

NATIONAL COMPETITION POLICY REVIEW OF *SURVEYORS ACT 1978*

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Table 1. Summary of restrictions and recommendations

Restriction No.	Nature of Restriction	Recommendation
1	Legislative entry barriers to surveying market	Retain entry barriers.
2	Entry to surveying market is controlled by a single body	Retain control by single body
3	Necessity for training agreements	Recognise post-graduate training course as an alternative to training agreements
4	Unclear character requirements for aspiring surveyors	Replace unclear requirements with clear criteria
5	Any indictable offence grounds for removal from profession	Integrity criteria for removal should be same as criteria barring entry
6	Firms must be dominated by surveyors to carry out cadastral surveying work	Remove the need for surveyors to comprise a majority of members in a cadastral surveying firm
7	Recognition across jurisdictions is not automatic	Remove all barriers to interstate practise; prioritise harmonisation of cadastral law across jurisdictions
8	Limited number of reciprocal jurisdictions	Examine options for increasing number of reciprocal jurisdictions
9	Surveying regulatory body is dominated by surveyors	Increase number of non-surveyors on regulatory body
10	Surveyors Board has power to set fees	Remove power to set fees

Executive summary

Central findings

- Victorian land tenure works mainly on a system of Torrens title, in which the Government keeps a central register of land ownership and guarantees ownership according to this register. This system significantly lowers transaction costs and uncertainties in the property market.
- Cadastral surveyors are an essential part of the Torrens system, because they ensure that boundaries on title plans correspond to actual boundaries in existence. Surveying standards need to be high in order for the Torrens system to function with maximum efficiency and credibility.
- Competitive market forces play an important role in the cadastral surveying profession, but some regulation is necessary. This is because of market failure, due to externalities, information asymmetry, and imperfect information flow.
- Regulation of the surveying market should be undertaken by a single body, which may be but need not be the Surveyors Board in its present form.
- Legislative barriers to competition in the surveying market should be removed, relaxed or altered as follows:
 - ◆ surveying work should no longer be restricted to firms dominated by surveyors and related professions;
 - ◆ practical training of surveyors should be possible through coursework as well as through training agreements with practising surveyors;
 - ◆ the regulatory body should no longer have the power to set fees charged by surveyors;
 - ◆ the regulatory body should not be dominated by surveyors;
 - ◆ registration/licensing for interstate surveyors should be costless;
 - ◆ surveying legislation should be harmonised across Australia, in order to assist development of a national market;
 - ◆ the number of reciprocating jurisdictions should be broadened where possible.

Background

This review was commissioned by the Victorian Department of Natural Resources & Environment. It is part of the Victorian Government's commitment to National Competition Policy, in accordance with the Competition Principles Agreement signed by the Council of Australian Governments in April 1995.

Approach

The guiding principle of this and other NCP reviews is that legislation should not restrict competition unless it can be demonstrated that:

- the benefits of the restriction to the community as a whole outweigh the costs; and
- the objectives of the legislation can only be achieved by restricting competition.

The terms of reference of this review are set out in the body of the report, in the section entitled “Background to the review”.

As a desktop review, this review used existing data and discussed issues with a limited number of stakeholders. It did not hold public hearings, and did not commission detailed studies or collection of new data.

Objectives of the legislation

The purpose of the *Surveyors Act 1978*, as stated in the Second Reading Speech, is to ensure confidence in the Torrens system of land registration through regulation of cadastral surveying.

The *Act* safeguards surveying standards mainly through the imposition of entry barriers.

The industry

This review is concerned only with cadastral surveying, as opposed to professions such as mining surveying or hydrographic surveying. Cadastral surveying is concerned with laws relating to the ownership of land, the definition on the ground of title boundaries and the recording of such information on plans and maps.

At the end of 1996, there were 1041 cadastral surveyors in Victoria, of whom 350-400 were estimated to be actively practising within the State. The value of the market can be estimated at about \$20 million. Since cadastral surveying is regulated at a State level, with significant barriers to entry in each State, the Victorian market is bound strictly by the boundaries of the State. The main barriers to entry in each State are the need to apply to that State’s Surveyors Board to be registered/licensed, a need to know the local cadastral law, and in most cases a need to pay an annual registration fee.

The Victorian market for cadastral surveying forms between 6% and 15% of the Australian market for cadastral surveying (by value). The Victorian market for cadastral surveying forms between 31% and 49% of the total Victorian market for surveying, whether cadastral or not. The broad ranges of these figures are due to changes in published data, and the fact that the last set of published data is from 1992/93, when the Victorian economy was particularly depressed.

Skill requirements for cadastral surveying

The most central skill of a cadastral surveyor is the collection and assessment of different sets of data in order to give a reliable assessment of the physical location of a title boundary. Knowledge of local cadastral law also forms an important part of a surveyor’s work.

Currently surveyors are required to complete a four-year tertiary degree, followed by practical training. It is beyond the scope of this review to determine exactly which components of this training are indispensable and which may be superfluous. It is worth noting that surveying work can require a surveyor to:

- assess varied, incomplete and often contradictory data;
- apply methodologies as diverse as trigonometry, satellite positioning, estimating the age of landmarks, and reading 100-year-old maps;
- advise clients on the optimal method of subdividing a particular block;
- advise clients on how their subdivision may be limited by a right of way or easement.

It is theoretically possible to split the surveying market so as to have a separate category of surveyors who would only perform the simplest tasks, such as verifying the boundaries of square blocks in straight streets on flat land. This review does not recommend such an approach. A final decision on such an approach can only be made after in-depth study beyond the scope of this review. This review merely notes some of the arguments for and against.

The Torrens system of land title

The Torrens system lowers transaction costs and decreases uncertainty in the property market. It does so through a central registry that:

- clearly identifies the owner(s) of a title; and
- provides plans which correspond to physical titles.

Without a central registry of owners, buyers would need to make a significant effort to ensure that sellers were actually owners. Even after significant effort, they would have some level of uncertainty. With the Torrens system, that uncertainty is removed by government guarantee. At the same time, plans kept in the central registry need to be accurate, so that buyers can be sure that the title they are buying has the area, boundaries and attributes claimed by the seller. Without an accurate plan, each buyer would need to have the title re-surveyed before purchase to achieve the current level of certainty.

Beyond National Competition Policy analysis

In accordance with the terms of reference, this review also noted issues that did not come under NCP criteria, but which merit some investigation.

Recent minor failures in the system of surveying regulation demonstrate that:

- detection and rectification of faults is very slow; and
- the powers of the Surveyors Board are unclear and vulnerable to legal challenge.

This review therefore recommends further consideration of matters such as:

- continued professional development (CPD);
- regular audit of surveys;
- professional indemnity insurance;
- resolution of boundary disputes.

Restrictions and recommendations

Restriction 1. There are legislative entry barriers to the surveying market.

Government regulation of surveying in Australia came about last century because of the failure of the unregulated market in delivering reliable surveying services. The Government had and has a direct interest in the surveying market because of its interest in the Torrens title system.

The surveying profession is linked to the Torrens system through the Land Titles Office (LTO). Currently only licensed cadastral surveyors may lodge plans with the LTO.

Any loosening of regulation would necessarily involve a change of LTO lodgement rules. Total deregulation, where everyone would have equal access in lodging plans, and equal treatment by the LTO, would lead to a breakdown in the credibility of the Torrens system and would impose higher costs on the economy.

It is not possible for consumers to determine who is an appropriate surveyor and who is not because of information asymmetry and imperfect information flow. In addition, one consumer's decision can affect other consumers. These two features of the surveying market (information asymmetry and externalities) are strong arguments for government intervention.

On balance, this review considers that some regulation of the surveying profession is warranted, and that resulting benefits to the community outweigh costs of regulation in terms of reduced competition.

Recommendation 1. There should be legislative restrictions on entry to the cadastral surveying market, in order to safeguard the credibility of the Torrens title system.

Restriction 2. Entry to the surveying market is controlled by a single body, the Surveyors Board.

The Surveyors Board is responsible for ensuring that surveyors have the necessary skills and motivation to lodge accurate plans. The Surveyors Board can set examinations in cadastral law for new applicants, and requires applicants from interstate to state that they are aware of differences in Victorian cadastral law.

It is in the LTO's interest to ensure that plans lodged are of the highest possible accuracy, since inaccurate plans would detract from the credibility of the LTO's system.

Currently the imprimatur of the Surveyors Board allows the LTO (and the public) to have confidence that surveyors are lodging accurate plans. The Board ensures that cadastral surveyors have a high level of technical proficiency and practical training. The Board can remove from practise surveyors who lodge inaccurate plans.

Only about 50% of all title surveys are lodged at the LTO. Other re-establishment surveys (of title boundaries) can be as important as those lodged, but do not have the level of check and review that the LTO provides. The role of the Surveyors Board is even more crucial in these situations.

There are five main alternatives for maintaining the quality of the cadastre:

1. Anyone may lodge plans with the LTO, and the LTO conducts detailed examinations of all plans lodged.
2. Anyone may lodge plans with the LTO, and the LTO conducts random audits.
3. Anyone may lodge plans with the LTO, and the LTO conducts audits based on a risk profile.
4. Only qualified surveyors may lodge surveys but there is no separate accreditation body.
5. Only accredited people may lodge plans (status quo).

This review recommends maintaining the status quo, mainly because it offers the least expensive way of maintaining a high level of quality.

Under any of the five scenarios, the LTO could ultimately replace the Surveyors Board as an accrediting body. There is no a priori reason why the LTO is more suited to such a role than the Surveyors Board. Nevertheless, the division of powers between the Board and the LTO is beyond the scope of this review.

Other professions, and the surveying profession in one other State, are regulated by an industry body rather than a Government-controlled body. In this arrangement, the Government usually provides legislative backing for industry self-regulation, and has some say in setting the general rules. This is known as co-regulation.

The main argument against co-regulation is that professionals will tend to make decisions that inhibit competition and lead to higher prices. Nevertheless, a final decision on co-regulation versus self-regulation requires detailed study beyond the scope of this review.

Recommendation 2. Entry to the surveying profession should continue to be regulated by a single body. This body should continue to impose a high uniform standard of entry.

Restriction 3. Potential surveyors need to undertake a training agreement with a supervising surveyor.

Aspiring surveyors currently need to undertake 360 days of training under the supervision of a practising surveyor. The disadvantages of this requirement include:

- a shortage of practising surveyors willing to supervise trainees, leading to a potential barrier to entry to the profession;
- the possibility that the trainee will obtain very narrow experience; and
- the likelihood that the trainee will be supervised by someone who was trained in an era when technology was quite different.

An alternative to this arrangement would be for Victoria to establish postgraduate training similar to that currently offered in Queensland. The main disadvantage of postgraduate training is its high cost. Moves to set up a postgraduate training course in Victoria in recent years have encountered problems of uncertain demand because of the cost involved.

In order to remove an existing barrier to entry of new surveyors, it is desirable to give potential surveyors the option of either supervised work or postgraduate training.

Recommendation 3. The regulatory body should have the power to accredit postgraduate practical training courses as an alternative to training under a supervising surveyor.

Restriction 4. Unclear character requirements for applicants.

The Surveyors Board currently assesses whether applicants are “of good character” and a “fit and proper person”. These criteria are excessively vague.

One alternative is to remove such criteria altogether. Another alternative is to introduce very specific criteria to assess an applicant’s recent background.

A possible precedent is legislation which blocks individuals with a recent history of undesirable behaviour (defined in terms of fraud convictions and similar matters) from being company directors.

A surveyor is in a similar position to a company director. A surveyor can indulge in dishonest behaviour in the knowledge that this behaviour could go undiscovered for a long time. When the behaviour is discovered, it can be very costly to repair the damage. In

addition, the Torrens system relies on a public perception of honesty. For this reason, it is desirable to have specific integrity criteria which disqualify an individual from being a surveyor for a specified period of time.

Recommendation 4. Integrity criteria barring entry to the surveying profession should be specific.

Restriction 5. Surveyors may be removed from practise if they commit any indictable offence.

The Surveyors Board currently has the power to deregister or suspend a surveyor who is convicted of an indictable offence in Victoria or elsewhere.

Logic suggests that removal criteria should be identical to criteria barring entry.

Recommendation 5. Integrity criteria for removal from the surveying profession should be the same as criteria barring entry to the profession.

Restriction 6. A firm or corporation must be controlled by surveyors in order to carry out cadastral surveying work.

A firm which carries out cadastral surveying work must have a majority of members or directors who are surveyors or members of similar professions. This is a clear restriction on competition, and inhibits the formation of full-service firms in property development.

This review found no particularly convincing arguments in support of this restriction.

Recommendation 6. The requirement for surveyors or related professions to form a majority of members/directors of a firm/corporation engaging in cadastral survey work should be removed.

Restriction 7. The current Surveyors Act does not allow for automatic recognition between jurisdictions.

The Surveyors Act currently requires surveyors from reciprocating jurisdictions to apply to practice in Victoria. Similar arrangements apply in other reciprocating jurisdictions. These arrangements inhibit the development of a national market in surveying services.

An important part of a surveyor's work is advising clients on matters of cadastral law, such as subdivisions, easements, rights of way, and water rights. These laws vary markedly between States. Incorrect advice on issues of cadastral law can cause significant damage to clients. This potential damage has been used as an argument to justify the need for surveyors to apply to practise in reciprocating jurisdictions.

Current procedures for registration/licensing of interstate surveyors do not include a strict requirement to demonstrate a knowledge of local cadastral law. As an alternative means of protecting Victorian clients, and the integrity of the Victorian cadastre, the Surveyors Board has chosen to audit the first work undertaken by a surveyor from interstate. This approach appears to have been effective, in that there is no evidence that surveyors from interstate have been more or less likely to give clients bad advice on cadastral law.

It therefore appears reasonable to suggest that the registration/licensing requirement for interstate surveyors is superfluous. The community would benefit from greater contestability/competition if this requirement were removed. This measure would need to be agreed with other jurisdictions.

Removing registration/licensing requirements for interstate surveyors could involve lengthy negotiations, or be unacceptable to other jurisdictions. As a first step, development of a national market would be assisted by implementing costless registration for interstate surveyors. This measure would need to be agreed with other jurisdictions.

Ultimately, the best outcome for the market will be automatic registration combined with identical cadastral law in all jurisdictions. The current aim is to harmonise legislation by the year 2005. It is beyond the scope of this review to determine whether it is possible to harmonise legislation more quickly.

Recommendation 7. Victoria should consider an agreement with other States to make interstate registration/licensing costless.

Recommendation 8. Victoria should consider an agreement with other States to make registration/licensing in one jurisdiction sufficient for automatic practise in all reciprocating jurisdictions, without a need for application to the local regulatory authority.

Recommendation 9. Victoria should prioritise negotiations with other jurisdictions to co-ordinate cadastral law.

Restriction 8. Reciprocal registration only applies to surveyors in Australia and New Zealand.

The number of reciprocating jurisdictions has not changed since 1892. There have long been suggestions that nearby countries, particularly Malaysia, would be suitable for reciprocal registration.

The benefits of extending mutual recognition include:

- greater competition/contestability in the Australian market; and
- broader opportunities for Australian surveyors.

The most common objection to extending mutual recognition is that other countries have lower surveying standards, or have different cadastral law. Differences in cadastral law between Australia and countries like Malaysia are not greater than differences between Australian jurisdictions. Surveying standards in other countries can only be determined upon detailed examination.

Recommendation 10. There should be thorough examination of all options for extending mutual recognition beyond current boundaries.

Restriction 9. The surveying industry is regulated by a Board dominated by surveyors.

Currently five Board members are required by legislation to be surveyors, and one is not. It is a principle of good regulation that a majority of the members of a regulatory body should be representatives of the public.

Members of any profession are perceived to have an interest in minimising competition and maximising prices. Members of the public have the opposite interest. Non-surveyors should therefore form a greater proportion of the regulatory body, perhaps even a majority.

An increased membership of non-surveyors on the regulatory body will result in a greater need for expert advice to the body. Currently such advice is provided free of charge by government agencies. This issue is dealt with below under "Issues beyond National Competition Policy analysis".

Recommendation 11. Non surveyors should form a greater proportion of members of the regulatory body than they currently do.

Restriction 10. The Surveyors Board has the power to set fees charged by surveyors.

The Surveyors Board has the power to set fees charged by surveyors. It has never exercised this power. The power is probably not enforceable.

There are no credible arguments for maintaining this power.

Recommendation 12. The Government should remove the power of the regulatory body to set fees for surveying services.

Background to the review

In April 1995, the Council of Australian Governments (COAG) signed three agreements on National Competition Policy (NCP). The agreement which gives rise to this review is the *Agreement to Implement National Competition Policy and Related Reforms*.

The guiding legislative principle governing this and other reviews is that:

“Legislation should not restrict competition unless it can be demonstrated that:

- **the benefits of the restriction to the community as a whole outweigh the costs; and**
- **the objectives of the legislation can only be achieved by restricting competition.”¹**

This review was commissioned by the Victorian Department of Natural Resources & Environment. It examines the Victorian *Surveyors Act 1978* (Act #9180) and associated regulations. The terms of reference of the review are to:

1. Clarify the objectives of the legislation;
2. Identify the nature of the restrictions on competition;
3. Analyse the likely effect of the restriction on competition and on the economy in general;
4. Assess and balance the costs and benefits of the restriction;
5. Consider alternative means of achieving the same result including non-legislative means;
6. Make recommendations for consideration by the Minister and the Government concerning each identified restriction with respect to 4 and 5; and
7. Note issues raised during consultation which are not directly related to the terms of reference.

The review should specifically address the appropriateness of:

- the occupational regulation of surveyors;
- provisions which describe criteria used for the granting of registration and licences to individuals; and
- provisions which provide for certain requirements for firms and corporations.

It is worth emphasising the limited scope of this review. The terms of reference limit the review to the *Surveyors Act*. Reform of the *Surveyors Act* will have a limited effect if all related legislation is not also reviewed.

For example, the *Survey Co-ordination Act 1958* has a significant impact on the surveying profession. This *Act* sets out many powers of the Surveyor General, and also sets out requirements for surveys by Government departments and authorities. Since Government agencies are a major user of surveying services, any change to this *Act* will have a major effect on the surveying market. Similarly, the *Transfer of Land Act 1958* has a major influence on property transactions in Victoria, as does the *Property Law Act 1958*.

A question beyond the scope of this review is the need for a single Land Titles Office (LTO) controlled by the Government. It is conceivable that the LTO could be run by a private corporation. It is conceivable that there could be more than one LTO in Victoria, or that there could be one LTO covering the whole of Australia. Because such issues are beyond the

¹ Department of Premier & Cabinet (Victoria), *National Competition Policy: Guidelines for the Review of Legislative Restrictions on Competition* (1996B), p. 2.

scope of this review, the review assumes the status quo in discussion of issues related to the structure of the LTO.

As a desktop review, this review used existing data and discussed issues with a limited number of stakeholders. It did not hold public hearings, and did not commission detailed studies or collection of new data.

The review had 12 meetings with stakeholders. The stakeholder groups can be broken down as follows:

- Surveyors Board;
- tertiary institutions;
- Office of Surveyor General (OSG);
- Land Titles Office (LTO);
- client groups;
- surveyors' professional organisations.

There are significant issues which would have been investigated in the course of a more wide-ranging review. For example, there is a possibility that the surveying market in some country areas is not sufficiently competitive. The best way to test this would be to investigate market shares of specific firms in specific areas, as well as fees charged for certain types of surveys.²

Cost-benefit assumptions

It has not always been possible in this review to calculate costs and benefits. Apart from specific costs and benefits, changes to legislation can also have more far-reaching impacts. For example, in April 1996 a West Australian court interpreted local strata title legislation in a way that affected liabilities of strata title owners. The market reacted by lowering strata title value by about 15%. West Australian strata title law was changed in January 1997 in order to rectify the shortcoming perceived by the market.³ It is unlikely that legislators could have predicted the court's decision and its impact in advance. Not only are individual changes important, but also their impact on the overall legal framework. If the property market perceives one general framework as being superior to another, this will affect property values, but it is not possible to predict with 100 percent certainty the effect of any statutory changes on market perception. Nevertheless, the Western Australian example is useful in giving an order of magnitude.

Some of the restrictions identified by this review are minor. Actual elasticities in the Victorian surveying market are not known. For this reason, the review generally uses a figure of 10% change in surveying costs for minor restrictions on competition. The suggestion is that all the minor restrictions, when assessed as part of a system, can affect surveying costs by 10%. The suggestion is not that each individual restriction affects surveying costs by 10%.

² There is anecdotal evidence that the surveying market in one commuter town near Melbourne was for decades dominated by an individual whose father was the shire engineer. When other surveyors attempted to submit plans to the shire council, their plans were inevitably rejected or held up for unreasonable periods. Consumers soon realised that the only way to get survey approvals was to use the services of this one surveyor.

³ The West Australian property market became aware of the implications of legislation in April 1996. The relevant legislation was amended in January 1997. This period covers neither a full calendar year nor a full financial year, so it has not been possible to find reliable statistics to validate the figure of 15%, which is an unofficial estimate from West Australian sources.

Table 2. Administration of surveyors - developments since 1895

Year	Act	Significant Features
1895	<i>Land Surveyors Act</i>	Established the Surveyors Board, authorised to hold records of licenses and deal with offenses under the Act
1915	<i>Land Surveyors Act</i>	Consolidated the law relating to surveyors
1922	<i>Land Surveyors Act</i>	Authorised the Surveyors Board to give any licensed surveyor a letter of recommendation to any reciprocating State of the Commonwealth or New Zealand.
1928	<i>Land Surveyors Act</i>	Consolidated the law relating to surveyors
1942	<i>Land Surveyors Act</i>	'Plan', 'survey' and 'title survey' defined for the first time. Board's functions broadened to include training under indentures of apprenticeship. Provided for the appointment of three licensed surveyors to the Board, provided that when a degree course in surveying was established at the University of Melbourne a licensed surveyor would be appointed upon nomination to the Minister by the University.
1945	<i>Land Surveyors Act</i>	If, at any time, there was no person holding the office of Government Astronomer, the Governor in Council could appoint a person with suitable occupation and training to be a member of the Board.
1953	<i>Land Surveyors Act</i>	Granted further power to the Board to prescribe or approve courses of training and to hold or approve examinations and grant Certificates of Competency. Board empowered to publish a handbook containing Acts and Regulations and other such matter valuable to surveyors.
1958	<i>Land Surveyors Act</i>	Consolidated the law relating to surveyors.
1977	<i>Land Surveyors (Surveyors Board) Act</i>	Amended the constitution of the Board by deleting reference to the office of Government Astronomer and widened the teaching nomination to a licensed surveyor engaged in the teaching of surveying in a tertiary course approved by the Board. Person holding the office of Surveyor and Chief Draughtsman in the Office of Titles was appointed Deputy Chairman of the Board.
1978	<i>Surveyors Act</i>	Created the system of registration as opposed to licensing. Introduced a requirement for firms to be controlled by surveyors. Required surveyors to give notice when entering land. Allowed reciprocal arrangements to be established with countries beyond Australia and New Zealand.

Objectives of the legislation

The main purpose of the *Surveyors Act 1978*, as stated in the second reading speech, is to regulate cadastral surveying and to protect the public by ensuring confidence in the Torrens title system of land registration⁴. The Act does this mainly by imposing high entry barriers.

The introduction of the *Act* consolidated and updated surveying legislation which was first introduced last century and progressively modified every few decades. The Government of the day felt that surveying legislation needed to be reviewed because of “changes in educational standards, professional practice methods, and the technological advances that have occurred over recent decades”.

One new feature of the *Act* was a possibility of entering into reciprocal arrangements with any country outside Australia. Previously the *Act* had referred to a “reciprocating State”, now it refers to a “reciprocating country”. At the time, Malaysia was felt to be “of particular interest” for reciprocal arrangements.

