Capacity Development for Institutional Research

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Define tomorrow.

UNISA | university of south africa

Context

- Throughout the history of higher education some kind of evidence were required to validate decisions or provide credibility to decisions

- Over time the roles and functions currently attributed to institutional researchers have developed in order to support decision making processes in higher education with some form of evidence basis

- How these can be developed and enhanced form the basis of this presentation

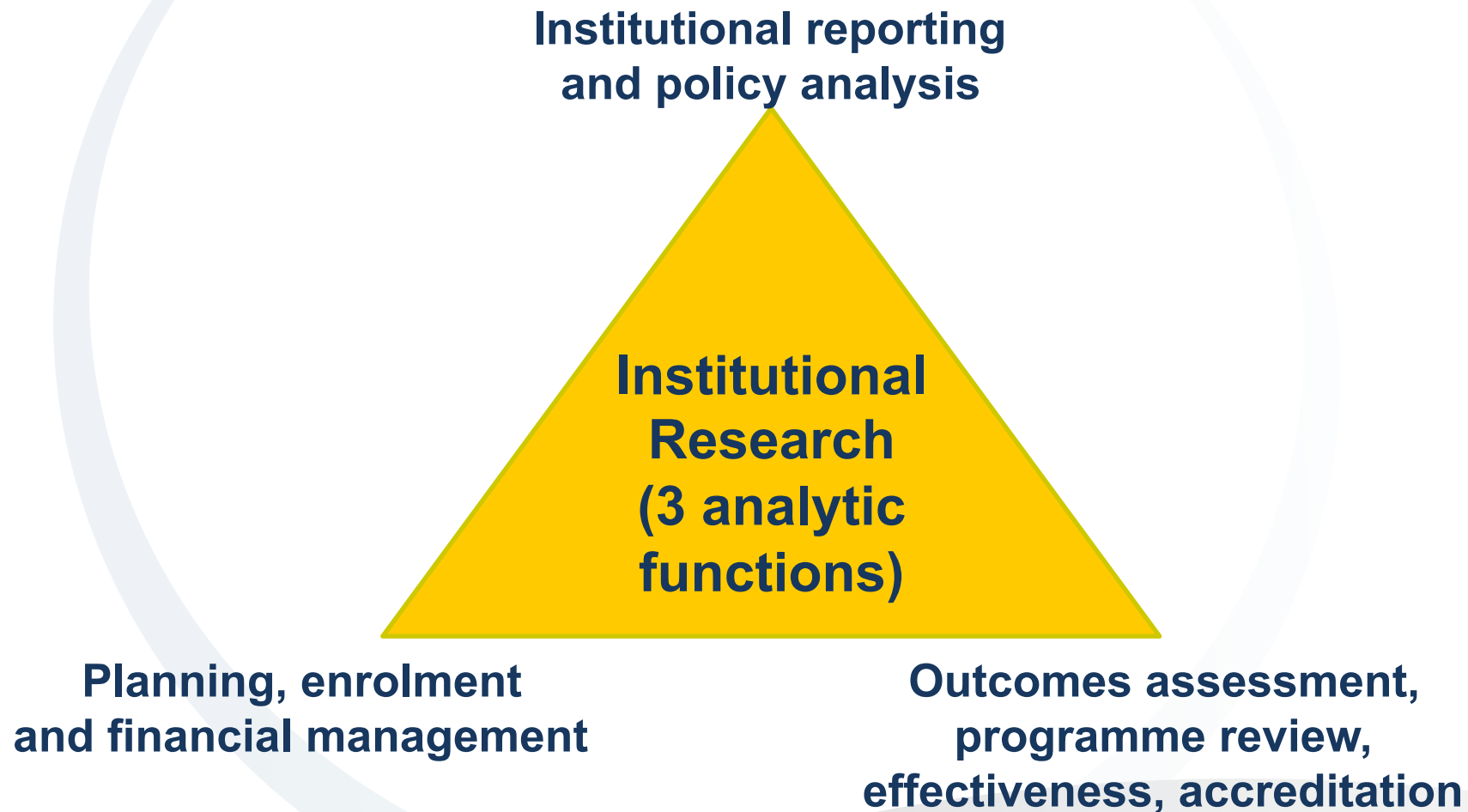# What is professional development in the institutional research domain?

- Determining the content and approach to professional development for institutional researchers is a very challenging task; the broad scope of the endeavour and the diverse functional, organisational, and human factors involved tempt one to assess the challenge as impossible (Chase & Tetlow)

- They also view any attempt at professional development as an improvement over inactivity

- The need for professional development in IR is driven by the ever-changing institutional issues facing institutional researchers

- Professional development should be a balance between theoretical knowledge, experience and critical thinking

The nature of institutional research and what is required to be effective

Some useful pointers

• "The structure and functions of institutional research offices" by Volkwein, Liu and Woodell (2012)

• "*Institutional Research as Organizational Intelligence*" by Fincher (1978)

• "*On the nature of institutional research and the knowledge and skills it requires*" by Terrenzini (1993)

• "*On the nature of institutional research revisited: Plus ça change …?*" by Terrenzini (2013)

