



# Indian Socio Economic Classification 2018

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and  
Magic9 Media & Consumer Knowledge (Praveen Tripathi)

NCCS	IRS 2017	
	Mumbai UA	Delhi UA
A1	9.6	19.0
A2	11.2	14.1
A3	14.9	15.4
B1	14.1	12.1
B2	16.1	11.4
C1	15.6	11.2
C2	10.0	8.4
D1	5.6	5.2
D2	2.3	2.7
E1	0.5	0.4
E2	0.1	0.2
E3	0.1	0.0

Effectively ABC

# Loss of Discrimination

Increasingly Under-report 'Premium'  
& Over-report 'Popular' Share

but.... trend should be ok...

Provided relatively Stable, and  
change is not too rapid

# Highly Volatile due to Policy and Tech

1. Electricity
2. Ceiling Fan
3. LPG Stove
4. 2-wheeler
5. Color TV
6. Refrigerator
7. Washing Machine
8. PC/Laptop
9. Car/Jeep/Van
10. Air Conditioner
11. Agricultural Land



- **Loss of Discrimination**
- **Volatility**

- Discriminate well
- Stable - *not change between listing and recruitment*

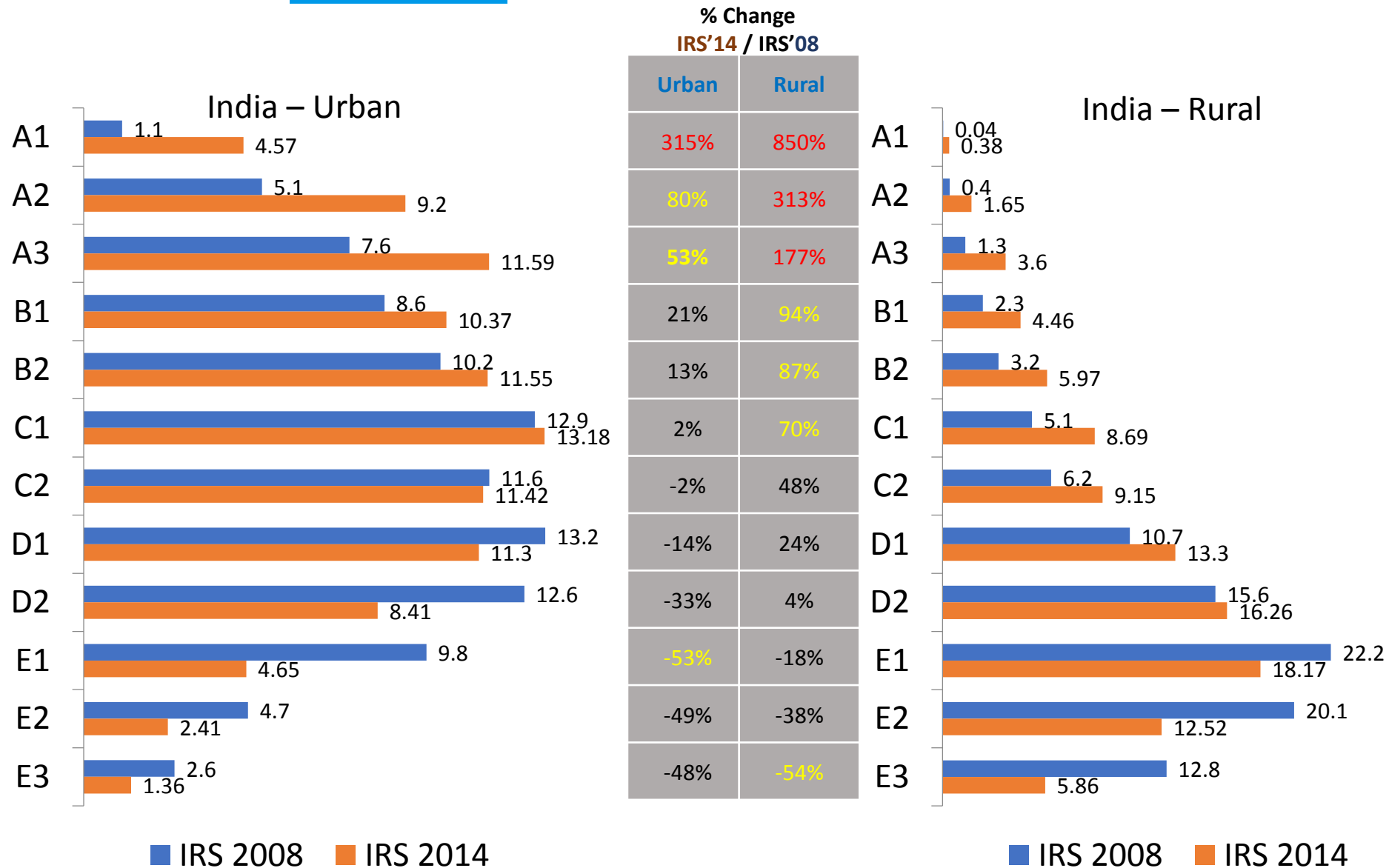


# A HISTORICAL PERSPECTIVE

- India was operating with a classification system (SEC) built and launched in 1988
- Since this was an Urban classification system based on the Education & Occupation of the CWE, marketers increasingly felt this system was not a strong enough indicator of affluence (income hence purchasing power)
- On the other hand, there was no official Rural Classification endorsed by MRSI
- Marketers were keen to use a single classification system that would be a better indicator of affluence
- NCCS was the answer, curated by MRSI and now based on a grid of Education of the CWE x Assets owned (from a list of 11), launched in 2011
- NCCS is now posing some interesting challenges....



# NCCS is volatile both in Urban & Rural India



# BARC's Experience with NCCS

- Volatility:
  - Since the NCCS could change with the change of just one durable, it was highly volatile
  - NCCS of HHs changed between the time the UE study / Listing exercise was conducted and approaching them for empanelment
  - More critically, empaneled HHs changed NCCS – which has potential to create issues with the panel
  - This volatility was most apparent in the lower NCCS which were upgrading as durable ownership became more accessible to people across the spectrum
- Social Classification:
  - Over time, NCCS was becoming increasingly less discriminatory in terms of viewership. Certain 'niche' groups of genres or channel types (e.g. English, HD, Business etc.) were 'democratic' in terms of viewing patterns across NCCS. This demonstrated that discrimination on social parameters was weakening
  - As a result, the system was less efficient for use by stakeholders to make adequate programming or advertising decisions

# The System we are looking for

- ☐ Stability- should not need frequent updates
  - A shelf life of FIVE years
- ☐ Should be discriminating
- ☐ Should work in both urban and rural
- ☐ Should be easy to administer
  - Classification should be quick
  - Simple to answer
  - Not too intrusive

# DATASETS USED FOR BUILD AND TEST

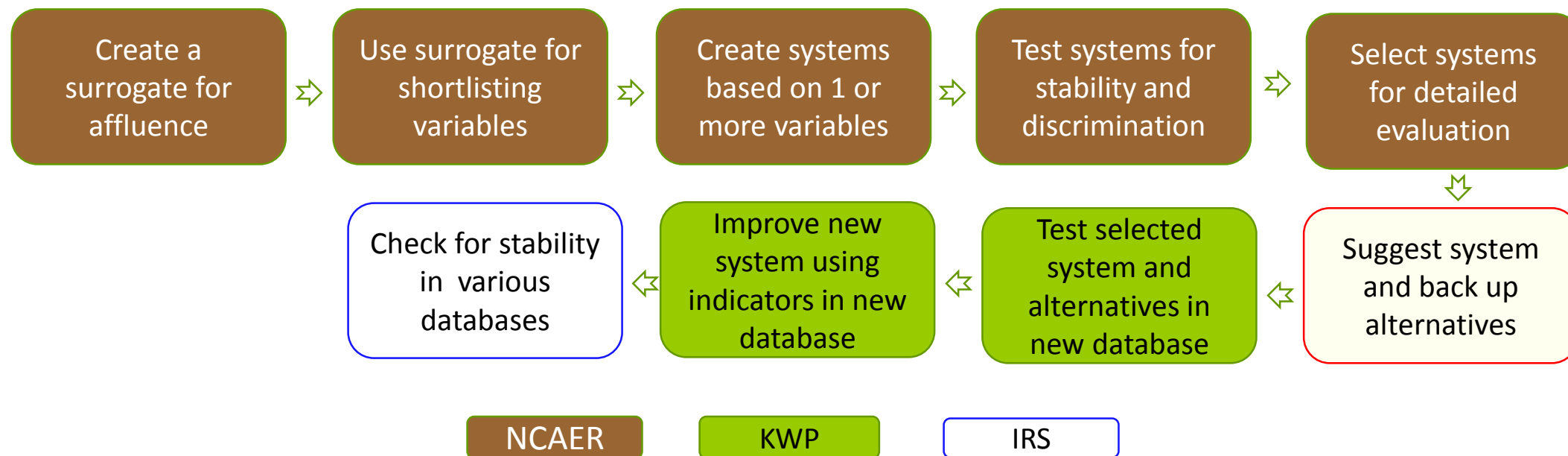
- ❑ The Market Research Society of India (MRSI) wished to create a new system for classifying households, to replace the current system (“NCCS”)
- ❑ In this presentation, we have suggested a system to replace NCCS
- ❑ The presentation is based on data from the following sources:
  - **A survey conducted by NCAER in 2011-12 (IHDS)**
  - NSSO survey, Round 69 in 2011-12
  - **Kantar World Panel database for 2016-17**

Items in **bold** were the main sources for our analysis

Study	Sample	Years	Information
NCAER	42,152	2011-12 (& 2004-5)	Education, Occupation, Amenities, Income, Durables, Expenditure under various heads
NSSO	203,313	2011-12	Education, Occupation, Amenities, Durables, Expenditure under various heads
KWP	75,198	2016-17	Education, Occupation, Durables, Usage of categories and brands (incidence, volume)

