

  
Risk Is Opportunity.™

# **Session 5: US GAAP for International Life Insurers**

**Amsterdam  
November 6-7, 2007**



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**Actuaries**  
Risk Is Opportunity.™

## **Society Of Actuaries International Experience Study (IES)**

**November 6, 2007  
Amsterdam**

***William Horbatt  
Co-Chair of SOA's IES Working Group***



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**AGENDA**

**SOA IES Overview**

“ Beware Greeks Bearing Gifts ”

**SOA Experience Study “Tool”**

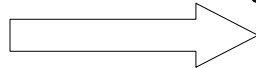


**Origins Of the SOA’s  
International Experience Study**

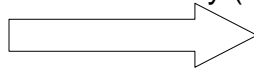


## HISTORY

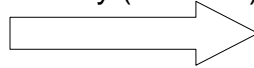
2002 “Brainstorming”



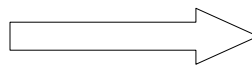
2003 International Survey (Phase I)



2004 International Survey (Phase II)



2005 Country Initiative and IES “Tool” (Phase III)



2006 + Expanding Reach



## PUBLISHED RESULTS

- Publication of Results (updated as data becomes available)
  - <http://soa.org/professional-interests/international/intl-international-experience-study.aspx/>



## LOCAL COUNTRY INITIATIVE

- Expand to include local companies
- “Empower” local country actuaries
- SOA Confidentiality & Technical Support



## Local Country Initiative

- **Local Industry Meetings**
  - Rio de Janeiro – September 2004
  - Warsaw – October 2004
  - Guatemala – August 2005
  - Bangkok / Taipei / Seoul – August 2007
- **SOA International Section Sponsorship**
  - Caribbean Actuarial Association - 2006



## Local Country Initiative – Why Participate?

### Actuarial Incentives - Improved Product Pricing

- Mortality
- Persistency
- Non commission acquisition costs (Agents)
- Financial assumptions



## Local Country Initiative – Why Participate?

### Accounting Incentives

- **International Accounting Standards (IFRS & EEV)**
  - Loss Recognition Testing
  - Embedded Value Assumptions
  - Fair Value (“mark to model”)
- **US GAAP**
  - SFAS 60 Era Assumptions
  - SFAS 97 / 120 Dynamic Assumptions
  - Loss Recognition Testing



## Local Country Initiative – Why Participate?

### Management Incentives

- **ROI**
  - Agent Training Allowances
- **Competitive Benchmarking**
  - Expected values
  - Deviations within “normal” range
- **Strategic Planning**
  - New market entrance
  - M&A pre-due diligence



## Local Country Initiative – Why Participate?

- **Regulatory Incentives**
  - Resource for updating valuation tables
  - Solvency II
  - Resource for understanding variability between companies and over time (solvency management)



## Local Company Initiative – Experience Study “Tool”

### An Incentive to Participate

- **Microsoft Access / Excel Program**
- **Joint SOA / Company Sponsorship**
  - ING, MetLife, New York Life, Prudential



## Experience Study “Tool”

- **Technical Advantages**
  - Consistent exposure formulas
  - Uniform Excel output
- **Practical Advantages**
  - Efficiency – actuaries focus on data and analysis
  - “Built in” Data validation tools



# Results International Experience Study



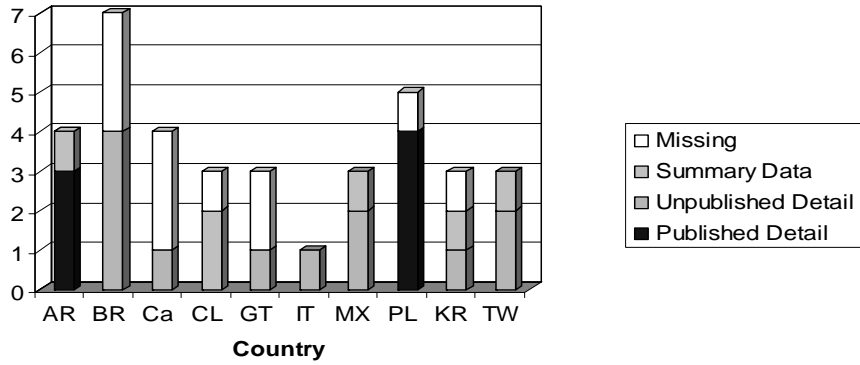
## Contributing Companies (parent only)

