

Curve Fit for Windows

Presented by

Scott Erwin & Alex Chizewsky

Idaho State Tax Commission

County Support Division

Curve Fit for Windows

Designed by a User for Users

User Documentation written for Users

Developed using Excel 97

Used in several jurisdictions in Idaho

Curve Fit for Windows

Mean : The mathematical average of a set of data points.

Median : The middle point in the data array.

Standard Deviation : A statistical measure of the spread or the average distance of data from the Mean in a group.

Coefficient of Variation (COV) : The Standard Deviation expressed as a percent of the Mean.

R-Squared (R^2) : The statistical term used to describe how well the model “Fits” the data.

Definitions

Curve Fit for Windows

Depreciation Schedule Builder

Spreadsheet & Sample
Demonstration

Curve Fit for Windows

This is the 'Start Panel' for the Windows Based Curve Fitter Spreadsheet.

Depreciation
Schedule Builder

or

Standard "Curve Fit"

In the box to the right, please enter the number of data points that will be used in determining the schedule.

Please check this box if you are planning to 'Cut and Paste' data from another spreadsheet. If you are building a Depreciation schedule, please copy the "Actual Age" and not the Construction Year.

Press for Data Entry

Press for Online Help

Opening Panel

Curve Fit for Windows

This is the 'Start Panel' for the Windows Based Curve Fitter Spreadsheet.

Depreciation
Schedule Builder

Please supply the
"Base Year" for Age
calculations.

or

Standard "Curve Fit"

In the box to the right, please enter the
number of data points that will be used in
determining the schedule.

Please check this box if you are planning to 'Cut and Paste'
data from another spreadsheet. If you are building a
Depreciation schedule, please copy the "Actual Age" and
not the Construction Year.

Press for Data Entry

Press for Online Help

Depreciation Option on Opening Panel

Curve Fit for Windows

This is the 'Start Panel' for the Windows Based Curve Fitter Spreadsheet.

Depreciation
Schedule Builder

or

Standard "Curve Fit"

Please enter the 'Type' of schedule
being built. E.g., SQFT, etc.

In the box to the right, please enter the
number of data points that will be used in
determining the schedule.

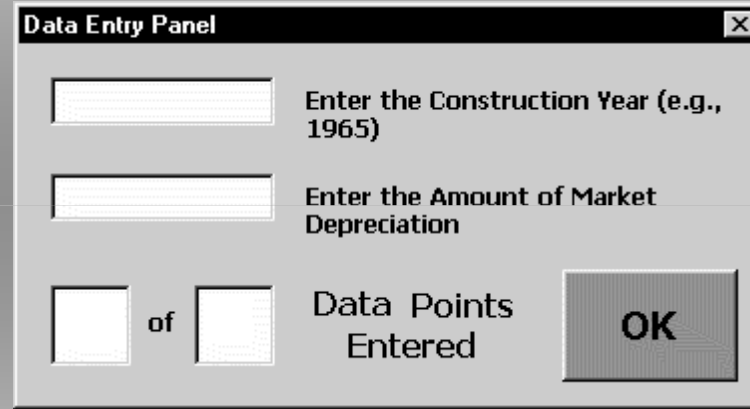
Please check this box if you are planning to 'Cut and Paste'
data from another spreadsheet. If you are building a
Depreciation schedule, please copy the "Actual Age" and
not the Construction Year.

Press for Data Entry

Press for Online Help

Standard Option on Opening Panel

Curve Fit for Windows



The image shows a dialog box titled "Data Entry Panel" with a close button (X) in the top right corner. It contains three input fields and an OK button. The first input field is followed by the text "Enter the Construction Year (e.g., 1965)". The second input field is followed by the text "Enter the Amount of Market Depreciation". The third input field is followed by the text "Data Points Entered", and there is a small "of" label between two input fields. The OK button is located to the right of the "Data Points Entered" text.

Data Entry Panel

Enter the Construction Year (e.g., 1965)

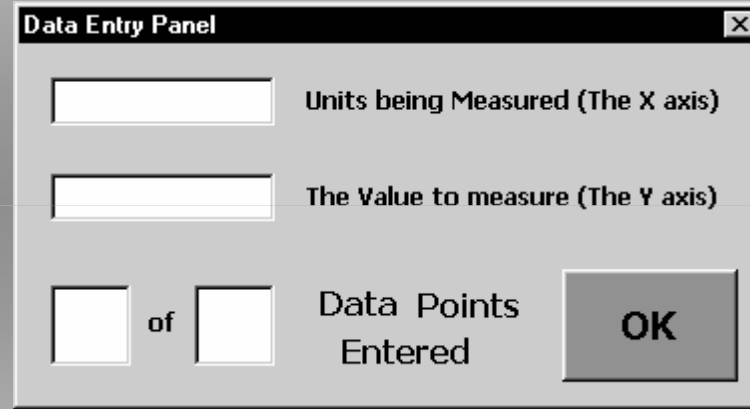
Enter the Amount of Market Depreciation

of Data Points Entered

OK

Data Entry Panel for Depreciation Schedule Option

Curve Fit for Windows



The image shows a dialog box titled "Data Entry Panel" with a close button (X) in the top right corner. It contains three input fields and an "OK" button. The first input field is labeled "Units being Measured (The X axis)". The second input field is labeled "The Value to measure (The Y axis)". The third input field is part of a label "Data Points Entered" and is preceded by the word "of" and another input field.

Data Entry Panel

Units being Measured (The X axis)

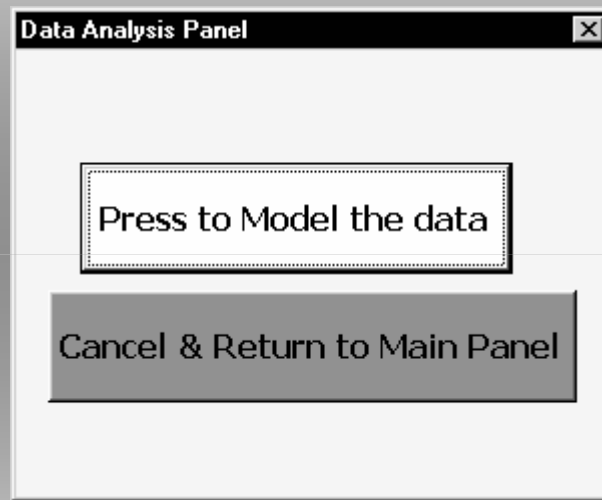
The Value to measure (The Y axis)