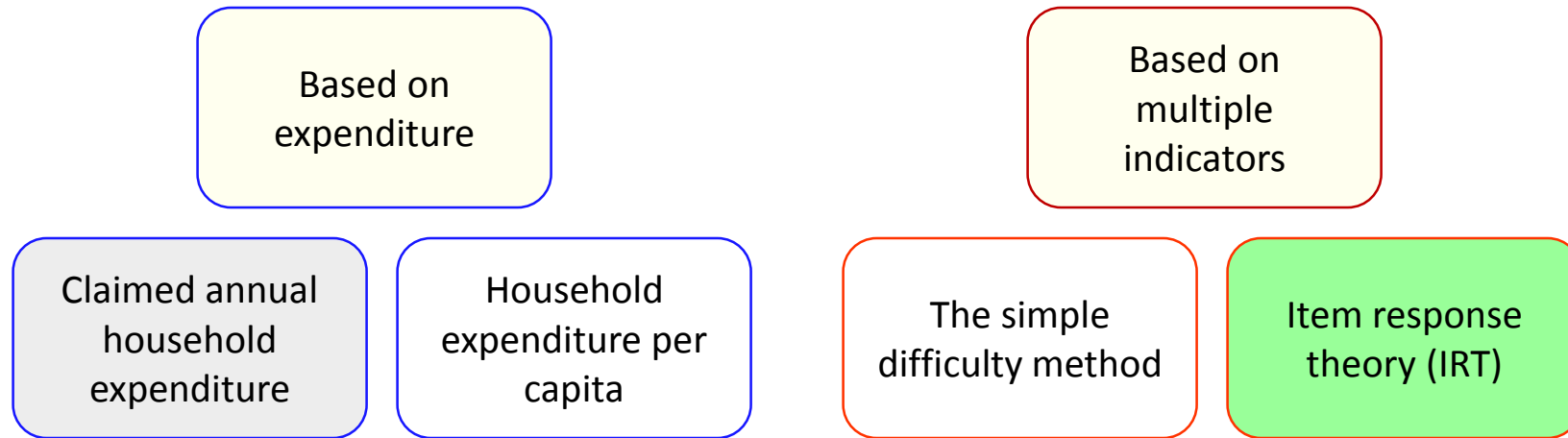
Most of our analysis is based on **NCAER (2011-12)** and **KWP**

# Steps Involved



# How we have measured affluence

We considered the following options:



- We finally selected IRT\* as the lead measure of affluence- it's the best performer on discrimination
- However, have also used Household Expenditure (NCAER) -and later Simple Difficulty ( in KWP)- as back up measures



\* A list of indicators used in IRT is provided in Appendix II

# What we learnt from the first phase of analysis (NCAER)



# Candidates for forming social classes & Findings

Initially, we considered the following:

- Income
- Consumer durables
- Housing and amenities

However, income is not stable- nor are consumer durables. Many aspects of housing and amenities have not been stable in the past. This group of variables dropped for subsequent analysis

- Occupation of chief earner
- Education of various members

This leaves us with only Occupation, and education (in various forms: chief earner, highest, etc.)

- Household size
- Number of working members
- Ratio of working to non-working
- Presence, number of working women

These variables have a weak relationship with affluence - often, direction is contrary to expectation. For example... Family size correlates *positively* with affluence  
Presence of working women associated with *lower* affluence.  
Hence these variables dropped for further analysis

# Conclusions from this phase of analysis

- ❑ Systems with Occupation and Education the only alternatives we can use
- ❑ Education is a good discriminator
  - Education of best educated members performs well
  - Education of best educated female adult is particularly good for high-value, low penetration items
- ❑ Occupation of chief earner, Education of best educated male adult, and Education of best educated female adult (ISEC) can together provide a good system
- ❑ However, such a system will be a little way behind on discrimination as compared with NCCS

**We selected ISEC for further analysis in a different database, along with benchmarks such as O&E and NCCS**

# Some alternative systems evaluated

## ❑ Single variable

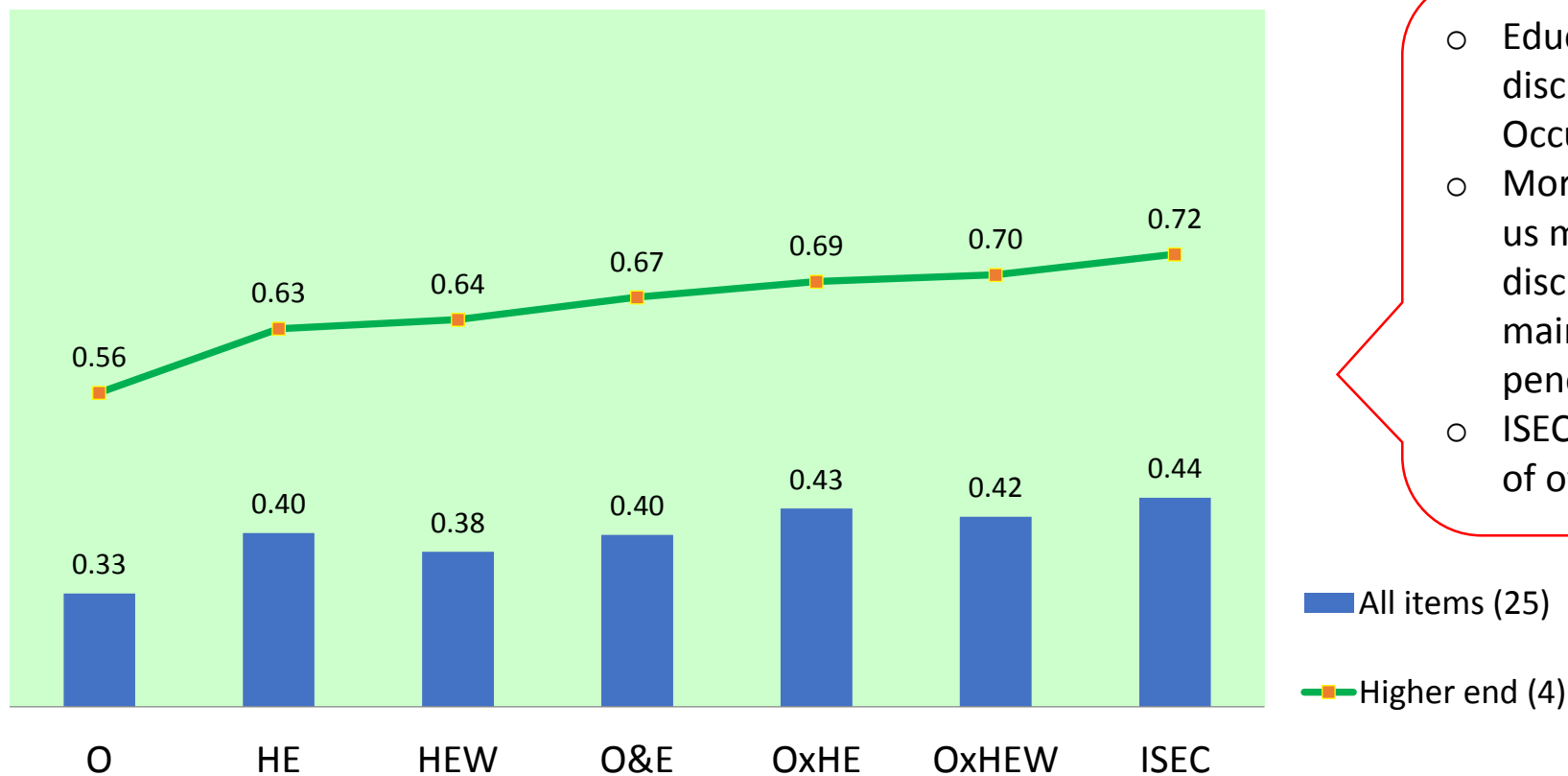
- Occupation of chief earner
- Education of chief earner
- Education of highest educated adult member
- Education of highest educated female adult member

## ❑ Multiple variables

- Occupation and education of chief earner
- Occupation and education of highest educated adult
- Occupation and education of highest educated female adult
- Occupation and education of chief earner plus education of highest educated female adult
- Occupation of chief earner plus education of highest educated female adult plus education of highest educated male adult

