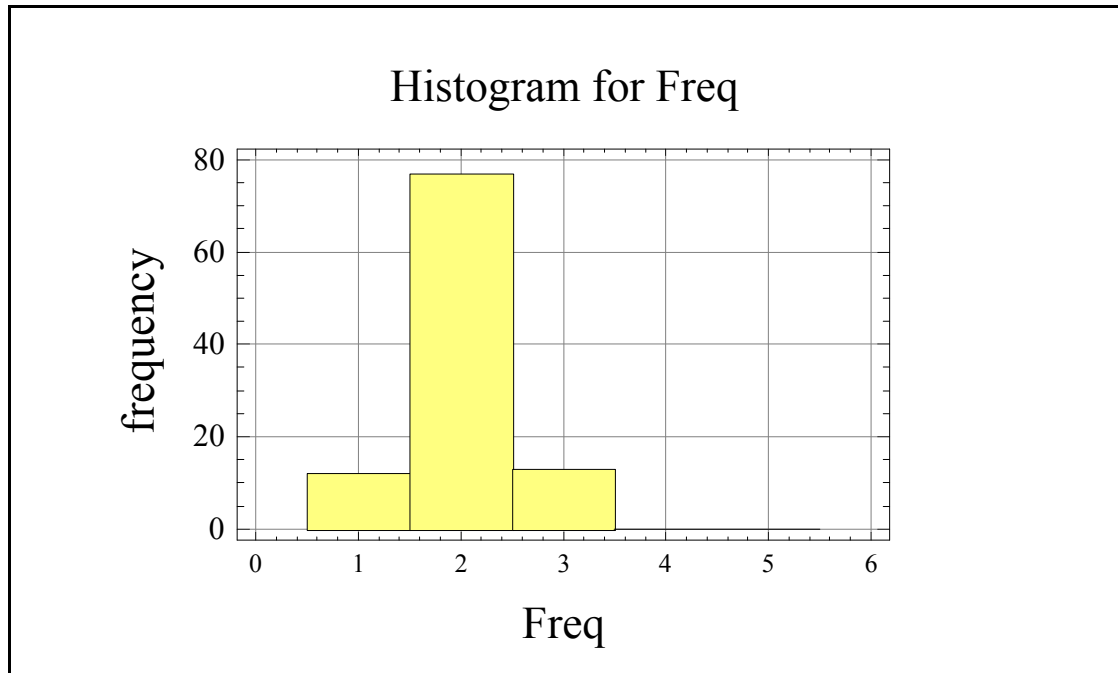


Figure 1 Frequency Distribution of Project Management Undesirable Effects

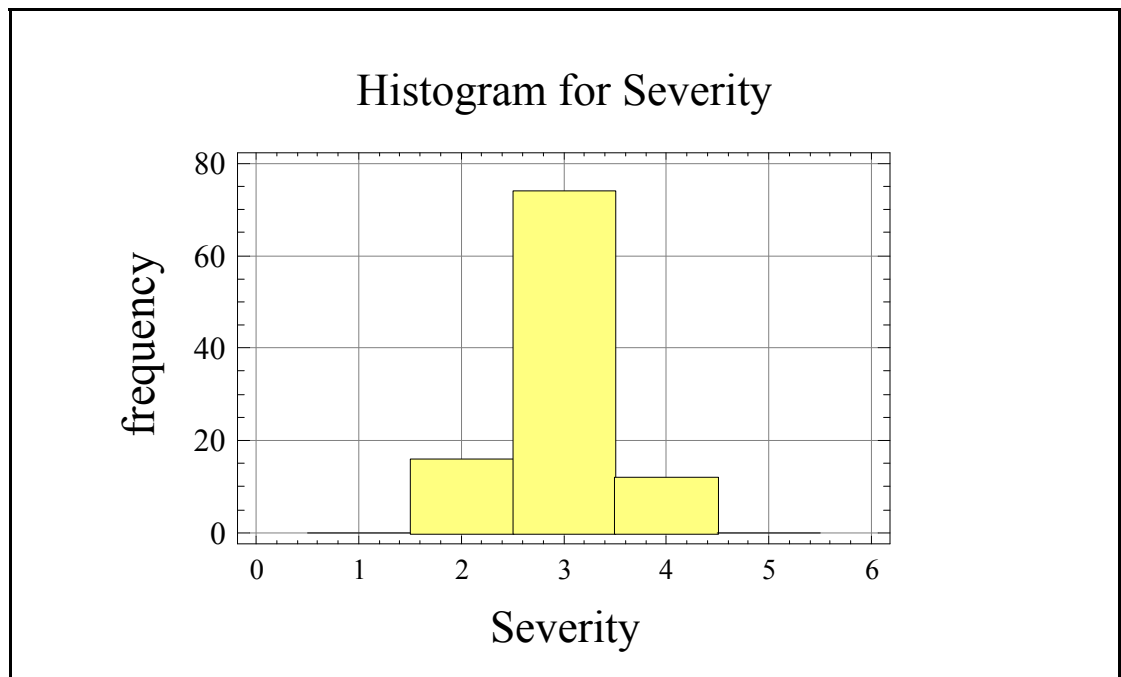


