



## GEM 2011 REQUEST FOR PROPOSAL

### Information on the implementation of the GEM 2011 ADULT POPULATION SURVEY (APS) and GEM 2011 NATIONAL EXPERT SURVEY (NES)

The **Global Entrepreneurship Monitor (GEM)** is a not-for-profit academic research consortium that has as its mission to contribute toward global economic development through entrepreneurship. To achieve this, GEM seeks to increase worldwide knowledge about entrepreneurship by conducting and disseminating world-class research that: (1) uncovers and measures factors impacting the level of entrepreneurial activity among countries, (2) identifies policies that may enhance entrepreneurial activity, and (3) increases the influence of education in supporting successful entrepreneurship. GEM is the largest single study of entrepreneurial activity in the world. Started as a partnership between London Business School and Babson College, it was initiated in 1999 with 10 countries, and has expanded to 59 economies as of 2010. Visit [www.gemconsortium.org](http://www.gemconsortium.org) for more information.

The **APS** is used by GEM in order to study individual attitudes and activities related to entrepreneurship cross-nationally on an annual basis. The results are unique in their focus on the individual-level and their use of a consistent set of standards for data collection that allows cross-national comparisons. The focus on individual-level behavior and attitudes mandates that each national team collect data from a representative sample of the adult population of their country using standard instruments and procedures. This request for proposals provides a guide to these standards.

~~The **NES** is used by GEM in order to study experts who are directly involved in delivering or assessing a major aspect of an entrepreneurial framework condition in their country. Experts can be politicians, academics, entrepreneurs, government officials, or other professionals in the field of entrepreneurship, and are classified as either professionals or entrepreneurs. Data is collected via one 15-20 minute, usually self-administered, interview providing a detailed quantitative evaluation of the unique features of 9 entrepreneurial framework conditions and brief open opinions on 3 main constraints for entrepreneurship, 3 main supports for entrepreneurship and 3 main recommendations to improve the entrepreneurial framework conditions in a territory.~~

#### GEM Teams

##### The GEM Coordination Team

The APS and NES are distributed, managed and processed by a global Coordination Team. All survey designs, completed datasets and other requested outputs must be delivered to [data@gemconsortium.org](mailto:data@gemconsortium.org). The Coordination Team must approve all requested documents before a national APS can be administered. The GEM Data Team is part of the Coordination Team and is only responsible for APS and NES data-related (not administrative) matters.

##### The GEM National Teams

Each participating nation in GEM has a National Team. Each team is responsible for locating a survey vendor, approving all translations and entering into any contract to conduct the survey, as well as for all payments.

#### Important Deadlines (see Appendix A for full schedule)

NES PROPOSAL	MARCH 15
ANNUAL SCHEDULES AND TEAM DETAILS FORMS	APRIL 1
APS PROPOSAL	APRIL 29
COORDINATION FEE	MAY 30
APS & NES RESULTS	JULY 15

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## ESSENTIAL STEPS FOR CONDUCTING A SUCCESSFUL APS

1. Carefully read this document and contact GEM Data Team if you have any questions.
2. Customize your 2011 APS questionnaire to submit to GEM Data Team for approval:
  - Decide which, if any, of the optional modules you want to include (Optional Core, Optional Special Topic, Network and/or Innovation questions).
  - Decide whether or not you will add any additional questions to your APS aside from the optional modules and add them to the APS questionnaire in the proper location.
  - Establish answer categories for demographics measuring education, income, strata, city and region.
  - Include all additions in the English language and native language (if not English) versions of the APS questionnaire for submission to GEM Data Team.
3. Customize your SPSS Data Input Template.
  - Add value labels to the 5 team-created demographic questions
  - Include variables representing any additional APS questions added by your team in the correct GEM format
4. Decide on an appropriate survey methodology that will result in a representative sample of at least 2000 people over 18 years of age.
  - Decide how to best address any potential bias in your sample design.
  - Decide how to collect data using the most appropriate methods (may vary by region).
  - Decide whether or not you will collect an oversample in any particular area.
  - Decide whether or not you will use stratify your sample.
5. After choosing a survey vendor, fill out and submit all required documents by April 29<sup>th</sup>.
6. Conduct a Pilot APS if deemed necessary by GEM Data Team.

## ~~ESSENTIAL STEPS FOR CONDUCTING A SUCCESSFUL NES~~

- ~~1. Carefully read this document and contact GEM Data Team if you have any questions.~~
- ~~2. Translate your 2011 NES questionnaire to submit to GEM Data Team for approval.~~
- ~~3. If your team decides to conduct the 2011 NES survey via the web, submit a correct translation of the NES into your native language so that the GEM Data Team can create a personalized online version. Send your translations no later than March 15.~~
- ~~4. Complete the **NES Survey Report\_initial** by March 15<sup>th</sup> with data for at least 36 experts. Include 4 experts for each main condition (EFC): financing, governmental policies, governmental programs, entrepreneurial education and training, R&D transfer, commercial and professional infrastructure, internal market openness, physical and services infrastructure, social and cultural norms. If you find it difficult to find 36 experts by March 15<sup>th</sup>, you may submit 18 experts by this date and indicate when the remaining 18 will be submitted.~~
- ~~5. Conduct the interviews using face to face, e-mail, postal or on-line procedure depending on the resources at your disposal.~~
- ~~6. After data collection is complete, update **NES Survey Report\_initial** and relabel it as **NES Survey Report\_final** to report the NES survey data and, if your team used the on-line version, to provide the codes for the open ended questions.~~
- ~~7. Submit interview responses using **2011 GEM NES Data Input Template** if your team did not use the online version and send it to the NES coordinator at [NES@gemconsortium.org](mailto:NES@gemconsortium.org).~~
- ~~8. If NES was conducted using the online survey version, wait for SPSS dataset to be automatically generated. It will be sent to you by the GEM Data Team after harmonization.~~
- ~~9. Read the NES training session slides at [www.gemconsortium.org](http://www.gemconsortium.org) for more information.~~

## CONTENTS OF PROPOSAL PACKAGE

<b>Proposal Documents</b>	2011 GEM Request for Proposal	This document
	2011 GEM APS Survey Report	Excel workbook containing multiple worksheets to record information about sampling methodology, APS questionnaire, fieldwork data, national population, weight construction and education categories
	<del>2011 GEM NES Survey Report</del>	<del>Excel workbook used to record information about your NES survey and experts. Should be labeled 2011 GEM NES Survey Report_initial before data collection and 2011 GEM NES Survey Report_final after data collection.</del>
<b>APS &amp; NES Questionnaire</b>	2011 GEM APS Questionnaire	If this document changes after release, a date will be added to indicate the version. Available as a Word and PDF document.
	2011 GEM APS Question-by-question Commentary	Important information to help interpret and administer APS questions
	2010 GEM APS Questions NOT included in 2011	List of APS questions included in 2010 but not in 2011. Refer to this document if you wish to include any of these questions in 2011.
	2011 GEM APS Variable Listing	Complete list of 2011 APS variables
	<del>2011 GEM NES Questionnaire_National</del>	<del>Available in English and Spanish</del>
	<del>2011 GEM NES Questionnaire_Regional</del>	<del>Available in English and Spanish</del>
<b>Data Delivery</b>	2011 GEM APS Data Input Template	SPSS template to be used to submit all APS data
	<del>2011 GEM NES Data Input Template</del>	<del>SPSS template to be used to submit all NES data, unless using online version</del>
<b>Reference</b>	NUTS3 Regional Categories for EU Countries	Regional designations ONLY for EU countries. Use as reference for XXREGION demographic variable.

