

# **PMB 2008**

## **Technical Summary**



# INTRODUCTION

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The PMB 2008 survey is designed to meet the industry needs for fair and impartial print media research in Canada. TNS Canadian Facts is the research company contracted for all major aspects of the research including sampling, fieldwork, data entry, data processing and reporting.

## Study Timing

PMB 2008 2-Year study results are based on fieldwork conducted from October 2005 - September 2007. PMB 2008 1-Year results are based on fieldwork during the period October 2006 - September 2007.

Interview Period	October 2004 – September 2005	October 2005 – September 2006	Sample
PMB 2008 2-Year	X	X	24,915
PMB 2008 1-Year		X	12,449

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# SAMPLE DESIGN

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The sample design used in PMB is consistent from year to year. A new sample is drawn each year to represent the entire population of Canada aged 12 years and over (with minor exceptions - e.g. Far North, Institutions, Reservations).

## (1) Stratification

For sample design purposes the population of Canada is first stratified by region and city. Further stratification identifies high-income areas within city/region and high managerial areas within the high-income strata. These strata match Statistics Canada census definitions and are used for weighting, so that the data collected within a stratum are projectible to population. Each of the following nine cities with populations of over 500,000 has its own stratum and is therefore projectible to the population of that city.

<u>B.C.</u>	<u>Prairies</u>	<u>Ontario</u>	<u>Quebec</u>
Vancouver	Calgary	Hamilton	Montreal
	Edmonton	Ottawa/Gatineau	Quebec City
	Winnipeg	Toronto	

Other cities are grouped together according to city size within province. The stratum of cities with 100-500M populations comprises the following:

<u>B.C.</u>	<u>Prairies</u>	<u>Ontario</u>	<u>Quebec</u>	<u>Atlantic</u>
Abbotsford	Regina	Barrie, Chatham-Kent	Sherbrooke	Cape Breton
Kelowna	Saskatoon	Guelph, Kingston	Trois Rivières	Halifax
Victoria		Kitchener, London	Chicoutimi-Jonquière	Moncton
		Oshawa, Peterborough		St. John's
		St. Catharines-Niagara		Saint John, NB
		Sudbury		
		Thunder Bay, Windsor		

## (2) Target Sample Sizes

The sample sizes by stratum are designed to achieve several objectives:

- sample distributed across all strata to provide a national sample to represent the population of Canada as a whole
- sufficient sample for analysis by region/city
- additional sample for greater data precision in major cities, high-income areas, and areas with higher incidence of managers.

The sample size targets by strata are shown in the full Technical Appendix.

## (3) Sample Selection

Given the target sample size for each stratum, the sample selection proceeds in three steps:

- Census Dissemination Areas are selected at random within the stratum, (a total of approximately 2000 DA's across all strata)
- On average, 10 households are selected at random within each Dissemination Area,
- One respondent is selected at random within each household.

In some households, an additional member of the household may be selected if the criteria for the additional business/managerial sample are met. Details of selection procedures are shown in the full Technical Appendix.

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### References:

Strata Definitions/Population.....	Technical Appendix - Section B
Community Size Definitions .....	Technical Appendix - Section P
Sample Size by Strata.....	Technical Appendix - Section B
Sample Selection Procedures.....	Technical Appendix - Section B
Response Rates by Strata .....	Technical Appendix - Section D

# PERSONAL INTERVIEW

Selected respondents first participate in a personal interview, covering magazine readership, demographics and some other media information. The interview takes from 30-90 minutes, usually in the home.

## Magazine Readership

Readership of magazines is established using the Recent Reading methodology. Respondents are shown a card with a logo of the publication and asked when they last read or looked into any issue of the publication. Respondents reply using one of 4 different scale cards according to the frequency of publication:

<p><u>Weekly/Biweekly</u>          Yesterday          Past 2 to 3 days          Past week          Past 2 weeks          Past 3 weeks          Past month          Longer ago</p>	<p><u>10-11-12 times/yr</u>          Past week          Past 2 weeks          Past month          Past 5 weeks          Past 6 weeks          Past 2 months          Longer ago</p>	<p><u>7-8-9 times/yr</u>          Past week          Past month          Past 6 weeks          Past 7 weeks          Past 2 months          Past 3 months          Longer ago</p>	<p><u>4-5-6 times/yr</u>          Past week          Past month          Past 2 months          Past 3 months          Past 4 months          Past 6 months          Longer ago</p>
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Respondents claiming to have read the publication within the period corresponding to the average publication interval are counted as average issue readers.