Another new feature of the *Act* was the system of registration. Registration created a category of surveyors who were highly qualified but not authorised to perform cadastral surveys. “It must be expressly pointed out that non-registration will not preclude any engineer or any person from carrying out any engineering, topographical, or any other type of survey except any cadastral survey. The intention [of registration] is simply to enable persons who have appropriate qualifications and practical experience to be registered as surveyors so that the public will be aware of who is qualified by the Surveyors Board standards. The introduction of the system of registration will protect the public and at the same time have no adverse effect on any individual.”

The *Act* also introduced a requirement for a firm or corporation engaged in surveying to be controlled by surveyors or equivalent professions. Originally the Government’s intention was to impose a two-thirds control requirement. The Opposition suggested this be modified to one-half control, mainly to accommodate two-member firms, in particular husband-and-wife firms created to minimise taxation. The Government willingly accepted this amendment.⁵

The *Act* retained the power of the Board to set fees. The Opposition suggested that this power should be subject to a veto by Parliament, in case the Board set fees too high, resulting in protests from members of the public. The Government willingly agreed to this amendment.⁶

The *Act* also retained the power of surveyors to enter any land for the purposes of a survey, but for the first time introduced a requirement that the surveyor give “as reasonable a notice as practicable of his intention”. This was because the Government realised that the previous *Surveyors Act* was the “only Act under which people could enter on to a property without

⁴ Mr Borthwick, Minister of Lands, in second reading speech of 14 September 1978, *Parliamentary Debates (Hansard), Parliament of Victoria* (1978). The quotations in the following three paragraphs are also from this speech.

⁵ Debate of 17 October 1978 between Mr Borthwick, Minister of Lands and Mr Wilton, Member for Broadmeadows, *Parliamentary Debates (Hansard), Parliament of Victoria* (1978)

⁶ Debate of 17 October 1978 between Mr Borthwick, Minister of Lands, Mr Wilton, Member for Broadmeadows, and Mr Whiting, Member for Mildura, *Parliamentary Debates (Hansard), Parliament of Victoria* (1978)

giving any notice". The Opposition pointed out that the form of notice (telephone, writing, etc) was not important, because "if common sense prevails, members of the profession will not be inhibited in doing their duty".⁷

The 1978 parliamentary debate also brought up the issue of a code of ethics for surveyors, to be introduced and policed by the Surveyors Board. Policing could be done through annual practising certificates, or through a bond posted by the surveyor. The Government chose not to act on this suggestion. The Government chose also not to act on a suggestion that the Surveyor-General's and Titles Office functions could be merged into one body.⁸

Since 1978, the *Surveyors Act* has been amended by eight different Acts. None of these amendments has involved matters that have a major effect on National Competition Policy.

The industry

The term "surveying" covers a broad range of professions: cadastral surveyors; hydrographic surveyors; quantity surveyors; mining surveyors and engineering surveyors. While other surveyors, such as hydrographic or mining surveyors, have the same basic skills training as cadastral surveyors, their activities are mostly regulated by other Acts. For this reason, other surveyors are outside the scope of this review. Charts 1 and 2 show the breakdown between cadastral survey and other survey work within Australia. Charts 3 and 4 break down employment in the surveying industry by State.

The *Surveyors Act* also covers surveyors who have equivalent qualifications to cadastral surveyors, but who are not authorised to carry out cadastral work. In Victoria they are known as "registered surveyors". In Victoria there are currently 1041 licensed (cadastral) surveyors and 16 registered surveyors. Of the 1041 licensed surveyors, 350 to 400 are estimated to be active in the sense that they regularly submit plans to the Titles Office.⁹ Chart 5 shows sources of employment for cadastral surveyors in Victoria. Chart 6 illustrates the number of cadastral surveyors across Australia and New Zealand.

In 1992/93, the surveying market in Victoria was estimated to be worth \$30 million¹⁰, which had fallen from \$41 million in 1987/88¹¹. In 1996 dollars, this means that the value of the Victorian surveying market was \$56 million in 1987/88 and \$33 million in 1992/93. Since 1992/93 was a low point of the Victorian economy, we can assume that the value of surveying services will have rebounded to some extent.¹²

⁷ Debate of 17 October 1978 between Mr Borthwick, Minister of Lands and Mr Wilton, Member for Broadmeadows, *Parliamentary Debates (Hansard), Parliament of Victoria (1978)*

⁸ Mr McInnes, Member for Gippsland South, 17 October 1978, *Parliamentary Debates (Hansard), Parliament of Victoria (1978)*

⁹ The estimate of 400 active surveyors is from Office of the Surveyor General, *A Review on the Regulation of Cadastral Surveyors in Victoria* (1995), p. 1. The estimate of 350 is currently used by officials of the Board and the Office of the Surveyor General.

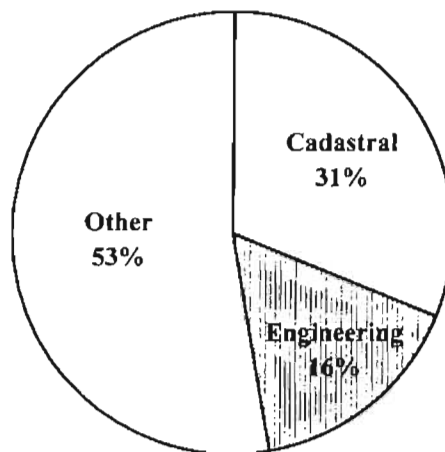
¹⁰ Gross income of surveying firms, according to Australian Bureau of Statistics, *Selected Technical Services Australia 1992/93*, Catalogue No. 8676.0. Unless otherwise stated, all 1992/93 figures are from the same source.

¹¹ Turnover of surveying firms, according to Australian Bureau of Statistics, *Surveying Services Industry Survey 1987/88*, Catalogue No. 8665. Unless otherwise stated, all 1987/88 figures are from the same source.

¹² This analysis compares "turnover" with "gross income". Turnover is defined as gross income minus receipts from interest, dividends and sales of fixed tangible assets. None of these items is significant for surveying firms. If the items were significant, the fact that the later, smaller, figures show gross

In 1987/88 Victoria accounted for 13.2% of the Australian surveying market (Chart 7), and 15.5% of the Australian cadastral surveying market. In 1992/93 Victoria accounted for 6% of the Australian surveying market (Chart 8). In 1987/88 cadastral surveying accounted for 49% of the Victorian surveying market and 41% of the Australian surveying market. In 1992/93 cadastral surveying accounted for 31% of the Australian surveying market.

Chart 1. Surveying services: sources of income in Australia (1992-93)



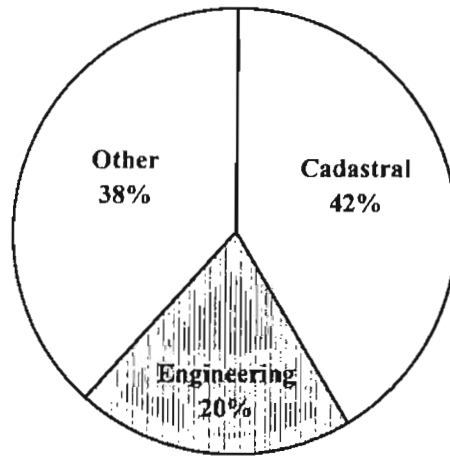
Source: Australian Bureau of Statistics, *Selected Technical Services in Australia (1992-93)* p.17

From these figures, it appears that the value of cadastral surveying in Victoria, in 1996 dollars, was \$28 million in 1987/88, and somewhere between \$10 million and \$16 million in 1992/93. If we assume that the 1996/97 market is somewhere between those two figures, we can say that the value of cadastral surveying services in Victoria is now about \$20 million. We can therefore say that the *Act* regulates between 6% and 15% of the Australian market for cadastral surveyors, and between 31% and 49% of the total Victorian market for surveyors, whether cadastral or not. Total billings of Victorian cadastral surveyors are around \$20 million, which is therefore the size of the market regulated by the *Surveyors Act 1978*.

The Victorian market can be considered to be a separate market because of the barriers to entry between jurisdictions. In order to practise in another jurisdiction, a surveyor needs to apply to the relevant authority and pay a fee. The process usually takes three months or more. Few people go through this process unless they intend to work regularly in that State. There is probably no individual who is entitled to work in every Australian State, or even a majority of States. For these reasons, it is valid to talk in terms of markets that are delimited by State boundaries.

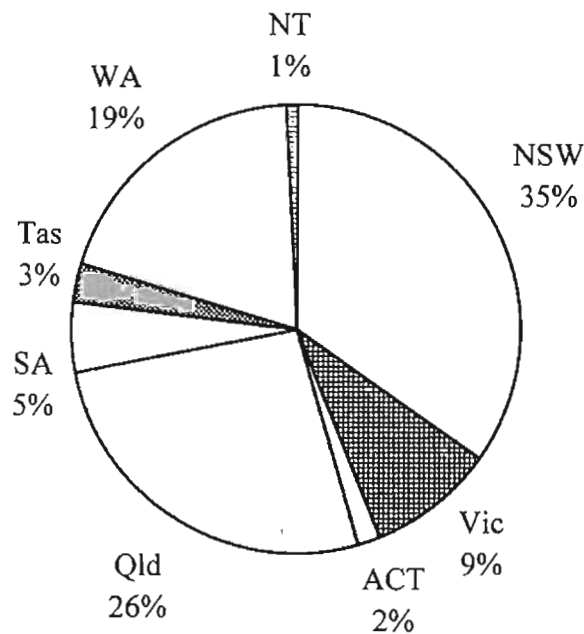
income would suggest that the market for surveying shrank more than the figures indicate. The ratios used to convert figures into 1996 dollars are 1.377 for 1987/88 and 1.1 for 1992/93.

Chart 2. Surveying services: sources of income in Australia (1987-88)



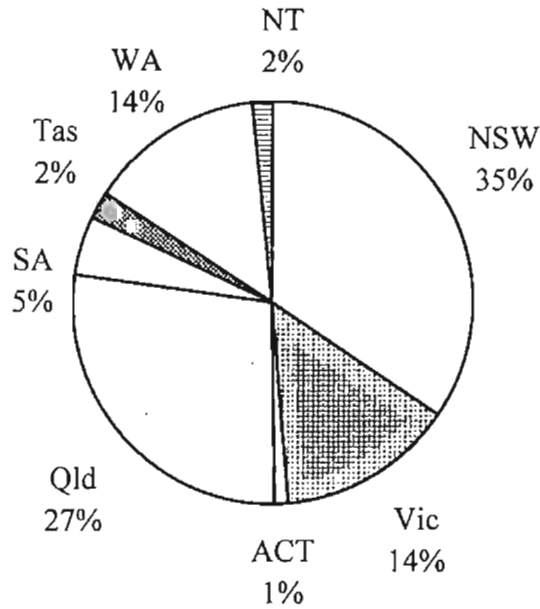
Source: Australian Bureau of Statistics, *Service Industries Surveys: Surveying Services Industry Australia (1987-88)* p.6

Chart 3. Total employment in the surveying industry (1992-93)



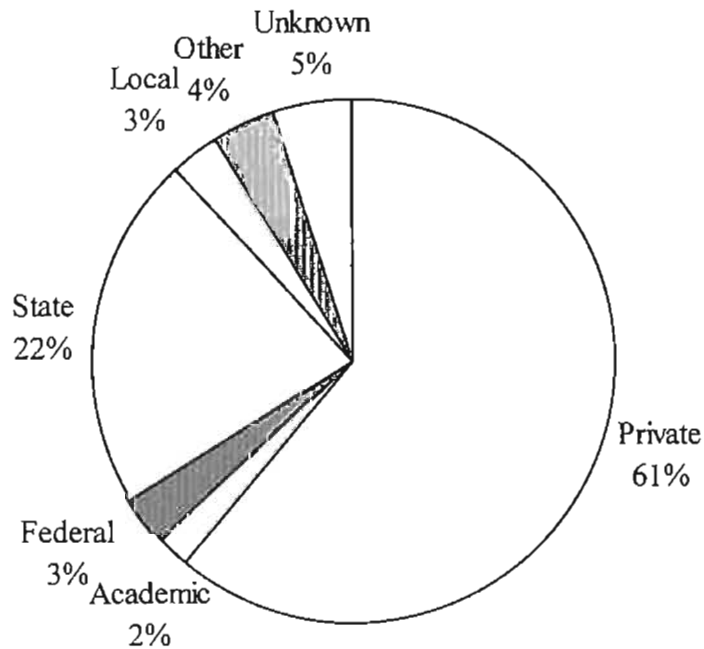
Source: Australian Bureau of Statistics, *Selected Technical Services in Australia (1992-93)* p.21

Chart 4. Total employment in the surveying industry (1987-88)



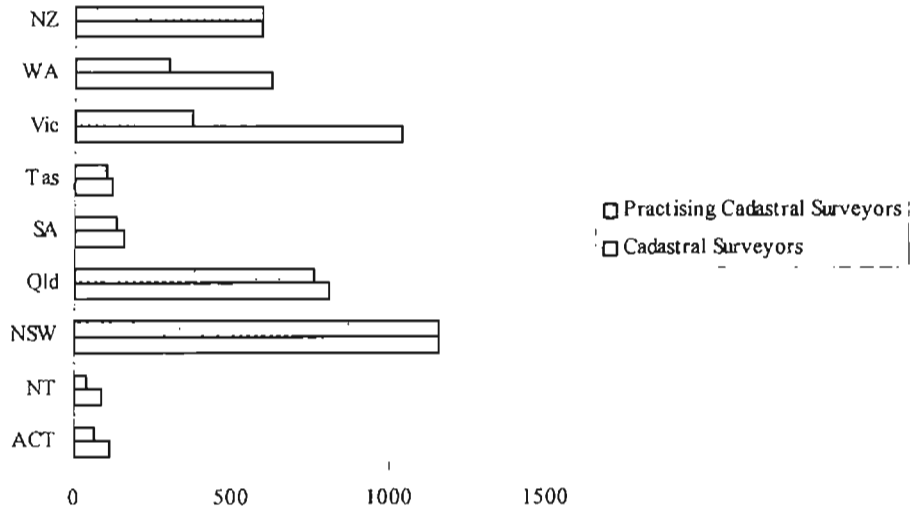
Source: Australian Bureau of Statistics, *Service Industries Surveys: Surveying Services Industry Australia (1987-88)* p.4

Chart 5. Employment of cadastral surveyors in Victoria (1995)



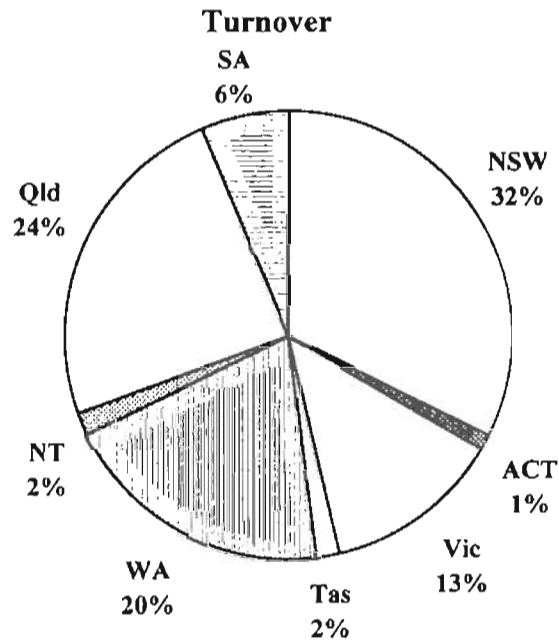
Source: Perry, L. & Roberts, T., *Survey of Licensed Surveyors (1995)* p.4

Chart 6. Numbers of cadastral surveyors



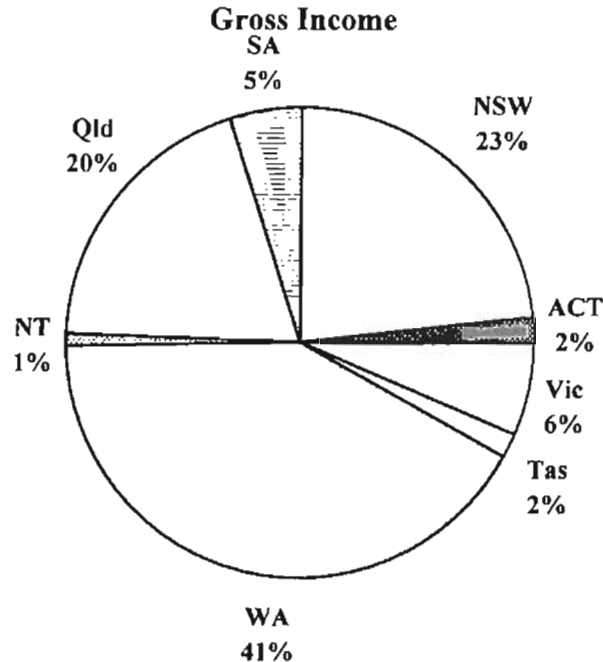
Source: Surveyors Boards of Australia and New Zealand

Chart 7. Surveying market share (1987-8)



Source: Australian Bureau of Statistics, *Service Industries Surveys: Surveying Services Industry Australia (1987-88)* p.4

**Chart 8. Surveying market share
(1992-3)**



Source: Australian Bureau of Statistics, *Selected Technical Services in Australia (1992-93)* p.21

Skill requirements for cadastral surveying

A cadastral surveyor is a person who carries out surveys to determine, define and re-establish boundaries of land titles.¹³ Cadastral surveying “is primarily concerned with the laws relating to the ownership of land and the definition on the ground of title boundaries and the recording of such information on plans and maps”.¹⁴

A surveyor attempting to establish a physical boundary of a title must use different sources of information. One source of information is landmarks such as fences, watercourses, high-water marks, roads or railways. The position of such landmarks can change over time, and surveyors apply conventions to quantify such changes as far as possible. For example, fence posts are usually measured from the centre, but corner fence-posts are usually measured from the corner. Fence-posts can lean over time, and surveyors use specific rules to estimate the original position. Rivers and seas can erode land or add land. Sometimes landmarks are used in combination with methods such as satellite positioning.

There are numerous pitfalls for inexperienced surveyors. Some landmarks marked on maps may have changed. For example, a fence originally marking a boundary may have been hastily replaced after a fire by a fence which was not intended to mark a boundary, but simply to separate stock. In some cases, it may be necessary to consider the eaves of a house rather than the walls when determining a point of reference.

¹³ Office of the Surveyor General, *A Review on the Regulation of Cadastral Surveyors in Victoria (1995)*, p.1

¹⁴ The Surveyors Board Victoria, *Survey Practice Handbook Victoria*, Part 3 (1994), p.11

Legal issues are just as complex as measurement issues. The legal rights attached to land can be affected by neighbouring Crown land, or by easements. A positive easement, for example, can allow a neighbouring landholder to use a portion of the title for transport of water, or stock. A negative easement can prevent a neighbouring landholder from blocking a title's sunlight or air.

A surveyor must be aware of all these matters when advising a client, particularly when the client wishes to subdivide land, or combine separate titles. A surveyor is uniquely qualified to advise on matters such as subdivision, because a surveyor has the best understanding of the relationship between a physical title and all these abstract issues attached to it.

Surveyors also need to be aware of technology developments which affect their work. Computer technology, for example, shortens days of calculations to minutes. Laser technology allows much greater accuracy than that employed when many titles were originally laid out.

Because of the wide range of work involved in cadastral surveying, tertiary qualifications in surveying require knowledge of subjects such as Measurement Science, Computer/Information Science, Statistics, Spatial Information Technology, and Land Law and Management.

In addition to classroom study, surveyors in all Australian jurisdictions are required to undertake a training program with a practising surveyor, or to attend postgraduate practical training. This training is considered necessary to teach surveyors how to apply theories to the confusing and uncertain data they encounter in the field. Victoria currently requires 360 days of practical training.

It is beyond the scope of this review to determine exactly which subjects are appropriate for tertiary courses, what surveyors should learn in practical training, and how long practical training should be. Appendix 1 has a brief examination of the relationship between course design and supply in the surveying market.

The Torrens system of land title

Victoria has three types of land title¹⁵:

- Torrens title (60% of land);
- Old Law title (5% of land);
- Crown land (35% of land).

The essence of the Torrens title is that the Government keeps a central register of land ownership and this register is the authoritative record of ownership. The register also shows beneficial interests in land, such as mortgages. The Government guarantees ownership according to the register. The register also contains plans of titles.

Under the Old Law system, owners possess documents which trace the ownership of land back to an original grant last century. Remaining Old Law titles have generally not been converted to Torrens title because of the expense of conversion. Some other States have forced holders of Old Law titles to convert to Torrens title.

¹⁵ Office of the Surveyor General, *A Review on the Regulation of Cadastral Surveyors in Victoria* (1995), p.11

The Torrens title system has much lower transaction costs than the Old Law system. Under the Old Law system, the buyer must ensure that the documents:

- are authentic;
- present an unbroken line of ownership back to an original grant of land;
- are complete, in that there are no missing documents indicating mortgage or previous sale.

Under Torrens title, a buyer simply checks the central register to ensure that the seller is the owner, and that the land is free from mortgages. The buyer is protected by government guarantee from any errors in the registry information.

In addition to information about ownership, the Torrens registry has plans which show important details such as roads, neighbouring titles, easements and boundaries. Without this information, every buyer would need to have the title surveyed in order to be sure that the title is actually situated as the seller claims.

Box 1. Transaction costs and perceptions

The Torrens system lowers transaction costs in the property market in a similar way to which money lowers transaction costs in all markets. It is worth considering the role of money in order to provide an analogy for the effects of weakening the Torrens system.

Australia has a very efficient monetary system. The value of Australian money is relatively stable. The incidence of counterfeit money is negligible. Australian money is freely exchangeable for other money. All these features rely on a public perception that money is controlled by a strong and competent government. "Private" money exists, but its value depends on the degree to which it is interchangeable with government money (IOUs are valued less than personal cheques, which in turn are valued less than travellers cheques, bank cheques or credit cards).

Most countries have public perceptions of money which lead to higher transaction costs than in Australia. For example, where the public perceives a high incidence of counterfeit money, shops and banks install machines such as ultra-violet lamps to check all large notes. Where the public expects a government to print excess money and cause hyperinflation, workers can make a significant effort to spend their salary within minutes of receiving it in order to convert its evaporating value into real goods. Where money is not freely exchangeable at a fair rate, people will use risky black markets to buy foreign currencies which are perceived to be more stable.

The Torrens system works in a similar way to money. The public perception in Victoria is that information in the Titles Office is accurate and licensed surveyors perform accurate surveys. These two perceptions are backed by Government guarantee of title, and regulatory control over the quality of surveys. A weakening of these perceptions would lead to higher transaction costs in a similar way to counterfeiting - consumers would have to expend effort to check the validity of Titles Office information, or the accuracy of previous surveys. In a similar way to "private" money, it would be possible to set up a "private" cadastral system, but its value would depend on its recognition by the official cadastral system. In a sense, non-government surveyors form part of a "private" cadastral system, but the main value of their work depends on the degree to which it is accepted by the Titles Office.

Restrictions and recommendations

Restriction 1. There are legislative entry barriers to the surveying market.

Sections 9, 10, 11, 12, 13, 14, 16, 18, 22, 23. Regulations 7, 8, 10, 12, 14, 16 of *Surveyors (Registration) Regulations 1992*

Summary of legislative provisions

Section 9 specifies that the Surveyors Board “may ... approve training agreements” and that the secretary of the Board “shall record ... the prescribed particulars of training agreements”.

Section 10 specifies that the Board shall issue a certificate of competency in surveying to a person who has satisfied certain educational and training requirements. Section 11 specifies similar requirements for the issue of a certificate of competency in cadastral surveying. Regulation 12 refers to Schedule 2, which sets out eight degree courses within Australia which are appropriate qualifications for the purposes of Section 10. Regulation 14 specifies that an applicant for a certificate of competency must pass:

- an examination in professional practice;
- a cadastral law assignment;
- an examination in cadastral law and cadastral practice.

