DEVELOPMENT OF LIQUIDATED DAMAGES FOR THE OKLAHOMA DEPARTMENT OF TRANSPORTATION

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ODOT SPR ITEM NUMBER 2120

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16. Abstract

Federal regulations require that DOTs must establish liquidated damages (LD) for construction projects and update when necessary and submit them to FHWA every two years for approval. According to FHWA, the method used to develop a standard LD schedule should use construction engineering costs associated with the type and size of work encountered. The FHWA method has four steps: 1) determination of requisite data, 2) collection and organization of data, 3) calculation of workday LD rates and 4) calculation of calendar-day LD rates.

The objectives this research were to evaluate the Auburn University protocol used to determine LDs in Alabama and to modify it as necessary and apply it to a data base supplied by ODOT. This effort included the evaluation, screening and qualifying of the ODOT data for the development of liquidated damages. These data and the selected methodology were then applied to the ODOT's data base to determine a statistically defensible daily rate for agency charges when projects are not completed within the original schedules. A robust statistically based procedure for use by ODOT or an outside vendor to determine LD rates for projects of varying sizes that should meet the requirements of FHWA was developed.

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Approximate Conversions to SI Units					Approximate Conversions from SI Units				
Symbol	When you know	Multiply by	To Find	Symbol	Symbol	When you know	Multiply by	To Find	Symbol
		LENGTH					**LENGTH**		
in	inches	25.40	millimeters	mm	mm	millimeters	0.0394	inches	in
ft	feet	0.3048	meters	m	m	meters	3.281	feet	ft
yd	yards	0.9144	meters	m	m	meters	1.094	yards	yd
mi	miles	1.609	kilometers	km	km	kilometers	0.6214	miles	mi
		AREA					**AREA**		
in^2	square inches	645.2	square millimeters	mm	mm^2	square millimeters	0.00155	square inches	in^2
ft^2	square feet	0.0929	square meters	m^2	m^2	square meters	10.764	square feet	ft^2
yd^2	square yards	0.8361	square meters	m^2	m^2	square meters	1.196	square yards	yd^2
ac	acres	0.4047	hectares	ha	ha	hectares	2.471	acres	ac
mi^2	square miles	2.590	square kilometers	km^2	km^2	square kilometers	0.3861	square miles	mi^2
		VOLUME					**VOLUME**		
fl oz	fluid ounces	29.57	milliliters	mL	mL	milliliters	0.0338	fluid ounces	fl oz
gal	gallons	3.785	liters	L	L	liters	0.2642	gallons	gal
ft^3	cubic feet	0.0283	cubic meters	m^3	m^3	cubic meters	35.315	cubic feet	ft^3
yd^3	cubic yards	0.7645	cubic meters	m^3	m^3	cubic meters	1.308	cubic yards	yd^3
		MASS					**MASS**		
oz	ounces	28.35	grams	g	g	grams	0.0353	ounces	oz
lb	pounds	0.4536	kilograms	kg	kg	kilograms	2.205	pounds	lb
T	short tons (2000 lb)	0.907	megagrams	Mg	Mg	megagrams	1.1023	short tons (2000 lb)	T
		TEMPERATURE (exact)					**TEMPERATURE (exact)**		
°F	degrees Fahrenheit	(°F-32)/1.8	degrees Celsius	°C	°C	degrees Celsius	9/5+32	degrees Fahrenheit	°F
		FORCE and PRESSURE or STRESS					**FORCE and PRESSURE or STRESS**		
lbf	poundforce	4.448	Newtons	N	N	Newtons	0.2248	poundforce	lbf
lbf/in^2	poundforce per square inch	6.895	kilopascals	kPa	kPa	kilopascals	0.1450	poundforce per square inch	lbf/in^2

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Chapter 1
INTRODUCTION AND WORK PLAN

INTRODUCTION

Liquidated damages are defined in the Code of Federal Regulations 23 CFR 635.102 as (1):

> "The daily amount set forth in the contract to be deducted from the contract price to cover additional costs incurred by a state transportation department because of a contractor's failure to complete the contract work within the number of calendar days or workdays specified. The term may also mean total of all daily amounts deducted under the terms of a particular contract."

Federal regulation 23 CFR 635.127 requires that the Oklahoma Department of Transportation (ODOT) must establish liquidated damages (LD) for projects contracted in Oklahoma. The ODOT is required by the Federal Highway Administration (FHWA) to review, update when necessary and submit them every two years for approval (2). According to FHWA, the method used to develop a standard LD schedule should use construction engineering costs associated with the type and size of work encountered. The FHWA method has four steps: 1) determination of requisite data, 2) collection and organization of data, 3) calculation of workday LD rates and 4) calculation of calendar-day LD rates (2). This means that a defensible method of calculating agency LD charges in the post-contract, pre-project completion period must be developed and then re-evaluated and applied on a biennial cycle.

OBJECTIVE

The objectives this research were to evaluate the previously presented Auburn University- Alabama Department of Transportation protocol (3) used to determine LDs in Alabama and to modify it as necessary and apply it to a data base supplied by ODOT. This effort included the evaluation, screening and qualifying of the ODOT data for the development of liquidated damages. These data and the selected methodology were then applied to the ODOT's data base to determine a statistically defensible daily rate for agency charges when projects are not completed within the original schedules.

WORK PLAN

As stated, this work was built upon that developed at Auburn University for the Alabama Department of Transportation (3) but utilized data provided by ODOT and investigated more thoroughly ways to determine sample outliers, determine project size breakpoints as well as aggregating data sets across project sizes.

The sequence of activities completed for this effort included:

- A preliminary evaluation of the data set provided by ODOT.
- Grouping data across project sizes.
- Determination of outliers within project sizes; comparison of alternative methods.
- Evaluation of the Auburn University LD metrics: % Engineering and Inspection (%EI) and Dollars per day ($/Day).
- Combine similar project sizes for LD determinations.
- Determination of LDs for the total ODOT data set for grouped data.

To complete the above objective, the following work plan was undertaken.

Task 1: Evaluate, Screen and Qualify ODOT Data Set

The data set provided by ODOT was screened to determine its overall configuration and contents. Specifically, the years of data, the number of projects within specific contract value ranges and the number and frequency of the respective object codes were identified. A preliminary determination as to the adequacy of the overall data set as well as its component parts was made. Spread sheets were developed for the qualified data bases and a preliminary report to ODOT was prepared.

Task 2: Define Project Size Groupings

ODOT has previously employed project delineations by contract size and similar project sizes were used in this effort. In addition, alternative project groupings for the ODOT data set were evaluated. Basic statistics such as Kruskal-Wallis or its parametric equivalent, the one way analysis of variance (ANOVA) were employed to differentiate between alternative data groupings. For reference, the Kruskal-Wallis model is presented as equation 1 (4).

$$K = \frac{12\sum_{i=1}^{g} n_i \left(\frac{\sum_{j=1}^{n_g} \overline{r_{ij}}}{n_i} - \overline{r} \right)^2}{N\left(N-1\right)} \qquad [1]$$

Task 3: Determination of ODOT Data Outliers

Once a decision was reached as to the contract size groupings, two metrics of agency expenditures were determined, percent Engineering and Inspection or %E&I and dollars per day. Percent E&I is the ODOT distributed amount divided by the contract value

(CV), expressed as a percent, while dollars per day are the total contract value divided by the total project (calendar) days as illustrated in equations 2 and 3 respectively.

$$\%E\,\&\,I = \frac{\text{distributed amount}}{CV} \times 100 \qquad [2]$$

$$\$ / day = \frac{CV}{\text{calendar days}} \qquad [3]$$

These initial calculations were organized by contract size and outliers determined. The Auburn University study (3,5) used an approximate 95% confidence interval to identify outliers. This study employed probability distributions to define 95 % confidence intervals to make these determinations. Statistical analyses by Kruskal-Wallis followed to determine if similar statistically E&I charges across groups existed. Data from similar groups were combined for subsequent analyses.

Task 4: Development of Proposed LDs

After the ODOT provided data were screened, project size groupings determined and outliers identified a proposed calendar day LD rate was identified. This was completed for each contract size grouping. Working day LD results were determined by means of a multiplier provided by ODOT and are included with the working day data.

BENEFITS

ODOT benefits from the study by having third party generated liquidated damages estimate for projects of varying sizes. The procedure is statistically robust and provides LD rates that should meet the requirements of FHWA. The procedure is described in sufficient detail so that it can be repeated biannually by ODOT or an outside vendor.

IMPLEMENTATION

The proposed research results in a robust statistically based procedure for use by ODOT or an outside vendor to determine LD rates for projects of varying sizes that should meet the requirements of FHWA.

Chapter 2

ODOT DATA SET EVALUATION AND GROUPINGS

ODOT PROVIDED DATA SET

Table 1 presents a few entries from the 1000+ line data set developed from the data provided by ODOT. The complete data set can be found in the Appendix. The data provided by ODOT contained information from 1,033 contracts covering the years 2005 - 2007. It is unknown by the authors whether the ODOT supplied data contained the appropriate overhead charge.

Table 1. Example Data Subset for <100K ODOT Projects

Contract Amount	Calendar Days Allowed	Distributed Amount	Cost Per Calendar Day	%El	$/Day
$505.00	30	$322.63	$10.75	63.89	$16.83
$4,200.00	14	$3,144.19	$224.59	74.86	$300.00
$8,271.00	15	$340.14	$22.68	4.11	$551.40
$9,166.60	30	$4,298.07	$143.27	46.89	$305.55
$9,278.40	21	$2,398.46	$114.21	25.85	$441.83
$9,399.00	30	$8,041.93	$268.06	85.56	$313.30
$10,656.57	100	$9,952.04	$99.52	93.39	$106.57
$12,614.73	30	$240.89	$8.03	1.91	$420.49
$13,560.00	10	$5,403.14	$540.13	39.85	$1,356.00

The variables of concern from the ODOT data set included the Contract Amount, the Calendar Days Allowed, the Distributed Amount and the Cost per Calendar Day. These data are shown in columns 1-4 in Table 1 and were taken directly from the ODOT data set. Column 4, Cost per Calendar Day, is used to determine liquidated damages (LDs). Cost per calendar Day is the Distributed Amount divided by the Calendar Days Allowed as shown in equation 5.

$$\text{Cost per Calendar Day} = \frac{\text{Distributed Amount}}{\text{Calendar Days Allowed}} \qquad [4]$$

The last two columns in the data set (table 1) are %EI (Engineering and Inspections) and dollars per day ($/Day). They were calculated according to the methods employed by Auburn University and the Alabama Department of Transportation. (3,5) and were previously shown in equations 2 and 3 and are repeated here. That is:

$$\%EI = \frac{\text{Distributed Amount}}{\text{Contacted Amount}} \times 100 \qquad [2]$$

$$\$/\text{Day} = \frac{\text{Contracted Amount}}{\text{Calendar Days Allowed}} \qquad [3]$$

It should be noted that the $/Day metric produced by equation 3 is not the same as the ODOT variable Cost per Calendar Day, used to determine LD, produced from equation 4. Cost per Calendar Day is ODOT's record of expenditures attributed to what will subsequently be employed, after data qualification, to determine Liquidated Damages while $/Day is a parameter that evaluates the expenditures over the contract life of the respective project. The Auburn University study (3,5) makes a strong point that qualification of the Liquidated Damages data sets must be performed on total project data and then applied to the Distributed Amounts and Cost per Calendar Day variables.

PRELIMINARY DATA SET EVALUATION

This task was very simple in nature; the ODOT data set was evaluated for any seemingly abnormal entries. That is, any entry that would compromise the subsequent analyses was identified and removed from the data set. Only two data points were removed; one had a negative "Cost per Calendar Day" value and another had no charges entered. The remainder of the data set was then used. A total of 1031 projects were eventually employed in subsequent qualification and analyses.

GROUPING DATA ACROSS PROJECT SIZES

At least two alternative approaches were available to group the ODOT total data set into specific project size delineations. These included using graphical, statistical or a combination of methods to define natural "break-points" in the data. These break-points would occur when there was clear separation of projects by contract size. The advantages of this approach are that the resulting groupings are potentially more homogeneous which should facilitate subsequent statistical analyses. The disadvantage is that these groupings exist only for the current ODOT data set and future calculations would involve similar determinations and should result in different groupings with successive calculations. Continuity of final Liquidated Damages would be compromised.

Alternatively, arbitrary groupings by contract size could be implemented. In this manner similar project sizes would be in one group while others would be clustered in similar groupings. The advantages and disadvantages of this approach reversed those listed for the natural "break-points." This is the procedure ODOT appears to currently employ.

The approach chosen was the arbitrary project size delineations because it offered ODOT the most control and consistency for future LD determinations. The following project size

groupings were employed in this effort. The number of projects within each grouping is also included.

Project Size	Number of Projects
<$100K	126
$100K-$200K	114
$200K-$500K	287
$500K-$1M	204
$1M-$2M	132
$2M-$5M	99
$5M-$10M	53
>$10M	16

These groupings are consistent with previous ODOT efforts as well as those used by Auburn University (3,5).

DETERMINATION OF OUTLIERS

The two metrics, %EI and $/Day were used to identify outliers within each project grouping. Outliers reduce the efficiencies of various statistical procedures which were used to group similar project sizes. Three approaches were eventually evaluated:

- Retaining all data within a range of two standard deviations above and below the mean. This was used by Auburn University (3,5) and is a reasonable approximation of a 95% Confidence Interval (95 CI)
- Applying a conventional statistical 95 CI to each data subset.
- Fitting Cumulative Density Functions to each data subset and then eliminating all data >97.5% or <2.5%. That is, retaining the interior 95% of all data.

Each of these tests was applied to all of the project groupings for %EI and $/Day. Table 2 summarizes the input data statistically.

The approach employed by Auburn University was to define outliers as those values outside the range of $\pm$ two standard deviations about the mean (6). This approach, while producing reasonable approximations of a 95% confidence interval, is not as robust as the other two, more formal and accepted approaches itemized above. The ODOT data set contains a significant number of either skewed distributions or ones where the standard deviation is greater than the mean. It was felt that the more robust approaches of either applying a true statistically determined 95% confidence interval or application of a statistical distribution as a cumulative density function (cdf) resulted in significant improvements in terms of analytical rigor. Application of the true 95 % confidence interval was eventually rejected however as the primary method for identifying and excluding outliers because it excluded far too many data points; thereby weakening the subsequent analyses.

Table 2. Descriptive Statistics: %EI and $/day by Project Size Grouping

Project Grouping	Variable	Total Count	Mean	StDev	Median	Range	IQR
<100K	$/day	126	2167	1778	1759	12205	1766
<100K	%/EI	126	14.03	17.46	7.68	93.23	15.76
100-200K	$/day	114	4280	4683	2927	52192	2670
100-200K	%/EI	114	9.201	9.033	73149	64.906	8.387
200-500K	$/day	287	5109	3888	3321	21541	4125
200-500K	%/EI	287	7.042	5.191	6.277	34.021	6.102
500K-1M	$/day	204	9269	6737	7107	45577	9063
500K-1M	%/EI	204	4.654	3.721	3.574	20.721	4.357
1-2M	$/day	132	13163	8352	10155	38794	10534
1-2M	%/EI	132	5.268	10.799	3.260	122.201	4.335
2-5M	$/day	99	14706	7740	11941	43482	7991
2-5M	%/EI	99	4.967	4.319	4.306	34.6348	3.507
5-10M	$/day	53	20730	7014	17869	25946	11137
5-10M	%/EI	53	3.656	1.731	3.486	9.088	1.909
>10M	$/day	16	29012	8087	26098	25730	14182
>10M	%/EI	16	2.681	1.030	2.625	4.972	1.189

StDev = standard deviation
IQR = intraquartile range, between 25th and 75th percentile

Alternatively, an approach at qualifying the data for outliers employed fitting a cumulative density function (cdf) to each of the sixteen data subsets. In this manner no predefined statistical distribution was assumed and the resulting distributions could be evaluated for the central 95% of the data. Figures 1-8 present the graphs for %EI.

The smooth line on figure 1 and all subsequent figures is the fitted distribution while the jagged line results from a data plot. The verticals were positioned at the 97.5% and 2.5% levels. All entries greater than the 97.5% and less than the 2.5% were considered outliers and were not utilized in subsequent analyses. In the case of figure 1, all %EI values greater than 77 or less than 0.5 were rejected.

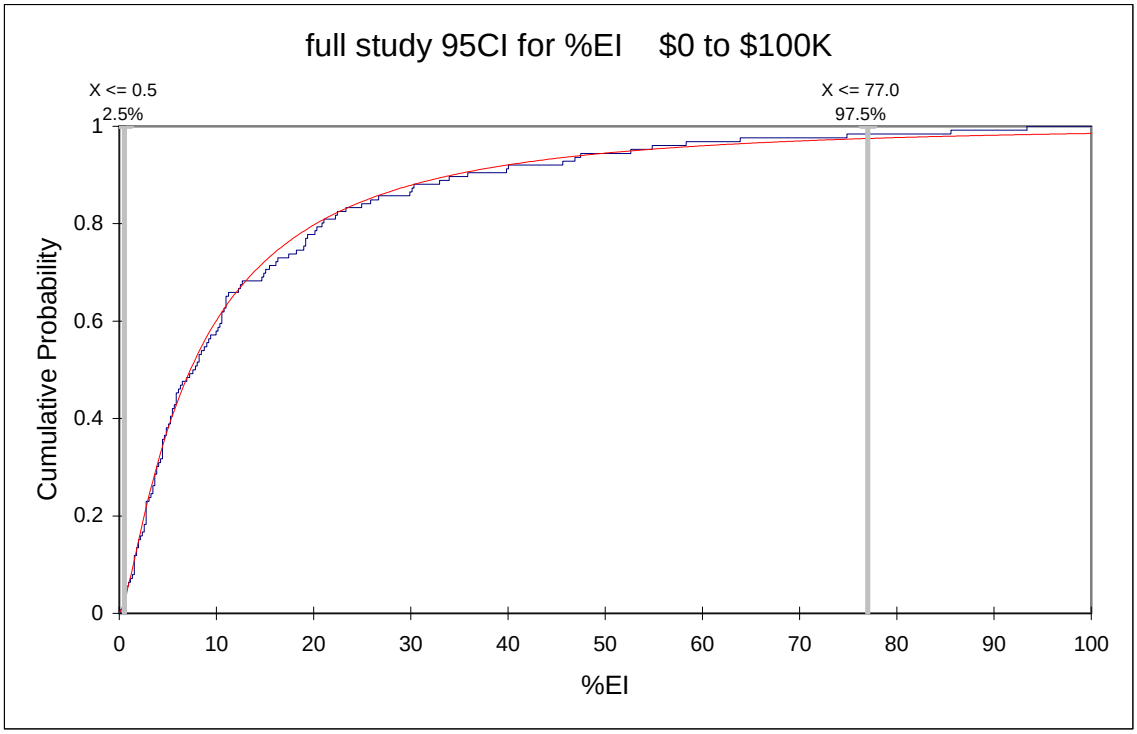

Figure 1 Cumulative density function for %EI for projects <$100K.

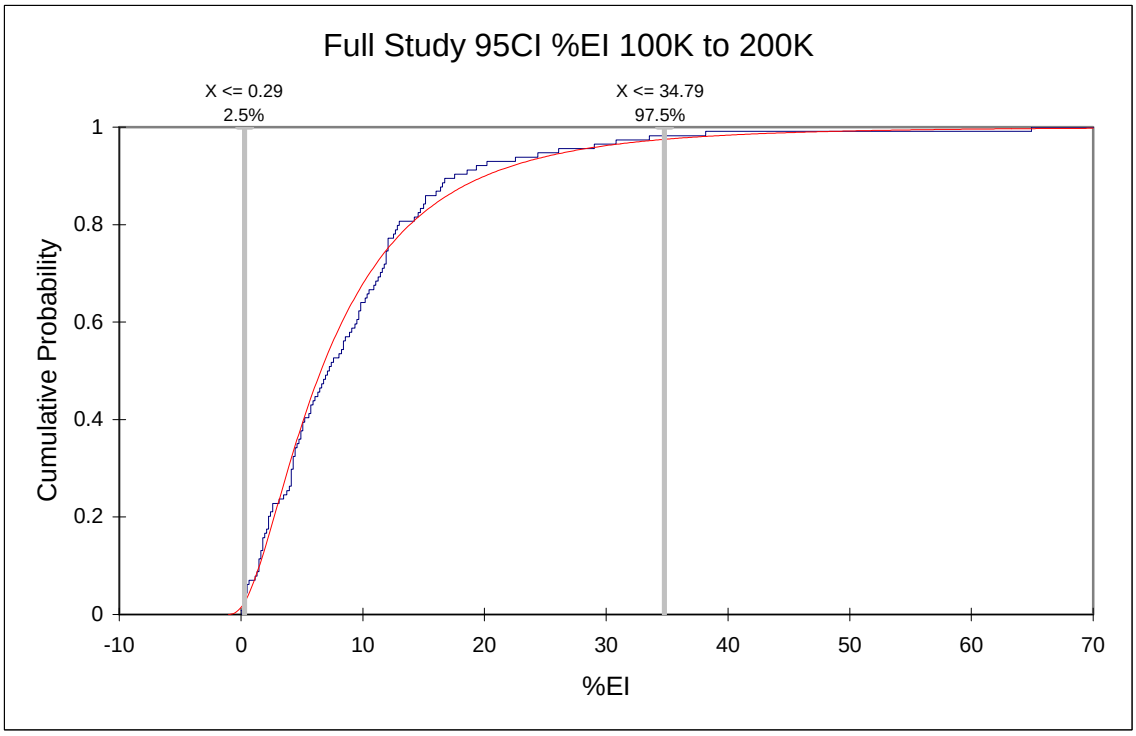

Figure 2 Cumulative density function for %EI for projects $100K to $200K.

