

CHAPTER 12. LIFE-CYCLE COST SUB-GROUP ANALYSIS

TABLE OF CONTENTS

12.1 INTRODUCTION	12-1
12.2 SUB-GROUP ANALYSIS	12-1
12.2.1 CRE Customer Sub-Group	12-1
12.2.2 Life-Cycle Cost and Payback Period Results for Small Business Sub-Group ..	12-5
REFERENCES	12-10

LIST OF TABLES

Table 12.2.1 Census Data for Supermarket and Other Grocery Business Class by Number of Establishments per Firm	12-2
Table 12.2.2 Census Data for Convenience Store Business Class by Number of Establishments per Firm	12-3
Table 12.2.3 Census Data for Convenience Store with Gasoline Station Business Class by Number of Establishments per Firm	12-4
Table 12.2.4 Mean LCC Savings by Equipment Class and Trial Standard Level, Small Business Sub-Group and All Business Types (2007\$)*	12-6
Table 12.2.5 Percentage of Customers Showing Positive Life-Cycle Cost Savings by Equipment Class and Trial Standard Level, Small Business Sub-Group and All Business Types (2007\$)*	12-7
Table 12.2.6 Mean Payback Period by Equipment Class and Trial Standard Level, Small Business Sub-Group and All Business Types (2007\$)*	12-8
Table 12.2.7 Percentage of Customers Showing PBP Less Than 3 Years, by Equipment Class and Trial Standard Level, Small Business Sub-Group and All Business Types*	12-9

CHAPTER 12. LIFE-CYCLE COST SUB-GROUP ANALYSIS

12.1 INTRODUCTION

The life-cycle cost (LCC) sub-group analysis evaluates impacts on any identifiable groups of customers of commercial refrigeration equipment (CRE) who may be disproportionately affected by amended energy conservation standards. The U.S. Department of Energy (DOE) accomplished this, in part, by analyzing the LCC and payback period (PBP) for those CRE customers who fall into any specific sub-groups.

DOE used the LCC spreadsheet model to estimate the impact on CRE sub-groups. DOE developed this LCC spreadsheet model to conduct the LCC and PBP analyses for both CRE customers, as described in Chapter 8, Life-Cycle Cost and Payback Period Analyses. The standard LCC and PBP analyses (see Chapter 8) for CRE includes various types of food-sales businesses that use commercial refrigeration equipment. The LCC spreadsheet model allows for the identification of certain sub-groups of businesses, which can then be analyzed by sampling only that sub-group. Chapter 8 explains in detail the inputs to the LCC spreadsheet model used in determining the LCC and PBP. The LCC spreadsheet model is accessible over the internet (http://www1.eere.energy.gov/buildings/appliance_standards/commercial/refrigeration_equipment.html).

12.2 SUB-GROUP ANALYSIS

12.2.1 CRE Customer Sub-Group

DOE identified small businesses as a sub-group that possibly could be disproportionately affected by the amended energy conservation standard for CRE units. DOE was concerned that increases in the purchase price of commercial refrigeration equipment could have negative impacts on small businesses (i.e., those with low annual revenues). To identify small businesses, DOE used size standards from the Small Business Administration (SBA) to define which business entities are considered to be small. The SBA established size standards for types of economic activity, or industry, under the North American Industry Classification System (NAICS).¹

The SBA defines a small business from a customer perspective by either its annual receipts (i.e., revenues) or its number of employees. Assembly, education, food services, office, and retail businesses are generally defined to be small if annual receipts are \$6 million or less. In the case of the retail food sales business, the SBA defines as small businesses supermarkets and other grocery stores and convenience stores with less than \$25 million in total annual sales. For specialty stores (e.g., meat markets, bakeries, fish and seafood markets) and beer, wine and liquor stores, this limit is set at less than \$6.5 million in annual sales. According to the Food Marketing Institute, the average supermarket had sales of approximately \$15 million in 2006, so a small business could be represented as ownership of one or two average-size supermarkets or a chain of smaller grocery or convenience stores.

The Food Marketing Institute defines independent stores as a retailer with 1 to 10 stores, so most small supermarkets or grocery businesses as defined by SBA would be classified as

independent grocery stores by the industry as opposed to being chain stores. A somewhat larger chain of convenience stores could still be classified as a small business.