### Screening Process

A screening process in advance of the above readership question avoids respondents having to give detailed information on publications they have never seen. The screening process uses the same logo cards. Respondents are asked to place the cards on a sort board in one of three places - "yes, read or looked into any issue in the past year", "no" or "not sure". In the subsequent magazine readership stage of the questionnaire, respondents are asked only about the publications to which they responded "yes" or "not sure".

### Rotation

The order of presentation of the publications is rotated at random within the group at the screening stage and alphabetically up and down at the readership stage. The groups are also rotated.

### Demographics and Other Media Information

Demographic information collected includes languages spoken or read, age, marital status, education, employment, occupation, family composition, type of home, own vs. rent, and household and personal income. Other media information collected includes readership of daily newspapers and community newspapers, exposure to TV and radio, and measures of exposure to other media such as outdoor, transit and mall advertising.

### Verification

All interviewers' work is verified by TNS Canadian Facts supervisors and by an independent verifier hired by PMB. Close to 30% of all interviews are verified. Less than 0.1% of interviews fail the verification standards.

## Response Rates

Not all selected respondents agree to complete the interview. On average the response rate is 66%. PMB sets a minimum of 60% to be achieved in all strata. Detailed response rates by region, city and income strata are shown in the full Technical Appendix.

### References:

Personal Questionnaire.....	<a href="http://www.pmb.ca">www.pmb.ca</a>
Magazines measured by region.....	Technical Appendix - Section G
Publication Title Logo Cards .....	Technical Appendix - Section G
Show Cards for Qualitative Reading Questions.....	Technical Appendix - Section F
Rotation of magazine titles.....	Technical Appendix - Section F

# SELF-COMPLETION QUESTIONNAIRE

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After the first stage personal questionnaire the respondent is asked to complete a self-administered questionnaire consisting of product information and some other media and demographic and psychographic information. They are offered an incentive (\$15-\$30 depending on the area). Allowing 2 to 3 days for completion, the interviewer returns later to pick up the completed questionnaire.

## Product categories covered:

- Personal Care
- Cosmetics, Women's Products
- Automotive
- Travel
- Business
- Finance
- Real Estate, Home Improvements
- Apparel, Shopping, Misc. Products
- Home Electronics, Personal Computers
- Leisure, Restaurants
- Candy, Snacks
- Beverages
- Alcohol
- Groceries
- Household Products, Pets
- Children's Products

## Household data/Individual data

PMB collects data about the household and the individual. Data on attitudes, activities, and leisure habits are collected on an individual basis. Household items are collected on a household basis. The grocery/household product sections are completed by the Principal Grocery Shopper (PGS).

## Other media information

Information is collected on TV programs, specialty channels, use of remote controller for changing channels and muting, readership of sections of daily newspapers, readership of community newspapers and Internet use.

## Response Rates

The leave behind questionnaire is completed by 60-70% of respondents who have participated in the personal questionnaire. This response rate varies according to the demographics of the respondents.

## Questionnaire design

Product questions follow a standard format:

- filter allowing non-users to skip the questions
- frequency of use question for the category
- forms/types/kinds and brands.

## Rotation

The order of presentation of the questions in the booklet is rotated 8 ways to vary the order of presentation of products in the questionnaire.

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## References:

Product (Leave Behind) Questionnaire ..... [www.pmb.ca](http://www.pmb.ca)  
Response rates for Product Questionnaire ..... Technical Appendix - Section D

## **WEIGHTING, ASCRIPTION & PROJECTION TO CENSUS STATISTICS**

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The PMB study design includes weighting to match Statistics Canada household and individual population data. For each of household and personal weighting schemes, there are two weighting processes; (a) the design weights that compensate for deliberate over or under sampling, (b) the projection to match Statistics Canada population estimates.