# Performance on discrimination for some systems

Figures are average Gini coefficients



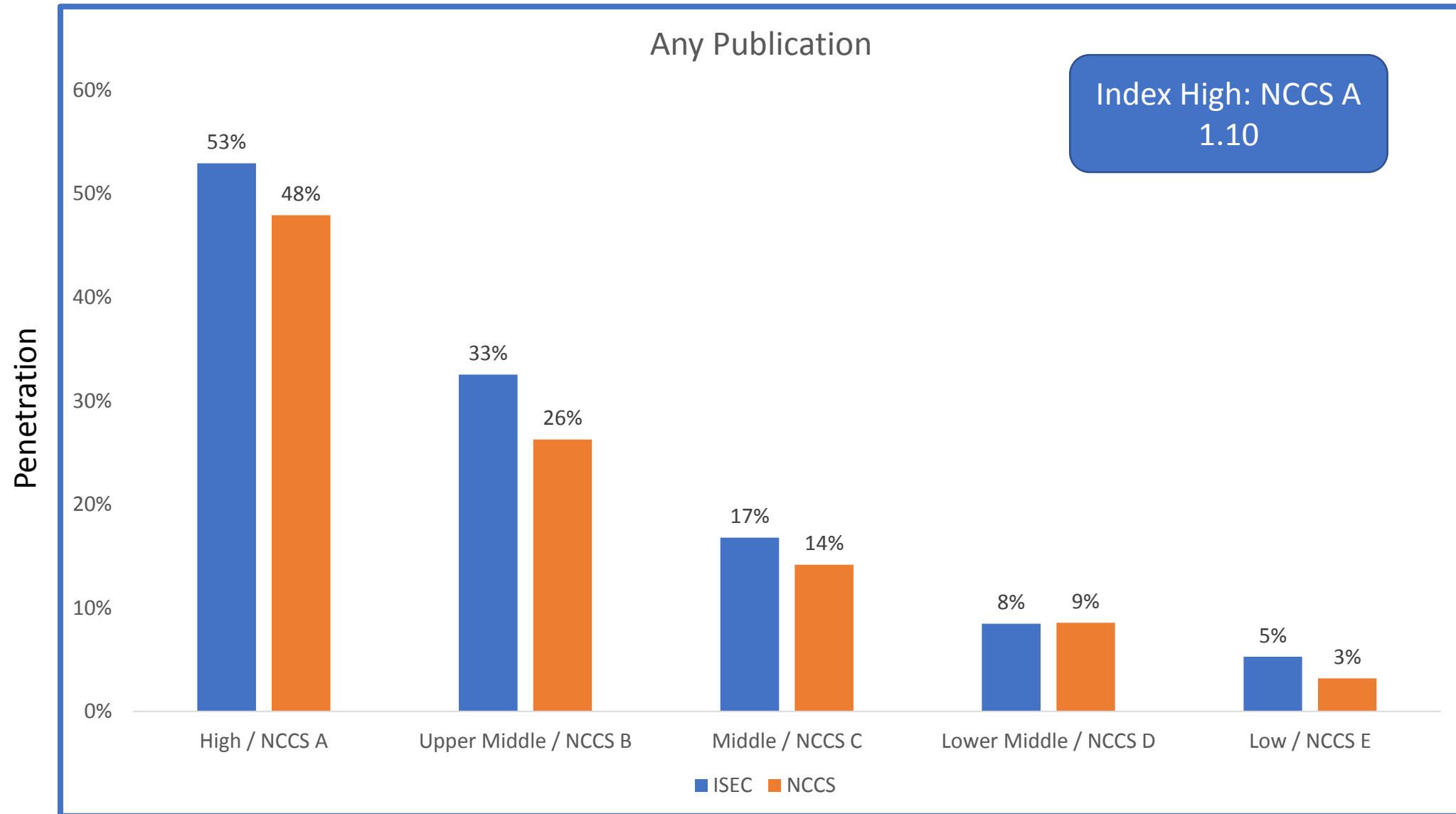
- Education more discriminating than Occupation
- More variables give us more discrimination- but mainly for low penetration items
- ISEC a little ahead of other systems

**O:** Occupation of chief earner **HE:** Education highest educated adult **HEW:** Education highest educated female adult **O&E:** Occupation and education of chief earner **O x HE:** Occupation x education of highest educated adult **O x HEW:** Occupation x education of highest educated adult female **ISEC:** Occupation of chief earner x education highest educated male adult x education highest educated female adult **NB:** All systems have 10 levels

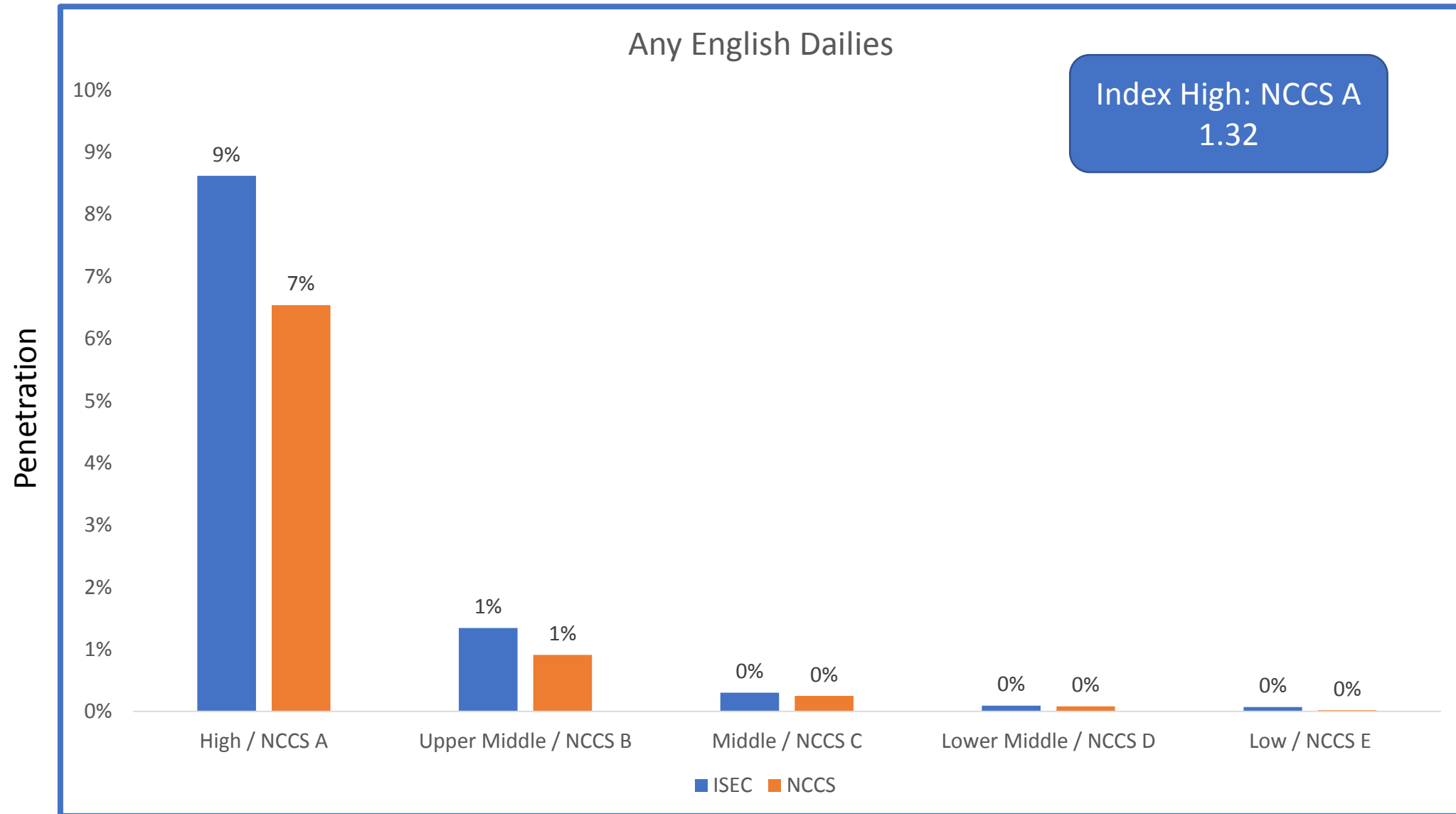
*Analysis based on NCAER (2011-12)*

$$\text{ISEC} = \text{CWE's Occupation} + \text{Education of Highest Educated Male Adult} + \text{Education of Highest Educated Female Adult}$$