The three analytic functions of institutional research / Golden triangle of IR
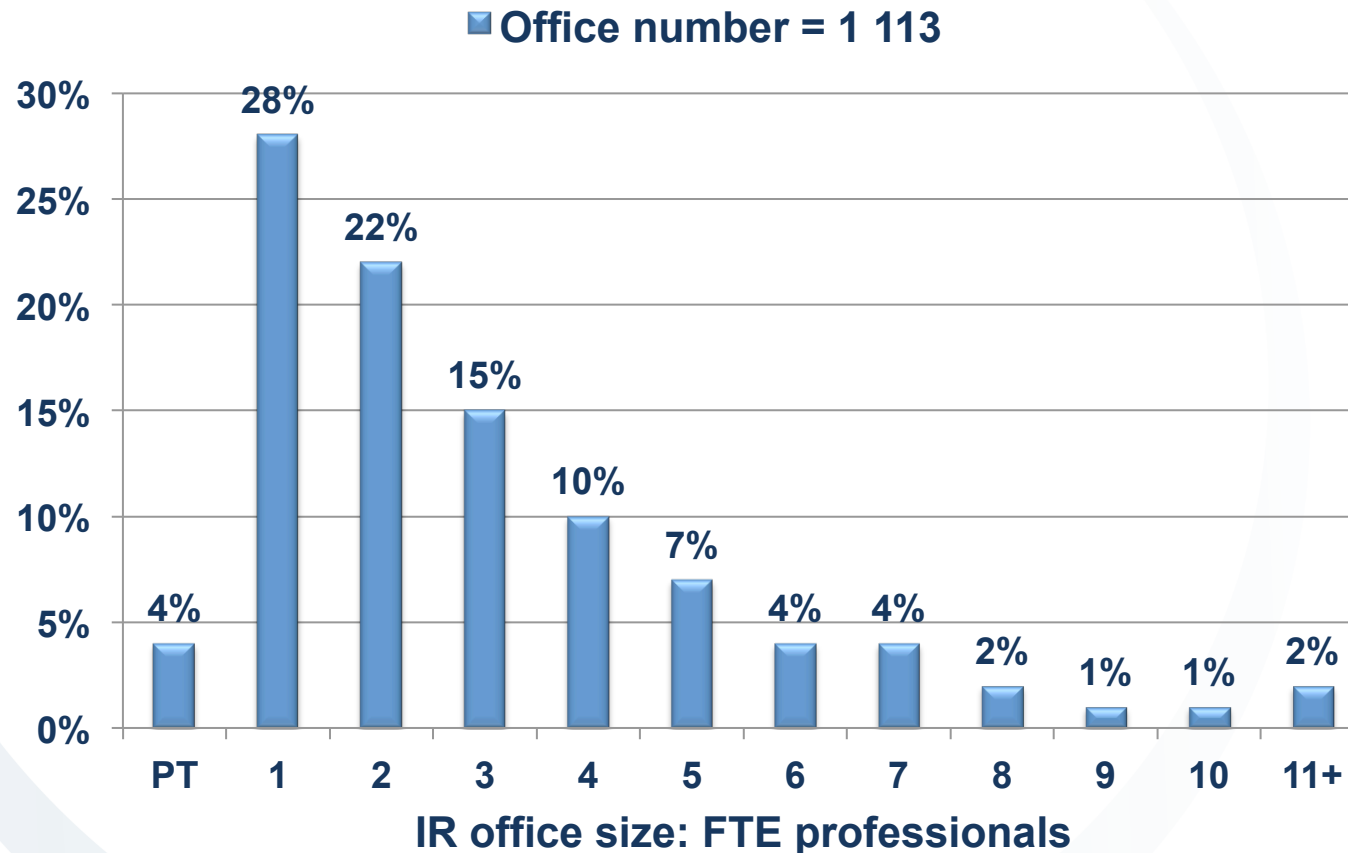
Institutional reporting and policy analysis

Institutional Research (3 analytic functions)

Planning, enrolment and financial management

Outcomes assessment, programme review, effectiveness, accreditation

Watkins & Madison (2005)
Volkwein, Liu & Woodell (2012)

