



The retail employment and tax costs of Class 4 gambling in New Zealand

NZIER report to the Problem Gambling Association

June 2020

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Key points

NZIER was commissioned by the Problem Gambling Foundation to investigate what the potential effects on the retail sector might be if consumers did not engage in Class 4 gambling (gambling on 'pokies' in pubs and clubs). Although there is currently no mechanism that can prevent or disincentivise consumers from engaging in Class 4 gambling, policy decisions concerning licensing and access or outright ban of Class 4 gambling would benefit from a better understanding of the implications for other sectors.

Class 4 gambling is a significant category of expenditure, particularly for poorer New Zealanders

In 2018/19 New Zealanders spent \$924 million on Class 4 gambling, representing approximately 40 percent of all gambling expenditure.

Recently published research (Ward et al., 2020) shows that Class 4 gambling expenditure is disproportionately derived from the most deprived areas of New Zealand and that people living in the most deprived areas spend on average up to three times what people in the least deprived areas spend on Class 4 gambling.

Evidence suggests that Class 4 gambling competes with other industries for household expenditure, but not so much with other forms of gambling

Previously published studies have offered little evidence of how gamblers' spending patterns change when gambling ceases. However, existing evidence indicates that:

- Most, if not all, money currently spent on Class 4 gambling is likely to be spent elsewhere rather than saved.
- Money that consumers would have spent on Class 4 gambling is unlikely to shift to other types of gambling, including illegal gambling and online gambling.

It is essential to reflect the spending patterns of households that gamble the most

A key assumption of the analysis is that gambling households' income deciles reflect the deprivation decile (NZDep) of the area they live in. This assumption was necessary due to a lack of evidence that would allow gambling households' expenditure patterns to be identified. Making this assumption allowed for a higher weighting to be attached to the spending patterns of poorer households, rather than using an average household expenditure pattern.

This provided an approach that would be more realistic given the high density of Class 4 gambling venues and machines in high deprivation areas, the higher prevalence of gambling amongst Māori and Pacific people (Thimasarn-Anwar et al., 2018), the high representation of Māori in the Ministry of Health's gambling services user data (Ministry of Health, 2019), and the significantly higher spend on Class 4 gambling by people living in high deprivation areas (Ward et al., 2020).

Results indicate the potential size of the drain on the retail sector from Class 4 gambling

Using data from the Household Expenditure Survey, we attributed Class 4 gambling expenditure to households by income decile and estimated the counterfactual expenditure by category of New Zealand households. Mapping this expenditure to industry sales, we then estimated the direct impacts on sales, employment and tax revenue in the retail sector associated with household reallocation of Class 4 gambling expenditure to other uses.

Our results suggest that:

- The cost to retail industry sales of Class 4 gambling is estimated to be \$445 million for 2018/19.
- The increased retail sales would generate an additional 1,127 full-time equivalent jobs for 1,724 workers, worth approximately \$50 million in wages and salaries.
- These additional jobs and workers would be concentrated in the food and beverage services, specialised food retailing, and supermarkets and grocery stores.
- The additional GST revenue expected is estimated to be \$58.01 million, with the biggest shares coming from sales in the motor vehicle and parts retail sector (consistent with transport being a major expenditure category for households) and supermarkets and grocery stores.
- Income tax collected from additional retail sector workers is expected to be between \$7 million and \$7.6 million. The greatest contributor to this amount is expected to be the food and beverage sales industry, followed by specialised food retailing, and supermarket and grocery store workers.

For a full cost-benefit analysis, these effects would have to be balanced against the losses associated with a shutdown of Class 4 gambling and other effects on individual and communities would also need to be included. These other effects were out of scope for this project.

Many previous cost-benefit assessments of Class 4 gambling have tended to assume that this activity creates additional employment or is neutral from an employment perspective. These assumptions have been based on a belief that gambling is financed out of household savings or that employment associated with Class 4 gambling activity represents a one-for-one shift from other businesses.

However, our analysis indicates that the retail sector generates approximately 4 jobs per million dollars in sales from diverted gambling expenditure. An Australian report (SACES, 2006) on the use of electronic gaming machines (EGMs) outside of casinos reported that this type of gambling generates approximately 3.2 jobs per million dollars in sales.

Our recommendation, therefore, is that any cost-benefit analysis that is used to inform policy on Class 4 gambling should include an in-depth investigation of the net employment effects of this activity. This could be done using a computable general equilibrium (CGE) model of the New Zealand economy, for example, to test different scenarios and their direct and indirect employment effects across the entire economy. Research based on CGE modelling could also reveal the extent to which employment impacts would be realised in the very communities and populations where Class 4 gambling is prevalent.



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1 Background

The Problem Gambling Foundation (PGF) commissioned NZIER to estimate some of the potential economic costs to the retail sector of a hypothetical scenario where consumer spending on electronic gaming machines (EGMs) in pubs and clubs ceased and households spent this money in other ways.

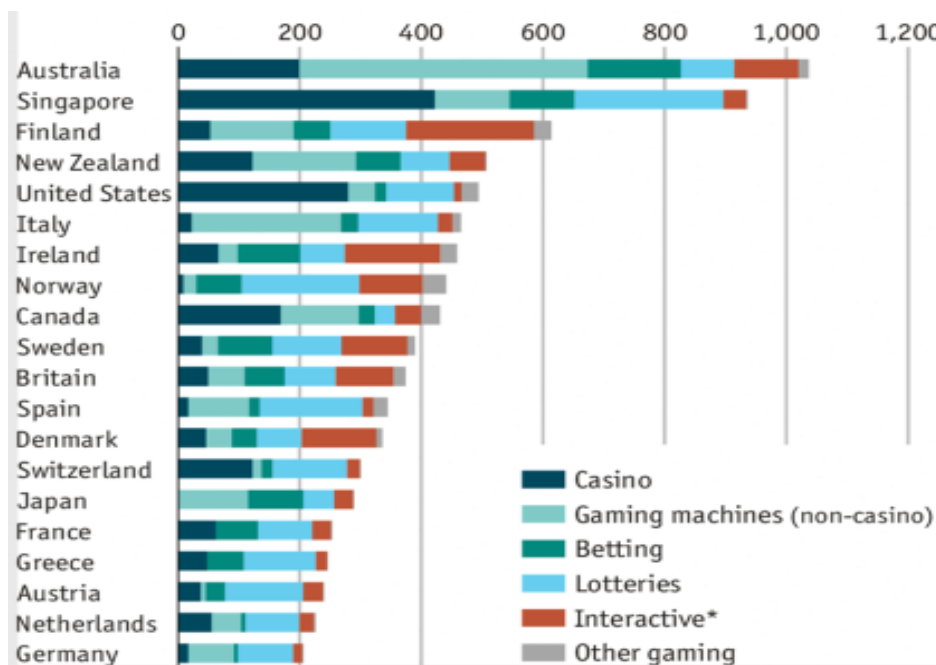
Specifically, the PGF was interested in the potential direct employment effects that this could have on the retail sector and the possible direct tax revenue (both GST and income tax) associated with possible increased retail activity.

Although there is currently no mechanism for directing household/consumer expenditure towards specific uses, an investigation into the economic implications of a counterfactual in which there is no gambling on EGMs in pubs and clubs can provide an indication of the cost to other sectors of this type of gambling. This, in turn, can contribute to a more robust understanding of the costs and benefits of gambling activity to inform future policy decisions.

According to The Economist (2014), New Zealand has one of the highest per capita expenditures on gambling in the developed world (see Figure 1 below).