Regulation 14 also sets out circumstances where the Board can exempt an applicant from any of these requirements. Regulation 16 specifies that a cadastral law assignment must be completed within 6 months of applying to do it.

Section 12 states that the Board shall register an applicant as a surveyor if the applicant holds a certificate of competency issued by the Board and is “of good character and is a fit and proper person to be so registered”. Section 16 applies similar criteria to applicants who wish to be authorised to perform cadastral surveys. Chart 9 illustrates the process for qualification as a registered or licensed surveyor.

Section 13 states that the Board shall issue a certificate of registration to any person registered under section 12. Section 14 states that the Board shall keep a register of surveyors, and that a certificate signed by the secretary of the Board shall be *prima facie* evidence that a person is or is not on that register.

Section 18 sets out circumstances under which a surveyor can have his registration cancelled or suspended. These circumstances include:

- making of a “survey or plan which is so inaccurate or defective as to be unreliable”;
- certifying to the accuracy of a survey which was not performed under his control;
- certifying to the accuracy of a survey which does not comply with regulations;
- suspension or cancellation of registration in another jurisdiction;
- obtaining registration by misrepresentation or concealment of facts;
- conviction of an indictable offence in Victoria, or anywhere else as long as the offence would be indictable in Victoria.

Regulation 7 specifies that a person who wishes to obtain a certificate of competency must complete at least 360 days of training. A person wishing to obtain a certificate of competency in cadastral surveying must have at least 240 days of direct experience of cadastral surveying within those 360 days of training.

Regulation 8 specifies that a training agreement approved by the Board must be supervised by a surveyor who has been registered (or licensed to do cadastral surveys) for at least two years.

Regulation 10 limits a registered or licensed surveyor to supervising a maximum of two approved training agreements at any one time.

The *Act* and Regulations are complemented by *Guidelines to Support Surveyors (Registration) Regulations 1992*, which set out further detailed criteria for entry to the surveying profession.

Reason for the restriction

Government regulation of surveying dates back over a hundred years. Before the introduction of strict requirements for entry to the surveying profession, land surveying was frequently prone to expensive error. For example, it is estimated that between 1876 and 1879 more than 40% of Lands Department budget was spent on re-surveying previous surveys¹⁶. The Government, because of its interest in the Torrens title system, required accurate surveys, and for this reason imposed regulations which had the effect of raising the quality of surveying.¹⁷

The surveying profession is linked to the Torrens system through the Land Titles Office (LTO). Currently only licensed cadastral surveyors may lodge plans with the LTO.

Alternatives to the restriction

Total deregulation, to remove legislative entry barriers, would mean a removal of LTO lodgement rules. This would mean that anyone could lodge survey plans with the LTO. Individuals who had a history of lodging inaccurate plans could not be denied access. The LTO could not reject plans on the basis of audit.

Effect of removing the restriction

One alternative to regulation of the profession is deregulation. Deregulation in the surveying industry would be felt reasonably quickly. Since anyone could now lodge plans, new entrants to the market would be numerous. Many titleholders would probably choose to lodge their own plans.

Currently, the possibility of de-registration because of inaccurate surveys is a major incentive for surveyors to perform accurate work. The key question is: would a deregulated market develop mechanisms to maintain the accuracy of the cadastre?

When assessing the scope for deregulation of surveying, the surveying market has three important characteristics which must be taken into account:

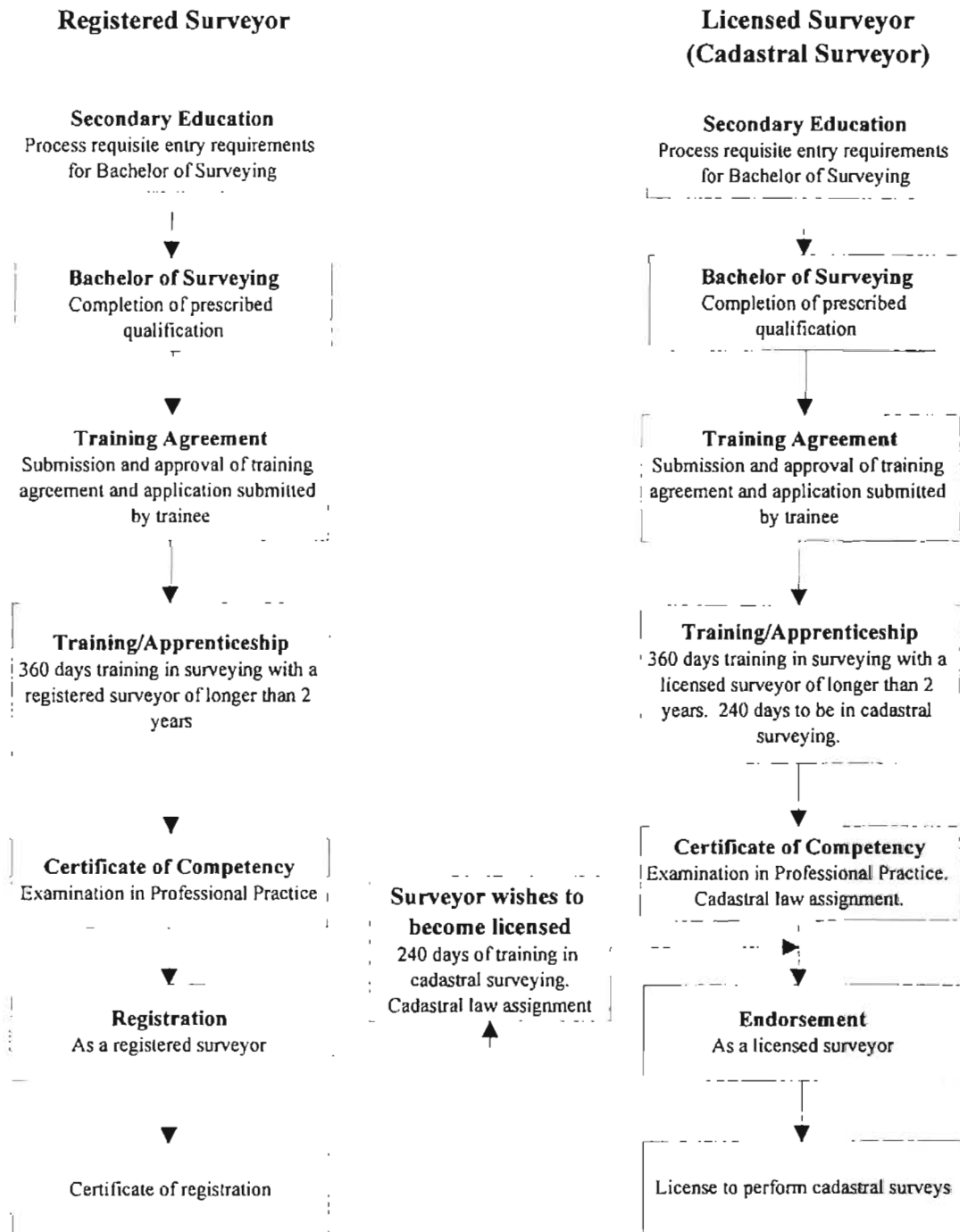
- asymmetric information (buyers have no way of assessing the quality of the work performed by surveyors);

¹⁶ Office of the Surveyor General, *A Review on the Regulation of Cadastral Surveyors in Victoria* (1995), p. 3

¹⁷ The inaccuracy of early surveys in Melbourne can be gauged by Punt Road. On the original survey maps this was shown as a straight line for its whole length, but even today its alignment changes visibly where it crosses the Yarra River.

- imperfect information flow (clients do not know the reputation of individual surveyors and cannot readily assess the quality of work done); and
- a high degree of externalities (third parties can be affected by a market transaction that is beyond their control).

Chart 9. Current process for qualification as a surveyor



The reason for information asymmetry in the surveying market is the high level of technical knowledge and practical experience required to perform accurate surveying work. A

consumer is not able to assess the accuracy of a survey without engaging a skilled surveyor to do so. Surveyors are in this way similar to most professionals - clients seek their services because they have specialised knowledge the client does not have.

The reasons for imperfect information flow in the surveying market are the frequency with which consumers use surveying services and the difficulty in detecting poor survey work. Most Victorian consumers use surveying services once, if ever, in their lifetime. Their friends and acquaintances use these services equally rarely. Even if they commission an inaccurate survey, they may not know for years that it is inaccurate. For these reasons, consumers are unlikely to have information on the level of competency of a particular surveyor.

Box 2. Externalities¹⁸

Externalities arise where an activity, service or good confers spillover costs on third parties even though they are not a party to the initiating activity.

Examples of negative externalities include:

- a factory owner discharges polluting waste into a river, imposing 'costs' on other users of the river which the factory owner does not bear;
- a motorist driving an unroadworthy vehicle places other motorists and pedestrians at risk.

As spillover costs are not borne by the original party to an activity, there are few market incentives for the party to reduce the level of the activity which generated the negative externality. Government may take steps to reduce the incidence of such events in any of the following ways:

- by prohibiting the activity outright (eg drink driving);
- by imposing a tax or charge on the activity (eg 'polluter pays' taxes);
- by imposing minimum safety standards (eg roadworthiness requirements imposed upon all vehicles);
- by creating tradeable property rights in the harmful activity in order to 'internalise' the externality (eg tradeable pollution permits and quotas).

Examples of positive externalities include:

- a scientist develops a drug cure for a previously incurable disease;
- a parent has his child immunised against a communicable disease, reducing risks to other children.

Externalities arise in the surveying market because each title is defined with respect to neighbouring titles and landmarks. Surveyors take bearings on these neighbouring features, which have been marked by previous surveyors. If any previous markings are found to be inaccurate, the surveyor's work is greatly increased, since he must attempt to clear up any discrepancies. It has been estimated one defective survey affects five nearby titles. Subsequent surveys on each of these titles will require 50% to 100% extra work.¹⁹ It is worth noting that surveyors act not only for their client, but for all landholders. Surveyors are in fact considered to be officers of the State, in a similar way to lawyers, who are considered officers of the Court.

¹⁸ Adapted from Department of Premier & Cabinet (Victoria), *National Competition Policy: Guidelines for the Review of Legislative Restrictions on Competition* (1996B), section 2.5

¹⁹ Office of the Surveyor General, Department of the Treasury and Finance (Victoria), *A Review on the Regulation of Cadastral Surveyors in Victoria* (1995), p. 8

Box 3. Markets and information flows

The surveying market is characterised by information asymmetry and imperfect information flow. This is most simply demonstrated by comparing the surveying market with two markets where information flows more efficiently - restaurants and automotive services.

Restaurants operate in a very efficient market. Consumers go to a restaurant ten or twenty times a year. They know within an hour whether the service is satisfactory, the ambience is pleasing, the food tastes good and is served in sufficient quantity. They know within a day whether the food is prepared to adequate hygiene standards. They tell their friends immediately whether or not they are satisfied. For this reason, a popular restaurant that lowers its standards can lose most of its business in two or three months. If restaurant patrons are seriously dissatisfied, they may demand to see the owner. If the owner decides they do not need to pay, the restaurant has immediately felt the effect of its actions. This immediate recourse means that transaction costs are very low when customers have a claim on the service provider. Given these characteristics of the restaurant market, there is no real pressure for the Government to regulate on matters such as level of service or the exact make-up of different dishes. Governments in Australia usually only regulate restaurants with regard to hygiene standards and externalities caused by alcohol consumption. In brief, the fast information flow, the low level of expert knowledge needed to assess food and the low transaction costs mean the restaurant market requires little regulation.

Automotive services operate in a less efficient market. Consumers are likely to use automotive services four or five times a year. They do not have the technical knowledge to know immediately whether the work is performed well, but they will find out within days, weeks or at most months. If they are not satisfied, they will tell their friends, who also use automotive services four or five times a year. In this way, the market works slowly to reward those companies that provide better automotive services. It does not work perfectly, and it can take a long time for a better company to succeed over a worse company. Governments nevertheless regulate the automotive services market to some degree, partly because of safety reasons.

Compared to these two markets, the market for surveying services is not very efficient. Consumers in Victoria are likely to use surveying services once or twice in a lifetime. They need not know for years whether the survey was accurate. They will probably discover an inaccuracy long after major damage has been done. In the meantime, they may have recommended a surveyor to their friends on the grounds of his people skills and low fees rather than his surveying expertise. If consumers wish to obtain compensation through civil courts, transaction costs are very high. While there are no safety considerations, the high level of potential damages has led governments to intervene in the surveying market.

The strongest effect of deregulation would come about because of externalities. In a deregulated environment, it is possible for consumers to expend significant effort in order to overcome information asymmetry and poor information flow. But an inaccurate survey may serve the property owner's interest, if it results in an expansion of the property they occupy. Such a benefit conflicts with the self-interest of nearby titleholders who stand to be adversely affected by inaccurate surveys.

If nearby titleholders do not have confidence in the outcome of a particular survey, they will need to engage surveyors to duplicate the work. If there is no control over the quality of surveying work, it is conceivable that the credibility of survey work will be so low that no titleholder will trust a survey commissioned or performed by any other titleholder. In this

way, each survey could lead to five more surveys, and each of these surveys will require 50% to 100% more work than now in order to be accurate. If the conclusions of all the surveys are contradictory, the resulting boundary disputes will need to be resolved through litigation, since there will be no other way to determine which surveyor's work is likely to be more accurate.

Even if neighbouring titleholders trusted each other and knew that their neighbours would not deliberately attempt to establish inaccurate boundaries, they would have no certainty that a surveyor was competent or thorough. A surveyor can save time by not taking references from a sufficient number of points, or indeed by not taking references from any points at all. Even if a titleholder watched a surveyor perform his task, the titleholder would have no way of determining whether the surveyor was actually performing a genuine survey. Neighbouring titleholders would therefore need to engage another surveyor to duplicate the work, but once again would have no certainty that their surveyor's work was any more precise.

In a deregulated environment, surveyors with lowest charges would be in greatest demand. Such surveyors might have lower profit margins but would be more likely to have lower costs. Such lower costs could result from their being relatively more efficient, but given information asymmetry and imperfect information aspects of this market, it is also likely that lower costs are achieved through spending less time on surveys and engaging less qualified assistants. Substandard surveyors could therefore compete more effectively than conscientious surveyors in this deregulated environment than in an environment where quality of work is regulated.

Conscientious surveyors could attempt to form organisations with strict quality criteria. But would clients have sufficient incentive to engage these more expensive surveyors? If one titleholder engaged a "quality" surveyor, and his neighbour engaged a "cheap" surveyor, the neighbour with the cheap surveyor would have no reason to accept the results of the quality surveyor. A dispute could only be resolved through litigation. In that case, the court would need to determine which survey was more accurate, which would probably involve the court commissioning a third surveyor to conduct an authoritative survey. In this way, the courts would assume the current role of the Surveyors Board in determining the accuracy of surveys, but at a much higher cost.

Deregulation would also affect every property transaction. Buyers would no longer have the certainty that title boundaries were accurate (unless the boundaries had been the subject of litigation), and would need to commission a survey before buying. This would impose a significant cost on every property transaction.

The ultimate outcomes of deregulation would therefore be likely to include:

- a predominance of low-quality survey work;
- litigation to determine the accuracy of surveys, with civil courts ultimately replacing the current regulatory body as the arbiter of accuracy;
- a need for titleholders to commission a survey each time a nearby titleholder performed a survey; and
- a need for property buyers to commission a survey each time they bought property.

National Competition Policy guidelines list four possible sources of market failure that justify regulatory intervention. These four sources are:

- public goods;
- externalities;

- natural monopolies;
- information asymmetries.²⁰

Two of these features, externalities and information asymmetries, are present in the market for cadastral surveying. This is a strong argument for regulatory intervention.

Costs and benefits of restriction

The benefit of high standards of surveying is given by the avoidance of future costs of boundary disputes and ownership uncertainty.

It is estimated that de-regulation would lead to about 600 property disputes per annum. If 10% resulted in litigation, at a cost of \$50,000 to \$500,000 per case, the cost would be between \$3 million and \$30 million per year. These costs would rise in subsequent years, as boundaries became increasingly uncertain and litigation increased correspondingly.²¹

The cost of continued Government regulation can be estimated at about \$500,000 per annum.²² Costs of reduced competition in the surveying industry are not known, but unlikely to exceed costs of deregulation cited in the previous paragraph.

The benefit of this restriction is a greater certainty about the quality of surveys and the quality of the cadastre, which leads to lower transaction costs. The value of this benefit can be estimated to be in the range of \$3 million to \$30 million per annum. The cost of this restriction is about \$500,000 per annum.

On balance, this review considers that costs to the community arising from regulation of the surveying market are strongly outweighed by benefits, so this review recommends that the restriction be retained.

Recommendation 1. There should be legislative restrictions on entry to the cadastral surveying market, in order to safeguard the credibility of the Torrens title system.

²⁰ Department of Premier & Cabinet (Victoria), *National Competition Policy: Guidelines for the Review of Legislative Restrictions on Competition* (1996B), section 2.5

²¹ Ministry of Finance, *Regulatory Impact Statement for Surveyors (Licensing & Registration) Regulations 1992* (1992), p. 6

²² Ministry of Finance, *Regulatory Impact Statement for Surveyors (Licensing & Registration) Regulations 1992* (1992), p. 6. The cost of licensing and registration regulations is estimated at \$336,000 annually. Ministry of Finance, *Regulatory Impact Statement for Surveyors (Cadastral Surveys) Regulations 1995* (1995), p. 23. The cost of cadastral surveys regulations is estimated at \$100,000 per annum. With inflation and the possible cost of other, minor, regulations, we can estimate the total cost at \$500,000.

Restriction 2. Entry to the surveying market is controlled by a single body, the Surveyors Board.

Sections 9, 10, 11, 12, 13, 14, 16, 18, 22, 23. Regulations 8, 14, of *Surveyors (Registration) Regulations 1992*

The legislative provisions relating to this restriction are summarised in the discussion concerning Restriction 1.

Reason for the restriction

The Surveyors Board ensures that cadastral surveyors have a high level of technical proficiency and practical training. The Board can remove from practise surveyors who lodge inaccurate plans. In this way, the Board ensures that surveyors have both the skills and motivation to lodge accurate plans.

The Board requires candidates to demonstrate a knowledge of cadastral law. In this way, the Board ensures that surveyors have the necessary knowledge to advise clients on matters of cadastral law.

The imprimatur of the Surveyors Board allows the Land Titles Office (LTO) and the public to have confidence that surveyors are lodging accurate plans, and that a surveyor's advice on cadastral law is likely to be accurate.

Only about 50% of all title surveys are lodged at the LTO. Other re-establishment surveys (of title boundaries) can be as important as those lodged, but do not have the level of check and review that the LTO provides. The role of the Surveyors Board is even more crucial in these situations.

Alternatives to the restriction

As demonstrated above in the discussion of Restriction 1, some degree regulation is needed to achieve the objective of accurate survey. The next question is: what is the most appropriate form of regulation?

There are five main alternatives:

1. Anyone may lodge plans with the LTO, and the LTO conducts detailed examinations of all plans lodged.
2. Anyone may lodge plans with the LTO, and the LTO conducts random audits.
3. Anyone may lodge plans with the LTO, and the LTO conducts audits based on a risk profile.
4. Only qualified surveyors may lodge surveys but there is no separate accreditation body.
5. Only accredited people may lodge plans (status quo).

The first alternative would maintain the current level of quality. It would, however, transfer surveying activity from the private sector to the LTO, making the LTO a government monopoly supplier of surveying services. This would be similar to the situation in countries like Sweden, where only government surveyors are allowed to undertake cadastral surveys.²³

²³ Office of the Surveyor General, Department of the Treasury and Finance (Victoria), *A Review on the Regulation of Cadastral Surveyors in Victoria* (1995), p. 6

Since this would lead to less competition than the status quo, it is not a desirable option from an NCP standpoint.

The second alternative would involve a trade-off between quality and level of audit. If the LTO wished to maintain the current level of quality, it would need to audit every survey, as in alternative 1. If it were willing to lower the quality, it would need to decide what level of audit should apply. There is also the question of what it could do if it discovered an inaccurate survey. It could simply order the person lodging the survey to pay the cost of audit and to submit a new survey, or it could impose a significant fine.

If a person submitting an inaccurate survey were simply required to pay the cost of audit, the incentive to submit accurate surveys would depend on the level of audit. If, for example, the LTO audited 30% of surveys, someone submitting a survey would know that there was only a 30% chance of inaccuracies being discovered. It would make economic sense for such a person to lodge inaccurate surveys if an inaccurate survey cost less than 70% of an accurate survey, or if there were other potential gains.

For example, a titleholder could hope to gain possession of extra land by submitting an inaccurate survey, building a boundary fence on the inaccurate boundaries, and eventually claiming the extra land under adverse possession. Because of these other potential gains, the LTO's audit ratio would have to be even higher than dictated by the ratio of costs between inaccurate and accurate surveys. The cost of lodging an inaccurate survey where no technical work has been carried out would be very low. Effectively, the cost of such a survey is the cost of the time and paper to submit, and the time taken to invent or estimate relevant details. If this means that an inaccurate survey costs only 10% of an accurate survey, the LTO needs to maintain a 90% audit level, as well as the additional percentage to account for possible gains from inaccurate boundaries.

Even with a 90% or 95% random audit level, the level of certainty will be less than it is now. The net effect would be similar to alternative 1 - a transfer of surveying activity from the private sector to a state monopoly.

If the LTO could impose fines for inaccurate surveys, the level of audit activity would not need to be as high. Those wishing to lodge inaccurate surveys would need to take into account the probability of a fine in the event of their survey being audited and found to be deficient.

This would in some ways be similar to the current situation.

While the current level of audit and probability of discovery is low, the "fine" is possible removal of access to the LTO, which amounts to a partial or total loss of livelihood. A monetary fine would need to be set very high in order to equate to the current penalty, and achieve the same level of quality. Enforcement would need to be rigorous and publicised. Even then, some corruption of the cadastre could occur before unqualified individuals realised that it was not worth the risk of submitting surveys that had not been checked by a qualified, experienced surveyor.

The third alternative would also involve a trade-off between quality and level of audit. The LTO would audit plans on the basis of an individual risk profile, with risk assessed by characteristics such as the following:

- a formal education in surveying;
- a formal education in related fields;
- previous lodgement of accurate plans;
- previous lodgement of inaccurate plans;

- recent convictions for fraudulent activity;
- potential gain from an inaccurate survey (ie, is the plan lodged by someone with an interest in that title or adjacent titles).

The LTO would deal at one extreme with people who are currently licensed surveyors. At the other extreme, it would deal with titleholders who have no surveying skills, have never lodged a survey, and wish to survey their own title. With all groups but those who are currently surveyors, the LTO would need to maintain an audit level higher than now in order to achieve the same level of quality. The result therefore is that some surveying activity would be transferred from the private sector to a government agency.

Alternatives 2 and 3 require the LTO to exercise judgement about the appropriate trade-off between competition in surveying and quality of the cadastre. But the LTO's interest is not necessarily the same as the interest of the general public. Since the LTO guarantees ownership, the LTO will seek to avoid any corruption of its cadastre. If the public pays for audit costs, the LTO can achieve a level of quality that minimises its own liabilities by having users pay for quality. If the LTO pays for audit costs, the LTO will set the trade-off at the point which is most advantageous to itself, ignoring the cost to the public in transaction costs from uncertain title and externalities from inaccurate surveys. This conflict of interests between the LTO and the public suggests that the LTO should not be the body to determine surveying standards. Currently, the LTO has some input into surveying standards, as it is represented on the Surveyors Board. This input needs to be balanced by input from other parties (see discussion under Restriction 9).

Alternative 4 would be a modified version of deregulation. Only people with appropriate qualifications (presumably a surveyor's degree) could lodge plans, but there would be little concrete incentive for these people to lodge accurate surveys. Without an accreditation body, there would be little chance of detection of specific errors leading to fines. Lack of an accreditation body would also mean that surveyors could not be removed from practise, which is currently the biggest single incentive for surveyors to lodge accurate plans.