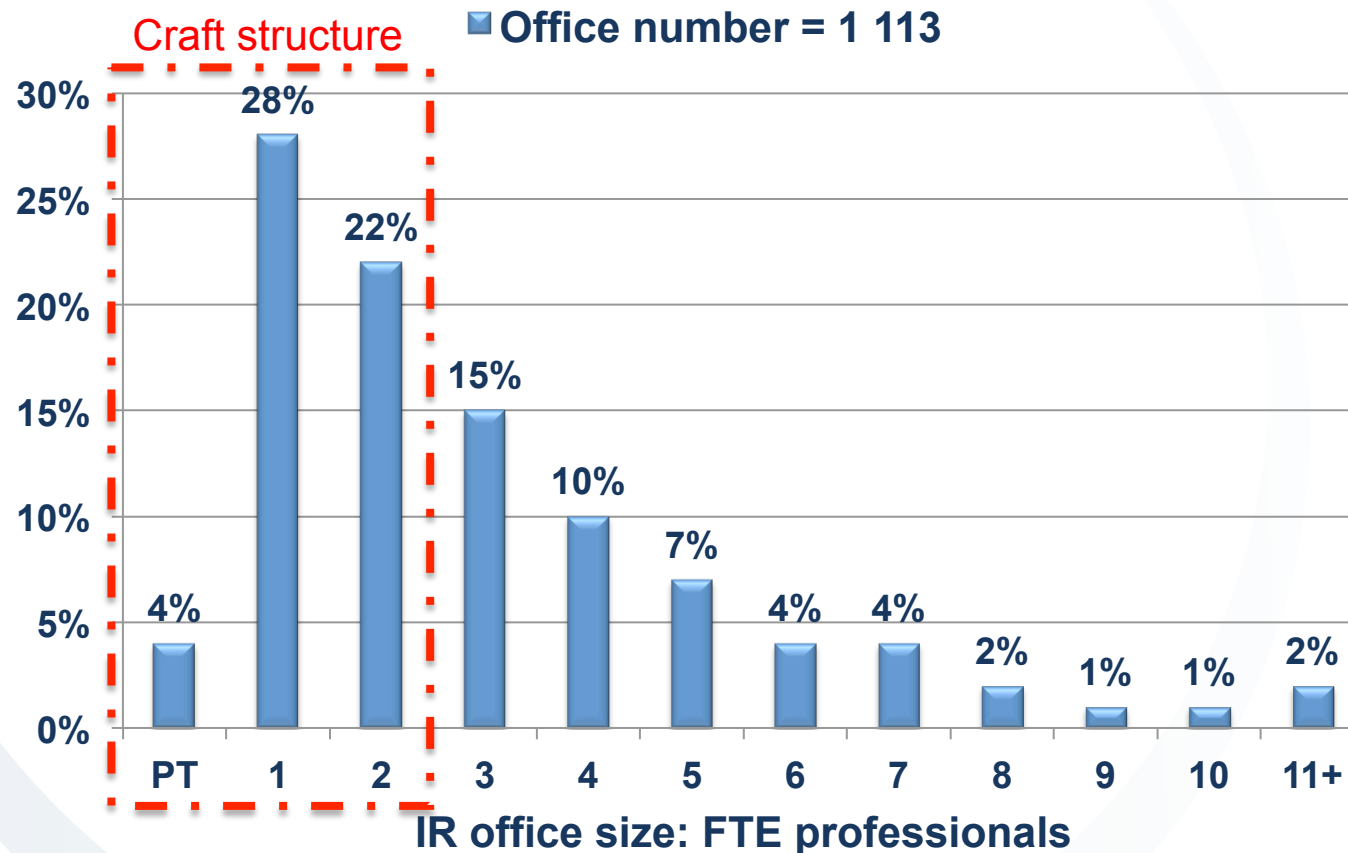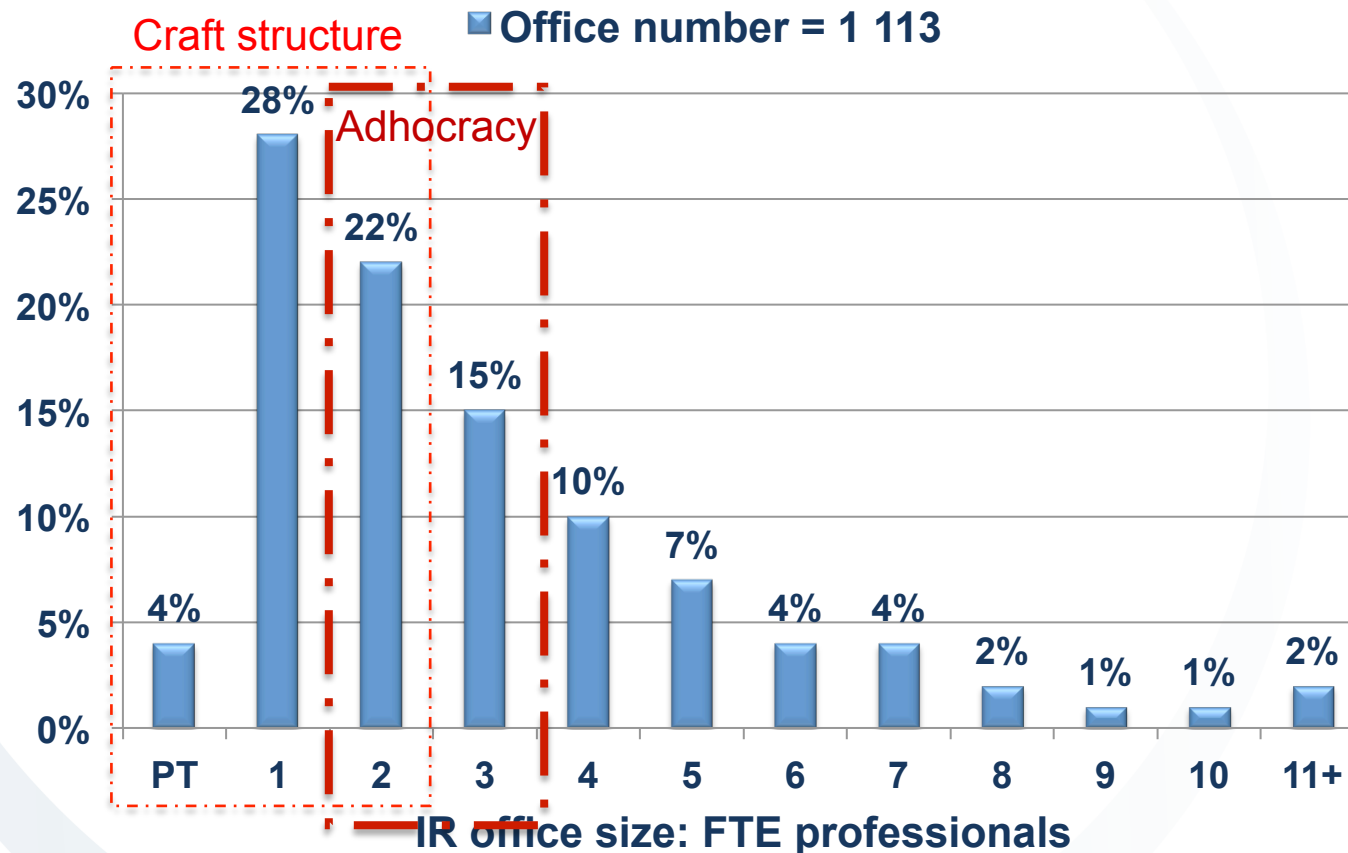# IR office size: FTE professionals National survey in the USA

Average number of professional staff = 3, ranging from 1 to 22

Volkwein, Liu & Woodell (2012)