of Data Points Entered

OK

Data Entry Panel for Standard Curve Fit Option

Curve Fit for Windows



Data Analysis Panel

Curve Fit for Windows

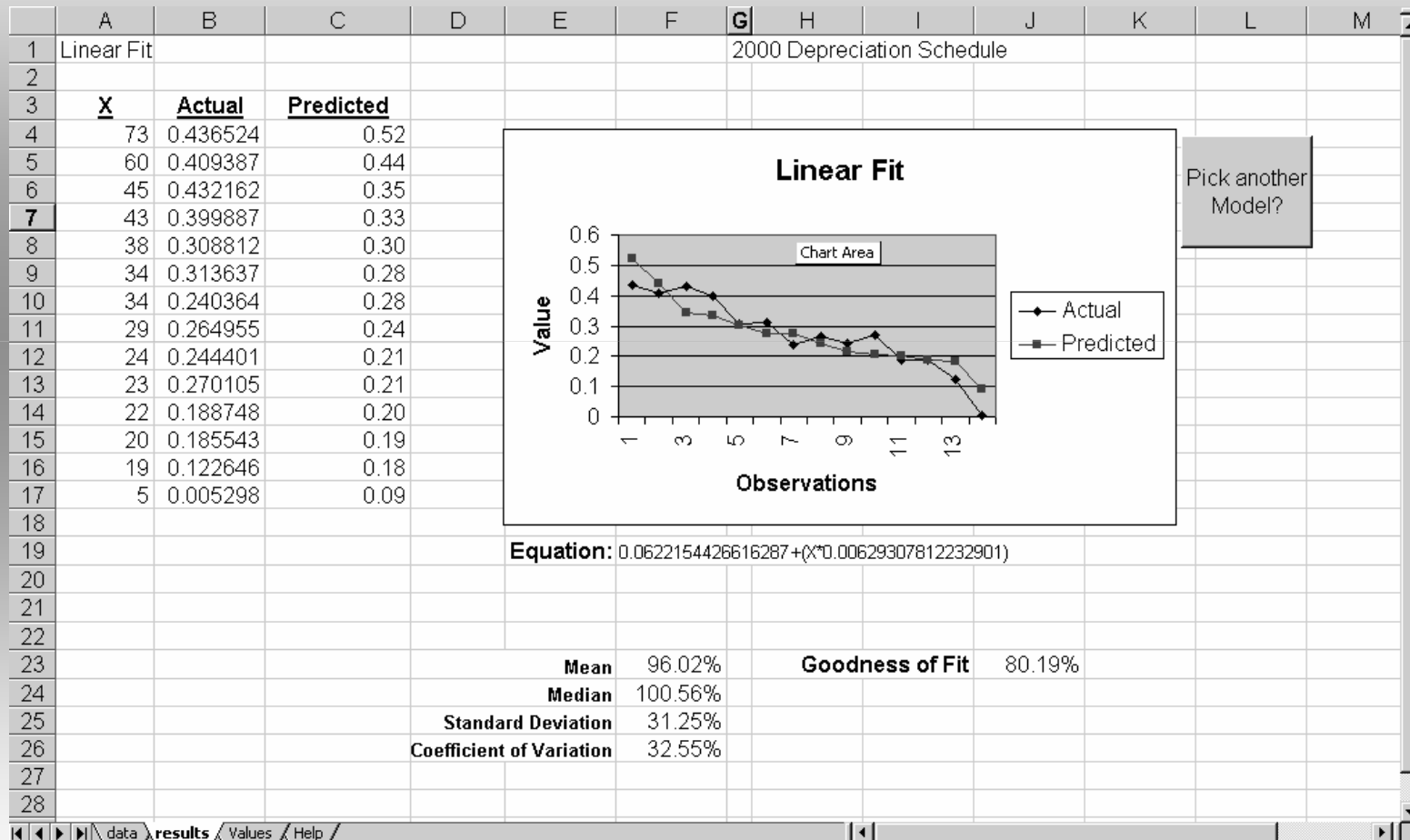
MODEL RESULTS PANEL

Model Type	Goodness of fit Measure (R ²)	Model Predictability	Mean Ratio	Median Ratio	Standard Deviation	COV	Selection
Reciprocal Model	80.70%		100.37%	100.53%	11.90%	11.86%	
Power (Log) Model	87.25%		100.08%	96.78%	8.75%	8.74%	BEST FIT / Lowest Error
Linear Model	83.34%		99.82%	96.45%	9.36%	9.38%	

Buttons: View / Edit Model, Apply THIS Model, Print this Model

Model Results Panel

Curve Fit for Windows



View Model Results Screen


Curve Fit for Windows

MODEL RESULTS PANEL [X]

Reciprocal Model	Power (Log) Model	Linear Model
Goodness of fit Measure (R ²): 80.70%	Goodness of fit Measure (R ²): 87.25%	Goodness of fit Measure (R ²): 83.34%
<u>Model Predictability</u>	<u>Model Predictability</u>	<u>Model Predictability</u>
Mean Ratio: 100.37%	Mean Ratio: 100.08%	Mean Ratio: 99.82%
Median Ratio: 100.53%	Median Ratio: 96.78%	Median Ratio: 96.45%
Standard Deviation: 11.90%	Standard Deviation: 8.75%	Standard Deviation: 9.36%
COV: 11.86%	COV: 8.74%	COV: 9.38%
<input type="text"/>	<input type="text" value="BEST FIT"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="Lowest Error"/>	<input type="text"/>
<input type="button" value="View / Edit Model"/> <input type="button" value="Apply THIS Model"/>	<input type="button" value="View / Edit Model"/> <input type="button" value="Apply THIS Model"/>	<input type="button" value="View / Edit Model"/> <input type="button" value="Apply THIS Model"/>
<input type="radio"/> Print this Model	<input type="radio"/> Print this Model	<input type="radio"/> Print this Model

Model Results Panel

Curve Fit for Windows



Beginning Size

Ending Size

Size Increment

Value Rounding Amount

Label5

Show Me the Value Schedule!

Schedule Setup Panel

Curve Fit for Windows

Base Year: 2000 Equation: $0.0622154426616287 \cdot (X^{0.00629307812232901})$ Values rounded to 0.005, Ages Incremented by 1

Depreciation Schedule	Age	Year Built	% Depr.	% Good	Age	Year Built	% Depr.	% Good	Age	Year Built	% Depr.	% Good
	0	2000	7.0%	93.0%	56	1944	42.0%	58.0%	111	1889	0.0%	100.0%
	1	1999	7.5%	92.5%	57	1943	42.5%	57.5%	112	1888	0.0%	100.0%
	2	1998	8.0%	92.0%	58	1942	43.5%	56.5%	113	1887	0.0%	100.0%
	3	1997	8.5%	91.5%	59	1941	44.0%	56.0%	114	1886	0.0%	100.0%
	4	1996	9.5%	90.5%	60	1940	44.5%	55.5%	115	1885	0.0%	100.0%
	5	1995	10.0%	90.0%	61	1939	45.0%	55.0%	116	1884	0.0%	100.0%
	6	1994	10.5%	89.5%	62	1938	46.0%	54.0%	117	1883	0.0%	100.0%
	7	1993	11.5%	88.5%	63	1937	46.5%	53.5%	118	1882	0.0%	100.0%
	8	1992	12.0%	88.0%	64	1936	47.0%	53.0%	119	1881	0.0%	100.0%
	9	1991	12.5%	87.5%	65	1935	48.0%	52.0%	120	1880	0.0%	100.0%
	10	1990	13.0%	87.0%	66	1934	48.5%	51.5%	121	1879	0.0%	100.0%
	11	1989	14.0%	86.0%	67	1933	49.0%	51.0%	122	1878	0.0%	100.0%
	12	1988	14.5%	85.5%	68	1932	49.5%	50.5%	123	1877	0.0%	100.0%
	13	1987	15.0%	85.0%	69	1931	50.5%	49.5%	124	1876	0.0%	100.0%
	14	1986	15.5%	84.5%	70	1930	51.0%	49.0%	125	1875	0.0%	100.0%
	15	1985	16.5%	83.5%	71	1929	51.5%	48.5%	126	1874	0.0%	100.0%
	16	1984	17.0%	83.0%	72	1928	52.0%	48.0%	127	1873	0.0%	100.0%
	17	1983	17.5%	82.5%	73	1927	53.0%	47.0%	128	1872	0.0%	100.0%
	18	1982	18.0%	82.0%	74	1926	53.5%	46.5%	129	1871	0.0%	100.0%
	19	1981	19.0%	81.0%	75	1925	54.0%	46.0%	130	1870	0.0%	100.0%
	20	1980	19.5%	80.5%	76	1924	54.5%	45.5%	131	1869	0.0%	100.0%
	21	1979	20.0%	80.0%	77	1923	55.5%	44.5%	132	1868	0.0%	100.0%
	22	1978	20.5%	79.5%	78	1922	56.0%	44.0%	133	1867	0.0%	100.0%
	23	1977	21.5%	78.5%	79	1921	56.5%	43.5%	134	1866	0.0%	100.0%
	24	1976	22.0%	78.0%	80	1920	57.0%	43.0%	135	1865	0.0%	100.0%
	25	1975	22.5%	77.5%	81	1919	58.0%	42.0%	136	1864	0.0%	100.0%
	26	1974	23.0%	77.0%	82	1918	58.5%	41.5%	137	1863	0.0%	100.0%
	27	1973	24.0%	76.0%	83	1917	59.0%	41.0%	138	1862	0.0%	100.0%
	28	1972	24.5%	75.5%	84	1916	59.5%	40.5%	139	1861	0.0%	100.0%
	29	1971	25.0%	75.0%	85	1915	60.5%	39.5%	140	1860	0.0%	100.0%
	30	1970	25.5%	74.5%	86	1914	61.0%	39.0%	141	1859	0.0%	100.0%
	31	1969	26.5%	73.5%	87	1913	61.5%	38.5%	142	1858	0.0%	100.0%
	32	1968	27.0%	73.0%	88	1912	62.0%	38.0%	143	1857	0.0%	100.0%
	33	1967	27.5%	72.5%	89	1911	63.0%	37.0%	144	1856	0.0%	100.0%
	34	1966	28.0%	72.0%	90	1910	63.5%	36.5%	145	1855	0.0%	100.0%
	35	1965	29.0%	71.0%	91	1909	64.0%	36.0%	146	1854	0.0%	100.0%

