

# Industry Coding & Industry Value Add

Michael Biddington, UN ESCAP Statistics  
Division, [Biddington@un.org](mailto:Biddington@un.org)



## Industry Value Add (IVA)

- Measures Economic Contribution
- A few ways to calculate it;
  - IVA = Revenue – Input Costs
  - IVA = Profits + Wages + Taxes
- Is sort of a GDP measure for businesses



# Industry Code (ISIC)

- International Standard Industrial Classification of All Economic Activities (ISIC)
- Used to classify units by type of economic activity
- 4 Digit Codes
  - Section (21)
    - Division (88)
      - Group (238)
        - Class (419)



# ISIC and SBRs

- Industry Code is fundamental to SBR
- Is key selection criteria for surveys
- Is key to understanding data
- SBRs will need to code "Many" units
- In theory you code by identifying highest IVA of activity
- In practice you use what you can



# How National Accountants think ISIC coding works - Part 1

- Unit should be classified to ISIC class with the largest share of IVA by using “**top-down**” method.
- If IVA cannot be determined:
  - An approximation by other criteria such as:
    - The proportion of gross output of the goods or services
    - Value of sales of those groups of products
    - Employment according to the proportion of people engaged in these different kinds of activity



## Part 2

- If a unit is engaged in several types of independent activities, it should be classified, as per principal activity, to ISIC class with largest share of value added by using **top down** method
- Identifying principal activity by **top down** method
  - List activities of unit attributing to each class, the value added/ output
  - Determine the section that has highest share
  - Within the section, determine the division that has highest share
  - Within the division, determine the group that has highest share
  - Within the group, determine the class that has highest share
  - This class identifies the principal activity
- **To get all this per unit..... Unlikely**



## How it really works...

- Just get ISIC value from other agency – no exact idea how they do it.
- Or - question 8 of Registration / Census form:
  - Please describe your Main Business Activity?
- Common (Bad) Answers:
  - Consultant
  - Farming / Farmer
  - Manufacturing
  - Selling
- Do your best to code the unit using that..



## How it really works...

- For Australia 50% of answers used to have insufficient information to ISIC code
- Different government departments gave the same unit different ISICs
- Big difference between self populated and staff populated descriptions
  - How businesses described themselves
  - How Statisticians describe the businesses
- Very big different results for ISIC



## How ABS previously did it

- Text matching (50%) of records
  - 10,000 units per month
  - Matches text field to Code
  - Was 96% accurate (checking with survey data)
- Manual Coding (other 50%)
  - ISIC coders would call 10,000 units
  - 40 people = 250 codes per month
  - They did some other work as well
  - Would discuss with registrant what the business did and ISIC code them while on the phone
  - Costly, labour intensive & processing risk



## Point of Contact Coder (PoCC)

- Is part of the registration process
  - [www.abr.gov.au](http://www.abr.gov.au)
- There is still the same question
  - What is your main business activity?
- As you type descriptions come up
  - 'Plumbing'
- The PoCC suggests five most likely answers
- The registrant picks one or changes what's in the text field and tries again



## Results

- 100% of units now ISIC coded on registration
- No manual coding required
- Quality is similar to old process
  
- Works because registrants respond to the options provided
- Many enter 2-3 descriptions before they pick an option



## How it was built / Works

- G-Code (Statistics Canada Technology)
- List of Descriptions (there were 5000+)
  - For only 400+ classes
- Weighting (How frequent was this ISIC)
- This can be used for any online process
- Malaysia - SMM
- Or can be used by field staff (less training required)



## Key lessons / Notes

- ISIC coding is a major problem / issue for SBRs
- Many units
- Insufficient information
- Complex activity
- Don't just give them a book and tell them to code it!
- ISIC coding strategy
  - Efficient
  - Automate as much as possible
  - Be aware of common issues
  - Quality matters