Figure 1 Gambling losses per resident adult, 2013

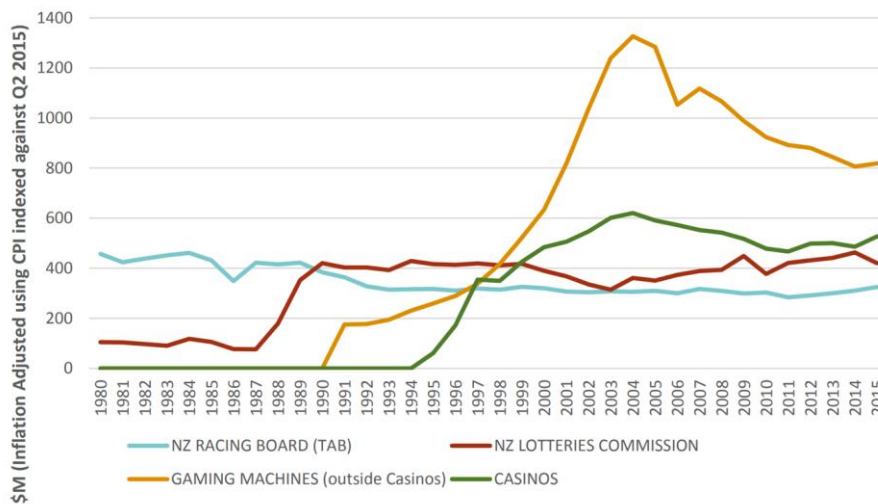
(USD, 2013)



Source: The Economist, 2014

EGMs (also known as 'pokies') were introduced to New Zealand in the late 1980s. As shown in Figure 2 below, there was rapid growth in expenditure on EGMs outside casinos through the 1990s and early 2000s. Casinos also saw significant growth during that period but reached its peak at less than half the peak level of expenditure on EGMs outside casinos.

Figure 2 Gambling expenditure in New Zealand, 1980-2015
(inflation adjusted)



Source: DIA, 2016

The use of EGMs in pubs and clubs is defined by the Gambling Act 2003 as 'Class 4' gambling and is classified as high-risk and high-turnover gambling activity. To avoid confusion with EGM use in casinos, which is classified differently and subject to different regulation, we refer to Class 4 gambling throughout this report. Other classes of gambling are out of scope.

1.1 We are only beginning to understand the true costs of Class 4 gambling

The costs and benefits of Class 4 gambling have been the subject of debate in both New Zealand and Australia (see for example Thorne et al.(2012) and Productivity Commission of Australia (2005)). On the cost side, problem gambling has is generally seen as the main driver due to the strong relationship between this form of gambling and the personal and social costs of gambling addiction. If there have been other costs, these have largely been ignored in the cost-benefit analyses used to inform policy and licensing (Walker et al., 2007). On the benefits side, research has focused on:

- The social value of this form of entertainment
- The portion of the proceeds of Class 4 gambling that provides grant funding to communities
- The direct employment created by Class 4 gambling (premises are required to have trained and licensed staff to oversee gambling activity)
- Claims of increased revenue and employment in establishments that house EGMs (because they also serve drinks and meals).

The employment benefits of Class 4 gambling have frequently been estimated based on an assumption that gambling is financed out of savings (making any employment a new benefit) or that employment related to gambling is a one-for-one transfer of jobs from one sector to another (making gambling neutral from an employment perspective) (SACES, 2006). As a result, relatively little attention has been paid to the economic impact of consumer expenditure being attracted to this activity versus other potential expenditure (SACES, 2006).

A study based on the relatively transparent EGM license process in Victoria, Australia found that cost-benefit analysis of EGM gambling was generally biased by a poor understanding of both individual and community harms and an overstatement of benefits (Francis et al., 2017).

The full extent of gambling and the effects of problem gambling have been better understood in recent years. Class 4 gambling has frequently been identified as being one of the most harmful forms of gambling (Ministry of Health, 2015).

A Ministry of Health study (2008) found that playing EGMs was associated with:

- poorer self-reported mental and physical health
- poorer relationships with family and friends
- poorer child rearing
- lower overall quality of life.

Crime has also emerged as a significant risk associated more heavily with the use of EGMs than other forms of gambling. Another study commissioned by the Ministry of Health (Sapere, 2018) found that Class 4 gamblers were significantly more likely to have engaged in illegal activities (such as stealing and fraud), with over a quarter of these admitting that their gambling had been the primary cause of their criminal behaviour. The study also identified that roughly half of people receiving gambling intervention services report Class 4 gambling as their primary gambling activity.

1.2 Towards a new understanding of the costs and benefits of Class 4 gambling

With the emergence of more and more evidence of the social costs of Class 4 gambling potentially having been underestimated, a fresh look at the supposed economic costs and benefits is also warranted.

This report provides a first step in that direction, exploring what the publicly accessible data might be able to say about the employment and tax revenue opportunity costs of Class 4 gambling. If the results of this type of exploratory analysis indicate that there may be more significant opportunity costs than previously believed, then a case can be made for a more thorough and in-depth economic study.

2 Methods and data

A focussed search of English language published studies was conducted to identify:

- Studies that quantified the impact of Class 4 gambling (or equivalent activity overseas) on other industries in New Zealand or in other jurisdictions
- Studies that described the spending patterns of gambling households prior to or after gambling cessation.

The literature scan revealed no previous study that quantified the impact of Class 4 gambling on other industries in New Zealand.

Several studies indicated potential costs to other sectors associated with Class 4 gambling, or similar gambling in Australia.

For example, Pinge (2000) found that the net effect of gambling was likely to be an overall loss in local output, income and jobs. The study provided compelling evidence that local businesses do not necessarily benefit from the introduction of, or increase in, EGMs, contrary to what has often been argued.

The draining effect that EGMs had had in other jurisdictions was also noted in the Gambling Impact Assessment for the Seven Auckland Territorial Authorities (Adams et al., 2004) and was found to be associated in particular with the high EGM density and socio-economically disadvantaged metropolitan areas in Victoria and Sydney (Doughney and Kelleher, 1999).

No study was identified that revealed gambling households' expenditure patterns or how these change when gambling ceases.

In the absence of direct evidence of the expenditure effects of a scenario in which Class 4 gambling is not available in New Zealand, we assume that households would use money that is currently spent on Class 4 gambling in the same way they use money not spent on Class 4 gambling.

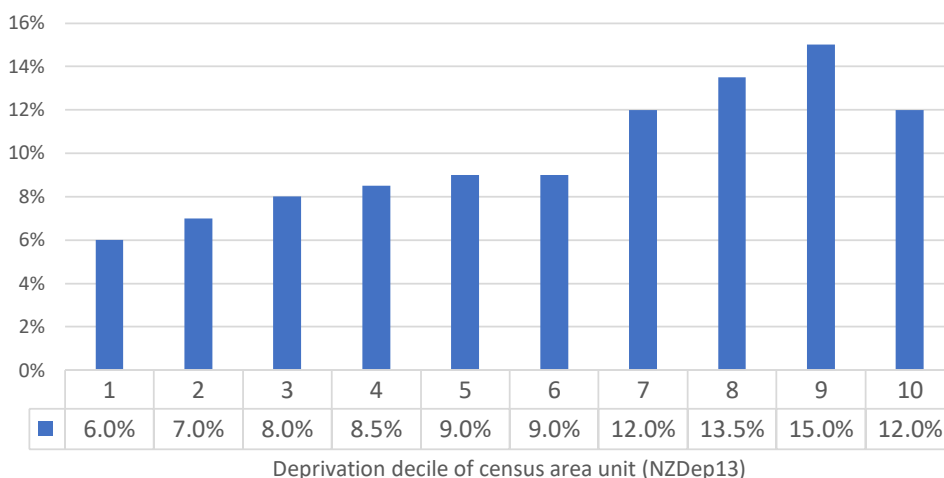
New Zealand data sources

The Household Expenditure Survey (HES) collects information on household gambling expenditure. If this data were accurate, it would be possible to directly link gambling expenditure to household income and to expenditure on other goods and services for households in the same income group. However, the total amount of gambling expenditure reported by the HES (referred to in the HES as 'games of chance') is less than half of the gambling expenditure reported by the Department of Internal Affairs (DIA), suggesting that households do not always know how much has been lost to gambling, or do not wish to share that information in a survey. Similar issues have been observed in Australian studies and have prevented researchers from using gambling expenditure data from the Australian HES (Productivity Commission of Australia, 2005).

