



# Industry practitioners' perceptions of embedded CCNA: A comparative study

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Wintec - SIT





# Aim



- Interview Wintec & SIT students working in the **ICT industry** during/after completing CCNA to determine:
  - What aspects of CCNA are **directly used** in their work?
  - What aspects of CCNA are considered **transferable**?
  - Value of CCNA for **personal career, new employees and employers**?



# Participating Institutes



- **Wintec** School of Information Technology
    - **Urban** city (Waikato region)
    - **Larger** institute/Department
    - Cisco **RA** for CCNA since 2001
    - CCNA embedded into BIT degree and L5 &L6 Dips
  - **SIT** Department of Health, Humanity and Computing
    - **Rural** city (Southland region)
    - **Smaller** institute/Department
    - Cisco **LA** for CCNA since 2010
    - CCNA embedded into BIT degree
- ❖ Southland has had huge growth in telecommunications services (Toland, 2006)



# Wintec Sample



- 18 participants, 22 data samples
- 17 (94%) had completed CCNA4
- 16 (89%) worked full-time while simultaneously studying for CCNA



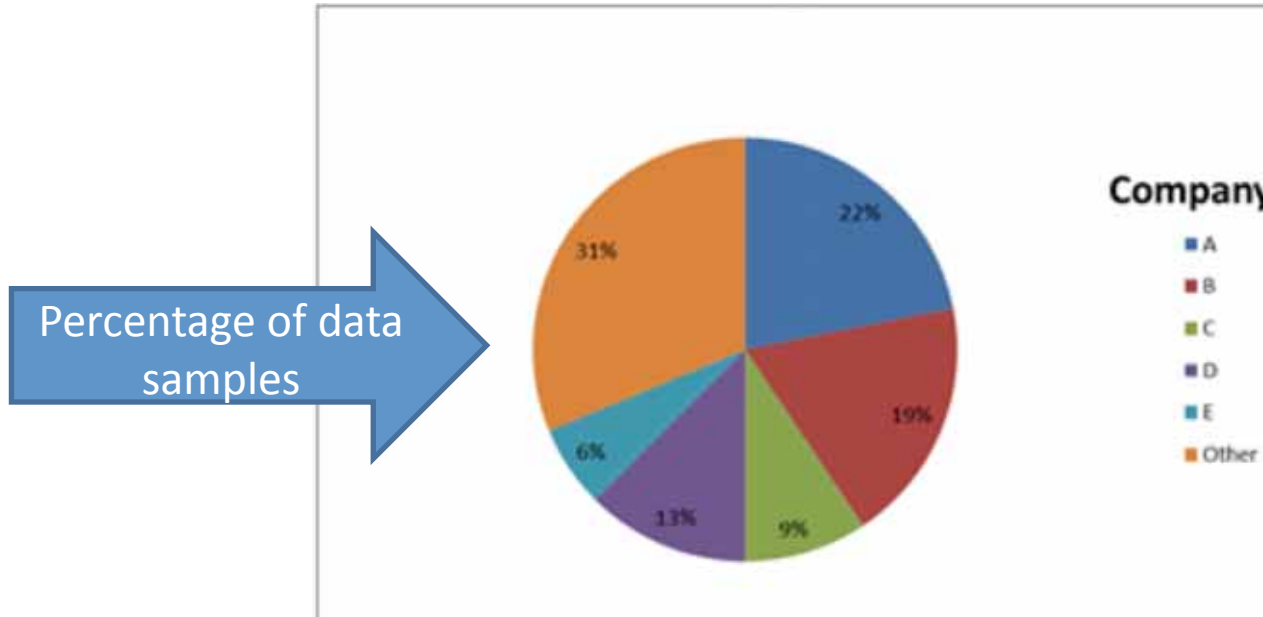
# SIT Sample



- 10 SIT participants
- All remained in the same role
- All had completed the four CCNA modules
- All working full time while studying
- Small sample from both, but includes a variety of organisations and telecommunication related job roles