Alternative 4 also fails to address the question of exactly which surveying qualifications are appropriate, and how new surveying courses might be assessed, or what content of surveying courses is absolutely necessary.

The main advantage of alternative 5 is that it involves an independent body whose role is to maintain an appropriate level of quality. The main disadvantage is that it can lead to excessively high entry barriers. Other parts of this review discuss ways of lowering or removing entry barriers without unduly affecting quality.

Alternative 5 has a number of possible variants:

- a Government-dominated body (status quo);
- an industry-appointed body;
- a body with broad representation from all stakeholders.

While it is beyond the scope of this review to make a final recommendation on which variant, or combination of variants, is most appropriate, co-regulation is briefly described below.

Other professions, and the surveying profession in South Australia, are regulated by an industry body rather than a government-controlled body. Usually this self-regulation is established by Government legislation, and the Government retains the power to change the regulatory framework of the profession. But day-to-day decisions are left in the hands of the industry. This combination of Government framework and industry decision-making is

known as co-regulation. The main argument for co-regulation is that decisions are in the hands of experts who have the fullest knowledge of the field. The main argument against co-regulation is that professionals can tend to make decisions that inhibit competition and lead to higher prices. Even if they do not make such decisions, the public can perceive them to be doing so.

Arguments for and against representation from all stakeholder groups are found under Restriction 9.

Costs and benefits

The cost of alternative 1 is the cost of field-checks of all surveys. This is estimated at \$60 million per annum.²⁴

The cost of alternatives 2 and 3 falls somewhere below the cost of alternative 1. Some surveying activity is transferred to a government agency, but the exact amount transferred would depend on the specific rules and quality targets imposed. The cost increase could be as small as 10% (\$2 million) or it could be as large as \$60 million.

The cost of alternative 4 is the same as the cost of deregulation, or \$3 million to \$30 million per annum, rising significantly in subsequent years.²⁵

The cost of alternative 5, the status quo, is estimated at \$500,000 per annum.²⁶ If the status quo is modified to become co-regulation, it is likely that the profession will seek to extract monopoly rents from surveying. This could realistically add 50% to surveying costs, or \$10 million per annum.²⁷

To summarise, the cost of the current restriction is about \$500,000 per annum. The benefit of the current restriction is maximum certainty about the quality of surveys, combined with competitive provision of surveying services. The value of this benefit can be estimated to be in the range of \$2 million to \$60 million per annum. For this reason, regulation of the profession by a single body should be retained.

Recommendation 2. Entry to the surveying profession should continue to be regulated by a single body. This body should continue to impose a high uniform standard of entry.

²⁴ Ministry of Finance, *Regulatory Impact Statement for Surveyors (Licensing & Registration) Regulations 1992* (1992), p. 6

²⁵ Ministry of Finance, *Regulatory Impact Statement for Surveyors (Licensing & Registration) Regulations 1992* (1992), p. 6

²⁶ Ministry of Finance, *Regulatory Impact Statement for Surveyors (Licensing & Registration) Regulations 1992* (1992), p. 6. The cost of licensing and registration regulations is estimated at \$336,000 annually. Ministry of Finance, *Regulatory Impact Statement for Surveyors (Cadastral Surveys) Regulations 1995* (1995), p. 23. The cost of cadastral surveys regulations is estimated at \$100,000 per annum. With inflation and the possible cost of other, minor, regulations, we can estimate the total cost at \$500,000.

²⁷ Ministry of Finance, *Regulatory Impact Statement for Surveyors (Licensing & Registration) Regulations 1992* (1992), p. 8. This estimate of a 50% increase is supported by the price changes in the computing market discussed in Box 1.

Restriction 3. Potential surveyors need to undertake a training agreement with a supervising surveyor.

Sections 9, 10, 11, Regulations 7, 8, 9, 10, 11, 13 of *Surveyors (Registration) Regulations*

Summary of legislative provisions

Section 9 specifies that the Board may approve training agreements and record them in a book kept for that purpose.

Section 10 requires an applicant to complete a course of training before the Board issues a certificate of competency in surveying.

Section 11 requires an applicant to complete a course of training in cadastral surveying before the Board issues a certificate of competency in cadastral surveying.

Regulation 7 specifies that a training agreement must involve at least 360 days of training under the supervision of a registered surveyor. For cadastral surveying, the training must include 240 days of training in cadastral surveying and be under the supervision of a licensed surveyor.

Regulation 8 specifies that a training agreement must be supervised by a surveyor who has been licensed or registered for at least two years.

Regulation 9 specifies the form of application for approval of a training agreement.

Regulation 10 specifies that a surveyor may not supervise more than two training agreements at any one time.

Regulation 13 requires the supervising surveyor to report to the Board at the end of the training period, in order to provide details of training provided, number of days spent on that training, and details of any variation to the original training agreement.

Objective of the restriction.

The aim of this restriction is to ensure that applicants have an appropriate level of practical experience, which will enable them to relate their theoretical training to the incomplete and uncertain data they find in the field.

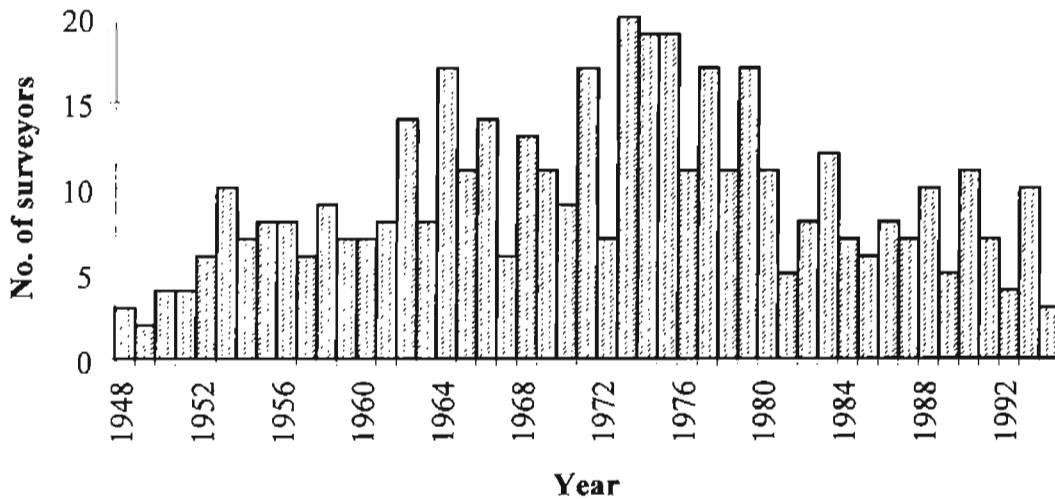
Possible alternatives

The greatest advantage of the current training system is that it exposes applicants to day-to-day working requirements and approaches. Supervising surveyors have an incentive to train an applicant to a high skill level, because a highly-skilled trainee will be able to lighten the surveyor's workload. It is likely that the trainee will have a certain degree of client contact, which introduces an essential requirement for a successful career.

There current training system has a number of disadvantages. One is that the supervisor could be doing a narrow range of work, which means that the trainee will not be equipped with a full range of practical skills. Another is that the supervisor is likely to be in mid-career or at the end of a career, so may have been trained at least twenty years, or perhaps forty years, previously. This means that the supervisor may not be familiar or comfortable with the latest techniques. Charts 10 and 11 show the year of entry and age distribution of Victorian surveyors. Another disadvantage is that the supervisor could view the trainee as

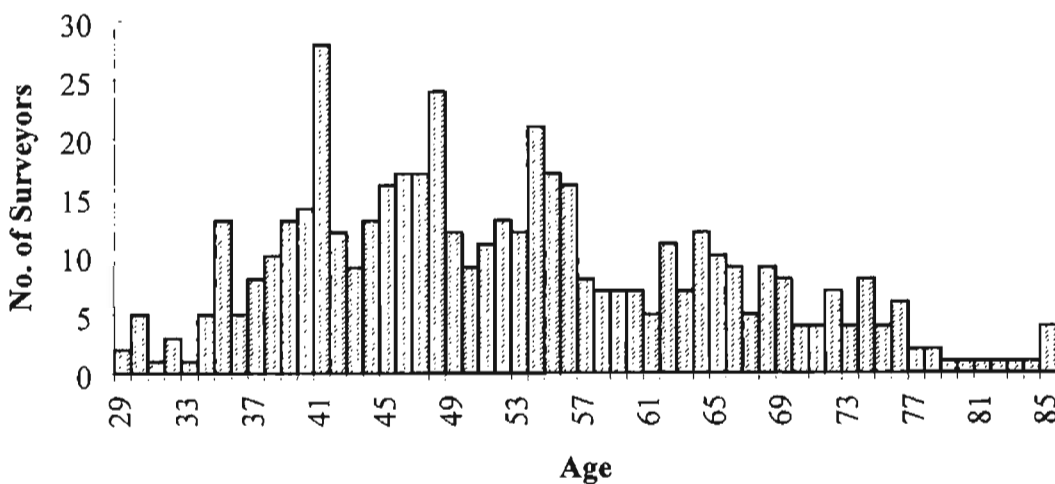
cheap labour, and not provide adequate training and sufficient challenges. The latter possibility has been largely mitigated by the introduction of requirements for a detailed training plan. The final disadvantage is that many applicants have difficulty in finding a firm or surveyor that will enter into a training agreement. In 1996 there were only six training agreements in force in Victoria.

Chart 10. Year of entry into surveying profession in Victoria (post 1947)



Source: Perry, L. & Roberts, T., *Survey of Licensed Surveyors* (1995) p. 6

Chart 11. Age of cadastral surveyors in Victoria (1995)



Source: Perry, L. & Roberts, T., *Survey of Licensed Surveyors* (1995) p. 3

An alternative to the current system is a practical postgraduate training course. Such a course would consist of field training, instruction from a range of practising surveyors, and practical

projects. Such a course is currently taught at the Queensland University of Technology, and recognised by the Queensland Surveyors Board.

The main disadvantage of a postgraduate course is the associated financial burden. The Queensland course involves a tuition fee of about \$30,000, in addition to the loss of income for one year. Another disadvantage is that it does not expose trainees to significant client contact.

The main advantage of a postgraduate course is the broad training it provides. Another advantage is that it will provide training in the latest techniques and equipment.

The possibility of a Victorian course has been under investigation, but preliminary findings indicate that it would not have sufficient student numbers if fees were set at full cost-recovery level. In addition, the Australian market may not have sufficient demand to accommodate two or more courses. In 1997, for example, there has been insufficient demand for the Queensland course, so it is not being taught.

Stakeholders have suggested that course costs could be lowered by using unpaid volunteer teachers. It is unclear how many volunteers would come forward.

One problem could be that the Queensland course is not formally recognised by all Boards as a substitute for training with a single surveyor. If all Boards formally recognised such a course, demand for the course could increase. There have already been some Victorian students at the Queensland course.

It could also be possible for different States to take turns to teach a similar course, so that no course would threaten the existence of another course. Students could choose which legal systems they wished to specialise in, and in fact could study more than one, so they could practise immediately in more than one jurisdiction.

The current training system may artificially restrict the number of surveyors entering the market. Practising surveyors may not wish to deal with a trainee because of the administrative obstacles (creation of a training plan etc) and because of the added risk of hiring someone who has not built up a reputation in the surveying profession. Practising surveyors are also aware that there will be less competition if fewer trainees enter the market. It is uncertain whether the current level of six trainees in Victoria is sufficient to replace retiring surveyors. Supply and demand in the surveying market are examined briefly in Appendix 1.

It is also possible to have a hybrid system. Applicants could work full-time or part-time, and undertake a course in the evening or at weekends.

It is beyond the scope of this review to determine the exact length of practical training or postgraduate training that is appropriate. The current minimum of 360 days may be too long, or it may be too short. Equally, a one-year postgraduate course may be too long or too short. Actual determination of such a question would require a full-scale review of this issue alone.

Costs and benefits

The cost of the current training system has been estimated, with 30 trainees, at \$180,000 to employers, \$100,000 to trainees, and \$56,000 to government, or a total cost of \$336,000.²⁸ There are currently 6 trainees in Victoria. Since many costs are fixed rather than variable, we can estimate that 6 trainees will cost around \$100,000 under the current system.

The cost of pure postgraduate training has been estimated at \$30,000 per trainee. A hybrid system is more likely to cost about half that. If six trainees take up this option, the cost to trainees would be about \$90,000. Costs to government and employers will be about the same as for the training system, since government and employer costs are mainly to do with audit and supervision. The total cost to the system is therefore about \$170,000 annually.

The benefit of increased options for training is that there will be greater opportunity for entry to the surveying professions. If six trainees take up the option each year, the supply of new surveyors will double. Under the current system, there is a possibility of a surveyor shortage some time in the future, as retirement age nears for surveyors currently in the 55-65 years age bracket.

As with other minor restrictions, we can assume that the limited supply of surveyors associated with training agreements is part of a general system restriction that can yield a 10% saving in surveying costs if removed. The benefit of postgraduate practical training courses is therefore part of the \$2 million benefit that would flow from a generally better system of regulation.

To summarise, the cost of the current restriction is part of the cost of inappropriate legislative provisions. This review estimates that overall cost to be \$2 million. The benefit of the current restriction is about \$70,000 per annum, which is the difference between the cost of postgraduate training and the current training system.

For this reason, it is recommended that this restriction be removed.

Recommendation 3. The regulatory body should have the power to accredit postgraduate practical training courses as an alternative to training under a supervising surveyor.

Restriction 4. Unclear character requirements for applicants.

Sections 12 and 16

Section 12(2)(b) states that the Board shall register an applicant if it is satisfied that the applicant “is of good character and is a fit and proper person to be so registered”.

Section 16(2)(b) states that the Board shall endorse the register if it is satisfied that the applicant for endorsement “is a fit and proper person to have the register so endorsed in relation to him”.

²⁸ Ministry of Finance, *Regulatory Impact Statement for Surveyors (Licensing & Registration) Regulations 1992* (1992), p. 5.

Objective of the restriction.

This restriction aims to ensure that a person who would be prone to risk the integrity of the cadastre, through misconduct or non-professional behaviour, is not allowed to become a cadastral surveyor.

The main objection to the current approach is that it allows the Board excessive discretion without giving clear guidance as to the exercise of an important power. The terms “of good character” and “fit and proper person” are not defined in the *Act*.

Another objection to the current approach is that it establishes a requirement for entry to the surveying profession, but does not allow the regulatory body to remove a practising surveyor who turns out to be unfit or of bad character, unless he breaches very specific conditions. This is discussed below under Restriction 5.

Alternatives to the restriction

Since the power of the Board is very vague, one alternative is to remove the restriction altogether. Another alternative is to replace the restriction with clear criteria for denying entry to the profession.

There are two main arguments for removing this restriction altogether:

- consumers should judge for themselves whether a surveyor is trustworthy; and
- a surveyor’s work is not affected by his general integrity.

As discussed above under Restriction 1, the surveying market is inefficient in providing consumers with information about surveyors. As such, consumers will not be able to obtain information on a surveyor’s trustworthiness. Even if they ask to talk to a surveyor’s previous clients, what they learn will have limited value. Information asymmetry means that previous clients are unlikely to know if a surveyor has defrauded them by marking inaccurate boundaries.

The integrity of a surveyor can affect his work. Surveyors know that an inaccurate survey will go undetected unless a neighbouring title is surveyed, or unless the inaccurate survey is the subject of audit. A surveyor can choose to perform inadequate surveys in situations where he judges the risk of detection to be low. If and when the inaccuracy is eventually detected, it can be very expensive to rectify.

Because detection of inaccuracies is not certain, surveyors are like other professionals who occupy positions of trust. Company directors, for example, are in a similar position. They can use their position to benefit themselves at the expense of shareholders, or they can engage in fraudulent behaviour which can be expensive to rectify if and when it is detected. For these reasons, corporations law sets out specific criteria to ensure that company directors are likely to behave with integrity. Under corporations law, a company director cannot be anyone:

- insolvent;
- convicted of serious fraud;
- who has on two occasions infringed companies and securities legislation;
- who has been a director of a company which has repeatedly infringed companies and securities legislation;

- who has in the past seven years been the director of two or more companies which were unable to pay unsecured creditors at least 50 cents in the dollar;
- convicted of an indictable offence connected with the management of a corporation.²⁹

Some of these criteria may not be specifically applicable to surveyors. For example, it is unlikely that insolvency *per se* will affect a surveyor's professional conduct. But the general principle is that indicators of past fraudulent behaviour are useful in weeding out individuals who could threaten the integrity of the cadastre. This is not to say that an individual should be barred for life from the surveying profession. Rather, specific fraudulent behaviour should disqualify an individual for a specific amount of time.

In addition, surveyors have a right to enter land which allows them greater than normal rights to intrude on the privacy of third parties (see discussion under Issue C). Members of the public need to be certain that a surveyor will not abuse this right. For this reason, it would not be desirable for a surveyor to be someone likely to perpetrate an offence in the course of practice. Individuals with a recent conviction for specific offences which could be considered to put the public at undue risk should also be barred from the surveying profession.

Integrity criteria for entry to the profession should be mirrored by integrity criteria for removal from the profession. This is discussed in Restriction 5 below.

Costs and benefits

The administrative costs of specific entry criteria are balanced by simpler demands on the time of the regulatory body. The regulatory body would no longer have to debate whether an applicant is a "fit and proper person", but could simply ask the secretariat to assess whether the applicant met specific criteria. In the administrative sense, the introduction of specific criteria is therefore cost-neutral.

The increased transparency which would result from the recommended changes can be counted as part of a general improvement to regulation. As discussed in "Background to the Review", this general improvement can be estimated to yield a potential saving of 10% of surveying costs. Since the Victorian market for cadastral surveying is estimated at \$20 million, a 10% saving involves an annual saving of \$2 million. The benefits of this recommendation form part of that amount.

The costs of this restriction are part of the \$2 million cost of inappropriate regulation. The benefits of this restriction are probably nil. For this reason, the review recommends that the restriction be replaced by a more appropriate legislative provision.

Recommendation 4. Integrity criteria barring entry to the surveying profession should be specific.

²⁹ See Chapter 3 of Corporations Law Paragraph 211, particularly sections 228 and 229.

Restriction 5. Surveyors may be removed from practise if they commit any indictable offence.

Section 18

Section 18 allows the Board to remove from practise any surveyor convicted of an indictable offence in Victoria, or of an offence in another jurisdiction that would be an indictable offence in Victoria.

Objective of the restriction

The objective of this restriction is not stated, but are likely to be two-fold. One aim might be to protect the integrity of the cadastre by ensuring that surveyors are not prone to dishonest behaviour. Another aim might be to protect the public from contact with dangerous individuals working as surveyors.

Alternatives to the restriction

One alternative is to remove the restriction altogether. A second alternative is to make criteria for removal identical for criteria barring entry to the profession. A third alternative is to introduce removal criteria not related to criteria for barring entry.

Total removal of the restriction is not desirable for the same reason as a total absence of integrity criteria for entry to the profession is not desirable. A surveyor's position enables an individual to indulge in dishonest or even criminal behaviour with little risk of immediate detection.

Introduction of removal criteria identical to criteria barring entry would be a logical step. An entry barrier with no corresponding removal mechanism assumes that a surveyor's integrity will not change in response to professional and market pressures. If a specific conviction makes an individual unsuitable for entry, why would this conviction not be grounds for removal?

Introduction of removal criteria not related to entry criteria is difficult to support. If a conviction is a criterion for removal, why should it not be a barrier to entry? Removal criteria different to entry criteria could lead to the ludicrous position of a candidate gaining admission to practice and being removed immediately afterwards.

Of the three alternatives, the best alternative is therefore that removal criteria be identical to criteria barring entry.

Costs and benefits

The cost of the current restriction can be counted as part of the general cost of inappropriate regulation. The total cost of inappropriate regulation is estimated at \$2 million.

The benefit of the current restriction is that it partially accomplishes the aim of removing from the profession individuals who might threaten the quality of the cadastre or endanger clients or third parties.

<p>Recommendation 5. Integrity criteria for removal from the surveying profession should be the same as criteria barring entry to the profession.</p>
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Restriction 6. A firm or corporation must be controlled by surveyors in order to carry out cadastral surveying work.

Section 24

Section 24(1) requires a firm to have a majority of members, or a corporation to have a majority of directors who are surveyors or similar professionals, in order for the firm to carry out cadastral surveying or present itself as being entitled to carry out cadastral surveying. Section 24(1) also requires one member or director to be a surveyor with sole or principal employment in the firm. Section 24(2) specifically exempts a public statutory body from these requirements. Other subsections allow for transitional periods where a member or director resigns, and a replacement must be found.

Reason for the restriction

The reason for the restriction was to ensure a high quality of advice to consumers (see section on Objectives of Legislation).

Effect of the restriction

The main effect of the restriction is to limit the number of firms that can engage in cadastral surveying. Charts 12 and 13 show that the great majority of surveyors in Australia are employed in small firms.

Another effect is to inhibit the development of full service firms. An example of a full service firm might be a company that buys a tract of undeveloped land, surveys and subdivides it, builds houses, and sells them. Such a firm would not need to have a majority of surveyors. In fact, given that the surveying/subdivision phase will be the shortest part of the cycle, surveyors would probably be the least significant profession within the firm.

Overall, then, the restriction prevents the surveying market from developing in a flexible, competitive manner.

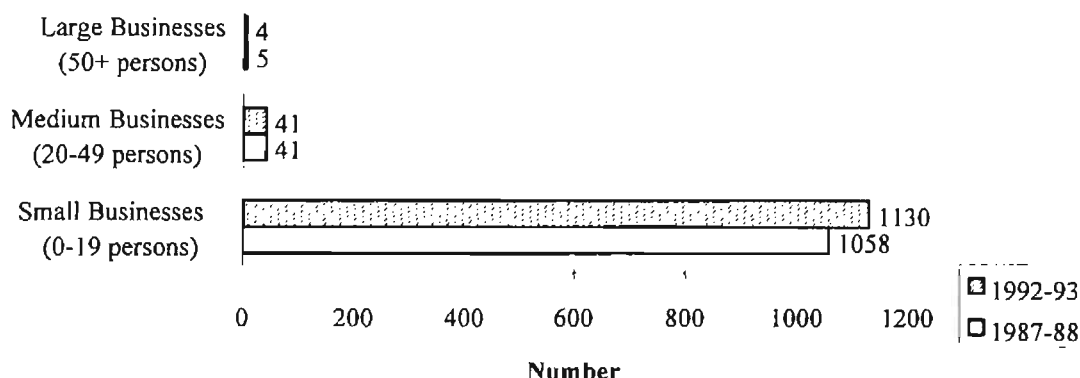
Possible alternatives

The overall effect of removing the restriction would be to increase competition in the surveying market. This would happen because there would simply be a larger number of firms eligible to undertake cadastral surveying.

Another effect could be to change the structure of the market. Currently firms which develop subdivisions need to engage a surveying firm to do their surveying work. In future, such firms could employ a surveyor or surveyors to do that work internally. This review does not claim that they will necessarily do so. In fact, they could continue to sub-contract surveying work simply because sub-contracting would be a more efficient way of applying specialist knowledge. The important point is that economic forces rather than regulation would determine the character of market development.