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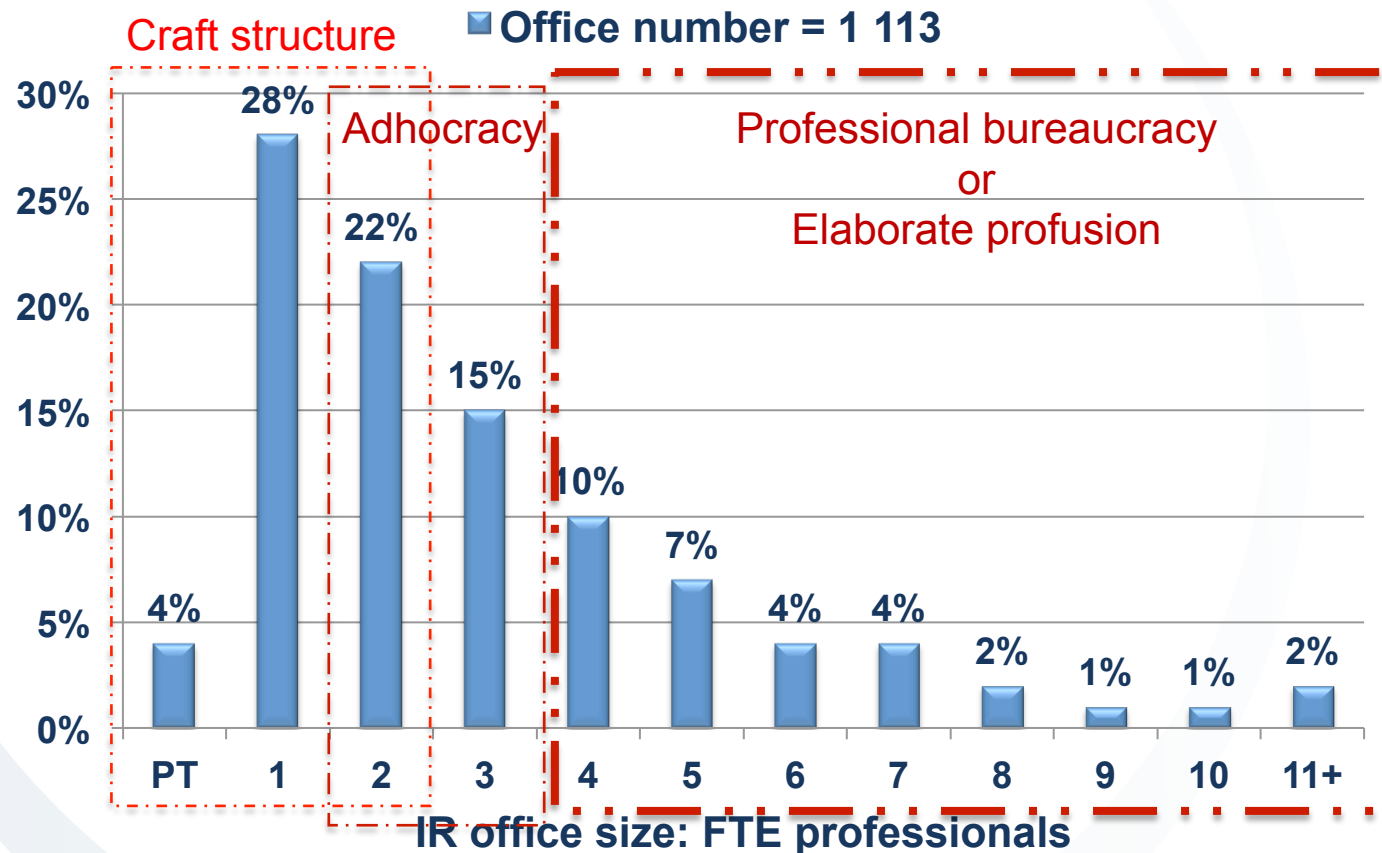# IR office size: FTE professionals National survey in the USA

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Ecology of IR offices

Craft structure (typically 1 and 2 person offices)

- Highly burdened by mandated routine reporting and a modest amount of number crunching
- Enrolments below 5 000 or IR fragmented

Small adhocracies (2 to 3 person offices)

- Intermediate stage of development
- Flat hierarchy with simple division of labour and beginning of specialisation
- Applied research projects, modest policy analysis, routine reporting
- More than a third of all IR offices in the USA

Professional bureaucracies (at least 4 but typically more persons)

- Typically in larger institutions
- More formal arrangement, modest bureaucratic hierarchical structure with division of labour into specialities, typically most sophisticated research projects

Elaborate profusion

- Most common at research universities, especially private research universities
- Decentralised but loosely coordinated, teams of researchers

Volkwein (1990, 2008)

Skills required to conduct cutting-edge institutional research

Leimer & Terkla (2009) addressed three questions related to institutional research.

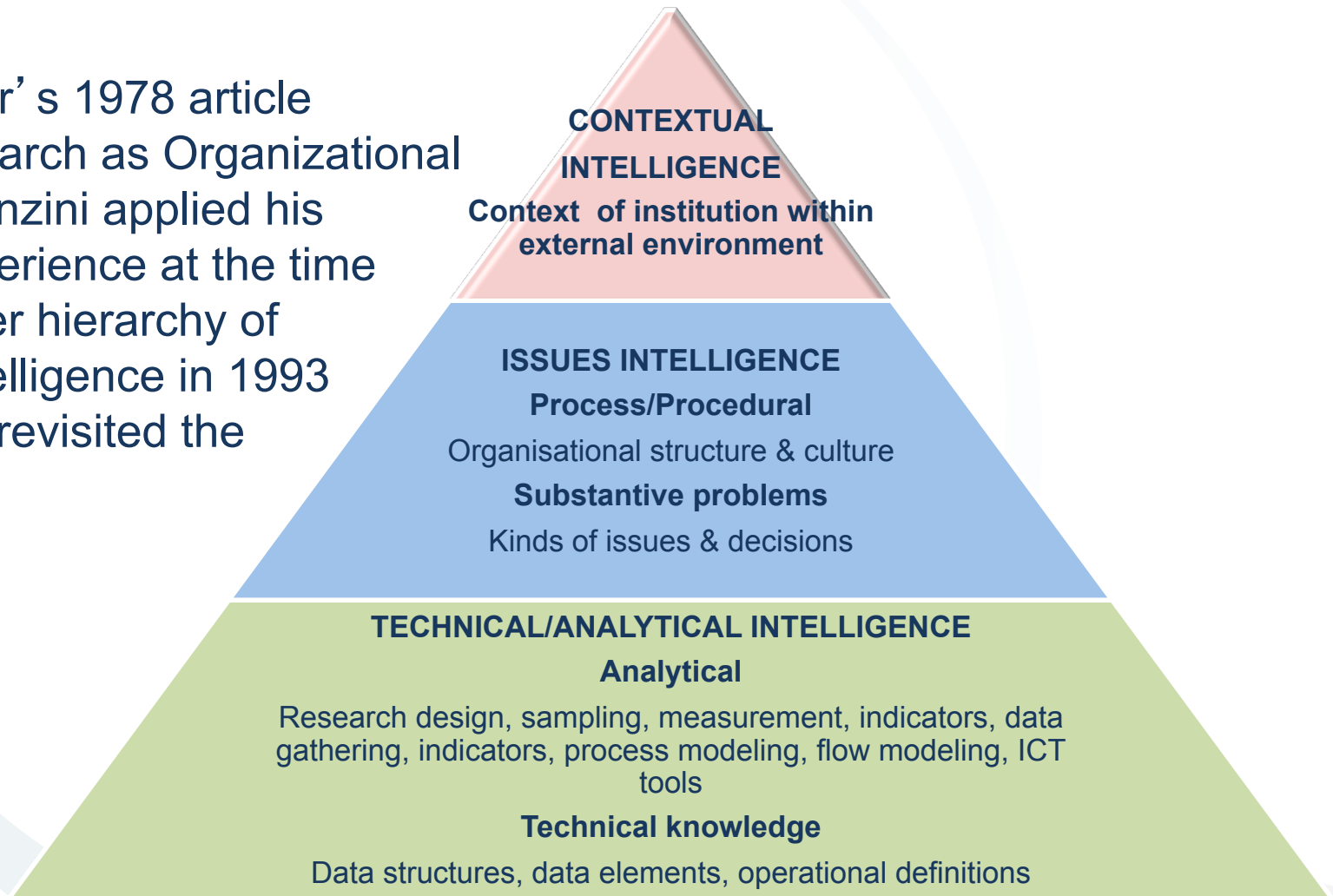Their second question is related to the topic of this paper