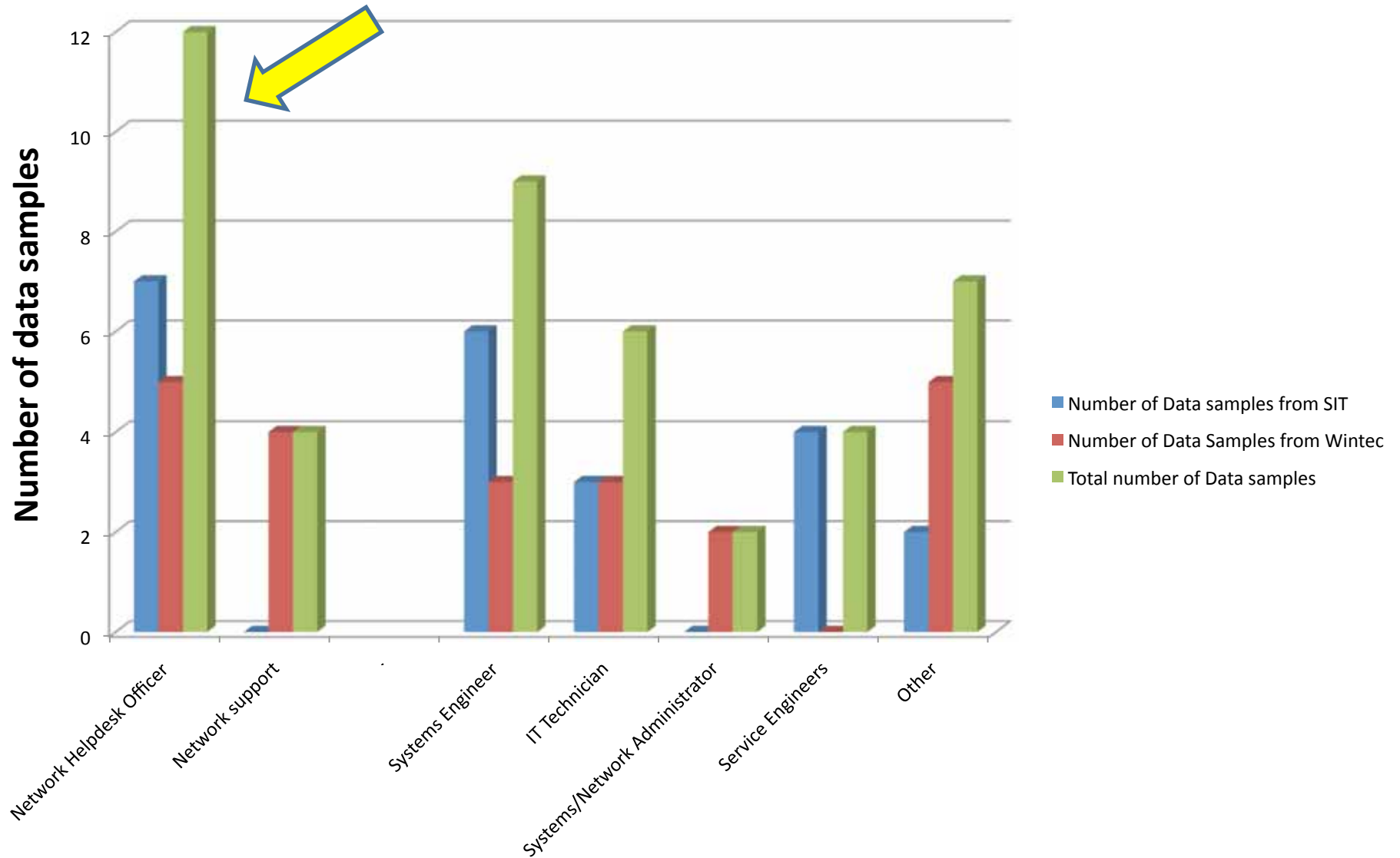
# Employer Distribution



- Companies A, B and C - Hamilton
- Companies D and E - Invercargill

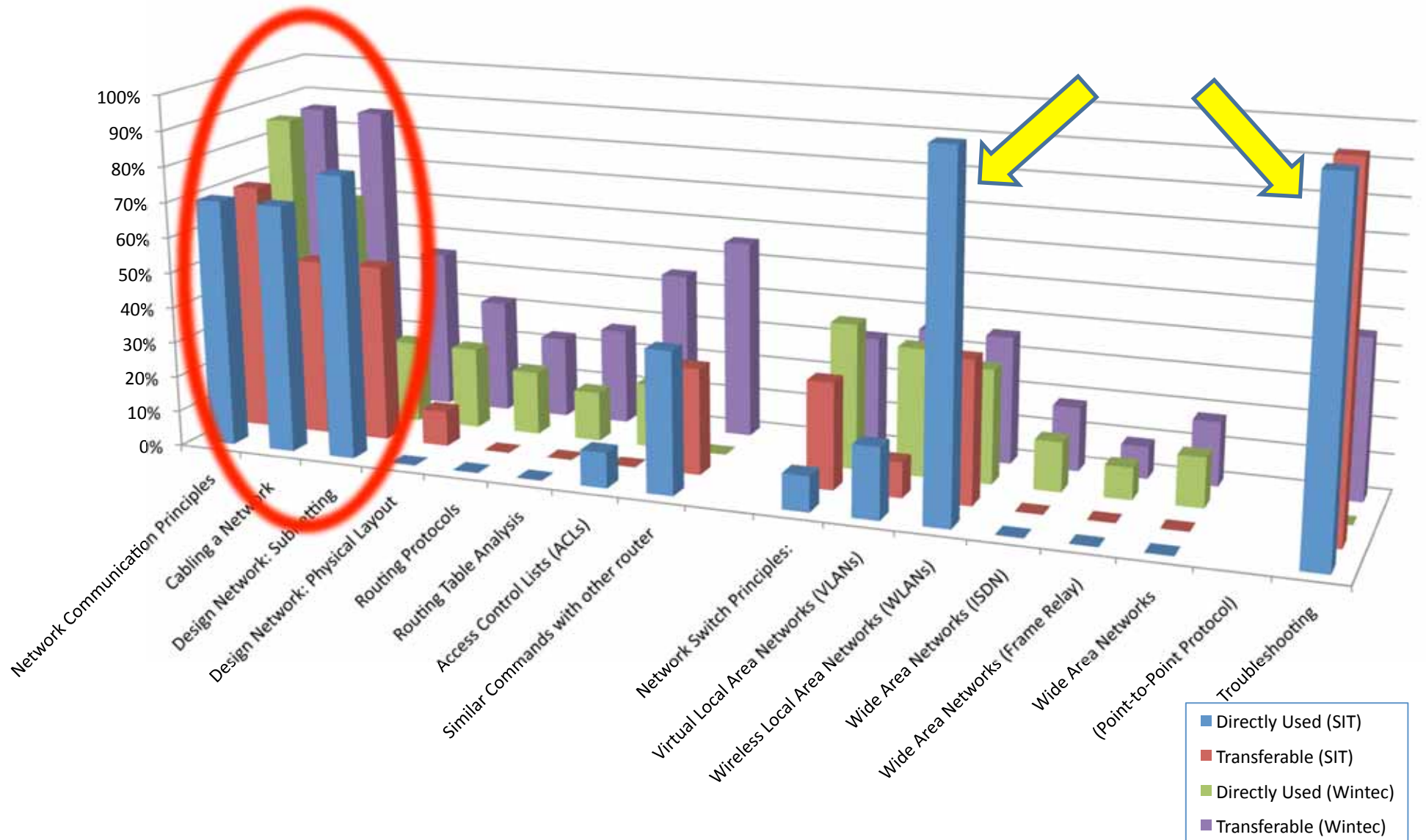


# Employment Roles





# CCNA Course Topics





# Course Topics: Similarities



- Network Communication Principles and Cabling a network scored highly by participants at both institutes
- Whereas the topic of Wide Area Networks (WAN) scored very low



# Course Topics: Differences



- **Troubleshooting** scored highly
  - Formally included in the SIT survey
- **WLANs**
  - Used by all SIT participants
  - Not used much by Wintec participants



# Value perceptions of CCNA



	SIT	Wintec
Average ranking for employees	2.65	3.4
Average ranking for new employees	3.1	3.6

Values shown are on a scale of 1 to 5: 1 being do not see any value and 5 being see great value

- Valued more by Wintec participants
- Both have a higher ranking for new employees



# Career Progression & Employers



- Wintec Participants
  - 56%: useful in **personal career** progression
  - 78%: not a employer requirement, but **strongly recommended** by employer
- SIT Participants
  - 80%: helpful in **personal career** progression
  - 20%: **required for promotion** within the organisation



# CCNA External Exam



- 57% of all participants were planning to sit exam within one year
- 28% of Wintec participants and no SIT participant sat the external exam
- Reasons given:
  - Wanting to **get/refresh knowledge & skills** for use at work
  - **Cost and distance to testing centre** (not local to Invercargill or Hamilton)



# Sampling Bias



- Small number of participants that fit the criteria and available to participate
- All studied CCNA
  - Affects the Value perceptions
- Future work:
  - Larger & more diverse sample
  - Data from more institutes around NZ
  - Interview employers



# Conclusions



- Similarities and differences in course topics
- Value perceptions of CCNA
- Career progression & employers
- CCNA external exam
- Future work: Larger and more diverse sample size



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