For this reason, we use the Department of Internal Affairs (DIA) total gambling expenditure for Class 4 gambling and we attribute expenditure to households using published evidence (Ward et al., 2020).

The 2020 study (Ward et al., 2020) connected EGM concentration by Census area unit to adult population by Census area unit and estimated that EGM proceeds were not only highest overall but highest on a per capita basis in highly deprived areas. As a result, Class 4 gambling revenue from the most deprived areas was estimated to be more than double that coming from the least deprived areas (see Figure 3 below).

Figure 3 Percentage of total Class 4 gambling expenditure by deprivation decile



Source: NZIER, based on Ward et al, 2020

Our approach, directly linking counterfactual household spending by household income decile to Class 4 gambling expenditure by deprivation decile, effectively assumes that individuals who gamble in pubs and clubs in the most deprived areas also live in households with the lowest household incomes and that Class 4 gamblers from low deprivation areas live in households with high incomes. We consider the implications of this assumption later in the report. By using DIA gambling expenditure figures, we also assume that households under-report total spending in the HES. That is, we assume that gambling expenditure is under-reported, not mis-reported as another category of expenditure.

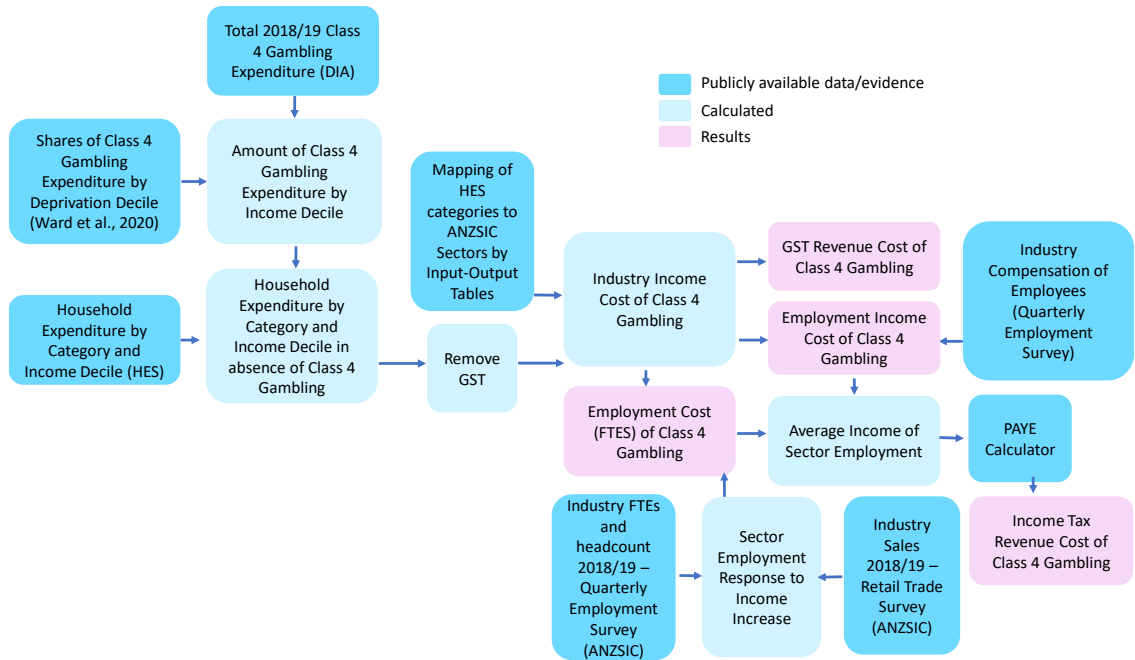
Using Stats NZ’s Input-Output tables, we map the HES categories to ANZSIC industries and subtract GST to obtain the increased sales revenue that the relevant industries would receive in the counterfactual.

To calculate employment effects, we first estimate a simple relationship between industry sales revenue and employment by calculating the ratios of sales revenue to full-time equivalents (FTEs) and sales revenue to employee headcount in 2018/19 (we used employment data from Stat NZ’s Quarterly Employment Survey (QES) and industry sales data from the Retail Trade Survey). We then use those ratios to estimate the potential employment effects of the additional sales revenue to the retail sector.

Industry compensation of employees from the QES was averaged across the four quarters in 2018/19 and multiplied by 52 (due to being a weekly figure) to estimate average annual earnings for retail sector employees. The PAYE calculator was then used to calculate income tax revenue (with Independent earner tax credit (IETC) and without it) associated with this employment.

This approach is illustrated in Figure 4.

Figure 4 Methods and data logic map



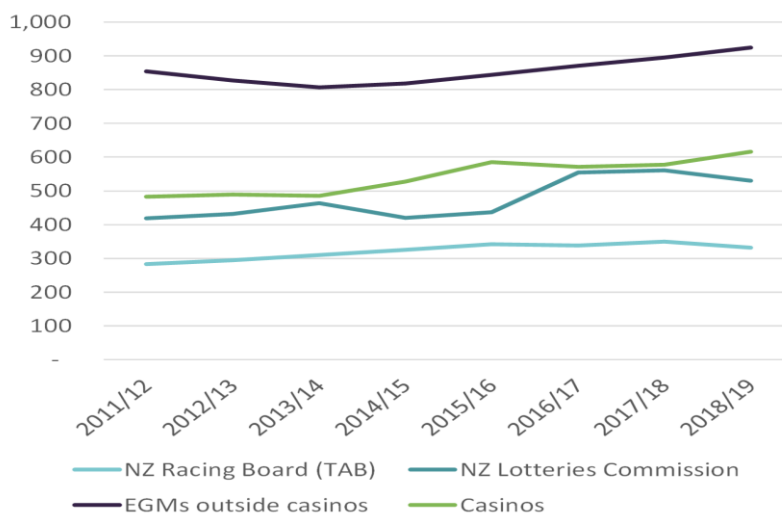
Source: NZIER

3 Class 4 gambling expenditure in New Zealand

DIA reports that in 2018/19, Class 4 gambling expenditure amounted to \$924 million. This amount reflects a year on year increase since 2013/14 and represents the largest gambling expenditure (more than \$300 million over the next highest) across the four types tracked by DIA.

Figure 5 Gambling expenditure by type of gambling activity 2011/12 to 2018/19

(\$ millions)



Source: NZIER, DIA data



4 Potential expenditure patterns

Although our base case analysis assumes that all Class 4 gambling expenditure would shift to expenditure on other goods and services, there are at least three other possible counterfactuals that should at least be considered:

- 1 Gamblers may choose to save some (or all) of the money they would have spent on gambling.
- 2 Gamblers may substitute to other forms of gambling, such as EGMs in casinos, other casino gambling, lotteries, private gambling, online gambling, etc.
- 3 Gamblers may continue to access 'pokies' but do so illegally.

Each of these was considered in light of the available evidence.

4.1 Substitution to increased household saving

A 2000 study (KPMG Consulting 2000) surveyed consumers' perceptions about "what they would spend their money on if they hadn't spent it on gambling". Forty-six percent reported that they would have spent the money on groceries, small household items, personal items, clothing and footwear. Twenty percent would have saved the money. This suggests that gambling may be partly but is not completely funded through savings.

The literature scan did not identify any study that could indicate potential saving behaviour resulting from cessation of Class 4 gambling by household income decile or by deprivation. We did not, therefore, include the possibility of some gambling expenditure being diverted to savings in our base case analysis. We do, however, consider the implications of a 20 percent reduction in the amount of diverted expenditure as a result of household saving later in the report.

