

A white outline map of Nova Scotia is centered on the page. The background of the entire page is a blurred photograph of a group of people in a meeting or conference setting.

Nova Scotia

**Video Lottery
Program Changes**

Impact Analysis

July 2006



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Executive Summary



Executive Summary

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Initial results suggest that the changes to the VL program are collectively achieving their desired effect on Nova Scotia's video lottery player base. It is important to note that these results are based on initial data. More research is required to determine if these trends are indicators of long-term results.

The combined impact of the midnight shutdown, the terminal reduction, the stop feature removal, and the slowing of play appears to be quite positive. These initiatives were designed to reduce terminal accessibility and availability. To this end, there have been some initial declines in both terminal accessibility and overall VL play activity. A summary of the impacts is as follows:

Impact on Spending. Overall, almost 1 in every 3 VL players have reduced their spending as a direct result of the VL program changes. The removal of the stop feature and the slowing of speed of play has caused the biggest reduction in spend. Specifically, 14% of players have dropped their spending due to this change, followed by the terminal reductions (12%) and time change (5%). Among those decreasing their spend, the drops are often substantial and range from an average of \$67 to \$114 per week, depending on the change (based on players' self-reported estimates).

All CPGI categories are showing immediate signs of reducing their spending on video lottery. Those most likely to have reduced their VL activity are the current problem gamblers. Not only are they the most likely to have reduced their spending, but they have reduced their spending by the largest amounts. Although not the primary target of the changes, this decreased play activity among problem players is a very positive result. It is also positive to note the decreases among the low to moderate risk players, which may help prevent problem behaviors.

Impact on Time Played. The impacts on time played are similar to the spending impacts. Overall, 16% of players decreased their play time due to the stop feature removal/slowing of play and 11% of players decreased play time due to the terminal reduction. Among those declining their play time, the drops varied, but averaged around one to three hours a week, depending on the change. All CPGI categories were impacted to some degree, however, it was the higher risk profiles that were most likely to reduce their time played.

Impact on Play Patterns. In addition to declines in play activity, there have also been some shifts in play towards other locations and other time periods. These shifts are limited (2% to 8% of players impacted per change) and seem motivated by players' desires to maintain access to preferred terminal types and terminal numbers. A few players have moved some of their play to other locations, but this has been minor (approx. 1% of players per change).

Impact on Public Opinion. Support for the changes are positive. This is the case among both the general public and VL players. Those in support of the initiatives, see the changes as helping to reduce overspending and addiction.



Introduction



Introduction

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Background

In April 2005, the Government of Nova Scotia introduced "*A Better Balance: Nova Scotia's First Gaming Strategy*", a comprehensive strategy designed to set a new course for gaming in Nova Scotia over the next five years. As part of this strategy, four VLT-related initiatives have been implemented, in three separate stages:

- **Reduction of Hours.** The first initiative was a reduction in the hours of VLTs by shutting off all machines at midnight. This took place on July 1, 2005. Research had shown that a disproportionate number of problem gamblers played VLTs between midnight and closing and as such, a decision was made to remove availability during that timeframe.
- **Removal of Terminals.** The second initiative was the removal of 800 machines on November 1, 2005. An additional 200 machines are being removed through attrition. The removal of these VLTs from profit retail locations reduces the availability and accessibility of these machines. Once complete, the initiative will reduce the number of VLTs by approximately 30%, taking it from 3,234 to 2,234 (excluding First Nations).
- **Disabling of the Stop Button Feature & Reduction in Speed of Play.** From January 1, 2006 to March 31, 2006, the "Stop Button" feature was disabled and the speed of VLT games was reduced by 30%. The "Stop Button" feature was disabled in order to remove the illusion that players have control over the outcome of the VLT. In addition, a software change was made on each game in order to reduce game speed by 30%.

Corporate Research Associates (CRA) was contracted to evaluate the impact each of these Gaming Strategy initiatives had on players' spending, time played and play patterns. The four initiatives are combined in a single report to provide a more holistic and cumulative view of the overall market impacts.



Introduction

Methodology

Survey Type. To estimate the impact of each VL initiative, a large-scale telephone study was conducted throughout the Province.

Data Collection. To match the three implementation points, the research study had three distinct data collection phases. Surveys were conducted from CRA’s call centre facilities in Halifax, Nova Scotia.

Respondents. Surveys were randomly conducted with two distinct and relevant samples – the general adult population and the VL player base. Players were defined as anyone who had played VL in the last year. From one survey phase to the next, the sampling evolved to include less general population surveys and more VL player surveys. This facilitated more detailed analysis within the VL player base. To increase sample sizes, the VL players randomly found in the general population surveys were added to the targeted VL player surveys.