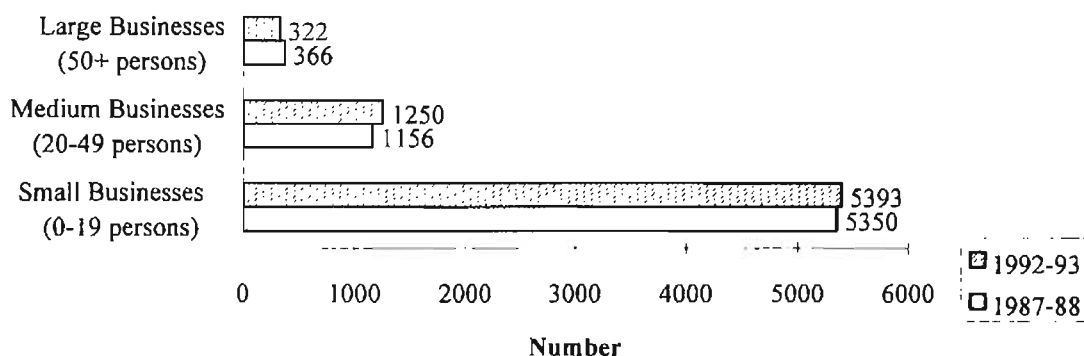
One argument against removing the restriction is that a solitary surveyor in a large firm could be subject to excessive pressure to decrease the quality of his surveys.

Chart 12. Number of surveying firms by size (Australia)



Source: Australian Bureau of Statistics, *Selected Technical Services in Australia* (1992-93) p. 20; Australian Bureau of Statistics, *Service Industries Surveys: Surveying Services Industry Australia* (1987-88) p.5

Chart 13. Total employment in surveying based on firm size (Australia)



Source: Australian Bureau of Statistics, *Selected Technical Services in Australia* (1992-93) p. 20; Australian Bureau of Statistics, *Service Industries Surveys: Surveying Services Industry Australia* (1987-88) p.5

This argument is not a particularly valid objection, since a small contractor will be under the same pressure as a lone employee. In fact, a contractor has less security of tenure, so is more susceptible to commercial pressure. In addition, audits by the regulatory body should detect irregularities and maintain incentives for accurate surveys irrespective of who is being audited. The important point would be to ensure clear liability if an irregularity is detected. Arguably, liability should rest with the surveyor who signs off on the work, since the regulatory body would have a clear power to impose specific penalties such as cancellation or suspension of license.

It could be argued that there will be a need to impose increased audit scrutiny of firms not controlled by surveyors. This argument assumes that surveyors working in such firms are either less honest than their peers, or are more susceptible to commercial pressures. The first assumption is not defensible. The second assumption ignores the reality that contractors are just as susceptible to commercial pressures.

It could also be argued that a relaxation of the restriction would allow a de-registered surveyor to establish a company, and continue to perform survey work by employing surveyors. This ignores the fact that the current restriction does not avoid that possibility either. As the legislation stands, a de-registered surveyor could own a company outright but simply have other surveyors as directors.

It has been argued that firms/corporations should be required to retain at least one member/director who is a surveyor. The reason for this would be to ensure that a surveyor was represented among key decision-makers. This would prevent pressure from management to cut corners in undesirable areas. This argument assumes that a director who is a surveyor does not feel the same degree of commercial pressure as a director who is not a surveyor. As long as the regulatory body has a credible quality control process, such as regular audit (see Issue E), directors will calculate the risk of exposure when contemplating cutting corners. Directors will calculate this risk the same way irrespective of whether or not they are surveyors by training.

Finally, it has been argued that removal of the restriction could result in the surveying market becoming dominated by a few large firms, leading to a reduction in competition. It is possible that some shift will occur following removal of this restriction, but the shift is likely to have limits. If large companies started to extract monopoly rents, individual surveyors can set up their own firms to take advantage of these rents. Such a situation occurs frequently in management consulting. When consultants feel that they are not receiving a sufficient share of the rents their company is generating, they leave the firm and set up their own practise, either on their own, or with other consultants from the same firm. Surveyors would be in an even stronger position to do this, because the legislation would continue to require their control over cadastral surveys. By contrast, management consultants require no particular qualification, and a large firm which loses consultants can simply promote junior consultants or hire more potential consultants from the general labour market.

For all the above reasons, this review finds the restriction anti-competitive, and recommends that it be abolished.

Costs and benefits

There are no identifiable benefits associated with this restriction. This restriction does not lead to lower audit/compliance costs, nor does it increase the quality of surveys.

The main cost of this restriction is inhibited market development. The restriction prevents some firms from entering the market, and prevents existing firms from becoming full-service firms.

The restriction does not have an immediate net effect on survey prices, since it leads to two counterbalancing effects. On the one hand, it restricts entry to the market. On the other hand, it prevents the existence of large firms, who might decrease competition.

Since it is not possible to demonstrate that the benefits of the restriction outweigh the costs, this review recommends removal of the restriction.

Recommendation 6. The requirement for surveyors or related professions to form a majority of members/directors of a firm/corporation engaging in cadastral survey work should be removed.

Restriction 7. The current *Surveyors Act* does not allow for automatic recognition between jurisdictions.

Sections 12 and 16

Current legislation permitting interstate surveyors to practice in Victoria requires application to the Victorian Surveyors Board. Applicants are required to pay a licensing/registration fee.

Effect of the restriction

The effect of the restriction is that surveyors do not operate in a truly national market. A surveyor whose registration and primary work is in, say, New South Wales cannot immediately carry out surveying work for a client who has bought a property in Victoria. For the surveyor to be able to work this way, he would first need to apply to the Victorian Board and be licensed, a process which takes about a month. It is worth noting that the Victorian *Surveyors Act* is overridden by the Commonwealth *Mutual Recognition Act 1992*. Under the latter Act, surveyors cannot be prevented from obtaining registration in another State. The force of the *Mutual Recognition Act* has not yet been tested with regard to surveyors.

One indicator that a national market in surveying services does not yet exist is the fact that there is probably no individual who currently has authorisation to work in every Australian state, in fact there is probably no individual who is authorised to work in a majority of states. It can be argued that a national market will not exist until at least a majority of surveyors are authorised to work in every Australian state. Another indicator is substitutability. The Commonwealth *Trade Practices Act 1974* defines a market in these terms. Currently a New South Wales surveyor is not a substitute for a Victorian surveyor. A titleholder in Victoria cannot decide to engage the services of a New South Wales surveyor unless that surveyor is also a Victorian surveyor. Nevertheless, the Full Federal Court found that “provided there was a demand for particular goods a market existed, even though the goods were not sold in that market”.³⁰

It can be argued that a surveyor who is serious about working in another jurisdiction will go to the trouble of registering there. This, however, means that the surveyor would have to pay periodic registration fees in other jurisdictions, without any guarantee of work there.

Possible alternatives

Alternatives to the current situation include:

- immediate removal of all barriers to interstate practise;
- immediate removal of some barriers to interstate practise;
- imposition of more stringent requirements for interstate practise;
- harmonisation of cadastral law in all reciprocating jurisdictions, leading to removal of all barriers to interstate practise.

Stakeholders have argued that removal of all barriers to interstate practise is undesirable, because it could lead to:

- exposure of clients to dubious advice on cadastral law;
- corruption of cadastral information if surveyors lodge plans in accordance with incompatible conventions;
- surveyors not following legal requirements in the course of their survey.

³⁰ Butterworths Annotated Acts, *Trade Practices Act 1974* (1997), p. 43

Surveyors are probably the most appropriate source of advice on cadastral law because they have the best understanding of the relationship between a physical title and its abstract representations. They also have the appropriate technical skills to undertake subdivisions, lay out access roads, and perform other tasks which require an intricate knowledge of cadastral law.

Wrong advice on cadastral law can be costly. Box 4 gives some examples of costly mistakes regarding cadastral law.

Box 4. The importance of cadastral law.

The importance of cadastral law is best demonstrated by recent cases where inadequate knowledge has led to damages claims against surveyors.

1. In one New South Wales case, damages of \$250,000 have been claimed because a surveyor's work affected an easement which gave a certain property harbour access.
2. In one Victorian case, damages of \$27,500 were awarded against a surveyor who did not advise a client of certain riparian (water) rights associated with a block of land.
3. Western Australia, which has a quite unique Mining Act, has seen a claim of \$10 million against a surveyor who failed to peg a mining lease by midnight on a certain date, allowing another party to claim the lease.
4. Queensland has seen a claim of \$80,000 for alleged incorrect surveying advice relating to a strata title.

There are significant differences in cadastral law between jurisdictions. The simplest example of such differences are laws relating to subdivisions. Each jurisdiction has different laws about minimum size, dimensions, access roads and so on. Incorrect advice can cause damage to a client either by creating invalid subdivisions, or by creating subdivisions which do not take full advantage of the law, and therefore cause the client to lose revenue. An incorrect subdivision may not immediately be detected by the LTO, since the approach of the LTO has been not to scrutinise every plan lodged, but to audit a small proportion. As discussed in Restriction 1, information asymmetry means that clients will not know that they have been incorrectly advised until the error is detected by another surveyor or by an audit.

There are also significant differences between jurisdictions in conventions for plans lodged with the titles office. If a surveyor adopts the wrong convention in submitting a plan, the error may not be immediately detected, since the LTO does not scrutinise all plans. The cadastre will be corrupted by inconsistent information, and the boundary of a title could be thrown into doubt at a subsequent sale or subdivision.

Surveyors also have different rights and responsibilities in different jurisdictions. For example, Victorian and ACT surveyors have a specified form for notifying titleholders of the intention to commence a survey in a certain area. South Australian surveyors legislation permits a person authorised in writing by a surveyor to commence a survey on any land. Other jurisdictions have no specific requirements for notice of commencing survey.³¹ A

³¹ Office of Surveyor General (Victoria), *A Collation and Review of Legislation from States of Australia, New Zealand and Malaysia* (1997)

surveyor unaware of these differing requirements could leave himself or his client exposed to legal action by a titleholder who feels that his property rights have not been respected.

Another possibility is an interim step to remove some, rather than all, restrictions to interstate practise. One such step could be to waive fees for interstate practitioners. In this way, surveyors who demonstrated a knowledge of cadastral law in a particular state could maintain registration/licensing in that state without any cost in fees. If the law of a particular state changed, interstate surveyors would be subject to the same education requirements as surveyors from that state.

An argument against costless interstate registration is that it goes against the principles of self-funding regulation. Surveyors Boards in each State will incur costs (audit etc) when interstate surveyors perform work in their area. In addition, if one State had significantly lower fees than others, all Australian surveyors could choose to register in that State and obtain free registration elsewhere. These objections can largely be addressed by instituting a system of cost recovery that works on surveying activity (see discussion under Issue H).

Nevertheless, any move towards costless interstate registration needs to be co-ordinated with reciprocal jurisdictions to ensure that gaps do not exist in the system. In the end, such a system can only work if all jurisdictions agree that creation of a national market is a high priority.

Another alternative is to impose more stringent requirements on interstate applicants for demonstrating a knowledge of Victorian cadastral law. Applicants could be required to sit an examination equivalent to that administered to new graduates in Victoria. The advantage of this would be much greater certainty that interstate surveyors have adequate legal knowledge. The disadvantage would be imposition of a further barrier to creation of a national market. This barrier might be disproportionate to the objective it is trying to achieve. Applicants are after all professionals who are aware of the damage that inadequate legal knowledge can cause. Consequently, this review does not believe that the additional barrier of more stringent requirements can be justified.

A more long-term step is to co-ordinate legislation across jurisdictions sufficiently for surveyors to be able to change jurisdictions with a minimum of delay. An interstate working party is currently examining this option, but it appears unlikely to be realised before the year 2005. This step needs to be taken before a truly national market can exist.

Preferred alternative

On balance, this review does not agree with the stakeholder view that immediate removal of barriers to interstate practise is undesirable. The main argument against an automatic right to practise in all jurisdictions is that jurisdictions have different cadastral law. Yet the current Victorian process for registration/licensing of interstate surveyors does not require applicants to demonstrate a knowledge of Victorian cadastral law. (Appendix 2 describes the process of licensing for interstate surveyors.) The Surveyors Board has instead adopted the approach of auditing the first survey submitted by an interstate surveyor. This appears to be an effective approach, since there has been no evidence of interstate surveyors causing damage related to knowledge of cadastral law.

For this reason, this review believes that all barriers to interstate practise should be removed. Since removal of these barriers could involve lengthy negotiations with other jurisdictions, this review believes a first step should be costless registration/licensing for interstate surveyors.

It is possible that other jurisdictions will not wish to remove barriers to interstate practise. In this case, it will be necessary to decide whether Victoria alone should remove such barriers. On the one hand, unilateral removal would benefit Victorian consumers of surveying services, since it would introduce greater contestability into the Victorian market. On the other hand, unilateral removal could cause problems if other regulatory authorities were slow to act upon errors committed by “their” surveyors in Victoria, or if Victoria did not have access to an up-to-date database of surveyors allowed to practise in other jurisdictions.

Costs and benefits

The cost of allowing costless registration between states depends on the number of interstate surveyors currently registered in each state, and on the specific form of cost recovery that States adopt. As the system currently stands, the cost to Victoria is not great, since Victoria has a system of lifetime registration with a very low registration cost. If Victoria introduces an annual fee of \$200, and 20 interstate surveyors would be eligible to pay the fee, the cost to Victoria of not collecting the fee would be about \$4000.

The main cost of the restriction is that it inhibits creation of a national market in surveying services. As with other minor restrictions, we can assume that a more national market is part of a general system improvement that has potential cost savings of 10%, or \$2 million in Victoria. In a national market, clients would be able to use one surveyor or firm for all their survey needs within Australia, leading to an improvement in client service. In a national market, surveyors would be able to specialise more in certain fields of knowledge, since they would have access to more specialist opportunities in a broader market.

Recommendation 7. Victoria should consider an agreement with other States to make interstate registration/licensing costless.

Recommendation 8. Victoria should consider an agreement with other States to make registration/licensing in one jurisdiction sufficient for automatic practise in all reciprocating jurisdictions, without a need for application to the local regulatory authority.

Recommendation 9. Victoria should prioritise negotiations with other jurisdictions to co-ordinate cadastral law.

Restriction 8. Reciprocal registration only applies to surveyors in Australia and New Zealand.

Sections 3, 11, 12, 16

Section 3 defines a “reciprocating country” as “any country, State or territory with which reciprocal arrangements for the purposes of this *Act* have been made by the Board”.

Section 11(3) allows a person who has completed study/training in a reciprocating country to be issued a certificate of competency by the Board.

Section 12 allows the Board to register an applicant who is authorised to practise surveying in a reciprocating country.

Section 16 allows the Board to license an applicant who is authorised to perform cadastral surveys in a reciprocating country.

Objective of the restriction

The concept of reciprocity, and the jurisdictions to which it applies, date back to 1892. In that year, a conference of surveyors from all Australian colonies and the Dominion of New Zealand recommended reciprocal recognition of Certificates of Competency to Survey. In 1895, the first *Land Surveyors Act* was passed, which specified mutual recognition of all “Australasian Colonies”. Australasian Colonies were defined as the mainland of Australia, plus Tasmania and New Zealand. The boundaries of mutual recognition have not shifted since then.³²

When the current *Surveyors Act* was introduced in 1978, the wording was specifically altered from “reciprocating state” to “reciprocating country” in order to allow the possibility of mutual recognition with Malaysia (see “Objectives of the Legislation” above).

The possibility of broadening mutual recognition has been raised from time to time since then. Usually mutual recognition is not extended because other countries do not have the same degree of dominance of Torrens title, and do not have an identical legal system.

Possible alternatives

There are two main areas where mutual recognition could be broadened: North America and South-East Asia.

There is no single jurisdiction in North America which has the same degree of dominance of Torrens title. Canada has a similar legal system. Land laws vary enormously between US states because of different patterns of settlement. The north-eastern states, because they were settled very early by English settlers, have a pattern of land-holding similar to England. Louisiana, because of its long French history, has a mixture of French and other laws. The mid-western states are most similar to Australia: they were settled at roughly the same time;

³² The Surveyors Board Victoria, *Survey Practice Handbook Victoria*, Part 3 (1994), p.15. It is worth bearing in mind that the federation movement at that time had not yet fully clarified the position of Tasmania and New Zealand, and there was some chance that neither or both would join the future Australian federation.

and much land was granted by central authorities after Native American landholders died or were forced to move to more marginal areas.

In South-East Asia, Singapore and Malaysia are the most compatible. Malaysia has long been of interest because of its rapid development and booming construction sector. Many surveyors in Singapore and Malaysia have in any case studied in Australia. Indonesia, Thailand and Vietnam have also been mentioned, but have incompatible legal systems and, in the case of Vietnam, education systems.

The fact that legal systems are different should not be a major obstacle, as long as recognition is not automatic. Since technical approaches are identical in countries with compatible educational systems, legal differences can be overcome with courses, assignments or examinations, just as they are between Australian jurisdictions.

In practice, the Board has been adopting just such an approach: recognising many qualifications from Malaysia, Singapore or North America, but requiring some work on local cadastral law.

It has been suggested that immigration laws would in any case prevent mobility of surveyors between countries. The intention behind broader mutual recognition would not be a greater flow of immigrants, but greater flexibility for international surveying firms to shift experts between countries.

A valid question, but one beyond the scope of this review, is whether broader reciprocity will benefit Australia as much as it benefits other countries, or whether it will benefit Australia at all.

Suggested approach

Examination of all the costs and benefits of broader reciprocity is beyond the scope of this review. For this reason, the review will recommend simply that the possible options be fully examined.

Costs and benefits

The benefit of the current restriction is that it does not allow entry of surveyors who have inappropriate training and who might endanger the integrity of the cadastre. It should be possible to maintain this benefit with partial lifting of the restriction.

The main cost of the restriction is a narrow market. This can be estimated as part of a \$2 million cost of inappropriate legislation. For this reason, this review recommends examination of options for removing the restriction.

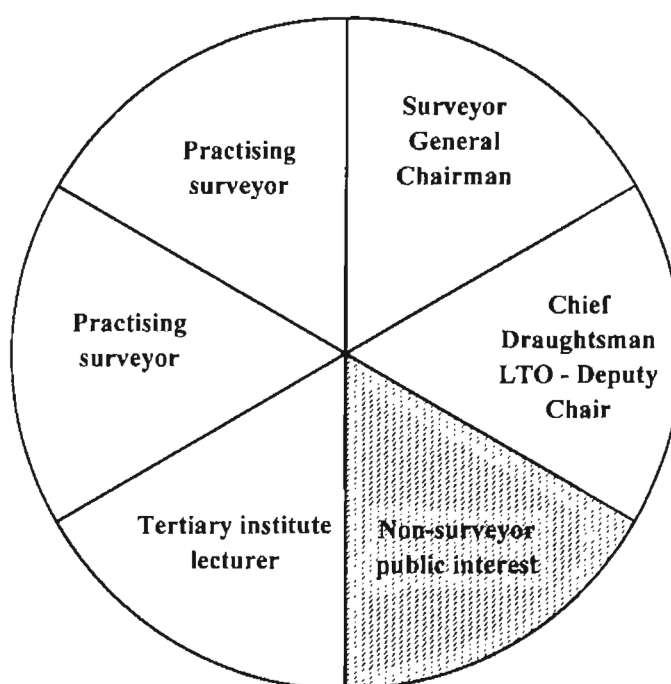
<p>Recommendation 10. There should be thorough examination of all options for extending mutual recognition beyond current boundaries.</p>
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Restriction 9. The surveying industry is regulated by a Board dominated by surveyors.

Sections 4, 5, 31

Section 4 stipulates that the Surveyors Board shall have six members. Of these, all but one are required to be licensed surveyors (Chart 14). The Chairman and Deputy Chairman are respectively the Surveyor-General and the Chief Draughtsman in the Office of Titles. Section 31 requires these two individuals to be licensed surveyors. Section 5 specifies that the Chairman shall have the casting vote.

Chart 14. Current composition of the Surveyors Board



Objective of the restriction

The Board is dominated by surveyors in order to have sufficient expertise to deal with technical issues that arise in assessing compliance with legislative requirements. The makeup of the Board aims to represent those interest groups which influence and are influenced by surveying legislation.

Effect of the restriction

It is a principle of good regulation that “a majority of the members of a regulatory body should be representatives of the public”³³. A simple reason for this is that a profession should be run for the primary benefit of the clients, not for the primary benefit of the practitioners. Currently no Victorian profession satisfies this requirement, but most regulatory Boards have been moving in this direction.

³³ Office of Regulation Reform (Victoria), *Principles for Occupational Regulation* (1996), p. ii.

The dominance of surveyors on the Surveyors Board has had no demonstrable effects to date. However, the rapid changes taking place in the Australian economy and the surveying profession may not be sufficiently addressed by a body as narrow as the current Surveyors Board.

Alternatives to the restriction

One possible alternative is to maintain the current number of members on the regulatory body, but change the composition. Another alternative is to increase the total number of members to accommodate non-surveyors. In either case, it is possible to have a majority of non-surveyors or simply a significant minority of non-surveyors.

It has been argued that non-surveyors should not dominate the Surveyors Board because the Board often deals with complex technical issues that non-surveyors cannot understand. Any problems in this regard can be diminished by using expert advice from the Office of Surveyor General, the Land Titles Office (LTO), or independent sources. In a similar way, Ministers and Parliaments deal often with complex issues that require technical understanding outside their experience. The decisions they make are guided by expert advice from Departments and political advisors. A major reason why Parliaments and Ministers have the final say, and not experts, is that the need for public accountability and responsiveness overrides the need for an understanding of every technical nuance. It is up to expert advisors to express issues in a way that non-experts can understand.

A reasonable question is: which groups should be represented on the regulatory body?
Under current arrangements:

- The LTO has a voice in surveying regulation because the LTO is responsible for maintaining the cadastre, and surveying standards affect the quality of the cadastre.
- Tertiary institutes are represented because they are responsible for the training of new surveyors, and are most aware of new developments in surveying theory and practise.
- Professional associations nominate candidates for Board membership because Board decisions have a direct bearing on the livelihood of surveyors.
- The Office of Surveyor General is represented because the Surveyor General is responsible for surveying the 35% of Victoria that is Crown land. The Surveyor General is also the individual most able to represent the Government interest in the surveying industry.
- The general public is represented for reasons of accountability and transparency.

Client groups, or other groups affected by surveying regulation, are currently not represented.

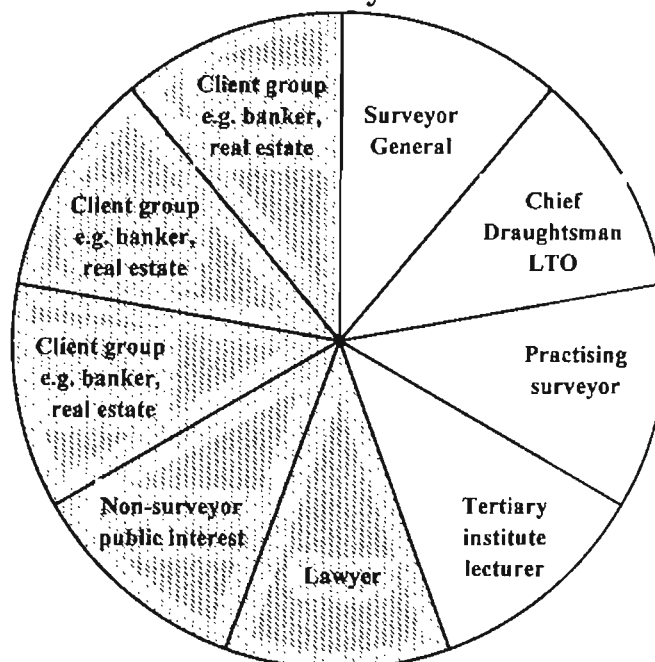
Bankers, for example, have an interest in the integrity of the cadastre because a large proportion of lending is secured against real estate. Lack of clarity in property rights would raise transaction costs for real estate mortgages.

Real estate developers are affected by surveying costs, since surveying costs form an important part of subdivision costs. Real estate developers also have an interest in the integrity of the cadastre, since unclear property rights would raise transaction costs for buyers of new subdivisions.

Real estate agents have similar interests to real estate developers, but are less directly affected by surveying costs. The business of real estate agents would suffer from higher transaction costs on property sales.

The legal profession does not have a direct interest in the surveying industry. Nevertheless, a legal member of the regulatory body is desirable to ensure that decisions are made in the correct way.