Sample Depreciation Schedule

SAMPLE OF RAW DATA

MINIDOKA COUNTY 2000 RESIDENTIAL DEPRECIATION																
MARKET CONDITON AVERAGE																
PROVAL CLASS AVERAGE																
PARCEL	YEAR	AGE	SALE	SALE	PROVAL	PROVAL	RESIDUAL	PROVAL	DEPRECIATON	DEPRECIATION	PREDICTED	DEP	DEP	LAND	TOTAL	
NUMBER	BUILT	AGE	DATE	PRICE	VALUE	IMPS.	TO IMPS.	RCN	PERCENTAGE	PER YEAR	RATE	AMOUNT	RCN	LAND	VALUE	RATIO
1	1927	73	7/1/98	\$ 72,000	\$ 5,600	\$ -	\$ 66,400	\$ 117,840	0.44	0.0060		\$ -	\$ 117,840	\$ 5,600	\$ 123,440	171.44%
2	1940	60	3/1/99	\$ 80,000	\$ 8,400	\$ -	\$ 71,600	\$ 121,230	0.41	0.0068		\$ -	\$ 121,230	\$ 8,400	\$ 129,630	162.04%
3	1955	45	10/1/98	\$ 123,500	\$ 16,720	\$ 23,552	\$ 83,228	\$ 146,570	0.43	0.0096		\$ -	\$ 146,570	\$ 16,720	\$ 186,842	151.29%
4	1957	43	1/1/99	\$ 106,000	\$ 10,030	\$ -	\$ 95,970	\$ 159,920	0.40	0.0093		\$ -	\$ 159,920	\$ 10,030	\$ 169,950	160.33%
5	1962	38	12/1/98	\$ 82,900	\$ 9,800	\$ -	\$ 73,100	\$ 105,760	0.31	0.0081		\$ -	\$ 105,760	\$ 9,800	\$ 115,560	139.40%
6	1966	34	1/1/99	\$ 100,000	\$ 9,600	\$ 6,046	\$ 84,354	\$ 122,900	0.31	0.0092		\$ -	\$ 122,900	\$ 9,600	\$ 138,546	138.55%
7	1966	34	9/1/98	\$ 69,900	\$ 9,000	\$ -	\$ 60,900	\$ 80,170	0.24	0.0071		\$ -	\$ 80,170	\$ 9,000	\$ 89,170	127.57%
8	1971	29	7/1/98	\$ 76,750	\$ 8,060	\$ -	\$ 68,690	\$ 93,450	0.26	0.0091		\$ -	\$ 93,450	\$ 8,060	\$ 101,510	132.26%
9	1976	24	1/1/99	\$ 85,000	\$ 11,450	\$ -	\$ 73,550	\$ 97,340	0.24	0.0102		\$ -	\$ 97,340	\$ 11,450	\$ 108,790	127.99%
10	1977	23	9/9/98	\$ 85,000	\$ 8,580	\$ -	\$ 76,420	\$ 104,700	0.27	0.0117		\$ -	\$ 104,700	\$ 8,580	\$ 113,280	133.27%
11	1978	22	4/1/99	\$ 128,000	\$ 8,600	\$ -	\$ 119,400	\$ 147,180	0.19	0.0086		\$ -	\$ 147,180	\$ 8,600	\$ 155,780	121.70%
12	1980	20	12/1/98	\$ 74,000	\$ 7,410	\$ -	\$ 66,590	\$ 81,760	0.19	0.0093		\$ -	\$ 81,760	\$ 7,410	\$ 89,170	120.50%
13	1981	19	3/1/99	\$ 90,000	\$ 8,950	\$ -	\$ 81,050	\$ 92,380	0.12	0.0065		\$ -	\$ 92,380	\$ 8,950	\$ 101,330	112.59%
14	1995	5	11/1/98	\$ 95,000	\$ 6,750	\$ -	\$ 88,250	\$ 88,720	0.01	0.0011		\$ -	\$ 88,720	\$ 6,750	\$ 95,470	100.49%
TOTAL SALES	14														MEAN	135.67%
															MEDIAN	132.77%
															STD DEV	0.1997
															COV	0.1472

DATA ENTERED IN PROGRAM

Microsoft Excel - curve2000.xls

File Edit View Insert Format Tools Data Window Help

A1 =

1 X

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data results Values Help

Ready

Start Inbox - Microsoft Outlook Microsoft PowerPoint - [cur... Microsoft Excel - cur... 8:26 AM

This is the 'Start Panel' for the Windows Based Curve Fitter Spreadsheet.

Depreciation Schedule Builder

Please supply the "Base Year" for Age calculations. 2000

or

Standard "Curve Fit"

In the box to the right, please enter the number of data points that will be used in determining the schedule. 5

Please check this box if you are planning to 'Cut and Paste' data from another spreadsheet. If you are building a Depreciation schedule, please copy the "Actual Age" and not the Construction Year.

Press for Data Entry Press for Online Help

EACH DATA POINT CAN BE ENTERED INTO CURVE PROGRAM

The screenshot displays a Microsoft Excel window titled "Microsoft Excel - curve2000.xls". The spreadsheet contains data for four data points. A "Data Entry Panel" dialog box is open, showing the entry of the 4th data point. The dialog box includes input fields for "Construction Year" (1926) and "Amount of Market Depreciation" (.55), and a progress indicator showing "4 of 5 Data Points Entered". An "OK" button is also visible.