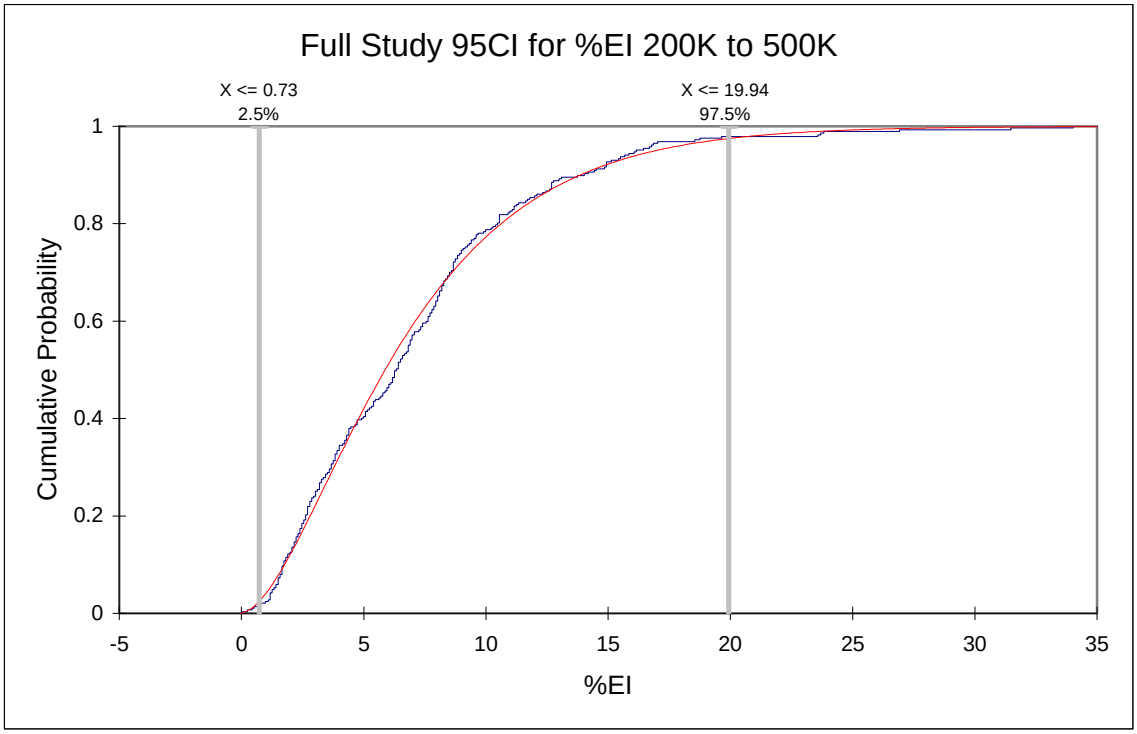

Figure 3 Cumulative density function for %EI for projects $200K to $500K.

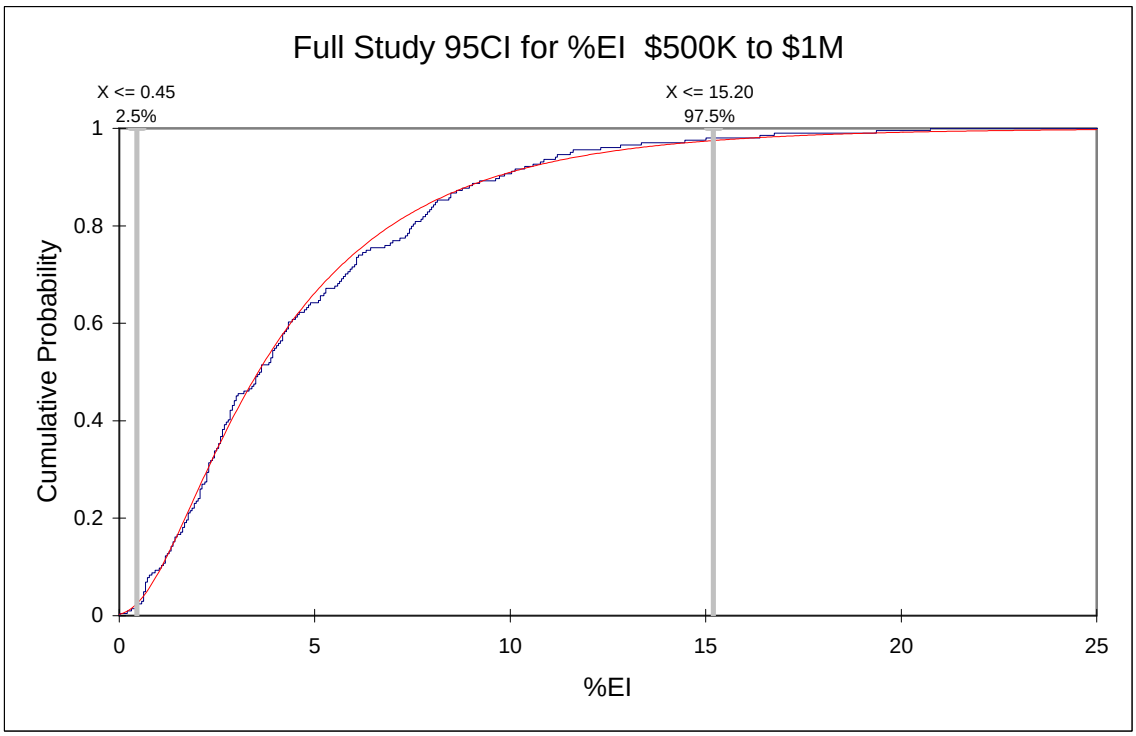

Figure 4 Cumulative density function for %EI for projects $500K to $1M.

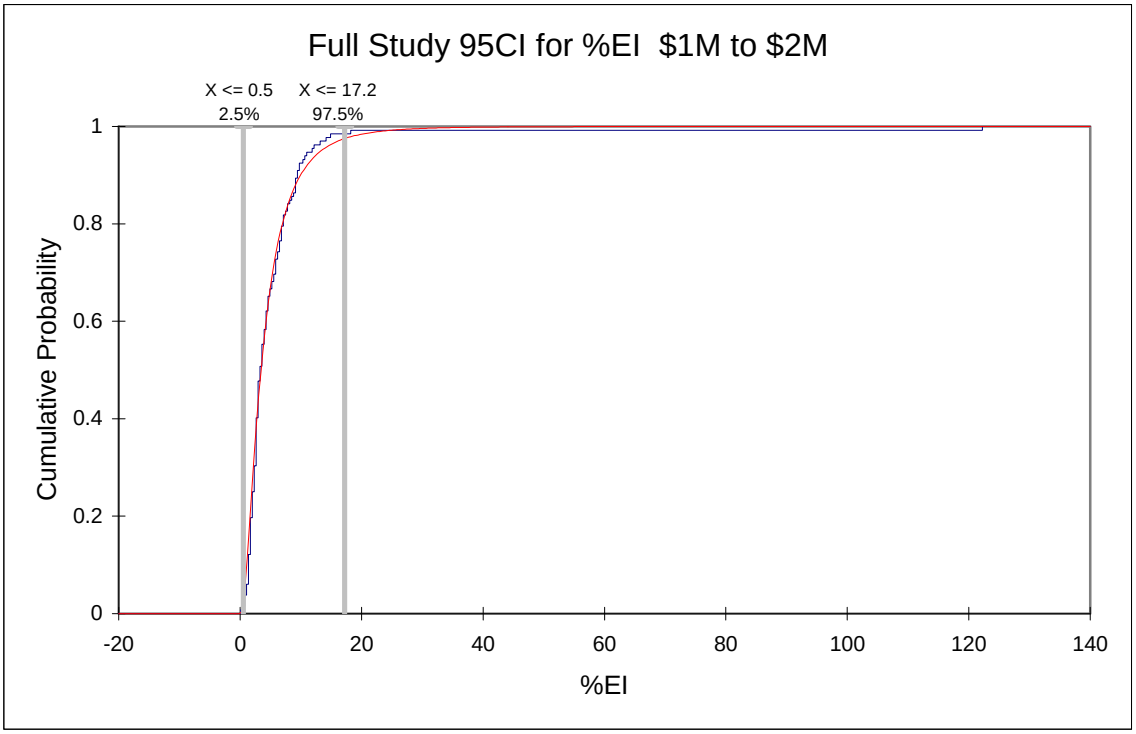

Figure 5 Cumulative density function for %EI for projects $1M to $2M.

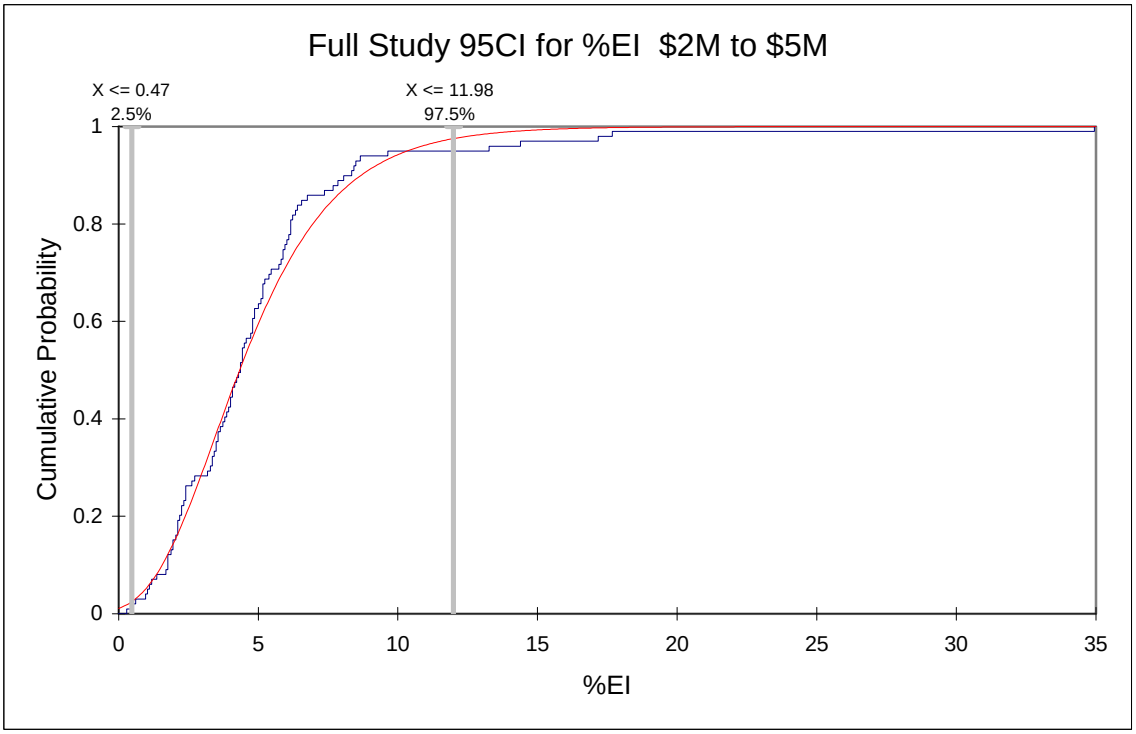

Figure 6 Cumulative density function for %EI for projects $2M to $5M.

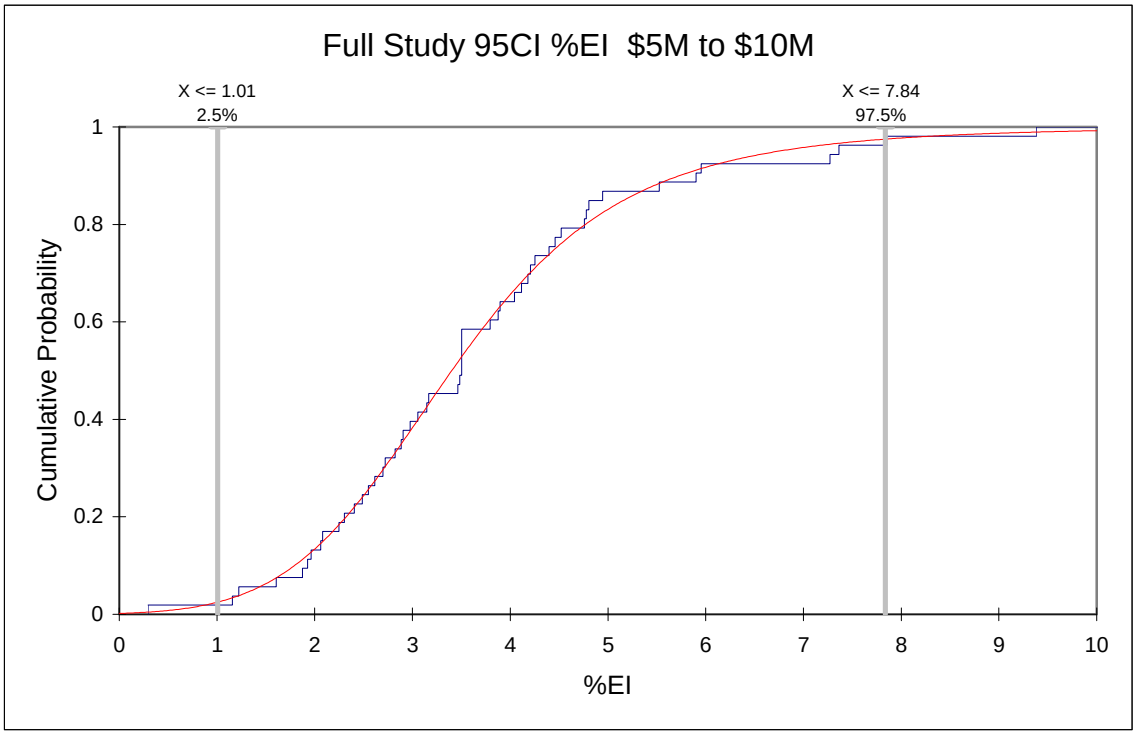

Figure 7 Cumulative density function for %EI for projects $5M to $10M.

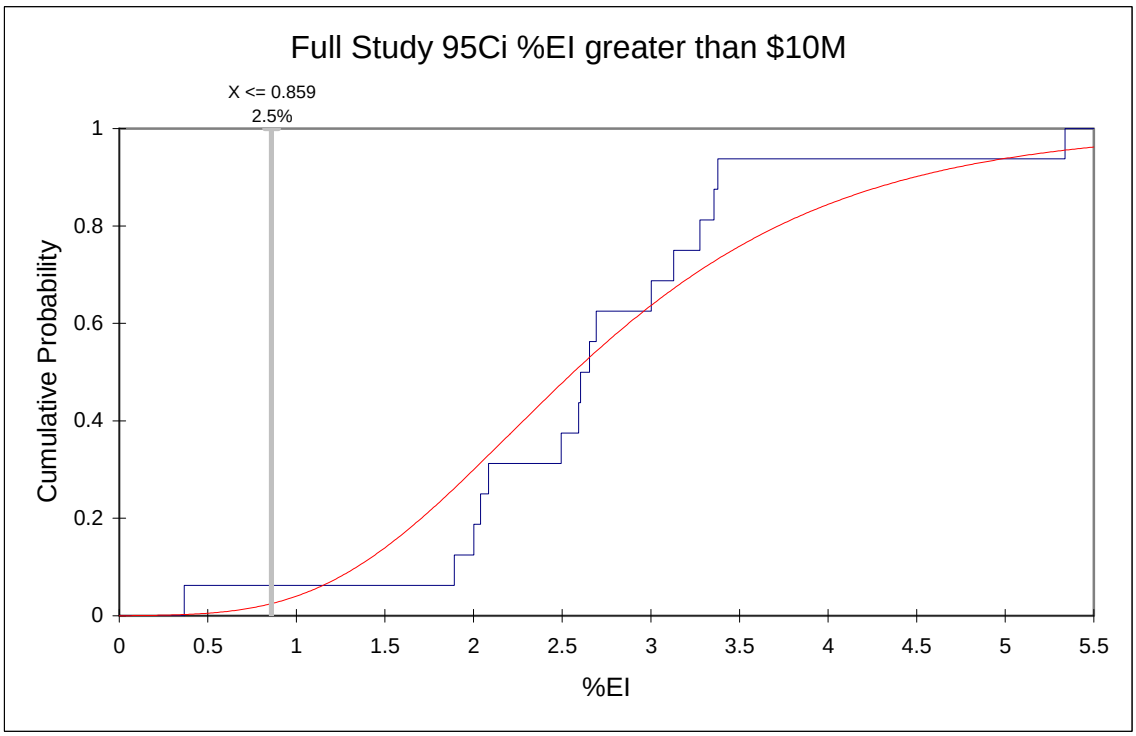

Figure 8 Cumulative density function for %EI for projects >$10M.

This final figure (figure 8) exhibits the worst statistical fit of those presented. This appears to be a function of sample size as well as clustering of the data in the 2 to 3.5 range. Expected cost increases for future projects should add more projects to this subset and may make for better statistical data fits. Figures 9-16 present the corresponding graphs for $/Day determinations while table 3 presents summary statistics for both groups.

Comparisons with the data presented in Table 1 which had not been qualified for outliers show a significant reduction in the standard deviations with minimal sample size reduction. It is felt that fitting statistical distributions to these data sets served the dual purposes of identifying outliers while producing robust data subsets. The data sets illustrating both of the methods eventually employed to determine outliers are available from the authors.

Table 3. Summary Statistics for 95CI Qualified Data Sets by Variables %EI and $/Day

Descriptive Statistics: For %EI Qualified by 95% Confidence Intervals from CDFs

Variable	Total Count	Mean	StDev	Minimum	Q1	Q3	Maximum	Range	IQR
<100K	120	13.23	14.74	0.53	3.55	18.79	74.86	74.33	15.24
100-200K	106	8.599	6.352	0.405	4.056	11.964	30.814	30.409	7.908
200-500K	276	6.724	4.222	0.800	3.133	8.921	19.644	18.844	5.788
500K-1M	195	4.486	3.171	0.569	2.069	6.225	15.004	14.435	4.155
1M-2M	127	4.363	3.132	0.667	2.107	6.218	14.931	14.264	4.112
2M-5M	92	4.278	2.033	0.605	2.388	5.770	9.645	9.040	3.382
5M-10M	50	3.525	1.380	1.159	2.534	4.288	7.362	6.204	1.754
>10M	15	2.835	0.854	1.891	2.085	3.276	5.338	3.447	1.192

Descriptive Statistics: For $/Day Qualified by 95% Confidence Intervals from CDFs

Variable	Total Count	Mean	StDev	Minimum	Q1	Q3	Maximum	Range	IQR
<100K	120	2037	1322	285	1069	2737	6419	6134	1668
100-200K	110	3779	3109	1009	1789	4268	15103	14093	2480
200-500K	271	4654	2911	1656	2634	6027	14530	12874	3394
500K-1M	201	9148	6179	2667	4240	13197	30616	27949	8957
1M-2M	126	12795	7370	3714	7291	17170	32939	29225	9879
2M-5M	94	14363	6455	6602	9585	17339	34951	28348	7754
5M-10M	51	21087	6909	12428	15221	26280	37563	25134	11059
>10M	15	28036	7332	17914	21440	35962	41919	24005	14522

StDev = standard deviation
Q1 = 25th percentile
Q3 = 75th percentile
IQR = intraquartile range, between 25th and 75th percentile

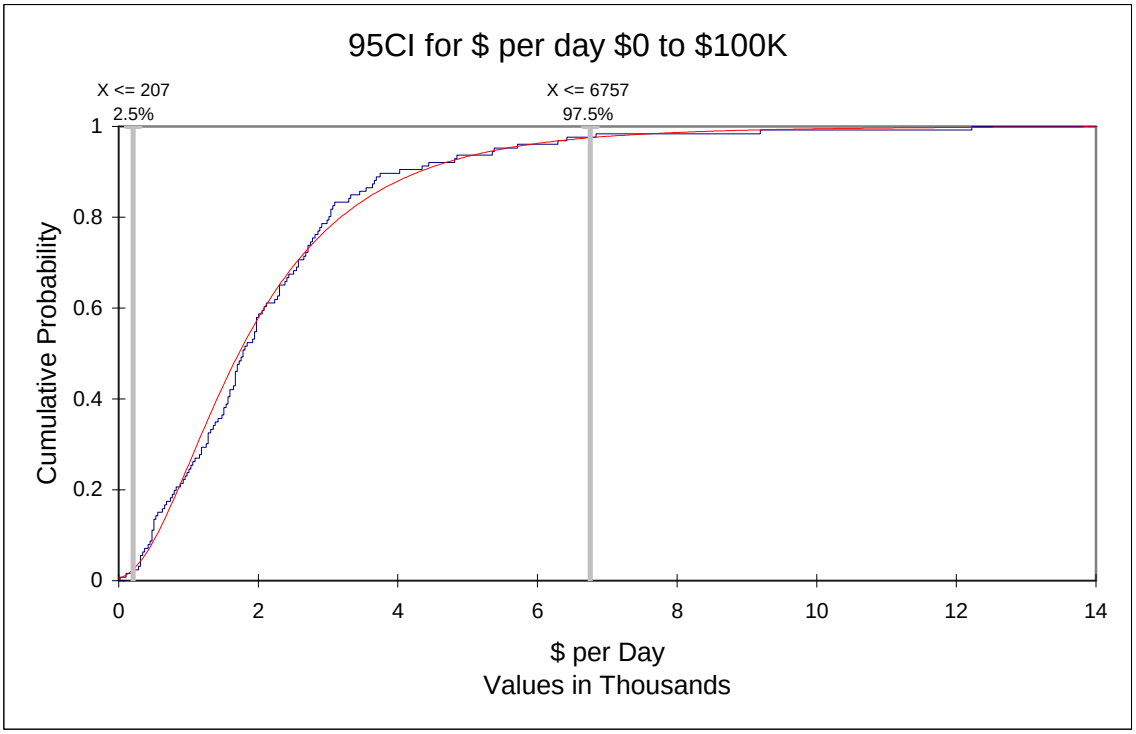

Figure 9 Cumulative density function for $/Day for projects <$100K.