- AEGON
- Aspecta
- AIG
- Bradesco
- Brazil Previdenza
- China Life
- Guardian Life
- Generali
- G&T
- ICATU Hartford
- ING
- Mass Mutual
- MetLife
- NY Life
- Occidente
- Pru (US)
- Prudential PLC (UK)
- Winterthur
- Zurich



## Work in Process – Company Progress

**Contributing Companies**



## In Depth Country Studies

**ARGENTINA**



## In Depth Country Studies Argentina

- Peso Devaluation



Study Policy Counts Only

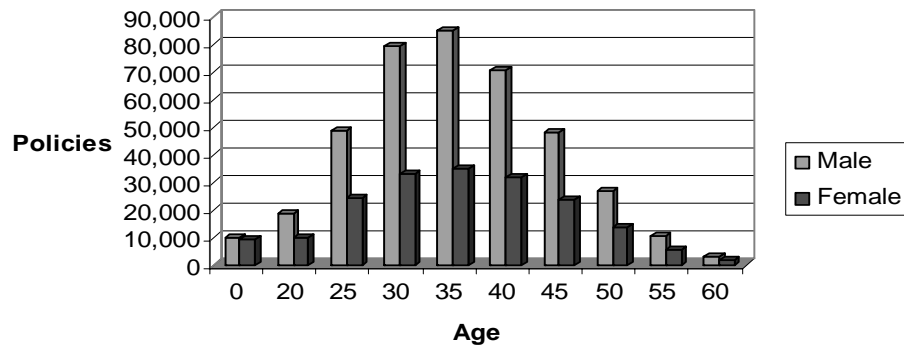
Studied

- Mortality
- Persistency
- Agent Retention



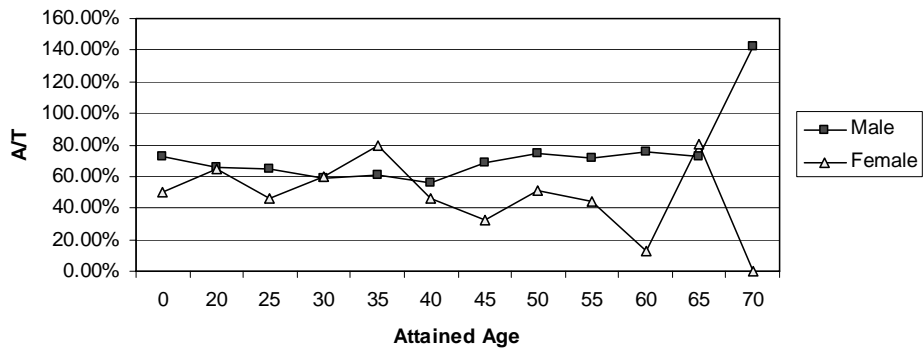
## In Depth Country Studies Argentina Mortality Exposure

