



APPENDIX 2B – Business Case – Graduated Licensing Program Enhancement Project



**Business Case
Graduated Licensing Program
Enhancement 2003**

Version 4.0

FINAL

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Graduated Licensing Program Enhancements Team



1. Graduated Licensing Program Enhancements Team

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2. Executive Summary

The objective of this initiative is to seek approval to make the following changes to the Graduated Licensing Program by July 1, 2003.

- Extend the minimum length of the learner stage from 6 months to 12 months
- Extend the novice stage from 18 to 24 months AND require novice drivers to complete 24 consecutive months of prohibition free driving in order to challenge for a full class 5 licence.
- Add a novice stage passenger restriction limiting new drivers to carrying one passenger unless supervised by an individual who is at least 25 years old. An exemption would apply only in circumstances involving family members.

Upon implementation of the recommended policy changes the following estimated gross benefits are anticipated:

Initiative benefits (gross):

Estimated collision claims benefits	
Year	Dollars (000)
2004	\$12,825
2005	\$39,889
2006	\$48,759
Total	\$101,473

In order to realize these benefits, the following requests are being made:

- Assemble a project team to implement the requested policy changes by July 1, 2003.
- Approval to hire 15 full-time temporary Driver Examiners and 2 full-time temporary Customer Service Representatives to manage licence examination demand in 2003.
- Approval to hire up to an additional 15 full-time temporary Driver Examiners and 2 full-time temporary Customer Service Representatives by 2nd quarter 2003 to manage additional increases in demand.
- Approval to hire an additional 11 full-time temporary staff in Customer Contact, and 3 full-time temporary staff in Licensing Support to manage increase customer demand for road tests.
- Approval to initiate a reengineering study of the licensing area to seek operational efficiencies to mitigate anticipated future impacts in demand.

Initiative costs:

- The estimated one-time cost of implementing this initiative is approximately \$3.74 million. This largely comprises staff time, communication, advertising, IT development, and policy work with government and other stakeholders.
- Additional operating costs in 2003 for impacted areas is estimated at \$1.8 million, and \$2.2 million for 2004. This is for Driver Examiners and Customer Service Representatives, and for additional Customer Contact Personnel and License Support.
- The cost of performing a 4 month reengineering study is estimated at approximately \$200,000 based on current scope.

3. Initiative Description

Problem Definition

- The Graduated Licensing Program, introduced in August 1998, has been successful in reducing British Columbia's new driver crash rate by 26 per cent, resulting in approximately \$24 million in annual crash claims savings for ICBC. ICBC's most recent GLP evaluation (2000) attributes the vast majority of these road safety benefits to the highly restrictive learner stage with limited benefits attributed to the novice stage.
- The program's two-phase licensing system allows new drivers to gain driving experience in restricted, low risk environments. However, new drivers, especially in the GLP novice stage, continue to have an unacceptably high crash and severity rate when compared to the rest of BC's driving population.
- In 2001, new drivers represented approximately 7 percent of the total driving population in British Columbia but were involved in approximately 13 percent of crashes. These crashes resulted in approximately \$335 million in claims costs, which represented 24 percent of total claims payments.
- Accident rates continue to be a priority for government.

The goals of this initiative are to:

- Further reduce the rate and severity of crashes for new drivers, especially in the novice stage; and
- Improve the development of safe, lifelong driving habits.

In order to achieve the goals listed above the following changes to the GLP are proposed. See Appendix A for a brief evaluation of the proposed enhancements below.

- Extend the minimum length of the learner stage from 6 months to 12 months. This enhancement will help reduce new driver crashes by increasing the time a new driver is under the supervision of an experienced driver. It will also ensure that the required practice period spans all four seasons.
- Extend the novice-stage from 18 to 24 months AND require novice drivers to complete 24 months of prohibition free driving in order to challenge for a full class 5 licence. Safe driving attitudes are promoted by creating an incentive for new drivers to follow 'the rules of the road' in order to avoid violation tickets.
- Add a novice-stage passenger restriction limiting new drivers to carrying one passenger unless supervised by an individual who is at least 25 years old. An exemption would apply only in circumstances involving family members. This enhancement will help reduce new driver crashes by limiting their exposure to high risk driving situations (e.g., teenage drivers carrying multiple teenage passengers unsupervised).

In order to minimize the operational impacts of these changes, all drivers in the program (learner or novice) at the time the new enhancements take effect will be "grandfathered" as follows:

- The original GLP rules will apply (e.g. novice drivers will not be subject to the new passenger restriction or lengthened time requirements).
- Learner stage driver already in the GLP when the changes come into effect will be subject to 'old' learner rules. However when they move to the novice stage the new novice rules will apply.



- Any driver from the original GLP who is prohibited from driving for speeding, alcohol and similar driving related infractions will automatically be subjected to the new GLP rules.
- Drivers who entered the GLP prior to the enhancements coming into effect will be subject to the new rules if they choose to renew their licences upon expiry instead of challenging the class 5 road test to exit the program. The goal is to encourage novice drivers to graduate from the program.

Policy development process

The proposed GLP enhancement package was developed by representatives from ICBC's driver licensing business area based on a review of road safety research, recommendations from government and traffic safety stakeholders, and a review of best practices of jurisdictions with stronger road safety records than British Columbia. This package was designed to allow for timely and cost-efficient implementation by:

- Utilizing pre-existing legislation, only requiring regulatory changes.
- Maximizing the use of pre-existing business and computer systems.
- Limiting potential stakeholder and public concerns by balancing road safety goals with mobility impacts on new drivers and their families.
- Limiting impacts on driver licensing points of service by grandfathering drivers who entered the program prior to the enhancements taking effect.

Background

- The Graduated Licensing Program (GLP) was introduced to BC in August 1998 as part of ICBC's Six Point Plan focusing on Road Safety. The goal was to reduce the number, severity, and cost of new driver-related crashes. The development of the project was in response to a mandate from the government of British Columbia to implement an improved licensing program for new drivers.
- The intent of GLP was to extend the learner's period and to increase driving restrictions, so that new drivers could gain and develop the necessary skills and experience in a controlled environment thereby making roads safer. Over the life of the program, new drivers are tested at two stages; at the completion of the 'learner' stage, and at the completion of the 'novice' stage. As the driver progresses through each stage of the process, certain restrictions are removed. Upon full completion of the program, the driver possesses an unrestricted class 5 licence.
- It was expected that through the improvement of new driver attitudes, skills, behaviours and a reduction to the exposure of risk, the goals of GLP would be attained. Financial benefits to the Corporation would be derived through the reduction of claims-associated costs.
- As a result of the GLP program, ICBC is currently receiving a positive claims reduction estimated at approximately \$24 million annually. This represents a 26 percent reduction in new driver crashes when compared to pre-GLP drivers. Benefits and assumptions are reviewed annually for submission and confirmation to the Measuring and Monitoring Committee (M&M).
- Although all the objectives of the original GLP program have been met, there are still significant opportunities to reduce crashes involving new drivers, alleviating much human suffering, and reducing financial costs, and thereby enhancing road safety.
- In April 2002, B.C.'s Solicitor General publicly confirmed the government's interest in strengthening B.C.'s GLP program. Recommendations have been made by government and road safety



stakeholders to lengthen the program’s learner stage, in addition to strengthening the restrictions of the novice stage. The Solicitor General has indicated he will be bringing this issue forward by the end of 2002. As such there is a need for the Corporation to be proactive in searching for solutions. Please refer to Appendix B to see how the program would change if the suggested enhancements are adopted.

- In 2001, ICBC conducted approximately 142,000 road tests for all categories of licences. Over 85 percent of these tests are for drivers in the Graduated Licensing Program (GLP). These drivers are either moving from a learner stage to the novice stage, or from the novice stage to a full unrestricted licence. It is estimated that by the end of 2002, Driver Examiner productivity will reach 160,000 tests per year. This has been achieved through process improvements. As a result, additional increases in productivity are unlikely within the current workflow processing framework.

Opportunity

- Improving road safety and reducing the number and severity of new driver crashes is consistent with the government’s commitment to provide safer streets in every community. In addition, these proposed enhancements respond to the Minister of Public Safety, and the Solicitor General’s recommendations for improving new driver safety.
- The proposed enhancements when implemented, will motivate new drivers to demonstrate safe driving practices. This will help ICBC meet its goal to keep insurance rates low for all British Columbians by reducing new driver claims costs.

The following table outlines the anticipated crash reductions and resulting claims savings available for the first three years after implementation of the suggested GLP program enhancements. Savings beyond 2006 are not included here, however 2006 provides a reasonable estimate of anticipated ongoing claims savings for future years.

Please see Appendix C to review 2001 statistics that compare crashes involving new drivers, with all drivers in British Columbia.

Projected Crash and Gross Dollar Claims Savings from Proposed Enhancements

	Anticipated Crash Reductions	Anticipated Claims Savings (000)
2004	1,924	\$12,825
2005	5,958	\$39,889
2006	7,200	\$48,759
TOTAL	15,082	\$101,473

Challenges

A number of challenges exist that could significantly impact the successful roll out of the proposed enhancements. These include:

The current situation at Driver Services Centres

Driver Services Centres are currently operating at full capacity. With a few exceptions, the provincial wait time for most customers to obtain a driver examination appointment is approximately 45 days. This is significant due to the fact that 60 days is the current level of service standard at ICBC. Regardless of whether changes to the program occur, there will be increasing demand for road tests, causing appointment availability to stretch beyond 60 days in the later part of 2003.



The primary cause of the anticipated spike in future demand is the fact that drivers who entered the GLP program in 1998 will find their novice stage licences beginning to expire in November 2003. A significant number of these drivers will likely wish to upgrade to an unrestricted class 5 licence rather than renew at the novice level. What has contributed to this issue is the fact that there hasn't been a significant incentive for these drivers to set appointments to upgrade their licences or exit the program. Other than a perceived stigma of being required to display an 'N' on the vehicles they drive, and operating the vehicle at a zero blood alcohol level, there are no additional restrictions placed on the novice licence when compared to the full class 5 licence.

Not every driver that graduates to a novice stage chooses to remain at that level for the life of their licence. However, over time, a 'pool' of drivers has developed who are eligible to challenge for the class 5 road test, but who have chosen not to. This pool grows by approximately 2900 drivers each month, and is expected to reach approximately 85,000 by July 1, 2003. If this group of drivers collectively decided to book appointments within a relatively short period of time, Driver Services Centres would be completely overwhelmed. This problem is independent of the proposed enhancements, and would likely need to be dealt with by the end of 2003 in order to maintain 60-day service levels. However, once these proposed enhancements are adopted, the challenge will compound significantly.

An additional group of eligible drivers has pooled in the learner stage. This group represents drivers that have completed the minimum 6 months the program requires, but have yet to challenge the novice stage class 7 road test. By July 1, 2003 it is expected that this additional pool of drivers will reach approximately 51,000. This group could also overwhelm the Drivers Services Centres if they all choose to request road test appointments at approximately the same time. The combined novice and learner pools represent approximately 164,000 hours of work.

The impact on Drivers Service Centres if the enhancements are adopted

When the program enhancements come into effect, new drivers will be faced with significantly more restrictive rules. Clearly these drivers will want to exit the Graduated Licensing Program more quickly than drivers in the current program. As such, the two pools of eligible drivers described above will likely begin to shrink over time. As drivers become eligible to challenge at each stage of the program they will do so. This will cause a significant upward shift in demand for road tests, when compared to current demand. The current Driver Examiner staffing levels will not be sufficient to maintain a 60-day level of service standard.

Compounding the challenge is that although new drivers at the learner and novice stages of the GLP at the time the new enhancements come into effect will be 'grandfathered' and subject to the rules in place at the time they entered the program, they may not understand this. The transition rules are complex. A 'stampede' effect will likely result as was the case in 1998 when the GLP was first introduced, as new drivers try to book appointments quickly to avoid the new restrictions. This too will place overwhelming strain on the Driver Services Centres. An effective communication strategy is critical to minimize this effect, but it is probable that a portion of these drivers will 'miss the message.'

Workload impacts Analysis

In order to clearly depict the nature of the challenges facing the Drivers Service Centres brought about by the existence of the two large pools of eligible, but untested drivers at both the learner and novice stages three scenarios are presented below. These scenarios show the 'best case', 'worst case', and 'most probable' demand for license examinations as a result of the changes proposed in this initiative.