**Important Note:** Use only current GEM documents which are marked 2011 and are not labeled DRAFT. Documents may be revised or updated throughout the APS cycle. Teams will be notified if this occurs and will have to upload and use the latest version.

## APS PROPOSAL DOCUMENTS TO BE SUBMITTED (APRIL 29)

### All teams must provide

1. **Survey Vendor Proposal:** A document created by the Survey Vendor detailing the sample design of the survey and providing any other relevant information about the vendor. There is no template provided for this document. It is typically submitted by the Survey Vendor to the National Team as part of the bidding process for the survey project. Ideally it should be provided in English, but this is not a requirement.

**Please use this filename:** 2011 (*Insert country name here*) GEM APS Survey Vendor Proposal

2. **2011 GEM APS Survey Report:** An Excel document which consists of 6 worksheets. All the required information **MUST** be completed.
  - **Methodology Overview** – Information about the proposed APS methodology.
  - **APS Questionnaire** – Questions about contents of team APS
  - **Strata Definition and Fieldwork Report** – Information on sample strata to be employed. Should be completed for every stratum in the sample. This includes information to be filled out before and after the survey is administered. **Teams should advise their vendor of the need to collect this information BEFORE BEGINNING their survey.**
  - **National Population Statistics** – Most recent population statistics
  - **Weights** - Information about survey vendor computed weights
  - **Education** - Information about team-created education demographic variable

**Use this filename:** 2011 (*Insert country name here*) GEM APS Survey Report

### Some teams will provide

1. **SPSS template with additional questions:** **IF** additional questions are added to any APS blocks, they must be entered into the provided blank SPSS data input template with the correct variable names and submitted to the GEM Data Team for approval.

**Use this filename:** 2011 (*Insert country name here*) GEM APS Data Input Template

2. **Questionnaire translation:** **IF** your team translates the questionnaire into a language other than English or Spanish, the translated APS must be submitted with the proposal.

**Use this filename::** 2011 (*Insert country name here*) GEM APS Questionnaire\_(*insert language*)  
Ex: 2011 Argentina GEM APS Questionnaire\_Spanish

**Important Note:** The GEM Data Team can conduct an initial review of a proposal before it is finalized or before the coordination fee is paid by the National Team to ensure that the final review process occurs smoothly and quickly.

## APS QUESTIONNAIRE

### APS Blocks

- The 2011 APS questionnaire is divided into BLOCKS, used, for the most part, in order to differentiate different target respondents. The 6 blocks in the 2011 questionnaire are:
  - **Block 1:** Questions for Nascent Entrepreneurs
  - **Block 2:** Questions for Owner-Managers
  - **Block 3:** Questions for Potential and Discontinuing Entrepreneurs
  - **Block 4:** Questions for Informal Investors
  - **Block 5:** General questions for all respondents
  - **Block 7:** Demographic questions for all respondents*\*Note there is no block 6 in 2011*

### APS Sections

- The 2011 APS questionnaire is comprised of **CORE** questions, which are included every year with minimal revision, a required **SPECIAL TOPIC** section, which varies year to year and was not included in 2010, and two **OPTIONAL MODULES**, of which both, one or none may be selected to be included in a national APS. In addition to these two **OPTIONAL MODULES**, there are 4 **OPTIONAL CORE** questions and an **OPTIONAL SPECIAL TOPIC SECTION**. Each block consists of a **CORE** section and may or may not include a **SPECIAL TOPIC** or **OPTIONAL MODULE** section. Each block also includes a section labeled **TEAM QUESTIONS** which indicates that all questions added by a team can be included at that point. **See Appendix B for visual flowchart of APS structure.**
- **Core APS (Required & Optional):** All respondents to the APS survey are asked a small number of core questions. Depending on their answers to these questions respondents may be asked some or all of the follow-up questions in a given block. A respondent may qualify for some or all of the APS blocks. All **CORE** questions, except 4 questions in the introduction, are required. Included in the **CORE APS** are 8 questions requiring an open-ended response. The rate of respondents qualifying for the additional questions depends upon the country. **See Appendix C for sample rates from the 2010 GEM APS.**
- **Special Topic: (Required & Optional):** Questions about the involvement of employees in entrepreneurial activities, such as such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary. The intention is to get an estimate of the number of 'intrapreneurs', as well as the nature and scope of their activities. The module is comprised of 3 sections within 3 different blocks. One of these sections is divided into two groups: one group of required questions (to be asked of all qualifying respondents) and another group of optional questions. There are 3 open-ended questions in the **SPECIAL TOPIC (REQUIRED)** and 3 in the **SPECIAL TOPIC (OPTIONAL)** sections. **See Appendix E for more information on the SPECIAL TOPIC.**
- **Network Module (Optional):** The APS may optionally include questions about the network around an entrepreneur. A starter, potential starter or owner-manager networks with others who may give advice on their business. Such networking depends on the culture of the country such as the roles of family versus professionals, on attributes of the entrepreneur such as gender, age and education, and on characteristics of the business such as its phase and size. Networking may affect outcomes such as innovation, exporting and growth-expectations. Five national GEM-teams included network questions in their APS in 2008, and published their first joint results as Chapter 6 in the new GEM Special Report on Education and Training. Fifteen teams included network questions in their APS in 2009, and have undertaken collaborative analyses. In 2010, the number of participating countries has increased to 27. (Contact Thomas Schott at [tsc@sam.sdu.dk](mailto:tsc@sam.sdu.dk) for further information).

- **Innovation Module (Optional):** The APS may optionally include questions about receptivity to innovations by individuals in their capacity as consumers, and, if employed (or self-employed), receptivity to innovations by organisations as seen by employees. This project measures the demand for innovation, not the supply of innovation in a country. Measures of the demand for innovation are rare and this is what makes this project different. This project has been going since 2007 and with partial sponsorship from the Institute for Innovation and Information Productivity, consumer innovation confidence has been measured in 45 countries, plus Hong Kong and Shen Zhen, while organizational innovation confidence has been measured in 34 countries plus Hong Kong and Shen Zhen. In 2010, the number of participating countries has increased to 27. Annual Reports on Innovation Confidence can be downloaded from [www.iii-p.org](http://www.iii-p.org) or the member section of [www.gemconsortium.org](http://www.gemconsortium.org). Innovation confidence is associated with demographic differences between individuals, such as age and education, but also with national communal values, as measured by the World Values Survey. Countries with traditional communal values have higher innovation confidence than countries with secular-rational values. Organizational innovation confidence may vary from consumer innovation confidence, and this variation correlates with differences in the prevalence of a form of leadership known as humane orientation, as measured by the GLOBE studies of culture and leadership. (Contact Jonathan Levie at [j.levie@strath.ac.uk](mailto:j.levie@strath.ac.uk) for further information).”
- **Team Questions (Optional):** If you are going to add country-specific questions to the APS questionnaire, they must be inserted into these designated blocks.

