

Heads of Workplace Safety Authorities

Appendix 2.1
**CAMPAIGN VISIT DATA
ANALYSIS AND COMPARISON**

Report
Falls Prevention in Construction
2008

**AN AUSTRALIAN
JOINT COMPLIANCE PROJECT**

July 2008

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Background

This campaign was initiated by the Heads of Workplace Safety Authorities (HWSA) as falls from height continues to be a major cause of deaths and injuries within the construction industry. During 2006/07, across Australia, 13 construction workers died and more than 620 were hospitalised after falling from height.

The following workplace safety authorities joined forces to mount this coordinated campaign of inspector visits to construction sites across Australia:

- ACT WorkCover
- ComCare
- NT WorkSafe
- SafeWork SA
- WorkCover NSW
- Workplace Health & Safety Queensland
- Workplace Standards Tasmania
- WorkSafe Victoria
- WorkSafe Western Australia

Field interventions occurred during February and March 2008 and involved inspections of 1,044 sites. Inspections were undertaken in both regional areas and within the metropolitan areas of capital cities. The construction sectors targeted, during this campaign were:

- Single storey housing,
- Multi-storey housing to 3 habitable storeys, and
- Small-scale general construction sites with a project value of up to \$3 million.

The campaign also focused inspectors' attention on a range of falls prevention hazards, control measures and work activities.

MAIN FALLS PREVENTION ISSUES

- Roof-edge protection
- Multi-trade scaffolds
- Balcony edge protection
- Stair void protection
- Excavation falls protection

OTHER FALLS PREVENTION ISSUES

- Where balustrades are being installed
- Where stairs are being installed

TARGETED WORK ACTIVITIES [TRADES]

- Plumbing/gas fitting
- Electrical
- Air conditioning & heating
- Plastering- wall board
- Rendering
- Painting
- Window frames & glazing
- Bricklaying
- Roof tiling

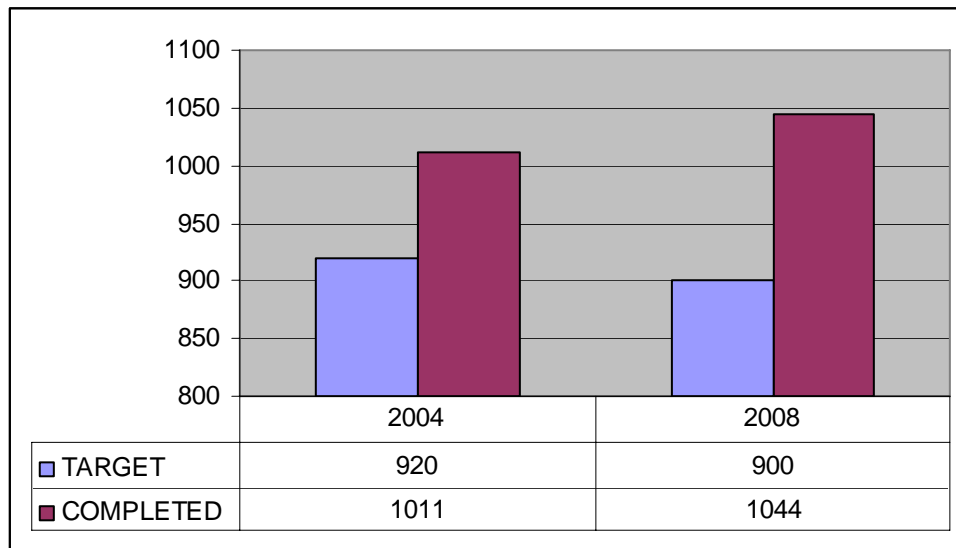
This analysis is based on the data contained in the inspector's visit summary sheet, which detailed the information gathered by the inspector during the inspection and any compliance action undertaken. 2008 inspection data has been compared, where possible, with applicable visit data from the 2004 HWSA *Falls Prevention in Construction Report*.

Note: To ensure consistency with 2008 data the inspection numbers and enforcement action undertaken by New Zealand have been deducted, where possible, from the 2004 HWSA Project report figures; as this jurisdiction was not participating in the 2008 campaign.

Number of inspections

Across Australia 1,044 sites were inspected as part of the 2008 HWSA Falls Prevention in Construction Campaign; this is comparable to the 1,011 sites inspected in 2004. The chart below compares the

Chart: 1 Comparison of sites inspected



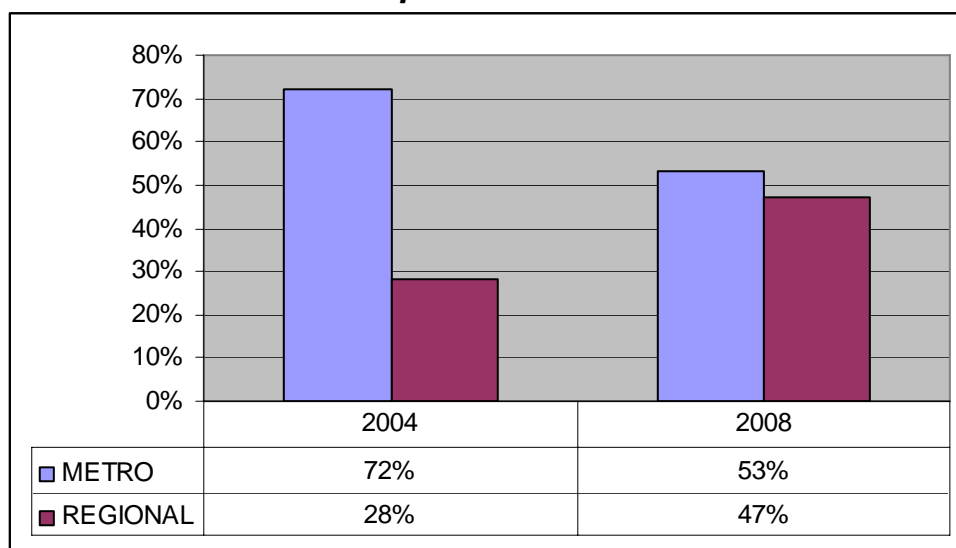
Site location

Of the 1,044 sites inspected across Australia, 554 or 53% were in the metropolitan areas of the capital cities and 490 or 47% were located in the regional areas. This indicates visit data should be consistent and applicable for both areas (see note below).

To ensure consistency of interpretation all jurisdictions adopted specific definitions for what constituted regional and metropolitan areas, these being:

- Metropolitan (Metro): means only the metropolitan area of the jurisdiction's capital city.
- Regional: means those areas not included in the capital city.