# ISEC v/s NCCS Comparison – Any Publication (Source: IRS 2017)

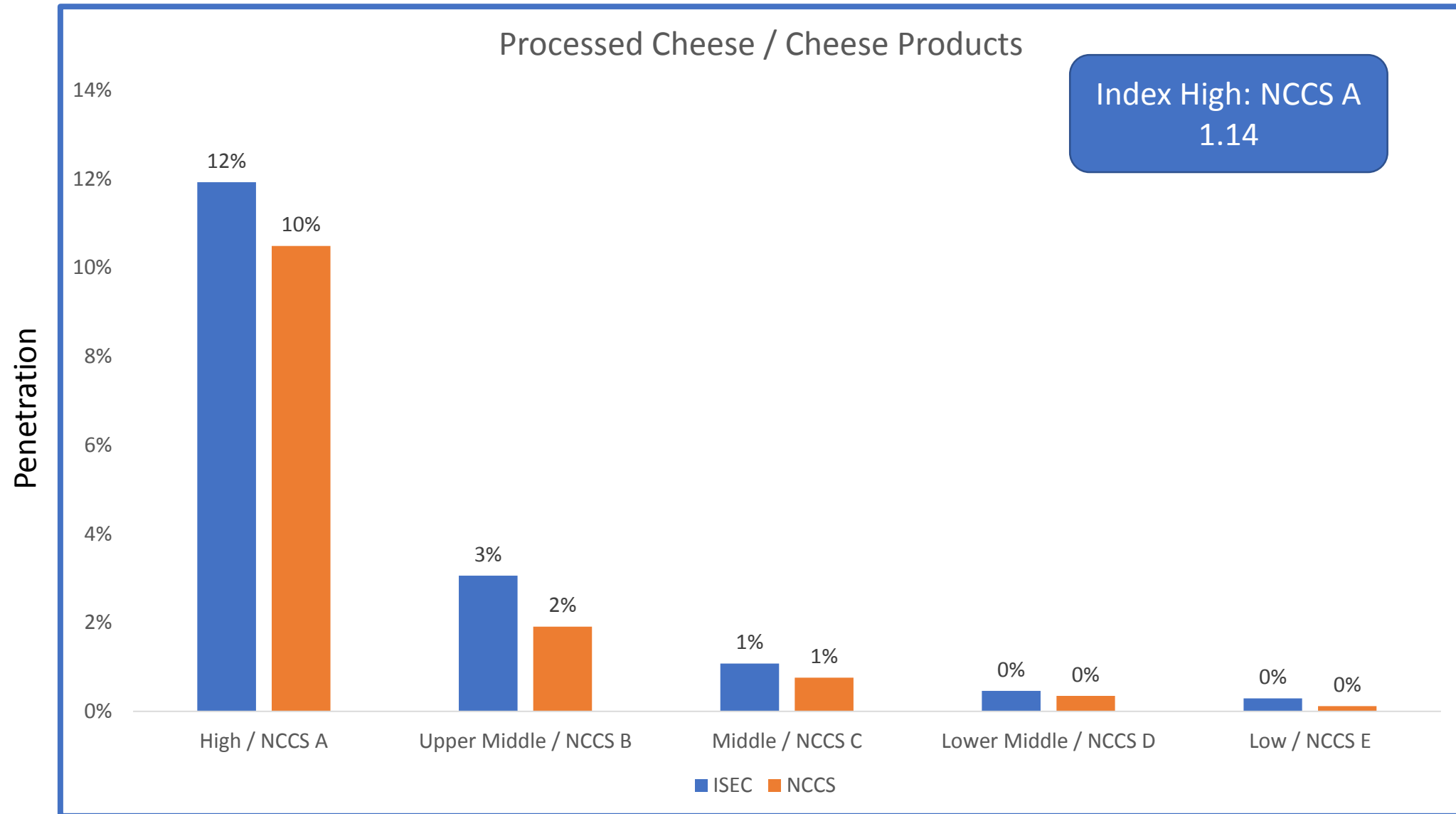


# ISEC v/s NCCS Comparison – Any English Dailies (Source: IRS 2017)



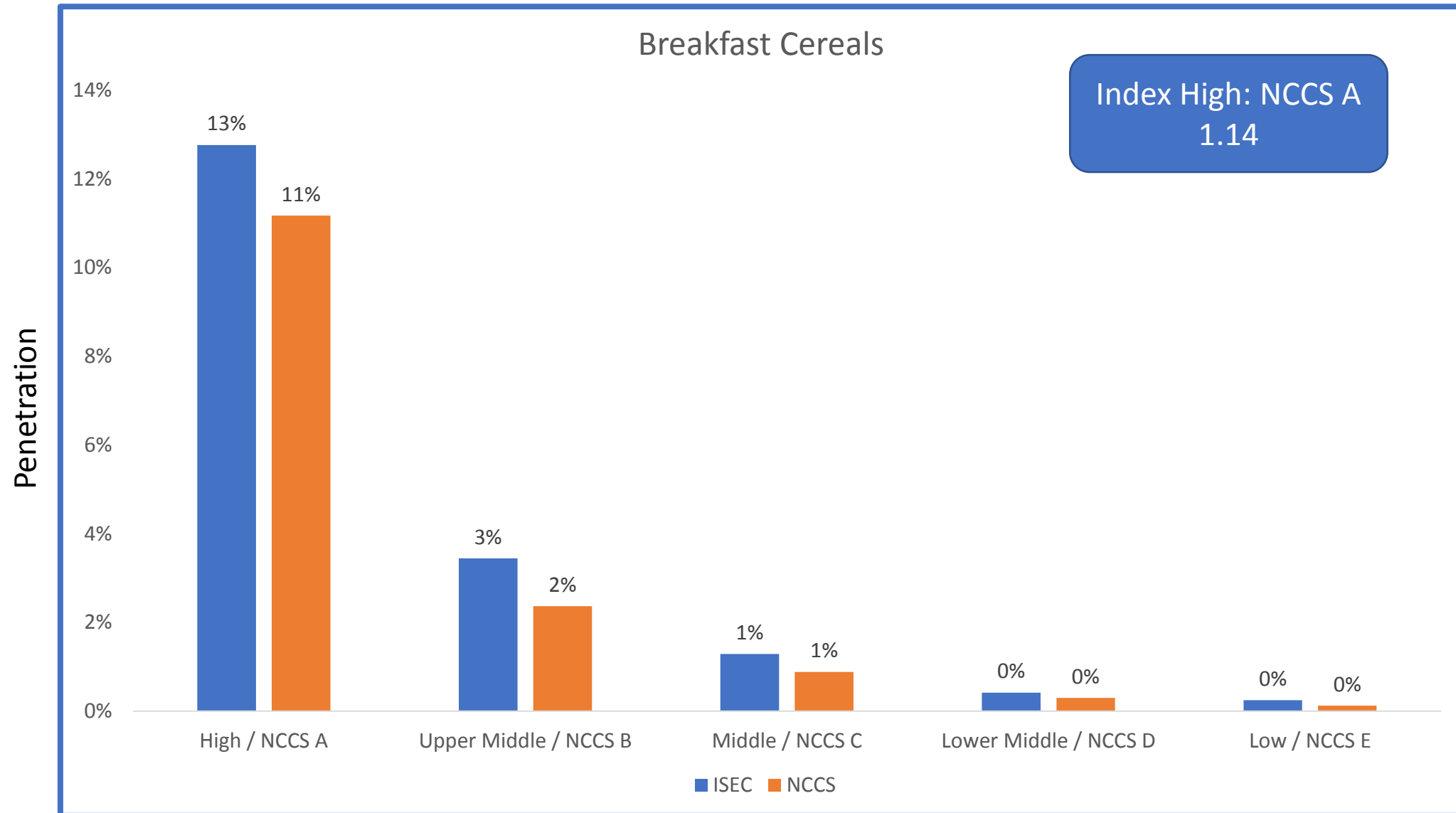


# ISEC v/s NCCS Comparison – Processed Cheese / Cheese Products (Source: IRS 2017)



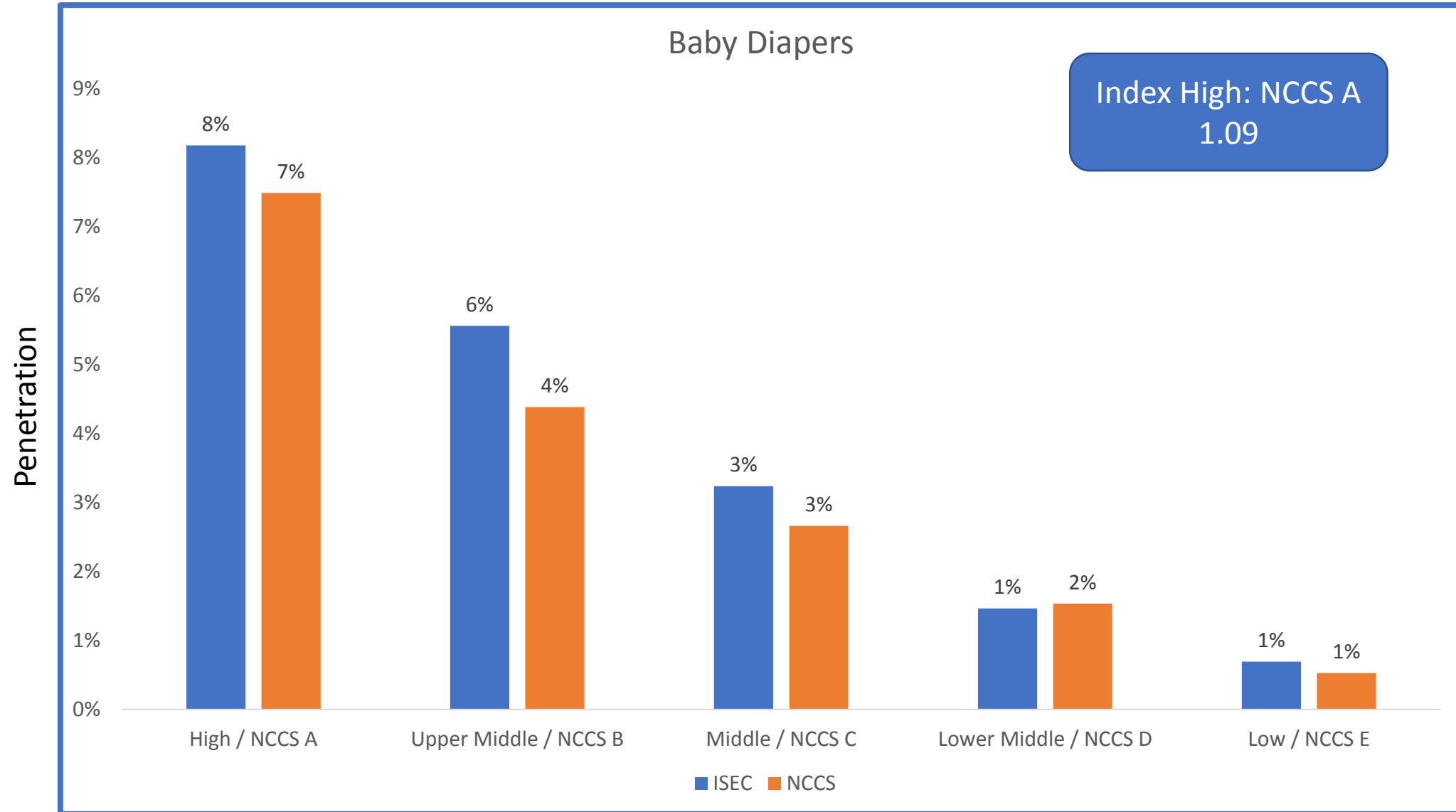
# ISEC v/s NCCS Comparison – Breakfast Cereals

(Source: IRS 2017)