#### APS changes from 2010 to 2011

- **Special Topic:** A Special Topic was not included in 2010 but has been added for 2011. Unlike previous years, the Special Topic is comprised of 3 mandatory sections and one optional section.
- **Question order/numbering:** The core APS questions have been reorganized to work with the new block-based structure. Blocks are differentiated by the target respondents of the questions within those blocks and only questions relevant to those blocks are included. Questions meant for all respondents and not used to qualify respondents as type of entrepreneur have been moved to an introduction section, which consists of both mandatory and optional questions. Question numbers have been changed accordingly.
- **OCCUPATION:** The occupation (OCCU) demographic variable has been moved in order to use it as a qualifier for other APS questions. More significantly, it was been revised so that now, a respondent does not need to select the *main* occupation status but, rather, all occupation categories which apply. Each occupation category is now its own individual variable with a yes/no answer list. The answers to these questions will be recoded to match previous year’s OCCUPATION variables for historical comparisons of APS data.
- **Team-added questions:** Designated sections for additional questions were added in 2011.

#### 2011 Pretest

- The 2011 GEM APS survey was pretested as a telephone survey by the GEM Coordination Team in Spanish (Chile - 1000 respondents), English (Canada - 785 respondents), and French (Canada - 218 respondents). Several changes and edits were made to the survey wording to address issues that were discovered during the pre-test. In addition, detailed timing for all sections of the survey were collected. These timings and overall data responses were used to help guide the specific questions that have been included for the 2011 special topic mandatory and optional sections. **See Appendix C for detailed pre-test timings.**

## CONSTRUCTING AND ADMINISTERING THE APS

### Survey methodology

- The GEM APS survey can be conducted either by telephone (fixed line and/or mobile telephone) or face-to-face. Combinations of any or all of these options within any one survey are also possible. It is the responsibility of the National Team to ensure that their selected survey methodology will result in a representative sample of the adult population of their country. Survey design choices must address sources of potential bias resulting from such issues as incomplete fixed line telephone coverage or difficulty in reaching certain areas of the country for face-to-face interviews.
- All proposals must include sufficient information to allow the GEM Data Team to assess the appropriateness of the proposed sample design in meeting the objective of a representative national sample of the adult population. Examples of specific issues that must be addressed include:
  - Inadequate national fixed line coverage (less than 80 percent of households).
  - Age-biased fixed line coverage (poor coverage for youngest ages).
  - Uneven telephone coverage, e.g., high levels of coverage in urban areas but more limited coverage in rural areas.
  - The inability to reach all areas of the country for face-to-face interviews.

### Sample requirement

- A representative national sample of at least two thousand (2000) adults including: All those aged 18 years and over. The preferred age range for the target population for the GEM APS is 18 to 99. If this is not possible, then an age range of 18 to 64 may be used.
- All geographic regions of the country, including urban and rural areas must be included in the sample universe. The specific location of the interview should be indicated with a variable identifying geographic detail. Particular attention should be paid to the name of the city, if any, in which they reside. Additional fields may be added, if required, to collect full location information.
- Geographic information should be pre-entered by the Survey Vendor if at all possible. Questions pertaining to specific location should be asked of the respondent only if the sampling method is such that they are not known in advance of the interview.
- Those considered in and OUT of the labor force (homemakers, retirees, students) are to be included. Only those people visiting the country, in institutions (prisons, mental institutions), group quarters or the military are to be excluded from the sample design.

### Administering the survey

- **Choice of vendor:** The choice of a Survey Vendor with experience in conducting scientific surveys is important. Adding the GEM questionnaire to an already existing omnibus survey is normally discouraged as it is very difficult to ensure that this process will meet GEM APS standards. However if there is little choice in your country, use of an omnibus or general-purpose marketing survey may be plausible, provided the vendor can assure adherence to GEM's survey methodological requirements and can fully meet all other GEM standards.

New teams or veteran teams who are choosing a new Survey Vendor may contact the GEM Data Team for recommendations about which vendor would be best suited to administering the APS. This can be done before submitting the RFP.

- **When to administer the survey:** It is important that the administration of the survey does not introduce bias in the selection of potential respondents. Therefore, the APS must be administered at different times during the day so that respondents are sampled during and after the work hours. Survey Vendors must also be careful not to conduct the survey entirely during holiday periods or some other time of year that may bias the types of respondents available for sampling.
- **How to introduce APS to the respondent:** The introduction to the survey read by the interviewer to the selected respondent should encourage the respondent to participate in the survey without creating a bias as to the type of person who is likely to participate. Some suggestions for such an introduction:
  - Do not reveal that this is a survey about entrepreneurship as this may bias certain people to respondent and certain people to refuse.
  - Alleviate any fears about violations of privacy by telling the respondent that all personal information is for statistical purposes only and will never be released or connected to their identity.
  - Create interest in the survey by describing it as an important global study spanning 60 countries.
  - Encourage participation by offering to provide information on the organization conducting it and the purposes of the survey AFTER the respondent completes it. Explain that this information can't be revealed before the survey is completed.

#### Larger samples & additional variables

- The GEM Data Team will process larger samples (those over 2000 total respondents) and specific oversamples (e.g., additional respondents in a selected region or city) provided that 1) all data collected meet GEM APS standards, and 2) the National Team informs the Data Team as part of their proposal.
- The extra sample needs to be collected according to the same guidelines as the main sample. The team must also submit all fieldwork report information. The [2011 GEM APS Survey Report](#) includes designated sections for oversample information.
- Any additional work by the Survey Vendor for larger samples and/or additional variables is to be negotiated entirely through separate contracts between the Survey Vendor and the GEM National Team.

#### Demographic Variables

- **GEM-designated demographic variables:** There are 5 demographic variables which must be included by all teams and cannot be modified these are: [GENDER](#), [AGE](#), [AGE7C](#), [HHSIZE](#) (all in Block 7) and [OCCU](#) (in Block 5).
  - **Age in 7 categories {AGE7C}:** Where the respondent is reluctant to provide their exact age, 7 broad age bands are provided which can be used as a limited alternative. If age is provided, this category may be left blank.
  - **Employment status {OCCU}:** Items such as type of work, industry, career achievements, etc. are not required. However additional work-related demographics questions may be added to your APS, pending approval. Please note that while this is a demographic question, it is now included within a CORE APS block.
- **Team-designated demographic variables:** There are 5 demographic variables for which the team must design answer categories appropriate to their sample.

- **Annual income of the entire household including the respondent {XXHHINC}**. Teams create their own categories – preferably at least 6 well-spaced income bands distributed equally in proportion to the income levels of your population. Be careful not to create ranges which will capture a majority of the respondents in just one or two categories. If a greater number of more precise ranges fit your country and/or currency, increase the number of bands as you see necessary. **Do not convert local currency to any other currency.** Let us know if you anticipate cultural sensitivities with this question.
- **Main region of country where the respondent resides {XXREGION}**. Preferably the region corresponds to a ‘labor market area’ recognized by national statistics agencies. Nuts3 and nuts2 designations are requested for all EU countries. The survey vendor should also keep postal-code level information for each respondent in their own files if possible. See [NUTS3 Regional Categories for EU Countries](#) provided in the RFP package for list of categories.
- **City where the respondent resides {XXRCITY}**. Preferably a ‘standard metropolitan area’ designation if applicable.
- **Sample Strata Indicator {XXSTRATA}**. Based on the Strata Definition and Fieldwork Report, found in the [2011 GEM APS Survey Report](#), the corresponding stratum number of each respondent/case must be recorded. For example if the respondent was sampled from strata 3 as outlined in the aforementioned form, then ‘3’ would be entered in the [2011 GEM APS Data Input Template](#) for that unique respondent under this variable. **If strata are a factor in a team’s weights, this is the variable which must be used to designate which strata a respondent belongs to.**
- **Respondent highest educational attainment {XXREDUC}**. Define education classification categories ranging from none to graduate experience. The United Nations international classification system can be used as guidance.
  - Level 0 – Pre-primary education
  - Level 1 – Primary education or first stage of basic education
  - Level 2 – Lower secondary or second stage of basic education
  - Level 3 – (Upper) secondary education
  - Level 4 – Post-secondary non-tertiary education
  - Level 5 – First stage of tertiary education
  - Level 6 – Second stage of tertiary education