Chart 2: Comparison of site locations

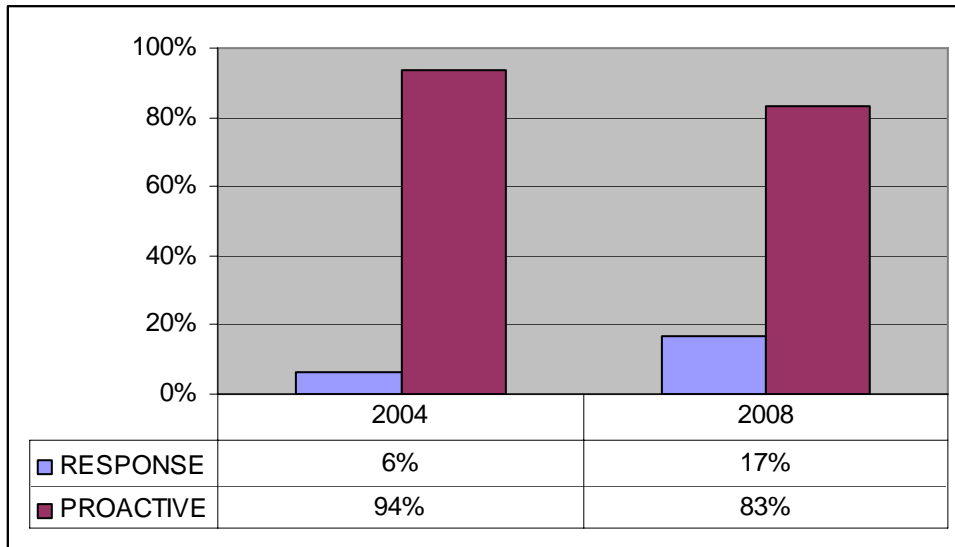


Note: During the 2004 project, the built-up areas of regional centres and towns were recorded as either regional or metropolitan depending on the individual inspector undertaking the visit.

Reason for inspection

Of the 1,031 site inspections where a reason was recorded on why the inspector attended the site, inspectors selected proactive visits 859 times (83%). The number of campaign inspection which resulted from inspectors attending construction sites due to response activities was 172 or 13% of the total.

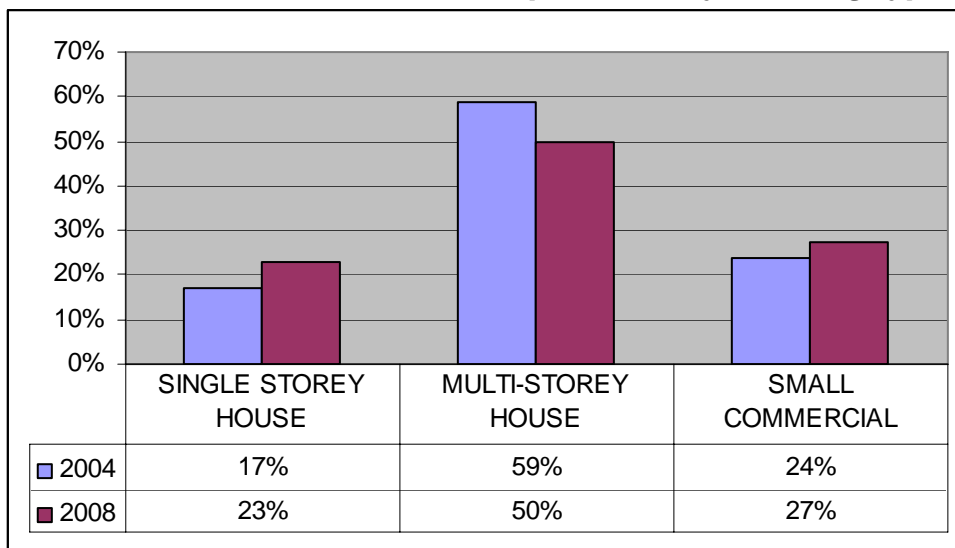
Chart 3: Reason why the inspector attended site



Breakdown of site inspections by building type

Of the 1,044 sites inspected 519 (50%) were to multi-storey house construction, 286 (27%) were small commercial projects and the remaining 239 (23%) were single storey housing sites.

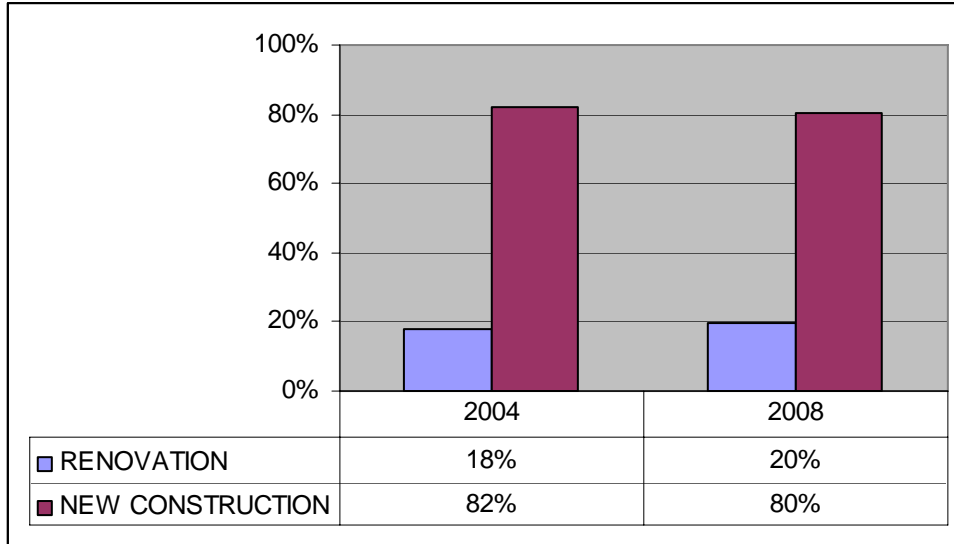
Chart 4: Breakdown of site inspections by building type



Breakdown of site inspections by project type

Of the 1,028 site inspections where the project type was recorded 824 (80%) were new construction, while the remaining 204 (20%) were renovation projects. The project type mix in 2008 is directly comparable to that recorded on 2004.