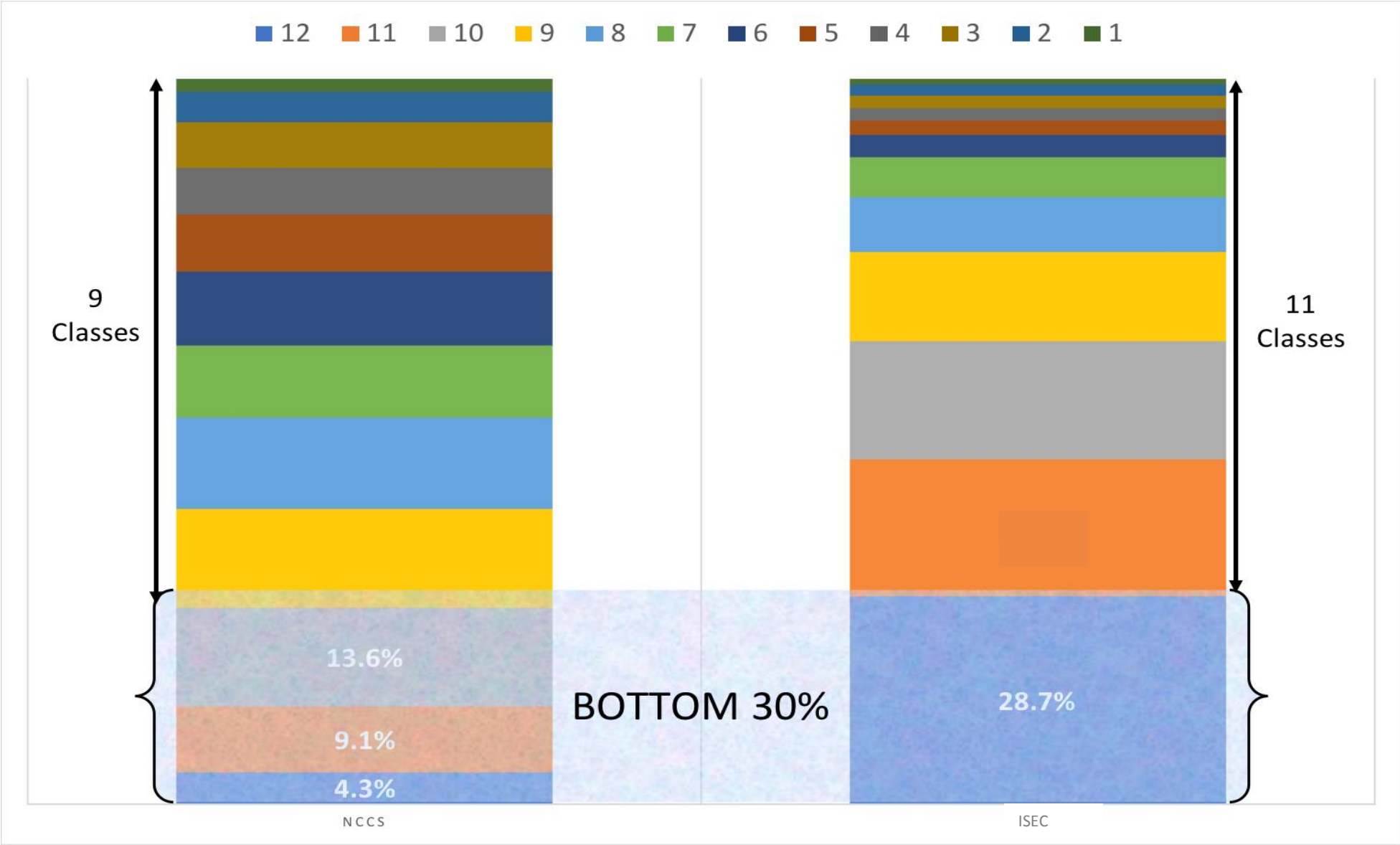


# ISEC v/s NCCS Comparison – Baby Diapers

(Source: IRS 2017)

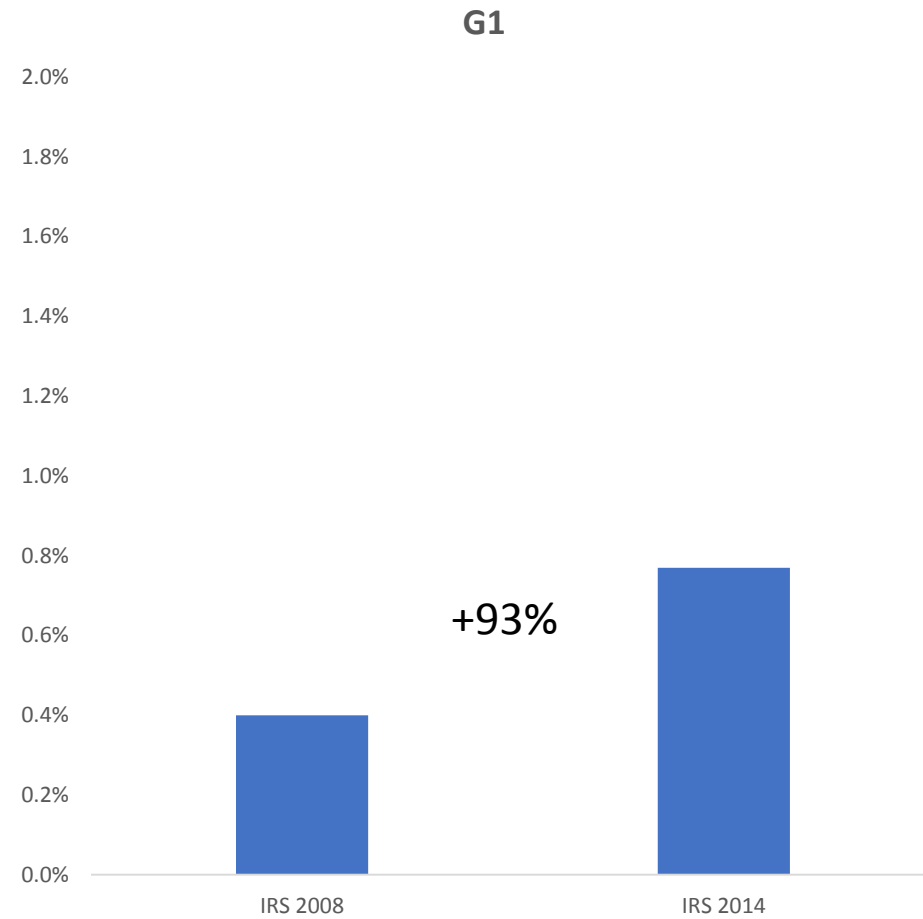
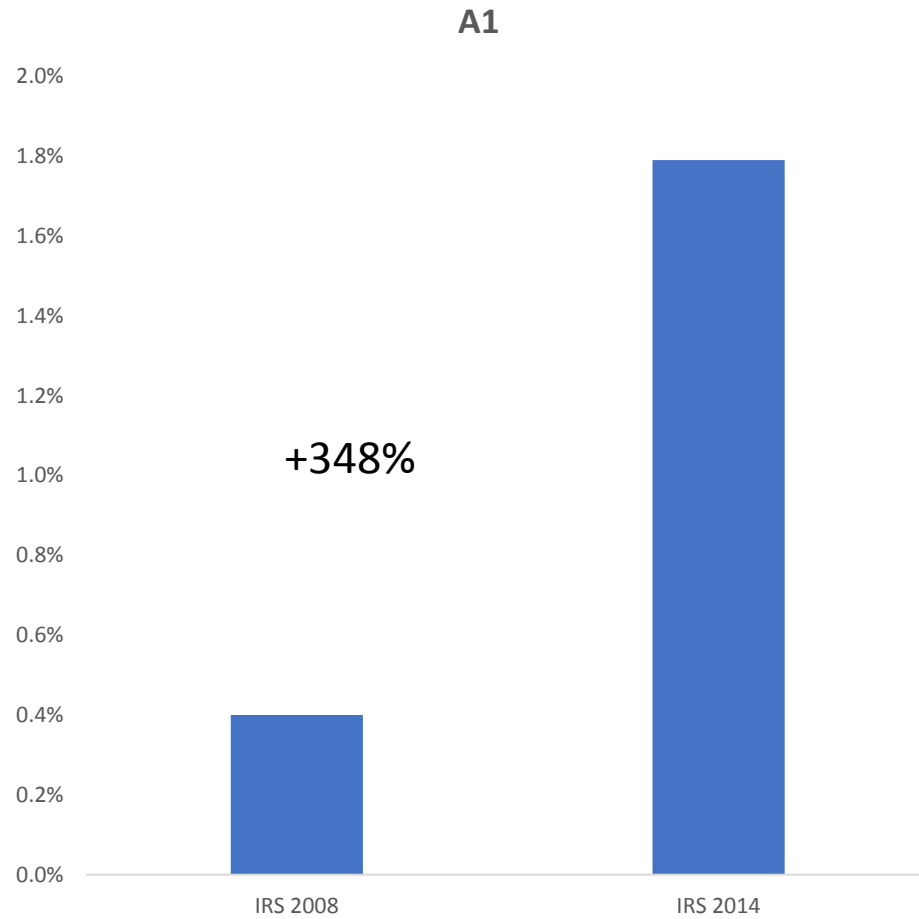