**When XXREDUC is recoded into the harmonized GEM education variable, a bachelor’s degree is coded as “post-secondary” education and masters or doctorate is considered “graduate experience.” Therefore, teams are advised not to place bachelors and graduate degrees (masters and/or doctorate) in the same category.**

### Call backs

- A call-back is the attempt to reach a certain respondent once he/she is identified and targeted for the APS survey. The survey administer must revisit the respondent if conducting a face-to-face surveys or call the respondent back if conducting a telephone survey. A call-back **DOES NOT** refer to a phone call or visit made **AFTER** the survey has been administered to confirm the responses.
- **Number of call-backs required:** GEM requires 5 call-backs for most National teams. If a face-to-face interview design prevents this many revisits, 3 call-backs may be allowed.

- **Call-back schedules:** The schedule of call-backs must be designed so that it does not introduce additional bias to the sample. If all call backs are made during normal working hours, for example, the resulting sample will be biased because it under represents working adults. It is acceptable to schedule such call-backs with members of the household to increase the chance of successfully reaching the intended individual.

### Strata & Quota

- **Strata:** The GEM APS requires that countries track response patterns individually for each sample strata (and identify every respondent by what strata they are in, using the **XXSTRATA** variable). This is so that the GEM Data Team (and the National Team) can do analysis by strata, to determine if there are any differences in response rates and question refusal or “don’t know” rates.
- **Quota:** A quota should be treated exactly the same as a sample strata in terms of a fieldwork report, for the same reason. Thus if a country is using quotas for each gender within each region, they should record a separate entry in the fieldwork report for males in region one and for females in region one. That way we can track gender-specific refusal rates. The decision to use quotas is typically taken because of known problems in reaching a particular segment of the population (younger persons, males, etc.). By tracking the survey progress for that quota, the vendor, the National Team, and the GEM Data Team can better understand the factors that are causing the problem (is it refusal rates, incomplete surveys, or the inability to reach them in the first place?).

## DATA DELIVERY (BY JULY 15)

### Data Input Template

- All demographics, fixed responses, and open-ended responses should be delivered by way of the **2011 GEM APS Data Input SPSS template**. All included blocks and modules must be submitted in one SPSS file. If not including certain optional modules or questions, please delete them from the SPSS template. The GEM APS harmonization process requires all data files to be in the same format; therefore **data must be submitted in the SPSS format we provide. Data in any other format (Excel or an incorrect SPSS file) will not be accepted. Variable names and labels must be in English and all defined missing values and value labels must be intact.**

**Use this filename to submit data:** 2011 (*Insert country name here*) GEM APS Data\_raw

- **Respondent Identification:** A UNIQUE respondent identification number of fewer than 10 digits must be given to each record. This ID number must be submitted in a numerical format in the SPSS dataset. After submission, each respondent’s identification number must remain the same, even if further revisions are made to the dataset.
- **Variable Labels:** National Teams must add value labels to the 5 team-designated demographic variables (XXHHINC, XXREDUC, XXCITY, XXSTRATA, XXREGION) in English before submitting the APS dataset.
- **Open Ended Responses:** All open ended responses must be recorded in the designated variables (one variable for the native language and one variable for the English translation, if applicable) for each questions. **Do not split any of the open ended variables into multiple SPSS rows or add any extraneous variables to the SPSS dataset.**

- **Additional Questions:** National Teams may add additional questions to the APS pending approval of the GEM Data Team.
  - **Where:** Additional questions must be inserted in designated sections at the end of a block. If a team wishes to insert extra questions in the middle of a block, the location must be approved by GEM to assure that the skip-logic is not disturbed.
  - **Question Number:** Additional questions must be numbered according to the block they are in, using X as an indicator (eg. 1X1, 1X2, in Block 1, 2X1 in Block 2).
  - **Variable Name:** Additional question variable labels should begin with the country's two letter alpha numeric code. Additional demographic variables must be labeled XXDEMO1, XXDEMO2 and so on, where XX represents the country's alpha numeric code. If a team prefers, DEMO1 can be replaced with a meaningful name. For example if Kazakhstan wanted to add Marital Status of the respondent to their survey, then a meaningful variable name might be **KZMSTAT**, where KZ is the country code and MSTAT is the abbreviation for Marital Status.
  - **Variable Label:** All additional questions must include an English-language variable label to indicate what the question is asking.

### Translation

- **Responsibility of National Team:** The Survey Vendor and/or National Team is responsible for translating the questionnaire into the language(s) appropriate for their country. Each National Team is responsible for assessing and approving all translations.
- **Open-Ended Translations:** The APS includes 8 potential open-ended responses in the CORE APS blocks, 3 in the REQUIRED SPECIAL TOPIC and 3 more in the OPTIONAL SPECIAL TOPIC block. Each open-ended response must be recorded as completely as possible. The answers are to be provided in both the language of the interview and translated into English. There are two versions of each potential open-ended response contained in the SPSS template, one to record the response in the native language, and one for the English translation. These responses must be provided via the **2011 GEM APS Data Input Template**. **Do not send us the responses in a separate SPSS or Excel file.**

### Coding

- All open ended responses will be coded by GEM, but, if a National Team wishes, it may provide their own codes for SUBUSTYPE and OMBUSTYPE using GEM provided coding guidelines (please inquire if interested). These codes must be entered into specified variables in the data input template: **SUBUSTYPE\_CODE** and **OMBUSTYPE\_CODE**.

### Weights

- **How GEM data is weighted:** A weighting factor is computed for all APS data. The basic objective of the weighting approach is to ensure that the APS sample data provides as close a match as possible to the adult population of the country along a range of key dimensions, which must include age and gender at a minimum, but may also include factors such as region, education level and urban/rural stratification. The weights must be scaled to a mean of 1 for the entire sample. See **Appendix F** for more detail on weights.
- **Why provide weights:** A team has the choice of providing their own weighting factor or allowing GEM to compute the weights for them. If no weight is provided, the GEM data team will create a weight based either on 1) age and gender, or, if the sample is stratified, on 2) age, gender and strata. No other weighting factors will be used. Therefore, if a team wishes to improve the precision of their weight variable by including other factors, the weight should be supplied by the team.

- **Evaluating team-supplied weights:** GEM will verify that the team-supplied weights are representative of the age/gender distribution (or age/gender/strata distribution) in the country. If so, the team-supplied weights will be used. Otherwise, the weights will either be scaled by national population statistics or replaced by GEM-created weights.

## DATA QUALITY

### Data Quality Syntax

- After an APS proposal is approved, a data quality SPSS syntax will be provided to allow teams to run some basic checks on their APS datasets before submitting their results to The GEM Data Team. The use of this syntax is optional, but can be used to check if the survey skip logic was applied properly by the vendor and to provide some helpful reminders about formatting the SPSS APS Dataset. This syntax can be used to check the completed dataset or to check the pretest or interim datasets. An additional document, which will allow teams to check their vendor-supplied weights, will also be provided.
- Teams will be asked to resample if there is an excessive number of missing values for any APS question. If a question should have been asked of a specific respondent according to skip logic but wasn't, this is considered a missing value.