Chart 5: Breakdown of site inspections by project type

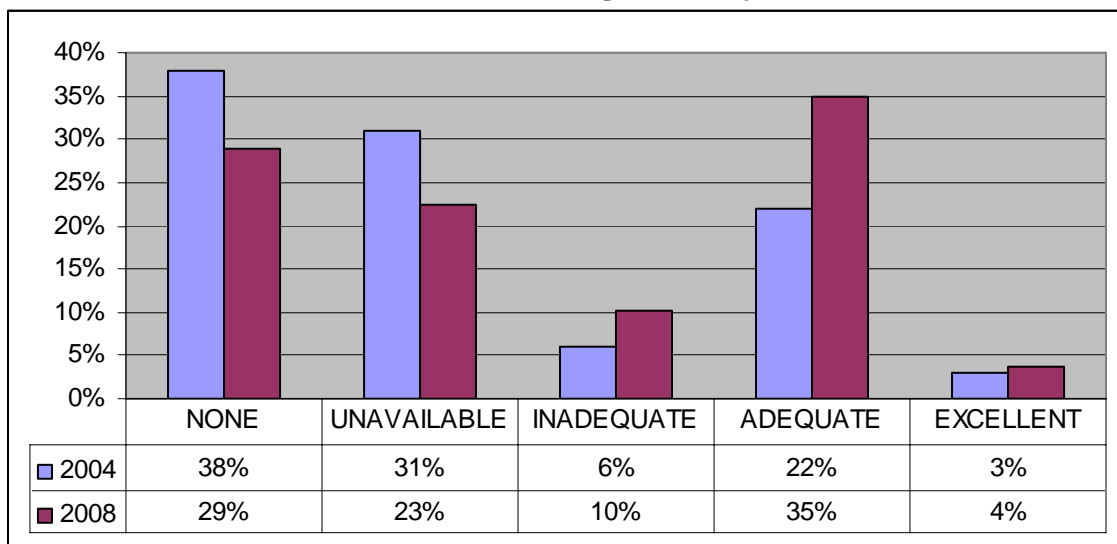


Site height safety documentation

On 1,040 sites inspectors recorded their evaluation of the duty-holders OHS documentation, such as work method statements, safety management plans and/or job safety analyses, which set out how falls were to be prevented when carrying out work at heights (see note below).

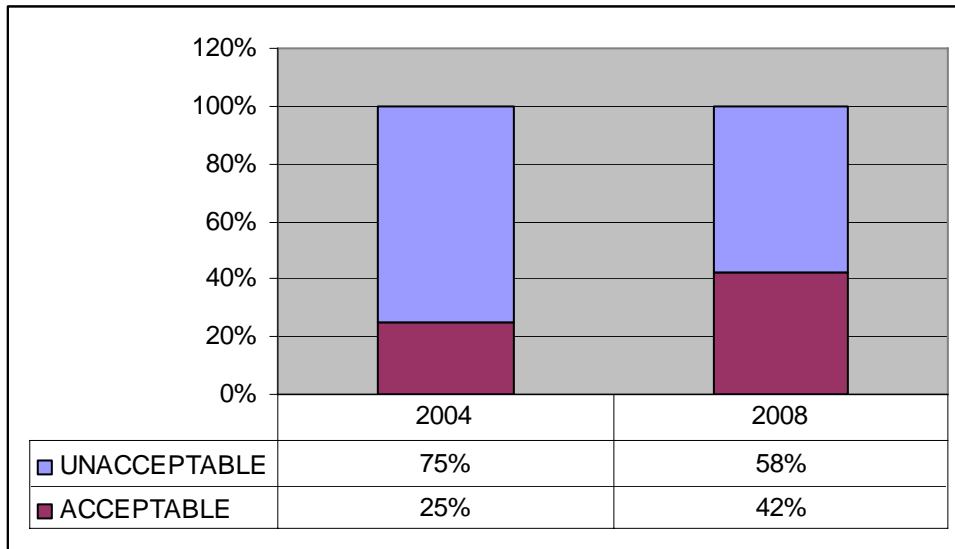
Inspectors found that 535 (51%) of the sites either didn't have any height safety documentation (301) or it was unavailable onsite (234), a further 105 (10%) was inadequate for the work being undertaken. Conversely, 362 (35%) of sites had adequate safety documentation and a further 38 (4%) were classified as excellent by inspectors (see note below).

Chart 6: Evaluation of site height safety documentation



The chart below shows a clear improvement (17%) since 2004 in the use and adequacy of work at heights safety documentation, with 42% of the sites inspected having adequate documentation. Unfortunately, 58% of sites were still found to be deficient in their documentation.

Chart 7: Suitability of site height safety documentation

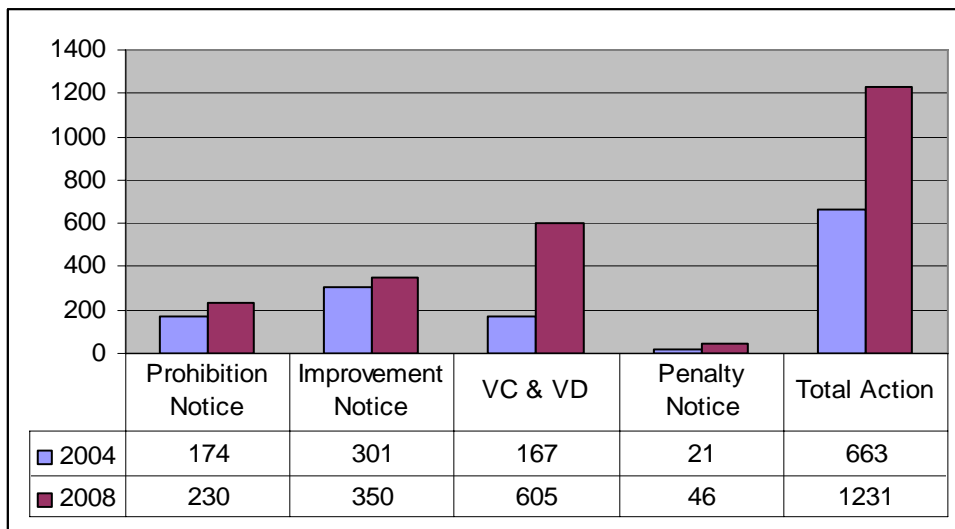


Note: At the time of the campaign, safety documentation was required only in Queensland, NSW, South Australia and Tasmania for projects over a certain value; this value differs between these jurisdictions. In the other jurisdictions, the duty-holder needed to demonstrate to the inspector that they had considered the risks of working at height and had implemented appropriate control measures.

Enforcement action undertaken by inspectors

On the 1,044 sites inspected as part of this campaign, inspectors took significant enforcement action in relation to non-compliance with prevention of falls requirements. Inspectors undertook a total of 1,231 compliance actions and issued 230 prohibition notices, 350 improvement notices, 46 penalty notices and another 605 instances where the issue was rectified through verbal directions or by voluntary compliance.

Chart 8: Type of compliance action taken by number



Significantly, compared with 2004, there was an 86% increase in all types of compliance action recorded by inspectors. This included a 32% increase in prohibition notices (PN), a 16% increase in improvement notices (IN), 219% increase in penalty notices and 362% increase in the use of verbal directions or voluntary compliance (VC/VD).