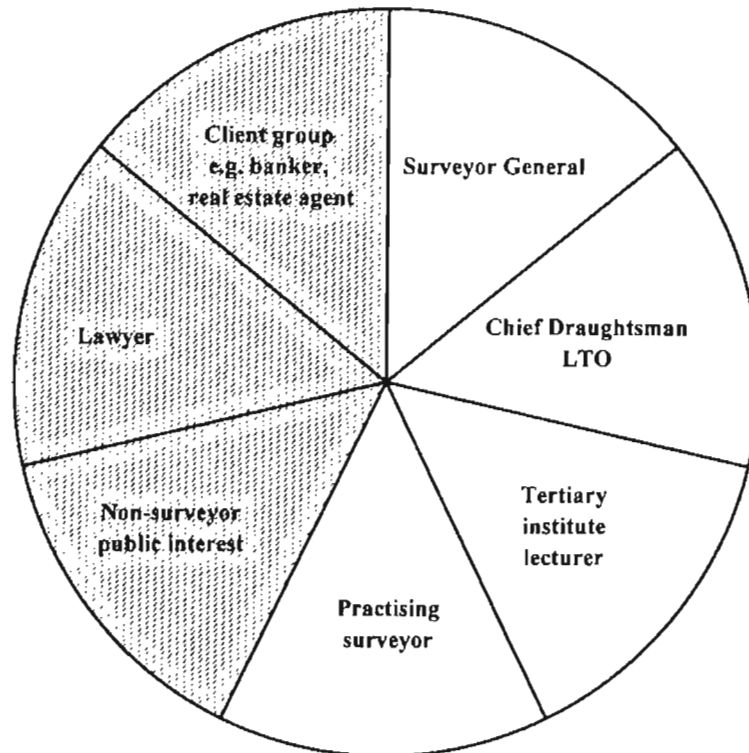
Chart 15. Possible composition of the regulatory body



In total, therefore, it is possible to identify numerous groups that have a legitimate claim for representation on the regulatory body of the surveying industry. It is possible to have a body with nine members. A larger membership has the advantage of allowing for sufficient input to a meeting even where some members do not attend. A larger membership has the disadvantage of slowing down decision-making if all members attend meetings. It is possible to choose any number of configurations for membership. At one extreme is a body with nine members (Chart 15), and representation from each group. At the other extreme is a body with six members, dominated by surveyors. In between there are options like a Board with seven members, with either a majority of surveyors (Chart 16) (the Surveyor General, a surveyor in private practice, a surveyor from a large firm, and an educational representative) or a majority of non-surveyors.

The role of chairman, performed by the Surveyor General, has to date not been as important as the *Act* would suggest, since the Board has found consensus on most issues, and the Chairman has never had to use his casting vote.³⁴ If the regulatory body is made up of a greater range of interest groups, the role of the Chairman will become more important. In future, it will be necessary for the Chairman to be perceived as neutral in dealing with different interest groups. For this reason, the Chairman should probably not be from a professional association or from a direct client group. The most logical chairman would be either from the general public or from the Government.

³⁴ Since five of the six members have the same professional training, a high degree of consensus is to be expected. This in itself can be used to argue that a greater diversity of members is desirable.

Chart 16. Possible composition of the regulatory body

It has been suggested that some stakeholders do not have sufficient interest in the surveying industry to wish to nominate a Board member. For this reason, it may be desirable to frame legislation not in terms of representation being required from any particular group, but in terms of preference being given to representation from these groups. Nominations for vacant positions could be elicited by a public call for nominations, as happens with other regulatory bodies.

The final make-up of the regulatory body, and the role of the chairman, are issues which will require close consultation with all stakeholders. For this reason, this review will not make detailed recommendations in these areas.

If there is an increased representation of non-surveyors on the regulatory body, there will be an increased need for secretariat support to deal with technical issues. Up till now, secretariat support has been provided on an informal basis by the Office of Surveyor General, and expert advice has been provided by the Land Titles Office. This issue is discussed below in Issue J.

Costs and benefits

There is an increased cost associated with increased representation of non-surveyors on the Board. Non-experts will need a greater level of expert advice, so the expense will be greater than now.

An increase in the number of members will also increase costs. Currently members are paid travel, accommodation, stipend, expenses, etc. These costs work out to \$12,000 per annum

for a six-member Board. If we increase the number of members by 50%, costs should also increase by 50%. Therefore the increased cost is \$6000.

Because the Board is controlled by the Government, the fact that it is dominated by surveyors is only a minor restriction. The cost of minor restrictions, when assessed as a whole, is potentially a price rise of 10%. Therefore the benefit of removal of this restriction is part of a benefit of about \$2 million.³⁵

To summarise, the cost of the current restriction is part of an overall \$2 million cost of inappropriate legislation. The benefit of the current restriction is a saving of the order of \$6000 in running costs of the regulatory body.

Recommendation 11. Non surveyors should form a greater proportion of members of the regulatory body than they currently do.

Restriction 10. The Surveyors Board has the power to set fees charged by surveyors.

Sections 33, 34

Section 33(j) says that the Board may make regulations “prescribing the fees that ... surveyors may charge for the making of surveys”. Section 34 allows Parliament to disallow any excessive fee prescribed under section 33(j).

The power to set fees is under most circumstances an anti-competitive power. It can be justified where one firm has such market dominance that it can be considered a monopoly (the current Australian telephone market can be considered an example of this). However, considering that there are 350-400 competing surveyors in Victoria, none of whom has significant market share, such considerations do not apply in the Melbourne market. As discussed in the background to the review, it has not been possible to determine whether there are anti-competitive practices in rural areas.

The power to set fees has in any case never been exercised by the Board. It is doubtful that such a power is enforceable. Each survey is different, so each survey requires a different number of hours, different equipment, and different levels of assistance from employees. A uniform price for a survey is impossible to estimate. If the regulatory body imposed a maximum or minimum price per hour, surveyors could simply vary the number of reported hours in order to obtain their desired fee.

The removal of this power would therefore have no negative repercussions, but would simply remove a possible future basis for anti-competitive behaviour by the regulatory body.

³⁵ The review is not suggesting that the Surveyors Board has, because of its composition, restricted competition. The review is suggesting that there is a greater risk it will do so in future if it retains its current composition.

Costs and benefits

The restriction has no identifiable benefits.

The cost of the restriction is that it gives the regulatory body powers which are anti-competitive. It is possible that 10% of surveys are performed at prices below those recommended by industry organisations (based on the fact that 10% of surveyors have entered the industry in the last five years, so may have to underbid in order to obtain work). If the regulatory body were ever to impose a minimum fee, these surveyors might not be able to compete with more established colleagues. This would result in a minor restriction on supply. We can assess this, together with other minor restrictions, as leading to a 10% price increase. For this reason, it is possible to say that the cost of this restriction is part of a \$2 million annual cost.

<p>Recommendation 12. The Government should remove the power of the regulatory body to set fees for surveying services.</p>
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Issues beyond National Competition Policy

Executive summary of issues beyond NCP

Issue A. Surveyors are not required to have professional indemnity insurance.

90% of Victorian surveyors are estimated to have professional indemnity insurance. Those without insurance can leave damaged parties with no real recourse.

It has been argued that consumers should know whether a surveyor has insurance before engaging his services. This argument does not apply, because a surveyor's work also affects adjacent titleholders, who have no say in the selection of a surveyor.

Compulsory insurance would impose an extra cost on surveyors who do not have it. This is not a barrier to competition. Rather, it removes the price advantage of surveyors who are willing to leave their clients (and adjacent titleholders) at risk.

Recommendation A1. The Government should consider requiring all surveyors operating in Victoria to have professional indemnity insurance.

Issue B. There is little incentive for surveyors to maintain a professional level of day-to-day conduct.

There is currently no legally binding code of conduct for surveyors. The Surveyors Board currently has no power to hear complaints about unprofessional behaviour which is not a clear breach of the Surveyors Act. Professional associations of surveyors have codes of conduct, but their reach is limited, since membership of these associations is voluntary.

This means that there is no mechanism for dealing with unprofessional behaviour that reflects badly on the surveying profession as a whole. The credibility of the surveying profession is an essential element of the Torrens system of land title.

Recommendation B1. The Government should explore ways of ensuring that all surveyors are bound by a code of conduct.

Recommendation B2. The regulatory body should consider establishing a formal process for assessment of minor complaints against surveyors.

Issue C. Surveyors have the right to enter any land for the purposes of surveying.

Surveyors have the right to enter any land in the course of a survey. If this right did not exist, individuals could block developments with which they disagree. This right is incomplete, since it does not specify that surveyors can bring necessary machinery onto land.

The right to enter land is not balanced by a right for landholders to complain about unprofessional behaviour on the part of surveyors. This means that unprofessional surveyors

can create a negative externality for landholders who have not commissioned their services, but who simply happen to own a nearby title.

In some jurisdictions, surveyors are required to carry an identity card with a photograph to identify themselves when engaged in surveying work. This requirement serves to identify any surveyor who engages in unprofessional behaviour, and also serves to reassure members of the public who are requested to admit a surveyor onto their property for the purposes of a survey.

Final decisions on these issues should take into account the guidelines on right of entry currently being developed by the Victorian Department of Treasury and Finance.

Recommendation C1. Surveyors should continue to have the power to enter land for the purpose of carrying out surveys.

Recommendation C2. The Government should consider extending the power to enter land so as to mandate access for machinery which facilitates a survey.

Recommendation C3. The Government should consider introducing a requirement for surveyors to carry photographic identification when entering land.

Issue D. There is no incentive for surveyors to update and improve their technical knowledge.

Continued professional development (CPD) is desirable for surveyors because of the significant changes in technology, laws and markets that will occur in the course of a typical 40-year career. Because of market failure, it may be necessary to ensure that CPD takes place.

CPD can involve seminars, courses, professional journals, or examinations. Most professions use a combination which does not include examinations. Determination of the optimal form of CPD is beyond the scope of this review.

Recommendation D1. Introduction of a requirement for surveyors to undergo Continued Professional Development (CPD) should be considered.

Recommendation D2. The exact form of CPD should be the subject of further investigation, in consultation with the industry.

Issue E. There is no legal basis for auditing surveys.

The Surveyors Board currently has an audit program which aims to examine every active surveyor at least once every three years. Such an audit program is desirable because it helps to maintain high standards of surveying. A legislative basis for the audit program will ensure that it continues to exist.

Recommendation E1. The Government should consider introducing a legal requirement for the regulatory body to audit surveys on a regular basis.

Issue F. The Surveyors Board is not required to make all legal requirements transparent.

The Surveyors Board publishes a handbook which clarifies all important legal aspects of surveying. This is an important supplement to publicly available Acts and Regulations because many legal requirements are simply determined by the Board. Current legislation does not require the Board to make its legal requirements publicly available.

One alternative is to require all legal provisions to be part of publicly available Acts and Regulations. This alternative would remove the flexibility of the regulator to react to changing circumstances.

The best approach is to maintain the flexibility of allowing the regulatory body to create rules, but to safeguard transparency by ensuring that these rules are as easily accessible as any other legal requirement.

Recommendation F1. The Government should consider a legal requirement for the regulatory body to publish and regularly update a handbook setting out all relevant legal requirements concerning surveying.

Issue G. Excessively expensive resolution of boundary disputes.

Many or most boundary disputes originate because of past faulty surveys or differences in surveying methodologies. Currently such boundary disputes can only be resolved through expensive litigation.

A body which regulates the surveying profession will by its very nature have access to sufficient expert knowledge to resolve most low-level boundary disputes. The Surveyor General already resolves many boundary disputes that involve Crown land. If an expert body (whether the Surveyors Board or not) were empowered to resolve all boundary disputes, it could save landholders significant time and expense. In this way, the ability of the regulatory body to resolve boundary disputes would lower transaction costs and uncertainties in the property market.

Recommendation G1. The Government should consider making the LTO or the surveyors regulatory body the first point of adjudication in non-Crown boundary disputes.

Issue H. Regulation of the surveying profession is not fully self-funding.

Currently most costs of surveying regulation are paid by the Government. In other jurisdictions, these costs are paid by surveying registration fees or by a levy on plans lodged with the Titles Office.

Equity considerations suggest that Victoria should also introduce self-funding regulation. Those who benefit most from the system of regulation should pay for it, rather than all taxpayers.

Recommendation H1. The Government should consider making regulation of the surveying profession self-funding.

Issue J. Government agencies currently provide a hidden subsidy to the Surveyors Board.

The Surveyors Board receives extensive secretariat support and expert advice from the Office of Surveyor General and the Land Titles Office. These services are generally provided free of charge, and constitute a hidden subsidy.

If the number of non-surveyors on the regulatory body is increased, there will be an even greater need for expert advice. Some members of the regulatory body may prefer to obtain expert advice from independent sources. This will only be possible if there is a specific budget for such advice.

There are two reasons to convert the hidden subsidy to an explicit budget item:

- transparency; and
- the possibility of the regulatory body obtaining advice from any source.

Recommendation J1. The regulatory body should consider introducing a transparent budget for secretariat services and expert advice.

Issue K. Victorian surveyors have lifetime registration/licensing.

Surveyors in Victoria are registered for life unless they are removed for a specific and unusual reason. All other Australian states have periodic re-registration.

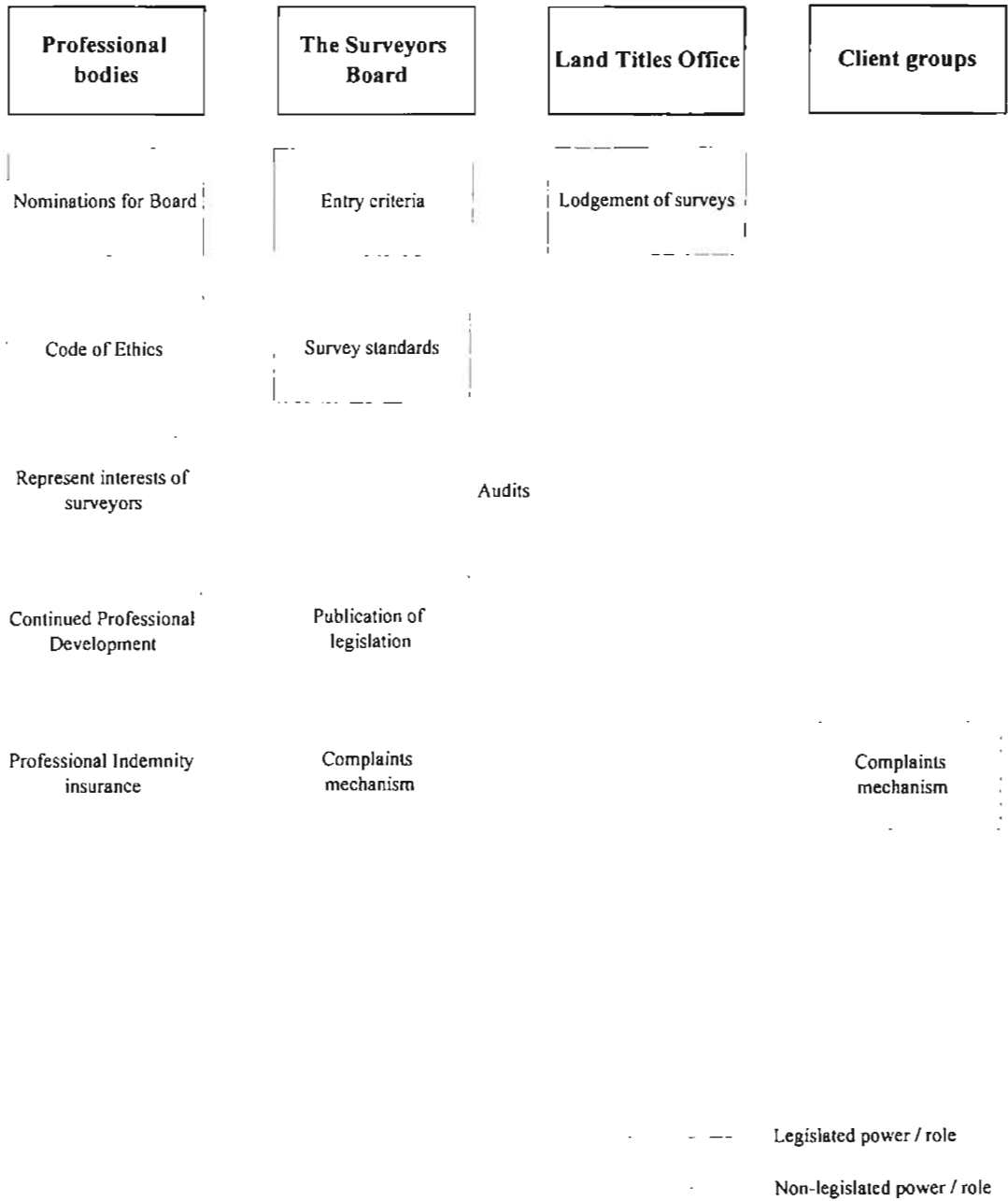
There are two main advantages to periodic re-registration. Firstly, if the regulatory body relies on registration fees to cover at least part of its costs, it is less of an entry barrier for surveyors to pay a periodic fee than to pay a large upfront fee which will cover the cost of their whole career. Secondly, periodic re-registration facilitates control by the regulatory body over issues such as continued professional development.

Recommendation K1. The Government should consider introducing periodic re-registration and re-licensing for surveyors.

Issue L. The effect of adverse possession on the surveying market

Stakeholders have suggested that adverse possession lowers overall surveying costs. This review was not able to determine whether that was the case.

Chart 17. Current division of responsibilities in the surveying industry



Box 5. Examples of partial system failure

When discussing the effectiveness of the overall system of surveying regulation, it is illuminating to consider examples where the system has partially failed. Three examples spring to mind.

The Sidcup case

Sidcup³⁶ was licensed in 1979. In 1990 he performed a faulty survey which was detected later that year when Sidcup was on holiday and another surveyor was called in to complete some work. Between July 1993 and February 1995 the Board held a formal inquiry into this survey and another that Sidcup had performed in the same year. In February 1995 Sidcup's license was cancelled. Sidcup appealed to the Supreme Court and the County Court on different grounds. In September 1995 the County Court overturned the Board's verdict. The Supreme Court rejected Sidcup's appeal and ordered him to pay costs. The total cost to the Board/Government of this process was about \$58,000, which is roughly equivalent to the Board's budget for one year. Damage to clients was minimal, as there had been no building across boundaries, and the County Court ordered Sidcup to re-perform the surveys.

The Travers case

Travers was licensed in 1969. In 1985 he performed a survey in Queensland which was examined by the Queensland Surveyors Board in 1987 and found to have failed to comply with several sections of Queensland regulations. The Queensland Board could take no action because Travers had ceased to pay his fees in Queensland and had been removed from the Queensland register in 1986. In 1987 he performed a Victorian survey which was queried by the Titles Office in 1989. In February 1992 the Board cancelled Travers' license. Hearings in the County Court and the Magistrates Court continued until May 1995. Total cost to the Board/Government was \$30,000. Since a number of landholders were involved, and building had taken place, it is estimated that it will cost \$250,000 to correct Travers' errors. Travers was not covered by Professional Indemnity insurance.

The Glossop case

Glossop was licensed in 1978. In the late 1980's, it appears that he suffered a nervous breakdown. He attempted to commit suicide, and was admitted to a psychiatric institution. Between his breakdown and his admission to the institution he continued to practise. The Board received some complaints about his behaviour, but could take no action, as there were no clear breaches of the *Surveyors Act*. (The complaints were associated with Glossop's treatment of clients.) When Glossop was discharged from the psychiatric institution, he attempted to continue working as a surveyor, but found himself unable to do so. He had himself removed from the register in the early 1990's.

Lessons from the Sidcup, Travers and Glossop cases

A feature of all three cases is the length of time between the original error and the final resolution of the case.

³⁶ The names of the individuals in these three cases have been changed, but details of their cases have not been changed.

The Sidcup case is notable for the fact that Sidcup was found by the County Court to have performed a faulty survey, but had his license reinstated. The inference is that the Board's powers are unclear, and the Board's procedures are vulnerable to legal appeal.

The Travers case is notable because the Victorian Board was aware of his problem survey in Queensland, but had no formal mechanism which would trigger an audit of Travers' Victorian surveys. As a result, his 1987 error was not detected until 1989.

The Glossop case is notable because Glossop was clearly unable to function professionally but the Board could take no action because he did not formally breach the *Surveyors Act*. Nevertheless, his dealings with clients did not reflect well on the surveying profession.

Issue A. Surveyors are not required to have professional indemnity insurance.

No current section

The Victorian Government and the Surveyors Board go to great lengths to ensure that surveyors are competent, with high professional standards. Nevertheless, occasionally a surveyor can still cause damage through incompetence or unprofessional behaviour.

Surveyors can cause damage through inadequate knowledge of cadastral law (see discussion under Restriction 7, especially Box 4). They can also cause damage through inaccurate marking of boundaries. Where a boundary is marked inaccurately, a property-owner can build across a boundary. If the boundary is discovered to be inaccurate within fifteen years, a neighbour can demand removal of the offending structure. If the adjoining property is Crown land of any description (including a railway or road), there is no time-limit - in other words, the Crown can demand removal of an offending structure even fifty years after it is built. The potential magnitude of damages is therefore very large, particularly if one inaccurate boundary has led to inaccurate marking of boundaries of adjoining property.

In a situation like this, property owners can attempt to sue the surveyor for damages. If the surveyor is not insured, there is only a remote likelihood that plaintiffs will recover their damages, since few individuals will have sufficient assets to cover costs that can run into millions of dollars.

It has been argued that clients should be aware of risks in engaging uninsured surveyors. This argument would apply if all damages were internalised.. However, inaccurate boundary markings, or inaccurate advice on cadastral law, can affect nearby titleholders. Ultimately, these titleholders could sue the client who engaged the surveyor, but with no guarantee of satisfaction.

One unprofessional surveyor without insurance can cause enormous damage. Travers, for example, is estimated to be responsible for \$250,000 of damages on one survey alone. Apart from the monetary damages, there is also an issue of public confidence. The public's confidence in the surveying profession can be severely damaged by just one example of a landholder sustaining significant damages.

Most surveyors consider professional indemnity insurance to be a necessary component of truly professional behaviour. In Victoria, professional indemnity cover is a condition of membership of the Association of Consulting Surveyors.

Most surveyors have professional indemnity insurance. The annual cost is 1% to 1.5% of billings. The average surveyor therefore pays \$2000-\$3000 annually in premiums. Professional Indemnity cover is currently compulsory in Queensland and South Australia.

The Australian Consulting Surveyors Insurance Society Limited (ACSIS) has been playing a useful role to date in providing insurance. The ACSIS acts as an intermediary, and negotiates advantageous prices with larger re-insurers. The ACSIS accounts for about 80% of the Professional Indemnity policies among surveyors. The ACSIS carries some risk on each policy, so has an incentive to investigate claims to ensure they are genuine. The ACSIS estimates that about 35% of claims are unjustified. The ACSIS has access to expert advice, since it is run by the Association of Consulting Surveyors (ACS). Without ACSIS intermediation, it is likely that insurance for surveyors would be more expensive.

Possible alternatives

It is possible for Professional Indemnity insurance to be provided by the regulatory body, through a Victoria-wide fund, or it can be provided by private insurers, or it can be provided by professional associations like the ACS.

The current insurance system for surveyors is not perfect in internalising externalities. The ACSIS calculates premiums on an Australia-wide basis. There is a suggestion that Victoria has a lower than average level of litigation, so that Victoria subsidises other states.

A Victoria-wide fund run by the regulatory body would remove any suggestion that Victorian surveyors are subsidising other surveyors. This fund could be voluntary so as to allow competition in provision of insurance. If Victorian surveyors really are subsidising other States, commercial insurers would soon feel pressure to lower their Victorian premiums.

On the other hand, this raises questions about the regulatory body's focus. A regulatory body should not get involved in other aspects of an industry, unless there are good reasons to do so. There is also an issue of conflict of interest. If the regulatory body investigated claims in the same way as the ACSIS, it would be involved in both investigation of regulatory breaches and investigation of insurance claims.