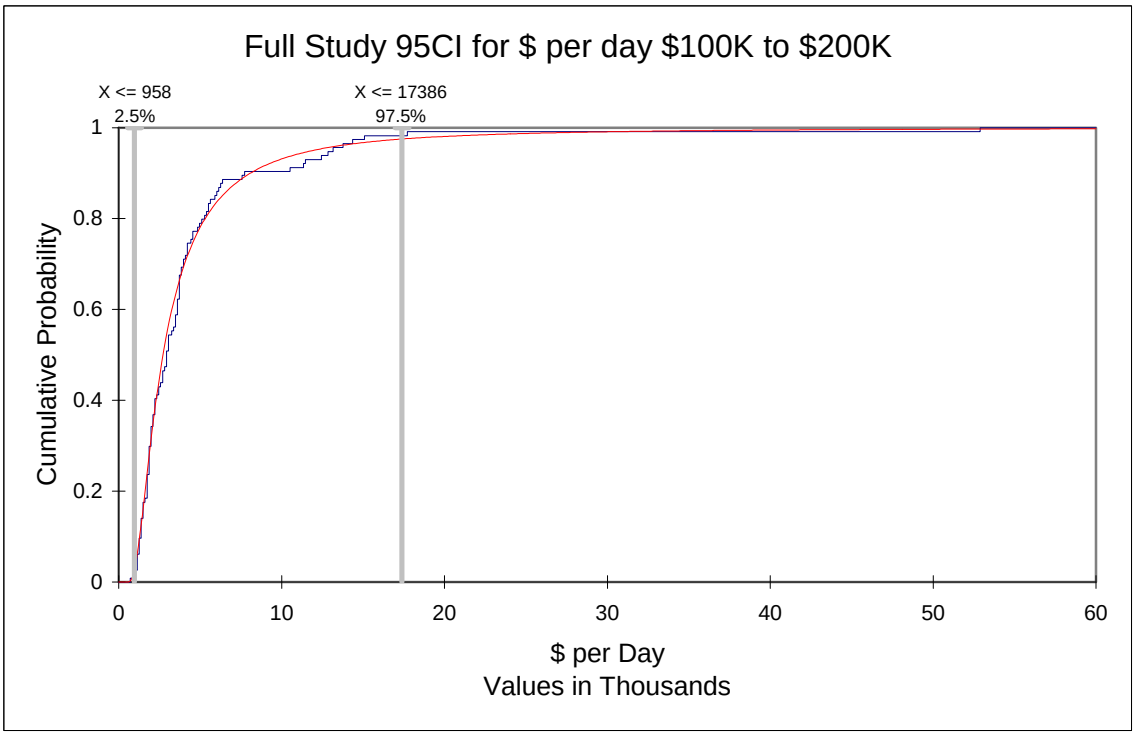

Figure 10 Cumulative density function for $/Day for projects $100K to $200K.

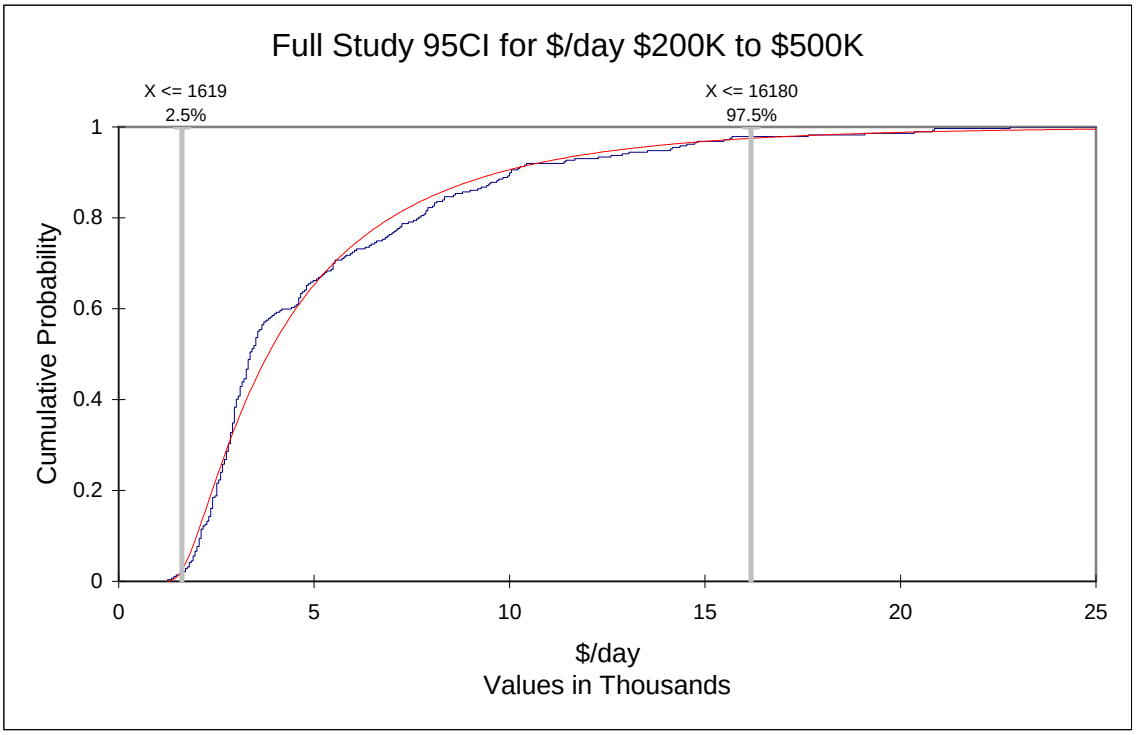

Figure 11 Cumulative density function for $/Day for projects $200K to $500K.

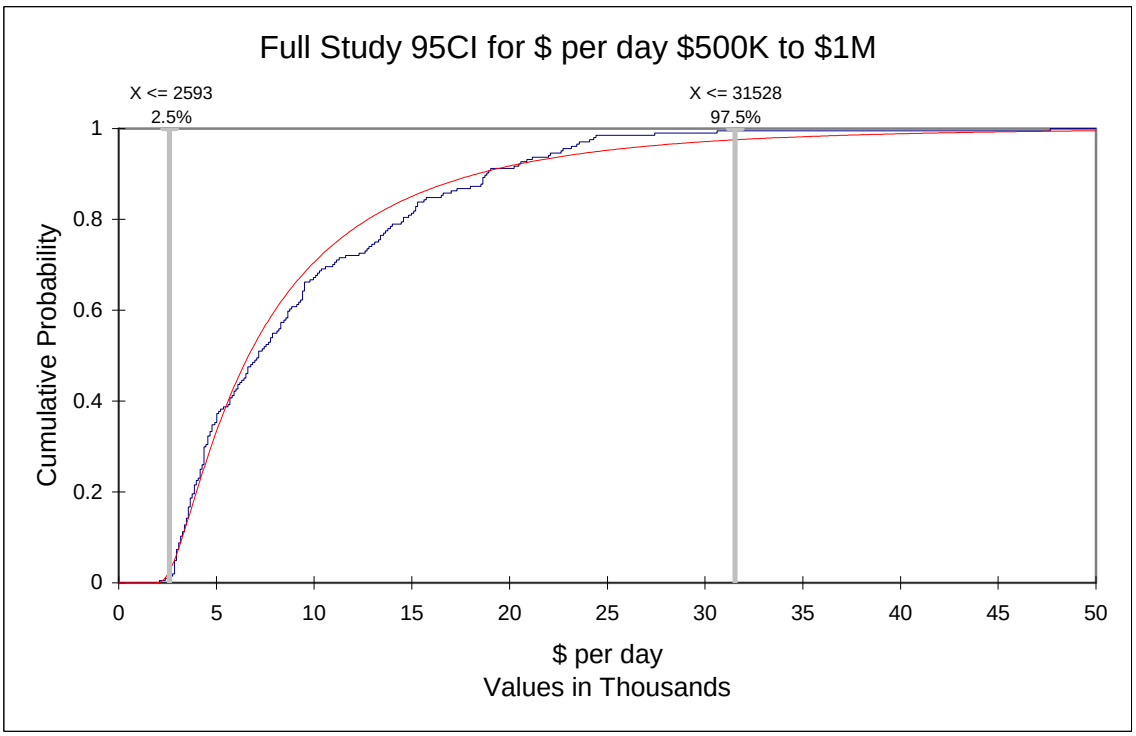

Figure 12 Cumulative density function for $/Day for projects $500K to $1M.

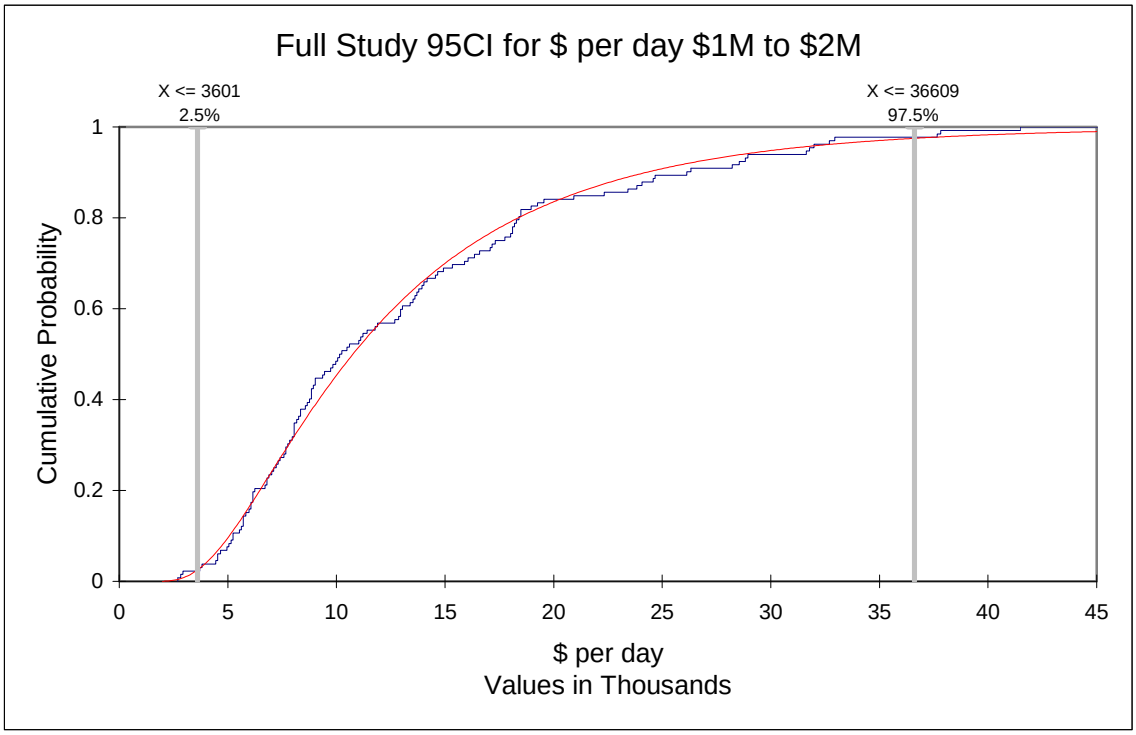

Figure 13 Cumulative density function for $/Day for projects $1M to $2M.

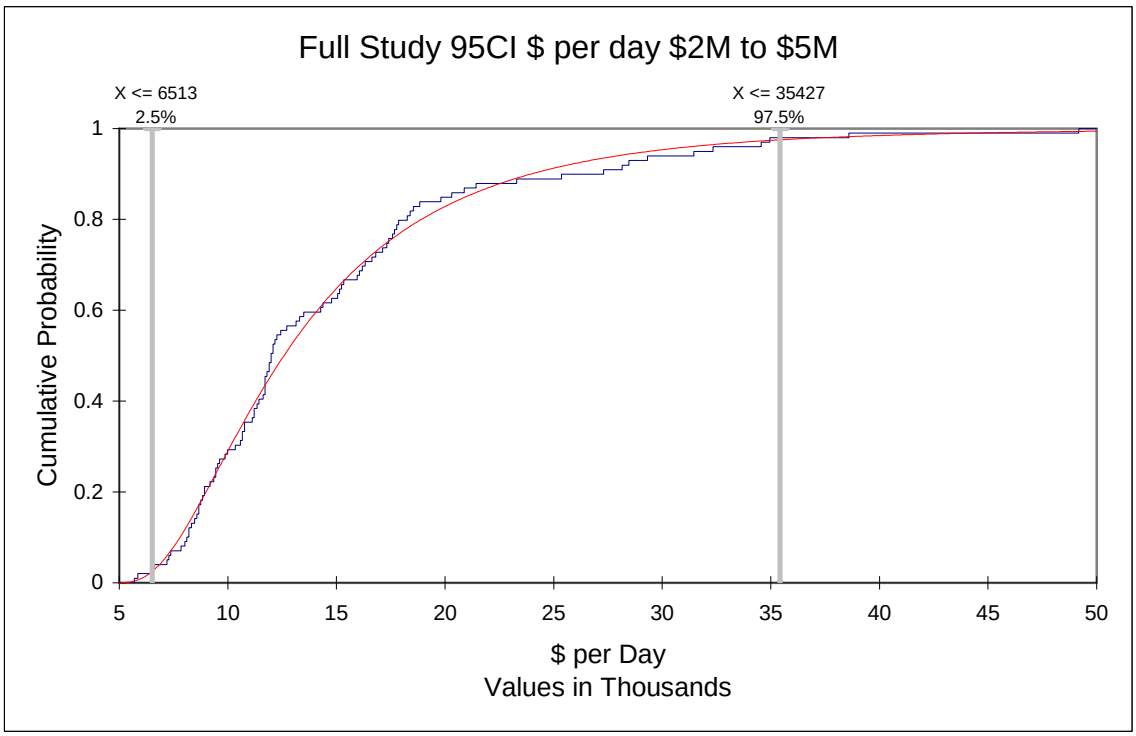

Figure 14 Cumulative density function for $/Day for projects $2M to $5M.

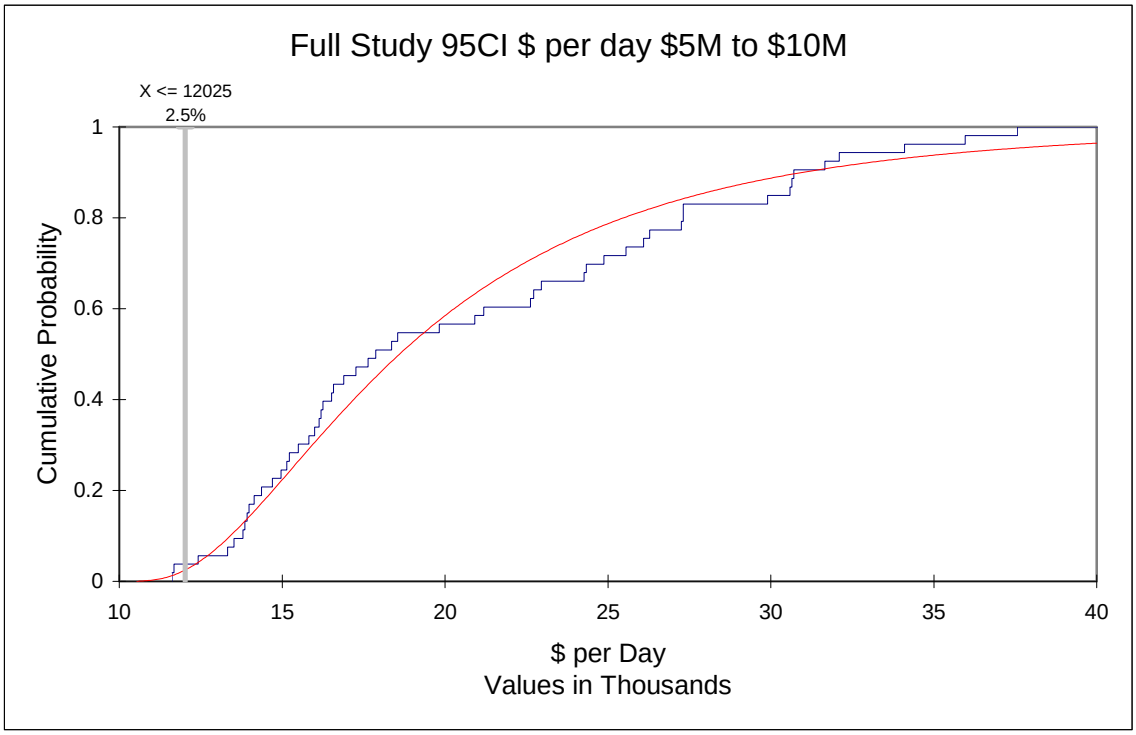

Figure 15 Cumulative density function for $/Day for projects $5M to $10M.

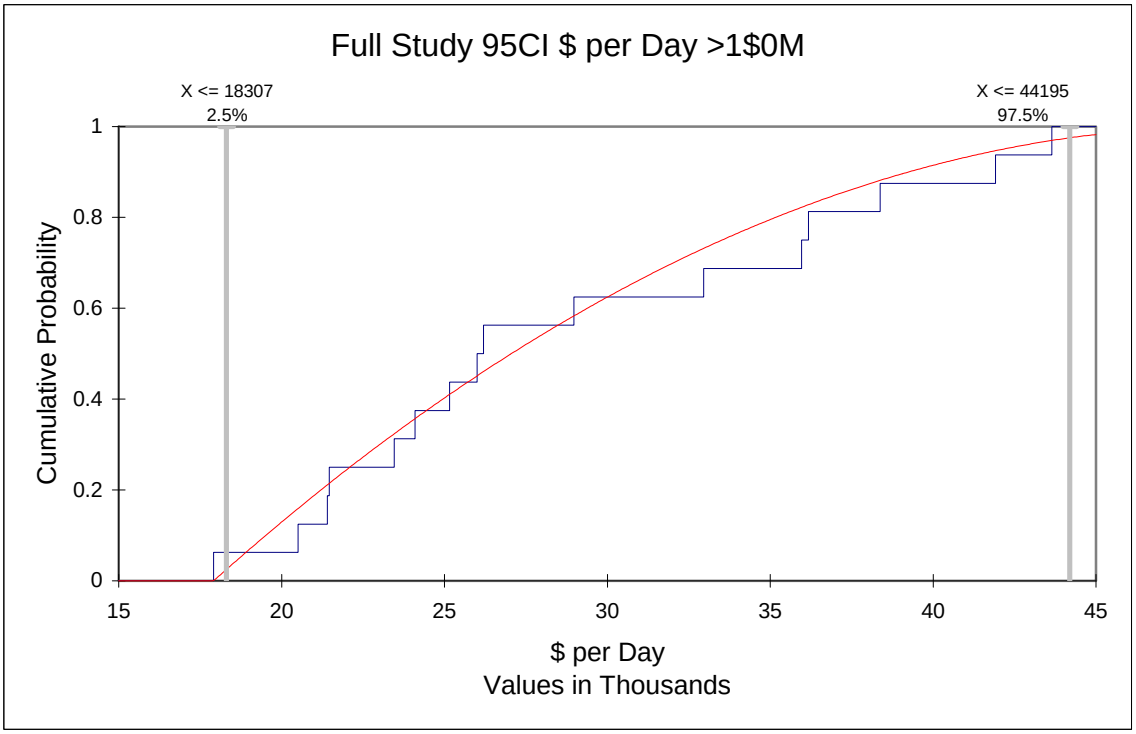

Figure 16 Cumulative density function for $/Day for projects >$10M.

Chapter 3

LIQUIDATED DAMAGE DETERMINATION

COMBINE SIMILAR PROJECT SIZES

The next step in the determination of Liquidated Damages as defined by the Auburn University protocol (3,5) was to evaluate the qualified data sets, minus the outliers, for statistical similarity to each other. If project sized subgroups are statistically similar they can be combined for ease of analysis and to prevent redundancies. Two approaches were used to address these possible similarities:

- Kruskal Wallis H test
- One Way Analysis of Variance (ANOVA)

Each has strengths and weaknesses when applied to the qualified ODOT data. ANOVA assumes that the underlying data are normally distributed; which clearly these data are not. Kruskal Wallis makes no distribution assumptions but is predicated on the assumption that the data are all from the same distribution; which is also clearly incorrect. When the underlying assumptions associated with a statistical model are not fully met the model loses some power. The subsequent results should be viewed in this context.

Both models showed that there were some differences among the project size delineations. Five comparison techniques were employed to differentiate these similarities/ differences:

- Duncan's Multiple Range test
- Duncan-Waller K ratio t-test
- Tukey's Standardized Range test
- Least Significant Difference (t-test)
- Mann-Whitney test

Differences between the results of each of these models were observed and a composite behavior selected. Table 4 presents the original project groupings and the composite groupings based upon %EI and $/Day.

A total of three subgroups were identified using %EI as the evaluation metric while $/Day produced six. It must be stressed that these composites are subjective and that other analysts could develop alternative groupings. Preliminary Liquidated Damages were then determined to be the median (or mean) of the Cost Per Calendar Day (column 3 in Table 1) values in the original ODOT data set subject to outlier qualification and composited project sub-grouping. Final LDs include a conversion from calendar days to

working days. The authors do not know if the data supplied contained ODOTs overhead rate. Therefore, the LDs are based on the original data and might need to be adjusted by the appropriate ODOT overhead rate.

Table 4. Composite Groupings for Liquidated Damages Evaluations

Group	Original	%EI	$ / Day
1	< $100K	< $100K	< $100K
2	$100K - < $200K	$100K - < $500K	$100K - < $500K
3	$200K - <$500K	$500K - ≥ $10M	$500K - < $1M
4	$500K - < $1M		$1M - < $5M
5	$1M - < $2M		$5M - < 10M
6	$2M - < $5M		≥ $10M
7	$5M - < 10M		
8	≥ $10M		

DETERMINATION OF LIQUIDATED DAMAGES

Reduced Groupings

Liquidated Damages for calendar days as well as working days were determined from both previously qualified and grouped data sets. Preliminary LDs were the median or mean of the Cost per Calendar Day data in the resultant data sets. Final LDs could require multiplying preliminary LDs by the appropriate ODOT overhead rate. While both the median and mean are presented a stronger case can be made for using the median in these calculations as the data are typically skewed making the median the better representative of the central value. Tables 5 and 6 present these values based on %EI and $/Day respectively.

Table 5. Preliminary LD Determinations for Calendar Day, %EI Basis

Project Size Grouping	Preliminary LD from Median	Preliminary LD from Mean
<$100K	$143.70	$218.50
$100K-$500K	$224.80	$270.20
$500K->$10M	$386.40	$455.20

Table 6. Preliminary LD Determinations for Calendar Day, $/Day Basis

Project Size Grouping	Preliminary LD from Median	Preliminary LD from Mean
<$100K	$143.70	$217.30
$100K-$500K	$224.30	$277.60
$500K->$1M	$262.90	$335.90
$1M-$5M	$465.60	$541.30
$5M-$10M	$600.80	$738.70
>$10M	$705.20	$713.00

Preliminary LDs based on working days were developed by multiplying the calendar day values presented in Tables 5 and 6 by 7/5ths. Tables 7 and 8 present these Working Day LDs for the %EI data base as well as the $/Day basis, respectively. The results are shown graphically in figures 17 and 18.