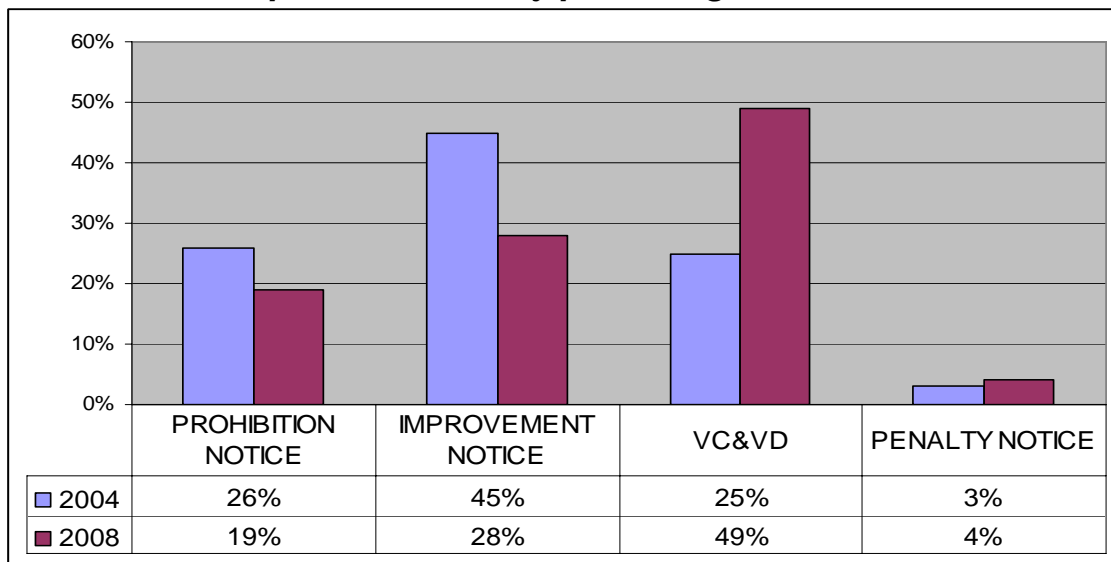
The 86% increase in the level of compliance action taken in 2008 compared to 2004 is due to changes in jurisdictions' legislation or working at height guidance and changes in some jurisdictions compliance and enforcement strategies.

All jurisdictions, in the intervening four years, have seen an increase in the use of higher order falls prevention controls, therefore inspectors' expectations of what is practicable for duty-holders to have in place has also increased. Jurisdictions have also seen an increased recording, by inspectors, of work undertaken by duty-holders to rectify and make safe non-compliances while the inspector is on site; which then does not require the inspector to issue notices.

While higher order controls may now be in place on many more sites, the data appears to indicate these controls are not being used or maintained correctly. This could explain the increase observed in the number of issues able to be addressed by the duty-holders while the inspector was onsite.

Due to the issues identified above, which impacted on compliance action a better method to compare the results recorded 2004 and to gauge any changes within the targeted sectors is the use of the different compliance tools by inspectors. Any change in proportion of the total compliance action that is represent by inspectors' use of particular compliance tools provides a more accurate representation of the level of compliance in the targeted sectors.

Chart 9: Compliance action by percentage of total action taken

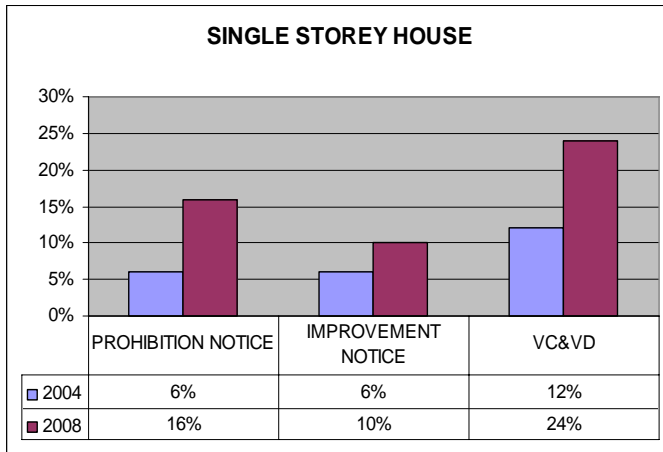


The proportion of notices issued as part of the overall compliance action undertaken by inspectors in 2008 was down by 24%, with a 7% fall in PNs and a 17% fall in INs, which corresponds to a 24% increase in recording of VC/VDs.

A breakdown of changes in the three specific industry sectors is highlighted in the tables below:

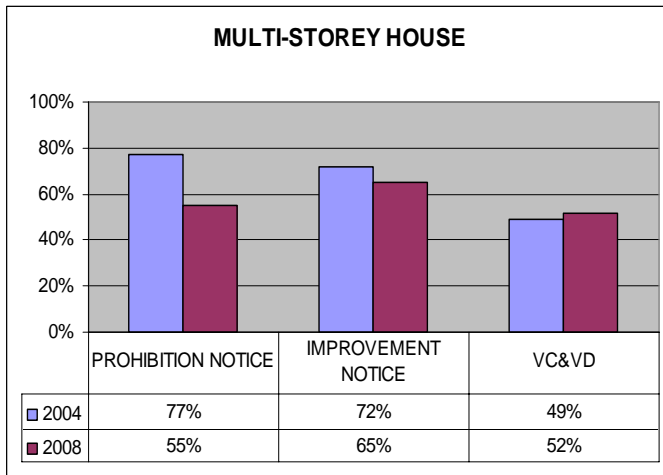
Industry sector compliance action by percentage

Chart 11: Single storey housing



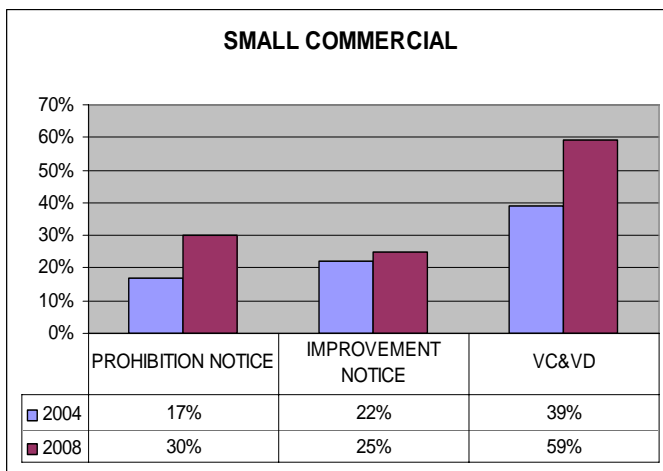
Single storey housing increased by 10% on the PN's issued, 4% on IN's and 12% for VC/VD's recorded. This may indicate duty-holders in this sector have yet to adopt or use correctly the controls now in common use on multi-storey housing sites. Since 2004 inspectors have increased expectations on what is now practicable for the duty-holder to provide.