### **Demographics Used in Weighting**

<u>Household</u>	<u>Individual</u>
Household size	Age
Household income	Sex
	Income
	Language
	(Montreal only)

### **Weighting by Week**

The Recent Reading model requires that interviewing be conducted and balanced throughout the year. The weighting process includes a temporal weight to balance the sample week-by-week.

### **Sources for Population Statistics**

The most recent Post Censal estimates published by Statistics Canada are used for total and provincial populations by age and gender. Income, language and household size distributions are based on the most recent census information available (2001).

### **Ascription**

Non-response to the product questionnaire is handled in PMB via ascription, which preserves the demographic characteristics of product usage. Respondents to the personal questionnaire who did not complete the leave behind questionnaire are ascribed product information from another respondent with similar demographic characteristics.

### **Daily Newspapers - day of week weighting**

Day of week weighting is applied to balance the number of interviews by day. Responses from Monday interviews about last Friday's issue are adjusted to ensure that the average issue readership level will be the same with or without the inclusion of the Monday interviews.

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#### **References:**

Weighting Procedures.....	Technical Appendix - Section I
Ascription Procedures.....	Technical Appendix - Section J
Daily Newspapers - weighting procedures.....	Technical Appendix - Section M

## REACH & FREQUENCY

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Reach and frequency estimates for publications measured in PMB are based on data collected from respondents in the survey. Computerised systems enable users to estimate R/F for any kind of print schedule involving PMB measured publications.

### Single magazine:

1. Reach is calculated from the equation:  $\text{Reach} = \text{GRP} \div \text{Frequency}$ 
  - GRP's for a given schedule = Insertions x Readership %
  - The frequency of reading is collected for all publications and for all respondents in the survey. The average frequency across all respondents can be calculated for each publication.
2. Reach with 2+ frequency can be similarly calculated.

### Reading Probabilities

A more computer-efficient way of doing the above calculation uses the concept of "Reading Probabilities":

#### ***Theoretical reading probabilities:***

If a respondent reads 3 out of 4 issues of the publication, the theoretical probability of reading the average issue is 0.75.

#### ***Empirical reading probabilities:***

In practice, respondents may overstate their reading frequency (relative to their claimed readership) so PMB adjusts the theoretical reading probability to match their readership claims (for example, if 69% of respondents claiming to read 3 out of 4 issues also proved to be readers, then their 0.75 probability is reduced to 0.69).

### Multiple Magazines

Using probabilities it is possible to estimate the reach across different magazine insertion schedules. For instance, the survey provides information on the probability that a reader of 2 issues of magazine A is also a reader of 3 issues of magazine B. The computer can sum all these probabilities to compute the reach for any combination or permutation. In practice, even modern PC's can be slowed down by the huge computations involved, so software programs use short-cuts - a common example is the "beta binomial" formula. Slight differences in programming account for small variations occasionally found between different suppliers' reach estimates.

# SAMPLE TOLERANCES

As with all data based on a survey sample, PMB study data should be analysed with judgment taking into account sampling variation and other sources of variation. The chart below can be used to estimate whether a given change in readership is statistically significant at the 95% confidence level.

**Example:**  
A publication's readership has increased from 4% to 6%.  
Is the increase of 2% statistically significant?

**Answer:**  
Read across the 5% line (the average of 4% and 6%). The change of 2% is significant if the unweighted sample is 1500 or higher.

