July 7, 1999

RE: Personal Property Tax Multiplier Study

Interested Parties,

The accompanying documents were prepared by BDO Seidman LLP. The documents are intended to provide additional information and explanation regarding the personal property tax study draft report released in May.

The documents include (1) a listing of the sample sizes for each category of asset, (2) a breakout of the adjustments that were made to different types of market data for different types of assets, and (3) scatter diagrams for each category of asset. For some categories, the recommended tables represent the blended results of the age-life method and market approach.

The State Tax Commission and/or property tax division staff are available to meet and discuss the property tax study with interested parties. In addition, a public hearing on this issue is scheduled at 10 am of July 29, 1999 at the Ottawa Building Conference Rooms in Lansing. Written submissions are also welcome.

Please direct correspondence to:

State Tax Commission
Michigan Department of Treasury
PO Box 30471
Lansing, MI 48909-7971

Count of Samples per Table

Category	# of Samples
Cable equipment	Separate Study
Computer & Peripheral Equipment	575
Improvements	Age-Life Method
Machinery & Equipment	566
Computer Controlled Machinery & Equipment	68
Furniture & Fixtures	118
Office Machines	256
Electronic, Video & Test Equipment	294
Restaurant Equipment	72
Consumer-Coin Operated Equipment	Age-Life Method
Consumer Utilized Equipment	Age-Life Method

Proposed Adjustments to Asking Price

Category	Sub-Category	3 Character Code	Normal Discount (-%) Low	Normal Discount (-%) High	Sales Tax (+%)	Freight (+%) Low	Freight (+%) High	Installation (+%) Low	Installation (+%) High	Total Discount Low	Total Discount High	Average
Computers												
	PC	C01	-20%	-15%	6%	1%	3%	0%	0%	-13%	-6%	-9.50%
	MidRange	C02	-20%	-15%	6%	1%	5%	1%	5%	-12%	1%	-5.50%
	Mainframe	C03	-20%	-15%	6%	1%	5%	1%	5%	-12%	1%	-5.50%
	Peripheral	C04	-20%	-15%	6%	0%	0%	1%	5%	-13%	-4%	-8.50%
M&E												
	Cable Equipment	M01	0%	0%	6%	1%	5%	5%	10%	12%	21%	16.50%
	Copiers	M02	-15%	-10%	6%	1%	3%	0%	0%	-8%	-1%	-4.50%
	Fax	M03	-15%	-10%	6%	1%	3%	0%	0%	-8%	-1%	-4.50%
	Photographic/Misc. Office Equipment	M31	-15%	-10%	6%	1%	3%	0%	0%	-8%	-1%	-4.50%
	Non-Automated M&E											
	up to $100,000	M04	-40%	-30%	0%	5%	10%	15%	15%	-20%	-5%	-12.50%
	$100,001 - $300,000	M05	-40%	-30%	0%	5%	10%	12%	12%	-23%	-8%	-15.50%
	$300,001 - $500,000	M06	-40%	-30%	0%	5%	10%	10%	10%	-25%	-10%	-17.50%
	$500,001 - $1,000,000	M07	-40%	-30%	0%	5%	10%	8%	8%	-27%	-12%	-19.50%
	over $1,000,000	M08	-40%	-30%	0%	5%	10%	5%	5%	-30%	-15%	-22.50%
	Hi-Tech (Automated)											
	up to $100,000	M09	-40%	-30%	0%	5%	10%	15%	15%	-20%	-5%	-12.50%
