New Zealand
ICT
Tertiary Education & Job Series
December 2011

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Note:
Indicates new/significant change
Insights

- **Tertiary ICT Education:**
  - Enrolments increased approx. 10% on 2010 EFTS for the Institutes of Technology & Polytechnics [ITPs] [based on data collected by [CITRENZ]](http://www.citrenz.org)

- **Jobs [Last month ()]:**
  - NZ Seek ICT jobs adverts for the month of December;
    - All NZ fell by 6% (-5%) (Up just 3.4% on December 2010)
    - Auckland down 9.4% (-2%), Wellington down 7.4% (-1%) and Canterbury up a significant 13.3% (-30%)
    - Waikato experienced a 58% increase (-58%)
  - Trademe (all NZ) no change (-6%) (Up 12.4% on December 2010)
Insights

- Seek ICT job adverts for December 2011 have decreased 23% from a peak of 3,127 in July this year.

- However, Seek ICT job advert trends for January to December 2011:
  - Increased 41% for all NZ
  - Increased 49% for Auckland
  - Increased 24% for Wellington
  - Increased 67% for Canterbury
  - Increased 36% for Waikato
Seek IT Job Trends NZ 2011

Source: Seek ICT (Accessed December 2011)
Seek ICT Job Adverts
Monthly Change
for December 2011

Source: Seek ICT (Accessed December 2011)
Seek ICT Job Advert Trends
Year to December 2011

Source: Seek ICT (Accessed December 2011)
2007 Peak before recession

ICT Job Adverts NZ
Seek & Trademe

Source: Seek ICT (Accessed December 2011)
Seek ICT Job Adverts
Year to December
2011

<table>
<thead>
<tr>
<th></th>
<th>Auckland</th>
<th>Waikato</th>
<th>Wellington</th>
<th>Canterbury</th>
<th>Total NZ</th>
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<tr>
<td>Dec-11</td>
<td>1430</td>
<td>57</td>
<td>661</td>
<td>205</td>
<td>2416</td>
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<td>Nov-11</td>
<td>1579</td>
<td>36</td>
<td>714</td>
<td>181</td>
<td>2568</td>
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<tr>
<td>Oct-11</td>
<td>1612</td>
<td>57</td>
<td>723</td>
<td>236</td>
<td>2692</td>
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<tr>
<td>Sep-11</td>
<td>1629</td>
<td>56</td>
<td>707</td>
<td>214</td>
<td>2662</td>
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<tr>
<td>Aug-11</td>
<td>1772</td>
<td>72</td>
<td>727</td>
<td>242</td>
<td>2870</td>
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<tr>
<td>Jul-11</td>
<td>1837</td>
<td>65</td>
<td>891</td>
<td>255</td>
<td>3127</td>
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<tr>
<td>Jun-11</td>
<td>1751</td>
<td>57</td>
<td>880</td>
<td>229</td>
<td>3000</td>
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<tr>
<td>May-11</td>
<td>1635</td>
<td>59</td>
<td>785</td>
<td>184</td>
<td>2732</td>
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<td>Apr-11</td>
<td>1516</td>
<td>67</td>
<td>825</td>
<td>188</td>
<td>2689</td>
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<td>Mar-11</td>
<td>1530</td>
<td>68</td>
<td>785</td>
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<td>2603</td>
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<td>Feb-11</td>
<td>1559</td>
<td>66</td>
<td>800</td>
<td>151</td>
<td>2662</td>
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<td>Jan-11</td>
<td>960</td>
<td>42</td>
<td>532</td>
<td>123</td>
<td>1712</td>
</tr>
</tbody>
</table>

Source: Seek ICT (Accessed December 2011)
Seek ICT Job Adverts by Industry Certification December 2011

Note: All 3 certifications decreased for all NZ, as follows:
- Microsoft 15%
- Cisco 15%
- Linux 5%

Source: Seek ICT (Accessed December 2011)
Seek ICT Job Adverts Filtered by Management Certifications

Note: All 3 certifications decreased for all NZ, as follows:
- PMP 10%
- Prince 2.7%
- ITIL 12.6%

Source: Seek ICT (Accessed December 2011)
Seek ICT Job Adverts by Programming Language December 2011