There are also questions surrounding a Victoria-wide fund. A fund which led to different insurance premiums in different states could work against creation of a national market. It can be argued that State-based premium pools would put pressure on high-premium States to alter legislation in line with low premium States, accelerating the move to a national market. This ignores two issues. Firstly, it would lead to a further limitation on interstate practice, in that a surveyor from a low premium State would need to upgrade his policy in order to work in a high premium State. Secondly, it could disadvantage States with small premium pools, such as the Northern Territory. A payout of \$250,000, when spread between 350 practising Victorian surveyors, leads to a premium increase of \$714. If such a payout were spread between 35 practising Northern Territory surveyors, the premium increase would be \$7,140, which would seriously damage the Northern Territory profession.

It has been suggested that Professional Indemnity insurance should not be compulsory because it will disadvantage small operators who do only two or three surveys each year as a way of earning extra income. The counter-argument to this is that such operators probably have higher risk than others, since they are least likely to keep up with legal and technical developments. It is likely, in any case, that requirements for Continued Professional Development and re-registration would remove many such operators from the industry (see discussion under Issue D and Issue K).

This review has found that market failure requires government regulation in the surveying market (see discussion under Restriction 1). For similar reasons, this review believes that the Government should consider intervention on the issue of professional indemnity insurance for surveyors.

Recommendation A1. The Government should consider requiring all surveyors operating in Victoria to have professional indemnity insurance.

Issue B. There is little incentive for surveyors to maintain a professional level of day-to-day conduct.

Section 26

Section 26(2) allows claims for damages caused by a surveyor who exercises his right to enter land. Apart from this, the *Act* and Regulations allow no specific recourse for the public.

Background to the issue

Efficient functioning of the Torrens system requires a positive public perception of the surveying profession. A negative perception of surveyors would lead to a loss of some confidence in the Torrens system, and would therefore raise uncertainty and transaction costs.

The public perception of surveyors can be affected by their conduct. In fact, information asymmetry means that the public is likely to assess general behaviour as an indicator of the professional competence of the profession.

There are currently no regulatory mechanisms which can influence the general behaviour of surveyors.

The Surveyors Board keeps a file of low-level complaints against surveyors, but it is not required to do so. In any case, there is little the Board can do about complaints which are not immediate grounds for suspension or cancellation of registration.

There is no legally binding code of conduct for surveyors. The Institution of Surveyors has a Code of Ethics. However, membership of the Institution is not compulsory, so the Code has no legal force in dealing with unprofessional surveyors.

Possible approaches

One possibility is to make membership of the Institution compulsory, which would make the Code of Ethics binding. This is a variant on co-regulation or self-regulation, which is discussed under Restriction 2.

If the regulatory body were to mandate a code of conduct and then enforce it, there could be a contravention of separation of powers. For this reason, any code of conduct needs to be placed in legislation which the regulatory body administers.

The regulatory body could be required to receive and assess complaints. Complaints would be assessed against specific criteria, which means that surveyors would have a code of conduct. Surveyors would also need to have a fair right of reply. In the case of frivolous

complaints, complainants should be required to pay costs. Chart 18 shows the current process for dealing with breaches of the *Act*. Charts 19 and 20 present a possible process for dealing with complaints of a formal or informal nature.

Recommendation B1. The Government should explore ways of ensuring that all surveyors are bound by a code of conduct.

Recommendation B2. The regulatory body should consider establishing a formal process for assessment of minor complaints against surveyors.

Chart 18. Current process for rectifying breaches of the Surveyors Act 1978

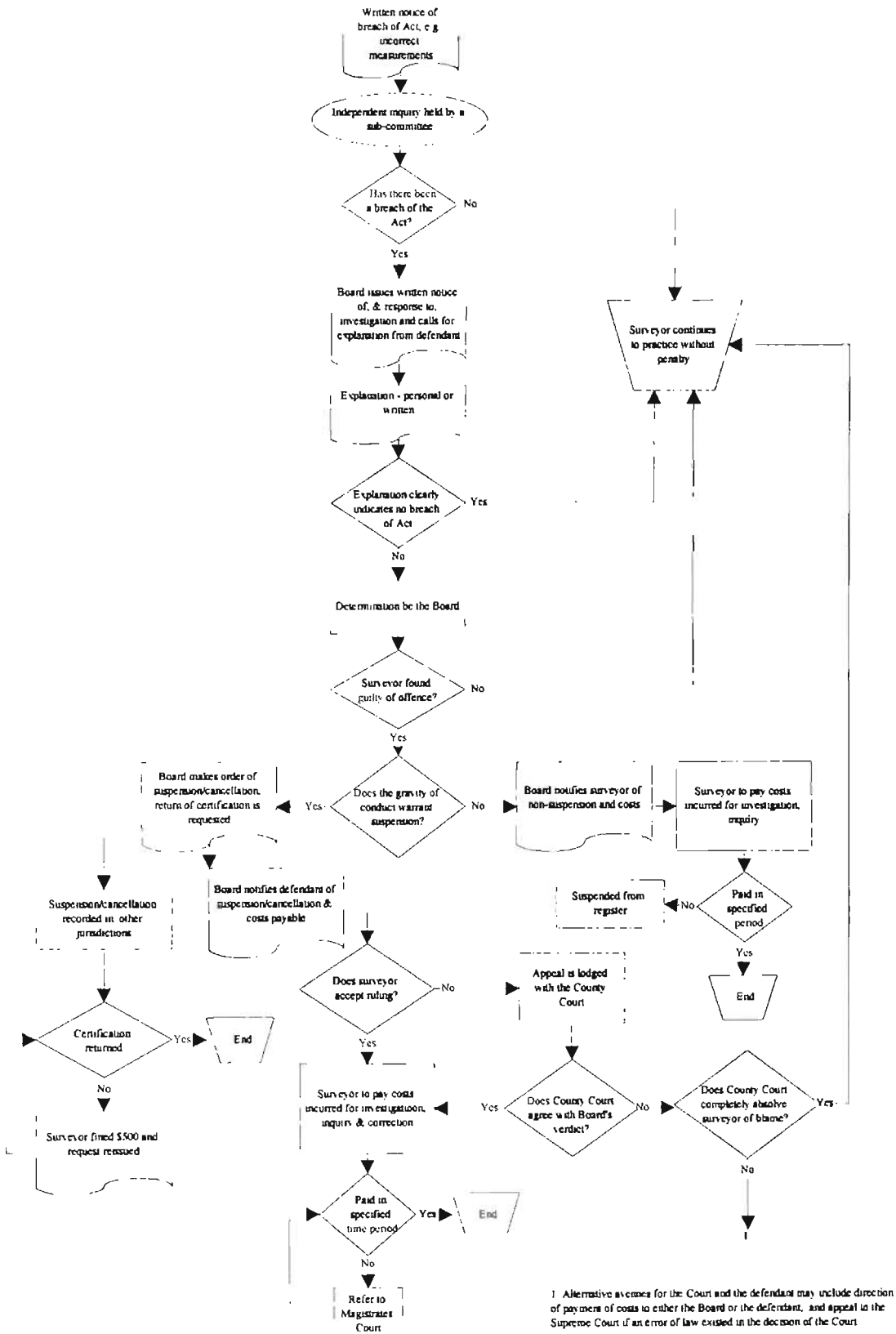


Chart 19. Possible process for registering complaints (informal path)

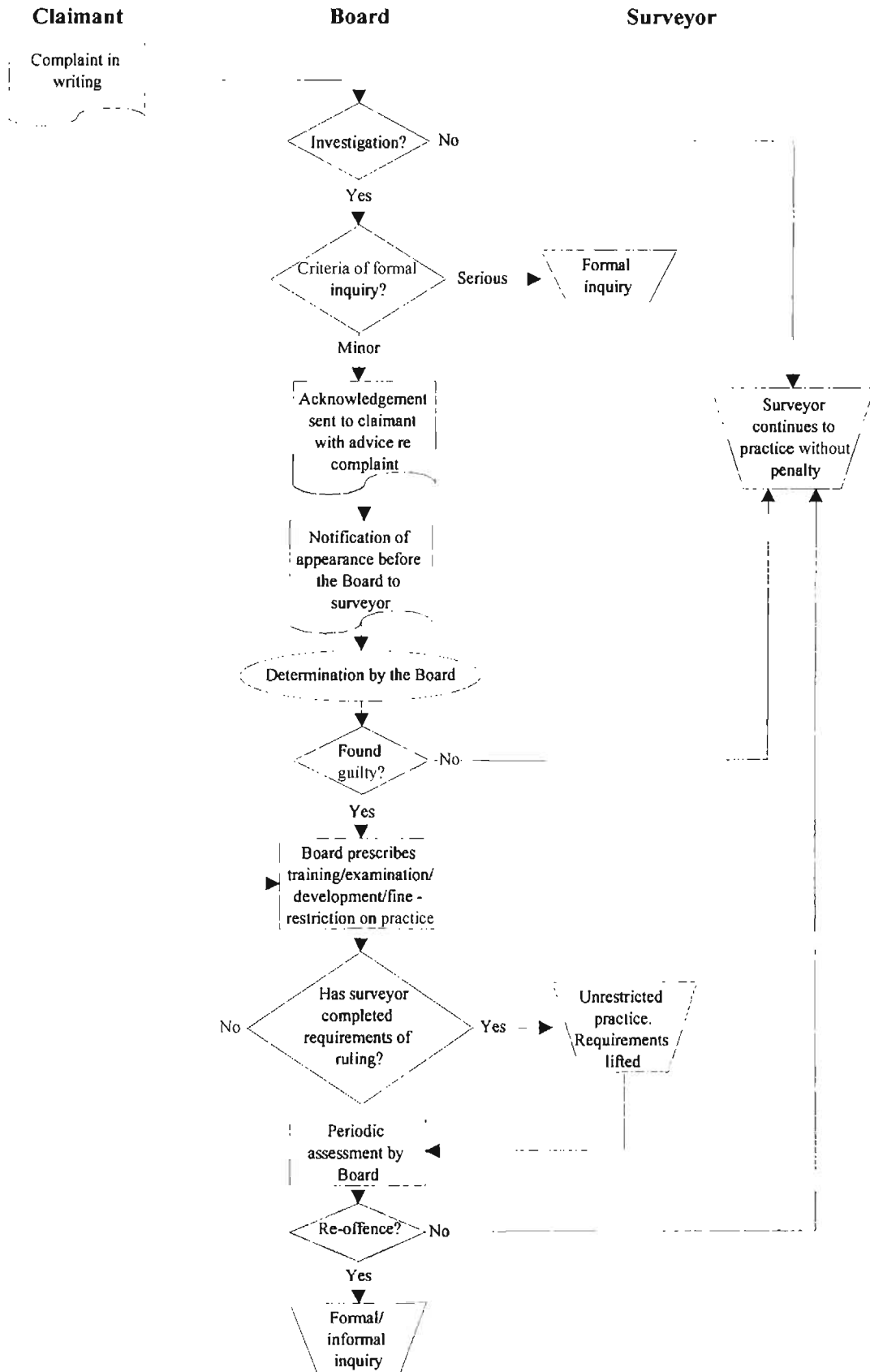
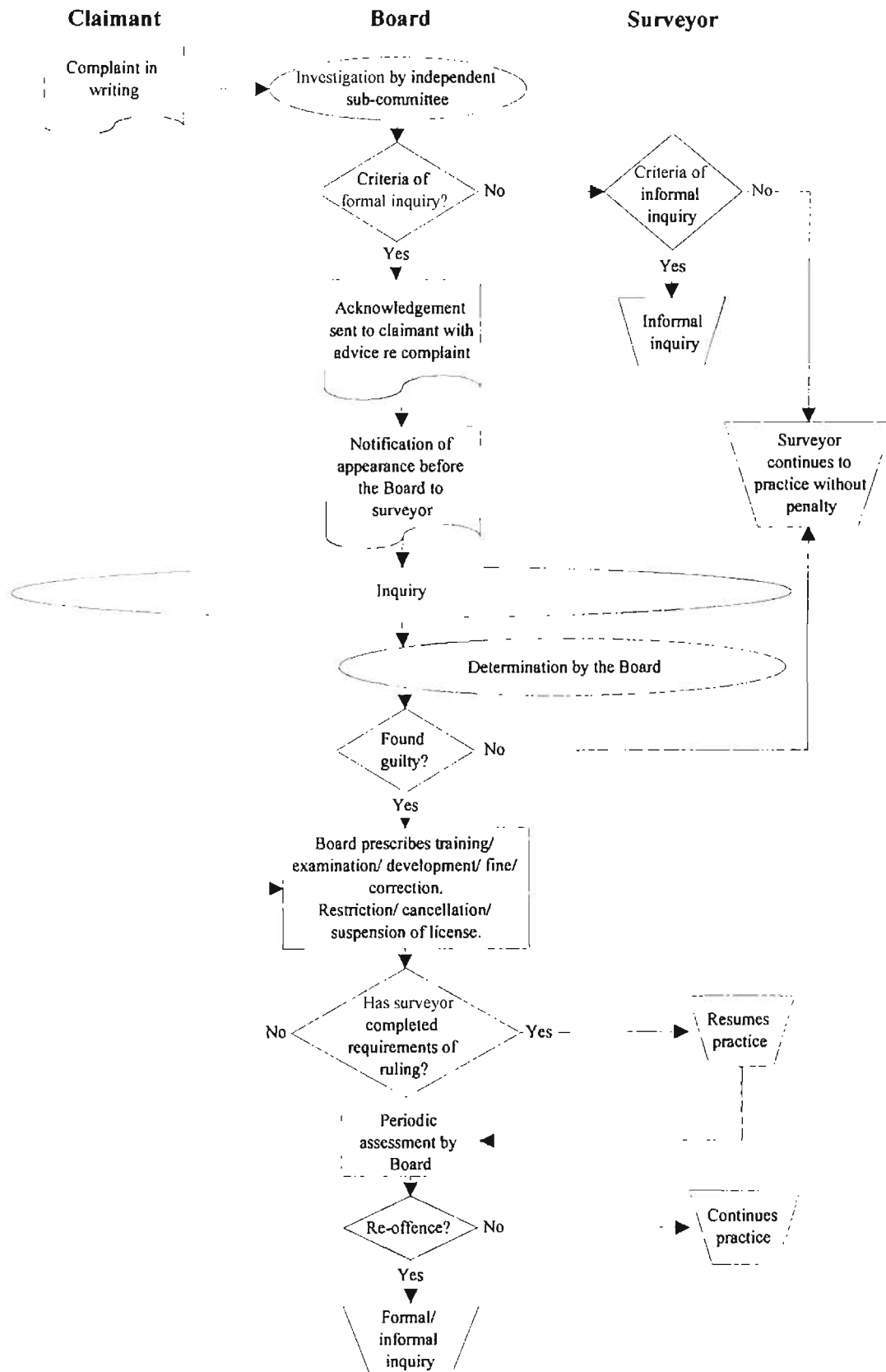


Chart 20. Possible process for registering complaints (formal path)



Issue C. Surveyors have the right to enter any land for the purposes of surveying.

Section 26

Section 26 allows surveyors and their employees to enter any land for the purpose of carrying out a survey. This right is qualified by a requirement to give notice to the land occupier, and by a liability for all damages but trespass when on the land.

Background to the issue

In carrying out surveys, surveyors often need to enter neighbouring land. In some cases, bad neighbourly relations or neighbourly eccentricity can cause landowners to deny access. Landowners might also deny access if the surveyor is working for a controversial project - a freeway, a mine, or a large factory.

Without a right to enter land, some surveys could not be performed. It can be argued that landowners have a valid right to object to surveys which will detract from their welfare through construction of an adjacent freeway. The counter-argument is that other processes exist for landowners to voice their objections, and those processes need to be followed to obtain a socially optimal outcome.

There is the possibility that a surveyor, through inattention to the rights of others, can cause unnecessary damage. A surveyor can chop down a valuable tree, trample flowers, or leave open a gate that allows stock to damage a crop. Currently the landowner's only recourse is to seek compensation through civil litigation. If the surveyor has caused, say, \$1000 of damage, the landowner is unlikely to seek compensation, because of the expense and risk involved. A surveyor could conceivably cause \$1000 damage on every property he visits, and never be brought to task. Most surveyors are very conscientious about maintaining good relations with the community at large, but a small minority can damage the reputation of the profession.

Low level damage by surveyors is part of general behaviour, discussed under Issue B.

Possible approaches

It has been suggested that the regulatory body could assess damages caused by surveyors, and require payment. This is probably not desirable, since the body would have to develop the expertise to assess damages. It seems more reasonable for the body simply to deal with damage complaints in the same way as it would deal with other complaints about general behaviour of surveyors.

Another issue which arises is that of identification. Many land occupiers may not feel safe in allowing access to a strange person, particularly if they have no way of identifying that person. Surveyors in New South Wales are also issued with photographic identification cards for that reason. Victorian surveyors could be issued with similar cards. For ease of identification, the card could show a number identifying the surveyor - a full name may not be desirable if the surveyor is working on a controversial project.

If we accept that surveyors should be able to enter any land under certain conditions, it is worth ensuring that the power is fully valid. Currently it is not clear whether surveyors have the right to bring machinery onto land. Surveyors will typically have a range of equipment in their car, some of which can be bulky or heavy. They can conceivably carry all this equipment on to neighbouring land, but this could at times involve carrying the equipment for

a kilometre or two from the neighbour's boundary gate. It seems more reasonable to allow surveyors to bring equipment on to land where that equipment will facilitate their survey. Any saving in time is passed on as a cost saving to consumers, which is one of the major objectives of competition policy.

Recommendation C1. Surveyors should continue to have the power to enter land for the purpose of carrying out surveys.

Recommendation C2. The Government should consider extending the power to enter land so as to mandate access for machinery which facilitates a survey.

Recommendation C3. The Government should consider introducing a requirement for surveyors to carry photographic identification when entering land.

Issue D. There is no incentive for surveyors to update and improve their technical knowledge.

Sections 12 & 16

Sections 12 and 16 do not set a finite period for registration and licensing of surveyors. This means that surveyors have lifetime licensing and registration. There is no provision in the *Act* for ongoing professional development, nor is there any measurement of individual professional competence.

Background to the issue

The assumption behind lifetime registration and licensing is that a surveyor, once qualified, needs no further development and will be "of good character" for the rest of his professional life. Such an assumption may have been valid when professions were relatively static, but seems incongruous today. A working career is about forty years long. If we think of the changes that have occurred since 1957, we can assume that even greater changes will occur by 2037. Changes will occur not only in technology, but also in laws and markets.

It can be argued that surveyors who fall behind should be left to their own devices, since the market will weed them out. As discussed above under Restriction 1, the market is not capable of doing this. The practical effect of a surveyor not keeping up is that standards suffer. As technology improves, those surveyors who use new technology can perform a more accurate survey in less time. Those surveyors who use antiquated technology are forced to compete by taking the same time to complete a survey, but not performing it as accurately. In addition, surveyors who do not keep up with legal changes can advise their clients wrongly, causing significant losses.

Possible alternatives

One alternative is to set exams that incorporate new knowledge. Surveyors could be required to sit such exams every few years. Annual exams would probably not be necessary, since technology, markets and laws do not change so fast. Ultimately, it can be argued that surveyors should be required to sit almost the same exams as students currently undertaking surveying courses.

Another alternative is to require attendance at courses, without examinations. While easier to administer, this approach gives the regulator less control over how much surveyors actually

learn. Nevertheless, most professional regulatory bodies assume that professionals, by their very nature, have a conscientious approach to continued development.

It is worth examining the approach of other professions in this regard. Currently only airline pilots and surgeons are required to pass exams after entry to the profession.

A pre-requisite for optometric practice currently involves a points based system where points are granted for attendance at seminars and subscription to professional journals. Indeed, up to half of the points required for certification can be attained through the simple purchase of approved literature. However, the Registration Board does not have a mechanism for measuring the level of learning that has been attained - whether literature has been read or whether lectures attended have covered a range of topics.

The College of Surgeons has a system where actual learning is assessed. Attendees at professional development seminars are required to report on their learning and must present this knowledge to their peers. Examinations are prescribed, and practitioners must demonstrate that they have attended training sessions over a broad number of areas. This prevents individuals attending seminars solely in their preferred area of competence.

One reason why surgeons have more stringent requirements than optometrists could be that knowledge is changing faster in the surgical field. Another reason would be that surgeons deal with more situations where a patient's life could be at stake, so it is considered more crucial for them to maintain a very high level of professional knowledge.

If we assess surveyors in comparison with optometrists and surgeons, we can argue that lives are not at stake in surveying, but knowledge is moving just as fast as in medicine. While the basic principles of trigonometry are not changing, computing technology is moving ahead rapidly, and technology related to mapping systems and global positioning systems is moving ahead equally fast.

Whether or not examinations are used, courses will be necessary. One option is for the regulatory body to provide these courses. This would, however, be outside the general activities of the body and would not allow competition to lower course costs. Competition will be enhanced if the regulatory body controls and accredits courses provided by tertiary institutes and private companies. There is even the possibility that the regulatory body could accredit existing courses interstate, as long as the courses were concerned with technology rather than legal developments. Interstate courses would have the advantage of exposing surveyors to a broader range of peers.

Another factor to consider in deciding whether to have examinations is the attitude of the profession. The profession currently has a generally positive approach to technological progress. The few practitioners who use antiquated technology would benefit from simple exposure to their peers at seminars. Imposition of exams could be seen as heavy-handed regulation, leading to some loss of credibility on the part of the regulatory body.

Suggested approach

The arguments in favour of Continued Professional Development are relatively strong. What is less clear is the form that CPD should take. For this reason, this review will recommend mandatory CPD, but leave the exact implementation open to further investigation.

Recommendation D1. Introduction of a requirement for surveyors to undergo Continued Professional Development (CPD) should be considered.

Recommendation D2. The exact form of CPD should be the subject of further investigation, in consultation with the industry.

Issue E. There is no legal basis for auditing surveys

No current section

In recent years the Surveyors Board has instituted a program of auditing surveys. The aim is to audit every active surveyor at least once every three years, and to audit potentially high-risk categories more often. Potentially high-risk surveyors are those who have recently graduated, who have recently arrived from another jurisdiction, or who have had problem surveys in the past. The Surveyors Board has requested the Office of Surveyor General to carry out audit work, but there is no legal requirement or specific justification for the Board to perform audits.

Possible alternatives

Currently the main legal quality control mechanism in the surveying industry is a high entry barrier. More continuous checking of quality is desirable, if only because the quality of a surveyor's work can change with time or commercial pressures.

There are two basic varieties of audit - an office examination and a field examination. An office examination can check details such as: the internal consistency of calculations; the use of appropriate methodology in double-checking dimensions; and the consistency of external dimensions and angles with boundaries and angles of neighbouring parcels. A field examination can check details such as: placement of markers; use of previously established markers; and correspondence of physical dimensions with dimensions shown on field notes. An office examination and a field examination take up about the same amount of time - each can vary between half a day and two days, depending on the complexity of the survey.

Audits can detect problems that would otherwise go undetected for many years. Without audits, there is very little risk control within the surveying industry, apart from initial entry requirements. Initial entry requirements are not fully effective because they do not take account of possible events over the forty years of a surveyor's career.

A key question is: who should be responsible for audits? Surveying companies could audit each other. To avoid risks of collusion, it is possible for audits to be allocated randomly by a central authority. Surveyors could be audited by a Government authority. The Titles Office has a direct interest in the accuracy of surveys, so could perform or commission audits. The Surveyor General is more generally responsible for standards of surveying, so could perform or commission audits. The Surveyors Board is responsible for most regulation of surveyors, so could commission audits. Any one of these authorities could commission an audit by another Government authority, or by a surveying company.

In the end, the overriding criterion should be that audits need to be independent. It is beyond the scope of this review to determine optimal administrative arrangements for audits. regulation of surveyors needs to be centrally controlled. Where regulation is divided among authorities, there is a risk of demarcation disputes or communication breakdown.