Chart 12: Multi-storey housing



Multi-storey housing decreased by 22% on PN's issued, 7% on IN's and increased slightly for VC/VD's by 3%. This may indicate that duty-holders working on these types of sites are more aware of the falls prevention requirements and are more likely to have the appropriate controls in place, then using and maintaining them correctly.

Chart 11: Small commercial



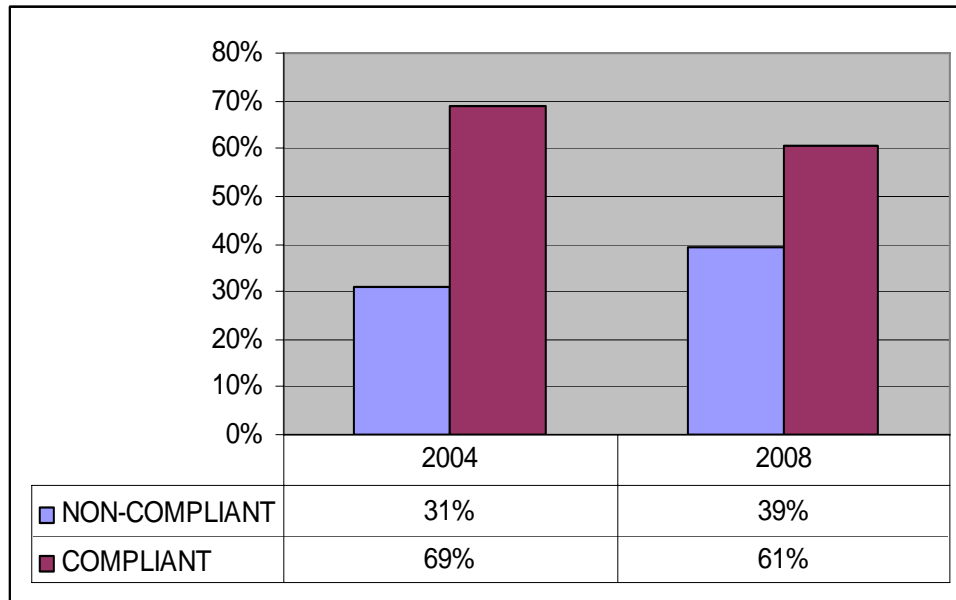
Small commercial increased by 13% on PN's issued, 3% on IN's and 20% for VC/VD's. This may indicate that duty-holders working on these sites are using inappropriate controls or are not using the controls correctly or failing to maintain the controls so they remain in a safe condition.

Main falls prevention issues

Roof edge protection

Of the 504 sites recorded where roof edge protection was required to protect workers or was in use onsite at the time, 305 (61%) were compliant to falls prevention requirements and the other 199 (39%) edge protection was missing or non-compliant.

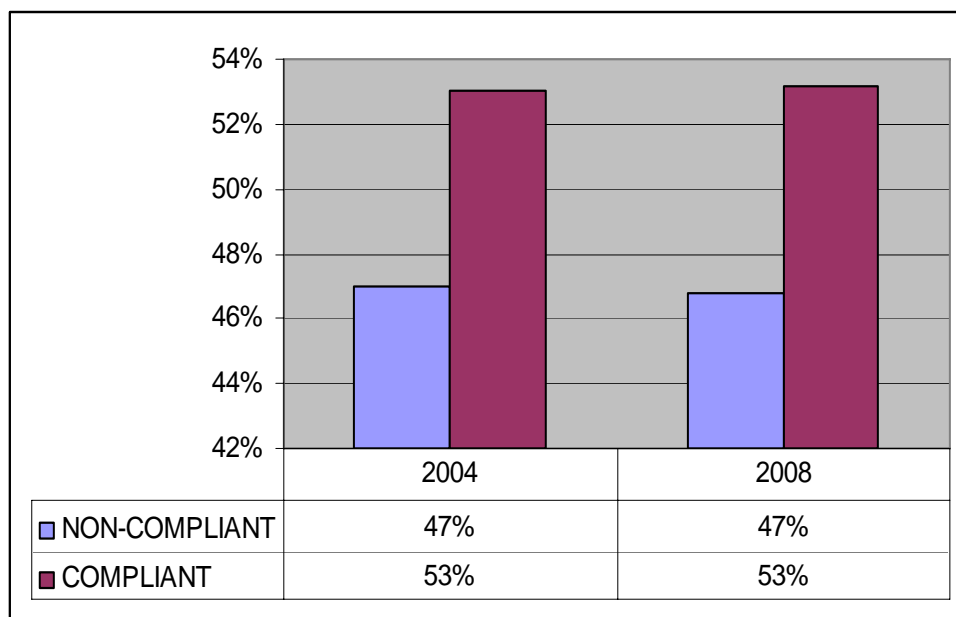
Chart 11: Roof edge protection



Multi-trade scaffolds

Of the 547 sites recorded where scaffold was required to protect workers or was in use onsite at the time, 291 (53%) were compliant to falls prevention requirements and the other 256 (47%) scaffold was missing or non-compliant.

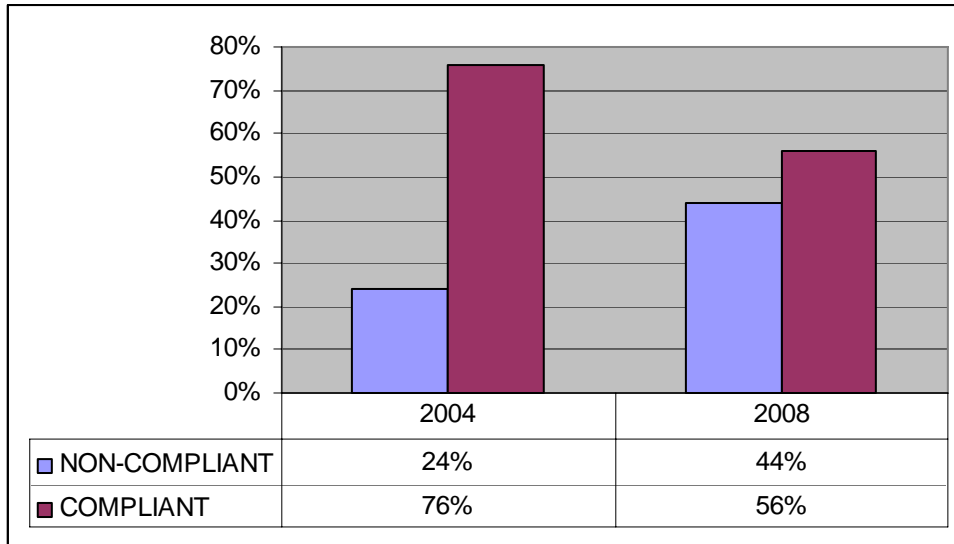
Chart 12: Multi-trade scaffold



Balcony edge protection

Of the 399 sites recorded where balcony edge protection was required to protect workers or was in use onsite at the time, 224 (56%) were compliant to falls prevention requirements and the other 175 (44%) balcony edge protection was missing or non-compliant.

