



# AMAI Advances: Distribution of Socioeconomic Levels in Urban Mexico



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**S**ocioeconomic level is a fundamental dimension of market research, especially in contexts where income determines varied consumer conducts and scenarios. For this reason, in 1994, the Mexican Association of Market and Public Opinion Research Agencies (Spanish acronym AMAI) developed a classification that offers Mexican research institutions a powerful and uniform reference tool to study, classify, and explain the country's markets.

The AMAI's first classification index was made known in 1994, during the association's first professional training seminar. Since then, the index has evolved as its capacity for discrimination and prediction has increased. The current socioeconomic level index groups homes in sex levels, based on an assignment tree considering 13 variables: (1) education of the head of household, (2) number of rooms, (3) number of bathrooms with showers, (4) type of floor, (5) number of light bulbs and ownership of (6) car, (7) hot water heater, (8) automatic washing machine (9) VCR, (10) toaster, (11) vacuum cleaner, (12) microwave oven, and (13) PC. This algorithm is known as AMAI rule 13\*6.

## AMAI Socioeconomic Levels: 2005 Update

Each year, through our socioeconomic levels committee, AMAI updates and publishes socioeconomic level proportions for Mexico's urban population considering cities with more than 50,000 inhabitants. This document presents the distribution of socioeconomic levels for the year 2005.

The estimate was made with AMAI rule 13\*6, based on two nationwide samples of urban households taken in the first half of 2005. These samples were taken by two firms associated with AMAI, IBOPE/AGB and ACNIELSEN, as part of their nationwide studies. The studies were:

- **Establishment Survey 2005** conducted by the firm IBOPE/AGB as the basis for its system for measuring television audience. This study represents households in cities with more than 400,000 inhabitants and has a sample size of 7,981 cases.

**Size and distribution of population living in cities  
with 50,000 inhabitants or more**

**Table 1**

	Persons	Households	Cities
Mexico City. Metropolitan Area	19,430,711	4,898,591	1
Guadalajara	4,002,686	926,625	1
Monterrey	3,657,477	871,207	1
Cities with 400,000 to 2,500,000 inhabitants	23,165,508	5,630,982	28
Cities with 50,000 to 400,000 inhabitants	14,931,730	3,468,406	105
Total	65,188,112	15,795,810	136

Percentile distribution of socioeconomic levels in cities

**Table 2** with more than 50,000 inhabitants 2005

	Total cities with more than 400,000 inhabitants	Total cities with more than 50,000 inhabitants
A/B	7.5	7.5
C+	13.6	13.8
C	18.8	17.8
D+	32.6	34.3
D	19.5	16.8
E	8	9.9

- **Master Sample of Households 2005**, from the Homescan study conducted by the agency ACNIELSEN. This study represents households in cities with more than 50,00 inhabitants and has a sample size of 26,893 cases.

Due to their size and selection method, both samples guarantee the reliability and representativity of the results.

The two samples were selected using strictly random procedures. In ACNIELSEN's case, the sample also contemplates a high level over-quota.

The estimated distribution of socioeconomic levels was calculated by combining the two studies, using a procedure that combined the original weighting factors for each of the samples plus a factor that weights each sample's contribution to the different strata and cells in the study design.

The proportions of socioeconomic levels represent Mexico's urban population in cities with more than 50,000 inhabitants. Based on estimates published by the National Counsel on Population (Spanish acronym CONAPO)<sup>1</sup>, this definition contemplates 15,875,810 households and 65,188,112 individuals and represents 60.4% of Mexican households and 62.2 % of the country's inhabitants. The estimate was made considering metropolitan and suburban areas as a single city. The distribution of households, individuals, and cities by strata of city size is shown in Table 1.

AMAI's estimate of the distribution of socioeconomic levels for 2005 is shown in Table 2. The distribution of socioeconomic levels for the country's leading metropolitan areas and by city size is shown in Table 3.

### Socioeconomic Level and Income

The income levels associated with each of the six socioeconomic levels are shown in Table 4.