	A	B	C	D	E	F	G	H
1		X	Y		recip	logarithmic	linear	
2	1	1975	0.25		0.000506329	7.5883237	1975	
3	2	1939	0.45		0.00051573	7.56992766	1939	
4	3	1991	0.15		0.00050226	7.5963923	1991	
5	4	1969	0.25		0.000507872	7.58528108	1969	

Data Entry Panel

Enter the Construction Year (e.g., 1965)

Enter the Amount of Market Depreciation

of **Data Points Entered**

AFTER YOUR INFORMATION IS ENTERED, YOU CAN MODEL THE DATA

The screenshot displays a Microsoft Excel window titled "Microsoft Excel - curve2000.xls". The spreadsheet contains data for modeling, with columns labeled A through H. The data is as follows:

	A	B	C	D	E	F	G	H
1		X	Y		recip	logarithmic	linear	
2	1	1975	0.25		0.000506329	7.5883237	1975	
3	2	1939	0.45		0.00051573	7.56992766	1939	
4	3	1991	0.15		0.00050226	7.5963923	1991	
5	4	1969	0.25		0.000507872	7.58528108	1969	
6	5	1926	0.55		0.000519211	7.56320059	1926	

A "Data Analysis Panel" dialog box is overlaid on the spreadsheet, containing two buttons:

- Press to Model the data
- Cancel & Return to Main Panel

The Windows taskbar at the bottom shows the Start button, several open applications (Inbox - Microsoft Outlook, Microsoft PowerPoint - [cur...], Microsoft Excel - cur...), and the system clock displaying 8:48 AM.

NOW YOU CAN EDIT, VIEW, APPLY AND PRINT THE MODEL

The screenshot displays the Microsoft Excel interface with a 'MODEL RESULTS PANEL' dialog box overlaid on a spreadsheet. The spreadsheet shows data in columns A and B, with values 1 through 5. The dialog box is divided into three sections, each representing a different model:

- Reciprocal Model:** Goodness of fit Measure (R²) is 99.12%. Model Predictability includes Mean Ratio (100.50%), Median Ratio (102.01%), Standard Deviation (5.88%), and COV (5.85%).
- Power (Log) Model:** Goodness of fit Measure (R²) is 99.07%. Model Predictability includes Mean Ratio (100.55%), Median Ratio (102.15%), Standard Deviation (6.08%), and COV (6.04%).
- Linear Model:** Goodness of fit Measure (R²) is 99.01%. Model Predictability includes Mean Ratio (100.59%), Median Ratio (102.28%), Standard Deviation (6.29%), and COV (6.25%).

Each model section contains a 'BEST FIT' and 'Lowest Error' button, a 'View / Edit Model' button, an 'Apply THIS Model' button, and a 'Print Preview this Model' button. The 'Apply THIS Model' buttons are highlighted in green.

DEPRECIATION CURVE CUT AND PASTE

This is the 'Start Panel' for the Windows Based Curve Fitter Spreadsheet.

Depreciation Schedule Builder Standard "Curve Fit"

Please supply the "Base Year" for Age calculations.

or

In the box to the right, please enter the number of data points that will be used in determining the schedule.

Please check this box if you are planning to 'Cut and Paste' data from another spreadsheet. If you are building a Depreciation schedule, please copy the "Actual Age" and not the Construction Year.

	A	B
1	Imported	X
2		
3		
4		
5		
6		
7		
8		
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AGE AND MARKET ABSTRACTED DEPRECIATION CUT AND PASTED FROM YOUR RAW DATA FILE

The screenshot shows a Microsoft Excel spreadsheet titled "Microsoft Excel - curve2000.xls". The spreadsheet contains the following data:

	A	B	C	D	E	F	G	H	I	J
1		X	Y		recip	logarithmic	linear			
2	1	73	0.436524							
3	2	60	0.409387							
4	3	45	0.432162							
5	4	43	0.399887							
6	5	38	0.308812							
7	6	34	0.313637							
8	7	34	0.240364							
9	8	29	0.264955							
10	9	24	0.244401							
11	10	23	0.270105							
12	11	22	0.188748							
13	12	20	0.185543							
14	13	19	0.122646							
15	14	5	0.005298							

Instructions and buttons are located in column I:

- Row 7: "Press to View Results & Chart"
- Row 15: "Press AFTER Editing, Importing or changing the information!"
- Row 22: "START" (in red text)

The status bar at the bottom shows "data / results / Values / Help /" and "Select destination and press ENTER or choose Paste". The taskbar includes "Start", "Inbox - Microsoft Outlook", "Microsoft PowerPoint - [cur...", "Microsoft Excel - cur...", and the system clock "3:12 PM".

CHOOSE THE MODEL BASED ON BEST FIT AND LOWEST ERROR

The screenshot shows a Microsoft Excel spreadsheet with a data table and a 'MODEL RESULTS PANEL' dialog box. The data table contains the following values:

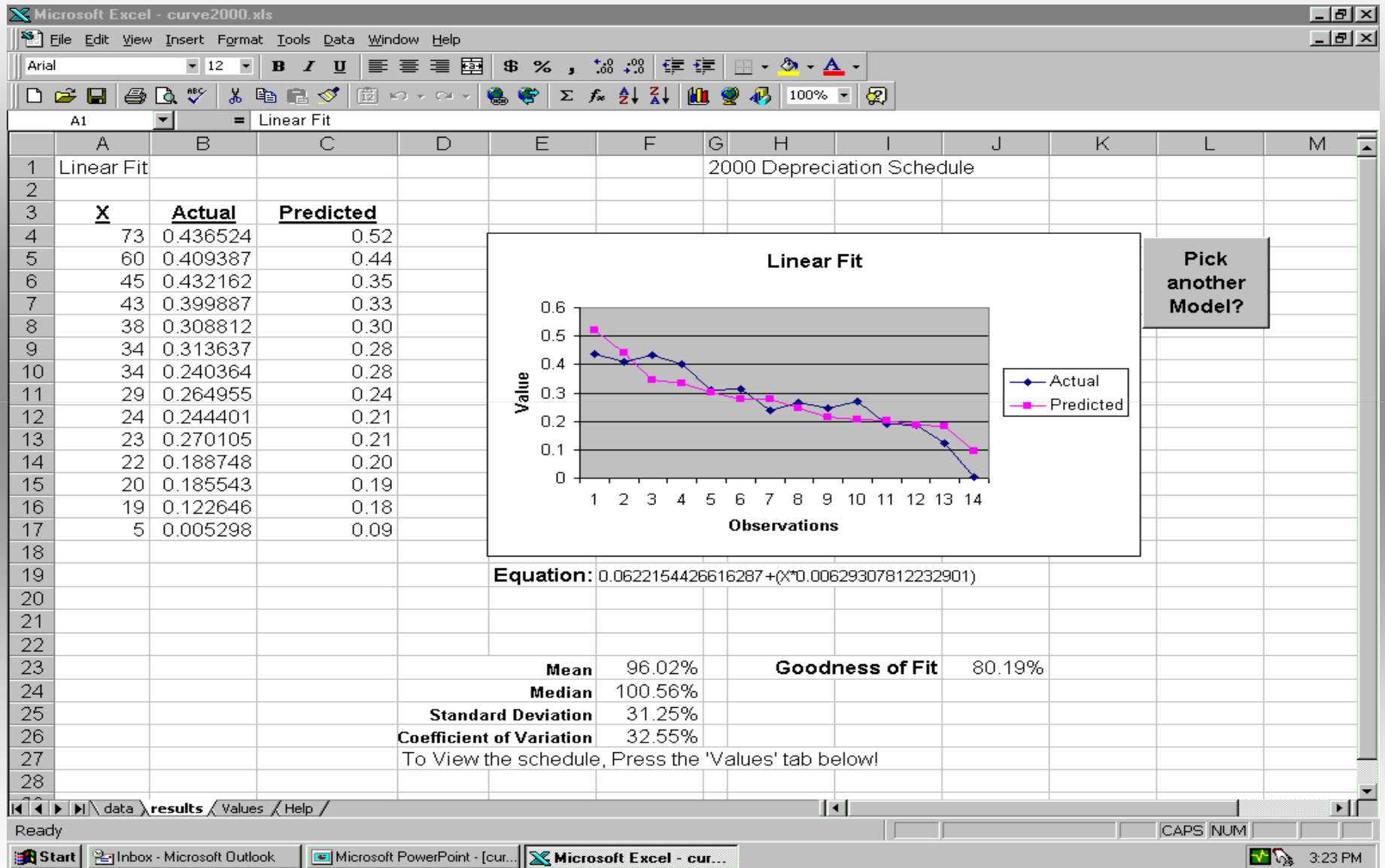
	A	B
1	IMPORT	X
2	1	73
3	2	60
4	3	45
5	4	43
6	5	38
7	6	34
8	7	34
9	8	29
10	9	24
11	10	23
12	11	22
13	12	20
14	13	19
15	14	5

