UK

Government
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Function

# New Zealand Serious Fraud Office Counter Fraud Centre

## Fraud Loss in the New Zealand Public Sector

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## Purpose

1. The purpose of this paper is to provide estimated fraud loss figures for the New Zealand public sector, based on research of available open source data on fraud loss in New Zealand government departments and available international comparators. It concludes with an analysis of the two evidence bases and what the best evidence available indicates is the level of loss in the New Zealand government.

2. Fraud against the government takes money and services from the most vulnerable in society. The financial loss increases the cost of public services, meaning that less can be provided to the most in need. Fraud against the public sector damages the public's trust in government and is used to fund wider criminal activity. Where fraud can be identified, recovered or prevented, it frees up public money to be targeted at outcomes for the good of society that increase wellbeing.

## Summary

3. Our research shows that New Zealand Government Departments report low rates of fraud:
    - Only 4 departments reported any at all within their annual reports or other associated publications;
    - The volumes of reported fraud in the Officer of the Auditor General's fraud reports are low when considered against the level of spending.

4. However, low reported rates of fraud do not inherently indicate that fraud losses are actually low. The **evidence strongly suggests that the reported levels of fraud in the New Zealand government are well below the likely levels of fraud in the system**.

5. Fraud is a hidden crime. In a public sector context, detection is not driven by the victim in the same way it is in fraud against individuals. As such, detected fraud levels are usually well below the level of actual fraud loss.

6. If one were seeking confidence that low levels of detected fraud were indicative of low actual fraud levels, this should be corroborated by evidence of extensive fraud detection, alongside targeted loss measurement activity that seeks to quantify the level of fraud in the highest risk areas. Reviewed evidence indicates that these are not in place across the New Zealand public sector.

7. We have researched a range of comparators from across the world, examined their strengths and weaknesses and cross compared them in an attempt to reach the strongest position on what comparators indicate the potential level of fraud in the New Zealand government's spending may be.

8. The research into comparators from across the world show a broad range of estimated fraud levels of 0.2% of spending to 10% (with some outliers higher). Following a critical review of this evidence base, the range has been narrowed to **0.45% - 5.6%** of expenditure.

9. It should be noted that our review of the evidence base, and our own experience, concludes that this figure is likely to include fraud **and errors** (where there is financial loss but no intent to defraud). This is because the difference between fraud and error is intent and this is difficult to demonstrate in fraud loss measurement activity. As such, many of the 'fraud' estimates will also include an element of loss from error.

10. Whilst a range brings uncertainty our view is that this is reflective of the actual level of uncertainty in the evidence available. The reality is that, as a hidden crime, fraud levels are uncertain. There is a risk in putting up a single figure. This is often used as a metric to 'manage down'. The reality of fraud estimates is that they can only provide an indicative scale of the issues, and a call to arms for the extent of action that is taken on it. They are not as effective as a single, accurate metric that can be reduced in the short term.

11. Based on the international comparators, the range that we have reached indicates that the total cost of fraud against the New Zealand public sector spending for 2020 is estimated to be between **$601m (0.45%)** and **$7.48bn (5.6%)** per annum[1]. If tax revenues were to be included in this estimation, the total cost of fraud and associated error loss could be as high as **$12.97bn per year.**

12. Further work, using the UK comparators more closely, and comparing New Zealand tax and welfare revenue and spending can draw a tighter range. However, the certainty of this comparison is lower as it is more biassed towards the UK as a comparison and less driven by the available comprators from other contexts. Using this methodology the range of fraud and error in New Zealand revenue and expenditure could be **$5.37bn - $10.37bn**.

[1] This estimate is based on the total expenses figure for the year 2021 derived from the Financial Statements of the Government of New Zealand amounting to $133.7 billion.

## Fraud rates reported within New Zealand government expenditure

*'When we look at fraud, we only detect the tip of the iceberg'*

### *Introduction*

13. The purpose of this section of the document is to assess the publicly available information from New Zealand government departments on the level of fraud they experience.