### Pilot Test

- After evaluating the proposal, the GEM Data Team may mandate or recommend that a national team conduct a pilot test of at least 100 respondents before beginning APS data collection.
- **Candidates for conducting a Pilot:** All new teams or teams returning after 3+ years are required to conduct a pilot APS. Recently returning teams or teams who have switched Survey Vendors are also strongly encouraged to do so.
- **Submitting Pilot results:** Pilot results should be submitted in the same document as the main APS data ([2011 GEM APS Data Input SPSS template](#)). They will be checked for correct skip logic, the use of proper codes, the proper use of the SPSS template and other data quality issues. The results will be returned to the team within 2 to 3 days. If there are no problems, teams will be approved to continue.
- **Using Pilot Data:** If the pilot data shows no data quality errors and is approved by the GEM Data Team, the National Team will be allowed to include the cases in the main sample (i.e. if main sample is 2000 and 100 cases are submitted as part of the pre-test, the team will collect 1900 additional cases).

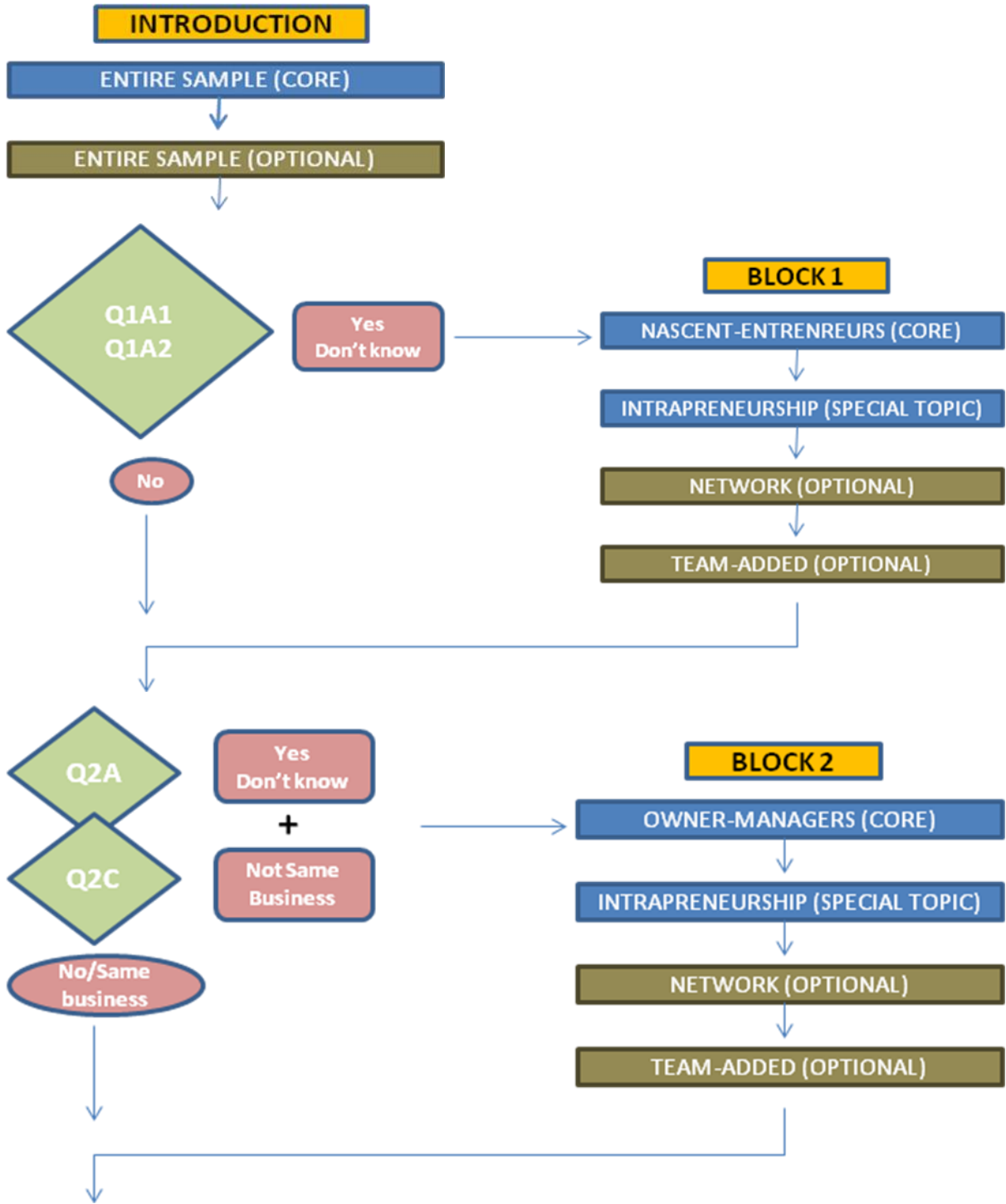
### Interim Data

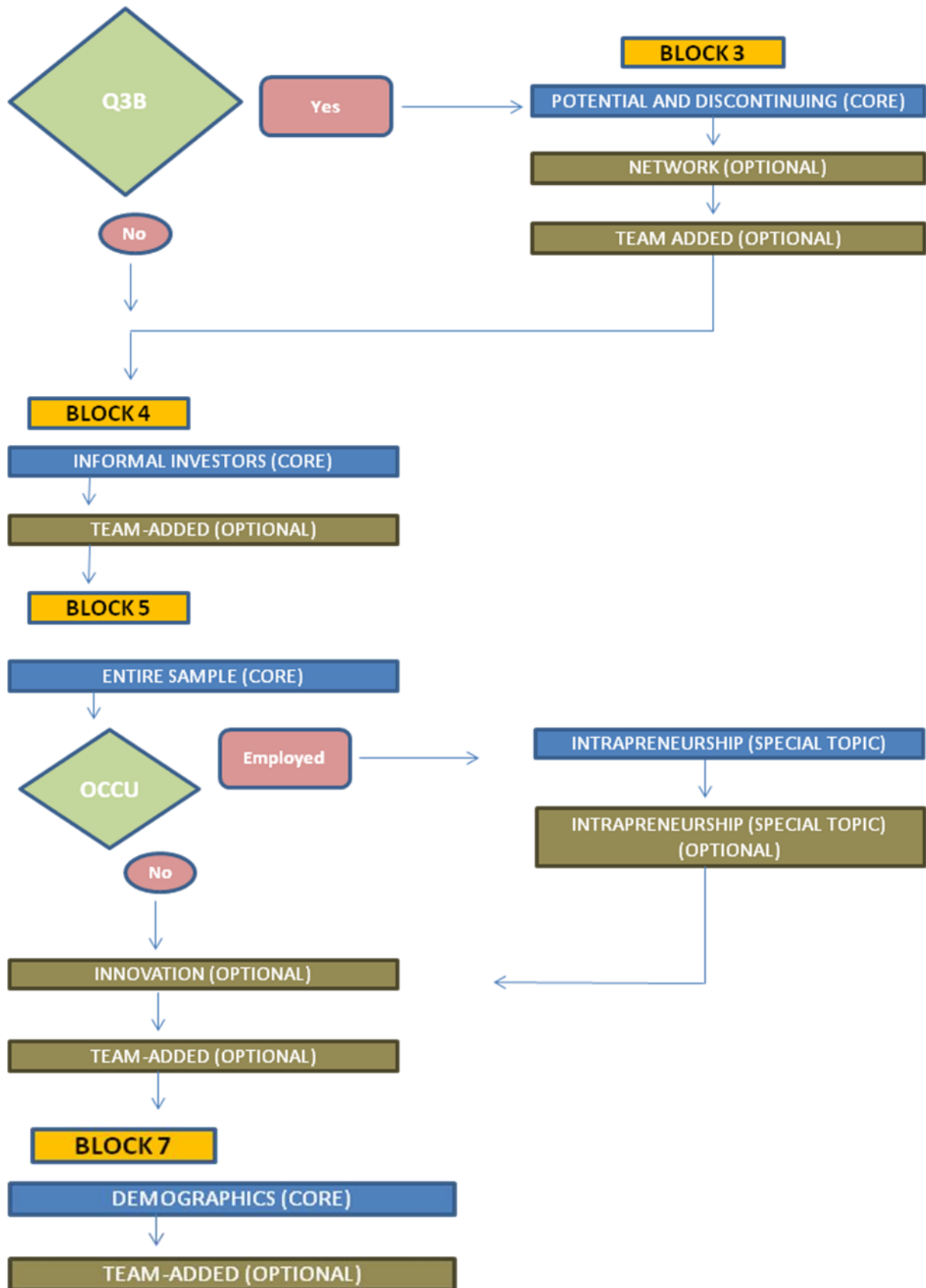
- If a National Team has doubts or questions about the quality of their data at any point during the data collection process, they can submit interim data to the GEM Data Team for processing and analysis.

