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**MEASUREMENT OF THE ORDINARY**  
**(METHODOLOGY FOR MEASURING THE ORDINARY COURSE OF BUSINESS) ©**

**By**  
**Michael L. Newsom**

The purpose of this paper is to provide methodology to improve the application of the ordinary course of business defense provisions of the bankruptcy code. Section 547(c)(2), Title 11, Bankruptcy of the US Code presents the ordinary course defense against avoidance of transfers from the debtor. The language of the second, and generally more troubling, element of the defense is as follows:

“The trustee may not avoid under this section a transfer to the extent that such transfer was made in the ordinary course of business or financial affairs of the debtor and the transferee;”

Hiding in the simplicity of this provision is the word “ordinary,” and it appears that deciding what is “ordinary” in this area of bankruptcy law is a daunting task. At least, so say the results of an “ABI Preference Survey.” In 1997 the American Bankruptcy Institute created a task force of 27 leading insolvency professionals to initiate a survey of credit suppliers and bankruptcy practitioners. Various questions regarding the efficacy and validity of the preference regulations were presented. While most of the questions were of the multiple choice variety, one question prompted the writers to list the most troublesome area of existing preference law. In the survey’s “Discussion of responses” the following paragraph addressed the responses to this question:

“By far the most common independent suggestion made by the respondents was to “do something” to make the ordinary course of business defense more workable in practice. The primary recommendation was to provide a clearer and more objective definition of what types of transactions would be covered. Although the widespread concern about application of this defense might support elimination of the defense altogether, most respondents preferred instead that an effort be made to improve clarity. The major legislative problem in implementing this recommendation, though, is objectifying what transactions are in the “ordinary course.” Notwithstanding this difficulty, the respondents apparently would like for Congress to try. “

One key obstacle to objectifying ordinary course and making the defense more workable is the lack of a standard practice for the measurement of behavior, *i.e.* the measurement of payment performance. This paper presents statistical and graphical methodology that can be applied to relate population to behavior (performance) such that a consistent

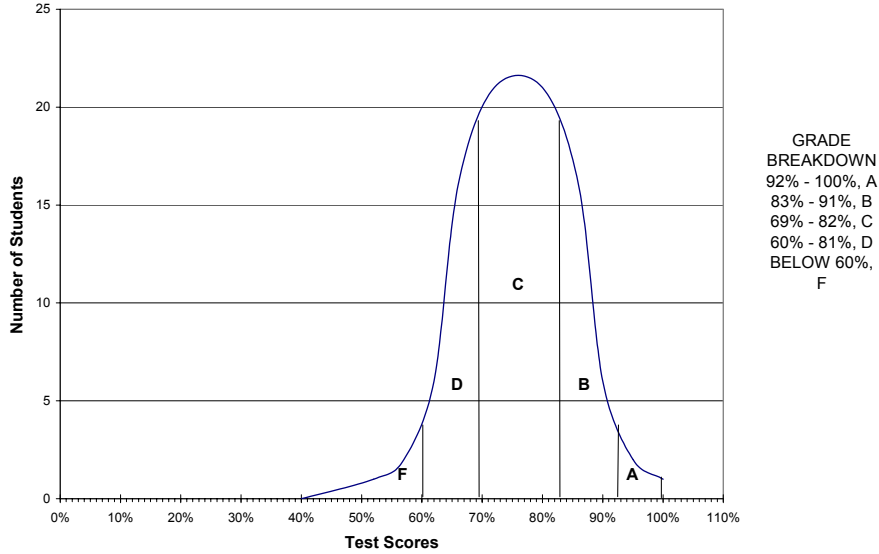
application of objective guidelines can be achieved. The guidelines offered by this paper are those defined by brackets of days (invoice age) within which a substantial portion of invoices are ordinarily paid, for example 0 to 30 days or 15 to 45 days. The ordinary course bracket can be used to separate, or exclude, payments made during the preference period that meet the measure of being ordinary.

We are often faced with the need to delineate among various subparts of a group or population. One example, with which we are all familiar, is the so-called “grading curve.” If we are informed by a professor that he intends to grade on a curve, we will know immediately that we are in competition with our classmates, and that our own grade will be as much a function of our classmates’ performance as our own. Such that it is with payments made during a designated preference period. These payments will be evaluated according to their position relative to the payment performance of the period before the preference period.