Table 7. Preliminary LD Determinations for Working Day, %EI Basis

Project Size Grouping	Preliminary LD from Median	Preliminary LD from Mean
<$100K	$201.18	$305.90
$100K-$500K	$314.72	$378.28
$500K->$10M	$540.96	$637.28

Table 8. Preliminary LD Determinations for Working Day, $/Day Basis

Project Size Grouping	Preliminary LD from Median	Preliminary LD from Mean
<$100K	$201.18	$379.82
$100K-$500K	$314.02	$388.64
$500K->$1M	$368.06	$470.26
$1M-$5M	$651.84	$757.82
$5M-$10M	$841.12	$1034.18
>$10M	$987.28	$998.20

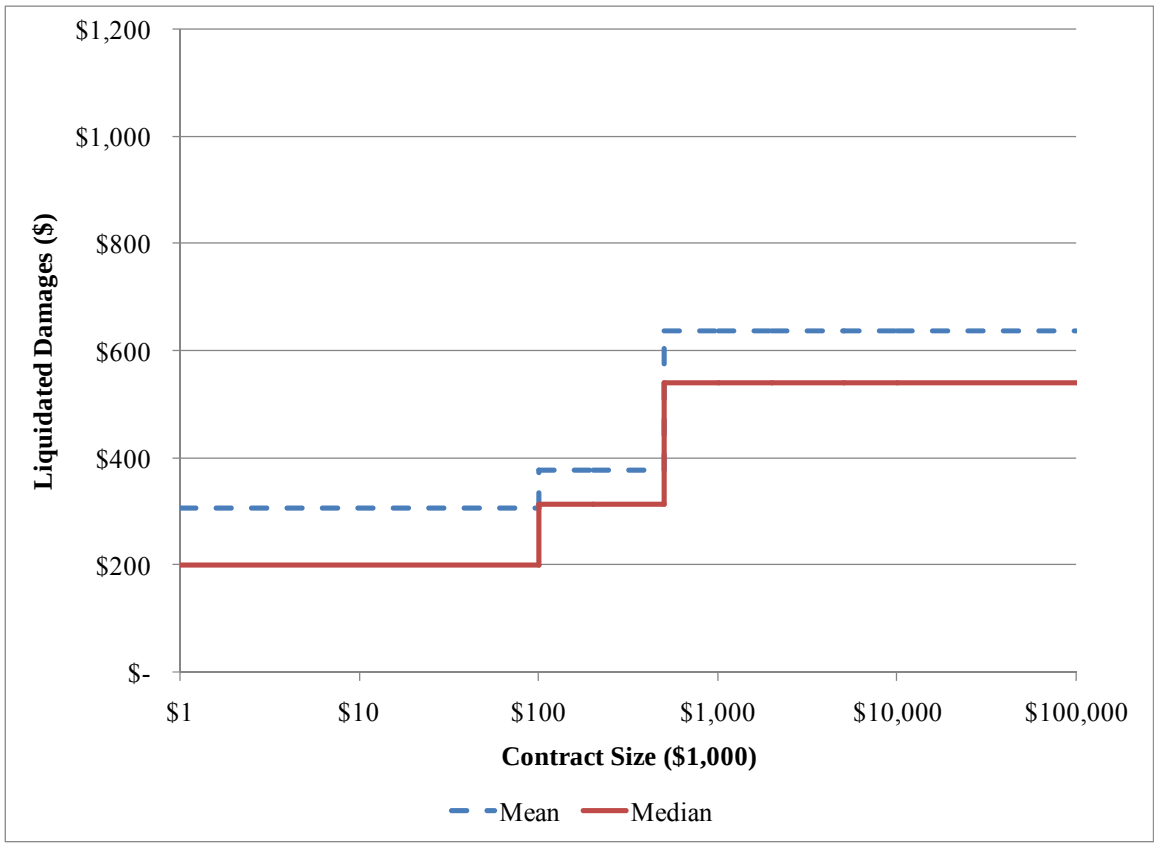

Figure 17 Preliminary LD determinations for working days, %EI basis.

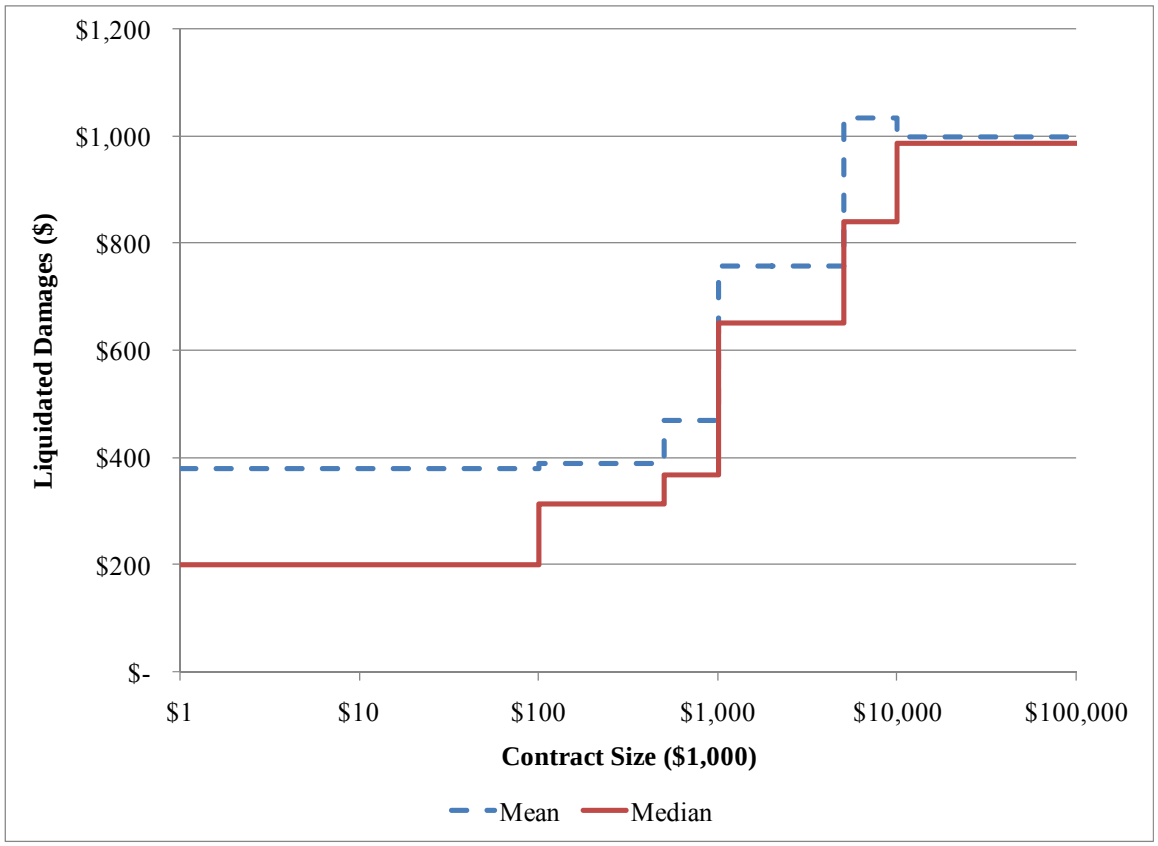

Figure 18 Preliminary LD determinations for working days, $/Day basis.

Original ODOT Groupings

An additional Liquidated Damages determination was made using these same data where all of the original eight project size sub-groupings were used to find Calendar and Working Day values. This was done under the hypothesis that ODOT had a managerial interest in keeping its projects separated by size and the sequence outlined for combining their projects resulted in groupings that could be inconsistent with other agency objectives. The data set used for these determinations had the outliers removed by means of the 95% confidence interval methods previously employed. However, neither Kruskal-Wallis nor ANOVA was used to test similarity/ differences. Liquidated Damages are either the means or medians of each respective sub-group. Tables 9 and 10 present the determinations for calendar days based upon %EI and $/Day respectively, while Tables 11 and 12 present similar information for Working Days. The results for working days are shown graphically in figures 19 and 20.

Table 9. Preliminary LD Determinations for Original Eight Project Size Classifications for Calendar Days, %EI Basis

Project Size Grouping	Preliminary LD from Median	Preliminary LD from Mean
<$100K	$143.70	$218.50
$100K-$200K	$218.30	$258.80
$200K-$500K	$225.80	$274.60
$500K-$1M	$262.90	$320.50
$1M-$2M	$381.90	$466.20
$2M-$5M	$502.40	$544.70
$5M-$10	$599.30	$690.20
>$10M	$723.40	$779.70

Table 10. Preliminary LD Determinations for Original Eight Project Size Classifications for Calendar Days, $/Day Basis

Project Size Grouping	Preliminary LD from Median	Preliminary LD from Mean
<$100K	$143.70	$217.30
$100K-$200K	$217.00	$279.00
$200K-$500K	$226.30	$277.00
$500K-$1M	$262.90	$335.00
$1M-$2M	$380.70	$501.00
$2M-$5M	$507.10	$594.20
$5M-$10	$600.80	$738.70
>$10M	$705.20	$713.00

Table 11. Preliminary LD Determinations for Original Eight Project Size Classifications for Working Days, %EI Basis

Project Size Grouping	Preliminary LD from Median	Preliminary LD from Mean
<$100K	$201.18	$305.90
$100K-$200K	$305.62	$362.32
$200K-$500K	$316.12	$384.44
$500K-$1M	$368.06	$448.70
$1M-$2M	$534.66	$652.86
$2M-$5M	$703.36	$762.58
$5M-$10	$839.02	$966.28
>$10M	$1012.76	$1091.58

Table 12. Preliminary LD Determinations for Original Eight Project Size Classifications for Working Days, $/Day Basis

Project Size Grouping	Preliminary LD from Median	Preliminary LD from Mean
<$100K	$201.18	$304.22
$100K-$200K	$303.80	$390.60
$200K-$500K	$316.82	$387.80
$500K-$1M	$368.06	$470.26
$1M-$2M	$532.98	$702.66
$2M-$5M	$709.94	$831.88
$5M-$10	$841.12	$1034.18
>$10M	$987.28	$998.20

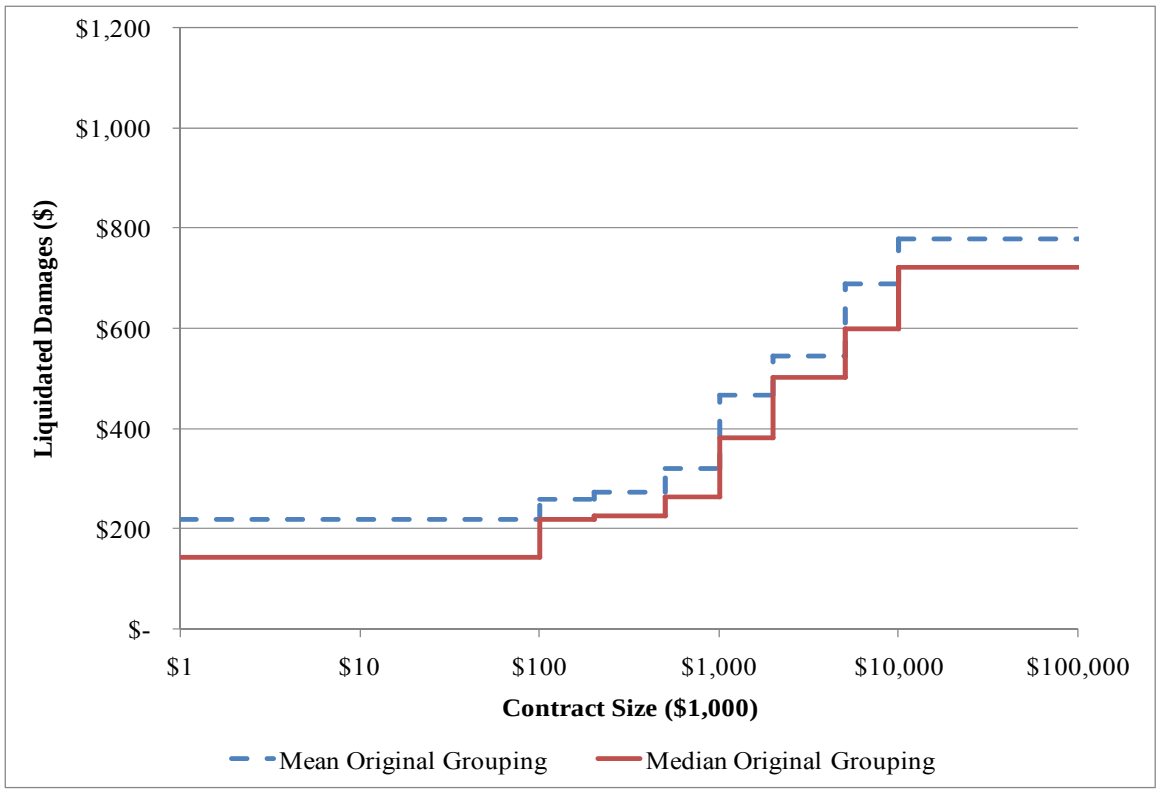

Figure 19 Preliminary LD determinations for working days, original groupings, %EI basis.

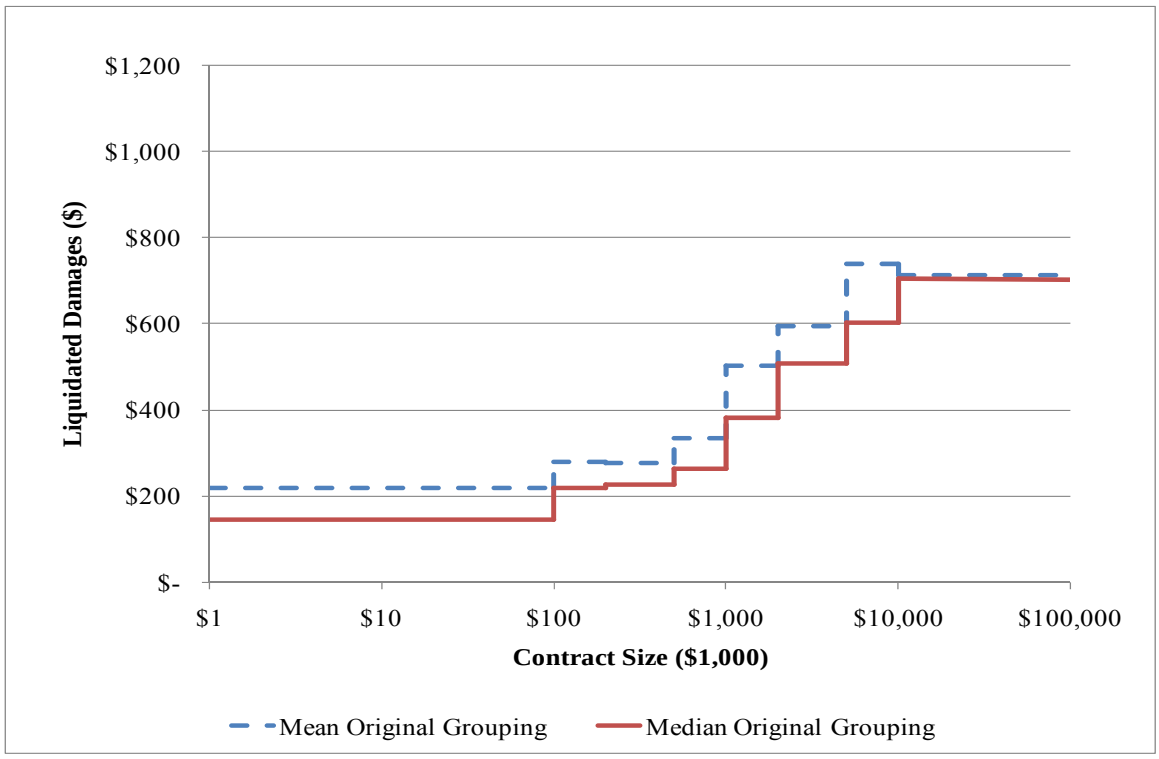

Figure 20 Preliminary LD determinations for working days, original groupings, $/Day basis.

A cursory review of the entries in Tables 11 and 12 shows that the calculated Liquidated Damages for all eight project sized groupings were very similar to those that resulted from combining projects according to statistical similarities. Figures 21 and 22 show a comparison of the calculated preliminary Liquidated Damages for the grouped data and the original eight project size groupings for %EI and $/Day, respectively.

Additional discussion relative to this observation will follow in the conclusions sections of this report but ODOT may wish to maintain all of these project size groupings to allow for flexibility in administration and closer accountability than is possible on the smaller subsets of either 3 or 6 subgroups.

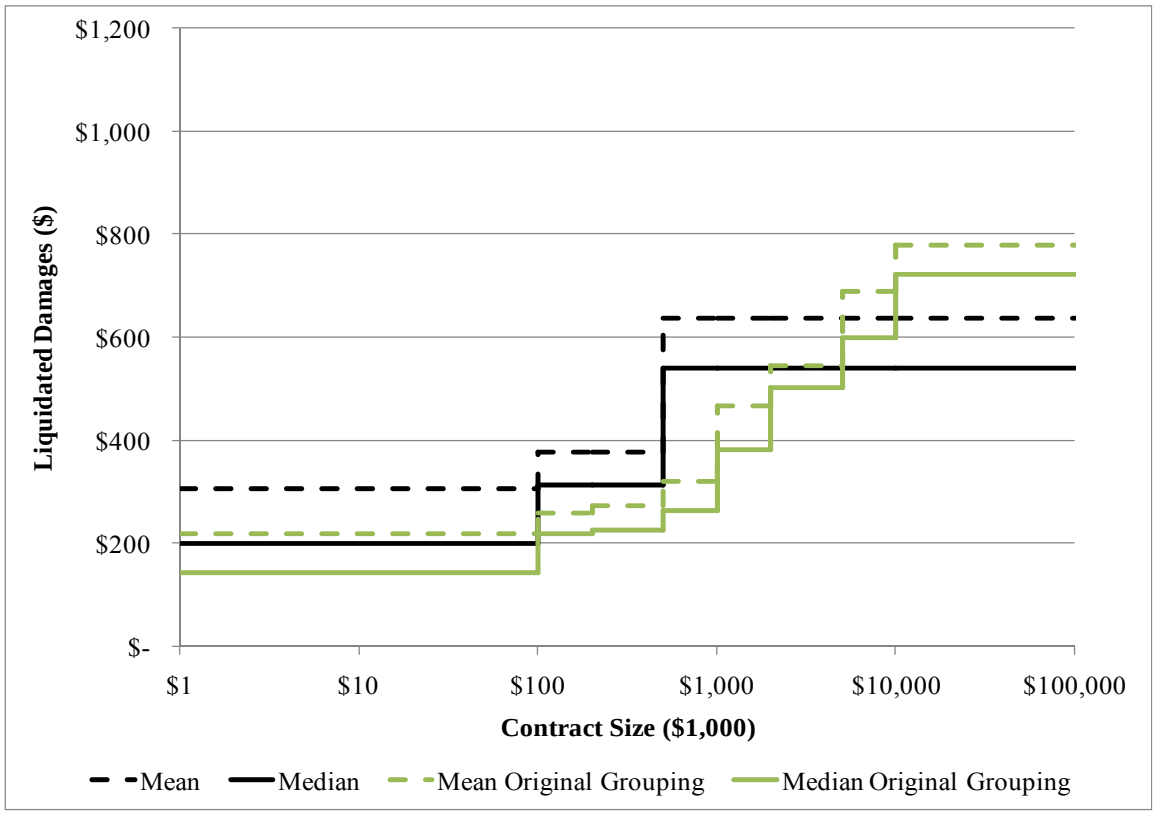

Figure 21 Comparison of preliminary LD determinations for working days, %EI basis.

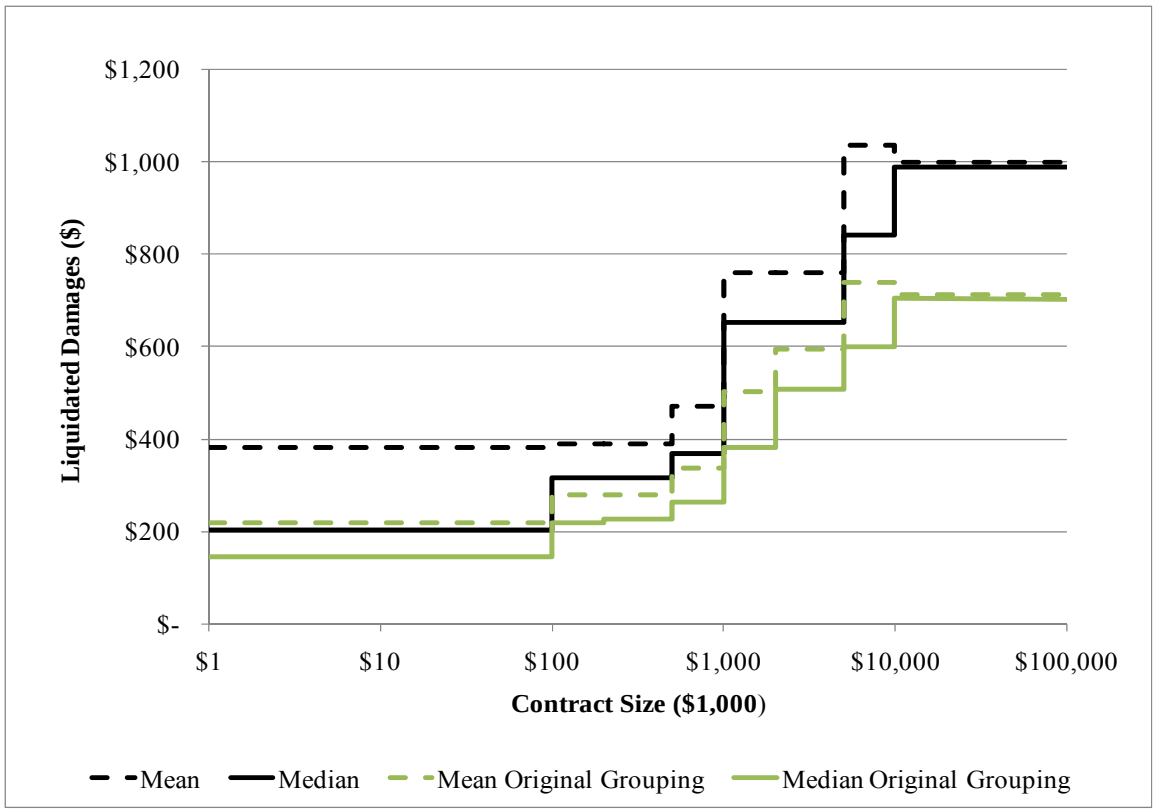

Figure 22 Comparison of preliminary LD determinations for working days, $/Day basis.