	$100,001 - $300,000	M10	-40%	-30%	0%	5%	10%	12%	12%	-23%	-8%	-15.50%
	$300,001 - $500,000	M11	-40%	-30%	0%	5%	10%	10%	10%	-25%	-10%	-17.50%
	$500,001 - $1,000,000	M12	-40%	-30%	0%	5%	10%	8%	8%	-27%	-12%	-19.50%
	over $1,000,000	M13	-40%	-30%	0%	5%	10%	5%	5%	-30%	-15%	-22.50%
	Construction	M14	-25%	-20%	6%	1%	5%	0%	0%	-18%	-9%	-13.50%
	Electronic/Video/Test Equipment	M15	-25%	-20%	6%	1%	5%	5%	10%	-13%	1%	-6.00%
	Restaurant Equipment	M16	-30%	-20%	6%	1%	5%	1%	5%	-22%	-4%	-13.00%
	Phones/Phone Systems	M17	0%	0%	6%	1%	5%	1%	5%	8%	16%	12.00%
	Medical											
	up to $100,000	M18	-40%	-30%	6%	5%	10%	15%	15%	-14%	1%	-6.50%
	$100,001 - $300,000	M19	-40%	-30%	6%	5%	10%	12%	12%	-17%	-2%	-9.50%
	$300,001 - $500,000	M20	-40%	-30%	6%	5%	10%	10%	10%	-19%	-4%	-11.50%
	$500,001 - $1,000,000	M21	-40%	-30%	6%	5%	10%	8%	8%	-21%	-6%	-13.50%
	over $1,000,000	M22	-40%	-30%	6%	5%	10%	5%	5%	-24%	-9%	-16.50%
	Pipelines	M23	0%	0%	6%	5%	10%	20%	35%	31%	51%	41.00%
	Coin Operated	M24	-20%	-15%	6%	1%	5%	1%	5%	-12%	1%	-5.50%
	Laundry	M25	-20%	-15%	6%	1%	5%	1%	5%	-12%	1%	-5.50%
	Newsbox	M26	-20%	-15%	6%	1%	5%	1%	5%	-12%	1%	-5.50%
	Video Games	M28	-25%	-20%	6%	1%	5%	1%	5%	-17%	-4%	-10.50%
	Video Tapes	M29	-10%	-5%	6%	1%	5%	0%	0%	-3%	6%	1.50%
	Landscaping/Golf Course Equipment	M30	-20%	-10%	6%	1%	5%	0%	0%	-13%	1%	-6.00%
	Exercise Equipment	M32	-20%	-10%	6%	1%	5%	0%	0%	-13%	1%	-6.00%
Furniture												
	Restaurant booths	F01	-30%	-20%	6%	1%	5%	1%	5%	-22%	-4%	-13.00%
	Cubicles	F02	-50%	-35%	6%	1%	5%	1%	5%	-42%	-19%	-30.50%
	Desks	F03	-50%	-35%	6%	0%	0%	0%	0%	-44%	-29%	-36.50%
	Chairs/Seating	F04	-50%	-35%	6%	0%	0%	0%	0%	-44%	-29%	-36.50%
	Office Furniture	F05	-50%	-35%	6%	0%	0%	0%	0%	-44%	-29%	-36.50%
	File Cabinets/Storage Racks	F06	-50%	-35%	6%	0%	0%	0%	0%	-44%	-29%	-36.50%
	Signs	F07	-50%	-35%	6%	1%	5%	5%	20%	-38%	-4%	-21.00%
	Medical/Dental Furniture	F08	-40%	-25%	6%	1%	5%	1%	5%	-32%	-9%	-20.50%
	Retail Display Fixtures/Display Cases	F09	-50%	-35%	6%	1%	5%	1%	5%	-42%	-19%	-30.50%
Improvements												
	Lighting	L01	0%	0%	6%	1%	5%	1%	5%	8%	16%	12.00%
	Flooring	L02	0%	0%	6%	1%	5%	1%	5%	8%	16%	12.00%
	Cabinets/Shelves	L03	-10%	-5%	6%	1%	5%	1%	5%	-2%	11%	4.50%
	Built ins	L04	-10%	-5%	6%	1%	5%	1%	5%	-2%	11%	4.50%
	Security/Alarm Systems	L05	-10%	-5%	6%	1%	5%	10%	15%	7%	21%	14.00%
	Air Handling/Conditioning Equipment	L06	-15%	-10%	6%	5%	10%	10%	15%	6%	21%	13.50%
Point of Sale												
	Monitor	P01	0%	0%	6%	1%	5%	1%	5%	8%	16%	12.00%
	Scanner	P02	0%	0%	6%	1%	5%	1%	5%	8%	16%	12.00%
	Terminal	P03	-10%	-5%	6%	1%	5%	1%	5%	-2%	11%	4.50%
	Printer	P04	-10%	-5%	6%	1%	5%	1%	5%	-2%	11%	4.50%
	Peripherals and Accessories	P05	-25%	-15%	6%	1%	5%	1%	5%	-17%	1%	-8.00%
	Registers	P06	-25%	-15%	6%	1%	5%	1%	5%	-17%	1%	-8.00%