Historically, applying the same classification criteria, we observe an increase in the socioeconomic

**Percentile distribution of SELs by metropolitan area and city size, 2005**

**Table 3**

	AMCM	Guadalajara	Monterrey	Cities with 400,000 to 2,500,000 inhabitants	Cities with 50,000 to 400,000 inhabitants
A/B	6.9	8	10.6	7.4	7.5
C+	11.7	15.2	16.9	14.8	13
C	15.7	19.5	18.2	19	21.1
D+	38.7	37.7	28.9	31.3	28.8
D	15.2	12.8	22.8	17.8	25.4
E	11.9	6.7	2.6	9.7	4.2

level of the population between the years 2000 and 2005. The middle and high income brackets showed a percentile increase, while the lower level dropped. The evolution of socioeconomic levels, since they have been measured with the same criteria, is shown in Table 5.

### National Income and Spending Survey

To determine the reliability of AMAI's estimate of distribution of socioeconomic levels, it was compared with the distribution of socioeconomic levels reported by the 2004 National Household Income and Spending Survey prepared by the National Institute of Statistics, Geography, and Informatics (INEGI). This survey has nationwide coverage and a sample size of 25,115 households. It reports a family's formal and informal income over the last three months and all

the family's expenditures in a month. Also, it records the characteristics of inhabitants, dwellings, and possessions. The survey included the same 13 variables for socioeconomic level that the AMAI index considers. With some recoding and combinations of variables it was possible to apply AMAI rule 13\*6 and obtain the distribution of levels. The distribution of levels in the income-spending survey was obtained considering cities with more than 100,000 inhabitants (11,692 cases).

Considering the same definition of socioeconomic level (rule 13\*6), AMAI's distribution is very similar to the distribution reported in the income and spending survey. The comparison between AMAI's estimate and that reported in the income and spending survey is shown in Table 6. The great similarity between the two distributions strengthens reliability of the index and AMAI's estimated distribution by socioeconomic level.

**Table 4** Family income by SEL

	Minimum	Maximum
A/B	\$ 85,000.00 +	
C+	\$ 35,000.00	\$ 84,999.00
C	\$ 11,600.00	\$ 34,999.00
D+	\$ 6,800.00	\$ 11,599.00
D	\$ 2,700.00	\$ 6,799.00
E	\$ 0.00	\$ 2,699.00

### Spending by Socioeconomic Level, AMAI

Having classified the households in the INEGI income and spending survey with the AMAI index, we were able to get a description of socioeconomic levels based on spending patterns. The distribution of spending differs significantly between socioeconomic levels. As SEL drops, percentages of spending for basic products and services rises. Whereas for level AB, spending on food, basic domestic services, and transportation represent % of total spending, for level

**Table 5** Historical evolution of percentile distribution of SEL

	2000	2002	2003	2005
A/B		7	7.4	7.5
C+	19	12.6	12.5	13.6
ABC+	19	19.6	19.9	21.1
C	17.8	17.1	17	18.8
D+	30.2	35.5	34	32.6
D/E	33	27.7	29	27.6

**Table 6** Comparison of percentile distribution of SEL. AMAI Estimate vs. Income and Spending Survey 2004

	AMAI Distribution	Income-Spending Survey Dist. with AMAI Index
A/B	7.5	7.5
C+	13.6	14.2
C	18.8	19
D+	32.6	32.5
D	19.5	20.6
E	8.1	6.2