Policies Exposed



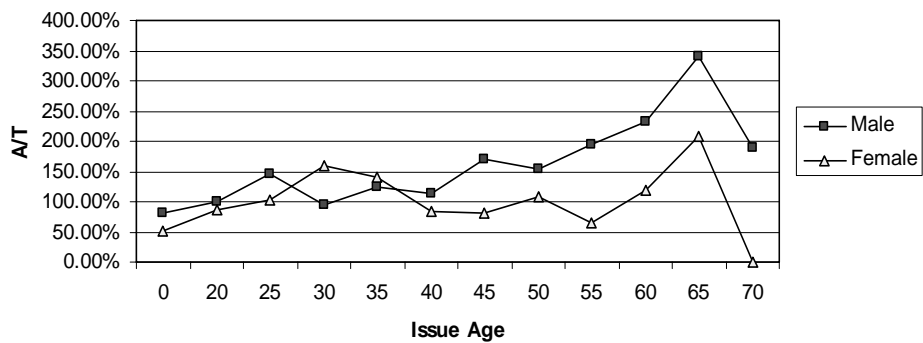
# In Depth Country Studies Argentina Mortality

A/T Mortality (Ultimate2001 VBT)

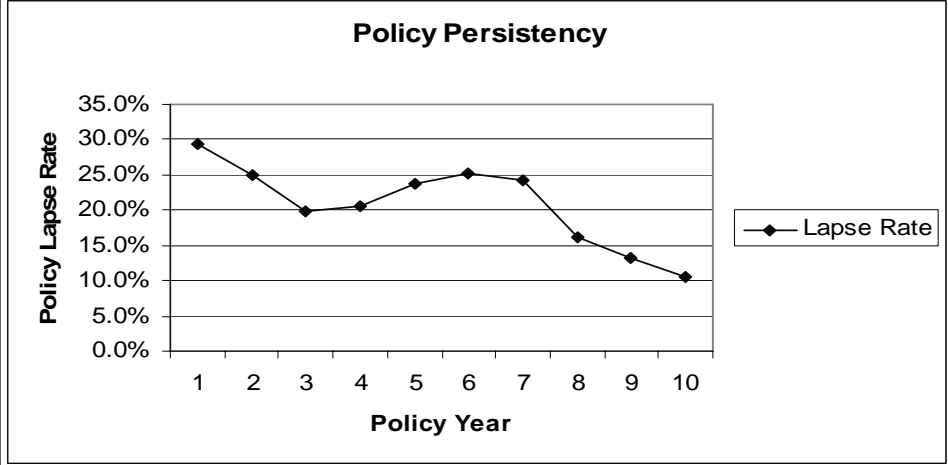


# In Depth Country Studies Argentina Mortality

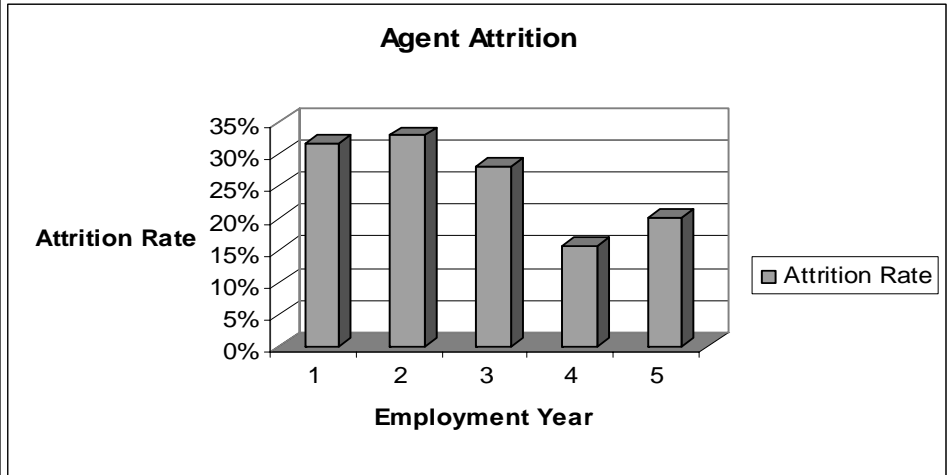
A/T Mortality (Select 2001 VBT)