What skills do institutional researchers need to conduct cutting-edge institutional research?

IR as organizational intelligence

- Fincher (one of AIR's founders) described institutional research as organizational intelligence (1978)
- The metaphor of organisational intelligence with its implications of various forms inspired Terenzini
- After discussions with Larry Jones, Terenzini came to think of IR as requiring multiple forms and sources of intelligence, each different from the others, and each a necessary but not sufficient part of an integrated hierarchy

Terenzini's 3 tiers of organisational intelligence

Inspired by Fincher's 1978 article "Institutional Research as Organizational Intelligence" Terrenzini applied his 15 years of IR experience at the time to develop his 3-tier hierarchy of Organizational Intelligence in 1993 and subsequently revisited the hierarchy in 2003

CONTEXTUAL INTELLIGENCE

Context of institution within external environment

ISSUES INTELLIGENCE

Process/Procedural

Organisational structure & culture

Substantive problems

Kinds of issues & decisions

TECHNICAL/ANALYTICAL INTELLIGENCE

Analytical

Research design, sampling, measurement, indicators, data gathering, indicators, process modeling, flow modeling, ICT tools

Technical knowledge

Data structures, data elements, operational definitions

(Terenzini, 1993, 2013)

Management information ⟷ **Business intelligence**

The analytic maturity curve

BI Analytic Maturity

Time/technology

Level	Questions
Actionable intelligence	*How can we make things happen/ improve?*
Prediction	*What will happen and why? What is the likely outcome & impact?*
Evaluation	*What was the impact of an initiative? Was the intended outcome achieved?*
Explanation	*Why did it happen/not happen? What factors contribute to outcomes?*
Progress monitoring	*Was the goal/target reached? Were any critical levels reached?*
Analysis/ interpretation	*What does the change signify? What trends are apparent?*
Real-time reporting	*What is happening? What is changing?*
Historical reporting	*What happened? What changed?*

How do the three forms of intelligence match with IR practice?

National study in USA of AIR members (N=601)

- In profession average 7 years, range 1 to 35 years
- Level: Directors 57%, Assist/Associate Directors 10%

Matching of intelligence:

- Technical/Analytical intelligence (70-81%)
- Issues intelligence (53-79%)
- Contextual intelligence (28-66%)

Knight, Moore & Copperthwaite (1997)

Need to shift the perspective
of IR practioners

Need to shift the perspective about who we are and what we do:

- Knowledge creator

- Problem solver

- Communicator

- Connector

- Educator

- Tactician

- Change agent

Need to develop issues and contextual intelligences

Leimer (2012)

How best do we develop these intelligences?

- Dressel (1979) argued that the preparation of institutional researchers (capacity building) should recognise that the conceptions of institutional research have varied between individuals, between institutions and over time because of changing perceptions

- The appropriate preparation of institutional researchers should therefore take this into consideration

Role and contribution of various professional development activities

It is furthermore important to note that capacity development can take various forms, which compliment each other but may overlap:

- Formal qualifications/programs

- Short Learning Programmes

- Training courses offered by external providers

- On the job training

- Professional development initiatives offered by subject associations

Academic programmes v On the job training

- There exist mixed views regarding the usefulness of an academic programmes in IR

- Some authors such as Doi, Fincher and Brackett favour increased academic preparation via academic programmes

- Some authors such as Dressel and Suslow are of the view that IR is too wide to be captured in a single academic programme and that the bulk of capacity development should take place as on the job training

- A further concern is that the size of many IR offices don't allow for the possibility of on the job training

SAAIR's Professional Development initiatives

Apart from the annual conference (previously forum), SAAIR have the following initiatives in place:

• Data and Decisions Academy – online programme with four modules offered in collaboration with AIR and jointly certified

• Pre-conference workshops, e.g. Learning analytics workshop in collaboration with SAHELA

• Institutes and workshops:

  – HEMIS Foundations (including Regional workshop), HEMIS Institute (first HEMIS Institute in 2014 focussed on training)

  – IR Foundations and Institute (first offered in collaboration with AIR in 2004)

  – Quality Institute (since ??)