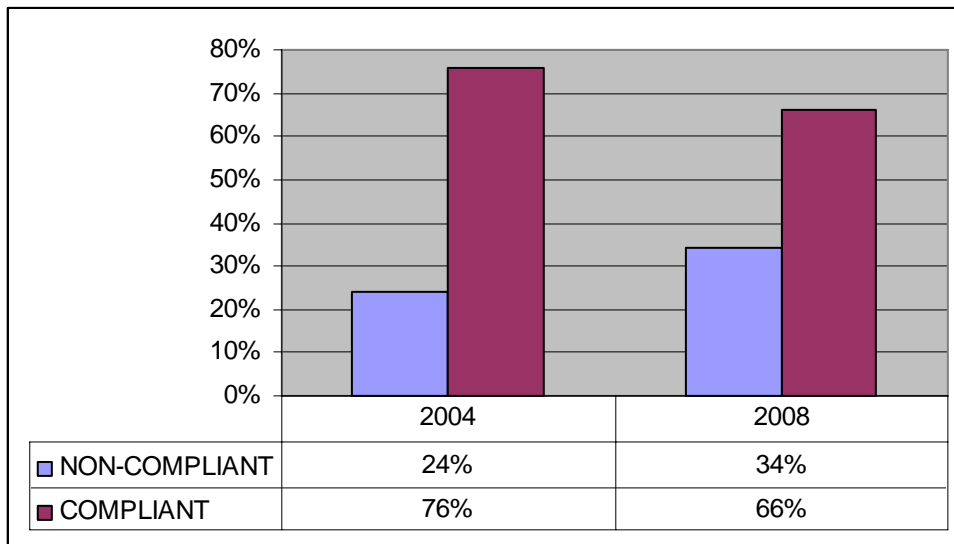
Chart 13: Balcony edge protection



Stair void protection

Of the 423 sites recorded where stair void protection was required to protect workers, 279 (66%) were compliant to falls prevention requirements and the other 144 (34%) stair void protection was missing or non-compliant.

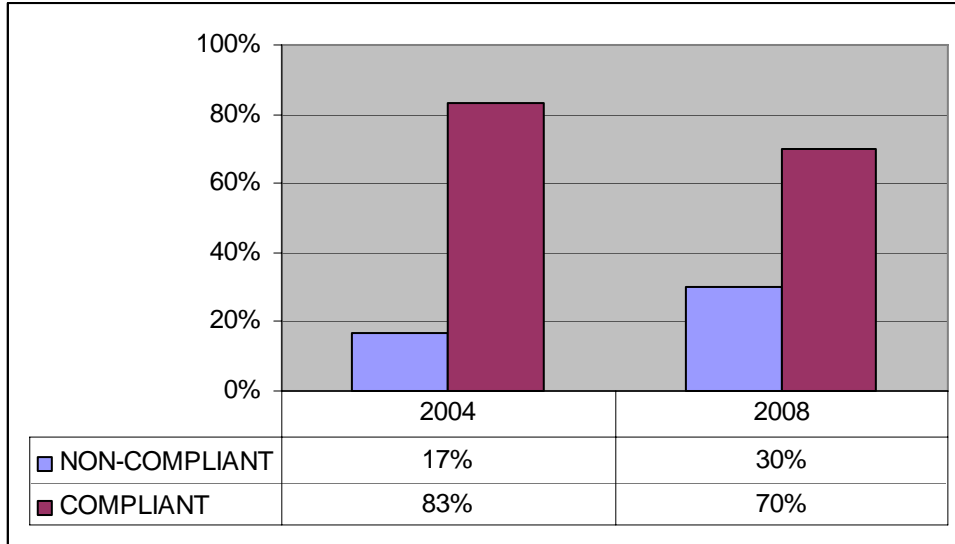
Chart 14: Stair void protection



Excavations protection

Of the 139 sites recorded where falls prevention around excavations was required to protect workers, 97 (70%) were compliant to falls prevention requirements and the other 42 (30) excavation protection was missing or non-compliant.

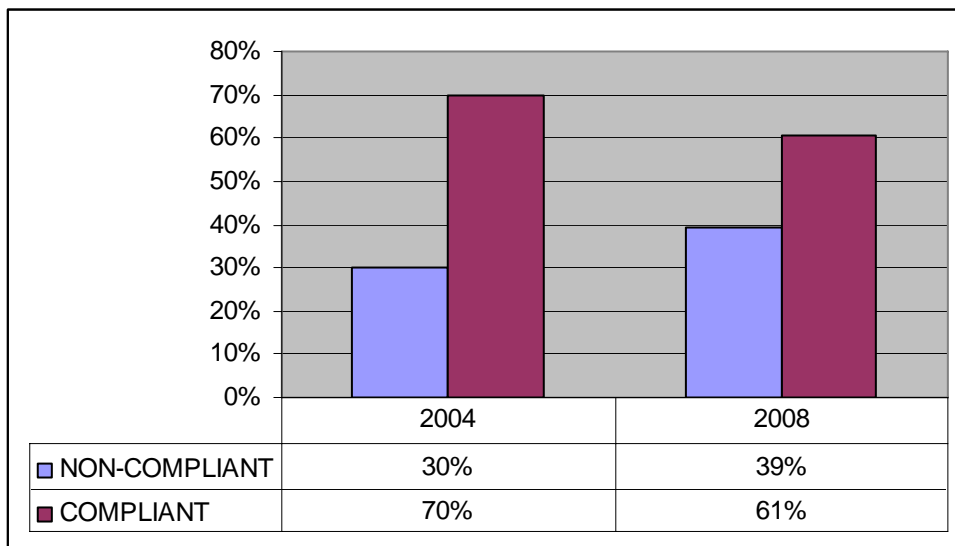
Chart 15: Excavations protection



Balustrade installation

Of the 76 sites recorded where balustrade installation was occurring, at the time inspectors were on site, and falls protection controls were required to be in place to protect workers 46 (61%) were compliant to falls prevention requirements and the other 30 (39%) falls protection controls were missing or non-compliant.