# In Depth Country Studies Argentina Persistency



# In Depth Country Studies Argentina Agent Retention




## In Depth Country Studies

### POLAND

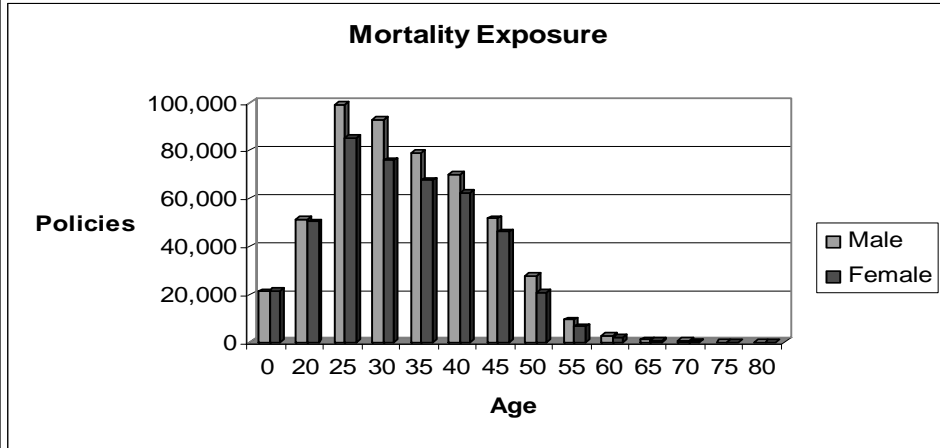


## In Depth Country Studies Poland

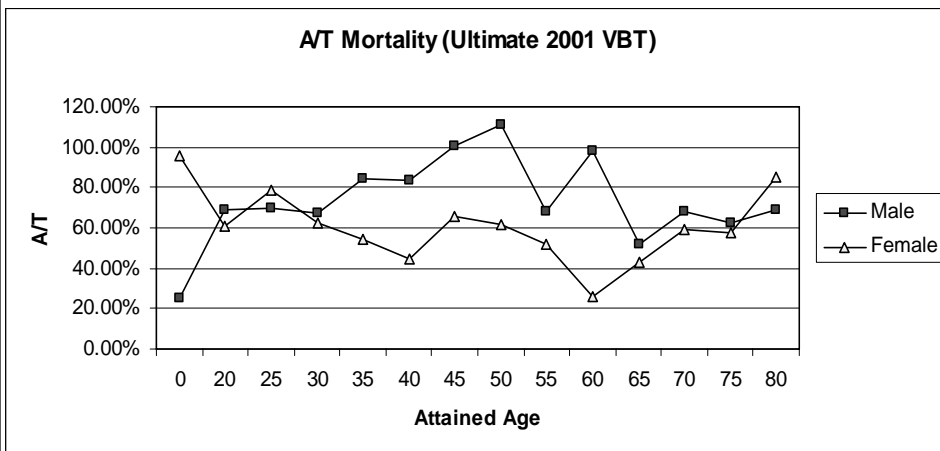
- Studied
  - Mortality (policy  insurance)
  - Persistency (policy)
- Lines of business
  - Studied – individual risk/savings
  - Plan to study –
    - individual risk separate from savings
    - Group life



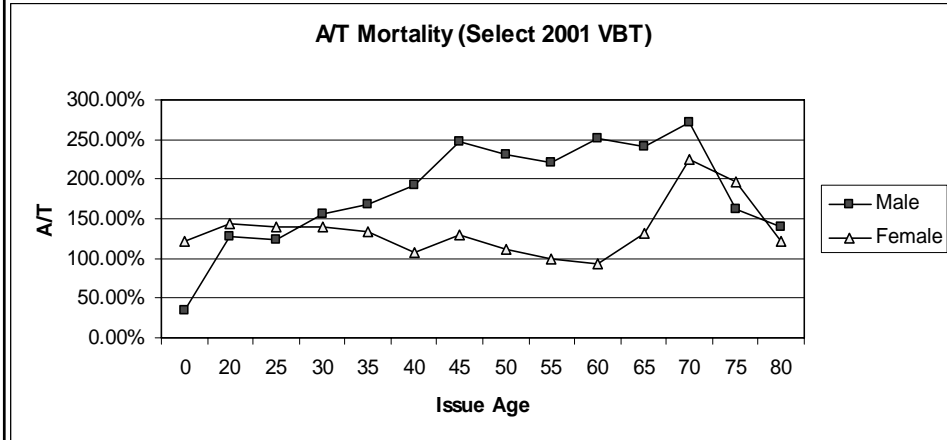
# In Depth Country Studies Poland Mortality Exposure