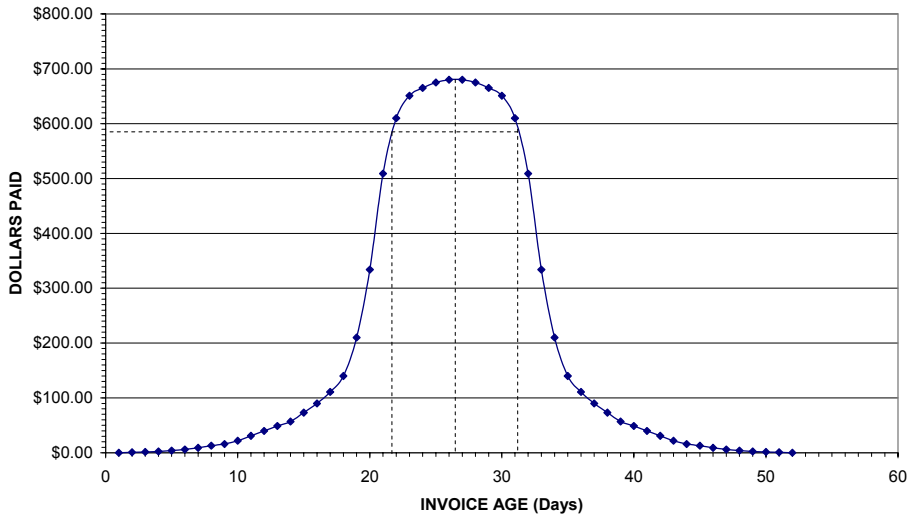
For example, referring to Graph 1 below, we see a distribution curve of hypothetical student grades. This curve happens to be of a normal distribution of data, or a bell shaped curve. The X axis is the performance measure and the Y axis is the number of students, or occurrences. In this hypothetical class of about one hundred students, the results of their performance can be seen in the adjacent grade breakdown table. Relating this information to our study, please refer to Graph 2. This is a graph of dollars paid by age of invoice. Again we see a normal distribution of data that results in a bell shaped curve. The X axis here is the performance measure of invoice age. The Y axis is the number of occurrences expressed in dollars amounts of the respective paid invoices.

With a distribution curve of the type shown in Graphs 1 and 2, it is relatively simple to eye-ball normal performance, in our case “ordinary course” of payment. Depending upon one’s perspective, you might take the heart out of our curve and assign as ordinary in this example, invoices paid with an aging of between 22 and 31 days, as shown. In this example the bracket referenced above includes about 68% of the population of payments, evenly spaced about the median of the sample. While an assignment of this approximate range might be able to be repeated on other bell shaped curves, this task becomes much more difficult to repeat as the curve shape becomes more random. Thus, there is a need to provide another evaluation tool because data is not always distributed “normally.” For an example of random data, please refer to Graph 3. We see the same number of dollars paid, over the same basic time frame, but in a much more random manner. For random graphs such as this one, the designation of ordinary is not so easily replicated.

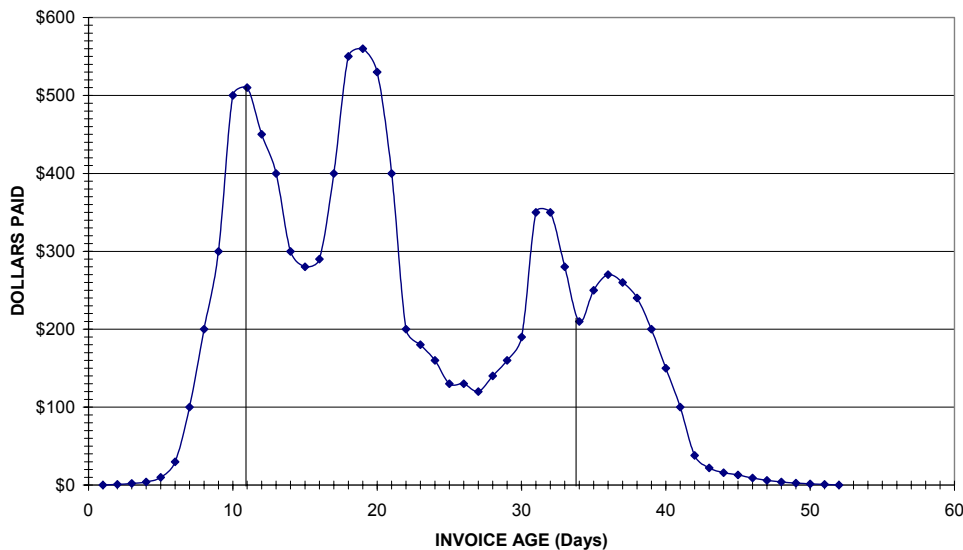
**GRAPH #1, GRADING CURVE  
(Student Distribution)**