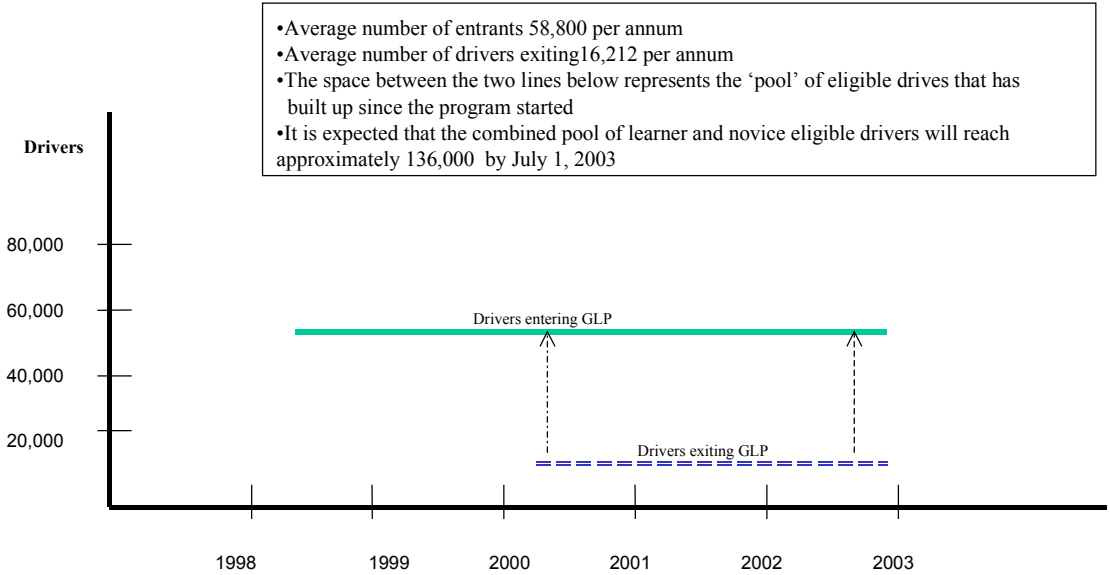
The assumptions were developed through consultation with business area experts, and included a review of what happened in 1998 when the GLP was first introduced in British Columbia, and through an analysis of experiences in Ontario when a similar program was introduced. Please see appendix D for an analysis of demand.

Prior to presenting the potential scenarios it is important to understand how the two pools have grown over time. Graph 1 on the next page shows the average number of new drivers that have entered the GLP program each year since August 1998, and the number of drivers that have exited the program.

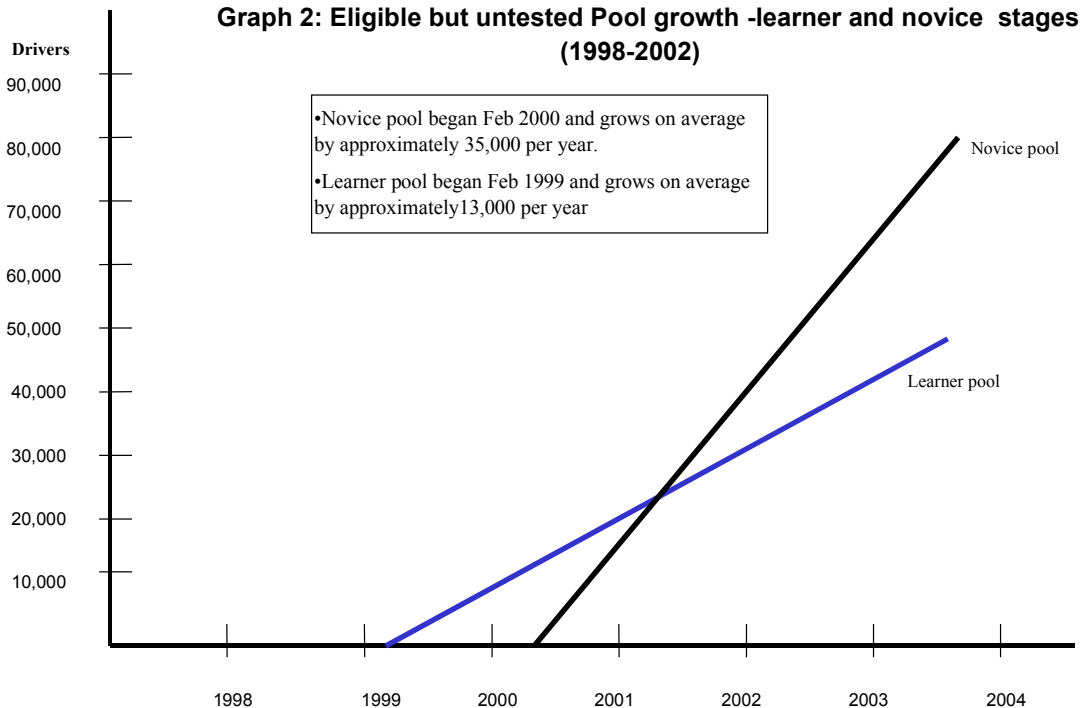


The space between the lines represents the drivers that have yet to leave the program by taking the class 5 exit test. Graph 2 shows the steady growth of each of the outstanding pools of eligible learner and novice stage drivers that have grown since the program began. The line starting points represent the first available opportunity for new drivers to exit a particular stage of the program. Please see appendix E for a listing of statistics that support the following analysis.

Graph 1 : New Drivers that entered and Exited GLP(1998 -2002)



Graph 2: Eligible but untested Pool growth -learner and novice stages (1998-2002)



It is important to note that there are two distinct components that will drive an increase in demand for road tests. The first component relates to the fundamental shift in demand that will result as drivers seek to exit the GLP due to the more prohibitive restrictions brought about by the enhancements. Currently, only about 30% of novice stage drivers exit the program when they become eligible. It is estimated that with the proposed changes this number will jump to approximately 90%, as drivers seek to avoid the new restrictions. This means that of the 4300 drivers each month that become eligible to challenge the class 5 exit test, 3900 will take the test as compared to the current level of approximately 1350. This represents a monthly increase of over 2500 novice drivers.

It is expected that the number of learner stage drivers seeking a learner class 7 road tests will also increase by about 600 to 700 per month. This is attributed to the lengthening of the program from 24 months to 36 months, and a desire to 'get the clock moving' in order to get through the program. This fundamental shift in behaviour should result in a significant reduction in the growth to the outstanding pool of eligible but untested drivers at the learner and novice stages. This component of demand is applicable to the three scenarios described below.

The second component that will drive demand for road tests once the enhancements become known is the behaviour of the outstanding pool of learner and novice stage drivers described above. Although each component is uniquely different, the likely reaction of each group to the changes will likely be consistent. As such, the following analysis applies to both the learner and novice stage eligible pools.

Baseline Assumptions

The following assumptions are applicable to all scenarios and relates to new driver intake when the enhancements take effect:

- Annual new program entrants 59,000
- Number of class 7 tests expected is approx. 83,000 45 minute tests (add approx 40% for retests due to failure).
- 90% of class 7 eligible will take class 5 tests.
- Number of class 5 exit tests 69,000 per year (add 30% for retests due to failure).
- Total annual new driver demand: 131,000 (62,000 equivalent 1 hour class 7 learner tests plus 69,000 class 5 novice tests).
- Current capacity is approximately 91,000 one hour equivalent GLP tests (class 7 and class 5 per year). This assumes that demand for all remaining classes of tests continues to be effectively managed.
- Annual numbers presented only. No adjustments for seasonal variances.



In addition to the new demand behaviour described above, the following scenarios outline the possible reactions of new drivers currently in the learner and novice pools.

Scenario A. Best case outcome -changes in current demand plus pool demand

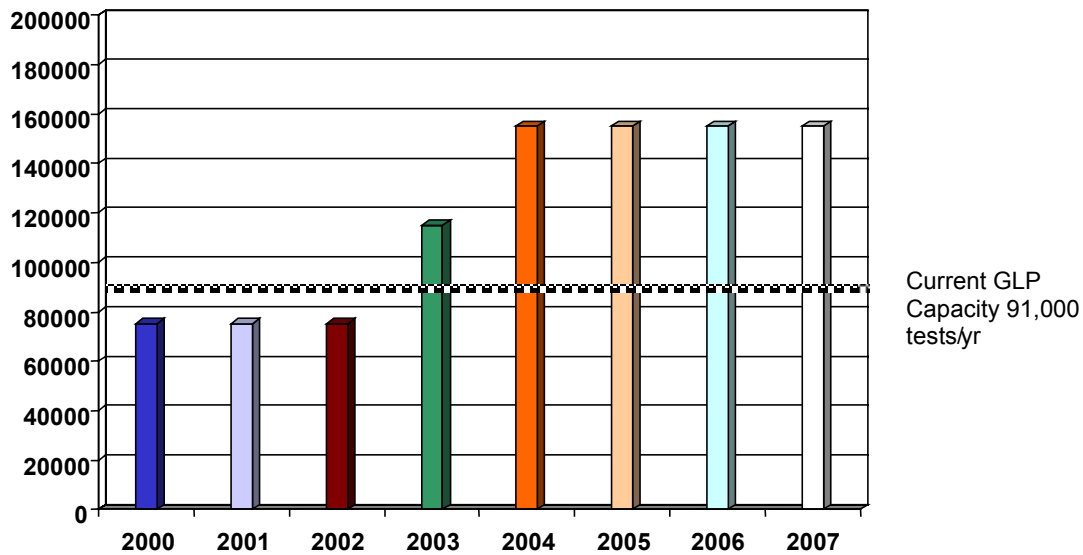
Drivers will exit the novice component of the pool at the rate at which their licenses expire since renewals put drivers into the new program. Outstanding eligible learners (51,000) will not seek road tests.

Assumptions:

- Novice pool started to grow approximately January 1, 1999.
- By August 1, 2003 the novice pool will reach approximately 85,000.
- 85,000 eligible drivers equals approximately 110,500 tests (assuming a 30% retest rate due to failures).
- 4.5 years of pool growth spread evenly therefore it will take 4.5 years to dissipate or 19,000 drivers per year.
- 19,000 drivers represents about 25,000 tests per year (at a 30% failure rate).

GRAPH 3

drivers



Assumes novice drivers will exit pool in an orderly manner when licence expires

- No change inbehaviour of learner stage drivers no increase in demand
- 2003 includes half year of demand increase new drivers (combined increase approximately 40,000 for 2003 as compared to 2002).
- This only includes current GLP capacity, other road tests are removed



Scenario B. Worst Case outcome -changes in current demand plus pool demand

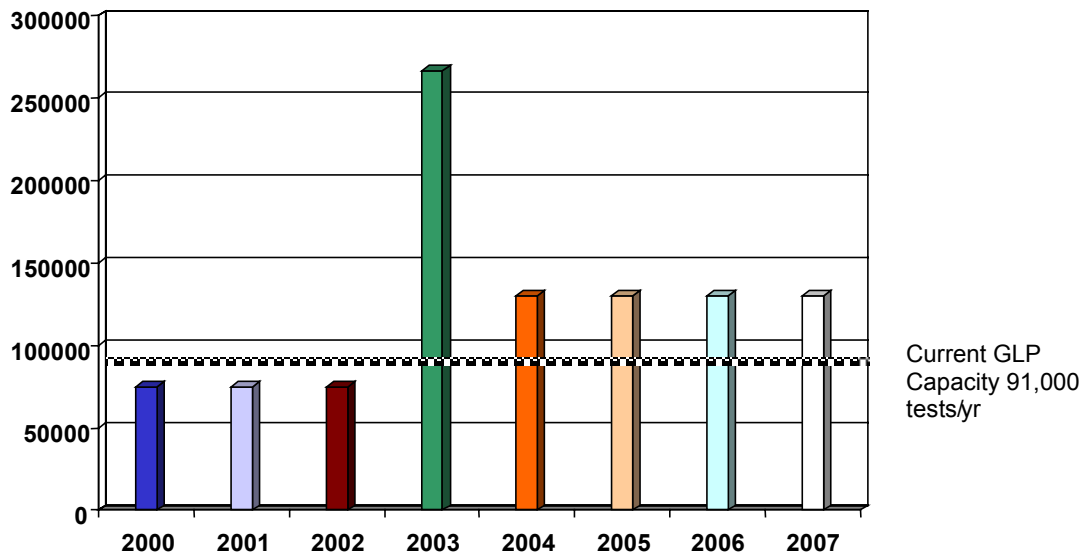
All learner and novice stage drivers in the pool will demand a road test within 60 days of gaining knowledge of the program changes in an effort to avoid the new restrictions, or to get the clock ticking.

Assumptions:

- 136,000 outstanding eligible drivers (both learners and novice combined) by July 1, 2003.
- Pool equivalency 164,000 1 hour tests outstanding (45 minute class 7 converted to a 1 hour equivalency).