Proposed Adjustments to Auction Price

Category	Sub-Category	3 Character Code	Normal Markup (+%) Low	Normal Markup (+%) High	Sales Tax (+%)	Freight (+%) Low	Freight (+%) High	Installation (+%) Low	Installation (+%) High	Total Markup Low	Total Markup High	Average
Computers												
	PC	C01	1%	3%	6%	1%	3%	0%	0%	8%	12%	10.00%
	MidRange	C02	1%	3%	6%	1%	5%	1%	5%	9%	19%	14.00%
	Mainframe	C03	1%	3%	6%	1%	5%	1%	5%	9%	19%	14.00%
	Peripheral	C04	1%	3%	6%	0%	0%	1%	5%	8%	14%	11.00%
M&E												
	Cable Equipment	M01	1%	5%	6%	1%	5%	5%	10%	13%	26%	19.50%
	Copiers	M02	5%	10%	6%	1%	3%	0%	0%	12%	19%	15.50%
	Fax	M03	5%	10%	6%	1%	3%	0%	0%	12%	19%	15.50%
	Photographic/Misc. Office Equipment	M31	5%	10%	6%	1%	3%	0%	0%	12%	19%	15.50%
	Non-Automated M&E											
	up to $100,000	M04	5%	10%	0%	5%	10%	15%	15%	25%	35%	30.00%
	$100,001 - $300,000	M05	5%	10%	0%	5%	10%	12%	12%	22%	32%	27.00%
	$300,001 - $500,000	M06	5%	10%	0%	5%	10%	10%	10%	20%	30%	25.00%
	$500,001 - $1,000,000	M07	5%	10%	0%	5%	10%	8%	8%	18%	28%	23.00%
	over $1,000,000	M08	5%	10%	0%	5%	10%	5%	5%	15%	25%	20.00%
	Hi-Tech (Automated)											
	up to $100,000	M09	1%	5%	0%	5%	10%	15%	15%	21%	30%	25.50%
	$100,001 - $300,000	M10	1%	5%	0%	5%	10%	12%	12%	18%	27%	22.50%
	$300,001 - $500,000	M11	1%	5%	0%	5%	10%	10%	10%	16%	25%	20.50%
	$500,001 - $1,000,000	M12	1%	5%	0%	5%	10%	8%	8%	14%	23%	18.50%
	over $1,000,000	M13	1%	5%	0%	5%	10%	5%	5%	11%	20%	15.50%
	Construction	M14	1%	5%	6%	1%	5%	0%	0%	8%	16%	12.00%
	Electronic/Video/Test Equipment	M15	1%	5%	6%	1%	5%	5%	10%	13%	26%	19.50%
	Restaurant Equipment	M16	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Phones/Phone Systems	M17	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Medical											
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	$100,001 - $300,000	M19	1%	5%	6%	5%	10%	12%	12%	24%	33%	28.50%
	$300,001 - $500,000	M20	1%	5%	6%	5%	10%	10%	10%	22%	31%	26.50%
	$500,001 - $1,000,000	M21	1%	5%	6%	5%	10%	8%	8%	20%	29%	24.50%
	over $1,000,000	M22	1%	5%	6%	5%	10%	5%	5%	17%	26%	21.50%