4.2 Substitution to other forms of gambling or illegal gambling

The literature scan identified only one study that specifically looked at the gambling behaviour of users of EGMs when EGMs cease to be available: Lund (2009) conducted a panel study of EGM gamblers in Norway before and after a ban on EGMs in 2007. The study found that, compared with the months preceding the ban, in the months after the ban was enacted, EGM users exhibited:

- A lower prevalence of problem gambling (all types of gambling, not specifically EGM-related)
- A lower prevalence of lying, betting, chasing, and risk gambling behaviours
- Reduced gambling participation (all types of gambling)
- Reduced gambling frequency (all types of gambling)
- No substitution from EGM use to other types of gambling (including illegal or internet EGMs)
- A reduction in the prevalence of gambling problems.

These results were observed even among the most highly involved and high-risk users of EGMs, suggesting that even people who are heavily 'hooked' on EGM gambling are not

likely to substitute to other forms of gambling or to engage in illegal gambling. Indeed, gambling participation overall was found to be reduced.

In the absence of any other evidence to the contrary, therefore, we assume that a ban on Class 4 gambling (or elimination of Class 4 gambling by any other means) would result in no disproportionate additional expenditure on other forms of gambling.

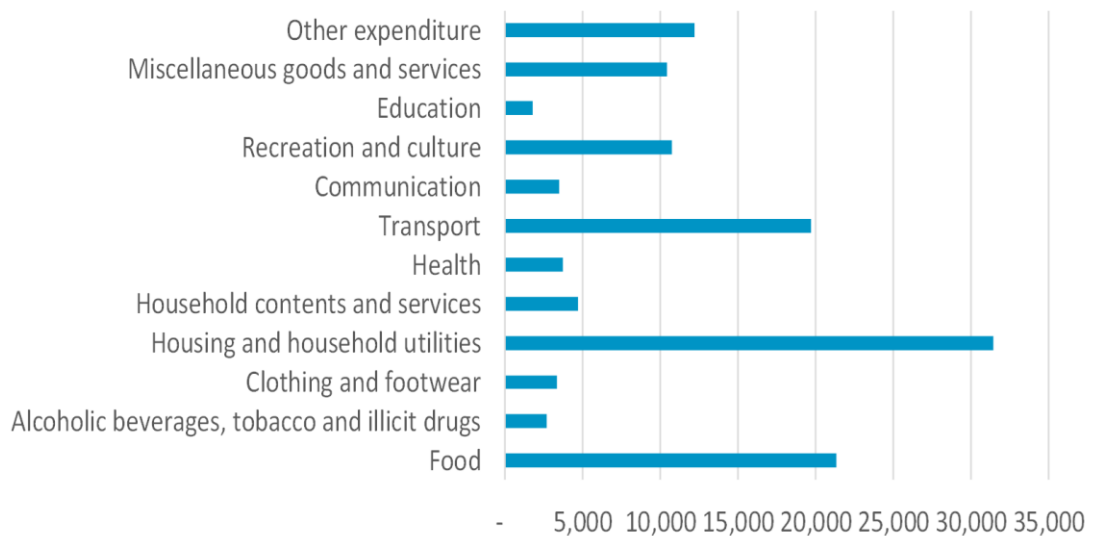
5 Household expenditure baseline

The New Zealand Household Economic Survey (HES) is conducted by Stats NZ every three years and provides information on household income, savings, and expenditure across broad categories. HES expenditure data can be used to understand how households spend on common items such as fruit and vegetables, footwear, and cars, as well as services such as electricity, telecommunications, and health.

The last HES was conducted in 2019, providing a relatively recent view of household expenditure. Total household expenditure in 2018/2019 was \$125,648 million. Here we present the general categories of household (see Figure 6). A detailed breakdown is presented in Appendix B.

Figure 6 Total household expenditure by HES category

\$ millions, 2018/19



Source: NZIER, HES data (Stats NZ)

Overall, New Zealand households spend the greatest amounts on housing and household utilities, followed by food and transport.

However, households spend differently depending on their income decile. A disproportionate amount of Class 4 gambling expenditure is derived from higher deprivation areas and this means that it is very likely that if diverted gambling expenditure is going to follow households' other expenditure patterns, it would lean heavily towards the pattern of expenditure of lower income households.



Household expenditure by household income decile is shown in Table 1.

Table 1 2018/2019 total household expenditure

\$ millions

HES Categories	Household income decile									
	1	2	3	4	5	6	7	8	9	10
Food	1,215	1,229	1,365	1,673	1,926	2,135	2,332	2,467	3,189	3,819
Alcoholic beverages, tobacco and illicit drugs	159	112	163	200	236	309	294	303	397	506
Clothing and footwear	128	124	142	277	293	349	295	417	516	813
Housing and household utilities	2,114	1,808	2,055	2,665	3,120	3,202	3,170	3,944	4,234	5,151
Household contents and services	339	193	383	368	396	397	446	535	696	935
Health	155	216	363	253	302	273	335	438	643	760
Transport	1,068	918	1,088	1,632	1,669	1,898	2,147	2,516	2,852	3,932
Communication	207	246	247	263	313	365	430	364	403	646
Recreation and culture	528	293	466	924	877	943	1,229	1,255	1,859	2,373
Education	93	36	135	127	154	139	178	256	203	454
Miscellaneous goods and services	566	520	630	726	908	981	1,093	1,273	1,659	2,084
Other expenditure	496	257	267	418	904	1,358	1,460	2,019	2,239	2,795
Total	7,068	5,951	7,301	9,526	11,098	12,349	13,410	15,786	18,889	24,268

Source: NZIER, HES Data (Stats NZ)

Unsurprisingly, richer households spend more in every category than poorer households. In total, households in the highest household income decile spend over three times what households in the poorest household income decile spend. But shares of expenditure reveal more interesting variation.

Households in the lowest income decile spend 30 percent of their total expenditure on housing and household utilities while households in the highest income decile spend only 21 percent of their total expenditure on housing and household utilities (see Table 2). Poorer households also spend a higher share of their total expenditure on food, whereas other categories are more equal or show slightly higher expenditure shares for richer households.

Table 2 2018/2019 shares of total household expenditure by category and household income decile

Category % of respective income decile total expenditure

HES Categories	Household income decile									
	1	2	3	4	5	6	7	8	9	10
Food	17%	21%	19%	18%	17%	17%	17%	16%	17%	16%
Alcoholic beverages, tobacco and illicit drugs	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Clothing and footwear	2%	2%	2%	3%	3%	3%	2%	3%	3%	3%
Housing and household utilities	30%	30%	28%	28%	28%	26%	24%	25%	22%	21%
Household contents and services	5%	3%	5%	4%	4%	3%	3%	3%	4%	4%
Health	2%	4%	5%	3%	3%	2%	3%	3%	3%	3%
Transport	15%	15%	15%	17%	15%	15%	16%	16%	15%	16%
Communication	3%	4%	3%	3%	3%	3%	3%	2%	2%	3%
Recreation and culture	7%	5%	6%	10%	8%	8%	9%	8%	10%	10%
Education	1%	1%	2%	1%	1%	1%	1%	2%	1%	2%
Miscellaneous goods and services	8%	9%	9%	8%	8%	8%	8%	8%	9%	9%
Other expenditure	7%	4%	4%	4%	8%	11%	11%	13%	12%	12%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: NZIER, HES Data (Stats NZ)

6 Estimated alternative expenditure by households from reallocation of gambling expenditure

In 2018/19, New Zealanders expenditure on Class 4 gambling was \$924 million, or approximately 38.5 percent of all gambling expenditure. This is net of any winnings and represents the amount of money that leaves New Zealand households and is therefore not available to be spent on other goods and services (or saved).

Gambling losses in 2018/19 were equivalent to less than one percent of the \$125,648 million in household expenditure captured by the 2018/2019 HES.

Based on the proportion of Class 4 gambling expenditure estimated by Census area unit deprivation level and the assumption that these are directly mappable to household income



decile, the distribution of diverted Class 4 gambling expenditure is estimated in Table 3. According to these calculations, the three poorest income deciles would have an additional \$374 million to spend whereas the three richest income deciles would have an additional \$194 million to spend. These amounts represent 1.6 to 2.3 percent of total household expenditure for poorer households (as a group) but only 0.2 to 0.5 percent of total household expenditure for richer households (as a group).