Graph 4

drivers



- Assumes novice and learners drivers in eligible pool will demand test in 2003
- demand would far outstrip ability to service these customers at current staff levels
- This only includes current GLP capacity, other road tests are removed



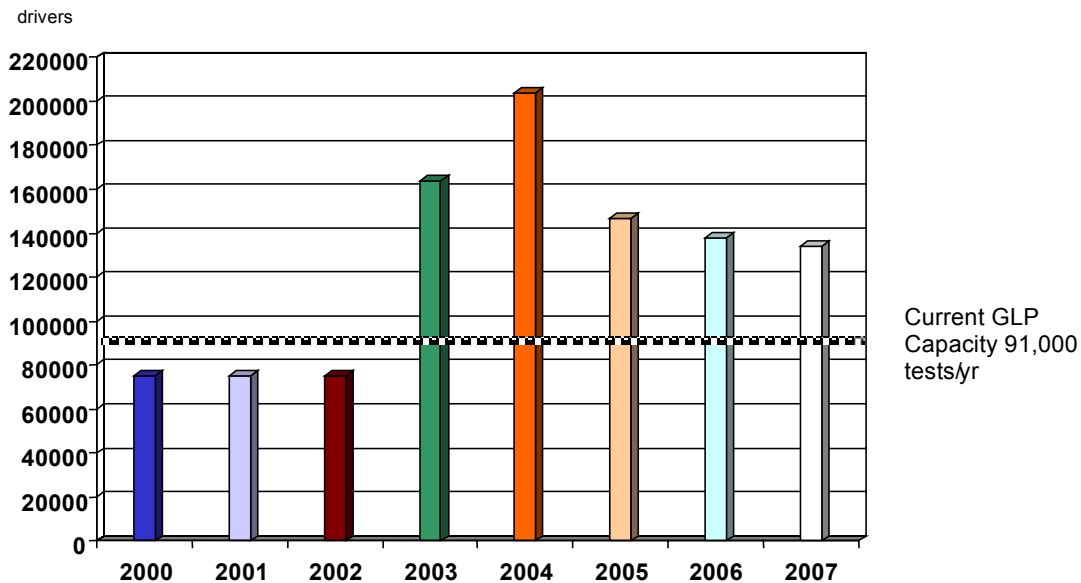
Scenario C. Most probable outcome -changes in current demand plus pool demand

Based on business area direction, and an evaluation of past experiences with the 1998 roll-out of the initial GLP, plus an evaluation of what occurred in Ontario when a similar program was introduced, the following is recommended as the most probable reaction of eligible drivers in the outstanding pool to the proposed enhancements.

Assumptions:

- 75% of eligible learner and novice stage drivers will demand a road test within the first year of the program.
- 15% of eligible learner and novice stage drivers will demand a road test in the second year.
- 5% will demand a test in the third year
- 5% in the fourth year

Graph 5



- Pool size equal to 164,000 1 hour tests by July 1, 2003
- New annual demand 130,000 combined learner class 7 and novice exit class 5 tests.
- This only includes current GLP capacity, other road tests removed and will continue to be handled

As can be seen in the most probable scenario, the anticipated increase in demand will far exceed the current capacity to deal with the demand based on current staffing levels. Increases in demand will likely occur when the information becomes widely available to drivers in the current program. This may occur prior to the initiative commencing.

Additional challenges exits which include:

Early Communication Leaks in advance of program roll-out

Although the changes to the GLP are likely to be supported and well accepted with the majority of British Columbia's drivers, they may not be greeted with the same level of enthusiasm by those directly impacted.



Changes of the type suggested here typically require the involvement of many different stakeholders, both within and outside the organization. This creates significant opportunity for information to get into the public realm before it is intended. A proactive plan will need to be developed to deal with leaks and misinformation, since the likelihood of it occurring is quite high.

Government Involvement

Although various government departments (OSMV, Solicitor General's office) have been consulted throughout the process of developing the suggested enhancements to the GLP, there is always a chance that a new focus could emerge in the direction provided by government. This could manifest itself either as a change in scope by introducing new elements, or by modifying an existing parameter. If this were to occur the Corporation would need to revisit options.



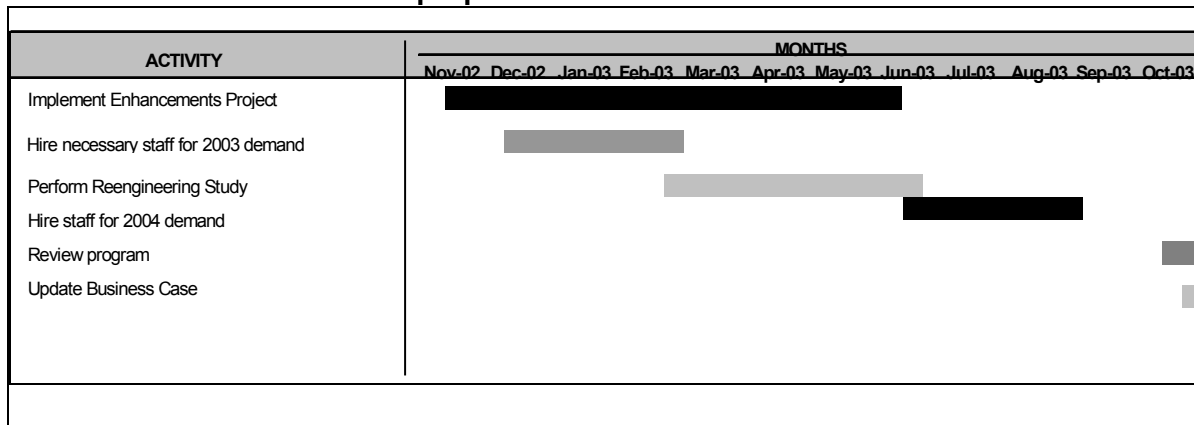
Recommended Initiative Approach

In order to successfully implement the suggested enhancements, the following approach is recommended:

- Assemble a project team comprised of experts from throughout the organization to begin developing a strategy and plan to successfully implement the proposed changes by July 1, 2003. The key elements, which add complexity to this task, include the need for a comprehensive communication strategy to effectively reach the new driver target audience, and the driving community at large. In addition, there is significant interaction required with government and other interested stakeholders.
- Commence the process of hiring 15 full-time temporary Driver Examiners and 2 full-time temporary Customer Service Representatives. This will ensure deployment of this staff by no later than the beginning of April 1 2003, after completion of recruitment, selection and training. This staff is required to meet the increase in demand for driving exams that will occur in 2003 as a result of the new program enhancements. In addition, it will provide some capacity to deal with the existing backlog of learner and novice stage drivers who have yet to challenge for the class 7 and class 5 road tests.
- Initiate a reengineering study in early 2003 to seek methods to reduce the operational impacts of future demand for road tests. Based on current projections for 2nd quarter 2003, it is estimated that an additional 15 full-time temporary Driver Examiners and 2 full-time temporary Customer Service Representatives will be required if current processing rates are maintained, in order to maintain a 60-day level of service. In addition, demand is expected to increase through 2004 as drivers seek to exit the program more quickly due to the increased restrictions. Every option will be explored to ensure efficiencies are maximized.
- Revisit business case in November 2003 to test assumptions.

The chart below depicts the various components of this initiative over 2003.

GLP enhancements initiative proposed timeline





4. Analysis of Recommended Alternative

Estimated One-Time Project Costs

Element	Cost
Business Case Development Chargeable resources contributing	\$36,000
Project Management, Project Administration Costing, ensure deliverables are produced, monitor schedule.	\$158,600
Business Team From lines of business and contractors: Support all aspects of project, develop operational plans	\$201,800
Communications Team Design, develop, deliver communications content	\$133,500
ISD Design, Coding, Unit Testing Programming	\$228,700
Business Systems Requirements and Testing Documentation User acceptance test of business requirements.	\$98,600
Implementation and Change Management Overall project implementation and change management.	\$291,300
Expenses Equipment, phones, courier, materials etc.	\$37,400
Travel	\$123,500
Training and One-time Operational Impacts Direct project training plus Hiring costs and training and expenses for driver examiners, client service representatives and POS staff. All costs in 2003.	\$386,400
Re-engineering – required as result of GLP	\$200,000
Publications Revise GLP publications. Print and distribute posters pamphlets.	\$350,000
Subtotal	\$2,245,800
Contingency (on project compensation costs only)	\$232,100
Advertising	\$1,258,500
Total	\$3,736,400

Note: Does not include ongoing operational impacts.

Fiscal responsibility will be applied in the utilization of these funds, as per the corporate goals and objectives, to seek efficiency gains where appropriate.



Key one-time costs described

Information Systems

IS changes have been identified as being relatively small. There is a requirement to make changes to the Driver Services Centre System (DSCS). There is also a need to make minor changes to the Victoria mainframe applications. This component includes the systems design, coding, and unit testing elements.

Training

This includes all costs for training Driver Examiners and Client Services Representatives. It also includes any training required for point of service staff in other areas that may be impacted by these changes.

Publications

Includes all one-time publication costs associated with the program changes.

Advertising/Communication

In order to ensure a successful roll out of this initiative, reaching target customers is critical. The estimate is based on a best-guess assessment of the various mediums which will be required (newspaper, radio, TV etc.) in order to achieve this objective. It also takes into consideration an evaluation of the 1998 GLP experience and lessons learned. Given the need to communicate not only the program enhancements, but the success of the GLP to date, this amount is not viewed as excessive. It is important to note, that this number could be scaled back if there is no significant opposition to the proposed enhancements, and there is a clear understanding of the impacts of the proposed enhancements on those drivers effected. In order to minimize point of service impacts a notice will be sent to each driver encouraging them to become competent before approaching Drivers Services for a road test.

Contingency

A Standard 20% contingency has been included to deal with issues that may emerge. This is included to deal with the high-risk nature of this initiative. This is calculated based on direct project (human) resources only, and does not include such things as expenses, advertising, etc. It is important to note that these funds will only be utilized if required. An approval request will be made to the Sponsors prior to accessing these funds.

Travel

This includes all travel anticipated for the project team, in addition to business area experts that may be required. This amount may in reality turn out to be less, however a conservative approach has been taken. It is worth noting that half the team is in Victoria and half is in Vancouver necessitating travel.

Reengineering analysis

This includes an evaluation of current practices, with a review of work already completed. Anticipated time to complete is expected at 4 months, and will involve internal ICBC resources.

Ongoing Operational Costs

Driver Services Centres

The most significant ongoing operational costs will be related to the increased number of Driver Examiners (DEs) and Client Service Representatives (CSRs) being requested. Based on current processing rates, this will require hiring 15 full-time temporary DEs and 2 full-time temporary (CSRs) in early 2003. Current facilities are capable of accommodating this first group of new DEs and CSRs in 2003. An additional 15 full-time temporary Driver Examiners, and 2 full-time temporary Customer Service Representatives will be required by the middle of 2003 to manage further anticipated increases in demand. This staff should be



hired in the 2nd quarter of 2003. It is important to note that these are estimates based on current information, and driver demand for road tests could significantly outstrip this increase in capacity. Demand will need to be monitored closely over time to ensure customer service levels are maintained.

The reengineering study proposed as part of this business case will seek ways to reduce the need for future additions into 2004 and beyond.

Summary of additional Driver's Services Temporary staffing costs to Maintain 60 Calendar Day Service for Novice Class 5 Upgrade Road Tests for 2003 and 2004

	2003	2004
Number additional DEs required*	30	30
DE Salary Cost	1,179,200	1,664,700
# CSRs**	4	4
CSR Salary Cost	125,200	176,700
Total Salaries	1,304,400	1,841,400
Facilities and Cell Phones (WCB)	64,000	109,900
Total additional DSC staffing costs	\$1,368,400	\$1,951,300

* 15 DE's start March 1 and an additional 15 start June 1, 2003

** 2 CSR's start March 1 and an additional 2 start June 1, 2003

*** All temporary staff costs are fully loaded.

Other Impacted Areas

There will be operational impacts to areas outside of the Driver Services Centres. It is reasonable to expect that there will be a spike in the number of calls to the Customer Contact area when the enhancement program is first introduced. However, it is also reasonable to expect this increase in demand to dissipate as drivers become aware of the changes, and understand the impacts on their own situation. As such, further analysis is required to better understand impacts for 2004 and beyond to the following areas as this analysis only considers 2003 impacts, and associated costs. It may be that volume does not decrease, and as such assumptions should be tested.

Customer Care

An increase in calls to the Call Centre can be expected for several months around the time that new GLP rules are announced. This should be partially mitigated by an aggressive communication campaign that informs new drivers of the rules and that drivers already in the program will be "grand-fathered". Sales and Service is forecasting a general increase in call volumes as a result of the implementation of the GLP enhancements. This will require a net addition of 11 full-time temporary employees for 2003. This business case requests funds for the period March 1, 2003 to March 1, 2004 as a result of temporary workload increases. Further analysis will be required for additional funds into 2004 and beyond. A separate request for funds will be made (if necessary) when this business case is revised in late 2003. Staff reductions in advance of March 2004 may be achievable if call demands are overstated, or dissipate more quickly than planned.

These staff are required in the following areas: Customer Contact Victoria 8 temporary FTEs, and Driver Testing and Vehicle Information (DTVI) 3 temporary FTEs. Ongoing operational impacts beyond 2003 should also consider such efforts as the Customer Care Transition project, which seeks to identify efficiencies in the call centre area. The impacts of the Customer Service Centre roll-out will also need to be evaluated in relation to this initiative. Estimated compensation costs for Customer are \$379,000 in 2003, and \$126,000 in 2004.



Licensing Support

The Licensing Support area is anticipating an increase in the volume of violation tickets and prohibitions due to greater consequences. There will be a need for an additional 3 full-time temporary resources. Additional costs to licensing support have been estimated at \$57,000 in 2003 and \$113,000 in 2004 as a result of this initiative.