	Pipelines	M23	1%	5%	6%	5%	10%	20%	35%	32%	56%	44.00%
	Coin Operated	M24	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Laundry	M25	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Newsbox	M26	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Video Games	M28	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Video Tapes	M29	1%	5%	6%	1%	5%	0%	0%	8%	16%	12.00%
	Landscaping/Golf Course Equipment	M30	5%	10%	6%	1%	5%	0%	0%	12%	21%	16.50%
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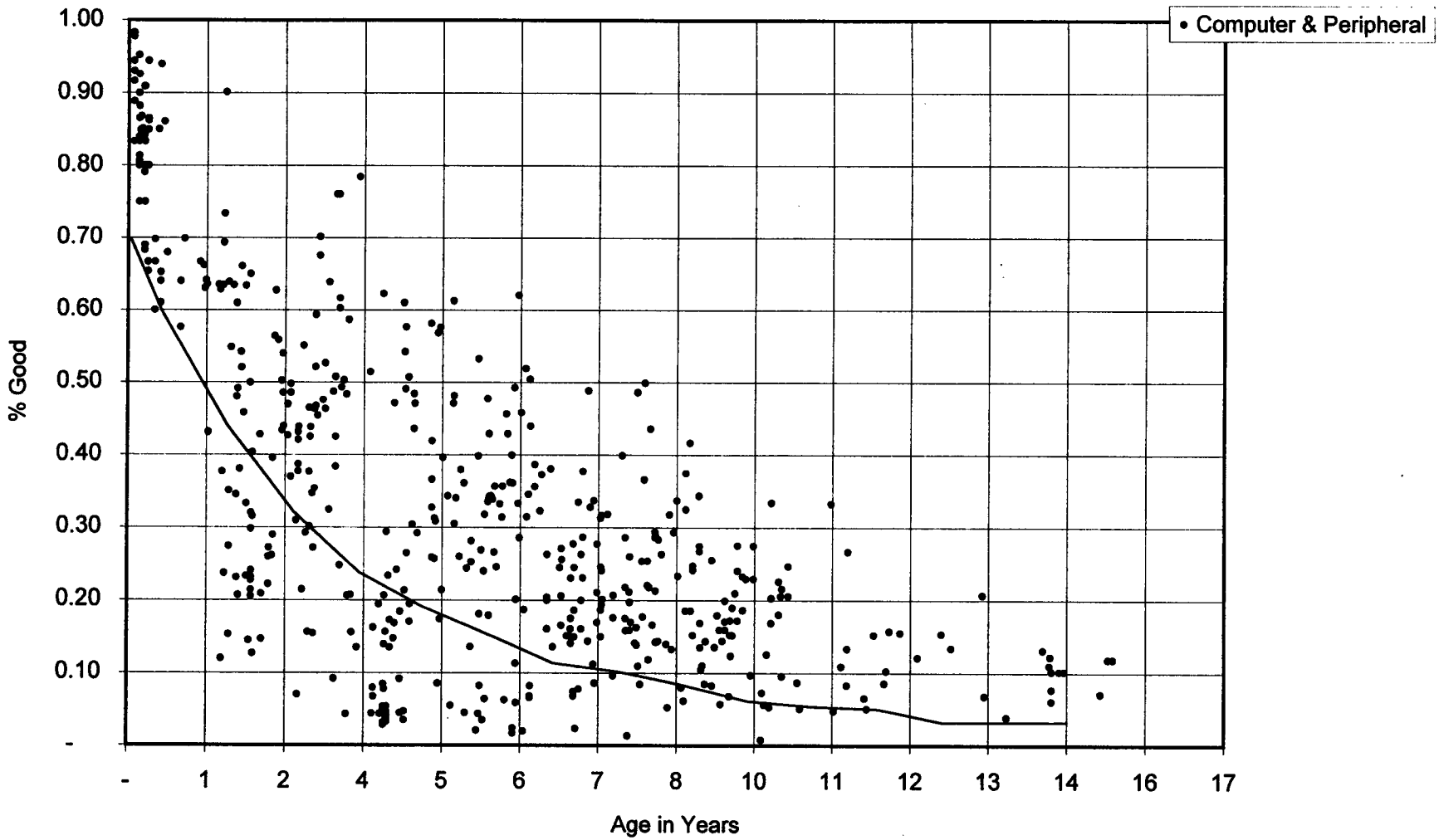
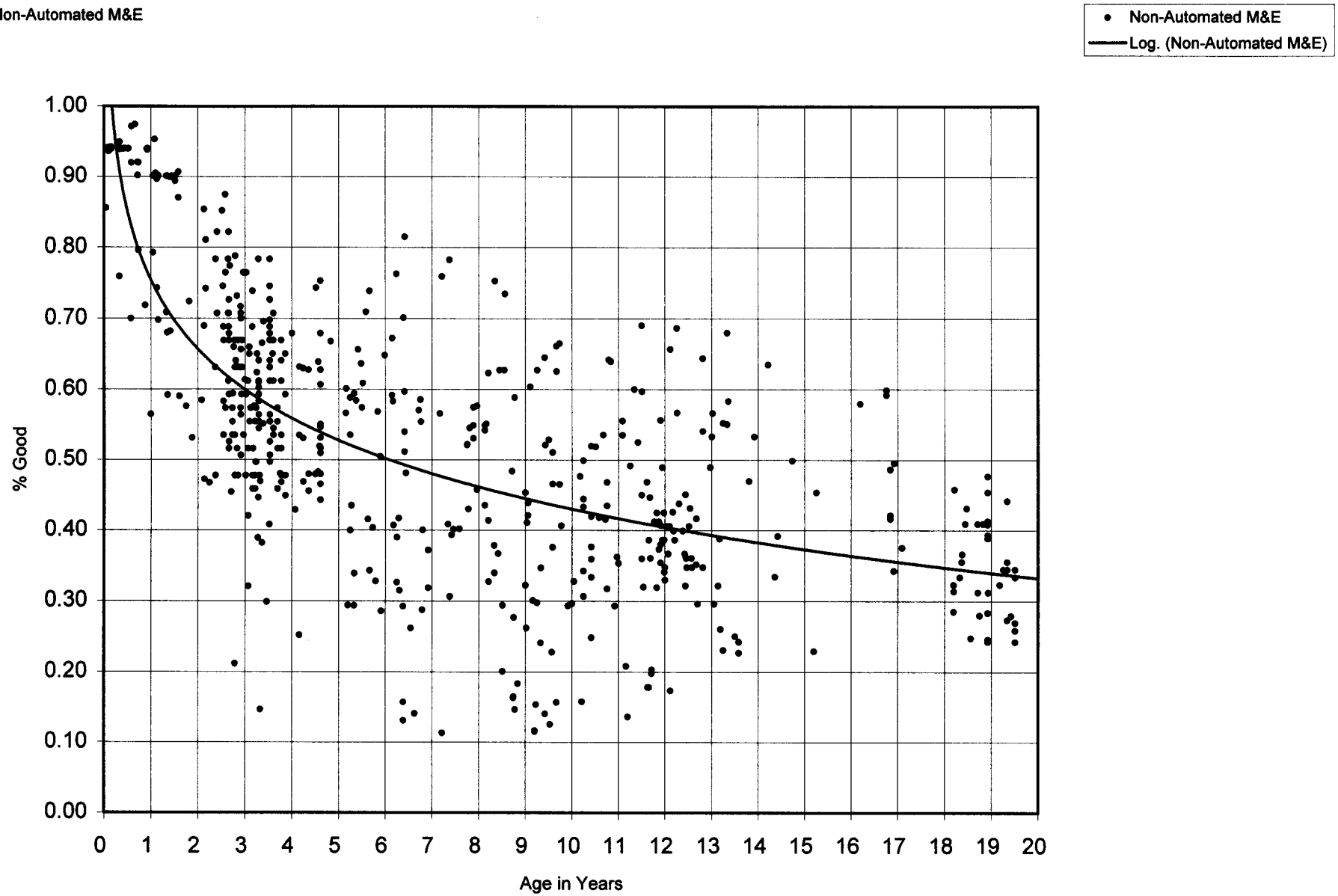
Furniture												
	Restaurant Booths	F01	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Cubicles	F02	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Desks	F03	1%	5%	6%	0%	0%	0%	0%	7%	11%	9.00%
	Chairs/Seating	F04	1%	5%	6%	0%	0%	0%	0%	7%	11%	9.00%
	Office Furniture	F05	1%	5%	6%	0%	0%	0%	0%	7%	11%	9.00%
	File Cabinets/Storage Racks	F06	1%	5%	6%	0%	0%	0%	0%	7%	11%	9.00%
	Signs	F07	1%	5%	6%	1%	5%	5%	20%	13%	36%	24.50%
	Medical/Dental Furniture	F08	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Retail Display Fixtures/Display Cases	F09	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
Improvements												
	Lighting	L01	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Flooring	L02	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Cabinets/Shelves	L03	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Built ins	L04	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Security/Alarm System	L05	5%	10%	6%	1%	5%	10%	15%	22%	36%	29.00%
	Air Handling/Conditioning Equipment	L06	10%	15%	6%	5%	10%	10%	15%	31%	46%	38.50%
Point of Sale												
	Monitor	P01	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Scanner	P02	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Terminal	P03	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Printer	P04	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Peripherals and Accessories	P05	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%
	Registers	P06	1%	5%	6%	1%	5%	1%	5%	9%	21%	15.00%