14. There are 3 areas of fraud that we can try and understand:
    - **Detected** - The amount of fraud against public bodies declared as detected;
    - **Estimated** - The amount of fraud estimated to occur against public sector bodies through statistically valid random sampling exercises;
    - **Unknown** - Where there are no statistically valid estimates, the amount of fraud that we predict could be happening by applying the best available comparators (in the form of estimates).

### *Detected*

15. The assessment consisted of analysing the Annual Reports of each of the available government departments. The decision to analyse departments' Annual Reports is based on knowledge of the UK government reporting system in which Annual Reports are expected to include information on material levels of fraud.

16. Of the 33 Departmental Annual Reports (listed in Annex A) only 4 departments referred to fraud that had been reported within that department. The detailed findings from these departments are included in **Annex A**. These departments were:
    - Inland Revenue Department;
    - Ministry of Social Development;
    - New Zealand Customs Service; and
    - the Serious Fraud Office (SFO).

17. Outside Central Government, the annual Audit Reports for the following organisations were checked, and no reports of fraud were found within their annual reports or other related publications;
    - Local Government, Schools,
    - Tertiary Education Institutions, District health boards, and

- Port companies.

18. The Office of the Auditor General (OAG) publishes data on how much fraud has been reported within public bodies. The report includes internal and external fraud for other agencies but does not include external fraud for tax and welfare (Inland Revenue, Customs Service and Social Development) focusing rather on reported internal fraud in those contexts.

19. The following table details the reported instances of fraud within public bodies[2] from the OAG data.

| Year | Central Government | Local Government | Schools |
|---|---|---|---|
| 2021 | 26 | 28 | 34 |
| 2020 | 19 | 26 | 33 |
| 2019 | 9 | 8 | 8 |

20. Types of Fraud detected[3]

| Year | Theft of cash | Theft of plant or equipment | Theft of inventory | Other theft | Expense claim fraud | Credit or fuel card fraud | False invoicing | Payroll fraud | Backhanders or undeclared gifts | Other |
|---|---|---|---|---|---|---|---|---|---|---|
| 2021 | 10 | 2 | 3 | 1 | 3 | 10 | 3 | 1 | 1 | 17 |
| 2020 | 16 | 4 | 5 | 0 | 6 | 6 | 6 | 5 | 0 | 17 |
| 2019 | 15 | 8 | 4 | 0 | 3 | 5 | 4 | 1 | 0 | 17 |

21. These counts are significantly lower than we would expect to see across the public sector, when the extent and diversity of public sector spending is considered. This strongly indicates that public bodies are detecting much less fraud than is in their systems.

### *Estimated*

22. Our research failed to identify any published central reporting on how much fraud costs the NZ government annually, or how much it costs individual departments or schemes. The New Zealand SFO

[2] https://oag.parliament.nz/data/fraud/how
[3] https://oag.parliament.nz/data/fraud/types

estimates, based on international comparisons, this figure should be approximately $5 billion or 5% of government funding (2017).

### *COVID-19 Fraud*

23. COVID-19 has been a period of increased fraud threat. Two examples from COVID-19 spending in New Zealand may provide some evidence that fraud levels are likely to be higher than reported within New Zealand - i.e. New Zealand is not experiencing an exceptionally low fraud risk (as a country) when compared to the available comparators.

24. The Small Business Cashflow Loan and Wage Subsidy are both schemes created during the COVID-19 crisis. These were schemes that, from the beginning, acknowledged that in order to expediently distribute funds to businesses they would have to accept that they could not include a comprehensive fraud analysis or protections.

25. Some indicators of the likely incorrect payment levels (including fraud) have been made in relation to the two schemes. Of the $13 billion NZD distributed for the Wage Subsidy scheme, $723 million NZD was returned voluntarily with a further 361 potential fraud cases identified. Meanwhile the Small Business Cashflow Loan scheme saw 4,097 applications declined with a total worth of $68 million. Both of these findings, although from extreme circumstances, produced an indicative level of 4-6% of misclaimed funds (some of which will be fraudulent).

### *Recommendations*

26. The opportunity for fraud exists wherever public money is spent. Understanding the scale of any issue we face, enables us to take proportionate action, and as such every government organisation would benefit from an understanding of their levels of fraud.