Staffing options

Senior Managers in the Licensing area met as a group to explore all available staffing options to address the impacts of the proposed GLP changes on their operations. This group was tasked with presenting a collective recommendation on the size and mix of staff required. Consideration was given to hiring full-time staff, temporary staff, outsourcing, and a combination of all three elements. A copy of the report produced by this team is in Appendix F.

This groups recommendations are summarized as follows:

- Hire 15 full-time temporary Driver Examiners and 2 full-time temporary Customer Service Representatives to be ready for work March 1, 2003.
- Hire up to an additional 15 temporary Driver Examiners and 2 full-time temporary Customer Service Representatives in June 2003 to handle additional increases in demand.

It was felt this recommendation struck a balance between dealing with an immediate and permanent increase in demand, while affording the flexibility to adjust staffing levels later if necessary. Given the fact that there was inadequate time to properly develop an outsourcing approach and that such an approach would be vulnerable to fraud and inconsistencies, the hiring of temporary staff is the preferable option in this case.



Benefits

Crash Reductions and Claims Savings

The most significant benefit of the new GLP enhancements are the resulting reduction in crashes, injuries, fatalities and property damage. The table below provides a summary of the crash reductions by type, and the associated claims savings expected. The reader should not confuse the figures with actual fatalities and injuries. For example in 2004, “2” refers to the number of crashes involving fatalities – not the number of fatalities from the two crashes. It is important to note that the savings identified are based on a full year of implementation. Savings from the first half of the first year will be nominal due to the lag time of the program and will be substantially less than half of the identified 2004 savings; as such, no benefits are claimed for 2003. At this time the 2006 savings can be used as a rough approximation for future years, however further analysis will be required as those years approach.

Please see appendix G for a full analysis on how these numbers were derived, and how each element of the enhancements contributes to the benefits suggested. Please note: the Measuring and Monitoring Committee has approved these benefits.

Summary of Expected Crash Reductions and Claims Savings

	Type of Crash	Crash Reductions Expected	Claims Savings (\$) Expected
2004	Fatal	2	\$483,000
	Injury	444	\$9,914,000
	Property Damage Only	1,478	\$2,428,000
	Total	1,924	\$12,825,000
2005	Fatal	8	\$1,958,000
	Injury	1,362	\$30,394,000
	Property Damage Only	4,588	\$7,537,000
	Total	5,958	\$39,889,000
2006	Fatal	11	\$2,571,000
	Injury	1,663	\$37,109,000
	Property Damage Only	5,526	\$9,079,000
	Total	7,200	\$48,759,000

Please note: these benefits were calculated assuming a January 1, 2003 implementation date. As such annual benefits measured against calendar year may be slightly understated due to new implementation date of July 1, 2003.



Operational Benefits

No operational benefits are being claimed as part of this analysis, although Sales and Service is forecasting an equivalent work savings at Claims Centres of approximately 9 FTEs in 2004. However it cannot be determined at this stage whether these savings translate into true FTE reductions, since no one claims office receives the benefit of one FTE equivalent.

As such, no benefits through staff reductions in claims have been factored into this benefits analysis. Call centre efficiencies are also expected to be negligible in 2004 and are therefore not included.

Sales and Service is recommending that operational savings not be booked in future years until projected crash reductions and associated reduction in claims files have been proven. This means that the annual operational savings from Claims Centres would be time lagged by one year for the purpose of the benefit cost analysis in future updates to this business case.

Measurement Plan

The benefits identified in this business case were developed in the Performance Analysis and Services Department and have been approved by the Measuring and Monitoring Committee. This group prepares an annual benefits report for the current GLP program which is presented to M & M each year. Once this set of initiatives are approved, the Performance Analysis Services Department will evaluate its current GLP measurement plan, and will make any necessary changes required to effectively measure the impacts of the new initiatives. These new measures will then be incorporated into the annual report.

5. Impacts

Driver Services Centres

Driver Services Centres will be significantly impacted by the GLP enhancements. Even without any changes to GLP, there is expected to be a rise in demand for road tests as current novice drivers mature. Introduction of enhancements to GLP will result in an increased demand by current and future learner and novice drivers to take their class 7 and class 5 roads test and graduate from the program. To maintain a 60-day service standard, additional Driver Examiners and Client Service Representatives will need to be hired and trained. Facilities issues will need to be resolved for the second group of temporary hires, as current locations are nearing capacity. This may require creative solutions.

Training

All points of service could be impacted to some degree by inquiries from new drivers concerned about the GLP enhancements and how the enhancements will affect them. These areas include Customer Contact, Claims Offices, Brokers Offices etc. Feedback from focus groups of new drivers held in the spring of 2002 strongly supported better communication to inform new drivers and their families of the Graduated Licensing Program and the new enhancements. Feedback from many ICBC departments also indicated the need for providing more communication about the program. Education and/or training of all points of service is recommended to help ensure the broadest understanding of the GLP enhancements.

There will be a need to train newly hired Driver Examiners and Client Service Representatives required to meet the new service standard.



Publications and ICBC.com

All GLP related publications will need to be reviewed and updated. The current process of production and distribution of these materials on a bi-annual basis should help minimize the costs of making the necessary changes, assuming the reorder decision is timed accordingly.

The ICBC.com website will need to be updated to reflect the changes.

6. Risks

1. The reaction or behaviour of the outstanding pool of eligible drivers in both in the learner stage, and the novice stage at the time of the implementation may be underestimated. The sheer size of this group could quickly overwhelm the Driver Services Centres, creating significant customer service issues through delays in testing. This could also create associated public relations issues.

Mitigation:

Develop clear and effective communication strategies to alleviate public concerns. Additional temporary staff may be required to deal with unanticipated demand increases. Ensure transition rules are easy to comprehend.

2. Consideration was given to indefinitely grandfather all learner stage and novice stage drivers who enter the GLP prior to the enhancements taking effect, in order to avert a potentially unmanageable surge in demand. This would include renewals etc. However based on feedback from the Solicitor General's office, and an overarching desire to ensure all drivers exit the program, this approach was not adopted. This decision is further reinforced by the difficulties in trying to manage and enforce two parallel programs. In addition, the business area felt systems changes could be significant and costly, and would delay delivery of the program.

Mitigation:

Develop clear and effective communication strategies to alleviate public concerns. Additional temporary staff may be required to deal with unanticipated road test demand increases.

3. A change in direction from Government could impact this proposal.

Mitigation:

Be flexible and plan accordingly.

4. There are risks of significantly deteriorating service levels (increased wait times) at driver service centres over the next two years – with or without changes to GLP. Increased wait times have been directly correlated in the past with reduced customer satisfaction.

Mitigation:

This risk could be mitigated by hiring additional staff as recommended.

5. Increasing the number of Driver Examiners and the number of tests conducted will increase ICBC's operating costs as the retained fees do not provide full cost recovery.

Mitigation:

The potential crash claims savings far outweigh the project costs and the ongoing operational costs. Full cost recovery is currently under consideration.

6. Significant risks to the estimated claims costs savings exist if the proposed enhancements for GLP are not approved in their entirety.

Mitigation:

Changes will require a reevaluation of the benefits available.



7. There may be a risk that the impacts to point of service areas like Customer Contact may be either overstated or understated in terms of anticipated call volumes. This can be mitigated by closely monitoring the effects of the GLP enhancements, and reacting quickly.

Mitigation:

The post-implementation evaluation and update to this business case proposed for November 2003 will provide direction on changes and adjustments to operating budgets for 2004.

8. There are many unknown variables present if this initiative moves forward which could impact initial cost assessments.

Mitigation:

A standard 20% contingency has been added on the project side and will only be accessed if required.

9. It is anticipated these enhancements will result in a small increase in violation ticket and driving prohibition disputes, operationally impacting police, courts and the Office of the Superintendent of Motor Vehicles. Costing for this has not been considered as part of this business case.

Mitigation:

Ensure dialogue with all affected parties, and monitor the situation as required.

Business Case

7. Benefit/Cost Analysis

Net Present Value @ 12 %	\$	60,062,834
Internal Rate of Return (IRR)		293%
Estimated date of Implementation*		July 1, 2003

Jan 10 2003

FINANCIAL IMPACT OF PROJECT: CASH FLOW

PROJECT ONE TIME COSTS	2002	2003	2004	2005	2006	Total
- Capital (Depreciation included in Budget Impact)						\$ -
- Project Development Expenses	(124,536)	(3,072,877)	-	-	-	\$ (3,197,413)
- Project Operating expenses (from Corporate Project Fund)	-	(538,880)	-	-	-	\$ (538,880)
Total Project One Time Costs () = Expenditure	\$ (124,536)	\$ (3,611,757)	\$ -	\$ -	\$ -	\$ (3,736,293)
Budget Impact (Excluding Capital)	\$ (124,536)	\$ (3,611,757)	\$ -	\$ -	\$ -	\$ (3,736,293)

FINANCIAL IMPACT*

Increase/decrease in Claims or Premiums						
- Increase/(Decrease) in Premiums						\$ -
-(Increase)/Decrease in Claims			12,825,000	39,889,000	\$48,759,000	\$ 101,473,000
(Increase)/Decrease in Compensation Costs						
- Decrease in Compensation						\$ -
-(Increase) in Compensation		(1,739,175)	(2,080,479)	(1,954,353)	(1,954,353)	\$ (7,728,360)
(Increase)/Decrease in Other Expenses						
-(Increase) in Other Expenses		(88,938)	(109,875)	(109,875)	(159,875)	\$ (468,563)
Total Financial Impact (Excluding One Time Costs, Capital & Depreciation)	\$ -	\$ (1,828,113)	\$ 10,634,646	\$ 37,824,772	\$ 46,644,772	\$ 93,276,077

Budget Impact (Including One Time Costs, and Excl. Capital & Depreciation)	\$ (124,536)	\$ (5,439,870)	\$ 10,634,646	\$ 37,824,772	\$ 46,644,772	\$ 89,539,784
- Estimated Depreciation (from Budget Impact Sheet)	-	-	-	-	-	\$ -
TOTAL BUDGET IMPACT	\$ (124,536)	\$ (5,439,870)	\$ 10,634,646	\$ 37,824,772	\$ 46,644,772	\$ 89,539,784

Net Project Cash Flow ' '= In, () = Out	(\$124,536)	(\$5,439,870)	\$10,634,646	\$37,824,772	\$46,644,772	\$89,539,784
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Cumulative Cash Flow	(\$124,536)	(\$5,564,406)	\$5,070,240	\$42,895,012	\$89,539,784	
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NET Headcount IMPACT () = increased count	-	(48)	(48)	(37)	(37)	
NET FTE IMPACT () = increased count	-	(32)	(40)	(37)	(37)	

* Please note that all costs, savings and FTE changes are calculated from the base year.

Business Case

8. Approvals

Approval of Initiative Scope and Analysis

The signature below indicates that the description of the business problem/opportunity described in this Business Case is accurate, and that the Sponsor supports proceeding with the Recommendation and Implementation Plan.

Executive Sponsor	X _____ Nettie Wagner, Vice-President, Vancouver Island Region and Licensing	Date:
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Operational Impacts of Initiative

The signature(s) below indicate acceptance of the operational, and financial impacts of the initiative as outlined in the Corporate Budget Impact section.

Sales And Service Division	X _____ Bill Goble, Chief Operating Officer	Date:
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Information Services Division	X _____ Keith Stewart, Vice-President, Information Services	Date:
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Corporate Planning and Change Services	X _____ Donnie Wing, Vice-President Investments and Corp. Dev	Date:
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Finance Division	X _____ Geri Prior, Vice-President Finance and Administration, and Chief Financial Officer	Date:
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Approval of Project Initiation

This Project aligns with the strategic direction of ICBC. The signature below indicates approval in principle of the entire project and gives the sponsor the authority to proceed to the next phase of the Project Life Cycle.

CEO	X _____ Nick Geer, President and Chief Executive Officer	Date:
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Appendix A: Evaluation of Proposed GLP Enhancements

A. Extending the Length of the GLP Learner Stage from 6 to 12 Months.

- Research indicates that the combination of youth, and lack of driving experience contributes to higher crash risks for new drivers (Insurance Institute for Highway Safety, 2001; Mayhew, 2000). According to external research and ICBC statistics, the crash risk is highest for younger new drivers when they first graduate to the GLP novice stage and are allowed to drive unsupervised. Extending the length of the GLP learner stage allows new drivers to obtain additional driving experience and maturity in a more protected and controlled driving environment.
- In North American jurisdictions, GLP learner stages range between six and twelve months in duration. The majority of licensing jurisdictions in Europe and Australia that have achieved better road safety records than BC have learner licensing periods lasting up to 24 months.
- Responds to BC's Chief Coroner's recommendation to increase the length of the GLP learner stage.
- Consistent with research which recommends learner drivers be subject to practicing in all seasons (Insurance Institute for Highway Safety, 2002).
- Increasing the minimum driving supervisor age from 19 to 25 ensures this standard is consistent in both GLP stages and with more progressive jurisdictions.