  – Learning Analytics Institute (since 2015)

Data & Decisions Academy

- A major positive development was the Data & Decisions Academy of AIR which resulted in a significant impact on the institutional research capacity in community colleges and also to some extent in other institutions as a result of the five modules offered online

- Four of these five modules are available to SAAIR members and some have already completed the programme which is jointly certified by AIR and SAAIR

- Positive feedback were received from participants about the usefulness of the programme

Evaluation of events

- The examples that follows serves as illustration of the feedback received

- The analysis will be extended for the chapter to include evaluations up to and including this conference
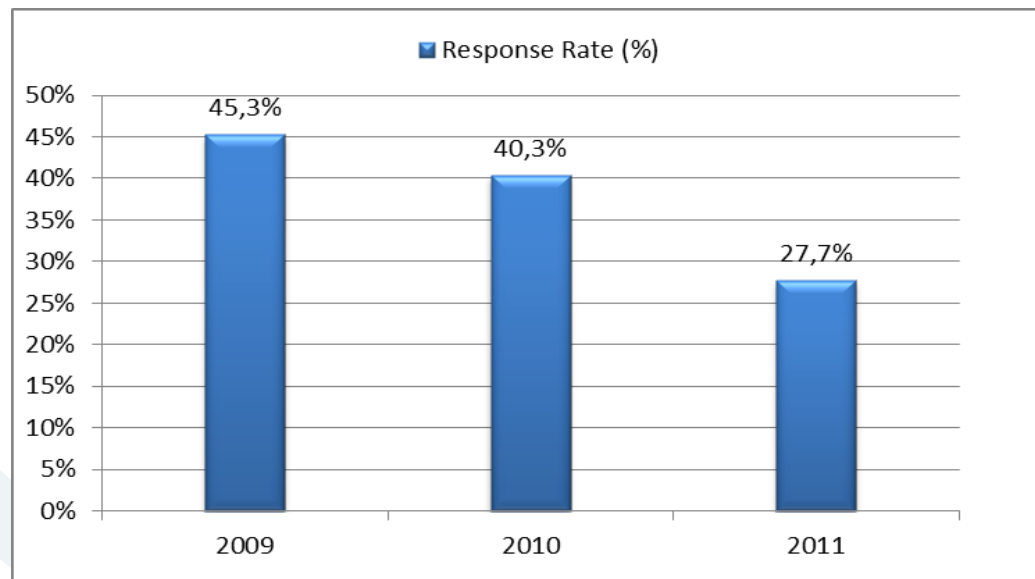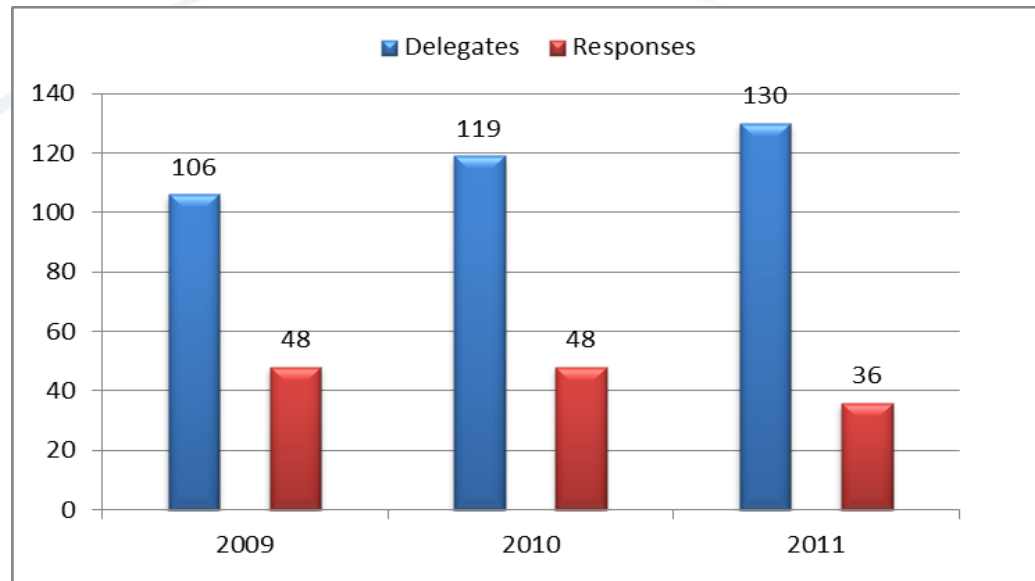
All Presentations - 2009