Recommendation E1. The Government should consider introducing a legal requirement for the regulatory body to audit surveys on a regular basis.

Issue F. The Surveyors Board is not required to make all legal requirements transparent.

Section 32

Section 32 states that the Board “may from time to time” publish a handbook containing all the legal requirements affecting the surveying industry.

Since 1989, the Board has been publishing extensive information of practical use to surveyors. This has been a significant aid to transparency in the surveying industry. Nevertheless, there is currently no requirement for the Board to assist transparency in this manner. A future regulatory body could choose not to do so.

Transparency is a particular issue in surveying because many requirements are not set down in Acts and Regulations. For example, the Board has issued a publication entitled *Guidelines to Support Surveyors (Registration) Regulations 1992*. These Guidelines are also a significant aid to transparency, because they set out in detail the criteria the Board uses in making decisions on matters such as applications for registration, recognition of overseas qualifications, and registration of training agreements. Nevertheless, the Guidelines are not publicly available in the same way as an *Act* or *Regulations* are available.

It can be argued that all criteria should be set down in Acts or Regulations, since anything else is by definition less transparent and less accountable. The counter-argument is that Acts and Regulations entail excessive delays and administrative procedures, removing the flexibility the regulatory body needs to react to constantly changing technology, markets, and reciprocal jurisdictions. If we consider the fact that there are currently nine reciprocating jurisdictions, even minor changes could involve interminable delays if such changes had to pass through the Parliament of each jurisdiction.

Another reason for the importance of transparency is the fact that so many legal requirements vary between States. In the interest of developing a national competitive market for surveying services, it is necessary for surveyors to have easy access to legal requirements in other States.

In order to retain flexibility in rule-making, it is desirable to continue the practice of developing rules at regulatory body level, without the intervention of Parliament for all minor changes. Nevertheless, to ensure that the process remains transparent, it is desirable to ensure that any rule changes are publicly accessible. The cheapest and quickest way of doing this may be to publish all rules on the World Wide Web, as is currently the case for Victorian legislation.

Recommendation F1. The Government should consider a legal requirement for the regulatory body to publish and regularly update a handbook setting out all relevant legal requirements concerning surveying.

Issue G. Excessively expensive resolution of boundary disputes.

No current section

Victoria's system of Torrens title is comparatively efficient, and leads to a minimum of disputes. One of the few areas of continuing disputes is title boundaries. The level of boundary disputes is low in comparison with most jurisdictions in the world.³⁷ Nevertheless, a dispute can impose significant costs.

Boundary disputes have a number of origins. They can originate because a boundary has been fixed according to an old, inaccurate survey. Or they can originate because surveyors engaged by competing landowners have used different, but equally valid methodologies. Or, finally, they can originate because a surveyor has made a minor error of the sort which would not entail deregistration, but which nonetheless leads to a discrepancy noticeable when another survey is carried out.

Anecdotal evidence suggests that the great majority of boundary disputes is resolved through neighbourly common sense. However, there are cases where neighbours cannot agree, and wish to have a higher authority adjudicate their respective claims, which are backed up by their respective surveyors. This adjudication is currently undertaken by the County Court, which involves a minimum delay of 3 months, and the expense of barristers.

The substance of a boundary dispute can often be resolved only through an understanding of technical surveying issues. When adjudication is through the County Court, extra expense is involved in seeking expert advice.

The Surveyor-General is currently empowered to resolve boundary disputes that involve Crown Land.

All these facts suggest that the body administering the Surveyors Act, or the Land Titles Office, should be available as a first point of adjudication. It would be possible to have hearings without barristers, with the adjudicators simply assessing the arguments of the surveyors involved. As long as the adjudicators maintained a reputation for fair and impartial decisions, few landowners would wish to take the matter to a more expensive court. Equally, the insurance company of the losing side would be less inclined to take the matter to a higher court, since an adverse finding by the adjudicating body would increase the probability of an adverse finding by a higher court.

If the LTO or the body administering the Surveyors Act is available as a first point of adjudication, a valid question is which court should hear appeals. Currently the County Court is the normal avenue of appeal. There have been suggestions that the Administrative Appeals Tribunal (AAT) could be quicker and cheaper. The AAT Planning Division currently hears "appeals and applications relating to the use and/or development of land".³⁸ This question of appeals is beyond the scope of the review, since complex legal and jurisdictional issues are involved.

³⁷ A 1989 study found that New Zealand, which has a similar system to Victoria, has an incidence of boundary disputes which is 3500 times less than Great Britain. Quoted in Ministry of Finance, *Regulatory Impact Statement for Surveyors (Cadastral Surveys) Regulations 1995* (1995), p. 7.

³⁸ Administrative Appeals Tribunal Planning Division, *Guidelines for Applicants* (1997)

Recommendation G1. The Government should consider making the LTO or the surveyors regulatory body the first point of adjudication in non-Crown boundary disputes.

Issue H. Regulation of the surveying profession is not fully self-funding.

Section 28

Section 28 states that fees and penalties under the Act shall go towards payment of the general expenses of the Surveyors Board.

In 1993/94, the Surveyors Board cost \$63,500 to run, of which only \$10,000 was funded through fees and charges. The remainder was provided by the Government. In addition, there is a hidden subsidy in the form of secretariat services and expert advice provided by the Office of Surveyor General and the Land Titles Office.

Possible alternatives

South Australia funds surveying regulation by placing a \$30 levy on all titles lodged in the Land Titles Office, which is sufficient to make South Australian regulation self-funding. Other states use re-registration fees, or a combination of an activity levy and a re-registration fee. A third possibility is a levy on all land transfers.

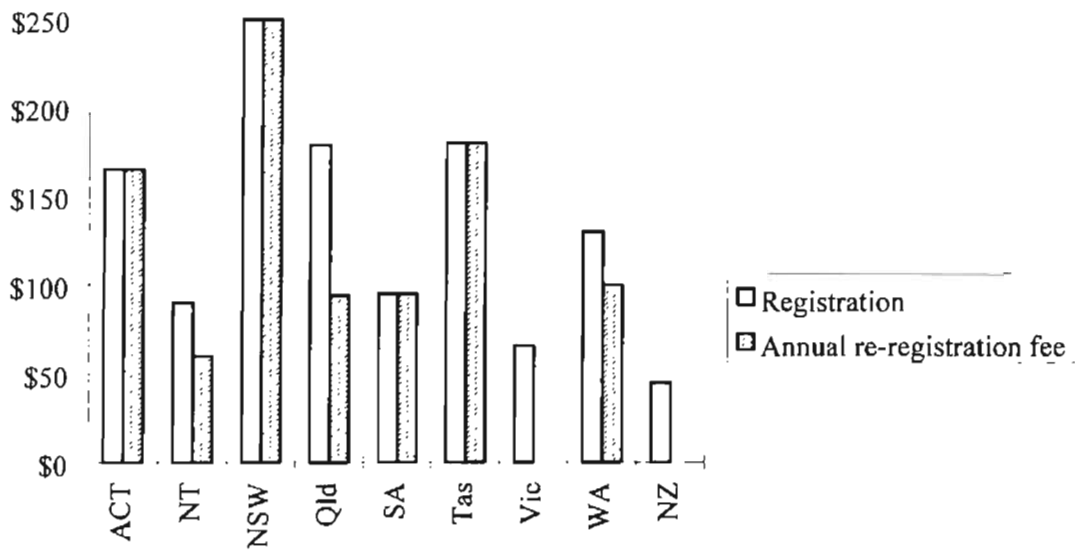
Land transfer is not directly tied to surveying activity. Particularly in Victoria, most land transfers take place without any need for surveying. For this reason, funding surveying regulation through a tax on land transfers would impose a cost on third parties who have no direct interest in surveying. In equity terms, it is little different from funding surveying regulation from general revenue.

Funding regulation through a levy on titles lodged ties the impost to surveying activity. A surveyor who submits more plans pays more towards the cost of regulation. This is probably the most equitable way of funding regulation. It has two possible disadvantages. One is that less revenue will be collected in years when surveying activity is low, even though the regulatory body is likely to have the same level of costs every year. Another disadvantage is that it requires the involvement of the Titles Office, which does not regulate surveyors.

Funding regulation through a re-registration fee is probably the simplest solution from the point of view of the regulatory body. It allows the body a reasonably predictable level of income, and keeps the process under the control of that body. It is likely that surveyors who have a low level of activity will not re-register. This can be seen as a disadvantage, in that it makes the pool of potential competitors smaller. On the other hand, it will eliminate those surveyors most likely to fall behind in their expertise and knowledge of latest developments. In this sense, it can be seen as another risk-control filter.

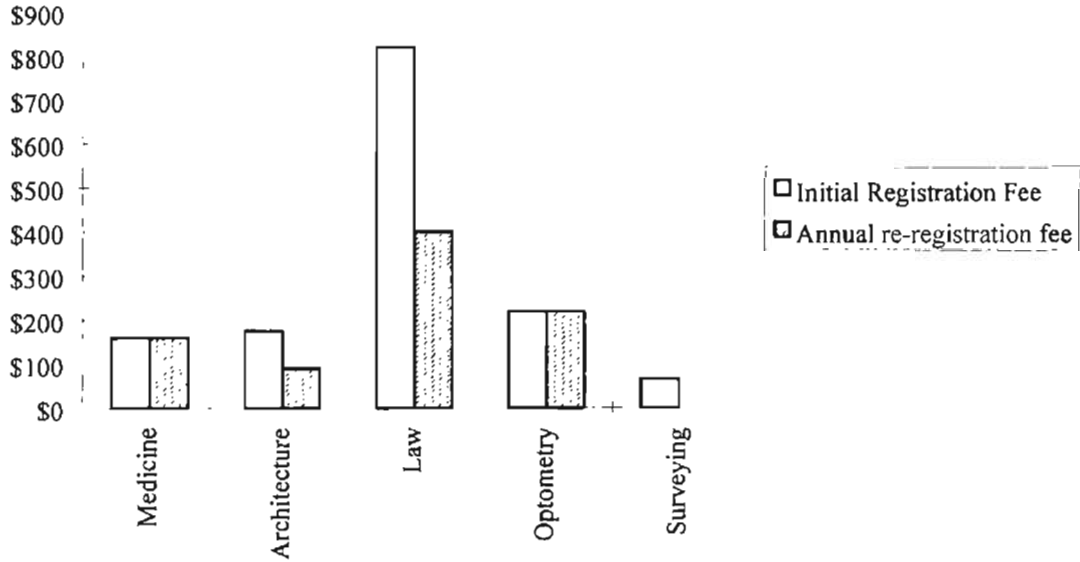
A combination of re-registration fee and activity levy may be the best overall solution. A re-registration fee would minimise fluctuations in Board income, while the levy component would spread the cost of regulation in a more equitable manner. Chart 21 shows initial and re-registration fees for surveyors around Australia. Chart 22 shows initial and re-registration fees for selected professions in Victoria.

Chart 21. Registration / licensing costs for surveyors



Source: Surveyors Boards of Australia and New Zealand

Chart 22. Registration costs for professions within Victoria



Source: Medical Practitioners Board of Victoria; Architects' Registration Board of Victoria; Law Institute of Victoria; Optometrists Registration Board of Victoria; Surveyors Board of Victoria

Suggested approach

Given the myriad ways of approaching self-funding, this review will not make a recommendation as to the specific form of self-funding. A solution acceptable to all parties will require more consultation than could be carried in the course of this review. In a similar vein, this review will recommend introduction of periodic re-registration, but leave the period to be determined by further discussion and investigation.

Recommendation H1. The Government should consider making regulation of the surveying profession self-funding.

Issue J. Government agencies currently provide a hidden subsidy to the Surveyors Board.

No current section

The Surveyors Board receives extensive secretariat support and expert advice from the Office of Surveyor General (OSG) and the Land Titles Office. These services are generally provided free of charge, and constitute a hidden subsidy.

These arrangements evolved over time because all the bodies concerned (the Board, OSG and LTO) are Government-controlled, and the exact division of funding was therefore not a particularly strong issue.

The trend in public administration has been toward greater transparency and accountability. A more exact division of funding would assist these aims. In addition, if regulation is to be self-funding (see discussion under Issue H), it will be necessary to have a clear idea of the total costs of regulation.

The current arrangement does not allow members of the regulatory body to seek independent advice. A non-surveyor member of the body is limited to advice from organisations already represented on the regulatory body. This means that non-surveyor members may not be fully effective in representing the interests of the general public.

Recommendation J1. The regulatory body should consider introducing a transparent budget for secretariat services and expert advice.

Issue K. Victorian surveyors have lifetime registration/licensing

Sections 12 & 16

Background to the issue

Most States have periodic re-registration of surveyors. Part of the reason for this is simple collection of revenue. Another reason, and in the opinion of this review a stronger reason, is the opportunity for quality control.

Currently most Victorian surveyors need to prove their high level of suitability at only one point in their careers - when they apply for registration/licensing. An entry barrier as sole quality control mechanism can only be efficient in a static situation. The surveying market is not static, and neither are surveyors themselves. A typical surveying career can last 40 years,

in the course of which surveying technology will change, and a surveyor's behaviour may also change.

This review recommends consideration of dealing with changes through mechanisms such as Continued Professional Development (CPD), assessment of minor complaints, and regular audit (see separate sections for discussion of these issues). With a system of lifetime registration/licensing, the onus of action is entirely on the regulatory body. In other words, if the body feels that a surveyor had not reached a certain level of CPD, it needs to take specific action to de-register the surveyor.

With a system of periodic re-registration, the onus can be placed on the individual surveyor. In order to be re-registered, the surveyor would need to show appropriate proof of CPD and other relevant criteria.

From the point of view of revenue collection, periodic re-registration is more equitable than a large initial payment. A large initial payment makes a financial demand on a surveyor in the least financially comfortable part of a career. The same revenue be collected over a period of time is less onerous on the surveyor. In this sense, periodic re-registration imposes less of an entry barrier than lifetime registration.

Possible approach

A question with periodic re-registration is how often it should occur. The two factors which influence this are the rate of change in the industry, and the rate at which surveyors need to be assessed. The industry is not changing fast enough to require re-registration every year. On the other hand, while re-registration every ten years could be sufficient to cover technological changes, it would not be a sufficient control over the quality of individual surveyors. The ideal period is therefore somewhere between one year and ten years. Other Boards have adopted a period of three years, which appears to be a reasonable period.

<p>Recommendation K1. The Government should consider introducing periodic re-registration and re-licensing for surveyors.</p>
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Issue L. The effect of adverse possession on the surveying market.

Not in *Surveyors Act 1978*. In *Transfer of Land Act 1958*, sections 9, 26E, 60, 61 and 62.

Numerous stakeholders brought up the issue of "adverse possession", a specific feature of Victorian land ownership. Under adverse possession, someone who occupies land for a certain length of time and is unopposed by the true owner of the land, can apply to become the true owner of the land. Generally that period in Victoria is 15 years. This means that if a boundary fence is built in the wrong place and remains there unopposed for 15 years, the property owner who gains can apply to have the fence recognised as the new boundary. An application for adverse possession can only be made if the amount of land is significant, normally more than 10 centimetres. Adverse possession cannot be claimed against Crown land in Victoria.

One effect of adverse possession is that a surveyor's error, if undetected for 15 years, can lead to a change in boundaries. Another effect is that boundaries, once marked by fences or similar everyday demarcations, are reasonably stable. Adverse possession no longer exists in

New South Wales for parts of titles³⁹. As a result, buyers of land in New South Wales cannot be sure that their boundary fences do in fact mark the correct boundary. Consequently, buyers of New South Wales land have more of an incentive to have the land surveyed before they buy it. Otherwise they risk the possibility that a building could be built across the property boundary, entailing expensive demolition or readjustment of boundaries.

Stakeholders have suggested that adverse possession is generally advantageous for consumers, as expenditure on surveying is higher in New South Wales and other states without adverse possession. This review attempted to test this suggestion, but could not obtain the necessary statistics to do so. The review wished to test the ratio of surveyors to land titles in each state, controlling for number of strata titles (because many strata titles occupy one block, a higher number of strata titles involves a lower need for surveying). Unfortunately, very few States were able to provide the exact number of titles in their State, and none could provide the exact number of strata titles. Some States (including Victoria) could only provide a rough estimate of the number of active surveyors in their State, since they have lifetime registration/licensing. Surveying activity is also likely to be affected by population growth rates in different States, since population growth affects development of new housing. New housing developments are a large source of income for many surveyors.

Since adverse possession is a feature of the *Transfer of Land Act 1958*, this review will make no recommendations on the issue.

³⁹ Adverse possession still exists in New South Wales for whole titles. The aim of this provision is to discourage the existence of a class of property-owners who have no interest in their property and never visit it or monitor its development.

Brief Glossary

Adverse possession	An occupation of land by one who has no lawful title to it, which, if unopposed for a certain period, may extinguish the title of the true owner.
Cadastral surveying	The definition, identification, demarcation, measuring and mapping of new or changed legal parcel boundaries. It usually includes the process of re-establishing lost boundaries and sometimes resolving disputes over boundaries or other interests in real property.
Continued professional development	Process of continuous training required in many professions in order to ensure that practitioners are abreast of the latest developments in their profession.
Crown land	Land not in private ownership including land controlled by government authorities. This includes railway easements, roads, most water treatment facilities. Crown land is divided into 2 categories: national parks and reserves; and land held under lease or license.
Externality	An economic effect felt outside the scope of an economic agent. A positive externality is education and training which benefits the economy as a whole. A negative externality is pollution.
Licensed surveyor	A registered surveyor authorised to carry out cadastral surveys. Note that this is the Victorian terminology and may differ between jurisdictions.
Master surveyor	A surveyor who has been licensed or registered for at least two years and who agrees to undertake training of a candidate through a training agreement.
Old Law titles	Title to land as established from a series of instruments by means of which the history of the ownership of the land can be traced. It has been largely replaced in Australia by title registration under the Torrens system.
Registered surveyor	A person who satisfies all the standards of the Board but is not authorised to carry out cadastral surveys. This category was introduced in 1978 and has not proved very popular.
Strata titles	Land which together with its buildings, are subdivided into lots, or lots and common property, the common property being used by the occupiers of the lots but owned by the body corporate.
Survey	Determining the boundaries, size, position, shape, contour, etc. of land measuring distances, boundaries and angles.
Torrens system	A system employed in all Australian jurisdictions. The government guarantees ownership of land and keeps a central register of ownership. This enables buyers to verify that they are dealing with the true owner.

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Appendix 1. Over-supply and under-supply of surveyors

Markets for professional services adjust in different ways to changes in supply and demand.

In medicine, for example, an over-supply of practitioners is not reflected in increased competition and improved service. Medical practitioners can split one consultation into two, or create needless referrals to colleagues, who can return the favour. Medical practitioners can do this because most of their costs are not borne by the patient.

By contrast, over-supply in computing has more predictable effects. Computer specialists cut the cost of their services, improve service, or move into foreign markets. Computer specialists can move into most foreign markets because computer technology is increasingly standard around the world.

An under-supply of practitioners has different effects for different professions. An under-supply of medical practitioners in a society with big income differences will lead to a situation where only the richest elite can afford proper medicine, and most people have no medical care or clearly inferior medical care. In a society with more equal income distribution, an under-supply of medical practitioners will lead to a focus on essential vaccinations, life-threatening diseases and painful diseases at the expense of areas like cosmetic surgery.

An under-supply of lawyers can lead to a breakdown in the legal system, or creation of an alternative legal system. In some ex-Communist countries, for example, there is a clear shortage of commercial lawyers and judges with sufficient skills to deal with a market economy. This leads to delays of five years or more in hearing commercial disputes or resolving insolvencies. As a result, companies have two main options. They can be cautious and only deal with parties they know intimately, which limits their business opportunities. Or they can deal more widely and use organised crime connections to collect debts and enforce commercial contracts. In either case, the legal system has become irrelevant.

An under-supply of computer specialists leads to a noticeable increase in their price. Currently, for example, there is a shortage of specialists who understand the COBOL programming language and can work on solutions to the "millenium bug", the need to change date systems to deal with the year 2000. As a result, salaries of those specialists have increased by 20-100%⁴⁰. With other computer specialists, such an increase in salaries would normally stimulate supply and bring down salaries. The millenium bug is a special case. It takes three or four years to train a computer specialist, and work on the millenium bug will only last for another two and a half years. As a result, no-one will begin training now in order to work in that specialty at the end of a three or four year course.

In a situation of over-supply, surveyors are most similar to computer specialists. They cannot create over-servicing, because clients bear the cost of surveying services. On the other hand, surveyors cannot easily move into foreign markets, mainly because of legal differences, and also because a surveyor's client base can take a long time to build. For this reason, an over-supply of surveyors will be reflected either in cost-cutting (which leads to quality problems) or in a move by surveyors into similar professions. Consequently, a broad education which

⁴⁰ Salaries for computer programmers are normally in the range of \$35,000 - \$50,000. Specialists in the millenium bug are currently commanding salaries of \$60,000-\$70,000.

allows surveyors to move into related fields can be said to have a positive long-term effect on the surveying market.

In the situation of under-supply, the surveying market is likely to behave in two different ways. Up to a certain point, surveyors will be able to increase costs. If the increased demand is limited to one State, it is feasible that surveyors from reciprocating jurisdictions will move in to fill the gap. If increased demand is felt in all jurisdictions, it is likely that costs will rise. If supply is too restricted, beyond a certain price-point it is likely that consumers will take the risk of using an unqualified surveyor, and could find instruments not controlled by the Titles Office for transfer of land. In this way, under-supply in the cadastral surveying market could lead to a similar pattern to under-supply in the legal market.

The discussion in “The Industry” indicates that the Victorian market for cadastral surveying shrank from \$28 million in 1987/88 to \$13 million in 1992/93. This means that demand in a boom period can be double demand in a depressed period. A broad education which enables individuals to move in and out of cadastral surveying has the important advantage of adjusting supply to meet these changes in demand.

Appendix 2. Licensing of interstate surveyors within Victoria

[Source: Victorian Surveyors Board]

The process is as follows:-

- Apply to the Board within your home State for a letter of Accreditation.
- The “home” Board provides the letter direct to the reciprocating Board. A copy of the letter is sent to the surveyor who made the original application.
- Whilst this process is happening the surveyor may independently apply to the Board in the state in which they wish to practice.
- Any application for registration and cadastral endorsement by a surveyor from a reciprocating board should be in writing and must be accompanied by the following documentation:-
 - ◆ Copy of a Letter of Accreditation from a Reciprocating Board
 - ◆ Statutory Declaration that all information in the application is true and correct
 - ◆ Completed application form which is obtained from the Guidelines as Required by Section 39(2) of the Mutual Recognition Act 1993
 - ◆ The prescribed fee. (Currently up to \$130 - comprising \$66 as registration as a surveyor, \$32 for issue of Certificate and \$32 for endorsement of the register to carry out cadastral surveys).
- All documents are to be completed and forwarded to the Board. The Mutual Recognition Act 1993 states that a decision must be made **within one month** of receipt of application. It is therefore important to advise the applicant as soon as possible if information is incomplete. If an application is not advised of the need to provide further information and the month expires the applicant is automatically granted registration under the provisions of the Mutual Recognition Act.
- The Surveyors Board has given the Chairman and Secretary, as the Executive Committee, the authority to approve any applications if they are received between Board Meetings. When the application is approved a letter is sent to the surveyor to advise them of their successful registration and inviting them to attend the next Board meeting to receive their Certificate.
- There is NO MANDATORY requirement to demonstrate a knowledge of local cadastral law. Whilst this knowledge is desirable it is only mentioned in passing when the surveyor meets the Board.
- If the surveyor cannot attend a Board meeting they are still granted registration to practice and relevant information is mailed to them.

- The initial survey lodged by the surveyor is then audited, both in the field and in the office, to ensure compliance with current legislation and survey requirements.