Chapter 4

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

1. It is unknown by the authors whether the ODOT provided data set contained the appropriate overhead rate. Therefore, LDs are identified as preliminary and may need to be multiplied by ODOT's overhead rate.
2. The ODOT provided data set was divided into eight subsets based on project sizes.
3. The Auburn University measurement variables %EI and $/Day were generated from the ODOT data.
4. Outliers for each project size were determined by fitting a cumulative statistical distribution for each of the Auburn measurement variables.
5. Outliers were classified as those with probabilities >97.5% and <2.5%.
6. Kruskal-Wallis and a One-Way ANOVA were used to determine if the original eight project sizes could be grouped together into a smaller number. A series of multiple comparison tests were employed to identify which groups were similar. There was some uncertainty in these classifications.
7. The means and medians of the original ODOT variable "Cost per Calendar Day" were determined on the grouped, qualified data. Alternatively these are the liquidated damages for the various project size groupings.
8. Kruskal-Wallis and a One-Way ANOVA were used to determine if the original eight project sizes could be grouped together into a smaller number. A series of multiple comparison tests were employed to identify which groups were similar. Of the eight original groupings, three groupings were identified using the metric %EI and six were indentified using $/Day.
9. The median values resulted in more consistent LDs across the groupings and, due to the typically skewed data, are a better representation of the central value of each group than the mean.

RECOMMENDATIONS

Below are the recommended sequences of actions for biannually determining Liquidated Damages:

1. Visually examine all data for any noticeable abnormalities. Exclude them.
2. Group data by project size in a manner consistent with the agency's management objectives.
3. Use Auburn University's measurement parameters: %EI and $/Day to characterize the data sets.
4. Within each project size determine the central 95% of the data. For this effort a statistical distribution was fitted to the respective data and the central 95% determined. Alternative approaches are also possible.

5. Test statistically by application of either or both the Kruskal-Wallis or One Way Analysis of Variance (ANOVA) to determine whether the project groupings contain similar data.
6. If similarities exist, use various multiple comparison tests to determine which groupings are similar. For this effort %EI produced a total of three overall groups while $/Day generated six. Alternatively, ODOT could use the entire project groupings produced in step 2 if their management objectives were better met by having consistent management groups.
7. Within each of these combined groupings or in the original number of project designations, the ODOT classification "Cost per Calendar Day" is then used in the qualified data sets.
8. The means and the medians of the respective, qualified "Cost per Calendar Day" are then calculated. These values times an appropriate overhead rate are the calendar day liquidated damages (LD).
9. Working day liquidated damages are determined by multiplying these calendar day determinations by 1.40 (7/5^{ths}).
10. For this effort the medians produced a more consistent LD calculation.

Based on the analysis performed on the ODOT data set, the following Preliminary Liquidated Damage rates were obtained for calendar days and working days based on median values from the qualified data set using the metric $/Day for six contract size groupings (table 15) and from median values from the qualified data set using the original eight groupings for %EI and $/Day (table 16). To determine a final LD rate it may be necessary to multiply the preliminary LDs by the appropriate ODOT overhead rate. Working days are 1.4 (7/5) times calendar days.

Table 15. Median Preliminary Liquidated Damages, $/Day Metric

	Liquidated Damages	
Grouping	**Calendar Days**	**Working Days**
<$100 K	$143.70	$201.18
$100 K- $500 K	$224.30	$314.02
$500 K - $1 M	$262.90	$368.06
$1 M - $5 M	$465.60	$651.84
$5 M - $10 M	$600.80	$841.12
> $10M	$705.20	$987.28

Table 16. Median Preliminary Liquidated Damages, Original Groupings

	%EI Metric		$/Day Metric	
Grouping	**Calendar Days**	**Working Days**	**Calendar Days**	**Working Days**
<$100 K	$143.70	$201.18	$143.70	$201.18
$100 K- $200 K	$218.30	$305.62	$217.00	$303.80
$200 K- $500 K	$225.80	$316.12	$226.30	$316.82
$500 K - $1 M	$262.90	$368.06	$262.90	$368.06
$1 M - $2 M	$381.90	$534.66	$380.70	$532.98
$2 M - $5 M	$502.40	$703.36	$507.10	$709.94
$5 M - $10 M	$599.30	$839.02	$600.80	$841.12
> $10M	$723.40	$1012.76	$705.20	$987.28

REFERENCES

1. U.S. Code of Federal Regulations, 23 CFR 635.127. www.access.gpo.gov/ nara/cfr/waisidx_00/23cfr635_00.html. Accessed July 2008.
2. Crowley, L.G., W.C. Zech, C. Bailey and P. Gujar. "Liquidated Damages: Review of Current State of the Practice." *ASCE Journal of Professional Issues in Engineering Education and Practice, Vol. 121, No. 4*, October 2008, pp. 383-390.
3. Zech, Wesley C., Larry G. Crowley and Clark B. Bailey. *Development of a Procedure for Updating Liquidated Damage Rates Used in ALDOT's Construction Contracts.* Final Report, Project Number: 930-656, Highway Research Center, Department of Civil Engineering, Auburn University, Auburn University, Alabama, October 2008.
4. Lapin, Lawrence L. *Probability and Statistics for Modern Engineering*, Second Edition. Waveland Press, Inc., Prospect Heights, Illinois, 1990.
5. Zech, Wesley C., Clark B. Bailey and Larry G. Crowley. "Robust Determination of Liquidated Damage Rates for State Highway Agencies." *Transportation Research Record No. 2081*, Journal of the Transportation Research Board of the National Academies, Washington, D.C., 2008, pp. 65-73.
6. Zech, Wesley C. "Evaluation and Assessment of Liquidated Damages (LDs)." Presentation to 2007 AASHTO Construction Conference in Biloxi, MS, July 31, 2007.

APPENDIX

Table A-1. Data Set for Projects >$10,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$10,276,919.69	480	$347,230.66	$723.40	3.38	$21,410.25
$10,390,249.10	580	$554,621.04	$956.24	5.34	$17,914.22
$11,300,071.95	390	$226,114.24	$579.78	2.00	$28,974.54
$11,470,281.25	535	$304,548.61	$569.25	2.66	$21,439.78
$11,511,846.71	300	$287,141.59	$957.14	2.49	$38,372.82
$11,566,460.58	480	$299,990.23	$624.98	2.59	$24,096.79
$11,577,798.45	320	$347,738.76	$1,086.68	3.00	$36,180.62
$11,586,914.19	565	$388,844.41	$688.22	3.36	$20,507.81
$11,788,588.60	450	$317,336.31	$705.19	2.69	$26,196.86
$13,000,018.80	500	$270,990.26	$541.98	2.08	$26,000.04
$14,074,840.26	600	$461,147.29	$768.58	3.28	$23,458.07
$18,615,595.89	740	$352,024.60	$475.71	1.89	$25,156.21
$22,476,748.86	515	$583,237.82	$1,132.50	2.59	$43,644.17
$23,069,959.23	700	$721,801.05	$1,031.14	3.13	$32,957.08
$26,409,197.67	630	$538,585.43	$854.90	2.04	$41,919.36
$28,446,012.54	791	$104,040.80	$131.53	0.37	$35,962.09

Table A-2. Data Set for Projects $5,000,000 – $10,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$5,066,711.17	300	$211,749.20	$705.83	4.18	$16,889.04
$5,081,301.64	365	$242,196.47	$663.55	4.77	$13,921.37
$5,114,266.63	348	$133,643.84	$384.03	2.61	$14,696.17
$5,154,638.74	260	$148,952.99	$572.90	2.89	$19,825.53
$5,254,740.25	450	$382,144.26	$849.21	7.27	$11,677.20
$5,428,276.05	240	$165,817.95	$690.91	3.05	$22,617.82
$5,449,622.81	330	$220,289.62	$667.54	4.04	$16,514.01
$5,453,626.51	390	$147,259.03	$377.59	2.70	$13,983.66
$5,462,273.48	365	$154,230.57	$422.55	2.82	$14,965.13
$5,472,739.82	220	$105,378.72	$478.99	1.93	$24,876.09
$5,484,450.47	340	$67,181.12	$197.59	1.22	$16,130.74
$5,525,251.40	365	$174,889.50	$479.15	3.17	$15,137.68
$5,592,792.32	450	$195,618.73	$434.71	3.50	$12,428.43
$5,627,613.97	165	$442,005.43	$2,678.82	7.85	$34,106.75
$5,634,378.70	150	$65,276.69	$435.18	1.16	$37,562.52
$5,667,678.93	342	$220,314.58	$644.19	3.89	$16,572.16
$5,696,599.19	360	$169,560.51	$471.00	2.98	$15,823.89
$5,720,390.62	270	$421,161.70	$1,559.86	7.36	$21,186.63
$5,746,005.02	400	$276,153.21	$690.38	4.81	$14,365.01
$5,778,237.90	180	$92,836.31	$515.76	1.61	$32,101.32
$5,813,618.66	430	$244,638.66	$568.93	4.21	$13,520.04
$5,932,887.81	365	$207,095.72	$567.39	3.49	$16,254.49
$5,939,863.64	420	$161,155.57	$383.70	2.71	$14,142.53
$5,997,013.54	450	$254,968.04	$566.60	4.25	$13,326.70
$6,045,147.95	390	$211,000.41	$541.03	3.49	$15,500.38
$6,058,852.91	330	$299,645.67	$908.02	4.95	$18,360.16
$6,392,692.72	420	$159,026.62	$378.63	2.49	$15,220.70
$6,393,739.58	245	$132,030.45	$538.90	2.06	$26,096.90
$6,447,575.29	265	$283,457.95	$1,069.65	4.40	$24,330.47
$6,553,673.95	270	$147,321.24	$545.63	2.25	$24,272.87
$6,676,722.00	360	$232,718.67	$646.44	3.49	$18,546.45
$6,897,245.45	500	$283,908.61	$567.82	4.12	$13,794.49
$6,899,427.18	270	$142,236.26	$526.80	2.06	$25,553.43
$6,900,837.45	330	$328,368.87	$995.06	4.76	$20,911.63

Table A-2 (Con't.). Data Set for Projects $5,000,000 – $10,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$6,969,059.52	390	$270,071.36	$692.49	3.88	$17,869.38
$7,358,054.99	240	$169,474.91	$706.15	2.30	$30,658.56
$7,358,426.49	270	$137,860.80	$510.60	1.87	$27,253.43
$7,408,182.24	420	$695,028.23	$1,654.83	9.38	$17,638.53
$7,465,182.22	540	$332,856.89	$616.40	4.46	$13,824.41
$7,553,666.86	210	$262,028.85	$1,247.76	3.47	$35,969.84
$7,575,005.12	330	$218,577.89	$662.36	2.89	$22,954.56
$7,597,038.83	240	$452,347.83	$1,884.78	5.95	$31,654.33
$7,884,038.42	300	$356,327.83	$1,187.76	4.52	$26,280.13
$8,067,343.11	500	$445,692.14	$891.38	5.52	$16,134.69
$8,192,154.56	300	$257,693.95	$858.98	3.15	$27,307.18
$8,263,095.35	270	$24,322.49	$90.08	0.29	$30,604.06
$8,292,286.30	365	$314,782.01	$862.42	3.80	$22,718.59
$8,363,602.30	720	$292,367.53	$406.07	3.50	$11,616.11
$8,635,826.24	540	$220,144.74	$407.68	2.55	$15,992.27
$8,970,663.74	300	$215,677.45	$718.92	2.40	$29,902.21
$9,176,252.14	300	$180,242.20	$600.81	1.96	$30,587.51
$9,492,030.55	550	$328,758.44	$597.74	3.46	$17,258.24
$9,819,861.28	360	$579,573.19	$1,609.93	5.90	$27,277.39

Table A-3. Data Set for Projects $2,000,000 – $5,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$2,015,900.37	310	$102,604.64	$330.98	5.09	$6,502.90
$2,055,327.93	120	$43,464.81	$362.21	2.11	$17,127.73
$2,073,310.32	127	$49,705.29	$391.38	2.40	$16,325.28
$2,075,451.96	365	$119,144.42	$326.42	5.74	$5,686.17
$2,077,623.55	201	$85,306.22	$424.41	4.11	$10,336.44
$2,078,117.29	120	$6,017.59	$50.15	0.29	$17,317.64
$2,111,690.02	120	$39,632.40	$330.27	1.88	$17,597.42
$2,135,249.60	75	$28,977.90	$386.37	1.36	$28,469.99
$2,149,789.68	200	$158,519.61	$792.60	7.37	$10,748.95
$2,172,273.98	300	$288,171.84	$960.57	13.27	$7,240.91
$2,198,088.54	235	$211,997.90	$902.12	9.64	$9,353.57
$2,214,140.30	250	$135,315.47	$541.26	6.11	$8,856.56
$2,222,746.90	210	$107,450.05	$511.67	4.83	$10,584.51
$2,229,911.94	310	$320,835.95	$1,034.95	14.39	$7,193.26
$2,233,549.00	110	$13,515.64	$122.87	0.61	$20,304.99
$2,259,369.27	240	$182,086.10	$758.69	8.06	$9,414.04
$2,261,143.92	120	$21,650.73	$180.42	0.96	$18,842.87
$2,281,870.32	90	$24,538.36	$272.65	1.08	$25,354.11
$2,328,356.91	175	$100,843.59	$576.25	4.33	$13,304.90
$2,329,804.13	100	$22,657.10	$226.57	0.97	$23,298.04
$2,347,272.17	210	$104,260.07	$496.48	4.44	$11,177.49
$2,368,430.33	240	$79,028.88	$329.29	3.34	$9,868.46
$2,370,996.30	270	$199,665.06	$739.50	8.42	$8,781.47
$2,388,123.03	200	$161,339.84	$806.70	6.76	$11,940.62
$2,405,926.90	135	$96,087.56	$711.76	3.99	$17,821.68
$2,406,874.21	300	$143,799.67	$479.33	5.97	$8,022.91
$2,418,692.79	280	$142,202.05	$507.86	5.88	$8,638.19
$2,420,431.10	414	$153,170.62	$369.98	6.33	$5,846.45
$2,429,772.40	180	$66,223.17	$367.91	2.73	$13,498.74
$2,434,665.65	300	$52,046.95	$173.49	2.14	$8,115.55
$2,439,459.42	300	$431,100.36	$1,437.00	17.67	$8,131.53
$2,441,671.40	210	$150,381.13	$716.10	6.16	$11,627.01
$2,458,423.00	50	$51,520.26	$1,030.41	2.10	$49,168.46
$2,460,000.00	210	$212,798.93	$1,013.33	8.65	$11,714.29

Table A-3 (Con't.). Data Set for Projects $2,000,000 – $5,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$2,494,497.55	150	$51,147.23	$340.98	2.05	$16,629.98
$2,520,219.23	150	$91,673.88	$611.16	3.64	$16,801.46
$2,535,748.40	270	$211,784.77	$784.39	8.35	$9,391.66
$2,546,669.70	210	$127,294.20	$606.16	5.00	$12,127.00
$2,640,913.65	400	$453,540.25	$1,133.85	17.17	$6,602.28
$2,659,787.30	180	$54,538.96	$302.99	2.05	$14,776.60
$2,670,615.29	300	$143,850.75	$479.50	5.39	$8,902.05
$2,677,863.00	365	$127,604.51	$349.60	4.77	$7,336.61
$2,831,247.00	90	$62,719.09	$696.88	2.22	$31,458.30
$2,857,600.65	240	$126,303.00	$526.26	4.42	$11,906.67
$2,859,151.99	200	$224,481.00	$1,122.41	7.85	$14,295.76
$2,881,653.54	300	$188,836.66	$629.46	6.55	$9,605.51
$2,894,470.00	75	$69,035.12	$920.47	2.39	$38,592.93
$2,931,001.78	365	$122,631.22	$335.98	4.18	$8,030.14
$2,987,786.30	280	$127,333.74	$454.76	4.26	$10,670.67
$3,036,844.03	365	$188,016.11	$515.11	6.19	$8,320.12
$3,054,034.01	260	$257,397.79	$989.99	8.43	$11,746.28
$3,091,097.80	365	$121,289.46	$332.30	3.92	$8,468.76
$3,130,130.00	365	$180,929.14	$495.70	5.78	$8,575.70
$3,163,105.09	270	$185,813.36	$688.20	5.87	$11,715.20
$3,164,253.31	180	$100,891.09	$560.51	3.19	$17,579.19
$3,214,306.47	150	$75,069.45	$500.46	2.34	$21,428.71
$3,248,153.77	270	$206,389.50	$764.41	6.35	$12,030.20
$3,276,934.83	120	$55,907.84	$465.90	1.71	$27,307.79
$3,293,622.29	289	$125,179.70	$433.15	3.80	$11,396.62
$3,296,568.86	330	$108,467.78	$328.69	3.29	$9,989.60
$3,337,926.65	180	$87,635.01	$486.86	2.63	$18,544.04
$3,357,880.42	300	$202,774.82	$675.92	6.04	$11,192.93
$3,395,568.94	105	$15,025.10	$143.10	0.44	$32,338.75
$3,437,427.15	400	$202,546.45	$506.37	5.89	$8,593.57
$3,449,762.30	310	$152,467.78	$491.83	4.42	$11,128.27
$3,476,034.34	365	$212,634.34	$582.56	6.12	$9,523.38
$3,478,258.88	400	$141,846.34	$354.62	4.08	$8,695.65
$3,517,745.24	120	$59,739.98	$497.83	1.70	$29,314.54

Table A-3 (Con't.). Data Set for Projects $2,000,000 – $5,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$3,565,303.40	180	$170,410.86	$946.73	4.78	$19,807.24
$3,590,620.30	225	$163,785.81	$727.94	4.56	$15,958.31
$3,599,921.81	103	$42,414.62	$411.79	1.18	$34,950.70
$3,632,149.13	310	$119,148.22	$384.35	3.28	$11,716.61
$3,676,139.56	300	$174,529.58	$581.77	4.75	$12,253.80
$3,730,677.91	300	$63,987.41	$213.29	1.72	$12,435.59
$3,855,061.47	420	$182,207.08	$433.83	4.73	$9,178.72
$3,862,197.33	210	$166,316.79	$791.98	4.31	$18,391.42
$3,883,410.20	240	$201,644.73	$840.19	5.19	$16,180.88
$3,911,555.97	325	$136,287.50	$419.35	3.48	$12,035.56
$3,916,056.24	225	$87,617.60	$389.41	2.24	$17,404.69
$3,999,446.09	225	$137,747.16	$612.21	3.44	$17,775.32
$4,139,462.98	365	$1,446,235.96	$3,962.29	34.94	$11,340.99
$4,141,153.95	270	$144,945.67	$536.84	3.50	$15,337.61
$4,146,670.00	120	$139,402.82	$1,161.69	3.36	$34,555.58
$4,197,073.28	330	$227,323.92	$688.86	5.42	$12,718.40
$4,223,063.42	150	$72,584.22	$483.89	1.72	$28,153.76
$4,284,087.34	300	$219,817.10	$732.72	5.13	$14,280.29
$4,385,290.34	210	$82,731.36	$393.96	1.89	$20,882.33
$4,516,829.58	300	$231,873.25	$772.91	5.13	$15,056.10
$4,520,087.29	300	$168,503.92	$561.68	3.73	$15,066.96
$4,547,978.20	580	$200,590.68	$345.85	4.41	$7,841.34
$4,565,789.59	425	$350,765.92	$825.33	7.68	$10,743.03
$4,611,779.26	390	$182,319.48	$467.49	3.95	$11,825.08
$4,658,524.57	400	$226,325.18	$565.81	4.86	$11,646.31
$4,762,831.23	450	$242,694.17	$539.32	5.10	$10,584.07
$4,798,650.93	365	$184,117.39	$504.43	3.84	$13,146.99
$4,815,910.70	300	$196,493.61	$654.98	4.08	$16,053.04
$4,866,609.27	320	$112,357.24	$351.12	2.31	$15,208.15
$4,932,346.06	270	$92,406.31	$342.25	1.87	$18,267.95
$4,983,042.48	420	$176,203.61	$419.53	3.54	$11,864.39

Table A-4. Data Set for Projects $1,000,000 – $2,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$1,004,668.60	45	$35,187.86	$781.95	3.50	$22,325.97
$1,004,892.00	75	$22,331.41	$297.75	2.22	$13,398.56
$1,027,354.15	60	$21,846.16	$364.10	2.13	$17,122.57
$1,032,373.85	353	$44,534.76	$126.16	4.31	$2,924.57
$1,042,045.00	36	$853.71	$23.71	0.08	$28,945.69
$1,059,448.10	150	$15,717.07	$104.78	1.48	$7,062.99
$1,063,210.35	75	$16,971.32	$226.28	1.60	$14,176.14
$1,063,260.00	65	$15,936.60	$245.18	1.50	$16,357.85
$1,064,416.94	120	$97,814.80	$815.12	9.19	$8,870.14
$1,070,066.75	90	$19,243.54	$213.82	1.80	$11,889.63
$1,076,142.90	130	$141,819.61	$1,090.92	13.18	$8,278.02
$1,079,369.89	120	$29,860.39	$248.84	2.77	$8,994.75
$1,084,500.00	60	$8,052.23	$134.20	0.74	$18,075.00
$1,087,792.10	208	$1,330,183.80	$6,395.11	122.28	$5,229.77
$1,099,817.95	180	$70,219.37	$390.11	6.38	$6,110.10
$1,103,014.61	100	$62,579.53	$625.80	5.67	$11,030.15
$1,105,517.28	200	$4,958.97	$24.79	0.45	$5,527.59
$1,105,634.08	60	$36,395.68	$606.59	3.29	$18,427.23
$1,106,221.80	45	$22,175.16	$492.78	2.00	$24,582.71
$1,118,581.25	240	$83,935.49	$349.73	7.50	$4,660.76
$1,128,571.76	200	$102,722.47	$513.61	9.10	$5,642.86
$1,137,610.08	60	$8,252.36	$137.54	0.73	$18,960.17
$1,141,232.84	100	$44,283.06	$442.83	3.88	$11,412.33
$1,154,050.79	150	$75,338.17	$502.25	6.53	$7,693.67
$1,157,750.00	90	$21,960.88	$244.01	1.90	$12,863.89
$1,167,528.00	90	$65,074.83	$723.05	5.57	$12,972.53
$1,169,882.73	160	$31,005.94	$193.79	2.65	$7,311.77
$1,172,555.00	60	$26,125.51	$435.43	2.23	$19,542.58
$1,175,460.20	45	$32,593.40	$724.30	2.77	$26,121.34
$1,179,903.00	210	$139,575.92	$664.65	11.83	$5,618.59
$1,180,527.11	120	$26,846.19	$223.72	2.27	$9,837.73
$1,194,600.00	80	$18,874.42	$235.93	1.58	$14,932.50
$1,195,142.47	150	$115,959.51	$773.06	9.70	$7,967.62
$1,195,165.47	70	$55,940.51	$799.15	4.68	$17,073.79