Figure 2 Severity of Project Management Undesirable Effects Occurring

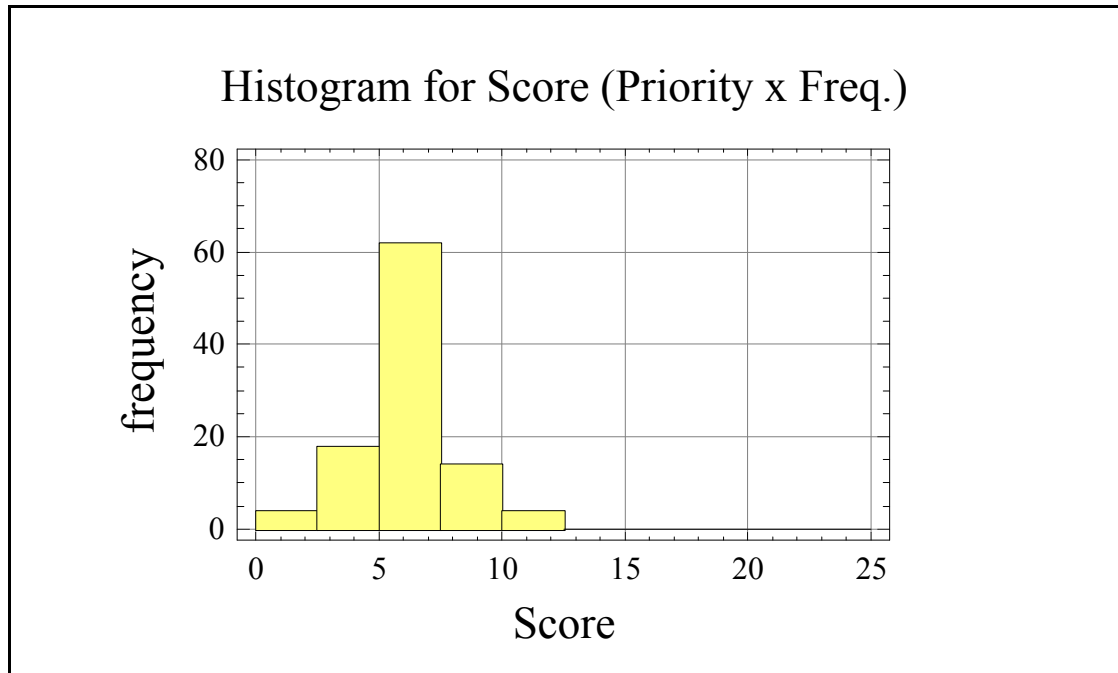


Figure 3 Histogram of PM Undesireable Effects Priority Scores

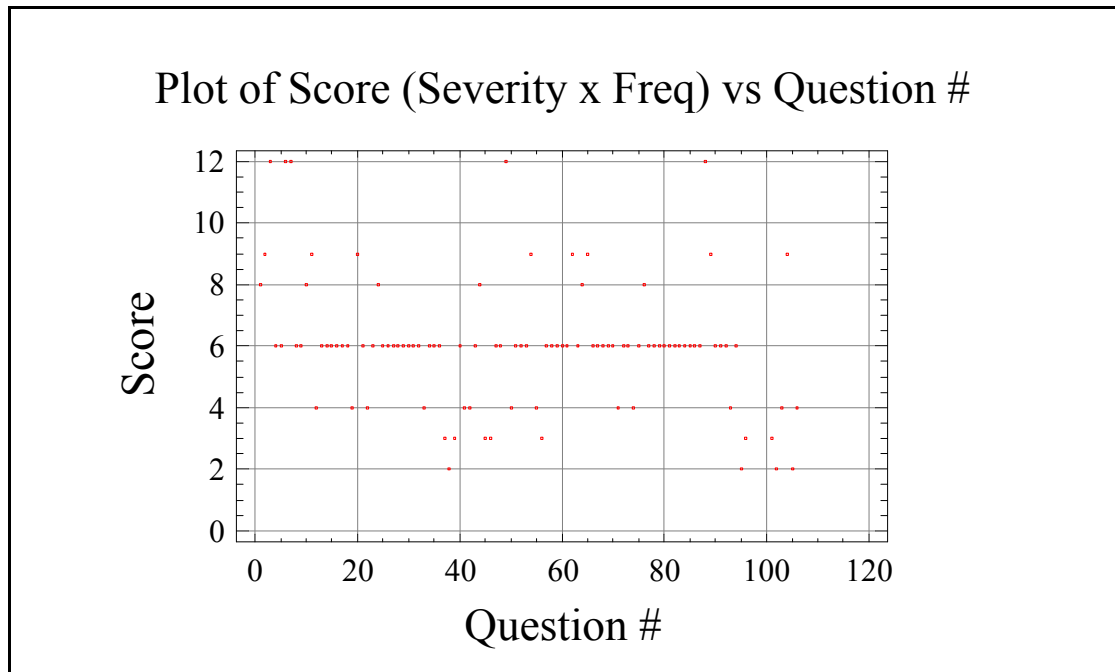