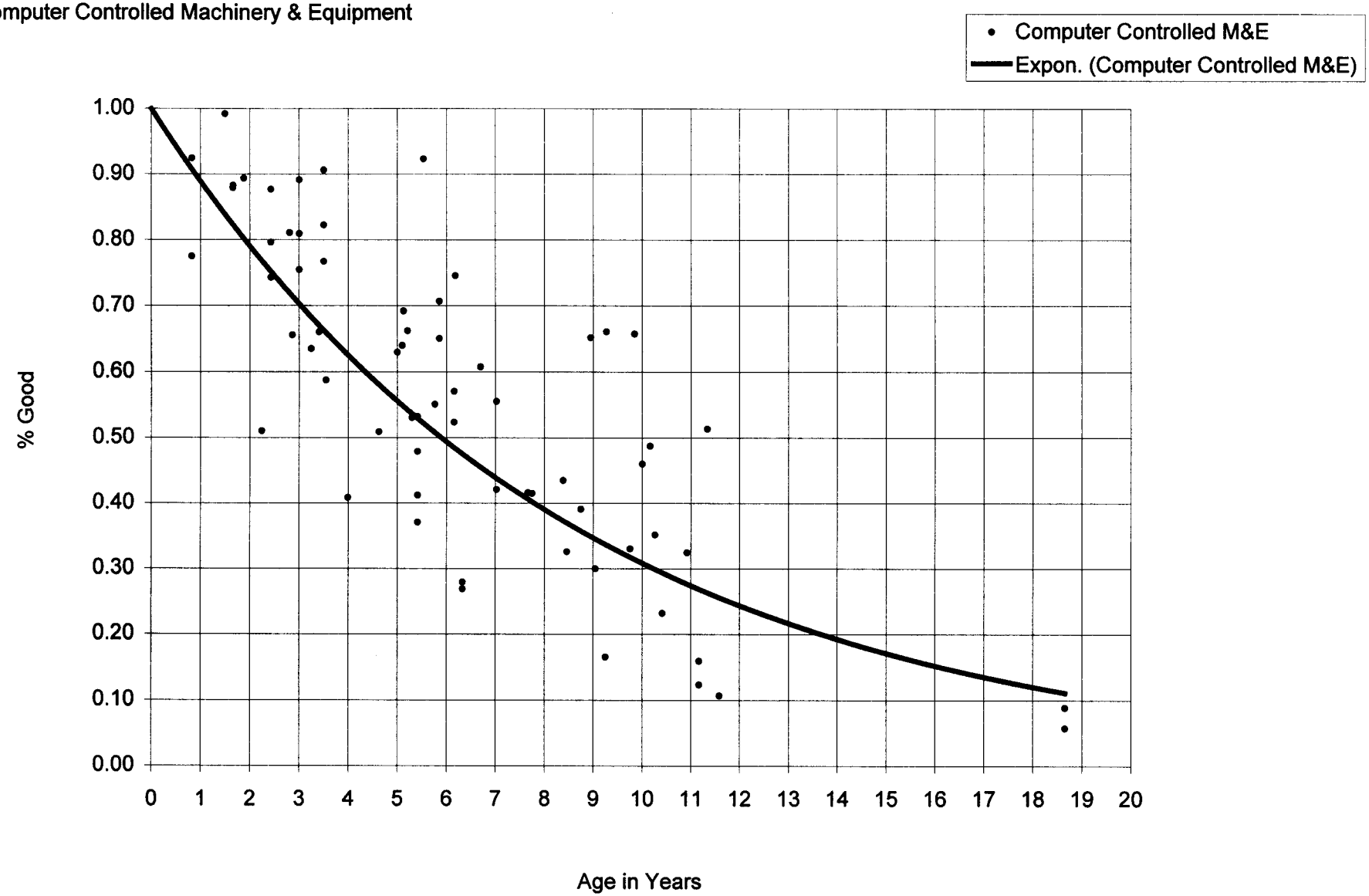
Computer and Peripheral Equipment



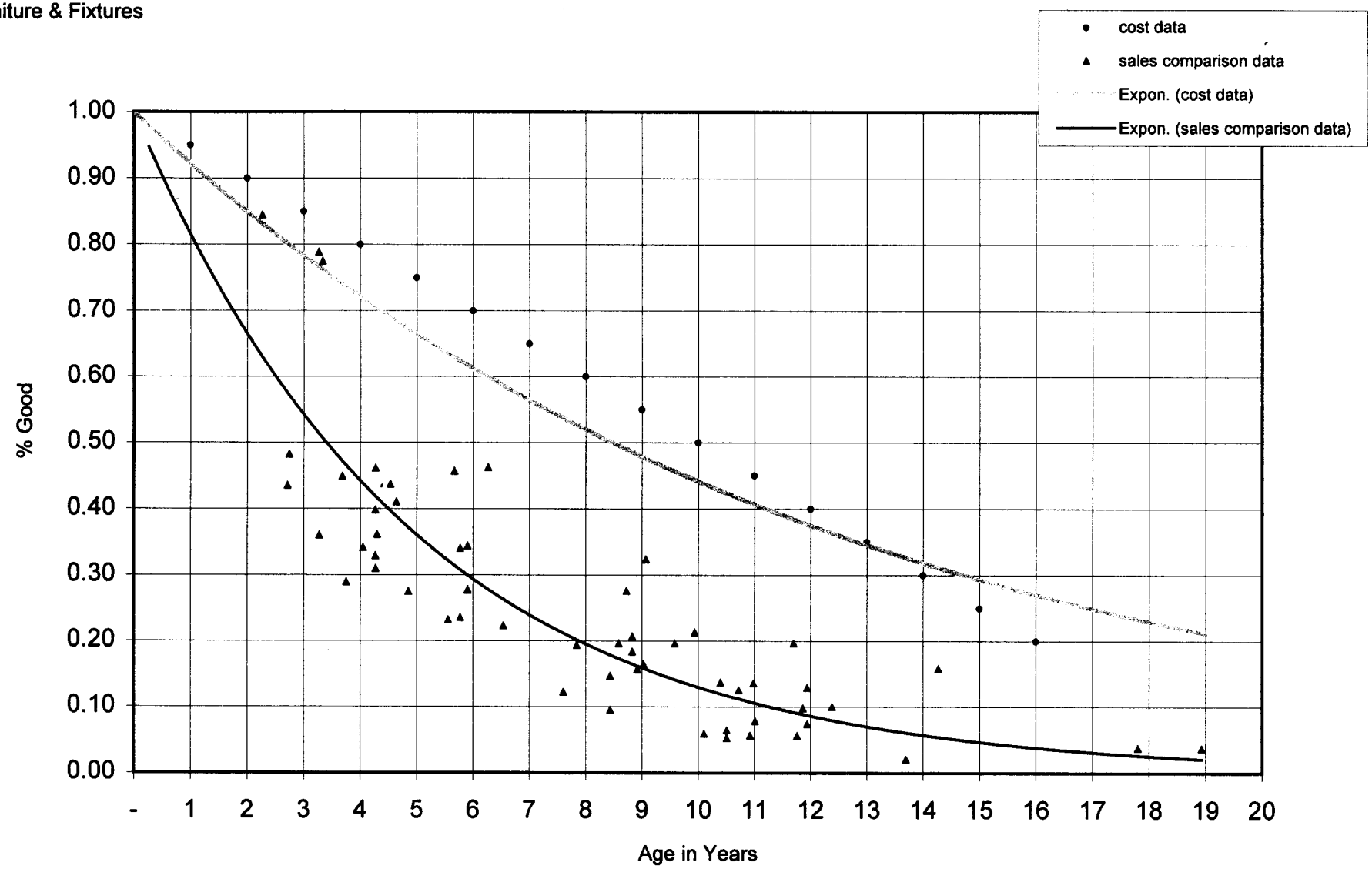