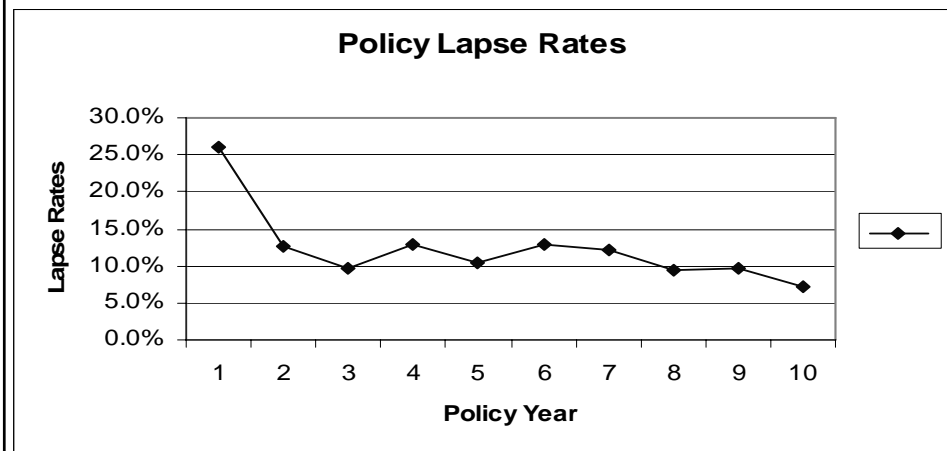
# In Depth Country Studies Poland Mortality