In examining the total CRE sales to entities that might be considered as small businesses, DOE analyzed detailed statistical data from the 2002 CBECS² for the three of the four business types identified in this analysis: (1) supermarkets and grocery stores, (2) convenience stores (including specialty food stores), and (3) convenience stores without gasoline stations. Because of the large chain presence as well as the need for larger stores to deal with merchandise, multiline line retailers were presumed to not fall into the small business category.

The 2002 census examines sales and total number of establishments for retail firms and provides this information categorized by number of sales establishments per firm, as shown in Table 12.2.1 through Table 12.2.3. From the census data, it is possible to identify the number of firms in each category, the number of establishments in each category, total employment in each category, and the total sales in each category. It is then possible to develop average statistics for each category in terms of number of establishments per firm, total sales per establishment, and total sales per firm. From the latter, one can estimate whether a category, in terms of number of establishments per firm, is composed largely from firms that might be classified as small businesses. This is first shown in Table 12.2.1, for supermarket and other grocery firms. If the average annual sales per firm in a category are substantially less than \$25 million, the category as a whole was considered likely composed of small businesses. If the average annual sales per firm are substantially greater than \$25 million, the category as a whole was unlikely to be composed of small business. When the average sales per firm were close to the threshold, it was assumed that approximately 50 percent would likely be considered small businesses.

Table 12.2.1 Census Data for Supermarket and Other Grocery Business Class by Number of Establishments per Firm

		Number of Firms	Total Employment	Average Establishments per Firm	Sales per Establishment	Sales per Firm	Avg. Firm is Small Business	
Supermarkets & other grocery (except convenience) stores	All firms	42,318	2,437,750	1.6	5975	9340	TRUE	
	Single unit firms	39,912	461,199	1.0	1487	1487	TRUE	
	Multiunit firms	2,406	1,976,551	10.9	12802	139610	FALSE	
	Firms with 1 establishment	792	23,775	1.0	3465	3465	TRUE	
	Firms with 2 establishments	695	55,560	2.0	5071	10142	TRUE	
	Firms with 3 or 4 establishments	420	66,531	3.3	6350	21122	TRUE for ~50%	
	Firms with 5 to 9 establishments	268	89,434	6.5	7925	51512	FALSE	
	Firms with 10 to 24 establishments	130	133,065	14.9	10592	158221	FALSE	
	Firms with 25 to 49 establishments	48	104,431	34.2	10262	351054	FALSE	
	Firms with 50 to 99 establishments	16	90,809	72.8	12445	905409	FALSE	
	Firms with 100 establishments or more	37	1,412,946	437.0	15556	6797970	FALSE	
	Fraction of establishments considered small business							0.647
	Fraction of firms classed as small business							0.983
	Fraction of employment in small businesses							0.235
	Fraction of sales in small businesses							0.186

These same data are tabulated for convenience stores (including specialty food stores and beer, wine, and liquor stores as was done in the LCC analysis). Because the size standards are different for convenience stores versus specialty food and beer, wine, and liquor stores, the results are first shown separately, and then aggregated in Table 12.2.2.

Table 12.2.2 Census Data for Convenience Store Business Class by Number of Establishments per Firm

		Number of Firms	Total Employment	Average Establishments per Firm	Sales per Establishment	Sales per Firm	Avg. Firm is Small Business
Convenience stores	All firms	25,527	138,316	1.1	698	798	TRUE
	Single-unit firms	24,854	93,482	1.0	570	570	TRUE
	Multiunit firms	673	44,834	6.5	1423	9217	TRUE
	Firms with 1 establishment	340	3,010	1.0	1015	1015	TRUE
	Firms with 2 establishments	161	2,263	2.0	1010	2019	TRUE
	Firms with 3 or 4 establishments	86	2,352	3.2	1186	3846	TRUE
	Firms with 5 to 9 establishments	39	2,331	6.5	1112	7214	TRUE
	Firms with 10 to 24 establishments	19	2,132	13.8	1118	15415	TRUE
	Firms with 25 to 49 establishments	12	3,461	38.9	914	35579	FALSE
	Firms with 50 to 99 establishments	10	5,643	70.4	1231	86670	FALSE
	Firms with 100 establishments or more	6	23,642	288.5	1926	555755	FALSE
Specialty food stores & Beer Wine and Liquor Stores	All firms	45,085	262,587	1.2	773	917	TRUE
	Single-unit firms	43,131	193,189	1.0	693	693	TRUE
	Multiunit firms	1,954	69,398	5.3	1109	5853	TRUE
	Firms with 1 establishment	976	8,604	1.0	1111	1111	TRUE
	Firms with 2 establishments	485	9,773	2.0	1581	3162	TRUE
	Firms with 3 or 4 establishments	266	6,618	3.3	1259	4157	TRUE
	Firms with 5 to 9 establishments	127	5,773	6.3	1155	7332	TRUE for ~ 45%*
	Firms with 10 to 24 establishments	59	6,694	15.2	1635	24910	FALSE
	Firms with 25 to 49 establishments	19	4,786	35.7	1374	49085	FALSE
	Firms with 50 to 99 establishments	11	5,767	72.4	1090	78873	FALSE
	Firms with 100 establishments or more	11	21,383	391.5	815	319255	FALSE
	Fraction of establishments considered small business						0.879
	Fraction of firms classed as small business						0.997
	Fraction of employment in small businesses						0.815
	Fraction of sales						0.804