Table 3 Estimated total diverted expenditure and share of actual expenditure

By household income decile, \$ millions, % of respective household income decile total 2018/19 household expenditure

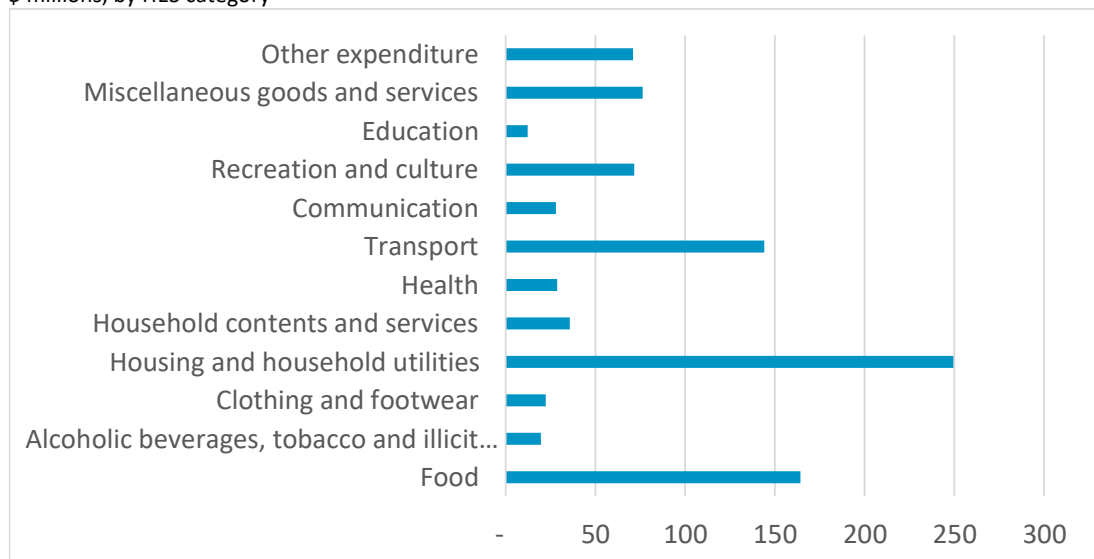
	Household income decile									
	1	2	3	4	5	6	7	8	9	10
Diverted expenditure	111	139	125	111	83	83	79	74	65	55
% 2018/19 expenditure	1.6%	2.3%	1.7%	1.2%	0.7%	0.7%	0.6%	0.5%	0.3%	0.2%

Source: NZIER

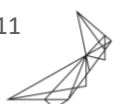
If this expenditure was allocated to specific categories of expenditure according to the proportions currently observed (assuming households in high deprivation areas spend in patterns similar to low income households and vice versa), it would be spent as shown in Figure 7 below. \$250 million would go towards housing and household utilities, approximately \$160 million would be spent on food, and just under \$145 million would be spent on transport. Other categories of expenditure would receive between \$12 million and \$76 million.

Figure 7 Expected distribution of 2018/19diverted Class 4 gambling expenditure

\$ millions, by HES category



Source: NZIER



7 Impact of reallocated gambling expenditure on retail industry sales

To identify the effects on industry and on the retail sector in particular, the expenditure patterns of households must be mapped to industry sales and the increase considered in proportion to existing industry activity.

7.1 Baseline retail industry sales

In 2018/2019, New Zealand retail industries saw sales totalling over \$96 billion (see Table 4). The most significant categories (accounting for 57 percent of the total) were:

- supermarket and grocery stores
- motor vehicle and parts retailing
- food and beverage services
- fuel retailing.

The importance of these categories in retail sales is unsurprisingly consistent with the importance of the food and transport categories in the HES. This is because the reallocated expenditure is based on the current distribution of household expenditure.

Table 4 Retail industry sales

2018/19 \$ millions, GST exclusive

ANZSIC industry	2018/19 sales
Supermarket and grocery stores	20,570
Specialised food retailing (excluding liquor)	1,692
Liquor retailing	1,743
Non-store and commission-based retailing	1,819
Department stores	5,342
Furniture, floor coverings, houseware and textile goods retailing	2,552
Hardware, building and garden supplies	8,544
Recreational goods retailing	2,415
Clothing, footwear and personal accessory retailing	3,863
Electrical and electronic goods retailing	3,590
Pharmaceutical and other store-based retailing	5,759
Motor vehicle and parts retailing	13,182
Fuel retailing	8,922
Accommodation	4,260
Food and beverage services	11,764
Total	96,018

Source: NZIER, Stats NZ (ANZSIC Industry sales)



7.2 Additional industry sales from diverted Class 4 gambling expenditure

HES categories were mapped to ANZSIC industries using Stats NZ's Input-Output tables and the Goods and Services Tax (GST) was removed to make expenditure amounts consistent with the GST exclusive industry sales data.

The retail industry sales from diverted Class 4 gambling expenditure is estimated to be \$445 million for 2018/19, by retail industry as shown in Table 5.

Table 5 Additional retail industry sales from diverted gambling expenditure

2018/19, \$ millions, GST exclusive

ANZSIC industry	Additional sales from diverted expenditure	% increase on 2018/19 sales
Supermarket and grocery stores	62.52	0.30%
Specialised food retailing (excluding liquor)	40.96	2.42%
Liquor retailing	5.61	0.32%
Non-store and commission-based retailing*	0.00	0.00%
Department stores*	0.00	0.00%
Furniture, floor coverings, houseware and textile goods retailing	13.86	0.54%
Hardware, building and garden supplies	7.11	0.08%
Recreational goods retailing	7.79	0.32%
Clothing, footwear and personal accessory retailing	28.20	0.73%
Electrical and electronic goods retailing	22.23	0.62%
Pharmaceutical and other store-based retailing	34.46	0.60%
Motor vehicle and parts retailing	67.85	0.51%
Fuel retailing	33.28	0.37%
Accommodation	18.00	0.42%
Food and beverage services	44.83	0.38%
Total	386.72	3.29%

*These categories could not be mapped exclusively to HES categories. The household expenditure associated with these is not lost: Instead it will be captured by other categories which share the same HES category, e.g. Department store sales may have been captured as Clothing, footwear and personal accessory retailing.

Source: NZIER



8 Retail industry employment effects

To identify the implications of additional expenditure in the retail sector as a result of expenditure diverted from Class 4 gambling, we consider the relationship between sales and employment and calculate additional employment.

8.1 Baseline retail industry employment

In 2018/19, total retail sector sales were over \$98 million and nearly 400,000 people were employed, with an FTE equivalence of nearly 250,000 jobs. This suggests that the retail sector offers employment to 4.1 people per million dollars of sales, for 2.6 FTE jobs.

But some parts of the retail sector have a higher ratio of FTEs and employees to sales. These include particularly food and beverage services, accommodation, clothing, footwear and personal accessory retailing, and specialised food retailing.