## In Depth Country Studies Poland Mortality with Selection



## In Depth Country Studies Poland Persistency

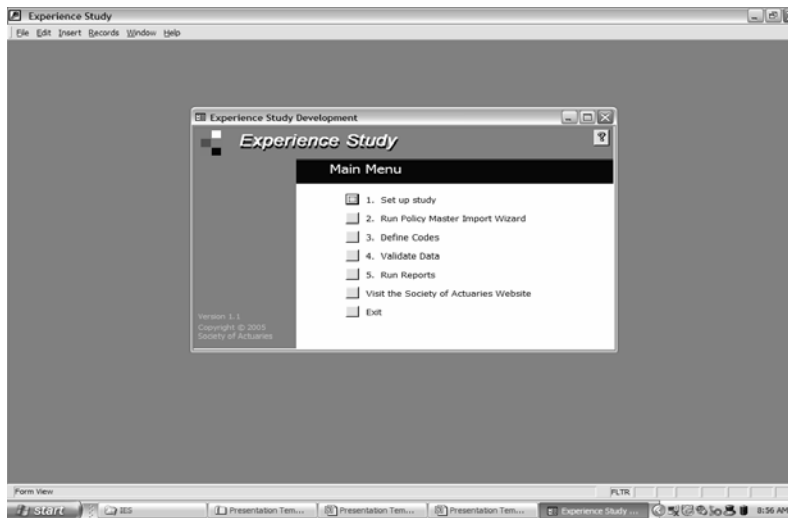


## IES Microsoft Access / Excel “Tool”

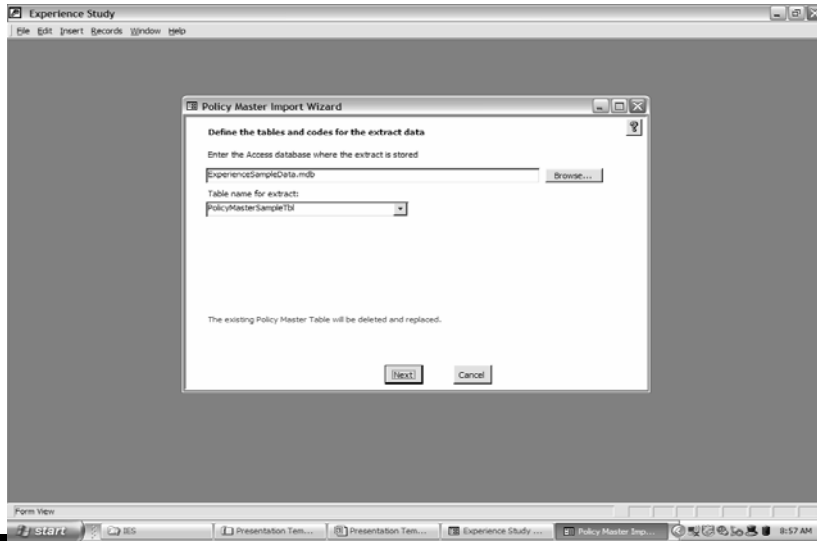
### DEMONSTRATION



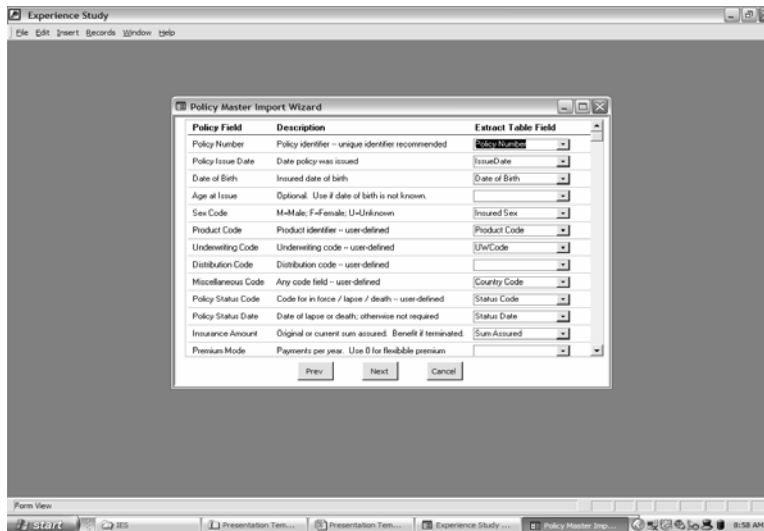
## Main Menu



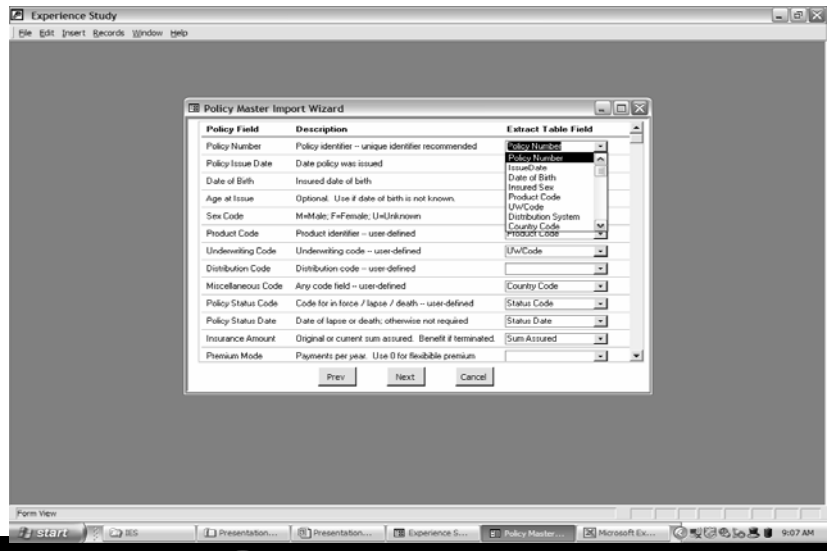