* True for specialty food stores but false for liquor stores

Finally, the data are tabulated for combination gasoline stations with convenience stores in Table 12.2.3.

Table 12.2.3 Census Data for Convenience Store with Gasoline Station Business Class by Number of Establishments per Firm

		Number of Firms	Total Employment	Average Establishments per Firm	Sales per Establishment	Sales per Firm	Avg. Firm is Small Business	
Gasoline stations with convenience stores	All firms	44,361	722,047	2.1	1993	4209	TRUE	
	Single-unit firms	39,457	255,812	1.0	1501	1501	TRUE	
	Multiunit firms	4,904	466,235	11.1	2351	25998	FALSE	
	Firms with 1 establishment	1,418	14,582	1.0	2062	2062	TRUE	
	Firms with 2 establishments	1,220	23,073	2.0	2058	4117	TRUE	
	Firms with 3 or 4 establishments	849	26,686	3.4	2126	7196	TRUE	
	Firms with 5 to 9 establishments	646	33,665	6.4	1966	12648	TRUE	
	Firms with 10 to 24 establishments	485	58,089	14.8	1991	29441	FALSE	
	Firms with 25 to 49 establishments	163	43,196	34.1	2061	70261	FALSE	
	Firms with 50 to 99 establishments	57	30,103	68.4	2228	152453	FALSE	
	Firms with 100 establishments or more	66	236,841	404.8	2652	1073415	FALSE	
	Fraction of establishments considered small business							0.576
	Fraction of firms classed as small business							0.988
	Fraction of employment in small businesses							0.530
	Fraction of sales							0.475

What is first clear from examining these data is that the majority of firms in each business class are considered small businesses. This is true for commercial businesses in the United States at large. According to the SBA, 99 percent of all U.S. businesses fall under the SBA definition of small business.³ However, the data in Table 12.2.1 show that less than 20 percent of the sales and less than 24 percent of the employment in the supermarket/grocery business class occurs in small businesses. The financial statistics of the class are generally not well characterized by small businesses. This is contrasted with convenience stores shown in Table 12.2.2. In the convenience store business class, approximately 80 percent of the sales and 82 percent of the employment occurs in small businesses. Convenience stores with gasoline stations, shown in Table 12.2.3, are more mixed with slightly less than 50 percent of the sales and slightly more than 50 percent of employment occurring in entities fitting the definition of small businesses.

In examining the four business classes considered in the LCC analysis in Chapter 8, DOE considered which business class would be substantially considered representative of small businesses and with the potential to be adversely affected under this rulemaking. DOE does not have sufficient information to correlate annual revenues or the likelihood of a purchaser being a small business with the costs of more efficient CRE units to identify the sub-group of small businesses in the building sample. However, DOE believes that the results from the LCC sub-group analysis provide an adequate indication of whether the small business sub-group would be disproportionately advantaged or disadvantaged by a proposed standard. Convenience

stores in particular appear to be much more representative of small businesses overall. Convenience stores and specialty stores, such as meat markets and liquor stores, pay higher electricity prices compared to the other business classes, but use similar amounts of electricity for the same type of equipment. Convenience stores were estimated to typically face somewhat higher costs of capital (i.e., a difference estimated in Chapter 8 as 250 basis points, or 2.5 percent). In addition, for the sub-group analysis, it was assumed that convenience stores that are not represented by a national chain have no access to national accounts and, therefore, face higher wholesale and retail markups for initial equipment purchases, and, therefore, experience higher equipment prices. This is somewhat offset by the likelihood that they will keep the equipment for longer periods, resulting in longer average equipment lifetimes. DOE believes that this trend is likely common in small grocery stores as well. Overall, however, the lower the cost of electricity and the higher the cost of capital, the more likely it is that an entity would be disadvantaged by the requirement to purchase more efficient CRE units.