B. Require GLP Drivers to remain prohibition-free for 12 consecutive months in the learner stage, and 24 consecutive months in the novice stage before being able to challenge a road test.

- Research indicates that significant contributors to high new driver crash rates are deficiencies in attitudinal and behaviour-based skills such as risk assessment, hazard perception, and decision making (Mayhew, 1995). In addition, ICBC statistics have shown new drivers who receive a driving prohibition are significantly more likely to be involved in a crash.
- The intent of this restriction is to create an incentive for safer, responsible driving and to establish a behaviour-based measure (in addition to the skills-based class 5 road test) to help evaluate a GLP driver's preparedness to graduate to a less restricted licence.
- Several jurisdictions in Canada, Europe and the United States require drivers to complete the entire (or a major portion of) the novice stage without receiving driving prohibitions before being eligible to apply for a full privilege licence. While no empirical evidence has yet been produced that quantifies the traffic safety benefits of this enhancement, many of the European jurisdictions with this condition have better road safety records than BC.
- No jurisdictions have been identified that have a requirement for learners to return to the start of the learner stage upon receipt of a driving prohibition. Learner drivers are required to carry a supervisor, resulting in them receiving very few driving prohibitions. In addition, crash rates are very low for this group.
- Based on observations, officials in Nova Scotia and Newfoundland have indicated that the implementation of a similar novice stage requirement has resulted in fewer suspensions/prohibitions and traffic violations being issued to novice drivers.
- During the first three years following implementation, Newfoundland reports a 2% reduction in Criminal Code Convictions and a 1% reduction administrative suspensions. Additionally, representation of Newfoundland novice drivers in total traffic violation convictions has dropped by 2%.

Business Case

C. Extending the Length of the GLP Novice Stage

- Lengthening the novice stage will help increase the overall benefits of the proposed novice stage passenger restriction and non-prohibition driving requirement.
- In combination with the longer learner stage, this change will require new drivers to spend more time in a controlled driving environment before being able to access a full-privilege licence (total minimum length of the GLP program increases from two years to three years). In addition, drivers will be older and more mature before being able to leave the GLP program. Research indicates that the combination of youth and a lack of driving experience contributes to higher crash risks for new drivers (Insurance Institute for Highway Safety, 2001; Mayhew, 2000).

D. Add a Novice Stage Passenger Restriction

- The proposed restriction would allow novice stage drivers to carry one passenger, but would require a supervisor who is at least 25 years of age, and holding a full-privilege licence to be present when carrying any additional passengers. Carrying family members is exempted from the restriction.
- Research indicates a heightened crash risk for teenage drivers when carrying teenage passengers. A report in the Journal of the American Medical Association (Chen, 2000) found the fatality rate for teenage drivers substantially increases in relation to the number of passengers carried. Over 80 per cent of GLP licences are issued to teenage drivers.
- In addition, research indicates that the fatality rate of crashes involving younger drivers is significantly higher when carrying younger passengers. These higher crash-rates are mostly attributed to increased peer-influenced risk-taking and increased distractions (Preusser, 1998). As a result, the proposed passenger restriction requires that a supervisor to be present that is outside the high-risk teenage peer group.
- Manitoba and Yukon are currently the only Canadian jurisdictions with a passenger restriction in their GLP novice stage. While restriction details vary between North American jurisdictions, most limit the carrying of younger passengers by younger drivers and provide for family exemptions.
- This proposed novice stage passenger restriction has been designed to maximize potential road safety benefits while responding to legal constraints, and the potential economic and lifestyle impacts on new drivers:
 - In Canada, the Charter of Rights and Freedoms limits the ability for individuals to be discriminated against based on age. To limit the risk of successful challenge, the proposed restriction does not limit the carrying of passengers based directly on either the age of the driver or passenger.
 - The proposed restriction allows novice drivers to carry one passenger while unsupervised. While this exemption limits the potential road safety benefits of the restriction, it allows drivers (most in their late teens attending high school, university, employment) to have the flexibility to reasonably meet their basic mobility requirements.
 - In addition, the proposed restriction exempts family members. This will allow new drivers, especially in more rural communities where public transportation is not available, to meet the transportation needs of their families.
- Responds to a previous BC Chiefs of Police and Young Drivers of Canada recommendation to introduce a novice stage passenger restriction.

Other enhancement options were reviewed in the development of this enhancement package, including the introduction of a novice stage nighttime driving restriction. This option was rejected because most of its road safety benefits would overlap with those realized through the proposed passenger restriction, and it would remove the ability for new drivers to gain valuable nighttime driving experience while still in the protected environment of GLP.

Business Case

Appendix B: Comparison of Current and Proposed Graduated Licensing Program

Current Graduated Licensing Program

Learners	Novice
<p>Duration: Minimum 6 months -reduced by 3 with ICBC approved course</p> <p>Restrictions: Zero Blood Alcohol Content Supervisor required (minimum 19 years old) Limited to two passengers (including supervisor) Restricted from driving between midnight and 5 a.m. "L" sign must be displayed</p> <p>Exit Requirements: Road Test</p>	<p>Duration: Minimum 18 months</p> <p>Restrictions: Zero BAC "N" sign must be displayed</p> <p>Exit Requirements: Road Test</p>

Proposed Graduated Licensing Program

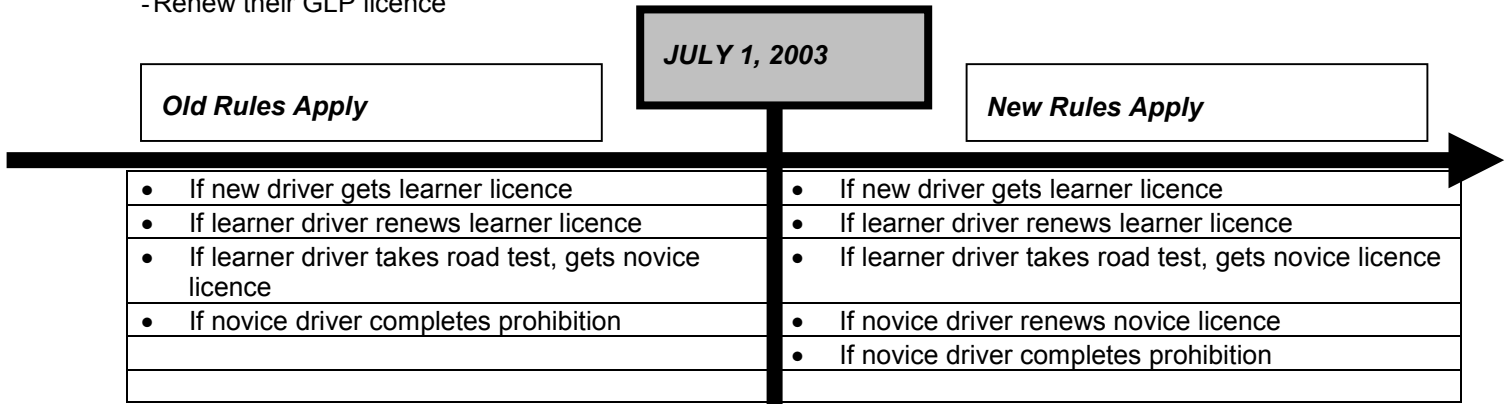
Learners	Novice
<p>Duration: Minimum 12 months - reduced by 3 months with ICBC approved course</p> <p>Restrictions: Supervisor required (minimum 25 years old) Zero BAC Two Passengers (including supervisor) Driving between 5 a.m. and midnight only "L" sign must be displayed</p> <p>Exit Requirements: Road Test</p>	<p>Duration: Minimum 24 months</p> <p>Restrictions: One passenger unless accompanied by a supervisor 25 years of age or older, family exempted Zero BAC "N" sign must be displayed</p> <p>Exit Requirements: 24 consecutive months of suspension/prohibition free driving Road Test</p>

Business Case

Appendix B Continued..

After implementation, the new GLP licensing rules will be applied to new drivers when they:

- Enter the GLP program as learners
- Graduate to the GLP novice stage
- Re-issued a GLP licence after a driving prohibition
- Renew their GLP licence



How the rules would apply

Examples:

1. A new driver applies for a GLP learner licence before July 1, 2003 – old rules apply *until* either the class 7 road test is successfully completed (and the driver graduates to the GLP novice stage) or the driver renews their GLP learner licence.
2. A driver holding a GLP learner licence completes the Novice stage class 7 road test and graduates to the GLP novice stage before July 1, 2003. The old rules apply *until* either the class 5 road test is successfully completed (and the driver graduates from the program) or the driver renews their GLP novice licence.
3. A driver holding either a GLP learner or novice licence fails a road test after July 1, 2003 – old rules apply *until* the road test is successfully completed or the driver renews their licence.
4. A driver holding a novice licence receives and completes a driving prohibition before July 1, 2003 – old rules apply upon licence re-issuance (see examples 1 and 2 for details on how long the old rules will be applied).
5. A driver holding a GLP novice licence receives a driving prohibition before July 1, 2003 but does not complete the prohibition until after July 1 – new rules apply upon licence re-issuance.

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Appendix C: Representation of BC's GLP Drivers in Crashes

The following tables illustrate the current over-representation of BC's GLP drivers in crashes. In addition, these numbers show GLP drivers to be involved in over 24 per cent of BC's total crash claims, suggesting their involvement in more severe crashes than non-GLP drivers. For example, approximately 17 per cent of BC's total crashes involve injury claims compared to 24 per cent for GLP drivers.

Comparison of Crash Involvement Between GLP Drivers and All Drivers (2001)

	Number of Drivers	Per Cent of All Drivers	Number of Drivers Involved in Crashes	Per Cent of All Drivers Involved in Crashes
All BC Drivers	2,771,180	100.0	405,039	100
GLP Learner Drivers	56,606	2.0	874	0.2
GLP Novice Drivers	128,478	4.6	51,010	12.6

Comparison of Crash Type and Claims Costs Between GLP Drivers and All Drivers (2001)

	Number of Crashes ²	Per Cent of Total Crashes	Average Crash Cost	Total Cost
All BC Drivers				
Fatal	352	0.1	\$234,588	\$82,575,060
Injury	43,356	16.6	\$22,317	\$967,606,201
PDO ¹	217,554	83.3	\$1,642	\$357,389,009
Total	261,262	100.0		\$1,407,570,270
GLP Learner Drivers				
Fatal	3	0.3	\$234,588	\$703,764
Injury	183	21.1	\$22,317	\$4,084,139
PDO	686	78.5	\$1,642	\$1,126,933
Total	874	100.0		\$5,914,837
Learner Driver Costs as Per Cent of Total Costs				0.4%
GLP Novice Drivers				
Fatal	66	0.1	\$234,588	\$15,482,823
Injury	11,538	23.6	\$22,317	\$257,501,622
PDO	37,205	76.3	\$1,642	\$61,118,885
Total	48,809	100.0		\$334,103,332
Novice Driver Costs as Per Cent of Total Costs				23.7%

¹ Property damage only claims

² The number of crash incidents as opposed to the number of drivers involved in a crash is used in order to be able to generate total claims costs

Business Case

Appendix D. Demand Analysis GLP Enhancements

- I. **Prepared for:** Bill Goble, Chief Operating Officer, For Information
- II. **Subject:** Size and timeline of impacts on ICBC's road test system resulting from the announcement of the proposed Graduated Licensing Program (GLP) enhancements
- III. **Background:**
- Currently, approximately 85,000 GLP novice stage drivers have completed their minimum time requirements and are eligible to challenge the class 5 road test and graduate from the program. This number is increasing by an average of approximately 2,900 drivers per month.
 - Drivers are choosing to stay in the novice stage because of the cost and effort to pass the road test and the lack of restrictions to meaningfully distinguish driving privileges between the novice stage and a full privilege licence. At this time, novice drivers are only required to display a new driver sign, cannot drive with alcohol in their body, are subject to lower penalty point thresholds before receiving a driving prohibition and are restricted from applying for a commercial licence.
 - The proposed GLP enhancements will substantially increase the number and severity of driving restrictions applied to novice stage drivers (passenger restriction, requirement for drivers to be prohibition-free for 24 consecutive months before being able to challenge the class 5 road test), and as a result, create an incentive for this pool of drivers to book road tests so they can exit the program.
 - BC's road test waiting period is approximately 40 days in the Lower Mainland. This number inaccurately interprets ICBC's current capacity to meet the province's need for timely access to road tests, temporarily benefiting from the fact that the vast majority of novice drivers are choosing to stay in GLP.
 - It is anticipated that the implementation of the proposed novice stage enhancements will result in a significant, short-term increase in demand for road tests as most of the current pool of 85,000 eligible novice stage drivers move towards getting a full privilege licence. In addition, these enhancements should create an ongoing increase in road test demand as future novice drivers choose to leave the program in a timely manner and not create a pool of languishing drivers.
- IV. **Discussion:**
- The following analysis attempts to predict the timing and size of changes in demand for road tests by looking at previous experiences in BC and other jurisdictions to see how new drivers responded to announcements of more severe driving restrictions.