Table A-4 (Con't.). Data Set for Projects $1,000,000 – $2,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$1,197,967.98	150	$128,199.20	$854.66	10.70	$7,986.45
$1,198,943.58	140	$218,573.91	$1,561.24	18.23	$8,563.88
$1,206,340.50	150	$56,413.22	$376.09	4.68	$8,042.27
$1,208,343.45	120	$180,421.87	$1,503.52	14.93	$10,069.53
$1,219,095.10	200	$51,687.49	$258.44	4.24	$6,095.48
$1,223,112.00	455	$24,673.30	$54.23	2.02	$2,688.16
$1,224,651.02	180	$70,420.31	$391.22	5.75	$6,803.62
$1,224,830.60	210	$126,289.12	$601.38	10.31	$5,832.53
$1,229,930.00	435	$54,367.43	$124.98	4.42	$2,827.43
$1,232,895.40	240	$37,980.29	$158.25	3.08	$5,137.06
$1,235,656.18	150	$33,553.44	$223.69	2.72	$8,237.71
$1,239,693.50	90	$116,023.00	$1,289.14	9.36	$13,774.37
$1,244,467.66	30	$23,711.83	$790.39	1.91	$41,482.26
$1,244,559.92	220	$50,029.80	$227.41	4.02	$5,657.09
$1,245,485.53	125	$84,558.90	$676.47	6.79	$9,963.88
$1,255,676.70	60	$20,930.51	$348.84	1.67	$20,927.95
$1,260,385.69	330	$41,122.48	$124.61	3.26	$3,819.35
$1,268,686.03	100	$8,551.68	$85.52	0.67	$12,686.86
$1,284,255.45	45	$15,264.53	$339.21	1.19	$28,539.01
$1,288,027.74	70	$36,381.13	$519.73	2.82	$18,400.40
$1,288,131.45	55	$17,716.61	$322.12	1.38	$23,420.57
$1,298,934.21	150	$30,596.36	$203.98	2.36	$8,659.56
$1,301,105.96	180	$85,156.24	$473.09	6.54	$7,228.37
$1,312,939.10	150	$19,544.54	$130.30	1.49	$8,752.93
$1,314,615.15	150	$66,405.01	$442.70	5.05	$8,764.10
$1,314,670.00	90	$17,996.36	$199.96	1.37	$14,607.44
$1,325,675.00	120	$25,771.81	$214.77	1.94	$11,047.29
$1,340,684.60	270	$34,967.58	$129.51	2.61	$4,965.50
$1,352,606.16	240	$76,654.87	$319.40	5.67	$5,635.86
$1,352,824.00	100	$34,435.67	$344.36	2.55	$13,528.24
$1,354,370.60	47	$36,424.26	$774.98	2.69	$28,816.40
$1,363,889.58	180	$90,067.12	$500.37	6.60	$7,577.16
$1,380,499.00	90	$53,260.50	$591.78	3.86	$15,338.88
$1,399,995.44	180	$198,588.10	$1,103.27	14.18	$7,777.75

Table A-4 (Con't.). Data Set for Projects $1,000,000 – $2,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$1,400,448.77	270	$54,103.86	$200.38	3.86	$5,186.85
$1,418,418.19	150	$35,833.68	$238.89	2.53	$9,456.12
$1,420,011.50	110	$11,584.97	$105.32	0.82	$12,909.20
$1,423,850.50	45	$34,147.20	$758.83	2.40	$31,641.12
$1,429,931.99	45	$19,477.58	$432.84	1.36	$31,776.27
$1,437,876.56	180	$58,614.40	$325.64	4.08	$7,988.20
$1,443,838.90	60	$75,200.99	$1,253.35	5.21	$24,063.98
$1,444,315.65	75	$18,586.23	$247.82	1.29	$19,257.54
$1,450,016.75	180	$99,453.47	$552.52	6.86	$8,055.65
$1,460,607.24	150	$16,692.99	$111.29	1.14	$9,737.38
$1,465,465.65	240	$130,673.97	$544.47	8.92	$6,106.11
$1,471,520.40	45	$56,162.06	$1,248.05	3.82	$32,700.45
$1,479,957.16	60	$38,680.70	$644.68	2.61	$24,665.95
$1,483,065.78	240	$157,498.90	$656.25	10.62	$6,179.44
$1,490,658.81	300	$39,070.56	$130.24	2.62	$4,968.86
$1,491,144.80	330	$112,153.83	$339.86	7.52	$4,518.62
$1,492,740.00	180	$128,600.31	$714.45	8.62	$8,293.00
$1,493,666.20	90	$41,883.33	$465.37	2.80	$16,596.29
$1,503,403.75	150	$40,036.79	$266.91	2.66	$10,022.69
$1,536,043.50	150	$64,323.38	$428.82	4.19	$10,240.29
$1,536,423.00	110	$36,034.68	$327.59	2.35	$13,967.48
$1,579,245.00	60	$10,533.47	$175.56	0.67	$26,320.75
$1,585,338.00	180	$40,512.45	$225.07	2.56	$8,807.43
$1,589,664.65	150	$46,733.48	$311.56	2.94	$10,597.76
$1,592,858.25	210	$112,652.68	$536.44	7.07	$7,585.04
$1,597,317.00	90	$43,622.76	$484.70	2.73	$17,747.97
$1,610,907.80	240	$64,508.54	$268.79	4.00	$6,712.12
$1,616,819.20	240	$57,532.57	$239.72	3.56	$6,736.75
$1,621,197.75	90	$34,151.72	$379.46	2.11	$18,013.31
$1,623,835.70	90	$19,796.14	$219.96	1.22	$18,042.62
$1,623,870.18	365	$95,729.56	$262.27	5.90	$4,448.96
$1,626,078.50	240	$32,388.34	$134.95	1.99	$6,775.33
$1,626,689.85	120	$37,902.80	$315.86	2.33	$13,555.75
$1,627,082.68	270	$196,992.15	$729.60	12.11	$6,026.23

Table A-4 (Con't.). Data Set for Projects $1,000,000 – $2,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$1,629,886.96	90	$136,369.52	$1,515.22	8.37	$18,109.86
$1,636,895.90	120	$57,227.86	$476.90	3.50	$13,640.80
$1,640,215.00	90	$23,105.35	$256.73	1.41	$18,224.61
$1,646,951.00	50	$31,618.18	$632.36	1.92	$32,939.02
$1,657,014.40	90	$19,023.15	$211.37	1.15	$18,411.27
$1,668,356.07	150	$129,774.67	$865.16	7.78	$11,122.37
$1,672,952.86	120	$73,229.11	$610.24	4.38	$13,941.27
$1,693,057.83	60	$19,677.79	$327.96	1.16	$28,217.63
$1,694,514.77	45	$42,574.01	$946.09	2.51	$37,655.88
$1,701,821.43	45	$89,314.26	$1,984.76	5.25	$37,818.25
$1,714,425.60	210	$41,298.23	$196.66	2.41	$8,163.93
$1,731,138.48	100	$38,219.93	$382.20	2.21	$17,311.38
$1,747,740.16	120	$78,335.66	$652.80	4.48	$14,564.50
$1,754,443.18	230	$157,211.11	$683.53	8.96	$7,628.01
$1,757,254.51	240	$109,268.65	$455.29	6.22	$7,321.89
$1,767,183.63	150	$26,039.46	$173.60	1.47	$11,781.22
$1,787,733.55	75	$4,198.26	$55.98	0.23	$23,836.45
$1,790,776.72	300	$114,564.31	$381.88	6.40	$5,969.26
$1,796,521.17	300	$171,179.20	$570.60	9.53	$5,988.40
$1,841,474.66	210	$59,983.62	$285.64	3.26	$8,768.93
$1,869,472.25	420	$65,647.92	$156.30	3.51	$4,451.12
$1,883,538.90	210	$128,652.38	$612.63	6.83	$8,969.23
$1,885,486.92	180	$113,671.28	$631.51	6.03	$10,474.93
$1,906,891.16	120	$58,310.38	$485.92	3.06	$15,890.76
$1,919,154.00	60	$23,000.53	$383.34	1.20	$31,985.90
$1,927,824.81	120	$48,310.74	$402.59	2.51	$16,065.21
$1,931,343.94	520	$106,281.83	$204.39	5.50	$3,714.12
$1,936,981.75	150	$170,809.57	$1,138.73	8.82	$12,913.21
$1,964,726.45	280	$154,818.25	$552.92	7.88	$7,016.88
$1,965,228.38	210	$67,586.23	$321.84	3.44	$9,358.23

Table A-5. Data Set for Projects $500,000 - $1,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$503,496.57	150	$22,673.10	$151.15	4.50	$3,356.64
$503,522.21	180	$24,131.86	$134.07	4.79	$2,797.35
$504,335.59	175	$25,773.37	$147.28	5.11	$2,881.92
$507,472.92	120	$11,742.91	$97.86	2.31	$4,228.94
$508,501.70	60	$5,745.24	$95.75	1.13	$8,475.03
$509,420.87	125	$28,438.16	$227.51	5.58	$4,075.37
$509,961.70	90	$39,966.36	$444.07	7.84	$5,666.24
$511,963.05	25	$9,036.03	$361.44	1.76	$20,478.52
$512,679.00	25	$9,718.66	$388.75	1.90	$20,507.16
$514,257.05	120	$39,681.49	$330.68	7.72	$4,285.48
$518,553.65	120	$28,567.66	$238.06	5.51	$4,321.28
$519,148.41	30	$9,179.36	$305.98	1.77	$17,304.95
$520,142.20	120	$47,939.80	$399.50	9.22	$4,334.52
$520,680.00	60	$27,429.74	$457.16	5.27	$8,678.00
$524,187.84	150	$44,199.22	$294.66	8.43	$3,494.59
$526,030.00	75	$11,787.74	$157.17	2.24	$7,013.73
$528,878.56	150	$56,957.16	$379.71	10.77	$3,525.86
$529,968.00	60	$38,889.11	$648.15	7.34	$8,832.80
$535,139.42	180	$27,992.74	$155.52	5.23	$2,973.00
$539,797.50	30	$9,411.82	$313.73	1.74	$17,993.25
$540,040.00	120	$11,311.01	$94.26	2.09	$4,500.33
$540,134.90	150	$45,664.31	$304.43	8.45	$3,600.90
$541,320.00	150	$8,487.23	$56.58	1.57	$3,608.80
$542,482.25	190	$9,003.29	$47.39	1.66	$2,855.17
$545,545.45	150	$25,840.89	$172.27	4.74	$3,636.97
$546,163.50	60	$8,643.29	$144.05	1.58	$9,102.73
$547,223.96	90	$3,115.12	$34.61	0.57	$6,080.27
$548,979.20	90	$70,383.45	$782.04	12.82	$6,099.77
$551,073.00	75	$21,311.56	$284.15	3.87	$7,347.64
$552,372.94	180	$23,752.43	$131.96	4.30	$3,068.74
$554,622.11	180	$54,676.10	$303.76	9.86	$3,081.23
$556,793.52	60	$15,770.95	$262.85	2.83	$9,279.89
$557,871.65	30	$14,942.27	$498.08	2.68	$18,595.72
$559,798.09	165	$41,465.64	$251.31	7.41	$3,392.72

Table A-5 (Con't.). Data Set for Projects $500,000 - $1,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$562,172.05	30	$23,249.11	$774.97	4.14	$18,739.07
$563,115.00	60	$22,433.38	$373.89	3.98	$9,385.25
$564,447.00	60	$11,680.01	$194.67	2.07	$9,407.45
$565,010.50	60	$12,374.84	$206.25	2.19	$9,416.84
$567,659.77	120	$40,743.47	$339.53	7.18	$4,730.50
$567,688.66	95	$55,181.18	$580.85	9.72	$5,975.67
$568,647.32	160	$44,080.44	$275.50	7.75	$3,554.05
$568,883.40	150	$7,627.59	$50.85	1.34	$3,792.56
$572,868.30	150	$34,500.16	$230.00	6.02	$3,819.12
$573,295.50	45	$49,466.00	$1,099.24	8.63	$12,739.90
$574,211.85	200	$33,904.43	$169.52	5.90	$2,871.06
$574,685.86	150	$29,285.46	$195.24	5.10	$3,831.24
$576,358.95	200	$64,276.02	$321.38	11.15	$2,881.79
$576,851.49	200	$111,722.69	$558.61	19.37	$2,884.26
$579,000.00	75	$14,653.78	$195.38	2.53	$7,720.00
$582,839.50	45	$9,697.35	$215.50	1.66	$12,951.99
$583,418.90	210	$21,000.44	$100.00	3.60	$2,778.19
$583,953.70	75	$29,863.69	$398.18	5.11	$7,786.05
$585,396.17	210	$61,965.41	$295.07	10.59	$2,787.60
$586,684.75	220	$11,749.41	$53.41	2.00	$2,666.75
$589,524.00	45	$15,501.66	$344.48	2.63	$13,100.53
$592,000.00	90	$59,937.93	$665.98	10.12	$6,577.78
$598,012.00	60	$48,352.10	$805.87	8.09	$9,966.87
$598,161.47	45	$31,299.79	$695.55	5.23	$13,292.48
$599,979.50	60	$17,334.32	$288.91	2.89	$9,999.66
$603,096.06	210	$29,425.57	$140.12	4.88	$2,871.89
$604,710.15	70	$35,357.02	$505.10	5.85	$8,638.72
$608,281.75	75	$14,690.03	$195.87	2.42	$8,110.42
$608,436.55	90	$36,612.06	$406.80	6.02	$6,760.41
$610,016.42	45	$27,004.88	$600.11	4.43	$13,555.92
$613,404.00	90	$7,392.70	$82.14	1.21	$6,815.60
$614,202.00	60	$16,199.40	$269.99	2.64	$10,236.70
$614,764.25	45	$11,050.81	$245.57	1.80	$13,661.43
$619,116.26	90	$28,495.73	$316.62	4.60	$6,879.07

Table A-5 (Con't.). Data Set for Projects $500,000 - $1,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$619,799.60	75	$22,568.39	$300.91	3.64	$8,263.99
$623,387.69	180	$52,568.63	$292.05	8.43	$3,463.26
$623,541.81	150	$49,623.98	$330.83	7.96	$4,156.95
$624,282.47	180	$38,858.49	$215.88	6.22	$3,468.24
$626,773.15	30	$22,243.90	$741.46	3.55	$20,892.44
$630,608.00	210	$36,083.91	$171.83	5.72	$3,002.90
$633,117.17	180	$15,771.34	$87.62	2.49	$3,517.32
$637,350.00	90	$16,363.29	$181.81	2.57	$7,081.67
$637,553.02	150	$85,165.29	$567.77	13.36	$4,250.35
$639,575.85	130	$61,537.91	$473.37	9.62	$4,919.81
$646,880.20	210	$48,351.20	$230.24	7.47	$3,080.38
$653,212.50	45	$4,595.91	$102.13	0.70	$14,515.83
$657,260.00	60	$16,895.48	$281.59	2.57	$10,954.33
$659,199.00	60	$39,739.52	$662.33	6.03	$10,986.65
$659,912.40	30	$7,747.64	$258.25	1.17	$21,997.08
$660,766.85	65	$18,546.61	$285.33	2.81	$10,165.64
$663,122.85	30	$4,516.53	$150.55	0.68	$22,104.10
$666,268.02	180	$12,832.44	$71.29	1.93	$3,701.49
$667,717.93	250	$52,424.93	$209.70	7.85	$2,670.87
$668,634.23	90	$28,365.25	$315.17	4.24	$7,429.27
$670,724.51	210	$14,879.11	$70.85	2.22	$3,193.93
$671,078.78	120	$32,256.58	$268.80	4.81	$5,592.32
$671,402.30	210	$26,611.76	$126.72	3.96	$3,197.15
$674,794.80	45	$20,080.78	$446.24	2.98	$14,995.44
$674,856.39	180	$16,284.28	$90.47	2.41	$3,749.20
$677,559.30	60	$11,400.64	$190.01	1.68	$11,292.66
$677,649.20	240	$68,017.27	$283.41	10.04	$2,823.54
$678,348.75	120	$50,778.85	$423.16	7.49	$5,652.91
$679,251.90	30	$23,300.30	$776.68	3.43	$22,641.73
$679,567.01	30	$9,828.39	$327.61	1.45	$22,652.23
$683,910.00	45	$19,657.64	$436.84	2.87	$15,198.00
$686,806.80	136	$47,618.01	$350.13	6.93	$5,050.05
$688,888.00	75	$44,293.88	$590.59	6.43	$9,185.17
$689,800.00	90	$21,997.84	$244.42	3.19	$7,664.44

Table A-5 (Con't.). Data Set for Projects $500,000 - $1,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$694,747.00	30	$24,224.10	$807.47	3.49	$23,158.23
$696,551.90	60	$9,909.77	$165.16	1.42	$11,609.20
$696,952.78	210	$28,980.28	$138.00	4.16	$3,318.82
$698,630.00	160	$104,820.98	$655.13	15.00	$4,366.44
$699,288.00	75	$16,833.59	$224.45	2.41	$9,323.84
$701,540.71	120	$29,228.40	$243.57	4.17	$5,846.17
$702,759.95	45	$26,880.91	$597.35	3.83	$15,616.89
$703,354.50	30	$49,220.29	$1,640.68	7.00	$23,445.15
$705,167.00	120	$27,356.41	$227.97	3.88	$5,876.39
$706,946.16	180	$76,791.68	$426.62	10.86	$3,927.48
$716,605.10	300	$64,735.48	$215.78	9.03	$2,388.68
$722,688.40	30	$16,118.83	$537.29	2.23	$24,089.61
$726,575.15	180	$17,131.12	$95.17	2.36	$4,036.53
$729,360.00	30	$30,813.60	$1,027.12	4.22	$24,312.00
$730,460.30	30	$4,516.96	$150.57	0.62	$24,348.68
$735,980.43	260	$25,511.58	$98.12	3.47	$2,830.69
$737,937.00	60	$6,169.21	$102.82	0.84	$12,298.95
$738,901.55	220	$18,705.93	$85.03	2.53	$3,358.64
$741,039.66	120	$21,573.53	$179.78	2.91	$6,175.33
$742,223.40	40	$4,864.36	$121.61	0.66	$18,555.59
$745,109.68	150	$22,386.49	$149.24	3.00	$4,967.40
$748,155.93	120	$29,105.29	$242.54	3.89	$6,234.63
$752,358.00	40	$4,798.37	$119.96	0.64	$18,808.95
$756,388.25	60	$17,072.21	$284.54	2.26	$12,606.47
$759,159.60	120	$30,825.65	$256.88	4.06	$6,326.33
$760,958.04	90	$21,351.84	$237.24	2.81	$8,455.09
$761,560.00	60	$7,812.33	$130.21	1.03	$12,692.67
$765,748.00	45	$8,441.76	$187.59	1.10	$17,016.62
$768,000.00	369	$45,480.32	$123.25	5.92	$2,081.30
$769,947.56	51	$2,409.09	$47.24	0.31	$15,097.01
$770,140.71	150	$43,204.61	$288.03	5.61	$5,134.27
$770,740.73	120	$67,616.05	$563.47	8.77	$6,422.84
$777,605.49	90	$25,822.00	$286.91	3.32	$8,640.06
$777,777.77	120	$58,609.86	$488.42	7.54	$6,481.48

Table A-5 (Con't.). Data Set for Projects $500,000 - $1,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$779,236.58	180	$46,982.83	$261.02	6.03	$4,329.09
$782,468.70	180	$61,979.71	$344.33	7.92	$4,347.05
$787,073.00	120	$33,960.60	$283.01	4.31	$6,558.94
$792,551.64	210	$82,191.96	$391.39	10.37	$3,774.06
$793,059.00	75	$17,544.99	$233.93	2.21	$10,574.12
$798,569.44	60	$130,856.76	$2,180.95	16.39	$13,309.49
$799,953.50	60	$32,973.22	$549.55	4.12	$13,332.56
$804,962.76	180	$28,185.22	$156.58	3.50	$4,472.02
$805,873.85	150	$90,286.17	$601.91	11.20	$5,372.49
$808,589.85	180	$10,366.12	$57.59	1.28	$4,492.17
$812,531.50	140	$3,382.91	$24.16	0.42	$5,803.80
$817,804.04	230	$35,253.59	$153.28	4.31	$3,555.67
$818,309.95	180	$137,098.45	$761.66	16.75	$4,546.17
$821,200.00	115	$95,368.59	$829.29	11.61	$7,140.87
$822,817.50	30	$4,700.30	$156.68	0.57	$27,427.25
$824,824.24	100	$21,804.12	$218.04	2.64	$8,248.24
$824,939.00	35	$4,832.25	$138.06	0.59	$23,569.69
$826,121.40	60	$16,765.70	$279.43	2.03	$13,768.69
$833,620.00	45	$30,173.84	$670.53	3.62	$18,524.89
$834,400.00	60	$19,090.88	$318.18	2.29	$13,906.67
$834,637.05	45	$11,708.38	$260.19	1.40	$18,547.49
$838,800.00	90	$18,398.06	$204.42	2.19	$9,320.00
$839,700.15	60	$29,140.75	$485.68	3.47	$13,995.00
$841,210.00	90	$174,474.28	$1,938.60	20.74	$9,346.78
$846,300.24	180	$104,219.05	$578.99	12.31	$4,701.67
$846,920.90	90	$15,441.16	$171.57	1.82	$9,410.23
$852,186.26	45	$17,522.44	$389.39	2.06	$18,937.47
$853,300.00	90	$123,457.87	$1,371.75	14.47	$9,481.11
$853,918.70	45	$7,792.52	$173.17	0.91	$18,975.97
$855,168.55	200	$68,399.11	$342.00	8.00	$4,275.84
$855,887.74	120	$10,035.43	$83.63	1.17	$7,132.40
$858,285.67	210	$52,511.75	$250.06	6.12	$4,087.07
$873,019.25	240	$23,572.37	$98.22	2.70	$3,637.58
$873,742.00	60	$22,796.84	$379.95	2.61	$14,562.37