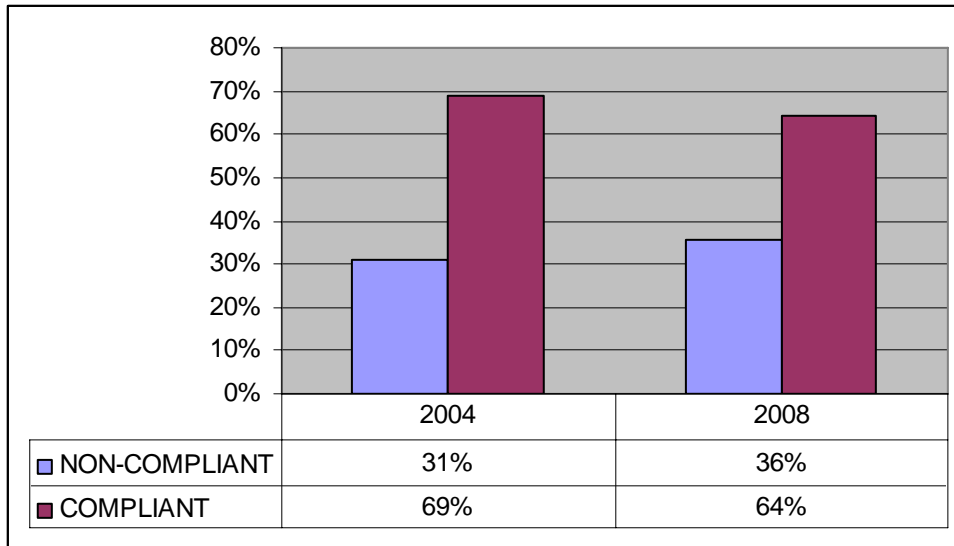
Chart 16: Balustrade installation



Stair installation

Of the 101 sites recorded where stair installation was occurring, at the time inspectors were on site, and falls protection controls were required to be in place to protect workers 65 (64%) were compliant to falls prevention requirements and the other 36 (36%) falls protection controls were missing or non-compliant.

Chart 17: Stair installation

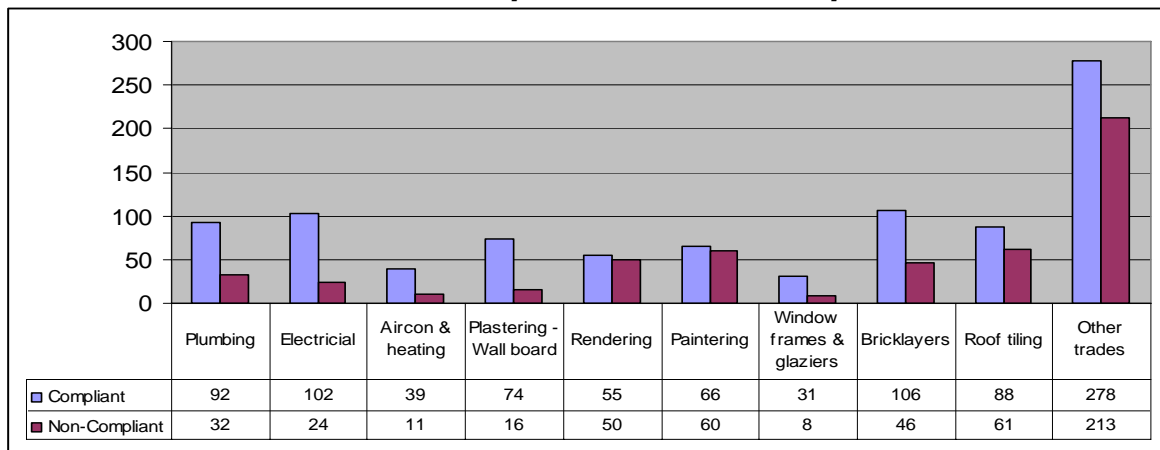


Focus on trades

Similar to 2004, this campaign focused on how well specific trades were complying with prevention of falls requirements. The data collected as part of this campaign was not able to be compared with that collected in 2004. The 2004 data was not originally analysed and would require resources to get it into a useable format than were available at the time of this report.

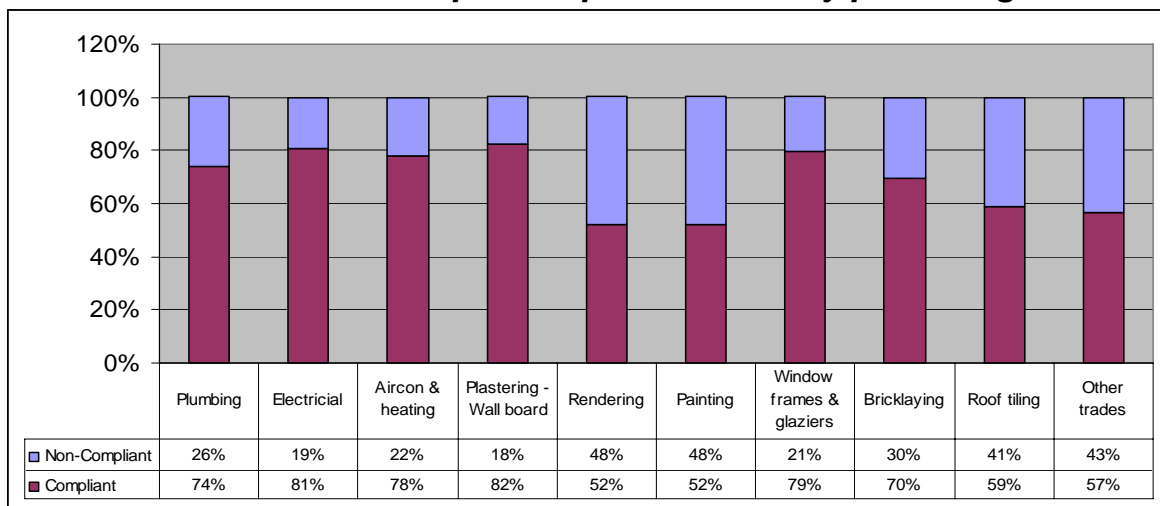
Of the number of 1,452 trades which required protection from falls from heights, 931 (64%) were compliant to falls prevention requirements and 521 (36%) were non-compliant.

Chart 18: Number of compliant and non-compliant trades



Overall, the trade most likely encountered by inspectors and found to be non-compliant with falls prevention requirements was the other trades group (213), which were predominately carpenters.

Chart 19: Trades compliance performance by percentage



The trades with the poorest performance for complying with falls prevention requirements were rendering and painting both with 48% non-compliance observed by inspectors. The other trades group also poorly performed with 43% non-compliance followed by roof tiling (41%) and bricklaying (30%). It should be noted that much of the plumbing non-compliance related to metal roofing work.