Previous Experiences:

British Columbia – Implementation of GLP Program (1998)

- GLP implementation on August 1, 1998 significantly changed licensing requirements for BC's new drivers. Numerous new driving restrictions were created (e.g., nighttime driving restriction, zero blood alcohol requirement) and the learning period in which these new restrictions are applied was increased from one month to 24 months.
- The program used a phased implementation strategy to capture as many new drivers in GLP as possible. On April 9, 1998 it was announced that:
 - Anyone obtaining a learner licence after May 4, 1998 would not be allowed to take a road test before August 1, and as a result, enter the GLP novice stage upon passing; and
 - Anyone already holding a learner licence would be required to enter GLP if they took their road test after August 1.

Business Case

- This announcement resulted in a dramatic spike in demand for both knowledge and road tests. In response, ICBC hired over 60 temporary driver examiners / customer service representatives opened some of its licensing offices on Saturdays. These efforts still resulted in road test waiting periods being tripled in the Lower Mainland (8 days to 25 days). After August 1, road test waiting periods generally returned to pre-announcement levels.

Ontario – End of First GLP Licensing Period (1999)

- Ontario introduced their GLP program in 1994 which included a novice stage with limited driving restrictions and a road test exit requirement. Similar to BC, these variables led to the creation of a large pool of novice stage drivers who were eligible to take the exit test but chose to stay in the program.
- At the time of implementation, it was widely announced that GLP drivers could only stay in the program a maximum of five years. Drivers who did not take the test would be returned to the highly restrictive learner stage.
- Approximately five years after GLP implementation, Ontario experienced a large increase in demand for road tests resulting in waiting periods increasing to over one year in Metro Toronto.
- In response to public pressure, the Ontario government announced a \$25 million program to clear the glut of road test applicants through hiring 141 examiners, expanding testing hours and opening temporary testing facilities. The program was successful in returning their average provincial road test waiting period to between 2-3 months (reported Fall, 2002).


Analysis of Variables:

- Both licensing experiences described above indicate most drivers will endure the stress, cost and effort required to pass a road test in order to avoid what they perceive as more severe driving restrictions. In addition, the Ontario experience suggests drivers will procrastinate on taking a road test until the last moment before more severe driving restriction are applied.
- Quantifying the number of BC novice stage drivers (pool of 85,000 qualified to challenge the novice stage exit test) who will want to take the class 5 road test upon announcement of the GLP enhancements and the speed in which they book their tests is dependent on:
 - Driver perception of the severity of these new rules in limiting driving mobility; and
 - Effectiveness of communication efforts to control public responses.
- The proposed novice stage restrictions will impact teenage drivers the most, who make up over 70 per cent of novice drivers. The passenger restriction specifically restricts teenage drivers from carrying more than one of their peers (unless accompanied by a minimum 25 year old supervisor).
- The requirement for novice drivers to complete at least an additional 24 months upon receiving a driving prohibition (i.e., issued for receiving two tickets) will also impact teenage drivers more, who comprise seven per cent of BC's driving population but receive 17 of total violation tickets issued. As a result, it is anticipated that the announcement of these enhancements will act as a significant incentive for eligible novice drivers to book a road test and graduate from GLP.
- Two strategies have been identified to spread out the impact of the GLPE announcement. The proposed implementation plan will apply the new GLP licensing rules to novice drivers as they renew their licence, distributing the road testing impacts over a five year period.
- In addition, the communication plan includes both general communication (e.g., press releases) and focused messaging at all road test booking points of contact (e.g., DEAS on-line booking) to remind drivers of the option of waiting closer to their licence renewal date to book their road test. It is anticipated that the combination of focused messaging and human tendency towards procrastination will be reasonably successful in convincing drivers to wait to book their road tests. However, previous GLP surveys and results from recent youth focus groups suggest general communication will have limited success in transmitting this type of detailed information.

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V. Summary:

- Previous analysis estimated approximately 90 per cent of the eligible pool of 85,000 novice drivers would choose to book a road test upon announcement of the GLP enhancements (anticipated April 2003 for June 2003 implementation) and that these tests would be evenly spread out over the first three years.
- Considering the first wave of novice driver licence renewals will start in Fall, 2003 and previous challenges around effectively communicating detailed GLP information, the pattern in which eligible novice drivers will book class 5 road tests may be more front-loaded than previous estimates.
- Based on this analysis it is estimated that instead of being evenly dispersed over three years, the percentage of pooled drivers taking the class 5 road test may be higher in the first year, declining steadily over the next 4 years (e.g., 75% Year 1, 15% Year 2, 5% Year 3 and 4).
- In addition to clearing out the majority of the novice driver pool, the proposed GLP enhancements will increase ongoing future demand for class 5 road tests. The enhancements should encourage novice drivers to take their road test and graduate from GLP in a timely manner, resulting in more consistent demand and the pool of eligible drivers never substantially rebuilding.

Prepared By: Jason Luchies
Senior Policy Advisor


Contact: Sean McAlister
Manager


Date: December 9, 2002

Business Case

Appendix E: Analysis Statistics

The characteristics of the outstanding pool of eligible but untested drivers in both the learner and novice stages is identified in the following table. As can be seen the size of this group, and the amount of potential work it represents is significant. These facts provide a framework for the scenarios presented on page 11.

Based on the model proposed in this business case it will take approximately 4.5 years to eliminate the backlog.

Pool Characteristics as at July 1, 2003 Eligible Drivers (estimated)

Learners Pool:	
Eligible learner stage drivers	51,000
Learners test failure rate	40%
Equivalent learner stage tests	71,400
Time for learner stage test	45 minutes
Time equivalency of outstanding tests	53,550 hours
Novice Pool:	
Eligible Novice stage drivers	85,000
Novice test failure rate	30%
Equivalent Novice stage tests	110,500
Time for novice stage test	60 minutes
Time equivalency of outstanding tests	110,500 hours
Combined Pool totals:	
Total Tests	181,900 tests
Total testing hours required	164,050 hours
Driver Examiner capacity:	
Hours available for testing	6 hours/day
Work Days per year	200
Available Hours per year per Examiner	1200
Number of DE's required to eliminate pool in 1 year	
	137 Driver Examiners
Current Staff Capacity:	
Number of Driver Examiners	136 DE's
Total available testing hours per year	163,200 hours
Estimated annual time spent on non GLP tests	73,000 hours
Total time available for GLP tests	90,200 hours
Current estimated class 7 test demand	54,000 hours
Current estimated class 5 test demand	21,000 hours
Total estimated current GLP demand in hours*	75,000 hours
Residual testing hours **	15,200 hours
Future annual demand due to enhancements***	
Class 7 tests (expressed as hourly equivalency)	62,000 per year
Class 5 tests	69,000 per year
Future estimated annual GLP demand	131,000 hours/ year
Demand to Capacity Comparison:	
Future estimated annual GLP demand	131,000 hours/year
Pool demand (outstanding)	164,050 hours
Current Annual GLP Capacity	91,000 hours

*this estimate is at the conservative end of a range that could go as high as 90,000 which would use all available capacity.

**refers to time not spent on direct testing and can include travel, customer service, personal time etc.

***assumes 90% of eligible novice stage drivers will wish to exit the program soon after they are eligible to avoid the new restrictions (current rate is approximately 30%). This low exit rate is attributed to the fact that current restrictions are not prohibitive enough.

Business Case

Appendix F: The Staffing Implications of the Enhanced Graduated Licensing

Prepared by: Ted Ockenden, Manager Licensing
December 13, 2002

Problem Identification

The proposed enhancements to the Graduated Licensing Program (GLP) will increase the GLP standards and restrictions. This in turn will have the effect of creating better, safer drivers, reducing crashes and resulting in substantial financial savings. However, we believe these more rigorous standards will motivate the approximately 85,000 drivers who are presently in the Novice Stage of the GLP to act as quickly as possible to seek a road test to allow them to obtain a full-privilege, Class 5 License.

This could occur as early as March 2003. Past experience has shown that the public could learn of the forthcoming changes and react immediately in advance of details being disclosed. Approximately 85,000 novice stage road tests equates to approximately the same number of GLP road tests presently conducted throughout the province annually. This could result in an unacceptable delay in road test availability. In order to address this a solution must be developed that will balance the need to meet customer service, security and consistency standards, while ensuring that additional resources are hired in such a way as to not place ICBC in an overstaffed position once the pool has depleted to a manageable level.

Problem Resolution

This document will sequentially address the potential solutions, identifying the pros/cons of each solution whilst leading to the next, best solution.

Outsourcing

Outsourcing is not a foreign concept to ICBC Licensing, as many transactions are presently delivered by Provincial Government Agents in mid-sized cities and by appointed Agents on a fee per service basis in smaller cities. However, these transactions are not complex and the veracity of them can easily/readily be audited via present systems.

The hiring of external staff would not increase ICBC head-count. It would also be possible without any additional burden on present facilities. Once the immediate issue had been resolved, business could be conducted as per present practice. Road testing by a private entity would require significant analysis and public consultation and would have to be completed in an extremely short time period. Applicant criteria and an RFP process would also have to be developed, as well as an audit process. Experience has shown that it is not advisable to allow driving schools to both train and test at the same facility. If they fail an inordinate number of applicants they are accused with being revenue driven and if they pass too many, they are accused of not adhering to standards.

The outsourcing of Licensing functions has been explored in other jurisdictions. The fraudulent procurement of licenses can result and the audit processes that become necessary are often more costly than the processes they replace. Further, road test consistency, which is one of the cornerstones of the GLP could be compromised within this delivery mechanism if proper standards and protocol are not strictly adhered to.

Additionally, the timing of this consideration is challenged by the fact that ICBC will be entering to contract negotiations at approximately the same time. It is the opinion of our Labour Relations Department not to be forcing this issue at a time when it may be in conflict with our negotiation strategy.

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Permanent Employees versus Temporary Employees

In order to address the influx of road tests, it has been determined that approximately 30 staff will be required. Permanent staff can prove to be less expensive in that there is no requirement to pay the 18% vacation differential and there is less turnover than with temporary employees, whose primary purpose is to seek permanent employment either within other areas of ICBC or externally. Further, this longevity heightens morale, minimizes the need for the training of replacements and lends itself to improved consistency. Lastly, permanent employees would remain after this project, leaving a body of skilled individuals to address attrition and other unplanned staff losses.

The disadvantage of hiring permanent employees is that they add to ICBC headcount beyond the duration of the problem and provide less flexibility when it comes to addressing changing business needs.

Temporary employees offer greater flexibility in that they can be added, transferred or removed subject to changing business needs. If the initial deployment of staff proved to be incorrect, it is easy to transfer and/or terminate these staff. There is less need to accommodate vacations and no need to maintain this headcount indefinitely.

The disadvantage of hiring temporary employees is that there is greater turnover. This increases the costs associated with additional hiring (recruitment, background checks, interviewing, testing) and training. This also leads to a reduction in road test consistency and possibly to a reduction in road safety benefits.

Hiring Recommendations

It is recommended that fifteen employees be hired on a temporary basis to allow for recruitment and training in advance of March 2003. As the GLP enhancements are introduced and the consequences better understood, it is recommended that the additional staff (up to 15 temporary employees) be hired on a temporary basis to supplement need. This approach would better allow for more accurate deployment and would not provide an unnecessary surplus. The additional permanent staff would address attrition and be necessary in order to meet present business needs.

The hiring of temporary employees provides maximum flexibility in dealing with demand issues. We would have to "post" those positions and staff from other lines of business would likely be most eligible. This would necessitate renewed recruitment and training, creating additional costs and delays. However, the advantages are superior cross training of employees, career opportunities, and greater job satisfaction.

Staff Deployment Recommendations

The 5 Regional Licensing Managers have assessed past/present road test wait-lists against anticipated need and have put forward the following hiring submission for temporary staff:

- Vancouver Island Region: 1.5 FTE additional staff
- Northern Interior Region: .5 FTE additional staff (could be resourced with part-time staff)
- Southern Interior Region: 4 FTE additional staff
- Fraser Valley Region: 12 FTE additional staff
- Lower Mainland Region: 12 FTE additional staff

The Regional Managers will assess regional needs and ascertain where staff should be deployed and whether or not part-time or full-time staff are preferable.

Further, it has been concluded that 4 additional Client Service Representatives (CSR's) will be required to service the administrative demands created by the additional road tests. It is preferable to hire these staff as temporary employees. Should turnover occur, it would be easier to recruit and train staff in this position. Also, this would provide for greater flexibility with regards to transferring staff to meet changing needs.

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Conclusion

The financial and road safety benefits to be derived from the enhancements to the GLP are substantial. In order to properly provide for these enhancements, additional staff will be required. This work could be outsourced, however we would have to overcome numerous obstacles and challenges to put into place within the required time frame.