Avg Readership	UNWEIGHTED SAMPLE SIZE										
	100	150	200	250	500	750	1000	1500	5000	10000	24000
0.5%	*	*	*	*	*	*	*	*	±0.4%	±0.3%	±0.2%
1.0%	*	*	*	*	*	*	*	±0.9%	±0.5%	±0.4%	±0.2%
2.0%	*	*	*	*	*	±1.8%	±1.6%	±1.3%	±0.7%	±0.5%	±0.3%
3.0%	*	*	*	*	±2.7%	±2.2%	±1.9%	±1.6%	±0.9%	±0.6%	±0.4%
4.0%	*	*	*	*	±3.2%	±2.6%	±2.2%	±1.8%	±1.0%	±0.7%	±0.5%
5.0%	*	*	*	±5.0%	±3.5%	±2.9%	±2.5%	±2.0%	±1.1%	±0.8%	±0.5%
7.5%	*	*	±6.7%	±6.0%	±4.2%	±3.5%	±3.0%	±2.5%	±1.3%	±0.9%	±0.6%
10.0%	*	±8.8%	±7.6%	±6.8%	±4.8%	±3.9%	±3.4%	±2.8%	±1.5%	±1.1%	±0.7%
12.5%	±11.9%	±9.7%	±8.4%	±7.5%	±5.3%	±4.4%	±3.8%	±3.1%	±1.7%	±1.2%	±0.8%
15.0%	±12.9%	±10.5%	±9.1%	±8.1%	±5.8%	±4.7%	±4.1%	±3.3%	±1.8%	±1.3%	±0.8%
20.0%	±14.4%	±11.8%	±10.2%	±9.1%	±6.4%	±5.3%	±4.6%	±3.7%	±2.0%	±1.4%	±0.9%

## Interpreting Statistical Significance

In the example above, two conditions must be met for the change to be significant at the 95% confidence level. The average sample size for the two readership figures being compared must be greater than 1500, and the change must be greater than 2%. If those two conditions are met, there is a chance that the change is due to real market reasons and not merely a result of sampling variation.

How big a chance? The statistical test in this example assesses the probability at the 95% confidence level, which means that there is less than 1 chance in 20 the change would be produced solely by sampling variation. If either of the two conditions is not met, the change would not be statistically significant at the 95% confidence level. This means that there is a greater chance the change is due to sampling variation and not necessarily an actual change in the market place.

## Small Samples

PMB indicates cells with small samples by a single or double asterisk, depending on the unweighted sample count.

**Unweighted cell count**  
21-40  
<21

**Indicator on cross tabs**  
Single Asterisk  
Double Asterisk

**References:**

Statistical Reliability ..... Technical Appendix - Section R

## DEFINITIONS / SPECIAL CONSIDERATIONS

### Business Target Audiences

PMB provides a variety of ways to identify those involved in buying business products: by occupation, company size/type and by business purchasing involvement/responsibility.

**MOPE** - This is a common acronym used to include managers, owners and professionals. Individual job titles comprising these groups are listed in the Codebook section "Detailed Occupation Codes". PMB occupation codes are designed to match Statistics Canada National Occupation Classification Codes.

**IT Purchasers** - People involved in purchasing or leasing of computers and related products for business purposes are accessible in the PMB database using English language coding for IT purchasers.

### Special Circumstances

Special circumstances apply to some of the publications measured in PMB 2008. These include publications with name changes, changes in frequency and/or distribution during the course of interviewing. For further details refer to the Technical Statement in the Introduction of the Readership Volume.

### Quintile Information on Magazines, Newspapers, Internet, TV and Radio

PMB quintiles apportion the population into five approximately equal groups of 20% each, ranked by their exposure to the medium.

	Magazines ( <i>Issues Per Month</i> )			Newspapers ( <i>Issues per Week</i> )			Internet ( <i>Hours Per Week</i> )		
	Canada	English	French	Canada	English	French	Canada	English	French
<b>Heavy</b>	8.8 +	8.3 +	10.8 +	6.0 +	6.0 +	6.8 +	14.5 +	14.5 +	12.5 +
<b>2</b>	5.0 – 8.8	4.7 – 8.3	6.0 – 10.8	3.8 – 6.0	3.8 – 6.0	4.0 – 6.8	7.5 – 14.5	7.5 – 14.5	6.5 – 12.5
<b>3</b>	2.6 – 5.0	2.5 – 4.7	3.0 – 6.0	1.0 – 3.8	1.0 – 3.8	1.0 – 4.0	3.3 – 7.5	3.5 – 7.5	2.0 – 6.5
<b>4</b>	0.9 – 2.6	0.8 – 2.5	1.0 – 3.0	0.3 – 1.0	0.3 – 1.0	0.3 – 1.0	1.3 – 3.3	1.3 – 3.5	1.0 – 2.0
<b>Light</b>	< 0.9	< 0.8	< 1.0	< 0.3	< 0.3	< 0.3	< 1.3	< 1.3	< 1.0