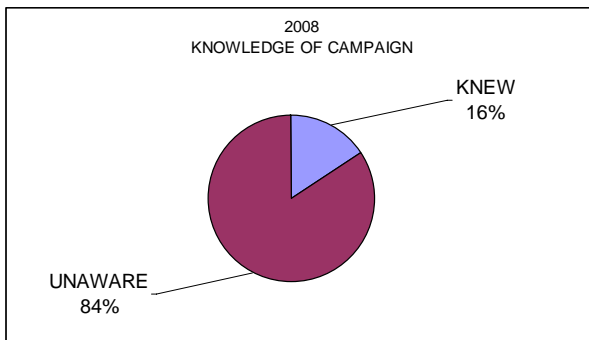
Other campaign site activities

Communications

As part of this campaign inspectors gathered information:

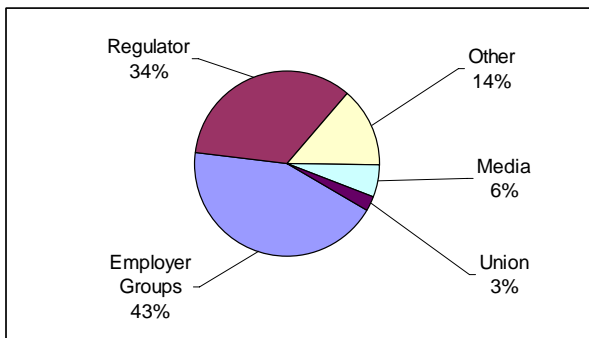
- to assist in the evaluation of the effectiveness of the campaign's communications strategy,
- to assist in determining effective methods of communication the safety messages to duty-holders in the targeted sectors, and
- to assist in identifying the underlying causes of non-compliance.

Chart 20: Knowledge of the campaign



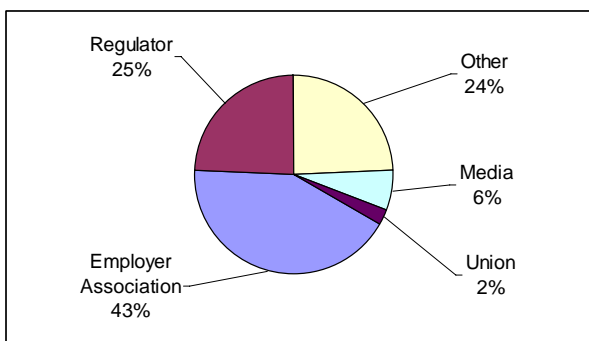
Of the 1,021 instances where the inspector recorded a response only 163 (16%) of duty-holders indicated they were aware of the campaign, the remaining 858 (84%) did not know about the campaign.

Chart 21: How they became aware of the campaign



Of the 163 duty-holders who knew about the prevention of falls campaign found out from employer association (43%) and the local safety regulator (34%), while only 6% reported finding out from the media..

Chart 22: How the duty-holders get OHS information



Inspectors also asked duty-holders how they normally found out about or kept up-to-date with occupational health and safety, inspectors recorded 1,096 responses. The responses were similar to that recorded above; with employer association (43%), the regulator (25%) and media again at 6%.

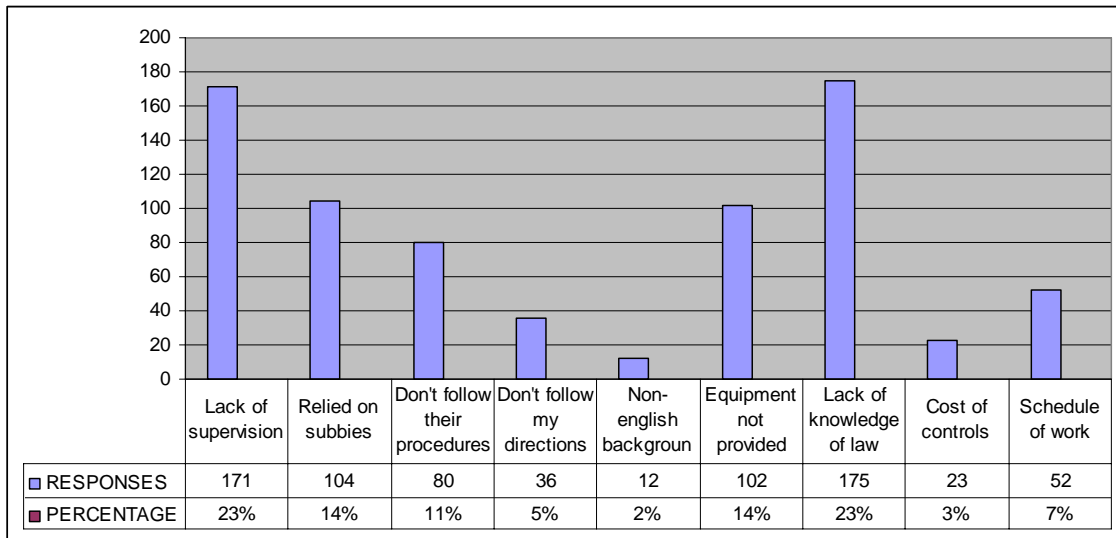
Note: Inspectors did not record responses from 89 of the sites inspected and on other sites selected multiply responses.

Duty-holders' reasons for non-compliance

On sites where non-compliances with fall prevention requirements were identified, inspectors gathered information to try and identify causal factors for non-compliance. Inspectors asked the duty-holder if there was a reason why the site was non-compliant and then recorded their response.

Inspectors did not record responses from 95 of the non-compliant sites and on other sites selected multiply duty-holder responses. Inspectors recorded 755 responses; these are shown on the chart below.

Chart 23: Reason for non-compliance



Based on the raw data supplied by the duty-holders the obvious causes of sites becoming non-compliant is the duty-holders lack of knowledge of the law (23%) and their lack of supervision of the site (23%).

Analysis of the data indicates the major causal factor of sites becoming non-compliant is the duty-holders' reliance on their sub-contractors. After consideration the responses lack of supervision, relied on subbies, don't follow their procedures and don't follow my instructions all appear to be related to relying on sub-contractors. When combined the total for duty-holders reliance on sub-contractors to maintain the site in a safe condition and to manage their own health and safety while onsite is 53%.

Therefore, the main causal factors (76%) for non-compliance with falls prevention requirements are the duty-holders' lack of knowledge of the law (23%) and their reliance on their sub-contractors (53%).

Significantly, duty-holders indicated that lack of English language skills (2%) or the costs of controls (3%) were not key reasons for why the site became non-compliant.