Table 6 Retail industry sales and employment (FTE and headcount)

2018/19, \$ millions, GST exclusive sales

ANZSIC industries	\$m Sales	FTEs	Headcount	FTE/\$m	Heads/\$m
Supermarket and grocery stores	20,570	42,716	59,600	2.1	2.9
Specialised food retailing (excluding liquor)	1,692	5,734	8,000	3.4	4.7
Liquor retailing	1,743	2,724	3,800	1.6	2.2
Non-store and commission-based retailing	1,819	2,366	3,300	1.3	1.8
Department stores	5,342	13,403	18,700	2.5	3.5
Furniture, floor coverings, houseware and textile goods retailing	2,552	6,523	9,100	2.6	3.6
Hardware, building and garden supplies	8,544	15,983	22,300	1.9	2.6
Recreational goods retailing	2,415	6,953	9,700	2.9	4.0
Clothing, footwear and personal accessory retailing	3,863	15,696	21,900	4.1	5.7
Electrical and electronic goods retailing	3,590	5,949	8,300	1.7	2.3
Pharmaceutical and other store-based retailing	5,759	18,491	25,800	3.2	4.5
Motor vehicle and parts retailing	13,182	13,833	19,300	1.0	1.5
Fuel retailing	8,922	6,236	8,700	0.7	1.0
Accommodation	4,260	19,600	36,300	4.6	8.5
Food and beverage services	11,764	73,701	136,500	6.3	11.6
Total retail sector	96,018	249,908	391,300	2.6	4.1

Source: NZIER, Stats NZ (ANZSIC Industry sales and employment)



8.2 Additional retail employment from diverted Class 4 gambling expenditure

The above employment ratios were then applied to the estimated increase in retail industry sales by industry as a result of diverted Class 4 gambling expenditure. This generated the estimates shown in Table 7 for the increase in employment by retail industry.

Table 7 Retail industry additional sales and employment from diverted expenditure

2018/19, \$ millions, GST exclusive

ANZSIC industries	Additional Sales	Additional FTEs	Additional headcount
Supermarket and grocery stores	62.52	134	186
Specialised food retailing (excluding liquor)	40.96	142	199
Liquor retailing	5.61	11	17
Non-store and commission-based retailing	0.00	0	0
Department stores	0.00	0	0
Furniture, floor coverings, houseware and textile goods retailing	13.86	42	55
Hardware, building and garden supplies	7.11	19	24
Recreational goods retailing	7.79	27	36
Clothing, footwear and personal accessory retailing	28.20	119	165
Electrical and electronic goods retailing	22.23	42	57
Pharmaceutical and other store-based retailing	34.46	116	160
Motor vehicle and parts retailing	67.85	75	105
Fuel retailing	33.28	27	37
Accommodation	18.00	89	158
Food and beverage services	44.83	284	525
Total retail sector	386.72	1127	1724

Source: NZIER, Stats NZ (ANZSIC Industry sales and employment)

Based on these calculations, diverting household expenditure from Class 4 gambling might be expected to generate an additional 1,127 FTE jobs in the retail sector and employ 1,724 people (not considering loss of employment associated with Class 4 gambling).

These additional jobs and workers would be concentrated in the food and beverage industry, specialised food retailing, and supermarkets and grocery stores.



9 Tax implications

Because any change in expenditure patterns and increase in employment is associated with tax revenue, we estimate the GST revenue and income tax from the additional sales and employment in the retail sector (again for a net effect, this would have to be balanced against Class 4 gambling-related losses).

9.1 GST revenue

Taking into account the new sales generated for the retail sector, the GST revenue expected is estimated to be \$58.01 million, with the biggest shares coming from sales in the motor vehicle and parts retail sector and supermarkets and grocery stores (again for a net effect, this would have to be balanced against Class 4 gambling-related losses).

Table 8 GST associated with additional retail sales

\$ millions

ANZSIC Industry	Additional GST
Supermarket and grocery stores	9.38
Specialised food retailing (excluding liquor)	6.14
Liquor retailing	0.84
Non-store and commission-based retailing	0.00
Department stores	0.00
Furniture, floor coverings, houseware and textile goods retailing	2.08
Hardware, building and garden supplies	1.07
Recreational goods retailing	1.17
Clothing, footwear and personal accessory retailing	4.23
Electrical and electronic goods retailing	3.33
Pharmaceutical and other store based retailing	5.17
Motor vehicle and parts retailing	10.18
Fuel retailing	4.99
Accommodation	2.70
Food and beverage services	6.73
Total	58.01

Source: NZIER

9.2 Income tax

As a result of employment created in the retail sector worth approximately \$50 million in total, income tax collected is expected to be between \$7 million and \$7.6 million. The greatest contributor to this amount is expected to be the food and beverage sales industry, followed by specialised food retailing, and supermarket and grocery store workers.



Table 9 Income tax associated with additional retail sales

\$ millions

ANZSIC industry	FTE income (\$m)	Income tax with IETC	Income tax without IETC
Supermarket and grocery stores	5.90	0.83	0.90
Specialised food retailing (excluding liquor)	6.25	0.88	0.95
Liquor retailing	0.48	0.07	0.07
Non-store and commission based retailing	0.00	0.00	0.00
Department stores	0.00	0.00	0.00
Furniture, floor coverings, houseware and textile goods retailing	1.85	0.26	0.28
Hardware, building and garden supplies	0.84	0.12	0.13
Recreational goods retailing	1.19	0.17	0.18
Clothing, footwear and personal accessory retailing	5.24	0.74	0.80
Electrical and electronic goods retailing	1.85	0.26	0.28
Pharmaceutical and other store based retailing	5.11	0.72	0.78
Motor vehicle and parts retailing	3.30	0.47	0.50
Fuel retailing	1.19	0.17	0.18
Accommodation	3.92	0.55	0.60
Food and beverage services	12.50	1.76	1.91
Total	49.60	6.99	7.58

Source: NZIER

10 Potential impact of household saving

As discussed earlier, there is a significant evidence gap related to the economic behaviour and expenditure patterns of gambling households and former gambling households. The only indication of the potential for some of the Class 4 gambling expenditure to be used to increase household saving indicates only that 20 percent of gamblers think they would save the money. In the absence of any detailed evidence that would indicate which households save, or what percentage of gambling expenditure would be saved, we consider a 20 percent blanket rate of saved expenditure.

A simple variation on the analysis, of course, results in a simple conclusion. Applied as a uniform 20 percent to all households, simply means that all results – expenditure, sales, employment and tax revenue – are reduced by 20 percent.

Employment in the retail sector is therefore, reduced to 902 FTE jobs for 1,379 people. These people are expected to pay approximately \$40 million in income tax.

Twenty percent lower sales, results in GST revenue reduced from \$58 million to \$46.4 million.



11 Caveats and limitations

To our knowledge no previous study has attempted to identify how Class 4 gamblers in New Zealand would spend money that is currently being lost on EGMs in pubs and clubs nor the employment and tax implications of the increase in retail expenditure that might be expected.

Although the analysis in this report is based on a simple static model, the results indicate that the employment costs of Class 4 gambling are not insignificant and should not be excluded from cost-benefit analysis of this activity or any future policy related to it. A more sophisticated approach will be needed to produce the accuracy of results necessary to inform a cost-benefit analysis, but even this would be hindered by the lack of evidence for which primary research is needed.

Uncertainty around results of our analysis is primarily related to:

- Directly linking household income deciles to Census area unit deprivation deciles (not allowing for low income households in low deprivation areas, or high income households in high deprivation areas). Because different types of households have different spending patterns, the degree to which this mapping is appropriate for gambling households will affect the results. If we have underestimated the share of Class 4 gamblers who come from low income households, for example, we may have underestimated the retail employment effects as these households spend a greater share of expenditure on food and housing, both of which map to relatively high employment per \$million industries.
- Assuming the spending patterns of former Class 4 gamblers are the same as the spending patterns of consumers from households with similar income levels. To our knowledge, this has never been researched. Primary research into this question would provide much needed evidence as to which sectors are affected by Class 4 gambling and the nature of financial effects on individuals who gamble and their families.
- Assuming all shifted expenditure to flow to other sectors in the same way that existing expenditure does. Further research should take a more dynamic approach to identify possible decreasing or increasing propensity to spend. However, given that the amount of shifted expenditure is relatively small, it is unlikely that this would have had a major impact.
- Calculating income tax from an average earnings figure. This was a necessary step to approximate the income tax revenue from increased retail industry employment. A detailed study of the types of employment in the retail sector and the response of shares of each type of employment to increased sales would be required to refine this approximation.
- Capturing direct employment effects in the retail sector only. More extensive industry modelling would be able to estimate the additional indirect employment effects that flow on from retail sector expansion and from other types of spending.