Based on the analysis, DOE has used data for convenience stores as a representative proxy for small business CRE purchasers, but with the added assumption of no access to national account purchasing, resulting in higher equipment costs. This has been defined as the representative sub-group for the LCC sub-group analysis. With the exception of the equipment cost, all other inputs to the LCC and PBP spreadsheet model for the small business sub-group were the same as for convenience stores considered in the rulemaking (e.g., total installed costs, repair costs, maintenance costs, discount rates).

12.2.2 Life-Cycle Cost and Payback Period Results for Small Business Sub-Group

Table 12.2.4 summarizes the LCC savings results for the small business sub-group for each of the CRE equipment classes, and compares them to the results for the total sample of business types used in the overall LCC analysis.

Table 12.2.5 compares the percentages of customers showing LCC savings for the two groups of businesses—namely, the small business sub-group and the total sample of all business types considered for this CRE rulemaking. Similarly, Table 12.2.6 summarizes the mean PBP results for the two groups, and Table 12.2.7 compares the percentages of the two groups experiencing payback periods of less than 3 years. The baseline in all cases is the baseline efficiency level used in the life-cycle cost analysis (level 1). Results are provided by TSL for each of the 15 CRE equipment classes. As is evident from the LCC and PBP results, the overall impact of a potentially higher CRE efficiency level on the small business sub-group is qualitatively similar to the impact on the full sample of business types that use CRE units covered by this rulemaking. The LCC savings are somewhat higher for the small business sub-group, with the impacts of higher discount rates on first cost offset by the higher cost of energy and the increased lifetime compared to the overall population. The maximum LCC savings are obtained at TSL 3 in all equipment classes but VCT.SC.I, and HCT.SC.I, where it is TSL 4 for the small business sub-group. Based on this analysis, as a recognizable sub-group, small businesses would expect no additional negative impact from increased CRE efficiency levels compared with the full sample of CRE customers considered in the rulemaking.

Table 12.2.4 Mean LCC Savings by Equipment Class and Trial Standard Level, Small Business Sub-Group and All Business Types (2007\$)*

		TSL 1	TSL 2	TSL 3	TSL4	TSL5
VOP.RC.M	Small Business	\$1,746	\$1,764	\$2,443	\$2,443	(\$3,463)
	All Business Types	\$1,344	\$1,308	\$1,788	\$1,788	(\$3,959)
VOP.RC.L	Small Business	\$4,534	\$5,882	\$6,064	\$5,549	\$5,549
	All Buildings	\$3,501	\$4,500	\$4,610	\$3,938	\$3,938
VOP.SC.M	Small Business	\$1,094	\$1,624	\$2,145	\$2,145	\$131
	All Business Types	\$842	\$1,209	\$1,549	\$1,549	(\$451)
VCT.RC.M	Small Business	\$416	\$868	\$3,484	\$3,458	\$3,458
	All Business Types	\$320	\$657	\$2,375	\$2,339	\$2,339
VCT.RC.L	Small Business	\$1,001	\$5,639	\$7,454	\$7,447	\$7,447
	All Business Types	\$762	\$4,137	\$5,450	\$5,419	\$5,419
VCT.SC.I	Small Business	\$3,811	\$6,451	\$6,944	\$6,949	\$6,949
	All Business Types	\$2,941	\$4,893	\$5,234	\$5,217	\$5,217
VCS.SC.I	Small Business	\$902	\$1,703	\$2,314	\$2,314	\$2,314
	All Business Types	\$704	\$1,321	\$1,757	\$1,757	\$1,757
SVO.RC.M	Small Business	\$1,177	\$1,209	\$1,738	\$1,738	(\$2,637)
	All Business Types	\$907	\$896	\$1,274	\$1,274	(\$2,974)
SVO.SC.M	Small Business	\$752	\$1,138	\$1,565	\$1,565	\$61
	All Business Types	\$583	\$853	\$1,136	\$1,136	(\$355)
SOC.RC.M	Small Business	\$521	\$1,106	\$1,290	\$1,290	(\$948)
	All Business Types	\$405	\$851	\$945	\$945	(\$1,458)
HZO.RC.M	Small Business	\$538	\$1,152	\$1,397	\$1,383	\$1,383
	All Business Types	\$419	\$887	\$1,063	\$1,040	\$1,040
HZO.RC.L	Small Business	\$875	\$1,383	\$1,466	\$1,466	\$1,466
	All Business Types	\$668	\$1,047	\$1,102	\$1,102	\$1,102
HZO.SC.M	Small Business	\$440	\$803	\$1,156	\$1,129	\$1,129
	All Business Types	\$344	\$615	\$861	\$826	\$826
HZO.SC.L	Small Business	\$857	\$1,574	\$2,364	\$2,352	\$2,352
	All Business Types	\$670	\$1,215	\$1,784	\$1,761	\$1,761
HCT.SC.I	Small Business	\$272	\$1,022	\$1,055	\$1,057	\$1,057
	All Business Types	\$211	\$775	\$797	\$785	\$785