The 'MODEL RESULTS PANEL' dialog box displays the following results for three models:

Model	Goodness of fit Measure (R ²)	Model Predictability	Mean Ratio	Median Ratio	Standard Deviation	COV	Selection
Reciprocal Model	62.50%	88.92%	93.80%	37.92%	42.65%		
Power (Log) Model	87.71%	89.23%	97.54%	33.30%	37.32%	BEST FIT	
Linear Model	80.19%	96.02%	100.56%	31.25%	32.55%	Lowest Error	

The dialog box also includes buttons for 'View / Edit Model', 'Apply THIS Model', and 'Print Preview this Model' for each model. The 'Power (Log) Model' is highlighted with a blue border and labeled as 'BEST FIT'.

USE THIS TO SHOW THE BOSS HOW SMART YOU ARE



COME BACK HERE TO APPLY YOUR MODEL

Microsoft Excel - curve2000.xls

File Edit View Insert Format Tools Data Window Help

Arial 12 B I U

A2 = 1

	A	B
1	IMPORT	X
2	1	73
3	2	60
4	3	45
5	4	43
6	5	38
7	6	34
8	7	34
9	8	29
10	9	24
11	10	23
12	11	22
13	12	20
14	13	19
15	14	5

MODEL RESULTS PANEL

Reciprocal Model	Power (Log) Model	Linear Model
Goodness of fit Measure (R ²): 62.50%	Goodness of fit Measure (R ²): 87.71%	Goodness of fit Measure (R ²): 80.19%
Model Predictability	Model Predictability	Model Predictability
Mean Ratio: 88.92%	Mean Ratio: 89.23%	Mean Ratio: 96.02%
Median Ratio: 93.80%	Median Ratio: 97.54%	Median Ratio: 100.56%
Standard Deviation: 37.92%	Standard Deviation: 33.30%	Standard Deviation: 31.25%
COV: 42.65%	COV: 37.32%	COV: 32.55%
<input type="text"/>	BEST FIT	<input type="text"/>
<input type="text"/>	<input type="text"/>	Lowest Error
<input type="button" value="View / Edit Model"/> <input type="button" value="Apply THIS Model"/>	<input type="button" value="View / Edit Model"/> <input type="button" value="Apply THIS Model"/>	<input type="button" value="View / Edit Model"/> <input type="button" value="Apply THIS Model"/>
<input type="button" value="Print Preview this Model"/>	<input type="button" value="Print Preview this Model"/>	<input type="button" value="Print Preview this Model"/>

Ready

Start | Inbox - Microsoft Outlook | Microsoft PowerPoint - [cur... | Microsoft Excel - cur... | 3:17 PM

YOU HAVE TO MAKE MORE CHOICES

The screenshot shows a Microsoft Excel window titled "Microsoft Excel - curve2000.xls". The spreadsheet contains data in columns A through J. A dialog box is open in the center, allowing the user to select a model and set parameters. The dialog box has the following fields and options:

- Beginning Size:** 1
- Ending Size:** 75
- Size Increment:** 1
- Value Rounding Amount:** .05
- Model Selection:** A green bar indicates "Linear Model Chosen!".
- Action Buttons:** "Show Me the Value Schedule!" and "Press to View Results & Chart".

Additional instructions and buttons are present on the right side of the spreadsheet:

- "Press AFTER Editing, Importing or changing the information!"
- A large red "START" button.

The spreadsheet data is as follows:

	A	B	C	D	E	F	G	H	I	J
1	IMPORT	X	Y		recip	logarithmic	linear			
2	1	73	0.436524		0.013698630	4.2904594	73			
3	2	60	0.409387		0.016666667	4.09434456	60			
4	3	45	0.432162							
5	4	43	0.399887							
6	5	38	0.308812							
7	6	34	0.313637							
8	7	34	0.240364							
9	8	29	0.264955							
10	9	24	0.244401							
11	10	23	0.270105							
12	11	22	0.188748							
13	12	20	0.185543							
14	13	19	0.122646							
15	14	5	0.005298							

THIS IS THE LAST TIME YOU HAVE TO LOOK AT THIS SCREEN

The screenshot shows a Microsoft Excel window with a data table and a 'MODEL RESULTS PANEL' dialog box. The data table contains two columns, A and B, with values for rows 1 through 14. The dialog box compares three models: Reciprocal, Power (Log), and Linear. Each model's performance is evaluated based on its Goodness of fit Measure (R²), Model Predictability, Mean Ratio, Median Ratio, Standard Deviation, and COV. The Power (Log) model is identified as the 'BEST FIT'.

Model	Goodness of fit Measure (R ²)	Model Predictability	Mean Ratio	Median Ratio	Standard Deviation	COV
Reciprocal Model	62.50%	88.92%	93.80%	37.92%	42.65%	
Power (Log) Model	87.71%	89.23%	97.54%	33.30%	37.32%	BEST FIT
Linear Model	80.19%	96.02%	100.56%	31.25%	32.55%	Lowest Error

THE MAGIC DEPRECIATION SCHEDULE

Microsoft Excel - curve2000.xls

Next Previous Zoom Print... Setup... Margins Page Break Preview Close Help

Base Year: 2000 Equation: $0.0522154426516287 - 2 * 0.01623377312232901$ Values rounded to 0%, Age Incremented by 1