**Table 7 Percentile distribution of spending by level, AMAI. 2004 National income and spending survey**

	A/B	C+	C	D+	D	E
Food and beverages consumed in the home	7.3%	12.0%	17.6%	24.4%	29.7%	33.5%
Food and beverages consumed away from home	7.6%	7.8%	7.5%	8.4%	8.5%	9.9%
Tobacco	0.1%	0.2%	0.2%	0.3%	0.3%	0.4%
Clothing and footwear	3.7%	4.2%	4.5%	4.7%	4.6%	4.3%
Domestic services (gas,water,electricity)	5.8%	6.9%	7.7%	9.6%	9.7%	8.7%
Home care and cleaning	5.3%	3.4%	2.6%	2.9%	2.9%	3.1%
Domestic appliances	1.4%	1.5%	1.6%	1.5%	1.6%	1.3%
Medical care and health conservation	2.9%	3.0%	2.5%	3.0%	2.2%	3.1%
Public transportation	0.6%	1.7%	4.2%	6.9%	8.3%	8.3%
Long-distance transportation	1.3%	0.9%	0.7%	0.7%	0.6%	0.6%
Vehicles	8.1%	9.8%	8.8%	4.1%	3.0%	1.3%
Communication	3.4%	4.1%	4.3%	4.2%	3.2%	2.0%
Education	9.9%	9.0%	8.1%	6.4%	5.8%	5.1%
Recreation	6.4%	5.3%	4.5%	3.3%	2.7%	2.1%
Personal care	2.5%	3.2%	3.9%	4.6%	5.0%	5.1%
Personal accesories and effects	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%
Other miscellaneous expenses	6.7%	5.7%	5.2%	4.1%	3.6%	4.1%
Housing cuota	1.0%	1.4%	1.4%	1.1%	0.6%	0.3%
Home maintenance and repair	1.1%	1.6%	1.2%	0.9%	1.0%	1.2%
Bank/savings deposits	11.6%	10.1%	7.3%	5.7%	4.3%	3.4%
Loans	0.5%	0.3%	0.2%	0.2%	0.2%	0.2%
Credit card and department store payments	6.5%	4.6%	2.1%	1.0%	0.3%	0.1%
Debts	1.0%	1.3%	1.4%	0.9%	0.9%	0.8%
Purchases of homes, condominiums, or land	2.3%	0.7%	0.8%	0.4%	0.4%	0.6%
Other expenditures	2.9%	0.9%	1.6%	0.5%	0.5%	0.4%

**Possessions from the AMAI index by SEL. National  
income and spending survey (percentages)**

**Table 8**

	Total	A/B	C+	C	D+	D	E
Floor other than earth or cement	97.3	100	100	99.6	99.5	99.4	61.4
Gas hot water heater	60.8	96.8	89.6	84	73.2	4.8	1.6
Toaster	27.8	80	57.5	35.1	14.4	10.3	3.3
Vacuum cleaner	13.3	76.4	27.3	9.2	5.4	1.2	0.2
Microwave oven	51.6	95.4	86.5	67.5	43.3	23.1	9.4
Washing machine	76.2	97.6	91.7	87.9	76	59.2	36.7
VCR	46.7	80.4	71.8	66.8	37	22.4	19.0
Computer	25.7	80.9	55.3	35.1	12.8	4.6	0.7
Car	47.6	93.9	90.6	71	30.7	17.9	9.3

**Average rooms, bathrooms with showers, and light bulbs by SEL**

**Table 9**

	Total	A/B	C+	C	D+	D	E
Rooms	4.2	6.6	5.1	4.7	4.1	3	1.7
Bathrooms with shower	1.1	2.7	1.6	1.4	1.1	0.4	0.0
Light bulbs	7.7	18.2	10.4	8.3	6.7	4.5	2.7

D/E the same heading accounts for two thirds of spending. (Table 7).

At the higher levels, the percentage spent on travel, entertainment, and communication is considerably higher than at the lower levels.

Although the percentage spent on education is higher at the higher levels, there is no great difference with lower income levels. Whereas the higher levels spend % on education, for the lower levels the percentage is %.

The 13 variables in the AMAI rule also show discriminating performance among socioeconomic levels calculated on the basis of the income and spending survey. Tables and show the distribution of these variables by socioeconomic level.

Tables and show households' entertainment and communication appliances for each level, and the existence of household installations.

### Conclusion

The size, reliability, and amplitude of the income and spending survey will allow us to more accurately define each SEL in the future and find new variables the enrich the predictive and discriminatory capacity of the AMAI index.

### Notes

<sup>1</sup> CONAPO, Mexican Population Forecasts – 2000-2050.