Number of Surveys. A total of 4,324 surveys were conducted (2,203 gen pop surveys + 2,121 VL player surveys). The breakdown by survey phase is as follows:

| Research Phase | # of Surveys | Margin of Error* |
|------------------------------------------------------------------------------------|---------------|--------------------------|
| Phase 1 – Midnight Shutdown | 1200 gen pop | 1200 gen pop = +/- 2.5% |
| | 545 VL player | 545 VL player = +/- 4.2% |
| Phase 2 – Terminal Reduction | 600 gen pop | 600 gen pop = +/- 4.0% |
| | 711 VL player | 711 VL player = +/- 3.7% |
| Phase 3 – Disabling of Stop Button Feature & Reduction in Speed of Play | 403 gen pop | 403 gen pop = +/- 4.9% |
| | 865 VL player | 865 VL player = +/- 3.3% |

* at the 95% confidence level

Reporting. The results of all three survey phases are presented in this integrated report. The report will specifically focus on the overall impact of the program changes on the annual VL player base. It also analyzes the impact by CPGI classification. The impact of the program changes will be broken into the following sections: 1) player spending, 2) play time, 3) play patterns, and 4) public opinion.

Canadian Problem Gambling Index (CPGI). The CPGI is a survey instrument developed by Jackie Ferris and Harold Wynne and is generally considered to be the most appropriate measure for categorizing risk behaviors associated with people who gamble. Based on numerous questions on gambling involvement, problem gambling behavior, and adverse consequences, the CPGI classifies survey respondents into one of four risk profiles: non-problem, low-risk, moderate-risk, or problem gamblers.



Impact on Spending



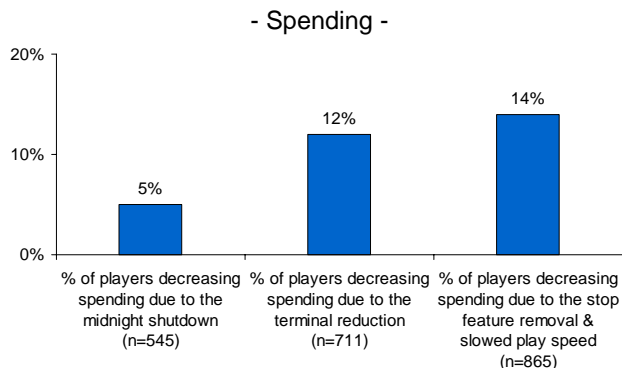
Impact on Spending

Each of the major program changes have caused an immediate reduction in spending among a portion of the VL player base.

Results suggest that all four major initiatives have had an immediate impact on the VL player base to some degree. Interestingly, the impact in terms of the numbers of players spending less has actually increased with each successive change.

Of the changes, the disabling of the stop button feature and reduced speed of play have had the biggest impact, causing players to decrease their overall VL spend to date. However, it's still early in the program changes. The immediate impact of this change saw 14% of the total VL player base drop their spending. This impact is followed by the terminal reduction (12%) and then the time change (5%).

Impact of the VL Program Changes
- Among the Annual VL Player Base -



Collectively, it can be calculated that almost 1 in every 3 VL players (31%) has decreased their video lottery spending as a direct result of the program changes.



Impact on Spending

All player types have been impacted by the Gaming Strategy initiatives to some degree. The biggest impact is seen among the higher risk profiles.

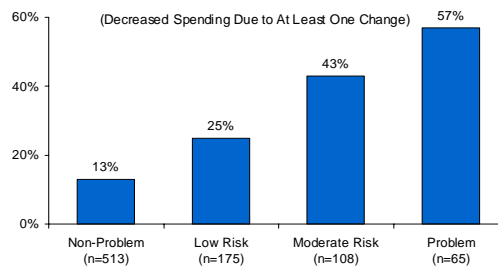
Looking at the spending decreases by CPGI, most categories have shown some decreases. However, it is the higher risk profiles who are the most likely to have decreased their spending as a result of the program changes to date. Although not the primary target of the changes, this decreased spending among problem players is a very positive result.

It should also be noted that 25% of low risk players and 43% of moderate risk players, have decreased their spending. This decreased activity may help prevent problem play behaviors from developing.

To date, those most impacted by the program changes are the current problem players. In fact, 57% have decreased their spending as a result of the changes made in the last year. Not only are they the most likely to have dropped their spending, they are most likely to have dropped by the largest amounts (see page 9). As such, the changes appear to be helping problem players curb their current spending and play.