12 Discussion

This report presents a hypothetical, 'size of the prize' exercise, in that it sets out what could happen in the retail sector if Class 4 gambling were not an option for household expenditure.

This exercise, to demonstrate one aspect of the social opportunity cost of gambling, is especially relevant in the COVID post rahui environment where some marginal business might well have been saved were there to be a redistribution of household expenditure resulting in less gambling.

A standard economic theory-based approach would consider other forms of gambling as potential substitutes for Class 4 gambling expenditure and New Zealand-based research into this hypothesis is needed. However, overseas experience suggests that this substitution may indeed be nothing more than theory: Our analysis was based on the Norwegian experience of banning EGMs and the findings of a major panel study of EGM gamblers (Lund, 2009). That study found no evidence of substitution to other forms of gambling, including illegal or internet gambling.

This analysis is not a cost-benefit study, nor does it attempt to capture the complete costs associated with Class 4 gambling. We attempted to estimate only the direct employment effects for the retail sector, the associated income tax and the additional GST that might be expected if Class 4 gambling ceased to be an option in New Zealand. Although this report does not answer the question of whether Class 4 gambling is good for New Zealand from a cost-benefit point of view, it provides an indication of what some of the often ignored costs of this activity might be. Comparison with other studies suggests that our results may be conservative.

In submissions to the Productivity Commission of Australia (2005) inquiry into gambling, several economists presented models that estimated the impacts of an expansion or contraction in gambling on other sectors of the economy. The findings of these models suggested that other sectors lose as a result of gambling activity.

For example, one model (Centre for International Economics) showed that a 10 percent increase in gambling would cause the retail sector to contract by 1.6 percent. Industries that lost the most were found to be sport and recreation, wine and spirits, and beer and malt.

Another model (Econtech) found that a much bigger expansion of gambling (26 percent) would have a smaller negative effect on the retail sector (a 0.5 percent contraction).

Our analysis of the direct employment effects suggests that a roughly 40 percent reduction in gambling expenditure (100 percent of Class 4 gambling) is expected to result in an expansion of the retail sector of 0.4 percent (0.32 percent if 20 percent of gambling expenditure is saved instead of spent). More extensive modelling might reveal indirect employment effects that would be additional to this.

A SACES (2006) study that found that gambling expenditure generates 3.2 jobs per million dollars in sales whereas beverage sales and food and meals sales generate 8.3 and 20.2 jobs per million dollars in sales. Our analysis found that food and beverage sales are associated with 11 jobs per million dollars in sales. But we also found that much of the employment gained from diverting Class 4 gambling expenditure would be in industries with a lower ratio

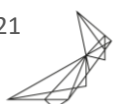


of jobs to sales. On average, the retail sector is estimated to generate 4.1 jobs per million in sales, and our analysis suggests the specific distribution of sales as a result of cessation of Class 4 gambling would generate 4.5 jobs per million dollars that actually finds its way into the retail sector. This is still greater than the 3.2 jobs per million estimated for gambling activity.



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Appendix A Mapping tables

Table 10 HES categories mapped to ANZSIC06 industries

Direct expenditure mapping

HES categories	ANZSIC06 industries
Food	• Specialised Food Retailing (excluding liquor)



HES categories	ANZSIC06 industries
	<ul style="list-style-type: none"> • Supermarket and Grocery Stores • Food and Beverage Services
Alcoholic beverages, tobacco and illicit drugs	<ul style="list-style-type: none"> • Liquor Retailing • Food and Beverage Services • Pharmaceutical and Other Store Based Retailing
Clothing and footwear	<ul style="list-style-type: none"> • Clothing, Footwear and Personal Accessory Retailing
Housing and household utilities	<ul style="list-style-type: none"> • Property Operators and Real Estate Services • Auxiliary Finance and Insurance Services • Private Households Employing Staff • Water Supply and Drainage Services • Waste Collection, Treatment and Disposal Services • Electricity Distribution • Gas Supply • Fuel Retailing • Residential Property Operators
Household contents and services	<ul style="list-style-type: none"> • Furniture, Floor Coverings, Houseware and Textile Goods Retailing • Electrical and Electronic Goods Retailing • Hardware, Building and Garden Supplies • Pharmaceutical and Other Store Based Retailing
Health	<ul style="list-style-type: none"> • Pharmaceutical and Other Store Based Retailing • Medical and Other Health Care Services • Residential Care Services
Transport	<ul style="list-style-type: none"> • Motor Vehicle and Parts Retailing • Fuel Retailing • Transport, Postal and Warehousing
Communication	<ul style="list-style-type: none"> • Postal and Courier Pick-up and Delivery Services • Electrical and Electronic Goods Retailing • Telecommunication Services
Recreation and culture	<ul style="list-style-type: none"> • Electrical and Electronic Goods Retailing • Recreational Goods Retailing • Pharmaceutical and Other Store Based Retailing • Hardware, Building and Garden Supplies Retailing • Heritage Activities • Artistic Activities • Sport and Recreation Activities • Veterinary Services • Accommodation • Air and Space Transport
Education	<ul style="list-style-type: none"> • Preschool Education • School Education



HES categories	ANZSIC06 industries
	<ul style="list-style-type: none"> • Tertiary Education • Educational Support Services
Miscellaneous goods and services	<ul style="list-style-type: none"> • Personal Care Services • Electrical and Electronic Goods Retailing • Pharmaceutical and Other Store Based Retailing • Clothing, Footwear and Personal Accessory Retailing • Life Insurance • Health and General Insurance • Depository Financial Intermediation • Non-Depository Financing • Employment Placement and Recruitment Services • Legal and Accounting Services • Real Estate Services

Source: NZIER, Stas NZ

Table 11 HES categories not mapped

HES categories	Specific expenditure items not mapped
Housing and household utilities	Property and property related expenditure items such as: <ul style="list-style-type: none"> • Local and regional authority property rates • Payments to river boards • Payments to harbour boards • Payments to pest destruction boards
Other expenditure	<ul style="list-style-type: none"> • Interest payments • Contribution to savings • Money given to others (excluding donations) • Fines • Expenditure incurred whilst overseas

Source: NZIER, Stats NZ



Appendix B Detailed breakdown

Table 12 Household expenditure by detailed expenditure category

\$ millions, GST inclusive, 2018/19

Expenditure category	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	All households
Total	7,068.44	5,951.26	7,301.35	9,526.12	11,097.55	12,348.79	13,409.97	15,786.36	18,889.42	24,268.28	125,647.52
Food	1,214.68	1,229.30	1,364.57	1,672.58	1,925.75	2,135.05	2,332.47	2,466.83	3,188.87	3,818.60	21,348.71
Fruit and vegetables	144.41	140.75	164.52	206.56	207.47	205.65	221.18	234.89	285.16	340.00	2,150.59
Meat, poultry and fish	176.40	137.10	209.30	260.48	234.89	249.52	286.08	285.16	354.62	371.99	2,565.54
Grocery food	549.30	492.63	597.74	742.15	871.02	994.41	1,030.97	1,115.05	1,413.92	1,593.06	9,400.27
Non-alcoholic beverages	51.18	50.27	80.43	101.45	98.71	113.33	123.39	116.08	146.24	169.09	1,050.16
Restaurant meals and ready-to-eat food	293.39	408.55	312.58	361.94	513.66	572.15	670.86	715.65	988.92	1,344.46	6,182.15
Alcoholic beverages, tobacco and illicit drugs	159.03	112.42	162.69	200.16	235.81	308.92	294.30	303.44	396.67	506.34	2,679.79
Alcoholic beverages	91.40	63.06	114.25	118.82	145.32	201.08	220.27	201.99	306.18	414.95	1,877.31
Cigarettes and tobacco	67.63	49.35	48.44	81.34	90.48	107.85	74.03	101.45	90.48	91.40	802.47