**APPENDIX A: 2011 TIMELINE**

<b>February</b>	Monday 14	<b>Annual Schedule and Team Details Form</b> released to National Teams <i>Available on: <a href="http://www.gemconsortium.org">www.gemconsortium.org</a></i>
<b>March</b>	<del>Tuesday 15</del>	<del><b>NES Proposal Documents</b> submitted to NES Team</del> <del><i>Send to: <a href="mailto:NES@gemconsortium.org">NES@gemconsortium.org</a></i></del>
<b>April</b>	Friday 1	<b>Annual Schedule and Team Details Form</b> submitted to Chris Aylett <i>Send to: <a href="mailto:CAYLETT@gemconsortium.org">CAYLETT@gemconsortium.org</a></i>
	Friday 29	<b>APS Proposal Documents</b> submitted to Data Team *Includes Survey Vendor Report <i>Send to: <a href="mailto:DATA@gemconsortium.org">DATA@gemconsortium.org</a></i>
<b>May</b>	Monday 30	<b>Coordination Fee</b> payment deadline *Data will be withheld until fee paid in full
<b>July</b>	Friday 15	<del><b>APS &amp; NES Results and Documentation</b></del> submitted to Data Team *Includes completed Fieldwork Reports <i>Send to: <a href="mailto:DATA@gemconsortium.org">DATA@gemconsortium.org</a></i>
<b>September</b>	Week of 19 to 23	<del><b>First APS &amp; NES Processed Results</b></del> released to National Teams <i>Available on: <a href="http://www.gemconsortium.org">www.gemconsortium.org</a></i>
<b>October</b>	Friday 14	<b>Second APS Processed Results</b> released to National Teams <i>Available on: <a href="http://www.gemconsortium.org">www.gemconsortium.org</a></i>
	Friday 28	<b>National 1-page Summaries</b> submitted to Data Team <i>Send to: <a href="mailto:DATA@gemconsortium.org">DATA@gemconsortium.org</a></i>
<b>November</b>	End of month	<b>Final APS Processed Results</b> released to National Teams *Exact date to be announced <i>Available on: <a href="http://www.gemconsortium.org">www.gemconsortium.org</a></i>

**APPENDIX B: APS FLOWCHART**





## APPENDIX C: APS TIMINGS

The 2011 GEM APS survey was pretested in three languages (Spanish, English, and French) in two countries (Chile and Canada). As a result, a number of special topic questions were moved to an option section, and a number of other revisions were made to the overall questionnaire. The overall length of the survey (not including the time to recruit and qualify a respondent) was just over 5 minutes (310 seconds in Chile and 330 seconds in Canada). The expected time for the mandatory portions of the revised questionnaire can be expected to be less than 5 minutes.

As a guide for countries considering the various optional modules for the 2011 GEM APS, timing estimates were calculated based on pre-tests conducted in 2010 (where the questions have not changed) and 2011 (for the new questions). Be aware that the incidence for the networking questions and the optional special topic questions will vary from country to country, so use these figures only as a guide.

Optional Section	Mean time for those asked (seconds)	Incidence in Pre-test	Mean time for all surveys (seconds)	Source
Introduction: Questions i5 to i8	48.7	100%	48.7	2010 Pre-test USA
Networking: Question 1T in Block 1, Question 2T in Block 2, and Question 3T in Block 3	101.2	21%	21.2	2010 Pre-test USA
Innovation: Questions 5V to 5W3 in Block 5	91.9	100%	91.9	2010 Pre-test USA
Special Topic: Questions 5SPO1 to 5SPO10 in Block 5	170.5	11%	19.1	2011 Pretest Chile

The following detailed pre-test timings are provided for those who may wish to use them to produce a refined estimate for their own country. Note however, that the incidence rate (the proportion of respondents that qualify for each Block of the survey will vary from country to country). The incidence rates observed in 2010 as also provided below for those that wish to use them to produce their own national timing estimates.