Depreciation Schedule	Age	Year	% Dep.	% Good	Age	Year	% Dep.	% Good	Age	Year	% Dep.	% Good
	0	2000	5.0%	95.0%	56	1944	4.0%	60.0%	111	1989	0.0%	100.0%
	1	1999	5.0%	95.0%	57	1943	4.5%	55.0%	112	1988	0.0%	100.0%
	2	1998	10.0%	90.0%	58	1942	4.5%	55.0%	113	1987	0.0%	100.0%
	3	1997	10.0%	90.0%	59	1941	4.5%	55.0%	114	1986	0.0%	100.0%
	4	1996	10.0%	90.0%	60	1940	4.5%	55.0%	115	1985	0.0%	100.0%
	5	1995	10.0%	90.0%	61	1939	4.5%	55.0%	116	1984	0.0%	100.0%
	6	1994	10.0%	90.0%	62	1938	4.5%	55.0%	117	1983	0.0%	100.0%
	7	1993	10.0%	90.0%	63	1937	4.5%	55.0%	118	1982	0.0%	100.0%
	8	1992	10.0%	90.0%	64	1936	4.5%	55.0%	119	1981	0.0%	100.0%
	9	1991	15.0%	85.0%	65	1935	5.0%	50.0%	120	1980	0.0%	100.0%
	10	1990	15.0%	85.0%	66	1934	5.0%	50.0%	121	1879	0.0%	100.0%
	11	1989	15.0%	85.0%	67	1933	5.0%	50.0%	122	1878	0.0%	100.0%
	12	1988	15.0%	85.0%	68	1932	5.0%	50.0%	123	1877	0.0%	100.0%
	13	1987	15.0%	85.0%	69	1931	5.0%	50.0%	124	1876	0.0%	100.0%
	14	1986	15.0%	85.0%	70	1930	5.0%	50.0%	125	1875	0.0%	100.0%
	15	1985	15.0%	85.0%	71	1929	5.0%	50.0%	126	1874	0.0%	100.0%
	16	1984	15.0%	85.0%	72	1928	5.0%	50.0%	127	1873	0.0%	100.0%
	17	1983	20.0%	80.0%	73	1927	5.5%	45.0%	128	1872	0.0%	100.0%
	18	1982	20.0%	80.0%	74	1926	5.5%	45.0%	129	1871	0.0%	100.0%
	19	1981	20.0%	80.0%	75	1925	0.0%	100.0%	130	1870	0.0%	100.0%
	20	1980	20.0%	80.0%	76	1924	0.0%	100.0%	131	1869	0.0%	100.0%
	21	1979	20.0%	80.0%	77	1923	0.0%	100.0%	132	1868	0.0%	100.0%
	22	1978	20.0%	80.0%	78	1922	0.0%	100.0%	133	1867	0.0%	100.0%
	23	1977	20.0%	80.0%	79	1921	0.0%	100.0%	134	1866	0.0%	100.0%
	24	1976	20.0%	80.0%	80	1920	0.0%	100.0%	135	1865	0.0%	100.0%
	25	1975	25.0%	75.0%	81	1919	0.0%	100.0%	136	1864	0.0%	100.0%
	26	1974	25.0%	75.0%	82	1918	0.0%	100.0%	137	1863	0.0%	100.0%
	27	1973	25.0%	75.0%	83	1917	0.0%	100.0%	138	1862	0.0%	100.0%
	28	1972	25.0%	75.0%	84	1916	0.0%	100.0%	139	1861	0.0%	100.0%
	29	1971	25.0%	75.0%	85	1915	0.0%	100.0%	140	1860	0.0%	100.0%
	30	1970	25.0%	75.0%	86	1914	0.0%	100.0%	141	1859	0.0%	100.0%
	31	1969	25.0%	75.0%	87	1913	0.0%	100.0%	142	1858	0.0%	100.0%
	32	1968	25.0%	75.0%	88	1912	0.0%	100.0%	143	1857	0.0%	100.0%
	33	1967	30.0%	70.0%	89	1911	0.0%	100.0%	144	1856	0.0%	100.0%
	34	1966	30.0%	70.0%	90	1910	0.0%	100.0%	145	1855	0.0%	100.0%
	35	1965	30.0%	70.0%	91	1909	0.0%	100.0%	146	1854	0.0%	100.0%
	36	1964	30.0%	70.0%	92	1908	0.0%	100.0%	147	1853	0.0%	100.0%
	37	1963	30.0%	70.0%	93	1907	0.0%	100.0%	148	1852	0.0%	100.0%
	38	1962	30.0%	70.0%	94	1906	0.0%	100.0%	149	1851	0.0%	100.0%
	39	1961	30.0%	70.0%	95	1905	0.0%	100.0%	150	1850	0.0%	100.0%
	40	1960	30.0%	70.0%	96	1904	0.0%	100.0%	151	1849	0.0%	100.0%
	41	1959	35.0%	65.0%	97	1903	0.0%	100.0%	152	1848	0.0%	100.0%
	42	1958	35.0%	65.0%	98	1902	0.0%	100.0%	153	1847	0.0%	100.0%
	43	1957	35.0%	65.0%	99	1901	0.0%	100.0%	154	1846	0.0%	100.0%
	44	1956	35.0%	65.0%	100	1900	0.0%	100.0%	155	1845	0.0%	100.0%
	45	1955	35.0%	65.0%	101	1899	0.0%	100.0%	156	1844	0.0%	100.0%
	46	1954	35.0%	65.0%	102	1898	0.0%	100.0%	157	1843	0.0%	100.0%
	47	1953	35.0%	65.0%	103	1897	0.0%	100.0%	158	1842	0.0%	100.0%
	48	1952	35.0%	65.0%	104	1896	0.0%	100.0%	159	1841	0.0%	100.0%
	49	1951	40.0%	60.0%	105	1895	0.0%	100.0%	160	1840	0.0%	100.0%
	50	1950	40.0%	60.0%	106	1894	0.0%	100.0%	161	1839	0.0%	100.0%
	51	1949	40.0%	60.0%	107	1893	0.0%	100.0%	162	1838	0.0%	100.0%
	52	1948	40.0%	60.0%	108	1892	0.0%	100.0%	163	1837	0.0%	100.0%
	53	1947	40.0%	60.0%	109	1891	0.0%	100.0%	164	1836	0.0%	100.0%
	54	1946	40.0%	60.0%	110	1890	0.0%	100.0%	165	1835	0.0%	100.0%
	55	1945	40.0%	60.0%	111	1889	0.0%	100.0%	166	1834	0.0%	100.0%

9/19/00

Preview: Page 1 of 1

Start Inbox - Microsoft Outlook Microsoft PowerPoint - [cur... Microsoft Excel - cur... CAPS NUM 3:36 PM