DRAFT

Expenditure category	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	All households
Illicit drugs	-	-	-	-	-	-	-	-	-	-	-
Clothing and footwear	127.96	124.30	141.67	276.94	293.39	349.14	295.22	416.77	516.40	812.53	3,354.30
Clothing	113.33	93.23	116.08	221.18	213.87	260.48	252.26	360.11	399.41	617.85	2,647.80
Footwear	14.62	31.08	25.59	55.75	79.52	88.66	42.96	56.67	116.99	194.68	706.51
Housing and household utilities	2,114.03	1,807.85	2,054.62	2,665.16	3,120.32	3,201.67	3,169.68	3,943.82	4,233.55	5,151.18	31,461.88
Actual rentals for housing	901.18	816.18	892.96	1,437.69	1,450.48	1,333.49	1,238.44	1,036.45	1,162.58	1,005.38	11,274.84
Home ownership	461.56	192.85	273.28	421.34	600.48	907.58	968.82	1,727.42	1,662.53	2,308.71	9,524.57
Property maintenance	115.16	129.78	166.34	146.24	344.57	176.40	173.66	307.10	420.43	633.39	2,613.06
Property rates and related services	264.14	280.59	320.81	246.77	309.84	349.14	357.37	410.38	488.98	605.97	3,633.98
Household energy	320.81	309.84	360.11	364.68	387.53	413.12	419.52	451.51	480.75	573.06	4,080.91
Other housing expenses	51.18	78.60	41.13	48.44	27.42	21.94	11.88	10.97	18.28	24.68	334.52
Household contents and services	339.09	192.85	382.96	368.33	395.75	396.67	446.02	534.68	696.45	935.00	4,687.80
Furniture, furnishings and floor coverings	95.05	39.30	148.06	121.56	104.19	88.66	122.47	138.92	143.49	240.38	1,242.10
Household textiles	31.08	23.76	21.02	35.65	22.85	42.04	42.04	52.10	52.10	119.73	442.37

DRAFT

Expenditure category	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	All households
Household appliances	61.24	39.30	82.26	68.55	56.67	69.46	92.31	121.56	209.30	136.18	936.83
Glassware, tableware and household utensils	24.68	15.54	21.02	19.19	21.02	35.65	41.13	40.22	67.63	90.48	376.56
Tools and equipment for house and garden	27.42	14.62	31.99	36.56	42.96	64.89	53.01	73.12	68.55	108.76	521.88
Other household supplies and services	99.62	60.32	78.60	86.83	148.06	95.97	95.05	108.76	155.38	239.46	1,168.06
Health	155.38	215.70	362.85	253.17	301.61	273.28	335.43	437.80	642.53	760.43	3,738.17
Medical products, appliances and equipment	52.10	80.43	89.57	68.55	79.52	97.80	130.70	159.95	184.62	322.63	1,265.86
Out-patient services	103.28	135.27	273.28	184.62	222.10	175.48	204.73	277.85	457.90	437.80	2,472.31
Hospital services	-	-	-	-	-	-	-	-	-	-	-
Transport	1,067.53	917.63	1,087.63	1,632.37	1,668.92	1,898.33	2,146.94	2,516.18	2,851.61	3,931.94	19,719.09
Purchase of vehicles	471.61	294.30	325.38	601.40	549.30	728.44	883.82	948.71	959.68	1,301.51	7,064.14
Private transport supplies and services	352.80	341.83	484.41	602.31	662.63	691.88	712.90	892.04	1,010.86	1,066.61	6,818.28
Passenger transport services	243.12	281.51	277.85	428.66	456.99	478.01	550.22	675.43	881.08	1,563.82	5,836.67

Expenditure category	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	All households
Communication	207.47	245.86	246.77	263.23	312.58	364.68	429.57	363.76	403.06	646.18	3,483.17
Postal services	16.45	4.57	4.57	10.05	9.14	25.59	10.97	5.48	11.88	15.54	114.25
Telecommunication equipment	-	31.08	-	6.40	14.62	15.54	58.49	15.54	28.33	205.65	375.65
Telecommunication services	191.02	210.22	242.20	246.77	288.82	323.55	360.11	342.74	362.85	425.00	2,993.28
Recreation and culture	528.01	292.82	465.71	923.76	877.44	943.25	1,229.37	1,255.01	1,859.25	2,373.01	10,747.63
Audio-visual and computing equipment	41.13	32.90	59.41	57.58	65.81	110.59	102.37	153.55	131.61	146.24	901.18
Major recreational and cultural equipment	8.23	11.88	8.23	42.04	74.03	65.81	37.47	91.40	21.02	86.83	446.94
Other recreational equipment and supplies	124.30	114.25	141.67	176.40	190.11	263.23	237.63	276.94	642.53	438.71	2,605.75
Recreational and cultural services	94.78	3.09	84.58	170.64	279.70	289.75	309.00	373.03	553.18	731.50	2,889.24
Newspapers, books and stationery	36.56	59.41	50.27	72.20	78.60	54.84	66.72	69.46	76.77	121.56	686.40
Accommodation services	223.01	71.29	121.56	339.09	163.60	159.03	295.22	244.03	434.14	685.48	2,736.45
Package holidays	-	-	-	-	-	-	-	-	-	-	-

Expenditure category	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	All households
Miscellaneous domestic holiday costs	-	-	-	-	-	-	-	-	-	-	-
Flights and Accommodation	-	-	-	65.81	25.59	-	180.97	46.61	-	162.69	481.67
Education	93.23	35.65	135.27	127.04	154.46	138.92	178.23	255.91	202.90	454.25	1,775.86
Early childhood education	14.62	14.62	2.74	27.42	47.53	53.01	86.83	94.14	74.95	185.54	601.40
Primary, intermediate and secondary education	18.28	6.40	7.31	10.97	32.90	19.19	22.85	35.65	58.49	168.17	380.22
Tertiary and other post school education	54.84	13.71	125.22	31.08	63.06	41.13	60.32	67.63	59.41	74.03	590.43
Other educational fees	5.48	0.91	-	57.58	10.97	25.59	8.23	58.49	10.05	26.51	203.82
Miscellaneous goods and services	565.75	520.05	629.73	725.70	907.58	980.70	1,093.12	1,273.17	1,658.87	2,083.87	10,438.55
Personal care	111.51	117.90	106.02	166.34	220.27	223.01	212.04	350.05	330.86	459.73	2,297.74
Prostitution	-	-	-	-	-	-	-	-	-	-	-
Personal effects nec	63.06	91.40	62.15	98.71	142.58	111.51	138.01	138.92	240.38	265.97	1,352.69
Insurance	362.85	285.16	425.00	402.15	478.01	547.47	671.77	701.02	903.92	1,192.74	5,970.11
Credit services	11.88	10.05	10.97	15.54	25.59	20.11	25.59	25.59	24.68	28.33	198.33

Expenditure category	Decile 1	Decile 2	Decile 3	Decile 4	Decile 5	Decile 6	Decile 7	Decile 8	Decile 9	Decile 10	All households
Other miscellaneous services	16.45	15.54	25.59	42.96	41.13	78.60	45.70	57.58	159.03	137.10	619.68
Other expenditure	496.29	256.83	266.88	417.69	903.92	1,358.17	1,459.62	2,018.98	2,239.25	2,794.95	12,212.58
Interest payments	400.32	193.76	205.65	290.65	640.70	1,048.33	996.24	1,370.05	1,519.95	1,699.09	8,364.73
Contributions to savings	69.46	49.35	53.01	114.25	220.27	276.94	420.43	527.37	644.35	991.67	3,367.10
Money given to others (excluding donations)	26.51	13.71	8.23	10.97	42.04	31.08	42.96	120.65	74.95	104.19	475.27
Fines	-	-	-	1.83	0.91	1.83	-	0.91	-	-	5.48
Expenditure incurred whilst overseas	-	-	-	-	-	-	-	-	-	-	-

Note: missing numbers are due to data suppression

Source: NZIER, Stats NZ