Further analysis will be conducted surrounding the outsourcing issue. This work will be done in parallel to the roll out of the GLP enhancements. In the meantime, the recommendation is to proceed with the hiring of temporary resources.

Appendix G. Source of Expected Benefits and Summary of the Projection Process

Prepared by : Sandi Wiggins
Senior Research Officer
Performance Analysis Services
December 6, 2002

Benefit Projection Model and Estimates Approved by:
ICBC Measurement and Monitoring Committee
September 19, 2002

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SOURCE OF EXPECTED BENEFITS

Claims savings associated with new drivers arise from lowering the new driver crash rate. In the GLP system, this rate is comprised of two factors: the Learner crash rate and the Novice crash rate. The Novice crash rate tends to exceed the Learner crash rate by a factor of about 10 (or more). Consequently, the claims savings expected from the enhancement package are expected to arise from two sources: 1) the extension of the lower Learner crash rate over a longer period of time (thereby generating a lower overall crash rate each year), and 2) a reduction of the Novice driver crash rate.

Due to the very low crash rate of learner drivers, most of the benefits anticipated from the enhancement package are expected to come from the extension of the fully supervised Learner period (assuming the current low Learner crash rate is maintained over the longer learner period). It would be very difficult to implement any Novice stage restrictions that would lower the Novice crash rate by a factor of 10 or more. But a reduction in the Novice stage crash rate is the aim of the passenger restriction and prohibition-free requirement. It is anticipated that both of these changes in the Novice period will have a general and specific deterrent effect (if they are fully and frequently communicated, and if there is a high expectation of enforcement).

Research has shown that the crash risk of young Novice drivers increases considerably with the number of young passengers in the vehicle. The reasons for this increase is not entirely clear, but certainly distraction and social pressures have been raised as possibilities. The Novice stage passenger restriction is, therefore, an attempt to reduce the Novice crash rate by reducing some of the crashes attributable to inexperienced new drivers carrying multiple young passengers.

Similarly, the prohibition-free requirement is expected to prompt at least some Novice drivers to refrain from engaging in driving behaviours that would result in a prohibition. To the extent that these changes in behaviour prevent crashes, they would also contribute to an expected reduction in the Novice crash rate.

The following table summarizes the benefits expected from the implementation of the Learner and Novice Stage enhancements. The table is followed by a general description of how the benefits were derived for each component. Please note that the benefits expected from each of the Novice Stage enhancements are not presented separately. This is due to the fact that the effects of the passenger restriction and prohibition-free requirement are not expected to be completely independent. Consequently, only the benefits expected from the effects of the two components in combination are presented.

It should be noted that all of the benefits projected for the Enhancement package have been estimated using information available from the current GLP. In particular, the number of new drivers entering the system each year, the speed with which they move through the Learner and Novice stages, and the Learner and Novice driver crash rates are based on past experience. If, after the implementation of the GLP enhancements, any of these factors change markedly the projected benefits will change as well.

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Summary of Benefits Expected from Proposed GLP Enhancement Package by Component				
	Program Component	Type of Crash	Number of Crashes Prevented	Estimated Benefits (\$)
Year 1	Learner Stage Extension	Fatal	1.5	\$343,672
		Injury	378	\$8,434,004
		Material Damage Only	1,305	\$2,143,723
		Total	1,685	\$10,921,399
	Novice Stage Enhancements	Fatal	0.6	\$139,579
		Injury	66	\$1,479,860
		Material Damage Only	173	\$284,122
		Total	240	\$1,903,561
Year 2	Learner Stage Extension	Fatal	7.5	\$1,760,350
		Injury	1267	\$28,266,298
		Material Damage Only	4,340	\$7,128,861
		Total	5,615	\$37,155,509
	Novice Stage Enhancements	Fatal	0.8	\$198,216
		Injury	95	\$2,127,117
		Material Damage Only	249	\$408,441
		Total	345	\$2,733,773
Year 3	Learner Stage Extension	Fatal	8.7	\$2,043,850
		Injury	1410	\$31,467,531
		Material Damage Only	4,867	\$7,995,423
		Total	6,286	\$41,506,804
	Novice Stage Enhancements	Fatal	2.2	\$527,298
		Injury	253	\$5,641,660
		Material Damage Only	659	\$1,083,243
		Total	914	\$7,252,201

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SUMMARY OF BENEFIT PROJECTION PROCESS

The following is a brief summary of the methods used to calculate the estimated benefits of the proposed GLP enhancements (Extended learner period, Novice Passenger Restriction, and Prohibition-free Novice Stage). All of the benefit projections were calculated in reference to the current GLP. Thus, all of the projected benefits are in addition to any benefits realized under the current GLP.

The benefit projection model was developed using January 1, 2003 as the estimated implementation date, and benefits were estimated for the three year period 2003 - 2005. The implementation date is expected to be July 1, 2003 and as such the projected benefits should be interpreted as applying to the first full year after implementation (Year 1), the second full year (Year 2), and the third full year (Year 3). However, the projected estimates for each year will be subject to greater inaccuracy the further the actual implementation date moves from January 1, 2003.

1. Extended Learner Period

Benefits Projected for this component:

Year 1: \$10,921,399; Year 2: \$37,155,508; Year 3: \$41,506,803

Method:

- 1.1 Based on actual GLP experience from 1999-2001, crash rates (the number of crashes per driver-year) were calculated for new drivers who took the approved driving course (DOC) and, separately, for those who did not (NDOC). Crash rates were also calculated separately for the mutually exclusive categories of fatal crashes, injury crashes and material damage only crashes. A major component of the rate calculation process involved estimating the number of equivalent years spent by new drivers in each of the Learner (L) and Novice (N) phases during the 1999-2001 period, and then projecting these driver-years forward into the first (Year 1), second (Year 2), and third (Year 3) full years after implementation of the GLP enhancement package.
- 1.2 With the assumption of an extended Learner period (to 12 months for NDOCs and 9 months for DOCs), the new number of L and N years to be contributed in Year 1, Year 2, and Year 3 were estimated based on a few assumptions (arising from the 1999-2001 experience):
 - a) 16% of new drivers would be in the DOC group and 84% would be NDOC.
 - b) The average length of driving experience in any year will be 6 months (0.5 years) based on an assumption of roughly consistent monthly entry into the GLP program.
 - c) 25% of DOC L-drivers will graduate to the N level by the end of the year in which they entered GLP (and will have 1.5 months as Ns). All (100%) will be in the N phase by the end of the year after they entered GLP.
 - d) No NDOC drivers will reach the N level by the end of the year in which they entered GLP, 50% will reach N by the end of the year after they entered GLP, and 80% by the end of the second year after they entered GLP.
 - e) The total number of new drivers entering the system in Year 1 was estimated to be 57,000; in Year 2, 58,000; in Year 3, 59,000. Again, this was based on 1999-2001 experience.
- 1.3 The number of crashes expected for new drivers in Year 1, Year 2, and Year 3, assuming no learner period extension, was calculated. This was done using the actual L and N crash rates observed in 1999, 2000, and 2001 multiplied by the number of N and L driver-years that would be expected in Year 1, Year 2, and Year 3 if there was no extension.
- 1.4 Next, the expected number of crashes assuming an extended learner period had been implemented was then calculated. This was done by using the established crash rate from 1999-2001 data multiplied by the number of L and N driver-years that would be expected in Year 1, Year 2, and Year

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3 with the extension. The expected driver years after implementation were calculated based on the assumptions outlined in 1.2 above.

- 1.5 The results of 1.3 were subtracted from the results of 1.4 to arrive at the change in the number of crashes expected from extending the learner period.

2. Passenger Restriction

Benefits Projected for this component:

Year 1: \$1,081,436; Year 2: \$1,554,564; Year 3: \$4,122,973.35

Method:

- 2.1 It was first assumed (based on 1999-2001 experience) that 16% of Novice driver crashes involve vehicles with >1 passenger under the age of 25 and with no occupants over the age of 25. The effect of the passenger restriction was calculated assuming that 100%, 50%, and 20% of such crashes would be prevented. The final estimate of benefits was based on the results obtained assuming a 20% reduction in the number of young passenger-involved crashes. Little information is available to provide any guidance with respect to the reductions to be expected from a passenger restriction. However, in one published report from New Zealand (Begg, Alsop, Langely, 2000), a reduction of 24% of all passenger-involved crashes had been obtained. The passenger restriction in New Zealand is more restrictive than the one proposed for the enhanced GLP. Consequently, a slightly lower target was selected for this analysis. Clearly, however, achievement of this target will depend upon compliance.

For the extension of the L-phase we were concerned only with the number of novices which resulted from the entering Ls (since pre-existing novices would not be affected) by this enhancement. With the passenger restriction, however, we needed to include novices from prior years who would subsequently renew their licence under the new rules, as well as those who would enter the system from other jurisdictions. The resulting number of estimated N-years projected for Year 1 - Year 3 were based on the 1999-2001 experience.

- 2.2 To estimate the impact of the passenger restriction, it was necessary to identify the target crashes by the number and age of passengers (whether injured or not). In order to do this we were restricted to the TAS database (the claims database does not capture information on passenger-involvement). The TAS database contains all police-reported crashes, and details concerning the passengers in the vehicle at the time of the crash, but underestimates the number of crashes reported in the Claims database. The first step was thus to find, in TAS, the number of target crashes involving N-drivers during 1999-2001, and then to use this information to estimate the number of target crashes expected in the Claims database.
- 2.3 In order to extend the TAS estimate to all novice driver crashes in Claims, the total number of Claims crashes was compared with the TAS total by severity level (fatal, injury, and material damage only). The ratios of Claims crashes/TAS crashes for fatal, injury and material damage only incidents were then used as "conversion factors". For example, there were 5,888 TAS injury crashes involving novices and 12,185 Claims injury crashes. The conversion factor (TAS-Claims) for injury crashes was thus $12,185/5,888 = 2.0695$.
- 2.4 These conversion factors were then applied to the estimated TAS crashes prevented (2.1) to obtain the estimated Claims incidents prevented.
- 2.5 Next, the base crash rate (i.e. the rate applying if there were no passenger restrictions) in terms of fatal, injury and material damage only crashes was calculated by dividing the total number of claims crashes recorded in each category by the number of novice driver-years calculated from 1999-2001.

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Then the number of crashes expected in Year 1 – Year 3 without novice passenger restrictions was estimated by multiplying this rate by the number of novice driver-years estimated for this period.

- 2.6 The estimated rate for 1999-2001 assuming a passenger restriction had been in effect was computed by subtracting the estimated number of Claims crashes prevented from the number of Claims crashes recorded in 1999-2001 and again dividing the result by the estimated number of novice driver-years for the period 1999-2001. Then the number of crashes expected in Year 1 – Year 3 with the novice passenger restriction was estimated by multiplying this rate by the number of novice driver-years projected for Year 1 – Year 3 (as in 2.5).
- 2.7 Subtracting the results of 2.6 from those of 2.5 gave the expected number of crashes prevented by the passenger restriction.

3.0 Prohibition-Free Novice Period

Benefits Projected for this component:

Year 1: \$1,508,494; Year 2: \$2,168,539; Year 3: \$5,751,281

Method:

- 3.1 The number of novice driver-years estimated for the three year period Year 1 – Year 3 was estimated to be 104,590 person-years (16,734 in Year 1, 24,056 in Year 2, 63,800 in Year 3).
- 3.2 An analysis of the 1999-2001 novice driver records found that, of those with at least 24 months of novice driving-time, 83% had no prohibition during this 24-month period while 17% (some 7,187) had one or more. These prohibited drivers had 6,698 crashes during their first 24 months of N driving for a rate of 0.466 crashes per driver per year. Their non-prohibited counterparts had a rate of only 0.238 and the overall crash rate was 0.277.
- 3.3 There were three levels of program effectiveness assumed for the analysis: (i) that the overall crash rate of 0.277 could be brought down to 0.238 (i.e., to the same level as that of the non-prohibited drivers), (ii) that the total crash rate could be brought down to 0.258 (1/2 way between 0.277 and 0.238), and (iii) that the total crash rate could be brought down to 0.267 (1/4 way between 0.277 and 0.238). Only the third (the most conservative) assumption was used in the final benefit estimation.
- 3.4 The reductions in crash rates were calculated as percentage changes for fatal, injury and material damage only crashes. The numbers of crashes (fatal, injury and material damage only) expected by year for novice drivers without the prohibition requirement were reduced by these percentages to arrive at the estimated numbers expected with the prohibition requirement. The difference between the two numbers for each of fatal, injury and material damage only incident classes then represented the potential effect of the change.

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4. Combined Effect of Novice Stage Enhancements

Projected Benefits for the combined effect of the Novice Enhancements (Passenger Restriction plus Prohibition-free Requirement Combined – assuming the two components are not independent):

Year 1: \$1,903,561; Year 2: \$2,733,773; Year 3: \$7,252,202

Method:

In recognition of the fact that there is likely to be some overlap between the crashes involving young passengers and those involving prohibited novice drivers, the total combined crash rate reduction expected from the concurrent implementation of both enhancements was adjusted downward from 6.8% to 5%. The number of fatal, injury, and material damage crashes prevented were then recalculated to reflect this adjustment.