THE FINAL TEST

MINIDOKA COUNTY 2000 RESIDENTIAL DEPRECIATION

PARCEL NUMBER	MARKET CONDITION	PROVAL CLASS	YEAR BUILT	AGE	SALE DATE	SALE PRICE	PROVAL LAND VALUE	PROVAL OTHER IMPS.	RESIDUAL TO IMPS.	PROVAL RCN	DEPRECIATION PERCENTAGE	PREDICTED RATE	DEP AMOUNT	DEP RCN	LAND	TOTAL VALUE	RATIO
R18900390010A	3	AVG	1927	73	7/1/98	\$ 72,000	\$ 5,600	\$ -	\$ 66,400	\$ 117,840	0.44	0.55	\$ 64,812	\$ 53,028	\$ 5,600	\$ 58,628	81.43%
R1890008007AA	3	AVG	1940	60	3/1/99	\$ 80,000	\$ 8,400	\$ -	\$ 71,600	\$ 121,230	0.41	0.45	\$ 54,554	\$ 66,677	\$ 8,400	\$ 75,077	93.85%
R0760006001A	3	AVG	1955	45	10/1/98	\$ 123,500	\$ 16,720	\$ 23,552	\$ 83,228	\$ 146,570	0.43	0.35	\$ 51,300	\$ 95,271	\$ 16,720	\$ 135,543	109.75%
R07600060080A	3	AVG	1957	43	1/1/99	\$ 106,000	\$ 10,030	\$ -	\$ 95,970	\$ 159,920	0.40	0.35	\$ 55,972	\$ 103,948	\$ 10,030	\$ 113,978	107.53%
P4110016004A	3	AVG	1962	38	12/1/98	\$ 82,900	\$ 9,800	\$ -	\$ 73,100	\$ 105,760	0.31	0.30	\$ 31,728	\$ 74,032	\$ 9,800	\$ 83,832	101.12%
R03200010050A	3	AVG	1966	34	1/1/99	\$ 100,000	\$ 9,600	\$ 6,046	\$ 84,354	\$ 122,900	0.31	0.30	\$ 36,870	\$ 86,030	\$ 9,600	\$ 101,676	101.68%
R0730007001BA	3	AVG	1966	34	9/1/98	\$ 69,900	\$ 9,000	\$ -	\$ 60,900	\$ 80,170	0.24	0.30	\$ 24,051	\$ 56,119	\$ 9,000	\$ 65,119	93.16%
H24500000310A	3	AVG	1971	29	7/1/98	\$ 76,750	\$ 8,060	\$ -	\$ 68,690	\$ 93,450	0.26	0.25	\$ 23,363	\$ 70,088	\$ 8,060	\$ 78,148	101.82%
001800040110A	3	AVG	1976	24	1/1/99	\$ 85,000	\$ 11,450	\$ -	\$ 73,550	\$ 97,340	0.24	0.20	\$ 19,468	\$ 77,872	\$ 11,450	\$ 89,322	105.08%
R02500000210A	3	AVG	1977	23	9/9/98	\$ 85,000	\$ 8,580	\$ -	\$ 76,420	\$ 104,700	0.27	0.20	\$ 20,940	\$ 83,760	\$ 8,580	\$ 92,340	108.64%
R18400020040A	3	AVG	1978	22	4/1/99	\$ 128,000	\$ 8,600	\$ -	\$ 119,400	\$ 147,180	0.19	0.20	\$ 29,436	\$ 117,744	\$ 8,600	\$ 126,344	98.71%
09S24E284670A	3	AVG	1980	20	12/1/98	\$ 74,000	\$ 7,410	\$ -	\$ 66,590	\$ 81,760	0.19	0.20	\$ 16,352	\$ 65,408	\$ 7,410	\$ 72,818	98.40%
045100000260A	3	AVG	1981	19	3/1/99	\$ 90,000	\$ 8,950	\$ -	\$ 81,050	\$ 92,380	0.12	0.20	\$ 18,476	\$ 73,904	\$ 8,950	\$ 82,854	92.06%
R04100030010A	3	AVG	1995	5	11/1/98	\$ 95,000	\$ 6,750	\$ -	\$ 88,250	\$ 88,720	0.01	0.10	\$ 8,872	\$ 79,848	\$ 6,750	\$ 86,598	91.16%
TOTAL SALES			14													MEAN	98.88%
																MEDIAN	99.92%
																STD DEV	0.0793
																COV	0.0802

THE PROVAL ENGINE TABLES

Release 6.3 Scotts Version ProVal for Windows Main Menu

File Revaluation Maintenance Tables Analysis Inquiry Reports Utility

ProValuation Engine

VALUE ELEMENT GROUPS

- Dwelling Base Value Elements and Modifiers
- Dwelling Exterior Features: Porches, Patios, Garages, etc.
- Outbuildings and Modifiers
- Manufactured Housing and Modifiers
- Dwelling Additions and Modifiers
- Grades, Age Adjustments and Other Factors

Value Item Category

GRADES

- Improvement Factors
- Exterior Feature Factors
- Dwelling Factors *
* (Addns, Garages, Carports defaults)
- Dwelling Attachments Factors *
* (Additions, Garages, Carports)
- Manufactured Housing Factors
- Overall Default Factors
- Class Factor Adjustments
- Grade/Class Table Option

GRADES - NUMBERED TABLES

- Improvement Factors
- Exterior Feature Factors
- Dwelling Factors *
* (Addns, Garages, Carports defaults)
- Dwelling Attachments Factors *
* (Additions, Garages, Carports)
- Manufactured Housing Factors
- Overall Default Factors

Model Serial Number

IN 2000

OUT 2000

Next Model Save Select Exit

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ROCK SOLID PERFORMANCE, SERVICE AND SUPPORT

PROVAL

Start Inbox - Microsoft Outlook Microsoft PowerPoint - [cur... Release 6.3 Scotts Versio... ProValuation Engine 10:33 AM

THE BASE YEAR FOR ALL AGE CALCULATIONS NEEDS TO BE ENTERED

The screenshot displays the ProVal software interface. At the top, the title bar reads "Release 6.3 Scotts Version ProVal for Windows Main Menu". Below this is a menu bar with options: File, Revaluation, Maintenance, Tables, Analysis, Inquiry, Reports, and Utility. The main window area is dark, with a central dialog box titled "ProValuation Engine".

The dialog box has a "VALUE" tab selected. On the left side of the dialog, there are radio buttons for different categories: Dwelling Base, Dwelling Ext, Outbuildings, Manufacture, Dwelling Ad, and Grades, Age. The "Grades, Age" option is selected.

The main text in the dialog box says: "The base year for all age calculations for age adjustments is:". Below this text is a text input field containing the number "2000". An "OK" button is located below the input field.

At the bottom of the dialog box, there are three buttons: "Save", "Select", and "Exit". To the right of these buttons, there is a "Model Serial Number" section with "IN" and "OUT" input fields, both containing "2000".

On the right side of the dialog box, there is a list of categories. The "Year for Age Calculations" option is highlighted in blue. Other visible options include "Tables", "Reports defaults)", "Factors *", "Reports)", "Factors", "Tables", "Manufactured Housing Tables", "Dwelling Attachments Factors *", "* (Garages and Carports)", and "FINISH ADJUSTMENTS".

At the bottom of the main window, there is a copyright notice: "© Copyright 1993-99 ProVal Corporation. All rights reserved." and a logo for "PROVAL" with the tagline "ROCK-SOLID PERFORMANCE, SERVICE AND SUPPORT".

The Windows taskbar at the bottom shows the Start button, several open applications (Inbox - Microsoft Outlook, Microsoft PowerPoint - [cur..., Release 6.3 Scotts Versio..., ProValuation Engine), and the system clock showing 10:34 AM.

SELECTING THE DEPRECIATION TABLE THAT MATCHES YOUR ANALYSIS

The screenshot displays the ProVal software interface. At the top, the main window title bar reads "Release 6.3 Scotts Version ProVal for Windows Main Menu". Below this is a menu bar with options: File, Revaluation, Maintenance, Tables, Analysis, Inquiry, Reports, and Utility. The main workspace is dark, with a central dialog box titled "ProValuation Engine" and a sub-dialog box titled "ProValuation Engine Age Adjustment Factors Update".

The sub-dialog box contains the following fields and controls:

- NML: Default Age Adjustment: Dwellings & OBs RES-DEPRE-4
- Improvement Class Modifier: 4 (dropdown menu)
- Condition Relative to Age: Normal (dropdown menu)
- Age Adjustments Table / Method: Normal age adjustments table (dropdown menu)
- Buttons: Update Item Selected, Go To Main Window, Select Improvement
- Bottom row: Save, Select, Exit, IN: 2000, OUT: 2000

At the bottom of the main window, there is a copyright notice: "© Copyright 1993-99 ProVal Corporation. All rights reserved." and a logo for PROVAL with the text "ROCK SOLID PERFORMANCE SERVICE AND SUPPORT".

The Windows taskbar at the bottom shows the Start button and several open applications: "Inbox - Microsoft Outlook", "Microsoft PowerPoint - [cur...", "Release 6.3 Scotts Versio...", and "ProValuation Engine". The system clock shows "1:02 PM".