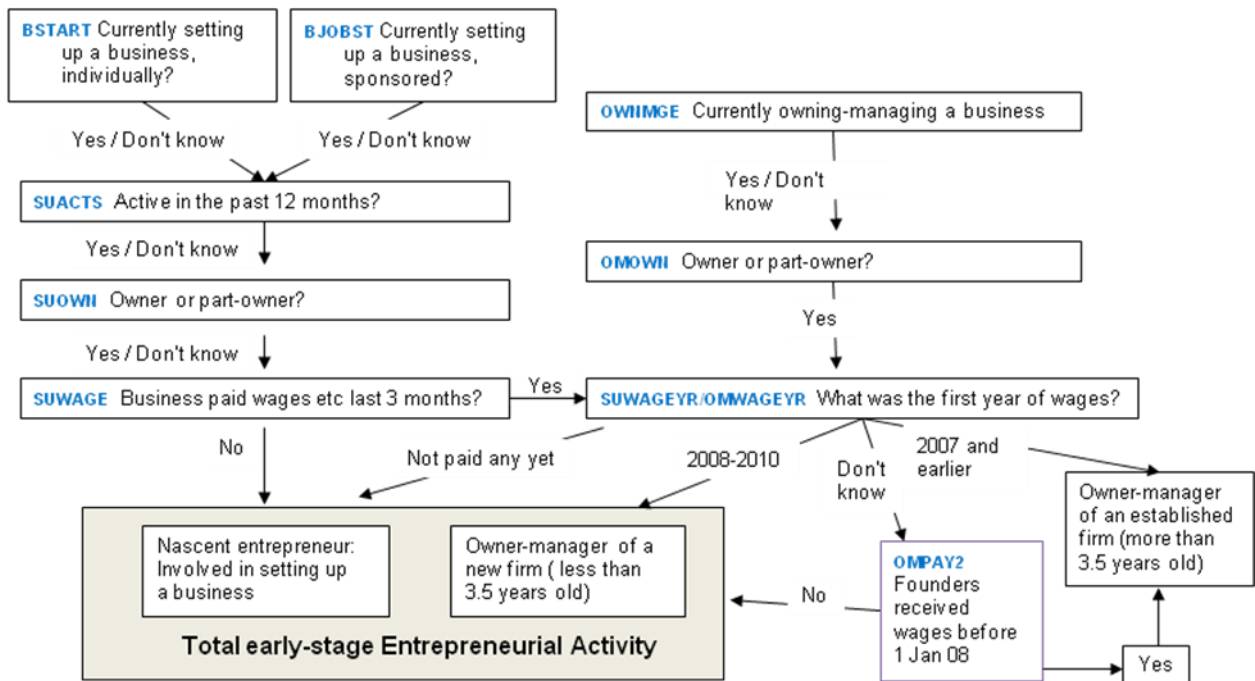
Section	Spanish - Chile			English - Canada			French - Canada		
	Mean time for those asked (seconds)	Incidence	Mean time for all surveys (seconds)	Mean time for those asked (seconds)	Incidence	Mean time for all surveys (seconds)	Mean time for those asked (seconds)	Incidence	Mean time for all surveys (seconds)
Introduction: Q i1 to Q i4	39.1	100%	39.1	36.6	100%	36.6	38.8	100%	38.8
Qualify for Block 1 Nascent	9.7	100%	9.7	20.3	100%	20.3	25.6	100%	25.6
Block 1 Nascent Core	160.4	23.9%	38.4	212.4	5.7%	12.2	249.4	4.1%	10.3
Special Topic: Nascent Block 1	43.6	15.7%	6.8						
Qualify for Block 2 Owners	11.7	100%	11.7	11.6	100%	11.6	12.6	100%	12.6
Block 2 Owners Core	172.5	16.3%	28.1	149.3	16.3%	24.3	160.7	11.5%	18.4
Special Topic: Owners Block 2	45.8	16.5%	7.6						
Block 3 Intent & Discontinue	21.3	100%	21.3	20.6	100%	20.6	28.9	100%	28.9
Block 3 Core	13.5	100%	13.5	11.6	100%	11.6	14.9	100%	14.9
Occupation question	12.2	100%	12.2	19.8	100%	19.8	24.4	100%	24.4
Block 5: Special Topic 1-3	28.7	36.3%	10.4						
Block 5: Special Topic 4-8	94.3	11.2%	10.6						
Demographics	62.0	100%	62.0	61.2	100%	61.2	66.7	100%	66.7

## Incidence Rates 2010 GEM APS Survey

	<b>Block 1: Nascent Entrepreneurs</b>	<b>Block 2: Owner- Managers</b>	<b>Block 3: Potential and Discontinuing Entrepreneurs</b>	<b>Block 4: Informal Investors</b>	<b>Employed</b>
Angola	50.1%	3.3%	19.4%	12.7%	30.5%
Argentina	10.8%	1.2%	3.5%	3.1%	40.1%
Australia	6.5%	0.8%	2.5%	3.0%	53.9%
Azores	5.2%	0.2%	1.8%	1.7%	48.8%
Belgium	3.5%	0.2%	1.8%	3.4%	48.5%
Bolivia	38.2%	11.8%	9.3%	13.8%	27.3%
Bosnia and Herzegovina	11.6%	0.7%	4.4%	2.3%	32.3%
Brazil	12.0%	0.7%	5.3%	1.5%	35.9%
Chile	18.9%	1.0%	5.6%	15.8%	34.7%
China	26.1%	0.8%	5.6%	5.2%	47.6%
Colombia	16.4%	1.4%	4.9%	4.9%	29.6%
Costa Rica	20.4%	1.3%	2.0%	2.5%	60.6%
Croatia	8.4%	0.3%	0.6%	3.7%	38.2%
Ecuador	23.0%	2.1%	7.3%	6.4%	37.4%
Egypt	23.0%	0.3%	3.8%	6.7%	43.8%
Finland	3.0%	0.2%	1.8%	3.4%	60.0%
France	7.4%	0.3%	2.2%	3.2%	54.1%
Germany	6.3%	0.7%	1.9%	4.7%	64.7%
Ghana	28.6%	6.4%	26.6%	19.5%	19.5%
Greece	5.3%	0.2%	2.8%	5.0%	64.8%
Guatemala	11.2%	1.7%	3.8%	2.9%	50.1%
Hungary	6.9%	0.6%	3.0%	4.0%	61.1%
Iceland	8.5%	1.0%	3.3%	5.5%	61.4%
Iran	26.4%	1.1%	4.8%	3.7%	23.8%
Ireland	9.8%	1.1%	2.4%	4.1%	55.5%
Israel	8.5%	0.8%	3.2%	3.9%	55.7%
Italy	1.9%	0.1%	1.5%	2.7%	51.5%
Jamaica	14.5%	2.2%	8.3%	8.9%	36.9%
Japan	4.0%	0.1%	1.5%	1.2%	55.7%
Korea	6.0%	0.2%	1.8%	2.8%	37.9%
Latvia	12.9%	0.8%	4.1%	10.4%	59.5%
Macedonia	18.0%	0.4%	3.5%	10.7%	38.6%
Malaysia	6.6%	0.5%	1.7%	1.8%	57.1%
Mexico	19.5%	0.7%	5.8%	8.8%	59.0%
Montenegro	26.0%	1.1%	7.2%	10.1%	46.5%
Netherlands	3.0%	0.3%	1.1%	2.5%	43.7%
Pakistan	20.8%	0.6%	2.7%	1.1%	29.2%
Peru	38.9%	3.0%	9.2%	13.9%	23.5%
Portugal	4.8%	0.2%	2.4%	2.1%	55.9%
Romania	4.8%	0.2%	1.4%	2.2%	32.3%
Russia	4.3%	0.3%	0.7%	1.0%	59.3%
Saudi Arabia	33.1%	0.4%	3.7%	11.6%	51.2%
Slovenia	4.0%	0.3%	1.5%	3.1%	54.2%
South Africa	12.0%	0.2%	3.8%	2.0%	22.7%
Spain	2.8%	0.1%	1.6%	3.1%	49.1%

	Block 1: Nascent Entrepreneurs	Block 2: Owner- Managers	Block 3: Potential and Discontinuing Entrepreneurs	Block 4: Informal Investors	Employed
Sweden	3.0%	0.2%	2.7%	6.1%	65.3%
Switzerland	3.8%	0.2%	2.4%	4.4%	50.8%
Taiwan	15.4%	0.5%	3.4%	4.8%	54.3%
Trinidad & Tobago	16.0%	1.0%	2.9%	6.5%	53.7%
Tunisia	2.5%	0.2%	3.7%	5.2%	35.1%
Turkey	10.6%	0.7%	4.0%	6.8%	21.0%
Uganda	33.1%	5.0%	27.9%	27.3%	19.6%
United Kingdom	4.3%	0.5%	1.9%	2.7%	58.6%
United States	7.1%	0.5%	3.6%	5.2%	43.8%
Uruguay	13.5%	0.8%	3.4%	7.7%	39.7%
Vanuatu	77.8%	32.8%	21.6%	19.0%	21.9%
West Bank & Gaza Strip	20.4%	0.9%	5.9%	4.3%	26.7%

**APPENDIX D: TEA CREATION FLOWCHART**



### **The required (core) set of Special Topic questions**

The core questions suffice for producing 'basic' country-level estimates on spin-offs and intrapreneurship. They are included

- in blocks 1 and 2 (six questions for establishing spin-off mechanisms)
- in block 5 (eight questions for establishing intrapreneurship rates and employment impact)

### **The optional set of Special Topic questions in Block 5**

Inserting additional questions beneficial for

- Your country: the results you will get will offer more detail on who these intrapreneurs are, and where they come from
- Comparing behavior of 'regular' entrepreneurs and intrapreneurs in terms of e.g. innovation, used technology, risks involved
- For the 'greater good': these are important items required for a more elaborate type of research, and as such for achieving important academic publications; the intention is to share the 2011 individual level data wrp special topic and some main GEM indicators among all the teams who do the optional part (while countries could opt out of such an agreement on an individual basis).