Table A-5 (Con't.). Data Set for Projects $500,000 - $1,000,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$874,909.09	210	$24,789.97	$118.05	2.83	$4,166.23
$886,582.18	180	$60,239.58	$334.66	6.79	$4,925.46
$889,889.50	60	$40,139.45	$668.99	4.51	$14,831.49
$894,688.80	180	$1,859.51	$10.33	0.21	$4,970.49
$895,132.11	300	$34,592.12	$115.31	3.86	$2,983.77
$899,399.00	60	$51,811.55	$863.53	5.76	$14,989.98
$902,033.22	120	$9,289.20	$77.41	1.03	$7,516.94
$905,747.43	160	$57,159.15	$357.24	6.31	$5,660.92
$909,910.52	210	$51,380.11	$244.67	5.65	$4,332.91
$910,472.00	60	$14,597.93	$243.30	1.60	$15,174.53
$910,570.00	45	$6,673.78	$148.31	0.73	$20,234.89
$916,935.21	60	$23,464.33	$391.07	2.56	$15,282.25
$918,467.56	30	$3,994.30	$133.14	0.43	$30,615.59
$926,579.35	90	$20,768.15	$230.76	2.24	$10,295.33
$930,605.74	120	$12,768.15	$106.40	1.37	$7,755.05
$934,464.99	200	$68,928.51	$344.64	7.38	$4,672.32
$936,136.36	120	$27,356.98	$227.97	2.92	$7,801.14
$940,283.22	65	$31,887.70	$490.58	3.39	$14,465.90
$943,650.55	60	$19,257.82	$320.96	2.04	$15,727.51
$943,670.44	110	$27,966.22	$254.24	2.96	$8,578.82
$952,546.58	45	$12,367.01	$274.82	1.30	$21,167.70
$953,173.32	20	$5,938.07	$296.90	0.62	$47,658.67
$962,984.38	210	$70,518.93	$335.80	7.32	$4,585.64
$971,232.00	120	$18,469.69	$153.91	1.90	$8,093.60
$975,093.11	210	$87,295.15	$415.69	8.95	$4,643.30
$978,046.15	100	$112,896.19	$1,128.96	11.54	$9,780.46
$981,077.37	150	$38,381.32	$255.88	3.91	$6,540.52
$986,500.00	250	$5,800.93	$23.20	0.59	$3,946.00
$989,975.00	60	$20,303.90	$338.40	2.05	$16,499.58
$993,480.70	120	$12,291.51	$102.43	1.24	$8,279.01
$993,862.25	60	$6,631.78	$110.53	0.67	$16,564.37
$996,324.75	223	$200.00	$0.90	0.02	$4,467.82
$997,076.51	200	$80,683.45	$403.42	8.09	$4,985.38
$999,582.48	90	$27,590.29	$306.56	2.76	$11,106.47

Table A-6. Data Set for Projects $200,000 - $500,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$200,838.00	25	$1,969.52	$78.78	0.98	$8,033.52
$202,000.00	100	$9,384.16	$93.84	4.65	$2,020.00
$202,310.00	150	$32,061.40	$213.74	15.85	$1,348.73
$202,615.30	45	$16,296.17	$362.14	8.04	$4,502.56
$203,587.00	10	$2,228.44	$222.84	1.09	$20,358.70
$204,997.72	90	$19,599.72	$217.77	9.56	$2,277.75
$206,465.59	90	$15,728.95	$174.77	7.62	$2,294.06
$207,769.25	45	$33,558.64	$745.75	16.15	$4,617.09
$208,779.10	90	$34,334.75	$381.50	16.45	$2,319.77
$210,246.53	125	$39,416.10	$315.33	18.75	$1,681.97
$211,214.00	100	$49,807.15	$498.07	23.58	$2,112.14
$211,450.13	110	$17,415.53	$158.32	8.24	$1,922.27
$211,579.64	90	$17,030.62	$189.23	8.05	$2,350.88
$212,114.87	150	$23,894.81	$159.30	11.27	$1,414.10
$212,413.94	45	$13,535.80	$300.80	6.37	$4,720.31
$214,794.81	120	$17,479.89	$145.67	8.14	$1,789.96
$215,326.80	130	$22,399.70	$172.31	10.40	$1,656.36
$215,634.70	100	$8,333.42	$83.33	3.86	$2,156.35
$216,576.57	30	$30,725.32	$1,024.18	14.19	$7,219.22
$219,983.45	60	$22,639.32	$377.32	10.29	$3,666.39
$220,131.65	120	$13,144.56	$109.54	5.97	$1,834.43
$220,192.18	45	$17,554.14	$390.09	7.97	$4,893.16
$220,803.12	150	$17,959.78	$119.73	8.13	$1,472.02
$221,412.75	75	$6,930.95	$92.41	3.13	$2,952.17
$222,460.43	90	$16,820.29	$186.89	7.56	$2,471.78
$226,400.00	60	$23,843.43	$397.39	10.53	$3,773.33
$226,785.75	110	$23,883.54	$217.12	10.53	$2,061.69
$227,147.80	100	$14,661.59	$146.62	6.45	$2,271.48
$227,242.14	120	$13,028.87	$108.57	5.73	$1,893.68
$228,030.00	10	$7,161.41	$716.14	3.14	$22,803.00
$228,709.37	110	$16,052.59	$145.93	7.02	$2,079.18
$232,000.25	60	$0.00	$0.00	0.00	$3,866.67
$233,507.95	45	$7,899.69	$175.55	3.38	$5,189.07
$233,728.85	100	$7,101.50	$71.01	3.04	$2,337.29

Table A-6 (Con't.). Data Set for Projects $200,000 - $500,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$233,989.80	90	$14,687.45	$163.19	6.28	$2,599.89
$234,449.50	30	$3,131.74	$104.39	1.34	$7,814.98
$235,782.90	150	$24,064.92	$160.43	10.21	$1,571.89
$235,982.91	100	$80,284.54	$802.85	34.02	$2,359.83
$236,078.77	120	$30,892.09	$257.43	13.09	$1,967.32
$236,266.66	100	$63,601.42	$636.01	26.92	$2,362.67
$238,350.00	45	$8,670.37	$192.67	3.64	$5,296.67
$239,766.70	120	$30,217.02	$251.81	12.60	$1,998.06
$243,451.50	30	$6,523.83	$217.46	2.68	$8,115.05
$244,611.15	120	$16,429.19	$136.91	6.72	$2,038.43
$245,300.00	45	$22,683.69	$504.08	9.25	$5,451.11
$248,101.40	100	$27,066.50	$270.67	10.91	$2,481.01
$248,385.80	90	$17,209.67	$191.22	6.93	$2,759.84
$248,555.09	100	$41,773.24	$417.73	16.81	$2,485.55
$249,156.15	90	$22,123.71	$245.82	8.88	$2,768.40
$249,724.20	100	$19,072.38	$190.72	7.64	$2,497.24
$249,842.00	12	$5,576.17	$464.68	2.23	$20,820.17
$250,851.60	120	$4,135.41	$34.46	1.65	$2,090.43
$251,012.08	150	$42,756.87	$285.05	17.03	$1,673.41
$251,389.32	130	$21,967.96	$168.98	8.74	$1,933.76
$251,818.58	90	$21,770.53	$241.89	8.65	$2,797.98
$252,815.57	120	$21,951.29	$182.93	8.68	$2,106.80
$254,707.91	90	$20,240.00	$224.89	7.95	$2,830.09
$257,513.91	150	$18,095.69	$120.64	7.03	$1,716.76
$258,059.03	100	$21,898.03	$218.98	8.49	$2,580.59
$260,785.85	100	$24,820.82	$248.21	9.52	$2,607.86
$261,104.00	20	$9,265.61	$463.28	3.55	$13,055.20
$261,189.86	130	$9,641.06	$74.16	3.69	$2,009.15
$261,639.69	90	$20,272.76	$225.25	7.75	$2,907.11
$262,388.90	90	$2,984.86	$33.17	1.14	$2,915.43
$262,824.90	90	$15,223.47	$169.15	5.79	$2,920.28
$263,150.40	90	$22,197.44	$246.64	8.44	$2,923.89
$263,406.85	90	$16,839.21	$187.10	6.39	$2,926.74
$265,043.55	60	$5,271.68	$87.86	1.99	$4,417.39

Table A-6 (Con't.). Data Set for Projects $200,000 - $500,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$266,636.70	100	$19,748.75	$197.49	7.41	$2,666.37
$267,243.46	90	$44,711.60	$496.80	16.73	$2,969.37
$268,842.80	19	$6,782.99	$357.00	2.52	$14,149.62
$269,160.72	45	$10,208.25	$226.85	3.79	$5,981.35
$269,587.60	100	$21,125.29	$211.25	7.84	$2,695.88
$269,703.20	130	$28,276.75	$217.51	10.48	$2,074.64
$270,386.75	60	$30,001.86	$500.03	11.10	$4,506.45
$271,236.13	45	$23,885.60	$530.79	8.81	$6,027.47
$273,651.50	100	$20,001.25	$200.01	7.31	$2,736.52
$276,249.16	90	$20,996.02	$233.29	7.60	$3,069.44
$279,636.00	150	$15,305.69	$102.04	5.47	$1,864.24
$280,103.40	90	$20,399.49	$226.66	7.28	$3,112.26
$281,673.00	60	$12,103.59	$201.73	4.30	$4,694.55
$281,962.85	100	$35,641.13	$356.41	12.64	$2,819.63
$282,307.00	20	$1,867.76	$93.39	0.66	$14,115.35
$282,500.00	30	$17,116.26	$570.54	6.06	$9,416.67
$282,635.65	150	$17,393.09	$115.95	6.15	$1,884.24
$285,731.82	120	$41,240.30	$343.67	14.43	$2,381.10
$287,000.00	120	$17,835.92	$148.63	6.21	$2,391.67
$287,781.50	100	$16,380.88	$163.81	5.69	$2,877.82
$288,793.51	130	$21,805.94	$167.74	7.55	$2,221.49
$289,801.64	60	$7,865.70	$131.10	2.71	$4,830.03
$290,032.01	120	$22,272.18	$185.60	7.68	$2,416.93
$290,805.36	100	$18,192.68	$181.93	6.26	$2,908.05
$291,044.73	30	$4,249.95	$141.67	1.46	$9,701.49
$292,525.36	90	$28,168.90	$312.99	9.63	$3,250.28
$292,688.35	150	$36,430.83	$242.87	12.45	$1,951.26
$292,832.50	105	$4,816.57	$45.87	1.64	$2,788.88
$292,976.40	100	$19,409.73	$194.10	6.63	$2,929.76
$293,415.15	100	$16,847.37	$168.47	5.74	$2,934.15
$294,810.00	45	$4,522.24	$100.49	1.53	$6,551.33
$294,997.50	30	$6,393.34	$213.11	2.17	$9,833.25
$295,903.26	100	$15,500.34	$155.00	5.24	$2,959.03
$296,602.07	100	$18,933.84	$189.34	6.38	$2,966.02

Table A-6 (Con't.). Data Set for Projects $200,000 - $500,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$296,720.84	90	$27,735.80	$308.18	9.35	$3,296.90
$297,576.76	90	$20,450.27	$227.23	6.87	$3,306.41
$297,827.86	65	$12,458.17	$191.66	4.18	$4,581.97
$298,503.25	30	$8,187.58	$272.92	2.74	$9,950.11
$298,731.31	90	$34,775.54	$386.39	11.64	$3,319.24
$299,495.95	90	$24,408.71	$271.21	8.15	$3,327.73
$300,541.60	30	$9,841.33	$328.04	3.27	$10,018.05
$302,155.28	100	$38,102.98	$381.03	12.61	$3,021.55
$303,203.30	120	$45,040.17	$375.33	14.85	$2,526.69
$303,487.60	150	$31,537.22	$210.25	10.39	$2,023.25
$304,191.58	90	$25,454.98	$282.83	8.37	$3,379.91
$306,339.24	100	$45,685.99	$456.86	14.91	$3,063.39
$307,238.84	90	$29,267.57	$325.20	9.53	$3,413.76
$309,608.28	20	$11,195.46	$559.77	3.62	$15,480.41
$310,134.04	45	$8,104.48	$180.10	2.61	$6,891.87
$310,572.12	60	$5,785.55	$96.43	1.86	$5,176.20
$313,793.90	100	$15,644.54	$156.45	4.99	$3,137.94
$314,542.52	45	$44,081.70	$979.59	14.01	$6,989.83
$316,562.50	90	$75,420.03	$838.00	23.82	$3,517.36
$318,465.29	180	$16,384.79	$91.03	5.14	$1,769.25
$318,772.66	90	$38,530.63	$428.12	12.09	$3,541.92
$319,710.16	90	$29,651.19	$329.46	9.27	$3,552.34
$320,094.27	180	$7,159.77	$39.78	2.24	$1,778.30
$320,953.00	130	$31,840.90	$244.93	9.92	$2,468.87
$322,048.00	45	$16,716.81	$371.48	5.19	$7,156.62
$322,770.16	100	$19,099.94	$191.00	5.92	$3,227.70
$324,700.64	100	$29,244.66	$292.45	9.01	$3,247.01
$325,788.70	45	$28,093.77	$624.31	8.62	$7,239.75
$326,235.00	60	$39,126.19	$652.10	11.99	$5,437.25
$326,368.17	90	$48,608.44	$540.09	14.89	$3,626.31
$326,728.63	120	$35,656.64	$297.14	10.91	$2,722.74
$327,135.23	150	$20,057.77	$133.72	6.13	$2,180.90
$327,369.00	100	$14,175.67	$141.76	4.33	$3,273.69
$327,990.64	60	$21,183.04	$353.05	6.46	$5,466.51

Table A-6 (Con't.). Data Set for Projects $200,000 - $500,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$328,434.75	60	$13,006.32	$216.77	3.96	$5,473.91
$328,840.00	120	$38,770.47	$323.09	11.79	$2,740.33
$329,756.60	120	$5,326.54	$44.39	1.62	$2,747.97
$330,198.60	60	$29,575.01	$492.92	8.96	$5,503.31
$332,074.58	100	$28,557.09	$285.57	8.60	$3,320.75
$333,282.05	150	$28,457.94	$189.72	8.54	$2,221.88
$335,640.17	120	$26,370.35	$219.75	7.86	$2,797.00
$339,437.75	45	$35,804.61	$795.66	10.55	$7,543.06
$339,814.18	100	$29,340.84	$293.41	8.63	$3,398.14
$341,737.15	30	$11,132.05	$371.07	3.26	$11,391.24
$342,071.00	30	$6,969.93	$232.33	2.04	$11,402.37
$342,422.60	120	$27,336.62	$227.81	7.98	$2,853.52
$342,551.35	120	$30,604.17	$255.03	8.93	$2,854.59
$342,972.00	60	$14,408.05	$240.13	4.20	$5,716.20
$343,034.30	60	$10,216.76	$170.28	2.98	$5,717.24
$344,654.93	120	$53,389.24	$444.91	15.49	$2,872.12
$346,025.43	100	$15,091.97	$150.92	4.36	$3,460.25
$346,721.20	100	$27,634.98	$276.35	7.97	$3,467.21
$347,840.00	60	$1,521.17	$25.35	0.44	$5,797.33
$348,233.98	75	$5,902.45	$78.70	1.69	$4,643.12
$349,216.06	120	$13,382.67	$111.52	3.83	$2,910.13
$349,411.68	110	$18,666.50	$169.70	5.34	$3,176.47
$349,963.70	170	$38,800.00	$228.24	11.09	$2,058.61
$350,217.00	30	$9,443.30	$314.78	2.70	$11,673.90
$352,871.20	20	$4,072.71	$203.64	1.15	$17,643.56
$353,201.74	90	$25,623.20	$284.70	7.25	$3,924.46
$353,447.67	125	$29,463.06	$235.70	8.34	$2,827.58
$353,694.85	150	$21,949.64	$146.33	6.21	$2,357.97
$354,612.00	45	$5,832.37	$129.61	1.64	$7,880.27
$354,628.80	45	$12,346.22	$274.36	3.48	$7,880.64
$355,690.00	60	$10,579.35	$176.32	2.97	$5,928.17
$358,083.30	150	$66,387.06	$442.58	18.54	$2,387.22
$359,246.95	65	$9,707.18	$149.34	2.70	$5,526.88
$359,448.00	40	$13,258.52	$331.46	3.69	$8,986.20

Table A-6 (Con't.). Data Set for Projects $200,000 - $500,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$361,143.39	100	$31,784.59	$317.85	8.80	$3,611.43
$362,503.00	45	$7,434.36	$165.21	2.05	$8,055.62
$362,827.50	60	$13,618.56	$226.98	3.75	$6,047.13
$363,024.08	90	$24,643.36	$273.82	6.79	$4,033.60
$363,254.01	25	$71,357.69	$2,854.31	19.64	$14,530.16
$367,266.03	140	$10,987.71	$78.48	2.99	$2,623.33
$368,114.24	130	$17,379.68	$133.69	4.72	$2,831.65
$368,279.92	105	$10,125.30	$96.43	2.75	$3,507.43
$368,762.59	130	$8,859.55	$68.15	2.40	$2,836.64
$371,049.50	40	$4,965.28	$124.13	1.34	$9,276.24
$372,418.48	150	$56,349.27	$375.66	15.13	$2,482.79
$372,947.00	75	$39,338.89	$524.52	10.55	$4,972.63
$373,069.35	120	$57,585.01	$479.88	15.44	$3,108.91
$374,697.92	90	$25,487.52	$283.19	6.80	$4,163.31
$374,759.28	150	$47,313.18	$315.42	12.62	$2,498.40
$376,842.58	160	$54,492.89	$340.58	14.46	$2,355.27
$377,478.30	120	$16,307.10	$135.89	4.32	$3,145.65
$377,700.60	30	$10,680.04	$356.00	2.83	$12,590.02
$378,079.17	60	$16,184.53	$269.74	4.28	$6,301.32
$381,000.00	70	$8,270.47	$118.15	2.17	$5,442.86
$381,450.62	150	$34,689.96	$231.27	9.09	$2,543.00
$381,816.90	20	$5,625.84	$281.29	1.47	$19,090.85
$383,244.10	110	$30,263.50	$275.12	7.90	$3,484.04
$384,655.37	60	$61,778.93	$1,029.65	16.06	$6,410.92
$384,788.34	125	$25,100.00	$200.80	6.52	$3,078.31
$385,124.50	45	$7,994.23	$177.65	2.08	$8,558.32
$385,764.36	45	$43,419.23	$964.87	11.26	$8,572.54
$386,500.00	30	$6,730.12	$224.34	1.74	$12,883.33
$386,943.20	120	$6,602.12	$55.02	1.71	$3,224.53
$389,037.65	120	$20,802.99	$173.36	5.35	$3,241.98
$390,854.90	25	$4,462.84	$178.51	1.14	$15,634.20
$393,533.20	60	$23,436.59	$390.61	5.96	$6,558.89
$394,000.00	75	$4,870.95	$64.95	1.24	$5,253.33
$394,377.26	200	$24,244.20	$121.22	6.15	$1,971.89

Table A-6 (Con't.). Data Set for Projects $200,000 - $500,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$395,026.70	150	$58,943.83	$392.96	14.92	$2,633.51
$395,753.00	45	$4,857.25	$107.94	1.23	$8,794.51
$395,941.50	19	$9,290.88	$488.99	2.35	$20,839.03
$397,000.00	120	$16,461.07	$137.18	4.15	$3,308.33
$397,339.80	120	$15,457.65	$128.81	3.89	$3,311.17
$397,718.80	120	$33,463.15	$278.86	8.41	$3,314.32
$399,877.70	170	$10,488.17	$61.70	2.62	$2,352.22
$400,070.89	150	$20,140.73	$134.27	5.03	$2,667.14
$404,910.00	60	$8,685.81	$144.76	2.15	$6,748.50
$405,807.05	30	$3,247.40	$108.25	0.80	$13,526.90
$409,285.80	60	$10,257.62	$170.96	2.51	$6,821.43
$409,698.55	60	$28,533.01	$475.55	6.96	$6,828.31
$410,631.00	90	$7,255.33	$80.61	1.77	$4,562.57
$411,135.00	90	$6,074.57	$67.50	1.48	$4,568.17
$412,439.80	100	$26,340.27	$263.40	6.39	$4,124.40
$413,163.00	45	$15,803.24	$351.18	3.82	$9,181.40
$414,107.23	160	$130,345.42	$814.66	31.48	$2,588.17
$415,123.22	90	$34,123.08	$379.15	8.22	$4,612.48
$419,967.64	60	$10,188.96	$169.82	2.43	$6,999.46
$421,011.70	120	$23,677.37	$197.31	5.62	$3,508.43
$422,279.13	210	$27,540.22	$131.14	6.52	$2,010.85
$422,504.73	130	$31,320.87	$240.93	7.41	$3,250.04
$422,692.33	140	$36,512.78	$260.81	8.64	$3,019.23
$424,539.60	45	$10,182.78	$226.28	2.40	$9,434.21
$424,861.36	60	$10,026.90	$167.11	2.36	$7,081.02
$426,592.80	45	$8,630.46	$191.79	2.02	$9,479.84
$428,573.20	60	$11,260.83	$187.68	2.63	$7,142.89
$428,731.78	90	$18,664.61	$207.38	4.35	$4,763.69
$429,108.82	150	$42,539.54	$283.60	9.91	$2,860.73
$429,336.00	35	$9,078.27	$259.38	2.11	$12,266.74
$429,503.06	90	$21,509.65	$239.00	5.01	$4,772.26
$430,202.50	90	$101,934.08	$1,132.60	23.69	$4,780.03
$430,747.45	150	$54,629.86	$364.20	12.68	$2,871.65
$430,890.25	30	$21,172.66	$705.76	4.91	$14,363.01