ENTERING DEPRECIATION AGES AND FACTORS

Release 6.3 Scotts Version ProVal for Windows Main Menu

File Revaluation Maintenance Tables Analysis Inquiry Reports Utility

ProValuation Engine

ProValuation Engine Age Adjustment Factors Update

NML Default Age Adjustment: Dwellings & OBs RES-DEPRE-3

Improvement Class Modifier 34

Update Age Adjustment Table Record

You are entering or updating the following: Residential Default Tables

Improvement Type Improvement Modifier: 34

Default Age Adjustment: Dwellings & OBs Condition: Normal

Normal age adjustments table

Age	Factor	Age	Factor	Age	Factor
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

OK Cancel Add Entries

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ROCK SOLID PERFORMANCE, SERVICE AND SUPPORT
PROVAL

Start Inbox - Microsoft Outlook Microsoft PowerPoint - [cur... Release 6.3 Scotts Versio... ProValuation Engine 10:35 AM

PROVAL DEPRECIATION TABLE FOR AN AVERAGE CLASS, AVERAGE CONDITION HOME

Release 6.3 Scotts Version ProVal for Windows Main Menu

File Revaluation Maintenance Tables Analysis Inquiry Reports Utility

ProValuation Engine

ProValuation Engine Age Adjustment Factors Update

NML Default Age Adjustment: Dwellings & OBs RES-DEPRE-4

Improvement Class Modifier 4

Update Age Adjustment Table Record

You are entering or updating the following: Residential Default Tables

Improvement Type: Improvement Modifier: 4

Default Age Adjustment: Dwellings & OBs Condition: Normal

Normal age adjustments table

Age	Factor	Age	Factor	Age	Factor
1	5	64	45		
8	10	72	50		
16	15	74	55		
24	20	999	55		
32	25				
40	30				
48	35				
56	40				

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OK Cancel Add Entries

ROCK SOLID
PERFORMANCE, SERVICE
AND SUPPORT

PROVAL

Start Inbox - Microsoft Outlook Microsoft PowerPoint - [cur... Release 6.3 Scotts Versio... ProValuation Engine 1:43 PM

QUALITY CLASS/GRADE IS AVERAGE AND OVERALL CONDITION IS AVERAGE

PV Res/Ag Maintenance - [Sketch]
 File Edit Sketch History Window Help Keypad
 RPR18400020040A BAGLEY 1106 RUBY DR 101 A 520

1 2

Define Close
 Rescale Note
 Outbuilding Dwelling

Dwelling Information

House type: [] Occupancy: Single family - Owner

Story configuration:
 Stories: 1.0 Attic: None
 Split foyer/bi-level Basement: 3/4
 Split level/tri-level Crawl: 1/4

Group code: 41 Residential Imp on Cat 20
 Extra living units:
 Designed: 0
 Converted: 0

Quality class/grade: Avg Overall condition: AV Component condition/status
 Year built: 1978 Pct Complete: 100 Remodeling & modernization
 Effective year: 1978 Depreciation: 20 Fireplaces Features
 Year remodeled: 0 Market RDF: 100 Built-ins User-defined data
 Sound value

Foundation:
 Footing: Normal for class
 Walls: Formed conc

Construction detail: Exterior Interior Rooms

Roof:
 Type: Gable
 Material: Shake shingles-med
 Frame: Std for class
 Pitch: Not available

Floor	Base Area	Fin Area	Rms	Baths	2-fix baths:		
				F	H	BRs	
B	1484	0	0	0	0	0	0
1.0	2116	2116	7	2	0	3	2
Totals	3600	2116	7	2	0	3	0

Heating: Electric radiant
 Cooling: None
 Access: No off street acc

OK Price Cancel

Last Updated: 09/19/2000

Improvements:
 812
 816

Ready to define a segment or add an outbuilding.

Start | Inbox - Microsoft Outlook | Microsoft PowerPoint - [cur... | PV Release 6.3 Scotts Versio... | PV ProVal 6.3 Scotts Version f... | PV Res/Ag Maintenance... | 2:02 PM

ATTACHED GARAGE DEPRECIATED AT THE SAME RATE AS THE RESIDENCE

Res/Ag Maintenance - [Sketch]
 File Edit Sketch History Window Help Keypad
 RPR18400020040A BAGLEY 1106 RUBY DR 101 A 520

1 2

Define Close

Rescale Note

Outbuilding Dwelling

Scale = 80 ft/side Last Updated: 09/19/2000

Improvements

812
816

Improvement Information

Improvement ID: G01 Type: ATTGAR Group: 41 Residential Imp on Cat 20

Quality class/Grade: Year Built:

Condition: AV Effective Year:

% complete: 100 Year Remodeled:

Depreciation
 Physical:
 Obsolescence
 Functional:
 Economic:
 Location Adj Factor: 100
 Composite: 0

Stories or Height: Size: 812 Square feet
 Width or Diameter: 0.00 Count:
 Length:
 Capacity:

Attached:
 Framing: Wood frame w/sheathing
 Exterior cover:

Features
 Sound Value
 Field: (None)
 Value:

OK Cancel

Ready to define a segment or add an outbuilding.

Start | Inbox - Microsoft Outlo... | Microsoft PowerPoint ... | Release 6.3 Scotts Ve... | ProVal 6.3 Scotts Vers... | Res/Ag Maintenance ... | 2:03 PM

THE REAL TEST

Release 6.3 Scotts Version ProVal for Windows Value Information

File Help

RPR18400020040A BAGLEY 1106 RUBY DR 101 A 520

Property Record: R01: Residential record #01 (Active) Parcel Summary...

SUMMARY OF IMPROVEMENTS

ID	Type	Eff Year	Cond	Grade	Base Rate	Adj Rate	Amount	Phys Depr	Func Depr	Econ Depr	Market RDF	Loc Adj	% Comp	Value
D	DWELL	1978	AV	Avg	49.17	69.56	147180	20%	0%	0%	100%	100%	100%	117740
G01	ATTGAR		AV		14.25	14.25	11570	0%	0%	0%	100%	100%		0
01	PAV		AV	Avg	0.00	0.00	0	0%	0%	0%	100%	100%		1550
02	WOOD STO		AV	Avg	0.00	0.00	0	0%	0%	0%	100%	100%		800

ADJUSTMENTS & FEATURES

Frame/Siding/Roof/Dormers	9180
Loft/Cathedral	0
Interior Finish	4890
Basement Finish	0
Heating	5500
Cooling	0
Plumbing	5030
Fireplaces	2100
Other Features	910
Extra Living Units	0
Attached/Integral Garage	11570
Carport	0
Basement Garage	0
Porch/Deck/Patio/etc.	2700

Dwelling: Main Dwelling

Floor	Area	Finished	Value
B	1484	0	15860
1.0	2116	2116	85150
TOTAL	3600	2116	101010
Crawl/Slab			0
TOTAL BASE VALUE			101010
Row Type Adjustment			101010
Total Dwelling Adjustments			27610
Sub-total, 1 Unit			128620
Sub-total, All Units			128620
Total Garages & Porches			14270
Total Adjusted Base Value			142890
GRADE ADJUSTED VALUE			147180

Parcel Valuation Summary

	Calculated	Assessed
Land:	8600	8600
Improvements:	120090	120090
Total:	128690	128690

OK

THIS PROPERTY WAS NOT INCLUDED IN OUR ORIGINAL DATA SET

THIS PROPERTY SOLD IN APRIL OF 1999 TO MR. BAGLEY FOR \$128,000

WE ARE ROCKET SCIENTISTS AFTERALL

Start Inbox - Microsoft Outlo... Microsoft PowerPoint ... Release 6.3 Scotts Ve... ProVal 6.3 Scotts Vers... Release 6.3 Scott... 2:06 PM

Curve Fit for Windows

Darcy Maag -- Highland Appraisals --

DMAag@Bigskytel.com

Scott Erwin -- Idaho State Tax Commission --

SErwin@tax.idaho.gov

Alex Chizewsky - Idaho State Tax Commission --

AChizewsky@tax.idaho.gov

Software Contacts