Cumulative Impact of All VL Changes by CPGI

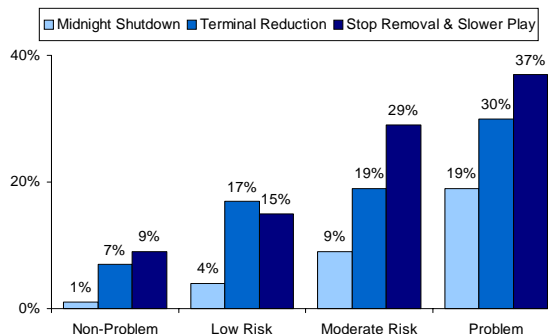
- Among the Annual VL Player Base -



As mentioned, the impact in terms of the numbers of players reducing their VL spending has increased with each successive change. Regardless, the same trends hold true for each change. As seen for each change in the graph below: 1) all player types are impacted to some degree and 2) the impact skews strongly towards the higher risk profiles.

Spending Decreases by CPGI

- Among the Annual VL Player Base -





Impact on Spending

Depending on the change, the estimated average reduction in spending ranges from \$67 to \$114 per week.

VL players who claim to spend less as a direct result of a change were then asked to estimate their reduction in spending. This drop ranges from an average of \$67 a week to \$114 per week, depending on the change.

All CPGI categories have registered declines to some degree, however, the biggest declines in spending have come from the current problem players. So, not only were problem gamblers most likely to have dropped their spending, they were also most likely to have the larger reductions in spending.

The drops among problem players suggest that the program changes may be having an effect on reducing current problem play. The reductions among the low and moderate risk players suggest that the terminal reductions may help prevent future problem play.

| Average Self-Reported Drop in Spending per Week - Among the Annual VL Player Base that has Decreased Spending - | | | | | |
|--------------------------------------------------------------------------------------------------------------------|-------------|----------|---------------|---------|---------|
| Program Change | Non-Problem | Low Risk | Moderate Risk | Problem | Overall |
| Midnight Shutdown | \$25 | \$70 | \$140 | \$75 | \$86 |
| Terminal Reduction | \$37 | \$46 | \$62 | \$146 | \$67 |
| Stop Feature Removal & Slower Play | \$21 | \$30 | \$71 | \$219 | \$114 |

NOTE: Please note that the decreases in spending are estimates only since they are based on players' self-reported estimates of their own behaviors. In addition, the reported averages are just that, "averages" of diverse change. That said, the results clearly illustrate the differences by program initiative and by CPGI category.



Impact on Time Played



Impact on Time Played

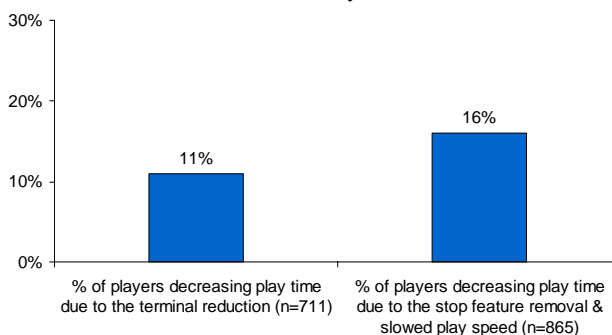
The program changes have also caused an initial reduction in time played among a portion of the VL player base. Again, it must be noted that these results are only the initial trends and more research is needed to see if these effects continue into the long term.

The removal of the "Stop Button" feature and the reduction in the speed of play have had the biggest impact on play time. Many of these players claim that the removal of the stop feature and the slower speed have reduced the enjoyment of their play experience. For example, 43% of problem players claim the "Stop Button" removal has made their VL play experience "worse". As a result, these impacted players appear to be playing less often and for shorter periods of time.

Impact of the VL Program Changes

- Among the Annual VL Player Base -

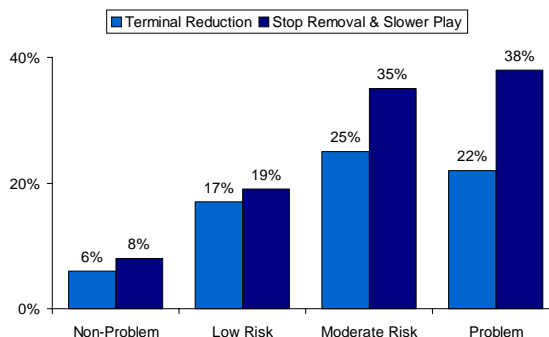
- Time Played -



All CPGI profiles have been impacted by the recent changes in some way. In terms of prevention, it is very positive to note that a significant number of the low risk and moderate risk players have reduced their play time. With fewer terminals and slowed play speed, this may help reduce the likelihood of these segments developing problem play behaviors. As with spending, the biggest reductions are among the higher risk profiles.

Play Decreases by CPGI

- Among the Annual VL Player Base -





Impact on Time Played

Depending on the change, the estimated average reduction in play time ranges from 70 minutes to 211 minutes per week.

VL players who claim to spend less time playing as a direct result of a change were then asked to estimate their reduction in time. This drop ranges from an average of 70 minutes a week to 211 minutes per week, depending on the change. However, it should be noted that each weekly decline varies greatly by player.