Table A-6 (Con't.). Data Set for Projects $200,000 - $500,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$431,784.71	165	$34,723.56	$210.45	8.04	$2,616.88
$432,194.00	120	$40,457.55	$337.15	9.36	$3,601.62
$435,123.00	120	$5,507.21	$45.89	1.27	$3,626.03
$435,335.00	45	$10,209.42	$226.88	2.35	$9,674.11
$440,137.80	150	$60,497.15	$403.31	13.75	$2,934.25
$441,707.30	120	$57,383.34	$478.19	12.99	$3,680.89
$442,031.25	30	$7,459.84	$248.66	1.69	$14,734.38
$442,600.00	150	$56,152.33	$374.35	12.69	$2,950.67
$443,958.78	30	$14,388.60	$479.62	3.24	$14,798.63
$444,329.63	60	$16,097.91	$268.30	3.62	$7,405.49
$444,801.59	180	$9,633.76	$53.52	2.17	$2,471.12
$445,260.75	130	$36,726.64	$282.51	8.25	$3,425.08
$447,855.03	150	$23,902.89	$159.35	5.34	$2,985.70
$448,037.43	45	$8,175.28	$181.67	1.82	$9,956.39
$448,235.00	45	$11,957.90	$265.73	2.67	$9,960.78
$450,855.00	45	$30,767.15	$683.71	6.82	$10,019.00
$452,821.00	120	$28,190.19	$234.92	6.23	$3,773.51
$455,689.60	90	$19,516.39	$216.85	4.28	$5,063.22
$457,393.55	60	$7,151.16	$119.19	1.56	$7,623.23
$457,689.03	90	$31,817.80	$353.53	6.95	$5,085.43
$458,000.00	100	$20,384.76	$203.85	4.45	$4,580.00
$459,763.00	45	$22,966.08	$510.36	5.00	$10,216.96
$460,109.65	45	$12,918.71	$287.08	2.81	$10,224.66
$460,768.98	60	$13,488.14	$224.80	2.93	$7,679.48
$461,121.97	140	$31,703.58	$226.45	6.88	$3,293.73
$461,987.11	150	$36,555.14	$243.70	7.91	$3,079.91
$464,388.97	60	$5,384.32	$89.74	1.16	$7,739.82
$464,542.22	150	$27,369.45	$182.46	5.89	$3,096.95
$464,795.35	180	$31,468.93	$174.83	6.77	$2,582.20
$465,610.40	369	$1,168.61	$3.17	0.25	$1,261.82
$467,407.50	45	$16,706.88	$371.26	3.57	$10,386.83
$468,604.28	60	$54,494.93	$908.25	11.63	$7,810.07
$468,808.08	45	$12,505.37	$277.90	2.67	$10,417.96
$469,612.68	120	$73,628.39	$613.57	15.68	$3,913.44

Table A-6 (Con't.). Data Set for Projects $200,000 - $500,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$469,917.00	60	$14,938.78	$248.98	3.18	$7,831.95
$470,700.80	30	$32,296.38	$1,076.55	6.86	$15,690.03
$471,000.00	180	$18,509.39	$102.83	3.93	$2,616.67
$474,788.15	180	$79,256.21	$440.31	16.69	$2,637.71
$476,087.57	160	$22,320.10	$139.50	4.69	$2,975.55
$477,812.52	200	$52,761.51	$263.81	11.04	$2,389.06
$479,344.24	150	$15,140.33	$100.94	3.16	$3,195.63
$482,014.18	75	$22,454.20	$299.39	4.66	$6,426.86
$482,935.24	60	$2,112.81	$35.21	0.44	$8,048.92
$491,460.14	150	$60,531.32	$403.54	12.32	$3,276.40
$494,047.43	140	$38,260.86	$273.29	7.74	$3,528.91
$494,050.72	180	$19,660.66	$109.23	3.98	$2,744.73
$496,907.50	60	$7,151.05	$119.18	1.44	$8,281.79
$497,008.11	60	$16,872.81	$281.21	3.39	$8,283.47
$498,556.50	60	$8,147.39	$135.79	1.63	$8,309.28

Table A-7. Data Set for Projects $100,000 - $200,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$103,341.87	90	$5,761.43	$64.02	5.58	$1,148.24
$103,891.18	60	$9,447.41	$157.46	9.09	$1,731.52
$104,179.50	30	$2,300.38	$76.68	2.21	$3,472.65
$105,419.00	20	$5,401.35	$270.07	5.12	$5,270.95
$105,837.50	30	$5,332.30	$177.74	5.04	$3,527.92
$106,138.00	150	$8,832.92	$58.89	8.32	$707.59
$107,000.00	30	$26,079.51	$869.32	24.37	$3,566.67
$107,284.80	30	$4,641.08	$154.70	4.33	$3,576.16
$107,576.05	120	$33,148.72	$276.24	30.81	$896.47
$107,756.22	60	$36,149.98	$602.50	33.55	$1,795.94
$108,188.63	45	$5,164.15	$114.76	4.77	$2,404.19
$109,045.00	30	$11,121.12	$370.70	10.20	$3,634.83
$109,149.11	30	$7,968.35	$265.61	7.30	$3,638.30
$109,537.50	30	$5,219.61	$173.99	4.77	$3,651.25
$109,564.40	90	$6,904.30	$76.71	6.30	$1,217.38
$109,707.83	30	$6,186.13	$206.20	5.64	$3,656.93
$110,484.00	20	$1,856.65	$92.83	1.68	$5,524.20
$113,376.25	10	$2,410.82	$241.08	2.13	$11,337.63
$113,782.08	30	$4,629.32	$154.31	4.07	$3,792.74
$113,783.05	15	$4,907.41	$327.16	4.31	$7,585.54
$115,676.00	9	$1,920.17	$213.35	1.66	$12,852.89
$116,947.50	30	$8,296.92	$276.56	7.09	$3,898.25
$117,883.03	45	$9,727.87	$216.17	8.25	$2,619.62
$118,012.00	30	$11,047.02	$368.23	9.36	$3,933.73
$118,129.60	90	$19,684.09	$218.71	16.66	$1,312.55
$120,290.47	60	$14,540.18	$242.34	12.09	$2,004.84
$121,095.00	60	$13,639.64	$227.33	11.26	$2,018.25
$121,108.85	120	$31,606.37	$263.39	26.10	$1,009.24
$122,000.00	25	$18,303.59	$732.14	15.00	$4,880.00
$122,448.45	120	$27,615.89	$230.13	22.55	$1,020.40
$123,417.20	30	$14,714.80	$490.49	11.92	$4,113.91
$124,426.90	10	$5,551.09	$555.11	4.46	$12,442.69
$125,532.20	30	$20,134.17	$671.14	16.04	$4,184.41
$126,150.19	20	$12,858.66	$642.93	10.19	$6,307.51

Table A-7 (Con't.). Data Set for Projects $100,000 - $200,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$126,755.00	45	$20,879.90	$464.00	16.47	$2,816.78
$126,843.00	90	$9,137.37	$101.53	7.20	$1,409.37
$128,473.88	60	$5,387.49	$89.79	4.19	$2,141.23
$129,110.00	70	$304.37	$4.35	0.24	$1,844.43
$130,973.45	120	$12,797.75	$106.65	9.77	$1,091.45
$131,141.05	100	$567.30	$5.67	0.43	$1,311.41
$131,336.69	45	$12,480.37	$277.34	9.50	$2,918.59
$131,681.99	10	$3,217.44	$321.74	2.44	$13,168.20
$132,091.60	45	$7,400.08	$164.45	5.60	$2,935.37
$132,536.20	75	$2,813.00	$37.51	2.12	$1,767.15
$133,000.00	45	$23,345.11	$518.78	17.55	$2,955.56
$133,356.00	60	$4,658.92	$77.65	3.49	$2,222.60
$133,368.00	30	$5,027.40	$167.58	3.77	$4,445.60
$135,711.50	45	$27,427.05	$609.49	20.21	$3,015.81
$136,472.30	100	$25,345.87	$253.46	18.57	$1,364.72
$136,697.21	45	$39,672.19	$881.60	29.02	$3,037.72
$136,975.25	125	$5,617.19	$44.94	4.10	$1,095.80
$137,700.00	10	$557.80	$55.78	0.41	$13,770.00
$138,108.00	75	$8,181.22	$109.08	5.92	$1,841.44
$138,791.00	120	$9,203.20	$76.69	6.63	$1,156.59
$142,509.38	40	$13,990.28	$349.76	9.82	$3,562.73
$143,635.76	10	$4,501.14	$450.11	3.13	$14,363.58
$145,636.00	30	$16,864.44	$562.15	11.58	$4,854.53
$146,465.00	45	$13,050.31	$290.01	8.91	$3,254.78
$147,237.00	14	$1,696.95	$121.21	1.15	$10,516.93
$148,150.00	40	$17,915.92	$447.90	12.09	$3,703.75
$148,491.05	45	$22,265.23	$494.78	14.99	$3,299.80
$149,420.30	90	$18,900.00	$210.00	12.65	$1,660.23
$151,025.04	10	$2,427.30	$242.73	1.61	$15,102.50
$151,971.00	45	$29,391.46	$653.14	19.34	$3,377.13
$152,230.00	30	$6,116.85	$203.89	4.02	$5,074.33
$153,483.68	90	$3,649.58	$40.55	2.38	$1,705.37
$154,700.00	20	$2,144.37	$107.22	1.39	$7,735.00
$156,200.00	120	$13,338.78	$111.16	8.54	$1,301.67

Table A-7 (Con't.). Data Set for Projects $100,000 - $200,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$156,386.06	45	$59,679.71	$1,326.22	38.16	$3,475.25
$157,671.00	60	$17,186.54	$286.44	10.90	$2,627.85
$158,113.40	60	$20,121.81	$335.36	12.73	$2,635.22
$158,228.20	90	$18,756.77	$208.41	11.85	$1,758.09
$158,270.08	30	$6,554.59	$218.49	4.14	$5,275.67
$158,700.00	3	$2,233.51	$744.50	1.41	$52,900.00
$162,000.00	30	$6,789.42	$226.31	4.19	$5,400.00
$162,102.00	150	$12,290.20	$81.93	7.58	$1,080.68
$163,398.50	90	$8,053.64	$89.48	4.93	$1,815.54
$163,433.96	45	$1,036.11	$23.02	0.63	$3,631.87
$164,886.48	100	$18,127.56	$181.28	10.99	$1,648.86
$165,200.00	30	$6,544.22	$218.14	3.96	$5,506.67
$170,070.74	90	$19,476.40	$216.40	11.45	$1,889.67
$171,118.00	15	$107.06	$7.14	0.06	$11,407.87
$171,175.60	60	$358.70	$5.98	0.21	$2,852.93
$172,801.00	45	$11,936.11	$265.25	6.91	$3,840.02
$172,834.49	100	$26,098.07	$260.98	15.10	$1,728.34
$174,400.00	60	$28,610.70	$476.85	16.41	$2,906.67
$174,460.00	90	$7,136.53	$79.29	4.09	$1,938.44
$175,868.44	120	$3,012.70	$25.11	1.71	$1,465.57
$176,397.60	120	$2,463.56	$20.53	1.40	$1,469.98
$176,583.00	90	$25,723.85	$285.82	14.57	$1,962.03
$177,000.00	30	$22,905.44	$763.51	12.94	$5,900.00
$177,139.12	10	$2,718.43	$271.84	1.53	$17,713.91
$177,558.48	75	$2,194.13	$29.26	1.24	$2,367.45
$178,276.00	40	$3,285.57	$82.14	1.84	$4,456.90
$178,508.50	120	$26,114.45	$217.62	14.63	$1,487.57
$179,000.00	95	$25,507.47	$268.50	14.25	$1,884.21
$179,690.00	30	$10,797.33	$359.91	6.01	$5,989.67
$179,938.80	60	$21,749.26	$362.49	12.09	$2,998.98
$181,839.27	100	$15,051.76	$150.52	8.28	$1,818.39
$181,961.90	150	$17,537.11	$116.91	9.64	$1,213.08
$182,718.91	110	$12,068.69	$109.72	6.61	$1,661.08
$183,200.00	30	$19,237.60	$641.25	10.50	$6,106.67

Table A-7 (Con't.). Data Set for Projects $100,000 - $200,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$183,955.00	45	$119,423.93	$2,653.87	64.92	$4,087.89
$184,590.00	30	$8,613.95	$287.13	4.67	$6,153.00
$184,624.65	90	$23,136.32	$257.07	12.53	$2,051.39
$187,002.09	100	$17,813.41	$178.13	9.53	$1,870.02
$189,105.00	90	$518.81	$5.76	0.27	$2,101.17
$189,635.00	45	$4,703.85	$104.53	2.48	$4,214.11
$189,817.85	90	$3,940.91	$43.79	2.08	$2,109.09
$190,885.60	90	$22,254.66	$247.27	11.66	$2,120.95
$191,569.00	75	$26.83	$0.36	0.01	$2,554.25
$197,689.01	130	$23,480.33	$180.62	11.88	$1,520.68
$198,180.00	150	$15,947.69	$106.32	8.05	$1,321.20
$199,381.60	45	$12,838.50	$285.30	6.44	$4,430.70

Table A-8. Data Set for Projects <$100,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$505.00	30	$322.63	$10.75	63.89	$16.83
$4,200.00	14	$3,144.19	$224.59	74.86	$300.00
$8,271.00	15	$340.14	$22.68	4.11	$551.40
$9,166.60	30	$4,298.07	$143.27	46.89	$305.55
$9,278.40	21	$2,398.46	$114.21	25.85	$441.83
$9,399.00	30	$8,041.93	$268.06	85.56	$313.30
$10,656.57	100	$9,952.04	$99.52	93.39	$106.57
$12,614.73	30	$240.89	$8.03	1.91	$420.49
$13,560.00	10	$5,403.14	$540.31	39.85	$1,356.00
$13,929.28	30	$8,125.60	$270.85	58.33	$464.31
$14,800.00	30	$175.29	$5.84	1.18	$493.33
$14,804.00	10	$1,297.17	$129.72	8.76	$1,480.40
$15,281.20	30	$3,076.10	$102.54	20.13	$509.37
$16,478.00	10	$1,050.60	$105.06	6.38	$1,647.80
$17,111.20	60	$606.14	$10.10	3.54	$285.19
$18,573.00	7	$905.79	$129.40	4.88	$2,653.29
$18,750.00	100	$1,301.41	$13.01	6.94	$187.50
$18,820.00	15	$703.62	$46.91	3.74	$1,254.67
$18,872.90	30	$4,201.71	$140.06	22.26	$629.10
$20,060.00	7	$4,209.93	$601.42	20.99	$2,865.71
$20,486.20	30	$2,305.35	$76.85	11.25	$682.87
$20,579.70	10	$7,379.62	$737.96	35.86	$2,057.97
$21,071.00	10	$1,691.84	$169.18	8.03	$2,107.10
$21,684.10	60	$3,783.74	$63.06	17.45	$361.40
$22,200.00	30	$4,632.57	$154.42	20.87	$740.00
$22,240.00	15	$4,242.02	$282.80	19.07	$1,482.67
$22,346.20	45	$4,070.48	$90.46	18.22	$496.58
$24,510.60	30	$143.85	$4.80	0.59	$817.02
$25,429.40	15	$2,764.34	$184.29	10.87	$1,695.29
$25,470.00	10	$2,087.94	$208.79	8.20	$2,547.00
$25,601.00	10	$1,141.96	$114.20	4.46	$2,560.10
$26,571.00	30	$4,110.36	$137.01	15.47	$885.70
$26,875.00	14	$1,634.68	$116.76	6.08	$1,919.64
$27,700.00	30	$146.08	$4.87	0.53	$923.33

Table A-8 (Con't.). Data Set for Projects <$100,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$29,500.00	30	$536.51	$17.88	1.82	$983.33
$30,080.00	20	$502.28	$25.11	1.67	$1,504.00
$30,184.00	10	$2,718.56	$271.86	9.01	$3,018.40
$30,375.00	40	$5,766.01	$144.15	18.98	$759.38
$31,000.00	20	$833.57	$41.68	2.69	$1,550.00
$31,415.00	20	$1,778.84	$88.94	5.66	$1,570.75
$31,941.50	30	$8,520.48	$284.02	26.68	$1,064.72
$34,630.00	45	$7,704.10	$171.20	22.25	$769.56
$35,325.00	30	$5,710.09	$190.34	16.16	$1,177.50
$35,541.70	30	$73.08	$2.44	0.21	$1,184.72
$35,801.00	15	$1,556.90	$103.79	4.35	$2,386.73
$36,370.00	10	$17,269.14	$1,726.91	47.48	$3,637.00
$36,450.00	20	$2,252.86	$112.64	6.18	$1,822.50
$36,760.00	10	$1,576.74	$157.67	4.29	$3,676.00
$38,108.05	30	$2,757.53	$91.92	7.24	$1,270.27
$39,500.00	30	$616.09	$20.54	1.56	$1,316.67
$40,010.00	7	$1,015.44	$145.06	2.54	$5,715.71
$40,630.00	15	$564.16	$37.61	1.39	$2,708.67
$41,190.00	15	$4,104.66	$273.64	9.97	$2,746.00
$41,278.95	25	$8,001.62	$320.06	19.38	$1,651.16
$41,367.00	30	$1,479.86	$49.33	3.58	$1,378.90
$41,404.20	90	$1,486.02	$16.51	3.59	$460.05
$43,288.30	40	$14,696.44	$367.41	33.95	$1,082.21
$43,482.00	90	$2,256.89	$25.08	5.19	$483.13
$43,871.00	45	$2,057.09	$45.71	4.69	$974.91
$44,780.96	15	$9,092.37	$606.16	20.30	$2,985.40
$45,180.00	39	$11,265.22	$288.85	24.93	$1,158.46
$45,450.50	100	$3,551.19	$35.51	7.81	$454.51
$45,660.22	30	$2,462.49	$82.08	5.39	$1,522.01
$46,390.00	30	$5,001.80	$166.73	10.78	$1,546.33
$47,870.00	7	$76.41	$10.92	0.16	$6,838.57
$48,027.50	16	$5,248.08	$328.01	10.93	$3,001.72
$48,689.45	25	$5,968.89	$238.76	12.26	$1,947.58
$49,777.50	30	$4,201.14	$140.04	8.44	$1,659.25

Table A-8 (Con't.). Data Set for Projects <$100,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$51,160.90	30	$11,928.03	$397.60	23.31	$1,705.36
$51,900.00	30	$15,514.80	$517.16	29.89	$1,730.00
$52,869.00	30	$2,936.73	$97.89	5.55	$1,762.30
$53,320.00	12	$5,566.57	$463.88	10.44	$4,443.33
$53,643.11	10	$323.02	$32.30	0.60	$5,364.31
$55,000.00	177	$1,823.71	$10.30	3.32	$310.73
$55,272.00	16	$3,140.49	$196.28	5.68	$3,454.50
$58,800.00	30	$5,333.58	$177.79	9.07	$1,960.00
$59,108.00	30	$1,546.69	$51.56	2.62	$1,970.27
$59,815.30	30	$11,467.75	$382.26	19.17	$1,993.84
$64,044.60	33	$1,700.56	$51.53	2.66	$1,940.75
$64,177.00	45	$35,189.45	$781.99	54.83	$1,426.16
$64,190.00	10	$1,711.12	$171.11	2.67	$6,419.00
$64,260.00	12	$2,822.14	$235.18	4.39	$5,355.00
$67,111.00	30	$22,126.72	$737.56	32.97	$2,237.03
$68,225.00	30	$8,446.69	$281.56	12.38	$2,274.17
$68,500.00	30	$2,673.36	$89.11	3.90	$2,283.33
$68,800.00	30	$2,095.58	$69.85	3.05	$2,293.33
$68,988.00	30	$313.01	$10.43	0.45	$2,299.60
$70,793.50	45	$21,327.62	$473.95	30.13	$1,573.19
$70,850.00	20	$2,158.22	$107.91	3.05	$3,542.50
$71,419.00	30	$3,137.05	$104.57	4.39	$2,380.63
$72,462.50	18	$2,663.56	$147.98	3.68	$4,025.69
$72,739.20	20	$3,521.08	$176.05	4.84	$3,636.96
$73,907.15	45	$11,043.23	$245.41	14.94	$1,642.38
$74,893.75	20	$3,804.90	$190.25	5.08	$3,744.69
$75,099.50	30	$6,044.71	$201.49	8.05	$2,503.32
$75,999.70	75	$7,837.45	$104.50	10.31	$1,013.33
$76,356.55	45	$23,055.61	$512.35	30.19	$1,696.81
$76,759.00	30	$3,391.74	$113.06	4.42	$2,558.63
$79,000.00	45	$8,030.52	$178.46	10.17	$1,755.56
$80,030.60	30	$8,663.54	$288.78	10.83	$2,667.69
$80,442.00	30	$11,793.13	$393.10	14.66	$2,681.40
$81,221.00	45	$2,101.12	$46.69	2.59	$1,804.91

Table A-8 (Con't.). Data Set for Projects <$100,000

Contract Amount	Cal Days Allowed	Disb Amt	Cost Per Calendar Day	%EI	$/day
$82,765.00	30	$2,042.91	$68.10	2.47	$2,758.83
$82,765.00	40	$1,188.22	$29.71	1.44	$2,069.13
$84,350.00	30	$8,824.12	$294.14	10.46	$2,811.67
$85,550.00	7	$2,248.36	$321.19	2.63	$12,221.43
$85,581.14	68	$39,040.94	$574.13	45.62	$1,258.55
$85,625.00	30	$1,294.46	$43.15	1.51	$2,854.17
$86,940.65	20	$1,438.74	$71.94	1.65	$4,347.03
$87,195.85	30	$756.40	$25.21	0.87	$2,906.53
$87,780.00	45	$14,142.19	$314.27	16.11	$1,950.67
$87,800.00	45	$13,034.07	$289.65	14.85	$1,951.11
$89,098.00	135	$6,731.26	$49.86	7.55	$659.99
$91,043.04	30	$36,427.14	$1,214.24	40.01	$3,034.77
$91,408.50	30	$1,985.62	$66.19	2.17	$3,046.95
$91,900.00	10	$1,037.98	$103.80	1.13	$9,190.00
$92,324.83	30	$5,259.01	$175.30	5.70	$3,077.49
$93,818.00	100	$1,450.00	$14.50	1.55	$938.18
$94,358.00	15	$3,207.86	$213.86	3.40	$6,290.53
$94,826.00	75	$11,902.01	$158.69	12.55	$1,264.35
$96,257.50	20	$374.68	$18.73	0.39	$4,812.88
$96,865.70	20	$5,171.60	$258.58	5.34	$4,843.29
$97,356.00	40	$10,194.84	$254.87	10.47	$2,433.90
$98,918.00	30	$9,150.23	$305.01	9.25	$3,297.27
$99,024.02	30	$52,101.84	$1,736.73	52.62	$3,300.80
$99,151.00	60	$2,019.58	$33.66	2.04	$1,652.52