For each country these advantages should be set out against:

- Costs of the questions. On the next page we provide the overall timings of each section (per average respondent), as an indicator of costs. These timings resulted from the pretests conducted in Chile and Canada in December 2010. You could show this to your vendor and ask for separate quotes, one for including the optional set of questions and one for excluding the optional set of questions
- The amount of questions to be asked to employees. Estimates from the pretest reveal that in case the respondent will be asked all questions in the optional set (please note that this is a minor share, see incidence rates on next page) the average ranges between two and three minutes. This is very similar to the timings of the mandatory set of questions in Block 5. Also note that many of these employees have not answered questions in blocks 1 & 2.

### **Intrapreneurship and Development**

The pilot results in 2008 among ten GEM countries suggests that intrapreneurship rates tend to increase with GDP per capita levels. It remains to be seen if this is the results that will come out of the 2011 special topic results. In countries with lower GDP levels, we tend to find (fitting with theory)

- Fewer employees in the sample
- Fewer intrapreneurs among employees

## DETAILS ON TIMINGS

### Incidence rates of employees and intrapreneurs in the pretest

Knowing the incidence rates of employees and ‘intrapreneurs’ (solely based on question 5SP3) helps in estimating the costs associated with questions in Block 5 and hence also for the optional set of questions. For Canada and Chile, these rates are as follows:

	Employees	% responding YES to Q5SP3
Canada	50%	10%
Chile	30%	9%

Note: incidence rates also depend on the sampling methodology; in particular whether or not individuals aged 65+ have been included in the sample

### Average Pretest Timings (seconds) per respondent for Required & Optional Special Topic Sections

Section	Spanish - Chile		
	Mean time for those asked (seconds)	Incidence	Mean time for all surveys (seconds)
Special Topic: Nascent Block 1	43.6	15.7%	6.8
Special Topic: Owners Block 2	45.8	16.5%	7.6
Block 3 Intent & Discontinue	21.3	100%	21.3
Block 5: Special Topic Questions 1-3	28.7	36.3%	10.4
Block 5: Special Topic Questions 4-8	94.3	11.2%	10.6
Block 5: Special Topic Optional Questions	170.5	11%	19.1
Special Topic Total			56.7
Special Topic Total with Optional			75.8

\* For Canada, detailed timings of the special topic were not available. However, on a ‘higher’ level, timings of the questions closely matched those of the pretest in Chile. In general, the timings of the French version of the Canadian pretest were 10% higher than the English version. Note that these are average timings per respondent, so if a respondent does not qualify for a particular set of questions, zero seconds are attributed. This is how most vendors estimate the costs.

Finally, if you have any questions on the special topic, please ask us using [data@gemconsortium.org](mailto:data@gemconsortium.org), while referring to ‘special topic’ in the subject box.

## APPENDIX F: APS WEIGHTS QUESTION & ANSWER

*Q: Are all GEM APS data files weighted?*

A: Yes, weights are applied to every nation's GEM APS data file as part of the harmonization process that prepares the data for release.

*Q: What is the reason for applying weights to the GEM APS data?*

A: The objective of the GEM APS weighting approach is to have the APS sample data provide as close a match as possible to the population along a range of key dimensions.

All GEM APS samples are weighted so that the overall distribution by gender and age group in the sample matches the distribution within the adult population of that country.

*Q: How are weights used?*

A: Weights are used to achieve two different objectives:

1) RESPONSE WEIGHTS: To achieve a better match of the sample surveyed to that of the overall population. In this case weights are used to reduce the potential bias among the collected data due to different response rates or normal sampling variability. This type of weighting is required for every country.

2) SAMPLE DESIGN WEIGHTS: To address specific design issues for the survey sample. An example of this approach might be a sample that is divided into urban and rural groups, with the urban areas sampled at a higher rate than the rural areas. Without weighting to compensate for this difference in sampling rates an analysis of the sample data would over represent urban respondents.

*Q: Are both types of weighting needed for every country?*

A: No, if the sample has been collected without the use of strata or other divisions in the sampling scheme, then RESPONSE WEIGHTS to address random fluctuations and differences in responses rate is the only type of weighting required.

*Q: Can National Teams (or their survey vendors) provide the weights?*

A: Yes, National Teams and their survey vendors are encouraged to provide weights along with the collected sample data. The GEM Data Team will analyze these weights to ensure that they meet GEM APS standards – if they do they will be provided in the final released data set. If the weights do not meet GEM APS standards, then either the National team will be asked to respond, or the GEM Data Team will calculate a set of weights based on the age and gender distribution of the sample as compared to the national (or strata-based) population.

*Q: What variables are used in calculating RESPONSE WEIGHTS?*

A: Multiple variables (age, gender, education, region, etc.) can be used to calculate RESPONSE WEIGHTS. At a minimum these calculations must include both the gender of the respondent and their age coded in normal GEM age groups. The age-gender distribution of the sample population is then compared to a known distribution for the country and weighting factor calculated so that the distribution in the sample matches that of the adult population for the country. These resulting weights are then scaled so that they have an average value of 1.0. This means that age-gender combinations that are under-represented in the sample as compared to the population will have a weight of great than 1.0, and those that are over-represented in the sample will have a weight of less than 1.0. A National Team can choose to include additional variables (region, education) in these calculations if they so choose.

*Q: What reference data is used to determine the age-gender distribution of the national population?*

A: The data used for calculating GEM APS weights comes from the population data provided by the National Team. If no data is provided, then the GEM Data Team will use the *Midyear Population, by Age and Sex* from U.S. Census Bureau, International Data Base, <http://www.census.gov/ipc/www/idb/index.php>.

*Q: How do we know which countries require SAMPLE DESIGN WEIGHTS?*

A: SAMPLE DESIGN WEIGHTS are required for all countries whose sampling design used different strata or divisions. If the sample has been collected using different procedures, or if the sample has been conducted independently using the same sampling procedure for different portions of the sample, then weights should be calculated separated for each strata.

*Q: Which variables can be used in designing sample strata and the weighting to be applied?*

A: The most typical sampling approach using strata does so by dividing the country being sampled into geographic areas. The determination of which variables and strata are used in calculating SAMPLE DESIGN WEIGHTS is determined by the specific sample design for the country being examined. Thus, for example, a sample design based on six regions in a country would have weights calculated separated for each of these six regions.

*Q: Are there variables that should NOT be used in designing sample strata and the weighting to be applied?*

A: Yes, sample strata and weighting must never use any of the GEM response variables (these are all the data collected in the Introduction and Blocks 1, 2, 3, 4, 5, and 6 of the GEM APS survey). All geographic and location information, as well as all data collected in the demographics section of the GEM APS survey can be used to create weights if so desired by the National Team.