Moderate risk players have shown a significant drop in time played, which may assist in prevention of problem play.

The problem players are the group who have decreased their play time most dramatically. Although not the primary target, this decline in time played among the problem gamblers is a positive result.

| Average Self-Reported Drop in Play Time per Week (Minutes) | | | | | |
|-------------------------------------------------------------------------|--------------------|-----------------|----------------------|----------------|----------------|
| - Among the Annual VL Player Base that has Decreased Play Time - | | | | | |
| Program Change | Non-Problem | Low Risk | Moderate Risk | Problem | Overall |
| Terminal Reduction | 15 | 26 | 69 | 199 | 70 |
| Stop Feature Removal & Slower Play | 53 | 154 | 269 | 376 | 211 |

NOTE: Please note that the decreases in play time are estimates only since they are based on players' self-reported estimates of their own behaviors. In addition, the reported averages are just that, "averages" of diverse change. However, they clearly illustrate the differences by program initiative and by CPGI category.



Impact on Play Patterns

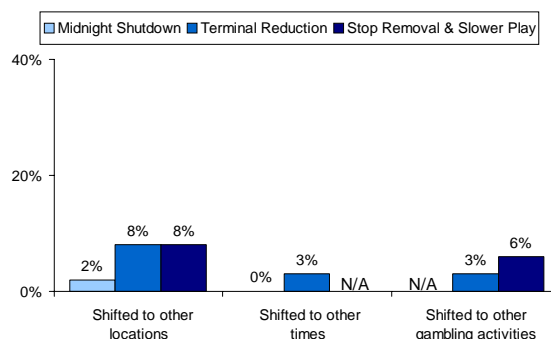


Impact on Play Patterns

In addition to causing declines in spending and play time, the changes have caused some “shifts” in play patterns, such as shifting locations, times, and games.

The VL initiatives appear to have caused both a “reduction of play” and a “shifting of play”. In any case, as the graph below illustrates, the magnitude of the shifts are minor.

Shifted Play as a Direct Result of the Changes
- Among the Annual VL Player Base -



Among the limited number of players shifting their play patterns, the changes were as follows:

A few VL players shifted their play locations in order to maintain terminal accessibility. Most of these shifts were to other bars. A very small percentage were shifts to First Nations locations and/or casinos.

It should be noted that the shifting of locations during the stop feature removal / slowing of play would have been temporary. During the three month change over, some players shifted to locations that had not yet been modified (i.e. the removal of “Stop Button” and reducing the speed of play). However, after March 31st, 2006, this was no longer possible since all terminals had been modified.

An even lesser shift was in the movement of player’s play sessions. In fact, time shifts were only experienced after the terminal reduction initiative, and even then only a few players (3%) were arriving earlier to play in order to maintain terminal accessibility.

A small number of VL players were shifting towards other gaming activities. This was most pronounced after the stop feature removal and slowing of play. Some of this transferred spending was spent on casino games, Atlantic Lottery tickets, or home Poker games. Others transferred spending on VL to non-gambling entertainment and/or general life expenses.



Impact on Public Opinion



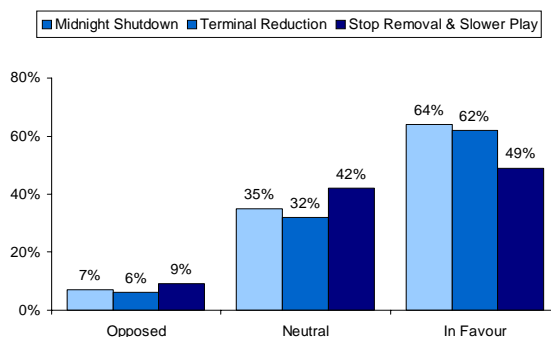
Impact on Public Opinion

Support for the VL initiatives is high.

Overall support for each of the VL program changes is very positive. The main reason for supporting the changes was driven by the belief that the initiatives will help curb addiction, overspending, and keep players responsible. This opinion is held by both VL players and the general public.

Comparing the reaction to each of the changes, the midnight shutdown and terminal reduction were notably more accepted by the general public. However, for much of the public, the stop feature and play speed are foreign concepts and are much harder to figure out than “reducing hours” or “removing terminals”.

Public Opinion of the VL Changes
- Among the General NS Adult Population -



While not as positive as the general public, VL players were “on-side” for all of the program changes. In fact, player opposition was low for all three program changes. It should be noted that the higher risk profiles were the most supportive of the changes, while lower risk profiles tended to be more neutral in comparison.

As mentioned, support was driven by a belief that the changes would help players gain more control over their play and spending. Those opposed, disliked the loss of accessibility or the loss of the stop feature, in particular.

VL Players' Opinions of the VL Changes
- Among the Annual VL Player Base -