<table>
<thead>
<tr>
<th>Language</th>
<th>Auckland</th>
<th>Waikato</th>
<th>Wellington</th>
<th>Canterbury</th>
<th>Total NZ</th>
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<tbody>
<tr>
<td>.NET</td>
<td>151</td>
<td>3</td>
<td>78</td>
<td>35</td>
<td>279</td>
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<td>PHP</td>
<td>307</td>
<td>10</td>
<td>147</td>
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<td>C#</td>
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<td>2</td>
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<tr>
<td>Java</td>
<td>330</td>
<td>12</td>
<td>160</td>
<td>68</td>
<td>587</td>
</tr>
</tbody>
</table>

Source: Seek ICT (Accessed December 2011)
TIOBE [The Importance of Being Earnest]
Programming Community Index
for December 2011

*Java remains the No.1 programming language in the top 20

Source: TIOBE (Accessed December 2011)
TIOBE Programming Community Index
Headline for December 2011

Headline: C++ about to be dethroned by C#?

➤ Observations [TIOBE]:

➤ C++ consistently #3 since the beginning of the TIOBE index in 2001

➤ Perl, Visual Basic and PHP have been at #3, but only for a few months in each case

➤ C#, Microsoft's most active and evolving programming language, picked to become #3

➤ However, Microsoft recently announced plans to revive C++ in favour of..... C#

Note: The TIOBE Programming Community index is an indicator of the popularity of programming languages. The index is updated once a month. The ratings are based on the number of skilled engineers world-wide, courses and third party vendors. The popular search engines Google, Bing, Yahoo!, Wikipedia, YouTube and Baidu are used to calculate the ratings

Source: TIOBE (Accessed December 2011)
Top Nine Skill Sets IT Executives Hiring for in 2012 [IT Career News]:

- **Programming and Application Development** - 61% plan to hire web and application developers, driven by continued explosive growth in the mobile market. Represents the largest year-over-year growth rate in a single skill set.

- **Project Management [PM]** - demand greatest for PMs able to perform IT Business Analyst role [615 Project Management jobs currently advertised on Seek NZ]

- **Help Desk & Technical Support** - mobile devices add new dimension to IT help desk. Certifications that validate mobile computing skills in a popular operating system, like the MCTS; Windows 7 Configuration, can help leverage this demand to get hired.

- **Networking** - increased demand for IT networking professionals fuelled in part by an uptick in virtualization and cloud computing projects. Looking to hire IT professionals with skills, certifications, and experience in VMware and Citrix [68 Citrix jobs currently advertised on Seek NZ]

- **Business Intelligence [BI]** - Increased demand for IT professionals with BI skills indicates investment in technology that provides access to real-time data for better business decisions. Noteworthy beneficiaries of the BI hiring increase include Microsoft SharePoint developers [76 SharePoint jobs currently advertised on Seek NZ] and SQL Server BI Specialists [324 SQL jobs currently advertised on Seek NZ]

- **Data Centre Professionals** – increased demand for IT pros with skills in data centre ops & systems integration resulting from impact of organizations’ increased focus on cloud and virtualization strategies in 2012.
News Bytes

Top Nine Skill Sets IT Executives Hiring for in 2012 [IT Career News]:

- **Web 2.0** – Web Developers set to capitalise as businesses look to engage consumers and gain a competitive advantage through online platforms and social networking campaigns. In demand skills include HTML, XML, CSS, Flash & JavaScript on front-end, and AJAX, PHP & .Net for back-end programming.

- **Security** - Security remains top concern as the frequency, scope, and sophistication of cyber attacks continues to rise. IT execs. report actively seeking professionals with security and auditing skills, but finding it difficult to locate good talent.

- **Telecommunication** - Increased demand for IT professionals with telecoms expertise as organizations continue to upgrade call centres and communication systems with the latest digital hardware and technology. Sought after telecoms skills include IP telephony, VoIP, and Cisco IP Call Centre.


- **Hottest skills** - Experienced software and web developers [.NET & Java developers] highly sought after in 2011 expected to continue next year.

- Companies investing in SharePoint to improve internal collaboration and intranets, but demand for SharePoint experienced workers has outweighed the supply [Comrie, Potentia MD].