5. Calculation of Benefits (\$)

To obtain the dollar benefits from the proposed enhancement package, average incident costs per fatal (\$234,588.24), injury (\$22,317.73), and material damage (\$1,642.76) were used. Average incident costs were calculated using claims data extracted March 31, 2002, and ultimately using 2001 loss development factors (as of March 31, 2002).

Reference: Begg, D.J.; Alsop, J; Langley, J.D. The impact of graduated licensing restrictions on young driver crashes in new Zealand. Proceedings of the International Council on Alcohol, Drugs, and Traffic Safety. Stockholm, May 22-26, 2000.

Business Case

Appendix H: Total FTE / Headcount Requirements

2003

Position	Headcount	FTE
Driver Examiners	30	20
Client Service Representatives	4	2.5
Victoria Customer Contact	8	6
Driver testing & Vehicle Info	3	2
Licensing Support	3	1.5
Total	48	32

This reflects temporary staff

Headcount and FTE requirements for 2004 will require additional analysis once the program has been introduced, and all impacts are known.

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Appendix I: Comparison of BC GLP Licensing Models to Other Jurisdictions

Jurisdiction	Graduated Licensing Model Yes/No	Learner Stage	Novice/Intermediate Stage	Post-Novice Stage
BC - Current Model	Yes	Duration: Minimum 6 months - reduced up to 3 with ICBC approved course Restrictions: Supervisor - 19 years, full license Zero BAC Two Passengers (including supervisor) Driving between 5 a.m. and midnight only "L" sign must be displayed Exit Requirements: Road Test	Duration: Minimum 18 months Restrictions: Zero BAC "N" sign must be displayed Exit Requirements: Road Test	N/A
BC - Proposed Model	Yes	Duration: Minimum 12 months - reduced up to 3 with ICBC approved course Restrictions: Supervisor - 25 years , full license Zero BAC Two Passengers (including supervisor) Driving between 5 a.m. and midnight only "L" sign must be displayed Exit Requirements: Road Test	Duration: Minimum 24 months Restrictions: One passenger unless Supervisor - 25 years, full license Zero BAC "N" sign must be displayed Exit Requirements: 24 consecutive months of suspension/prohibition free driving Road Test	N/A
AB	Proposed Model	Duration: 12 months Restrictions: Zero BAC No Driving between Midnight and 5 a.m. Supervisor - 18 years and full license Exit Requirements Less than 8 demerit points Road Test	Duration: 24 months Restrictions: Zero BAC Exit Requirements: 12 consecutive months suspension/prohibition free Road Test	N/A
SK	Proposed Model Enhanced Learner Stage Only	Duration: Minimum 6 months Restrictions: Supervisor - full license at least one year Exit Requirements: High School Driver Education or 4 hours of professional in-car instruction Road Test	Duration: Minimum 24 months Restrictions: Zero BAC Exit Requirements: Road Test	N/A
MB	Yes Fully Implemented by January 2003	Duration: Minimum 9 months - no reduction for training Restrictions: Supervisor - full license for at least 3 years, >05 BAC Supervisor in front seat to carry passengers Zero BAC Exit Requirements: Road Test	Duration: 15 months Restrictions: Midnight to 5 a.m. - one passenger in front only <u>or</u> supervisor in front seat for extra passengers Zero BAC Exit Requirements: Sunset Date	Duration: 12 months Restrictions: Zero BAC Exit Requirements: Sunset Date
ON	Yes	Duration: Minimum 12 months - reduced to 8 with approved training Restrictions: Supervisor - full license at least four years, .05 BAC Specified Road restrictions Maximum speed 80 km/h No driving Midnight to 5 a.m. Exit Requirements: Road Test	Duration: 12 months Restrictions: Zero BAC Exit Requirements: Road Test Novice Class license is not renewable - must qualify on all tests prior to relicensing	N/A
QU	Yes	Duration: Minimum 12 months - reduced to 8 with approved training Restrictions: Supervisor - full license at least 2 years Zero BAC Exit Requirements:	Duration: Until the driver is 24 years of age Restrictions: Zero BAC Exit Requirements:	N/A

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Jurisdiction	Graduated Licensing Model Yes/No	Learner Stage	Novice/Intermediate Stage	Post-Novice Stage
		Road Test	25 years of age	
NB	Yes	Duration: Minimum 12 months - reduced to 4 with approved training Suspensions/prohibitions restart "clock" at Zero Restrictions: Supervisor No additional passengers Zero BAC Exit Requirements: Road Test	Duration: 12 - 20 months (Overall time in GLP minimum 24 months in total - duration of Novice Period is dependent on time spent in Learner Period) Restrictions: Zero BAC Exit Requirements: Must drive suspension/prohibition free for entire duration. Sunset date	Duration: First 4 years post GLP Restrictions: Lower penalty point threshold Exit Requirements: Sunset date
NS	Yes	Duration: Minimum 6 months - reduced to 3 with approved training Suspensions/prohibitions restart "clock" at Zero Restrictions: Supervisor No Additional passengers Zero BAC Exit Requirements: Road Test	Duration: 24 months Restrictions: Supervisor required between Midnight and 5 a.m. Only one passenger in front seat, rear seat belts Zero BAC Exit Requirements: Successful completion of an approved course (minimum 4 hours) Suspension/prohibition free for 24 months Sunset date	Duration: First 4 years post GLP Restrictions: Lower penalty point threshold Exit Requirements: Sunset date
PEI	Enhanced Learner stage Only	Duration: Minimum 90 days Restrictions: Supervisor No other passengers except immediate family Exit Requirements: 4 Hour novice driver training course Road Test	N/A	N/A
NF	Yes	Duration: Minimum 12 months - reduced to 8 with approved training Restrictions: Supervisor - full license at least 4 years & .05 BAC No passengers Zero BAC Exit Requirements: Road Test	Duration: 12 months Restrictions: Supervisor required between Midnight and 5 a.m. Zero BAC Exit Requirements: Must be suspension/prohibition free for 12 consecutive months Sunset date	N/A
YK	Yes	Duration: Minimum 6 months Restrictions: Supervisor Only one additional passenger Zero BAC Restricted from Midnight and 5 a.m. Display Student Driver Sign Exit Requirements: Road Test	Duration: Minimum 18 months Restrictions: Zero BAC Supervisor required between Midnight and 5 a.m. Two passengers unless Supervisor Exit Requirements: No demerits, suspensions/prohibitions or violations Sunset date - application required	N/A
New Zealand	Yes	Duration: Minimum 6 months Restrictions: Supervisor (full license for at least 2 years) Display "L" plates .03 BAC if under 20 years .08 BAC if 20 years or over Exit Requirements:	Duration: Under 25 years - Minimum 18 months reduced to 12 with approved course 25 years or over - Minimum 6 months reduced to 3 with approved course Restrictions:	N/A

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Jurisdiction	Graduated Licensing Model Yes/No	Learner Stage	Novice/Intermediate Stage	Post-Novice Stage
		Road test	Zero passengers unless accompanied by supervisor (family exemption) No driving between 10 p.m. and 5 a.m. unless accompanied by supervisor .03 BAC if under 20 years .08 BAC if 20 years or over Exit Requirements: Road Test	
Georgia	Yes	Duration: 12 months Restrictions: Supervisor - full license, 21 years, .02 BAC Exit Requirements: 40 hours practice - 6 nighttime 20 hours if approved driver education Road Test	Duration: To age 18 years Restrictions: No driving between Midnight and 6 a.m. First 6 months - no passengers unless family Thereafter no more than 3 passengers under 21 years unless family Exit Requirements: 18 Years	N/A
California	Yes	Duration: Minimum 6 months Restrictions: Supervisor for learner under 18 years - 25 years Supervisor for learner over 18 years - 18 years Exit Requirements: Under 18 years: <ul style="list-style-type: none"> • Driver Education • 50 hours experience • 6 hours professional training • Road Test 18 or over: <ul style="list-style-type: none"> • Road Test 	Duration: 12 months Restrictions: First 6 months: <ul style="list-style-type: none"> • No driving between Midnight and 5 a.m. • No passengers under 20 years unless supervised Following 6 months: <ul style="list-style-type: none"> • No driving Midnight to 5 a.m. unless supervised Exit Requirements: Sunset date	N/A
Oregon	Yes	Duration: Minimum 6 months Restrictions: Supervisor - full license for 3 years and at least 21 years of age Exit Requirements: 50 hours of experience Road Test Under 18 years also requires: <ul style="list-style-type: none"> • Approved driver training or an additional 50 hours • Additional knowledge test 	Duration: 12 months or 18 years of age Restrictions: First six months - no passengers under 20 years unless supervised or family Next six months - no more than 3 passengers under 20 years No driving between Midnight to 5 a.m. unless employment to home or supervised by driver at least 25 years of age Exit Requirements: Sunset date or age 18 years	N/A
Sweden	Yes	No minimum age for theory training Minimum age for practical training - 16 years Minimum age for theory and practical testing - 18 years Duration: No minimum - determined by age Restrictions: Non-professional Supervisor requires special permit, 24 years of age and at least 5 years fully licensed Display "Driver Learning" plate Exit Requirements: 18 years 4 hour skid course Non-professional or Professional Supervisor must sign-off curriculum Road Test	Duration: 24 months Restrictions: Suspension/prohibitions result in repeating all tests Exit Requirements: Sunset date	N/A
United Kingdom	Yes	Minimum age for theory & practical training and testing is 17 years Duration: No minimum	Duration: 24 months Restrictions: No more than 6 demerit	N/A

Business Case

Jurisdiction	Graduated Licensing Model Yes/No	Learner Stage	Novice/Intermediate Stage	Post-Novice Stage
		Restrictions: Supervisor - 21 years of age, fully licensed for 3 years No driving on motorway No towing Must display "L" sign Exit Requirements: Road Test	points or must return to learner status and retake all tests Exit Requirements: Fewer than 6 demerit points over 24 months	
Switzerland	Enhanced Learner Stage Only	Minimum age for theory and practical training - 18 years Minimum age for theory and practical testing - 18 years Duration: No minimum - by age Restrictions: Supervisor - 23 years of age and 3 years fully licensed Display an "L" sign Exit Requirements: 18 years of age Mandatory Training - minimum 8 hours of theory First Aid Course Road Test	N/A	N/A
Norway	Yes	Minimum age for theory and practical training - 16 years Minimum age for theory and practical testing - 18 years Duration: No minimum - age based Restrictions: Non-professional Supervisor requires 8 hours practical and 1.5 hours theory training at a Driving School, 25 years of age and at least 5 years fully licensed Display "L" plates Exit Requirements: Non-professional training - must have 1.5 hours of theory and 8 practical (including skid training, night driving, high traffic areas and motorways)	Duration: 24 months Restrictions: Any suspensions/prohibitions result in retaking all tests and 24 month "clock" begins at zero Exit Requirements: 24 months suspension/prohibition free	N/A
Australia National Licensing Scheme Details from New South Wales	Yes Minimum duration time from age 16 years to full license is 4 years	Duration: 6 months for under 25 years No minimum if 25 years or more Restrictions: Supervisor (full license) Display "L" plates No towing Maximum speed 80 km/h .02 BAC Exit Requirements: Learner Driver Log Book confirming 50 hours practice 17 years of age Road test	Duration: Minimum of 12 months Restrictions: Display of "P" plates (provisional) .02 BAC Maximum speed 90 km/h Maximum 3 demerit points during license term (points carry over to next licensing stage) Exit Requirements: Hazard Perception Test - Computer	Duration: Minimum 24 months Restrictions: Display "P" plates .02 BAC Maximum speed 100 km/h Maximum 6 demerit points during license term Exit Requirements: Driver Qualification Test - Computer Combination of advanced hazard perception, road rules and knowledge.
Netherlands	No Enhanced Learner Stage Only	No minimum age for theory training Minimum age for theory test is 18 years Duration: No minimum - age based Restrictions: Practical Training only through a Driving School - no minimum hours Vehicle must display "L" sign Exit Requirements: 18 years of age Road Test	N/A	N/A

Business Case

Jurisdiction	Graduated Licensing Model Yes/No	Learner Stage	Novice/Intermediate Stage	Post-Novice Stage
Germany	Yes	<p>Minimum age for theory and practical training is 17 years Minimum age for theory test is 17 years and 9 months Minimum age for issue of license is 18 years</p> <p>Duration: No minimum - age based</p> <p>Restrictions: Training only through a Driving School</p> <p>Exit Requirements: 18 years of age Mandatory training (28 theory @ 45 minutes, 12 practical - including 4 hours on motorway and 3 hours at night)</p>	<p>Duration: 24 months</p> <p>Restrictions: On one serious or two minor traffic violations, may be subject to corrective measures (driver improvement course, warning, withdrawal of license etc.) If this occurs the period is extended 24 months.</p> <p>Exit Requirements: Sunset date</p>	N/A