* Energy savings calculated compared to baseline. Values in parentheses stand for negative LCC savings

Table 12.2.5 Percentage of Customers Showing Positive Life-Cycle Cost Savings by Equipment Class and Trial Standard Level, Small Business Sub-Group and All Business Types (2007\$)*

		TSL 1	TSL 2	TSL 3	TSL4	TSL5
VOP.RC.M	Small Business	35	53	70	70	1
	All Business Types	36	54	71	71	0
VOP.RC.L	Small Business	31	47	77	92	92
	All Buildings	31	48	77	92	92
VOP.SC.M	Small Business	33	65	79	79	40
	All Business Types	33	65	79	79	30
VCT.RC.M	Small Business	19	39	83	91	91
	All Business Types	20	40	83	92	92
VCT.RC.L	Small Business	38	56	79	90	90
	All Business Types	38	57	80	90	90
VCT.SC.I	Small Business	44	57	79	90	90
	All Business Types	45	59	80	91	91
VCS.SC.I	Small Business	23	50	88	88	88
	All Business Types	24	50	89	89	89
SVO.RC.M	Small Business	34	52	69	69	1
	All Business Types	35	53	70	70	0
SVO.SC.M	Small Business	32	63	77	77	40
	All Business Types	32	64	78	78	29
SOC.RC.M	Small Business	17	35	71	71	26
	All Business Types	18	36	71	71	5
HZO.RC.M	Small Business	19	40	61	81	81
	All Business Types	20	40	61	81	81
HZO.RC.L	Small Business	40	61	81	81	81
	All Business Types	41	61	81	81	81
HZO.SC.M	Small Business	26	54	79	90	90
	All Business Types	27	55	79	90	90
HZO.SC.L	Small Business	26	54	79	90	90
	All Business Types	27	54	79	90	90
HCT.SC.I	Small Business	34	52	69	86	86
	All Business Types	35	53	70	86	86

* Compared with purchase of a baseline level equipment

Table 12.2.6 Mean Payback Period by Equipment Class and Trial Standard Level, Small Business Sub-Group and All Business Types (2007\$)*

		TSL 1	TSL 2	TSL 3	TSL4	TSL5
VOP.RC.M	Small Business	0.7	1.2	1.8	1.8	52.0
	All Business Types	0.8	1.3	2.0	2.0	138.1
VOP.RC.L	Small Business	0.6	1.0	1.1	2.5	2.5
	All Buildings	0.7	1.1	1.2	2.8	2.8
VOP.SC.M	Small Business	0.7	1.4	2.2	2.2	9.5
	All Business Types	0.8	1.6	2.4	2.4	11.2
VCT.RC.M	Small Business	0.7	1.1	3.5	3.6	3.6
	All Business Types	0.8	1.3	3.8	3.9	3.9
VCT.RC.L	Small Business	1.0	2.2	2.3	2.4	2.4
	All Business Types	1.1	2.4	2.5	2.6	2.6
VCT.SC.I	Small Business	0.9	1.3	1.5	1.6	1.6
	All Business Types	1.0	1.5	1.6	1.7	1.7
VCS.SC.I	Small Business	0.3	0.5	1.2	1.2	1.2
	All Business Types	0.4	0.6	1.3	1.3	1.3
SVO.RC.M	Small Business	0.7	1.2	1.7	1.7	106.7
	All Business Types	0.8	1.3	1.9	1.9	196.8
SVO.SC.M	Small Business	0.6	1.3	2.1	2.1	9.7
	All Business Types	0.6	1.4	2.3	2.3	11.5
SOC.RC.M	Small Business	0.5	0.7	1.6	1.6	15.6
	All Business Types	0.5	0.8	1.7	1.7	19.4
HZO.RC.M	Small Business	0.5	0.7	1.1	1.5	1.5
	All Business Types	0.5	0.8	1.2	1.6	1.6
HZO.RC.L	Small Business	0.9	1.3	1.5	1.5	1.5
	All Business Types	1.0	1.4	1.6	1.6	1.6
HZO.SC.M	Small Business	0.4	0.9	1.7	2.1	2.1
	All Business Types	0.4	1.0	1.8	2.3	2.3
HZO.RC.L	Small Business	0.3	0.7	1.3	1.5	1.5
	All Business Types	0.3	0.8	1.5	1.7	1.7
HCT.SC.I	Small Business	0.6	1.2	1.3	1.7	1.7
	All Business Types	0.6	1.4	1.5	1.9	1.9