Non-Automated M&E



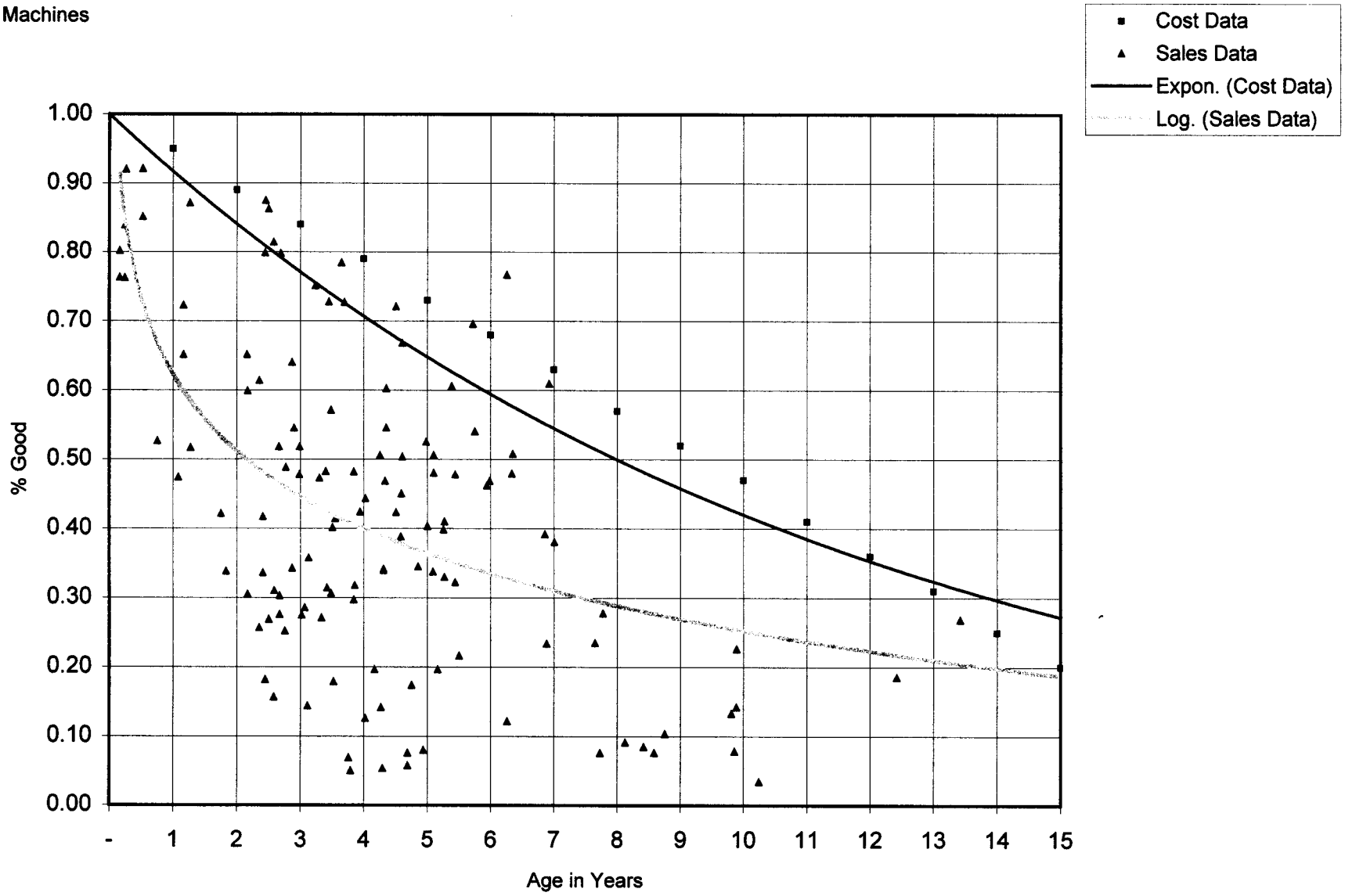
Computer Controlled Machinery & Equipment