**Table 10 Education of head of household by SEL. National income**

	Total	A/B	C+	C	D+	D	E
No formal education	5.8	0.0	0.2	-	6.2	11.1	24.6
Primary school incomplete	15.5	0.2	0.1	5.0	24.5	19.0	42.8
Primary school complete	17.3	0.6	4.2	14.4	23.2	25.4	18.1
Secondary school incomplete	4.8	0.2	1.3	4.1	5.5	7.9	6.0
Secondary school complete	16.8	1.7	5.4	24.1	15.8	28.5	5.4
Commercial training	1.0	0.7	0.6	1.8	1.2	0.4	0.2
Vocational training	6.7	5.6	8.1	16.6	3.1	4.7	0.3
High school incomplete	4.2	0.5	5.5	5.1	6.6	0.9	0.7
High school complete	7.7	3.8	12.5	10.1	10.3	1.4	1.0
Bachelor's degree incomplete	9.7	28.9	32.4	10.0	2.7	0.7	0.4
Bachelor's degree complete	7.7	39.6	22.6	7.2	0.5	-	0.6
Master's degree	2.3	14.8	6.4	1.4	0.2	-	-
Doctoral degree	0.4	3.4	0.8	0.1	-	-	-

**Communication and entertainment appliances by SEL.  
National income and spending survey (percentages)**

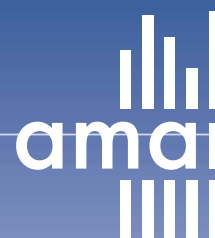
	TOTAL	A/B	C+	C	D+	D	E
Total TV color and B&W	97.8	99.2	99.5	99.3	98.7	95.8	89.6
TV Color	94.3	98.8	99.1	98.3	95.5	89.7	74.7
B&W TV	9.8	7.3	7.8	8.1	9.9	11.3	17.6
Total video+DVD	61.1	94.7	86.3	80.8	53.9	36.1	23.8
VCR	46.7	80.4	71.8	66.8	37.0	22.4	19.0
DVD	37.9	76.2	60.0	47.8	30.0	21.0	8.0
Pay TV	24.5	69.6	48.7	29.5	16.1	6.8	2.0
Stereo and minicomponent system	67.6	88.6	81.1	78.5	65.7	52.1	40.0
CD player	20.1	40.0	33.8	24.7	15.8	10.5	4.4
Radio cassette player with CD	28.7	48.8	39.3	32.5	25.6	20.1	13.7
Radio cassette player w/o CD	15.7	16.1	13.8	15.1	14.6	17.6	21.0
Telephone	63.4	96.3	86.1	78.1	64.5	35.8	13.0
Cell phone	47.2	81.9	71.3	54.6	38.5	32.6	22.5
Internet	11.9	54.9	29.1	10.8	3.9	1.3	0.7

**Table 12** Domestic appliances by socioeconomic level

	Total	A/B	C+	C	D+	D	E
Washing machine	88.2	92.7	90.6	88.7	89.5	83.5	84.6
Kitchen sink	70.8	99.7	96.0	89.0	75.3	38.0	8.5
Washbasin	71.4	99.9	97.5	91.5	79.1	32.6	5.1
Shower	79.6	100.0	100.0	99.0	93.7	41.7	0.0
Rooftop water tank	56.9	78.5	75.0	68.4	66.0	26.5	7.3
Cistern	30.9	64.3	42.7	34.2	31.0	14.6	7.8
Water tank or deposit	27.5	26.8	22.2	22.9	25.3	36.2	37.6
Gas hot water heater	60.8	96.8	89.6	84.0	73.2	4.8	1.6
Hot water heater using other fuel	3.0	3.1	2.8	1.6	3.0	5.1	1.3
Water pump	30.7	68.0	44.9	35.3	31.6	10.1	2.9
Stationary domestic gas tank	19.1	61.2	33.2	22.5	14.7	3.6	1.2
Air conditioning system	6.2	19.1	11.7	8.5	3.5	1.6	0.2
Heating	1.9	11.6	3.4	1.6	0.5	0.3	0.0

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