# More granular classification of the economically active...

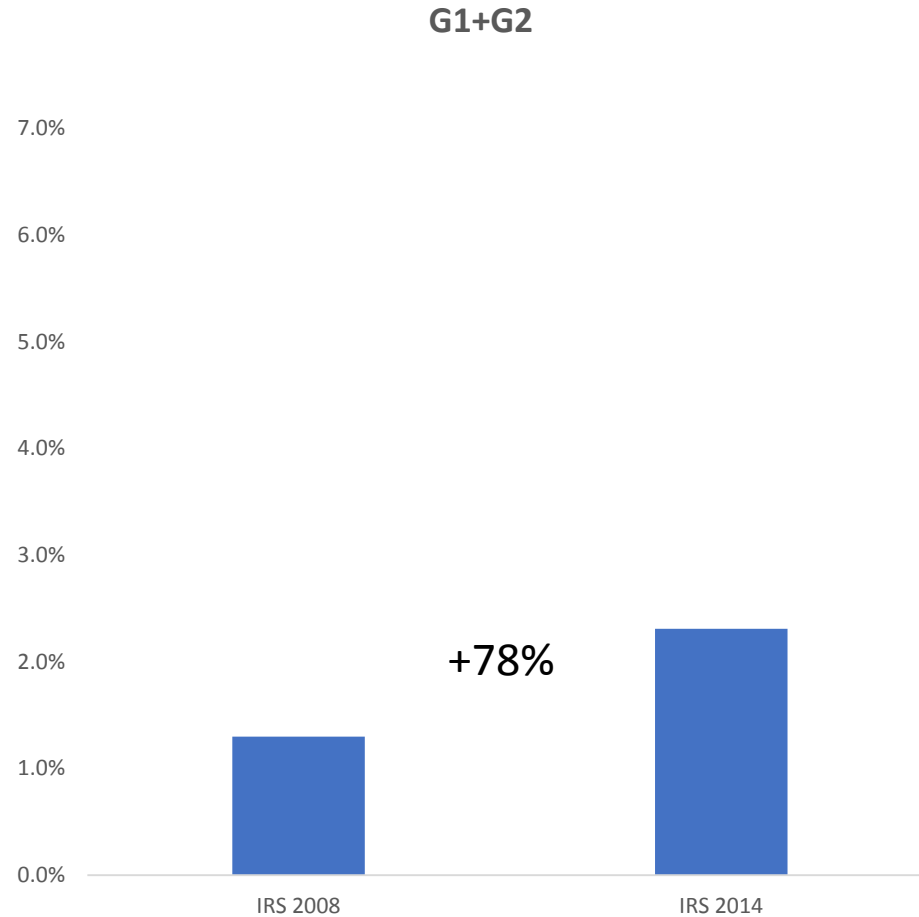
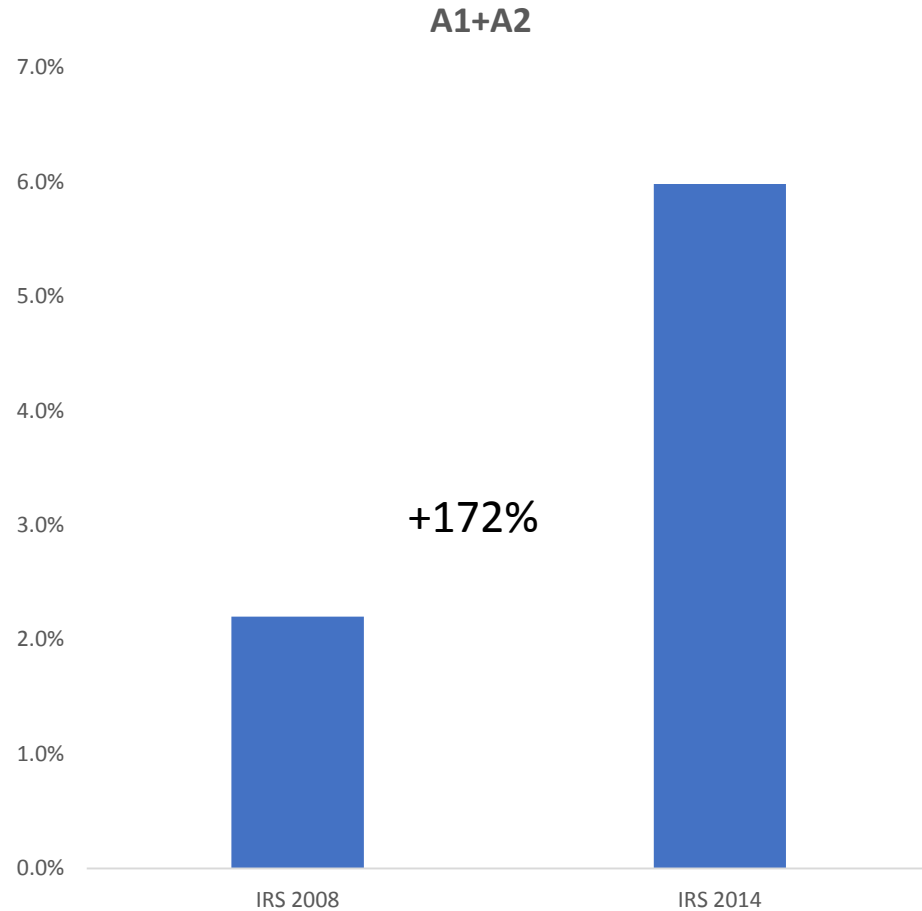


# Stability of ISEC over NCCS as per IRS 2008 and IRS 2014

# Universe Size Comparison of (ISEC & NCCS) in IRS'08 & 14 - All India A1 & G1



# Universe Size Comparison of (ISEC & NCCS) in IRS'08 & 14 - All India A1+A2 & G1+G2



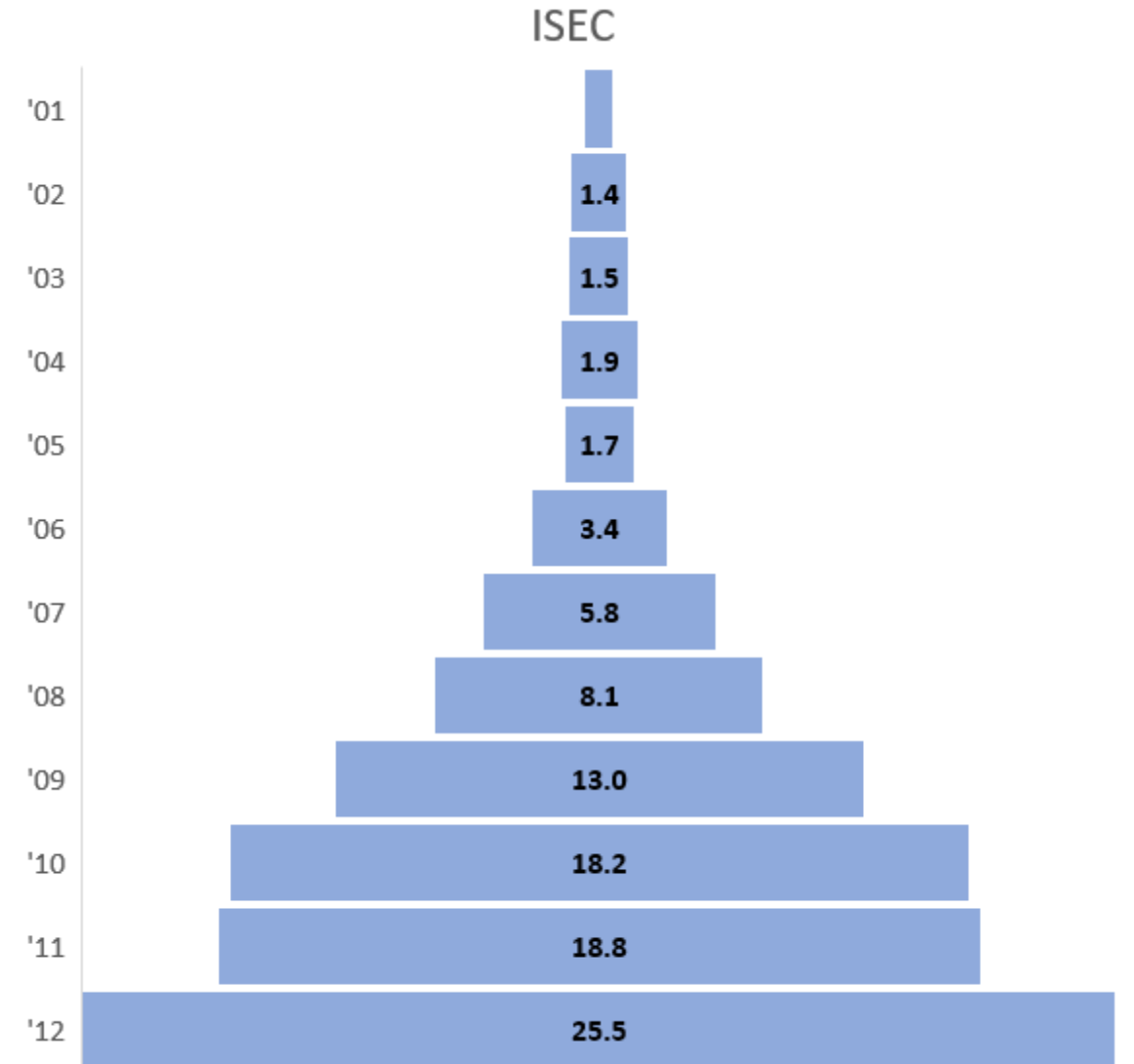
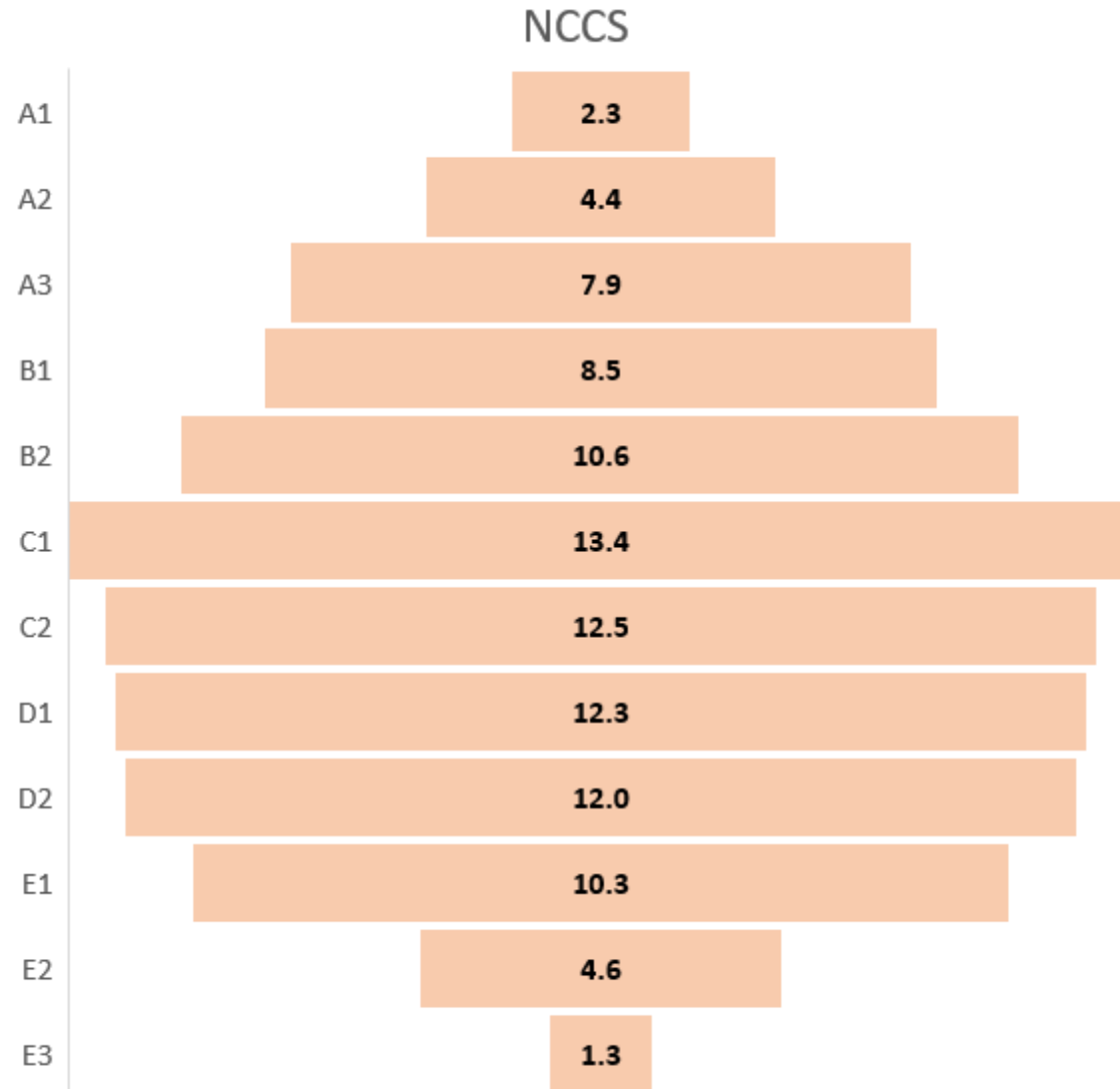