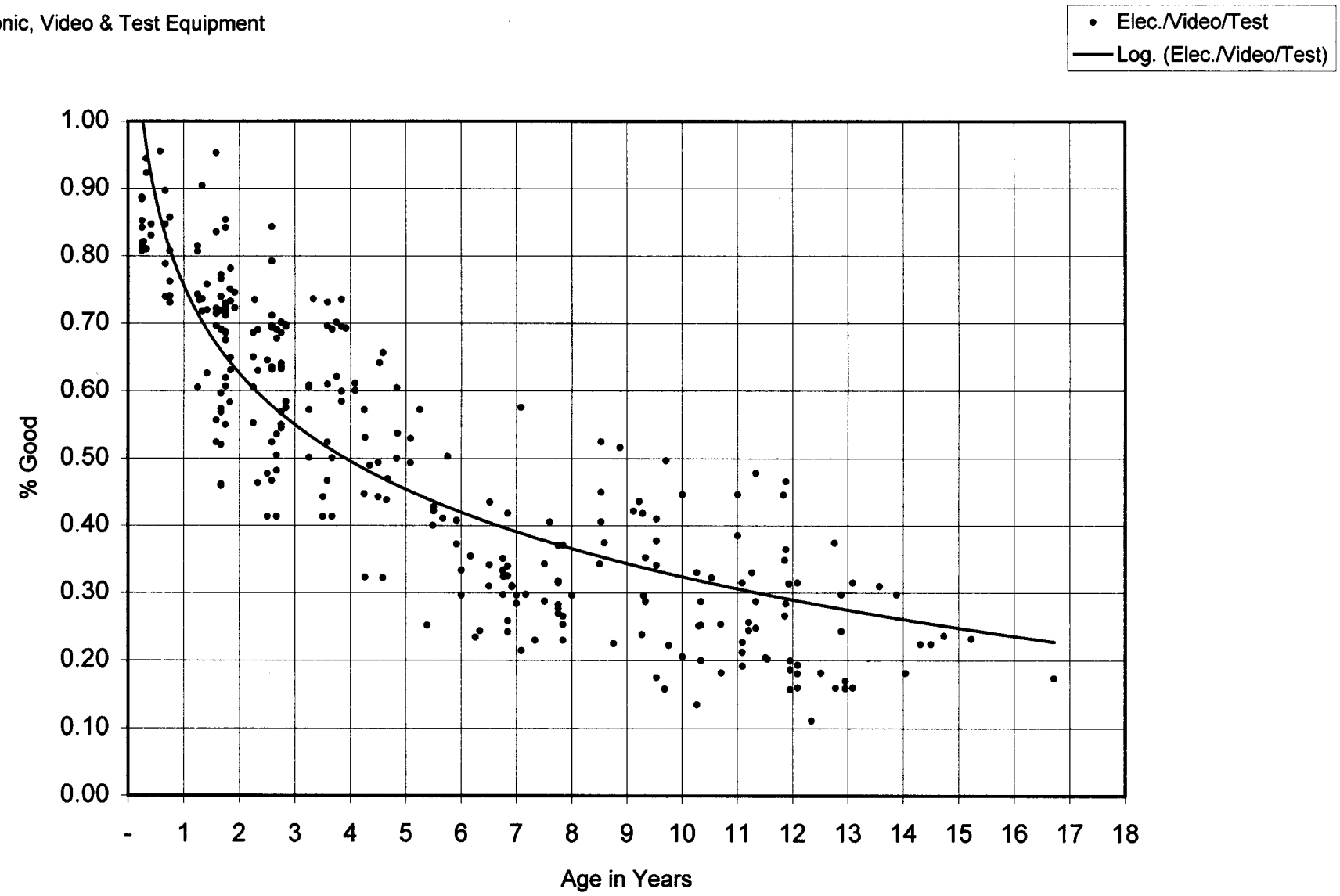
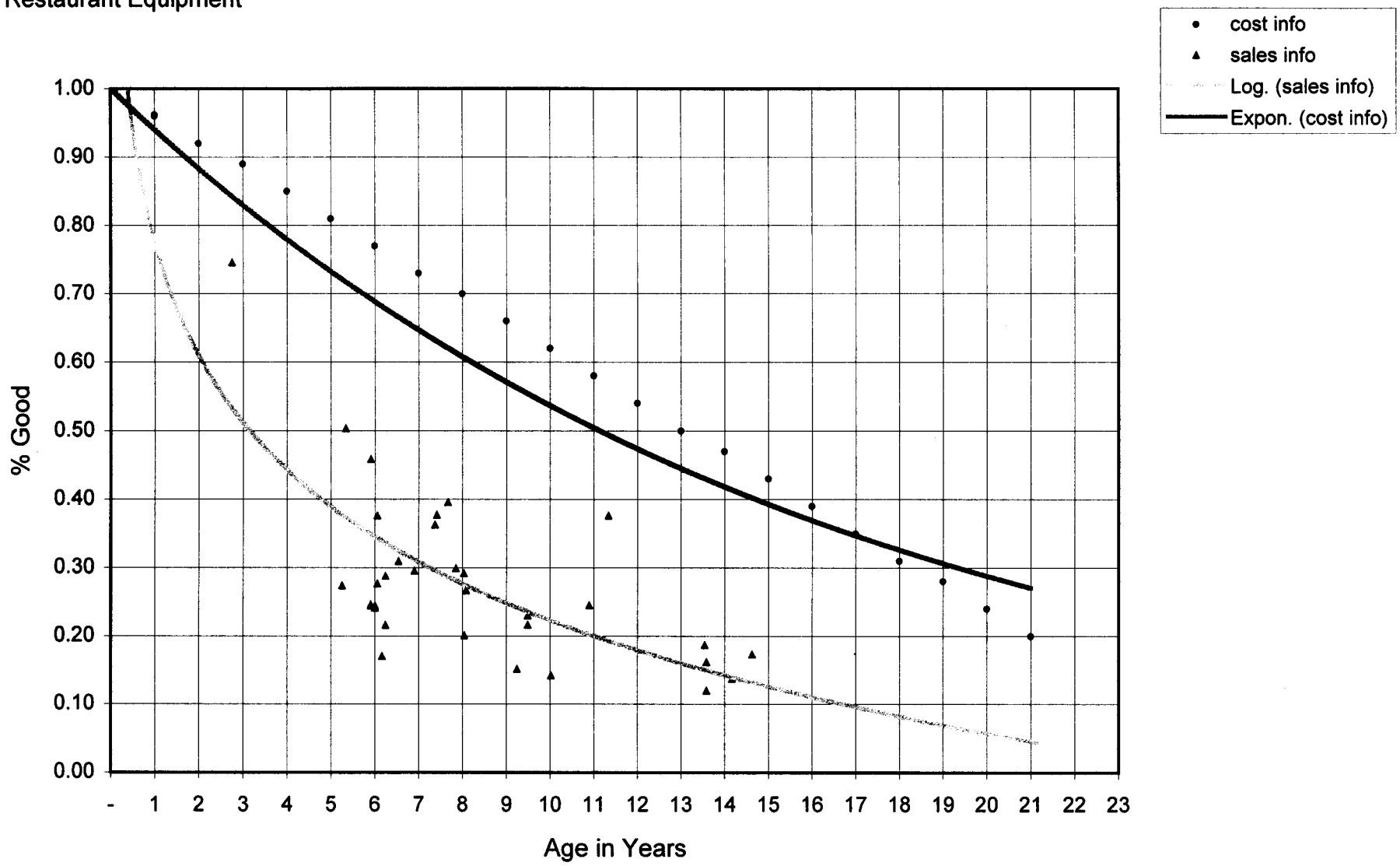
Furniture & Fixtures



Office Machines



Electronic, Video & Test Equipment



Restaurant Equipment