# Selecting Data File to Input



# Mapping Data Fields



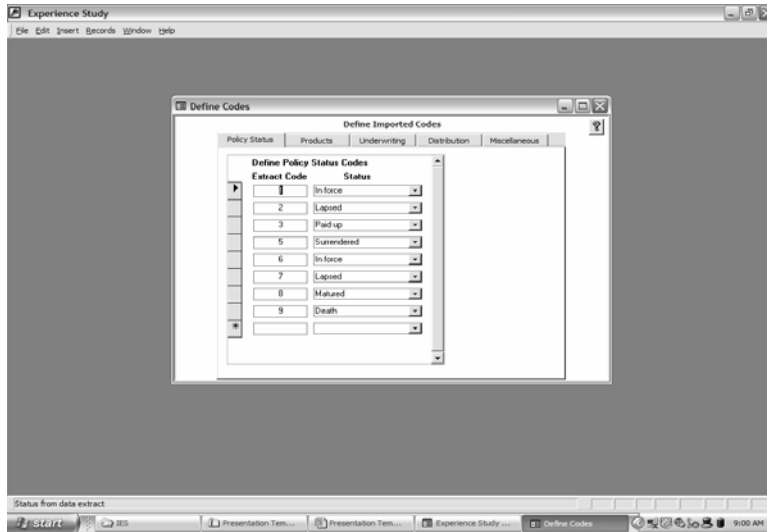
# Selecting Data Field Definitions



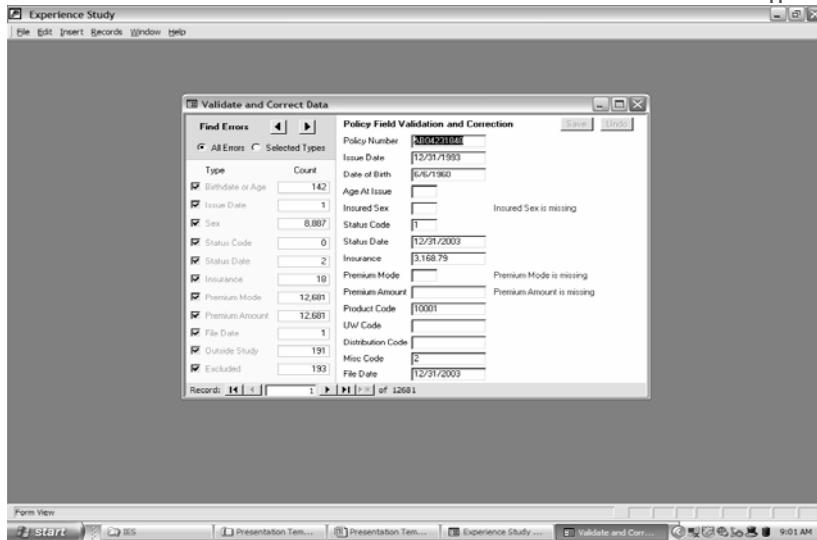
# Error Messages



# Mapping Field Codes



# Data Validation



# Mortality Report Request

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# Mortality Report (Excel)