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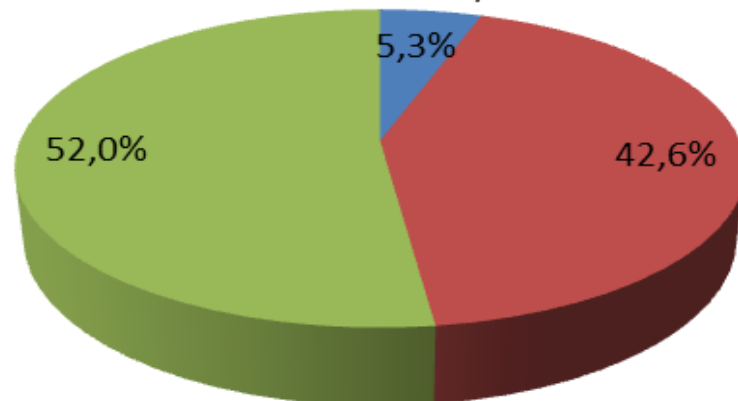
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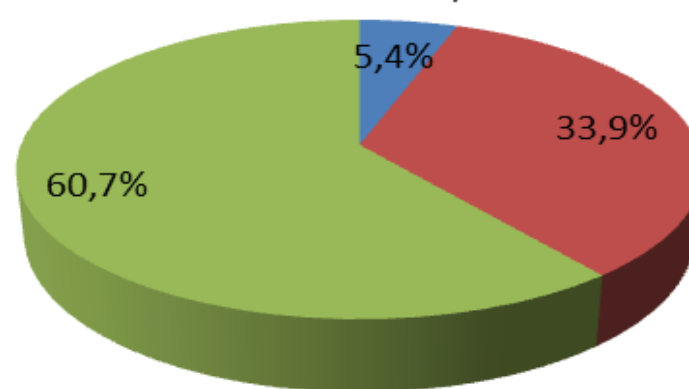
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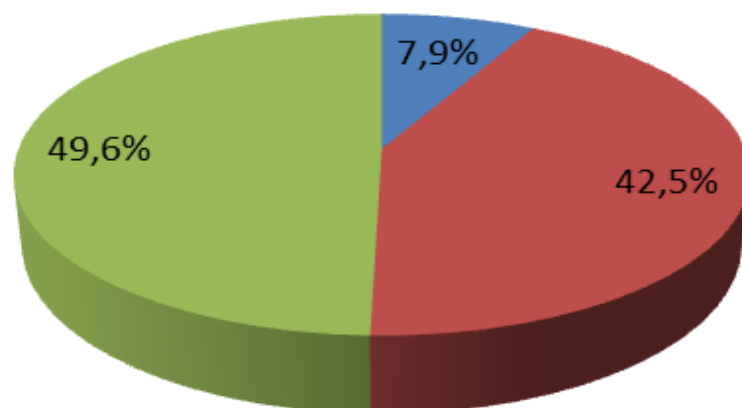
General Evaluation - 2009
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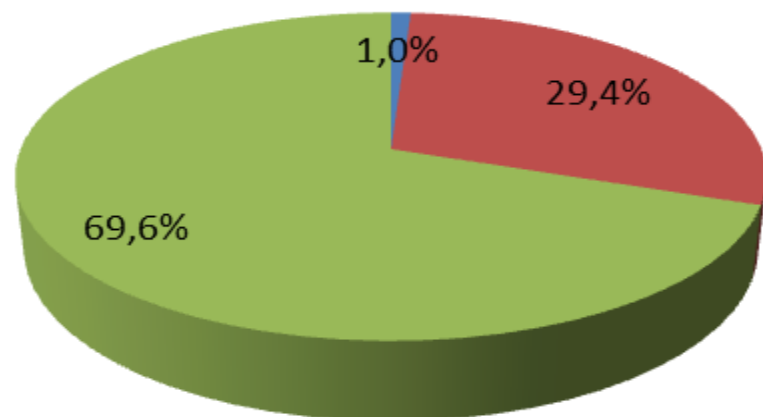
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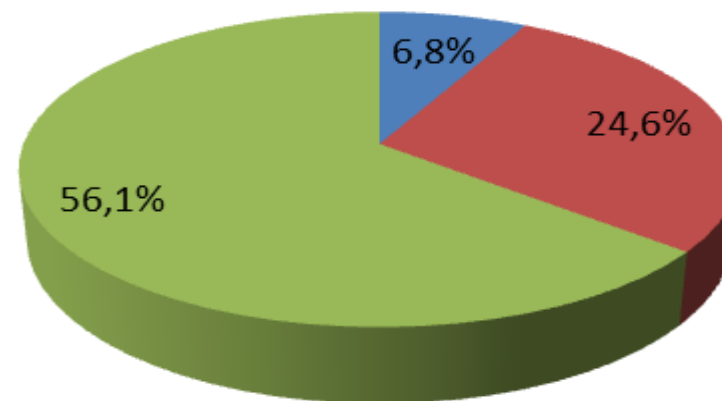
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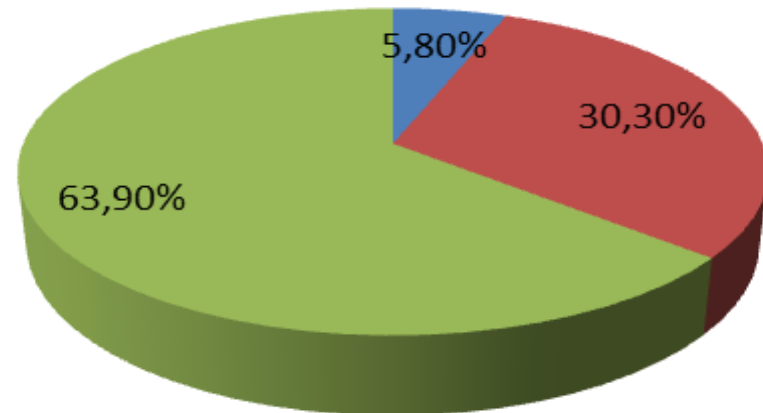
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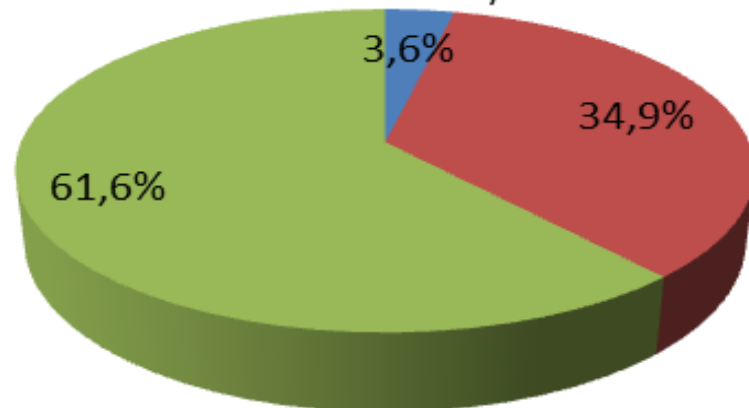
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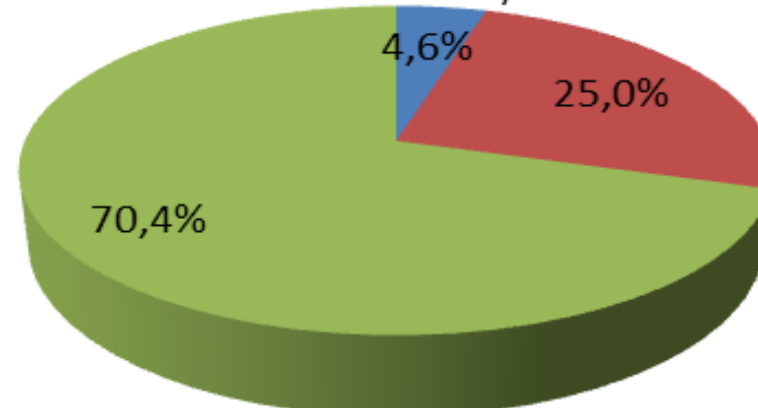
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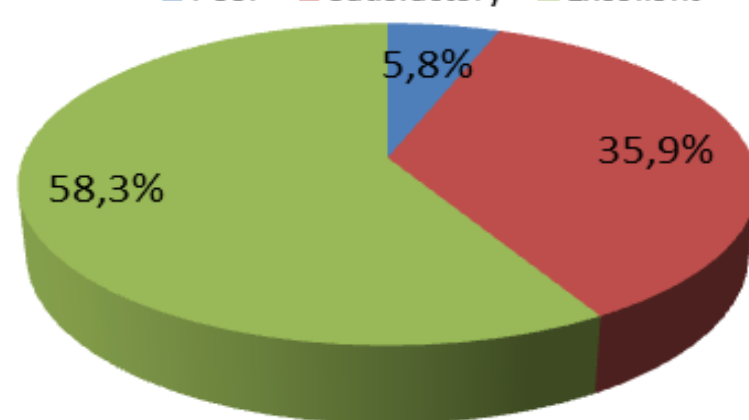
Content - 2009