- Cont. next slide
**News Bytes**

**Software Product Growth** [Computerworld – IT Job Space 2012? [Monday Dec 12, 2011]]

- Xero achieved a 185% growth in revenue in 2011 - hiring 50 to 100 new IT workers over the next two years
- Software product companies like Xero looking for NZ-based product managers, marketers, testers, and technical documenters - staff who have an understanding of technology, as well as business or marketing skills
- Xero sourcing much of its IT talent from the UK, due to shortage of candidates

[Rod Drury, CEO]

**Skill Shortages**

- Definitely no over supply of skilled workers this year
- Technology graduates with 2 to 3 years experience lured away, mostly to Australia and the UK, with the prospect of higher wages and more interesting work opportunities
- NZ companies need to engage technology graduates before they go overseas. Companies need to get more of a presence on campuses [Martin Barry, Absolute IT co-director]
NZ Department of labour

DoL Report - NZ’s skill challenges over the next 10 years:

- Strong growth (averaging 6% each year) is forecast in the demand for people with higher-level vocational qualifications across a wide range of occupations.
- However, the number of employed people with vocational qualifications is forecast to grow by only 0.7% per year.
- This is because of four factors:
  - high levels of net outflows through migration (mostly to Australia)
  - people retiring are as likely to hold a vocational qualification as new entrants to the workforce.
  - people tend to acquire their first vocational qualification at a relatively older age, with the median age being 25 to 29 years (compared to 20 to 24 years for degree-holders), and
  - the growth in vocational completions has come from a low base following the decline of vocational training from the mid-1980s to mid-1990s as the economy restructured.
- Immigration is a significant component of NZ's labour supply. Migrants, who can add skills, innovation and capital to the economy, will be harder to attract as ageing in the OECD increases competition for the same migrants.
NZ Department of labour

Immigration NZ Essential Skills in Demand Lists: Long Term Skill Shortage List (LTSSL) [Effective on and from 5 December 2011] [Search Result Truncated]

Occupational Group

ICT, Electronics and Telecommunications

Multimedia Analyst (261211), Web Developer (261212), Analyst Programmer (261311), Developer Programmer (261312), Software Engineer (261313), Software Tester (261314), Software and Applications Programmers nec (261399), Database Administrator (262111), ICT Security Specialist (262112), Systems Administrator (262113), Computer Network and Systems Engineer (263111), Network Administrator (263112), Network Analyst (263113), ICT Quality Assurance Engineer (263211), ICT Support Engineer (263212), ICT Systems Test Engineer (263213), ICT Support and Test Engineers nec (263299), Telecommunications Engineer (263311), Bachelor degree (Level 7) specialising in Information Technology (Computer Science, Information Systems or other Information Technology) OR Bachelor degree (Level 7) specialising in Electrical and Electronic Engineering and Technology.

In order to claim bonus points for qualifications in an area of absolute skill shortage under the Skilled Migrant Category, applicants must meet the following specifications.

Occupational Group

Long Term Skill Shortage List Requirements - Qualifications must be comparable to the standard of the New Zealand qualification listed. Also see Note 1 at the end of this list.

Click here to search ITSSL & LTSSL
NZ Department of labour

Link to SkillsInsight Tool (SIT) [XLS, 3MB]

<table>
<thead>
<tr>
<th>Demand</th>
<th>Selected Occupation</th>
<th>All Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated employment 2009 (annual average)</td>
<td>36,784</td>
<td>2,187,625</td>
</tr>
<tr>
<td>Estimated change in employment since 2004</td>
<td>8.0%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Estimated change in employment since 2008</td>
<td>5.1%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Estimated change in employment 2008 to 2013</td>
<td>5.0%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

Employment of '213 Computing Professionals' reached 36,784 in 2009. Growth in employment over the past 5 years has been above average at 8.0%. Over the period 2008-2013, growth in this occupation is expected to be above average at 5.0%.
Conclusion

- Programming Languages
  - Java remains No.1 in the TIOBE top 20

- Education:
  - Numbers of suitably qualified and/skilled personnel not expected to meet NZ’s growing demand in the foreseeable future

- Jobs:
  - Seek ICT job advert trends for January to December 2011 increased 41% for all NZ

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