Figure 4 Scatter Plot of PM Undesireable Effects Scores (Severity x Freq)

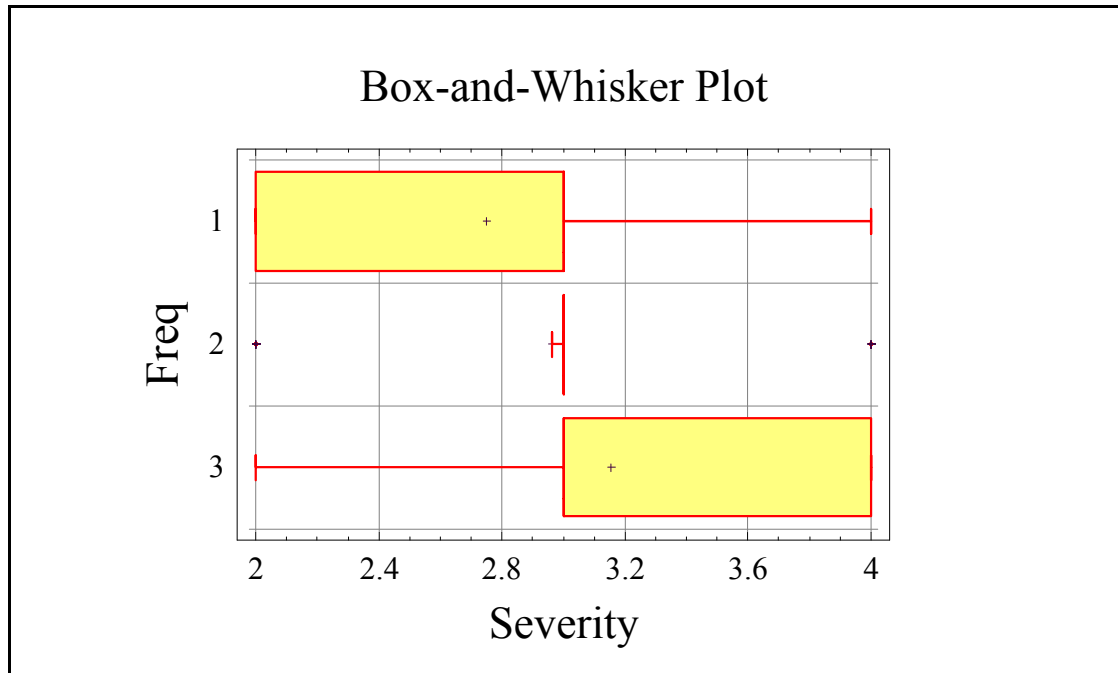


Figure 5 Box & Whisker Plot of Severity vs. Frequency