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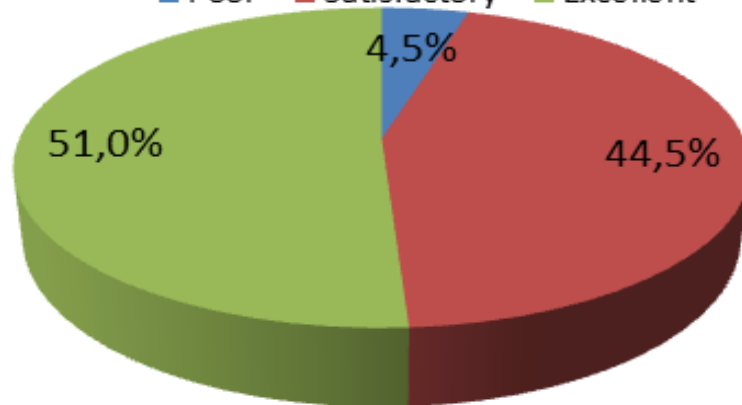
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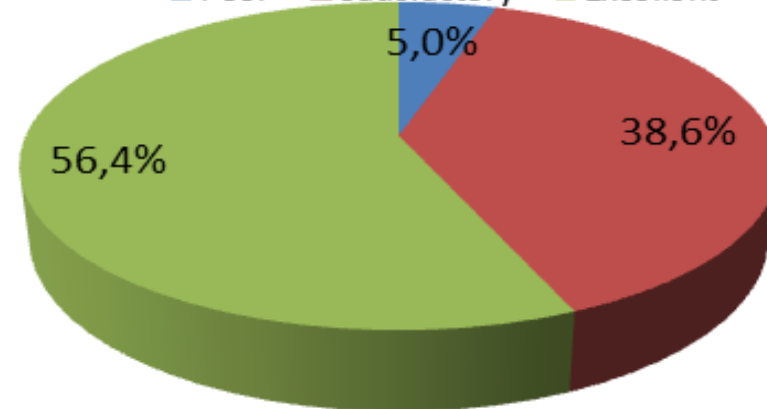
Content - 2011

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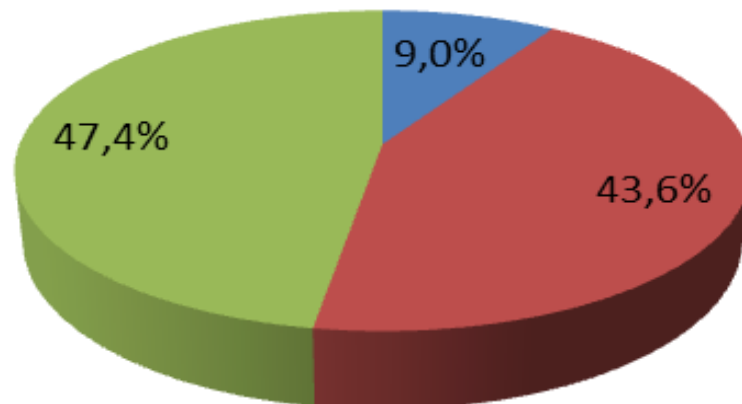
Presentation - 2009

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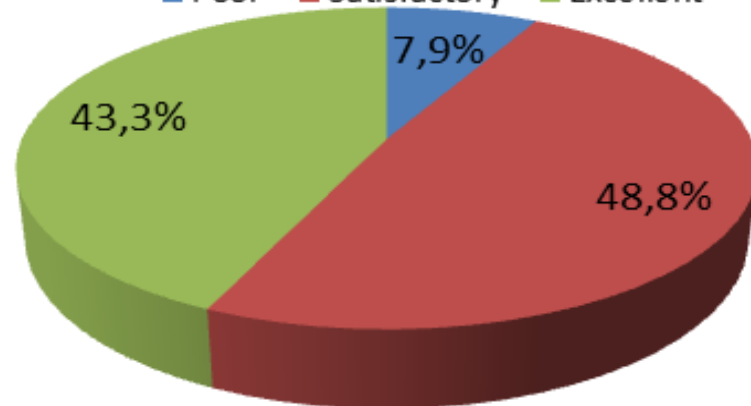
Presentation - 2010

Poor 6,6% · Satisfactory 37,9% · Excellent 55,4%

Presentation - 2011

Poor 9,0% · Satisfactory 48,1% · Excellent 42,9%

Summary of evaluation results

- **Participation in evaluation is on the decline**

  Need some incentives to improve this

- **The organisation of the event is evaluated higher than the presentation sessions**

  Hats off to the organisers

- **Relevance & content of sessions evaluated higher then the delivery of presentations**

  Training, professional development, opportunities

Next steps

Develop Southern African survey

- Investigate professional development needs (current and anticipated) of institutional researchers
- Map current and anticipated needs to organisational intelligence framework
- Attempt to determine gaps in professional development
- Attempt to balance expectations and tensions with the role and capacity of a professional society such as SAAIR
- Attempt to determine what makes professional development effective

Thank you

Define tomorrow.

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