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From	To	Exposure	Actual Claims	Actual Claim Rate	Expected Claims	Tabular Claim Rate	Actual / Tabular
0	19	1,774	0	0.00%	1	0.00%	0.00%
20	24	706	0	0.00%	1	0.14%	0.00%
25	29	1,233	0	0.00%	1	0.12%	0.00%
30	34	2,032	0	0.00%	2	0.11%	0.00%
35	39	2,793	1	0.04%	4	0.12%	26.64%
40	44	3,305	4	0.12%	8	0.20%	59.32%
45	49	4,343	11	0.26%	19	0.38%	68.69%
50	54	6,350	30	0.47%	36	0.57%	79.27%
55	59	8,494	51	0.60%	45	0.53%	112.77%
60	64	4,797	34	0.72%	33	0.64%	114.47%
65	69	5,176	51	1.00%	39	0.75%	133.33%
70	74	2,501	25	1.00%	39	0.75%	133.33%
75	79	1,682	57	3.42%	304	1.77%	193.22%
80	85	1,662	100	6.02%	206	1.24%	48.55%
Unknown		300	-	0.00%	0	0.00%	
Total		43,940	302	0.73%	724	1.65%	44.54%



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# Input Data Matrices



Microsoft Excel - ExperienceStudy1

File Edit View Insert Format Tools Data Window Help

Summary/SCS2 & "Exposures"

A	B	C	D	E	F	G	H	I	J	K	L
1	Mortality		Policy Count								
2	Exposures		Policy Year →								
3	Age at Issue	Total	1	2	3	4	5	6	7	8	9
4	Total	43,948	5,748	5,815	5,836	5,565	5,044	4,530	3,954	2,916	1.1
5	0	74	16	14	12	10	7	6	5	3	
6	1	96	18	19	14	12	9	7	3	3	
7	2	68	14	16	15	10	6	5	2	0	
8	3	66	13	14	15	11	6	5	2	0	
9	4	57	10	12	12	9	6	5	2		
10	5	46	11	11	10	7	4	2	1	0	
11	6	130	21	25	26	20	15	12	6	3	
12	7	68	13	12	12	11	7	4	3	2	
13	8	102	15	18	20	13	11	9	6	3	
14	9	68	11	12	13	9	7	5	3	2	
15	10	88	15	19	17	14	10	8	3	2	
16	11	89	14	16	15	13	11	10	6	3	
17	12	140	20	22	21	17	16	17	11	7	
18	13	67	8	9	9	6	6	5	4	5	
19	14	99	12	13	15	13	11	11	10	6	
20	15	110	15	15	14	13	13	13	11	9	
21	16	119	10	15	18	14	16	19	13	7	
22	17	77	12	14	13	10	7	7	5	4	
23	18	122	14	15	16	14	13	12	10	8	
24	19	97	13	16	16	15	13	10	6	4	
25	20	144	18	22	23	23	20	18	13	7	
26	21	87	11	8	9	9	9	10	10	7	
27	22	116	16	17	16	18	15	13	8	5	
28	23	134	16	20	20	17	18	15	12	8	
29	24	224	22	33	34	33	32	30	18	13	
30	25	182	25	28	25	24	22	18	13	11	
31	26	237	22	25	29	34	31	27	23	18	
32	27	275	33	36	38	30	27	27	27	22	
33	28	271	38	40	37	34	29	27	22	14	
34	29	149	33	38	34	36	31	21	17	15	

Ready



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# Next Steps International Experience Study



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## Next Steps Geographical Expansion

<u>Current</u>	<u>Future?</u>
Argentina	Bolivia
Brazil	China
Caribbean	Hong Kong
Chile *	Hungary
Guatemala	India
Mexico *	Indonesia
Poland	Peru
So. Korea *	Philippines
Taiwan *	Venezuela



## Next Steps Scope Expansion

<u>Current</u>	<u>Future?</u>
Mortality	Expenses
Persistency	
Agent Retention	
Agent Productivity	

*Key Financial Assumptions*



## Next Steps

- What it takes in your country?
  1. At least 3 interested companies
  2. Your management's support
  3. Microsoft Access skills
  4. Curiosity!



## Next Steps - Contacts

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- Bill Horbatt, Chair IESWG
  - [horbatt@actuarialconsortium.com](mailto:horbatt@actuarialconsortium.com)