# ISEC

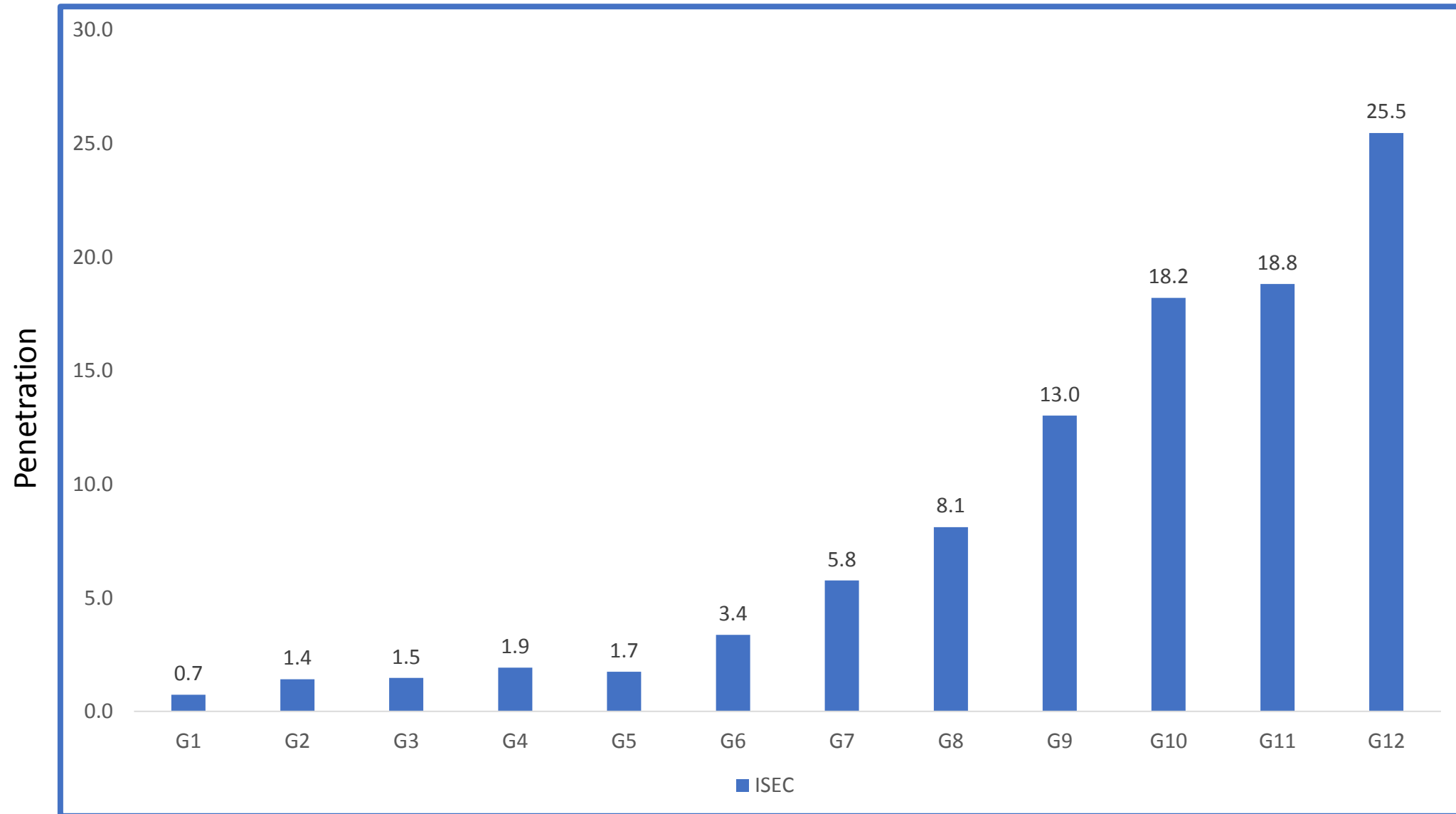
**Indian Socio Economic Classification**

# CLASSIFICATION SYSTEMS AT A GLANCE....

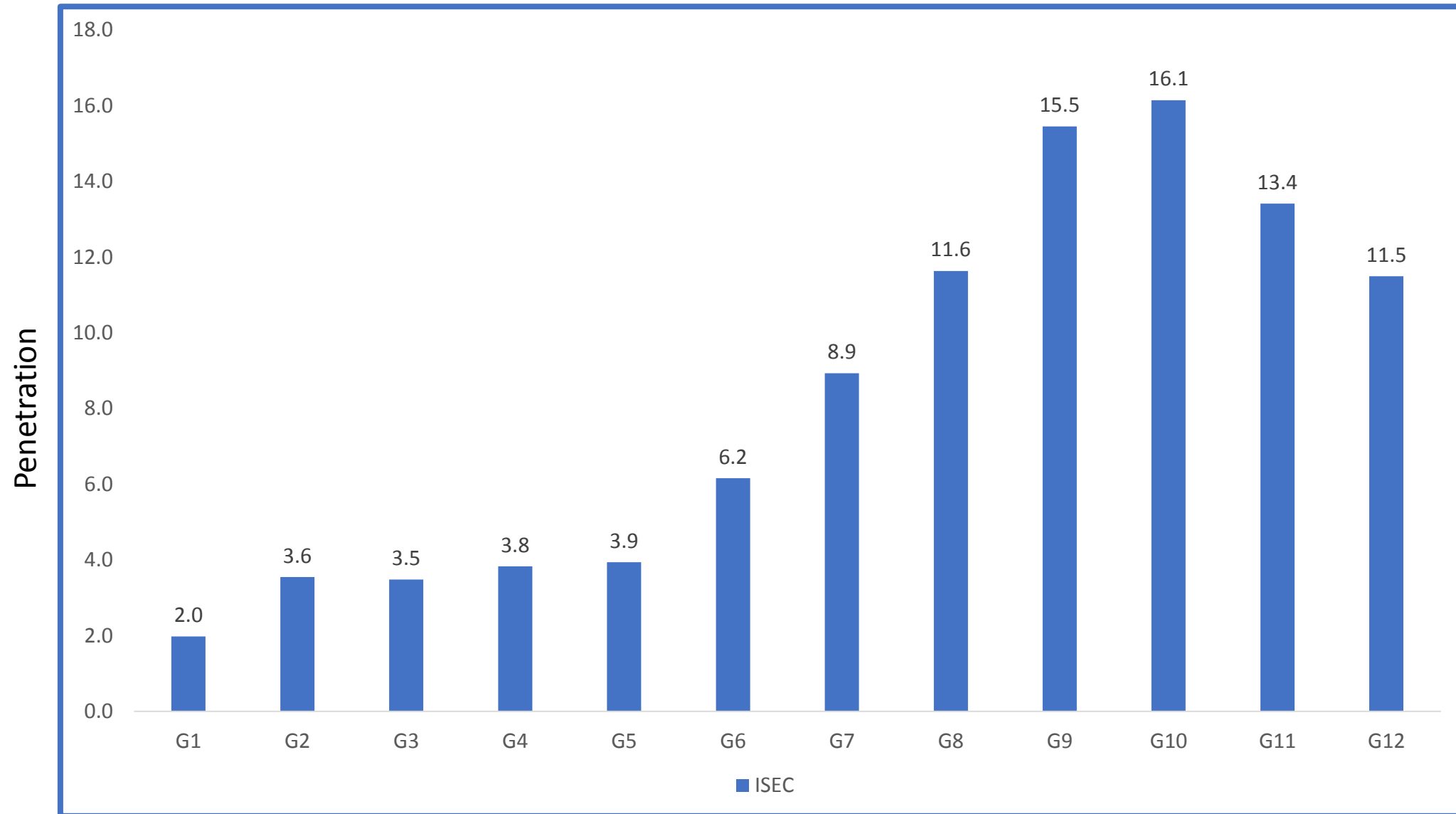
(Source : IRS 2017)