**GRAPH #2  
DISTRIBUTION OF DOLLARS PAID**



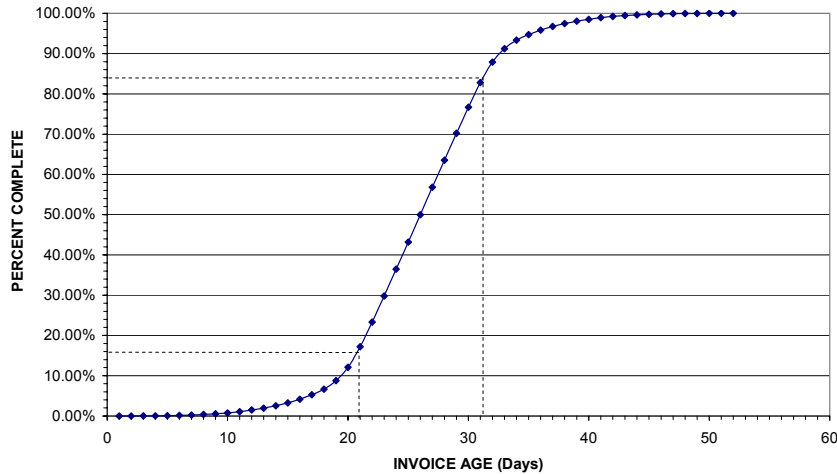
**GRAPH #3  
DISTRIBUTION OF DOLLARS PAID**



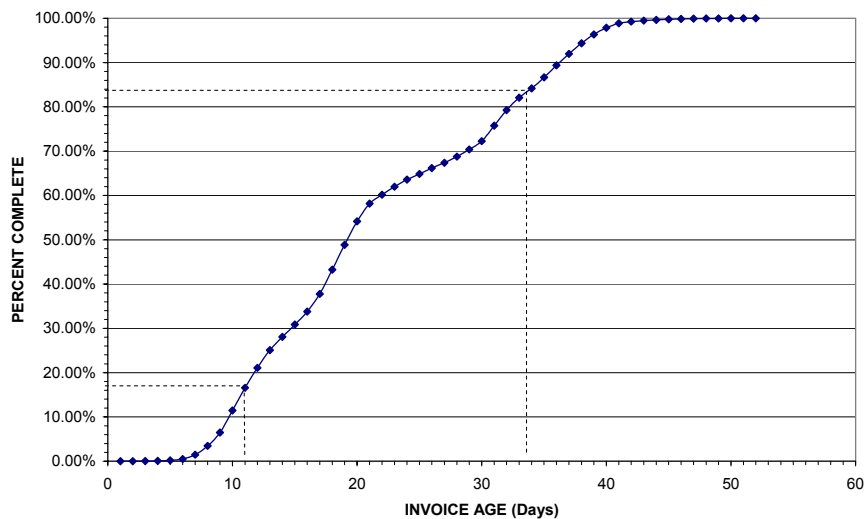
With one additional tool, or graph, the assignment of a bracket can be made for any distribution, random or otherwise, with precise replication of the percentage of the population included within the bracket elected to define ordinary. <sup>[1]</sup>This graph is a plot of the percentage of completion of the payment of the total population of invoices, or dollars. Referring to Graphs 4 and 5 we see the percent of completion graphs for the respective distribution Graphs, 2 and 3. By going through a simple exercise a bracket can be identified on each graph that includes the same amount of the dollar population. In the random data example, Graph #5, again a 68% bracket evenly spaced about the median is desired. To isolate this bracket, start at the 16% point on the vertical (“Y”) axis. Move horizontally to the solid line plot (this is the payment curve for the pre-preference period). Once this line is reached, drop straight down to the horizontal (“X”) axis. Record this value on the horizontal axis (in this case about 11 days). The lower limit of the bracket is actually all days beyond this point, or 11 plus one. Repeat this procedure for the “Y” axis value of 84% to get approximately 34 days on the “X” axis as the upper bracket limit. (Do not add 1 to this number.) The resultant bracket (12 – 34 days) includes 68% of the population centered about the median. The brackets determined on Graphs #4 and #5 are equivalent to those displayed on Graphs #2 and #3.

<sup>[1]</sup> A percent of completion chart is produced by graphing the incremental population amount divided by the total of the population versus the respective performance value. See the attached tables for the numbers used in the respective graphs.