	Television ( <i>Hours Per Week</i> )			Radio ( <i>Hours Per Week</i> )		
	Canada	English	French	Canada	English	French
<b>Heavy</b>	33.8 +	33.3 +	36.8 +	25.8 +	25.1 +	26.9 +
<b>2</b>	22.9 – 33.8	22.0 – 33.3	24.8 – 36.8	11.9 – 25.8	11.7 – 25.1	11.8 – 26.9
<b>3</b>	15.9 – 22.9	15.2 – 22.0	17.5 – 24.8	5.4 – 11.9	5.7 – 11.7	5.0 – 11.8
<b>4</b>	9.0 – 15.9	8.7 – 15.2	10.5 – 17.5	1.4 – 5.4	1.6 – 5.7	1.2 – 5.0
<b>Light</b>	< 9.0	< 8.7	< 10.5	< 1.4	< 1.6	< 1.2

### Media Imperatives

PMB categorises all respondents into "media imperative" categories, for pairs of media. For each pair, respondents are categorized according to whether they are above or below average users of the medium. For the Magazine/TV pair there are four groups - as indicated in this diagram.

Magazine Imperatives	Dual Audience
Light Mag/ Light TV	TV Imperatives

#### References:

Definitions ..... Technical Appendix - Section P  
 Quintile Definitions ..... Technical Appendix - Section O  
 Circulation Data / Audit Information ..... Technical Appendix - Section L  
 Special Circumstances ..... Technical Appendix - Section M  
 See also Quintiles definition in "Resource Centre" ..... [www.pmb.ca](http://www.pmb.ca)

# PSYCHOGRAPHICS

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## Attitude / Preference Statements

In addition to analyzing usage of media and products according to the demographic characteristics of Canadians, PMB offers the facility to understand the characteristics of users in terms of their attitudes and preferences. Analyses can be done directly using the agree/disagree statements covering attitudes in each of the following 13 subject areas:

Apparel/Fashion (8)	Groceries/Food shopping/cooking/eating/nutrition (10)
Appliances/Home Furnishings (5)	Health Care/Personal Care (20)
Automotive (7)	Home Electronics (3)
Beverages/Alcohol (6)	Social Views (31)
Business/Financial/Real Estate (10)	Sports/Athletics (6)
Candies/Snacks (5)	Travel/ Leisure/Recreational Activities (8)
Cosmetics/Beauty (5)	

## Psychographic Clusters

Over 100 statements were selected from a comprehensive list of 362 attitude statements used to cluster the Canadian population in different ways.

In addition, each of 11 major product categories have been clustered into the groups below:

### Apparel/fashion/cosmetics

Label queens  
Budget fashion conscious  
Forever in blue jeans  
Sensible shoes

### Automotive

I love my wheels  
Capitalist roadster  
Car is a tool  
Driven by safety  
Driving Miss Daisy

### Beer, wine, liquor

The keg crowd  
Shaken not stirred  
Rosé, experimenters  
Temperants

### Environment

1 - Greenest  
2  
3  
4 - Least Green

### Finance

Paycheque to paycheque  
Buy now, pay later  
Have it - make more  
Super savers

### Groceries

Budget family shoppers  
Brand central  
Premium convenience  
Running a household  
Eat n'run

### Health/Nutrition

Living healthy  
Calories can't touch me  
Eat hard/play hard  
Health conscious champions  
Unhealthy by choice  
Better late than never

### Health care/sports

Armchair athletes  
Health enthusiasts  
Running a household  
Sport agnostics  
Sport minded jocks

### Home furnishings/electronic

The get set  
Connected handymen  
Low-tech boomers  
Comfortable technophobe  
Style-not-techie

### Snacks/Candy

Snack happy  
Closet snackers  
Anti-snackers  
Low-cal snackers  
Relaxed nibblers

### Travel/leisure

Luxury & Adventure  
Cultured & Active  
Artsy-crafty  
Fishing and gaming

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### References:

Actual Statements..... PMB 2008 Product Questionnaire Page (88-1-88-5)