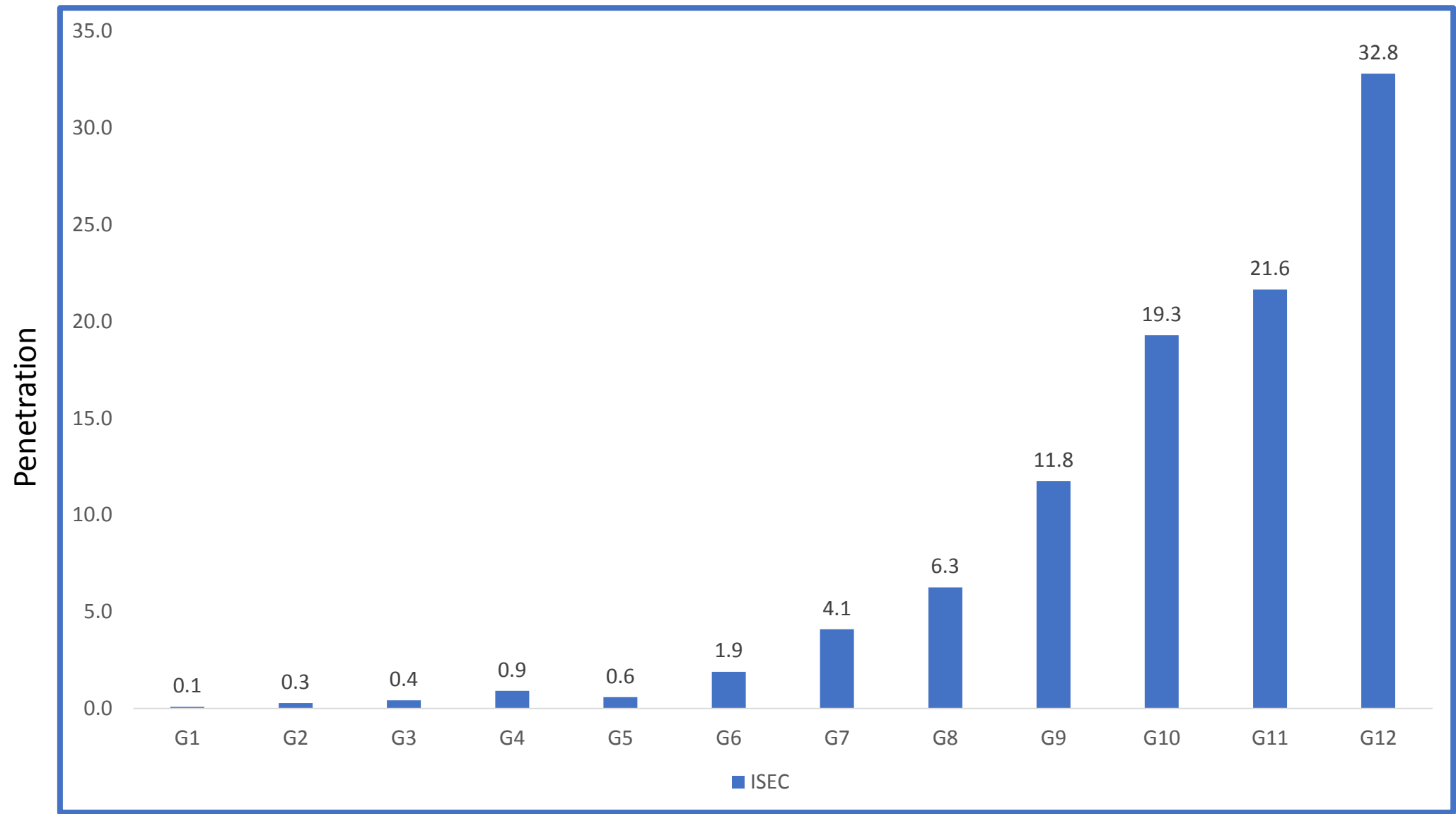
# Universe Structure of ISEC (Source: IRS 2017) – All India Urban + Rural



# Universe Structure of ISEC (Source: IRS 2017) – All India Urban



# Universe Structure of ISEC (Source: IRS 2017) – All India Rural



# The new socio economic classification system

❑ The existing system (NCCS) is based on

- Education of chief earner
- Number of consumer durable items owned by household

❑ The new system will be based on three questions:

- Occupation of chief earner
- Education of highest educated male adult
- Education of highest educated female adult

❑ We ask the following questions:

- What is the occupation of the person who contributes the most to the running of your household)?
  - If Retired/Unemployed ask: What was his/her occupation before he retired/was out of work?
- Among men above 21 years of age, who live in this household, what is the highest that anyone has studied?
- Among women over 21 years, who live in this household, what is the highest that anyone has studied

# This is how the classification will actually work

Occupation of chief earner	Education of best educated female adult								Occupation of chief earner	Education of best educated female adult								
	Education of best educated male adult↓	no female adult	no formal education	upto class 5	class 6 to 9	class 10 to 14	degree regular	degree professional		Education of best educated male adult↓	no female adult	no formal education	upto class 5	class 6 to 9	class 10 to 14	degree regular	degree professional	
Labour	no male adult		12	12	11	11	10	9	9	Trader	no male adult	11	12	11	10	9	6	5
	no formal education		12	12	11	11	11	10	10		no formal education	11	11	11	10	9	8	8
	upto class 5		12	12	11	11	10	9	9		upto class 5	11	11	10	9	8	8	7
	class 6 to 9		12	11	11	10	10	9	9		class 6 to 9	10	11	10	9	8	7	5
	class 10 to 14		11	11	10	10	9	8	7		class 10 to 14	9	10	9	8	7	5	4
	degree regular		9	10	9	9	8	7	6		degree regular	7	9	8	7	6	3	2
	degree professional		9	10	9	8	7	6	6		degree professional	6	8	6	6	4	2	2
Farmer	no male adult		12	12	11	11	10	9	9	Clerical/sales/supervisory	no male adult	10	12	10	10	8	7	6
	no formal education		12	12	11	11	11	10	10		no formal education	11	11	10	10	10	9	8
	upto class 5		12	12	11	11	10	9	9		upto class 5	11	11	10	9	8	7	7
	class 6 to 9		12	11	11	10	10	9	9		class 6 to 9	10	10	9	9	8	7	6
	class 10 to 14		11	11	10	10	9	8	7		class 10 to 14	8	9	8	8	7	6	4
	degree regular		9	10	9	9	8	7	6		degree regular	7	9	8	7	6	4	3
	degree professional		9	10	9	8	7	6	5		degree professional	6	8	7	6	4	2	2
Worker	no male adult		12	12	11	10	10	8	8	Managerial/professional	no male adult	10	12	10	10	7	5	5
	no formal education		11	11	11	11	10	9	8		no formal education	11	11	10	10	10	8	6
	upto class 5		11	11	10	10	10	9	7		upto class 5	11	11	10	9	8	6	6
	class 6 to 9		11	11	10	9	9	8	7		class 6 to 9	9	9	9	8	7	6	6
	class 10 to 14		10	10	9	9	8	6	6		class 10 to 14	7	9	8	7	5	3	3
	degree regular		8	9	8	8	7	5	4		degree regular	6	8	7	6	4	2	1
	degree professional		8	9	7	7	5	3	3		degree professional	5	7	6	5	3	1	1



<b>NCCS</b>	<b>IRS 2017</b>	
	<b>Mumbai UA</b>	<b>Delhi UA</b>
<b>A1</b>	9.6	19.0
<b>A2</b>	11.2	14.1
<b>A3</b>	14.9	15.4
<b>B1</b>	14.1	12.1
<b>B2</b>	16.1	11.4
<b>C1</b>	15.6	11.2
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<b>E1</b>	0.5	0.4
<b>E2</b>	0.1	0.2
<b>E3</b>	0.1	0.0

<b>ISEC</b>	<b>IRS 2017</b>	
	<b>Mumbai UA</b>	<b>Delhi UA</b>
<b>ISEC-1</b>	3.2	6.1
<b>ISEC-2</b>	5.0	8.4
<b>ISEC-3</b>	4.7	5.6
<b>ISEC-4</b>	4.5	5.4
<b>ISEC-5</b>	4.0	4.3
<b>ISEC-6</b>	7.2	7.1
<b>ISEC-7</b>	10.0	9.3
<b>ISEC-8</b>	13.6	9.5
<b>ISEC-9</b>	16.6	12.2
<b>ISEC-10</b>	15.9	12.9
<b>ISEC-11</b>	9.3	10.7
<b>ISEC-12</b>	6.1	8.6

# High Discrimination on Affluence across Classes

	IRS 2017			
	% HHLDs	% of Aggrg Affluence	Per Capita Affluence	A useful but rare property
	(a)	(b)	(b) / (a)	
ISEC - High	11	24	2.3	~1 / 0.4
ISEC - Upper-Middle	14	21	1.5	~1 / 0.7
ISEC - Middle	31	31	1.0	==
ISEC - Lower-Middle	19	13	0.7	~1 / 1.5
ISEC - Low	25	11	0.4	~1 / 2.3

High = ISEC 1 to ISEC 6

Upper-Middle = ISEC 7-ISEC 8

Middle = ISEC 9-ISEC 10

Lower-Middle = ISEC 11

Low = ISEC 12

# ISEC is Fairly Stable

	IRS 2014	IRS 2017
<b>ISEC - High</b>	11	11
<b>ISEC - Upper-Middle</b>	13	14
<b>ISEC - Middle</b>	29	31
<b>ISEC - Lower-Middle</b>	19	19
<b>ISEC - Low</b>	29	25

**High** = ISEC 1 to ISEC 6

**Upper-Middle** = ISEC 7-ISEC 8

**Middle** = ISEC 9-ISEC 10

**Lower-Middle** = ISEC 11

**Low** = ISEC 12

# ISEC

Indian Socio Economic Classification

- **D**ISCRIMINATION
- **S**TABILITY

# Conclusions...

We believe that we have a good alternative to the present NCCS system:

- Likely to be less volatile
- Is discriminating
- Created for both urban and rural
- Not too difficult to administer: easy to ask as opening questions, easy to answer and record, easy to classify in both paper & pencil and computer aided interviewing

## Next milestones achieved

- ☐ Guidelines for coding occupation and education
- ☐ Feedback from pilots, including face to face and online self-completion

# Acknowledgements

- ❑ Thanks to the Kantar World Panel team for sharing data from KWP 2016-17 database (Manoj Menon, Mamta Kalia, Punit Singh and others)
- ❑ The NCAER study (Indian Human Development Survey) is a special study conducted by the University of Maryland & the National Council of Applied Economic Research (NCAER)
- ❑ Special thanks to Sanjoy Datta Ex- president MRSI and Thomas Puliye, Ex-President MRSI for continuous guidance through the project.
- ❑ Significant support from Mr Mubin Khan (BARC) and Mr Radhesh Uchil (MRUC) by sharing data and analysis from IRS and BARC databases
- ❑ Special thanks to Sandeep Saxena, Director General, MRSI both for continuous involvement and guidance and facilitating coordination with multiple bodies such as MRUC, NCAER, NSSO and Kantar World Panel.

## Thank You