**GRAPH #4, PERCENT COMPLETE - DOLLARS PAID  
(NORMAL DISTRIBUTION)**



**GRAPH #5, PERCENT COMPLETE - DOLLARS PAID  
(RANDOM PATTERN)**



The brackets used in these examples both include 68% of the population. They could have just as well been structured to include 70% or 60% of the population or any other percentage. The 68% number was chosen simply as a matter of convention to be one standard deviation, or one sigma, about the median. In a normal distribution curve this includes about 68% of the population. Two standard deviations include about 95%, and three standard deviations include just over 99% of the sample population. Although these ranges, in and of themselves, are just measures, they have been used by convention as



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decision points. For example, in “Statistical Process Control” techniques, three sigma has been used as a breakpoint for recognizing a “real” change in a process. In the field of quality control, three sigma and six sigma have been used for limits of quality assurance. For general comparison, one sigma can be a convenient measure or reference point for “ordinary.” Certainly, the insolvency professional is free to make his own case. Using the methodology described above, however, whatever the designated included population might be, it can be replicated among multiple vendors and multiple cases in a consistent and objective manner.



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**ACCOUNTS PAYABLE DATA BY AGE OF DOLLARS PAID**

NORMAL DISTRIBUTION DATA		
INVOICE AGING (Days)	NUMBER OF DOLLARS PAID	PERCENT COMPLETE
1	\$0.00	0.00%
2	\$1.00	0.01%
3	\$1.50	0.03%
4	\$2.50	0.05%
5	\$4.00	0.09%
6	\$6.00	0.15%
7	\$9.00	0.24%
8	\$13.00	0.37%
9	\$16.00	0.53%
10	\$22.00	0.75%
11	\$31.00	1.06%
12	\$40.00	1.46%
13	\$49.00	1.95%
14	\$57.00	2.52%
15	\$73.00	3.25%
16	\$90.00	4.15%
17	\$111.00	5.26%
18	\$140.00	6.66%
19	\$210.00	8.76%
20	\$334.00	12.10%
21	\$509.00	17.19%
22	\$610.00	23.29%
23	\$651.00	29.80%
24	\$665.00	36.45%
25	\$675.00	43.20%
26	\$680.00	50.00%
27	\$680.00	56.80%
28	\$675.00	63.55%
29	\$665.00	70.20%
30	\$651.00	76.71%
31	\$610.00	82.81%
32	\$509.00	87.90%
33	\$334.00	91.24%
34	\$210.00	93.34%
35	\$140.00	94.74%
36	\$111.00	95.85%
37	\$90.00	96.75%
38	\$73.00	97.48%
39	\$57.00	98.05%
40	\$49.00	98.54%
41	\$40.00	98.94%
42	\$31.00	99.25%
43	\$22.00	99.47%
44	\$16.00	99.63%
45	\$13.00	99.76%
46	\$9.00	99.85%
47	\$6.00	99.91%
48	\$4.00	99.95%
49	\$2.50	99.98%
50	\$1.50	99.99%
51	\$1.00	100.00%
52	\$0.00	100.00%
Total	\$10,000.00	

NORMAL DISTRIBUTION DATA		
INVOICE AGING (Days)	NUMBER OF DOLLARS PAID	PERCENT COMPLETE
1	\$0	0.00%
2	\$1	0.01%
3	\$2	0.03%
4	\$4	0.07%
5	\$10	0.17%
6	\$30	0.47%
7	\$100	1.47%
8	\$200	3.47%
9	\$300	6.47%
10	\$500	11.47%
11	\$510	16.57%
12	\$450	21.07%
13	\$400	25.07%
14	\$300	28.07%
15	\$280	30.87%
16	\$290	33.77%
17	\$400	37.77%
18	\$550	43.27%
19	\$560	48.87%
20	\$530	54.17%
21	\$400	58.17%
22	\$200	60.17%
23	\$180	61.97%
24	\$160	63.57%
25	\$130	64.87%
26	\$130	66.17%
27	\$120	67.37%
28	\$140	68.77%
29	\$160	70.37%
30	\$190	72.27%
31	\$350	75.77%
32	\$350	79.27%
33	\$280	82.07%
34	\$210	84.17%
35	\$250	86.67%
36	\$270	89.37%
37	\$260	91.97%
38	\$240	94.37%
39	\$200	96.37%
40	\$150	97.87%
41	\$100	98.87%
42	\$38	99.25%
43	\$22	99.47%
44	\$16	99.63%
45	\$13	99.76%
46	\$9	99.85%
47	\$6	99.91%
48	\$4	99.95%
49	\$3	99.98%
50	\$2	99.99%
51	\$1	100.00%
52	\$0	100.00%
Total	\$10,000.00	