*Compared to purchase of baseline equipment

Table 12.2.7 Percentage of Customers Showing PBP Less Than 3 Years, by Equipment Class and Trial Standard Level, Small Business Sub-Group and All Business Types*

		TSL 1	TSL 2	TSL 3	TSL4	TSL5
VOP.RC.M	Small Business	100%	100%	98%	98%	NA
	All Business Types	100%	100%	93%	93%	0%
VOP.RC.L	Small Business	100%	100%	100%	74%	74%
	All Buildings	100%	100%	100%	63%	63%
VOP.SC.M	Small Business	100%	100%	87%	87%	0%
	All Business Types	100%	100%	77%	77%	0%
VCT.RC.M	Small Business	100%	100%	33%	33%	33%
	All Business Types	100%	100%	29%	19%	19%
VCT.RC.L	Small Business	100%	88%	83%	79%	79%
	All Business Types	100%	83%	74%	71%	71%
VCT.SC.I	Small Business	100%	100%	100%	100%	100%
	All Business Types	100%	100%	100%	100%	100%
VCS.SC.I	Small Business	100%	100%	100%	100%	100%
	All Business Types	100%	100%	100%	100%	100%
SVO.RC.M	Small Business	100%	100%	98%	98%	NA
	All Business Types	100%	100%	94%	94%	0%
SVO.SC.M	Small Business	100%	100%	93%	93%	0%
	All Business Types	100%	100%	83%	83%	0%
SOC.RC.M	Small Business	100%	100%	99%	99%	NA
	All Business Types	100%	100%	99%	99%	NA
HZO.RC.M	Small Business	100%	100%	100%	100%	100%
	All Business Types	100%	100%	100%	100%	100%
HZO.RC.L	Small Business	100%	100%	100%	100%	100%
	All Business Types	100%	100%	100%	100%	100%
HZO.SC.M	Small Business	100%	100%	100%	95%	95%
	All Business Types	100%	100%	99%	86%	86%
HZO.RC.L	Small Business	100%	100%	100%	100%	100%
	All Business Types	100%	100%	100%	100%	100%
HCT.SC.I	Small Business	100%	100%	100%	100%	100%
	All Business Types	100%	100%	100%	99%	99%

*Compared to purchase of baseline equipment. A value of zero means less than 0.5 percent. NA means that a percentage with a payback period of less than 3 years could not be computed because there were no instances in which payback period was less than 3 years.

REFERENCES

1. Title 13, Code of Federal Regulations, Chapter I–Small Business Administration, Part 121–Small Business Administration, Subpart A–Size Eligibility Provisions and Standards, May 4, 2005.
2. U.S. CENSUS. 2002. U.S. Census Bureau American Fact Finder, Sector 44: Retail Trade: Subject Series–Estab & Firm Size: Single Unit and Multiunit Firms for the United States: 2002. Accessed Dec 2007. http://factfinder.census.gov/servlet/IBQTable?_bm=y&-ds_name=EC0244SSSZ3&-skip=600&-geo_id=&-parsed=true&-lang=en&-fds_name=EC0200A1
3. SBA. 2007. The Small Business Economy for Data Year 2006, Report to the President. U.S. Small Business Administration. U.S. Government Printing Office, Washington, D.C. <http://www.sba.gov/advo/research/sb_econ2007.pdf>