27. In a 2012 survey conducted by the Office of the Auditor General (OAG), a staff survey was conducted to shed light on 'perceptions and practices in detecting and preventing fraud in the public sector'[4][5]. Of those surveyed only 53% indicated that their department regularly reviewed their fraud controls. Alongside this according to the survey 78% of employees expected fraud to be reported whilst the actual figure was only 39%. This indicates the challenge faced and suggests it is not a focus for many organisations.

[4] https://oag.parliament.nz/2012/fraud-summary-govt-departments/appendix2.htm
[5] https://oag.parliament.nz/2012/fraud-awareness/docs/fraud-awareness.pdf

28. Whilst detected fraud is only part of the picture, a firm understanding of detected fraud levels underpins action on fraud. This can then be compared to comparators which indicate the likely level of fraud in the system, and therefore highlight the potential for positive action.

29. We recommend that Central and Local Government Departments report detected and estimated fraud levels to the Counter Fraud Centre. This should be in line with an established fraud typography and on an annual basis. There would also be benefit in them reporting what work is being done to proactively detect and measure fraud. This would give a clearer, more confident, picture of the levels of fraud occurring within public sector expenditure in New Zealand.

| **Limitations** |
| --- |
| ● All research was conducted using publicly available information.<br><br>● There appears to be no standard publishing for fraud and so figures are difficult to compare between government departments. |

## Fraud rates - International Comparators

*'Fraud is a hidden crime, and in order to fight it you have to find it*[6].

30. This section deals with what other comparators, in this case international, show about the likely level of fraud in public sector spending.

31. International comparators can provide some indication of fraud rates found in other countries and across different sectors. Nine reports, which focus on estimated and/or detected fraud & error, have been included in this summary with a description of their scope and limitations. Overall, these include fraud estimates ranging from 0.5% to 10% of expenditure. Taken together, these reports provide evidence to the assertion that it is most likely that fraud will almost always be present to some extent in areas of significant expenditure.

32. At this point, it is worth noting that the reality of fraud loss measurement methodologies is that they measure both fraud and error loss (sometimes this is called irregularities). This is because fraud loss measurement looks to take a sample of cases and establish whether fraud is present. To do this, it identifies that payments are likely to have been made incorrectly. However, fraud loss measurement exercises usually do not extend to establishing the intent behind the incorrect payment (as this would involve investigation). This means that the irregularity identified could either be an intentional act - or an error.

33. It should also be noted that, to a certain extent, all fraud estimates produced by fraud loss measurement methodologies are likely to be underestimated. This is because, an inherent part of undertaking a fraud loss measurement exercise is selecting specific risks, or risk criteria to test. This act excludes other modus operandi under which successful fraud may be undertaken. Simply, you cannot test every risk, and as such some avenues of attack will not be measured.

6 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/961505/2609-Executive-Summary-Fraud-Landscape-Bulletin-V7.pdf

## UK Cabinet Office Fraud Risk Measurement & Assurance Programme (2015 - 2021)[7]

34. Fraud against public bodies takes money away from the vital public services that citizens rely on and can damage trust in government. The estimated cost of fraud to the UK government outside of the tax and welfare system is £2.5 - £25bn per year. This increases to £29.3bn - £52bn when fraud against the tax and welfare system is included. The government has extrapolated these estimates from fraud loss measurement activity undertaken across government, which includes activity completed under the government's Fraud Measurement and Assurance Programme (FMA).

35. The FMA programme has been running since 2014 and has now overseen 58 fraud measurement exercises undertaken across fifteen different government departments. The aim of this programme is to save public money from being lost to fraud and error, by helping government departments understand their fraud risk exposure, to test whether these fraud risks are actually happening, and to use measurement to estimate actual levels of fraud and error losses in the areas measured.

36. The FMA programme is underpinned by a UK government standard for undertaking fraud loss measurement exercises. Exercises undertaken by public bodies are reviewed against this standard and are awarded a rating (including a fail if they do not meet the basic standard) for their FMA exercise.

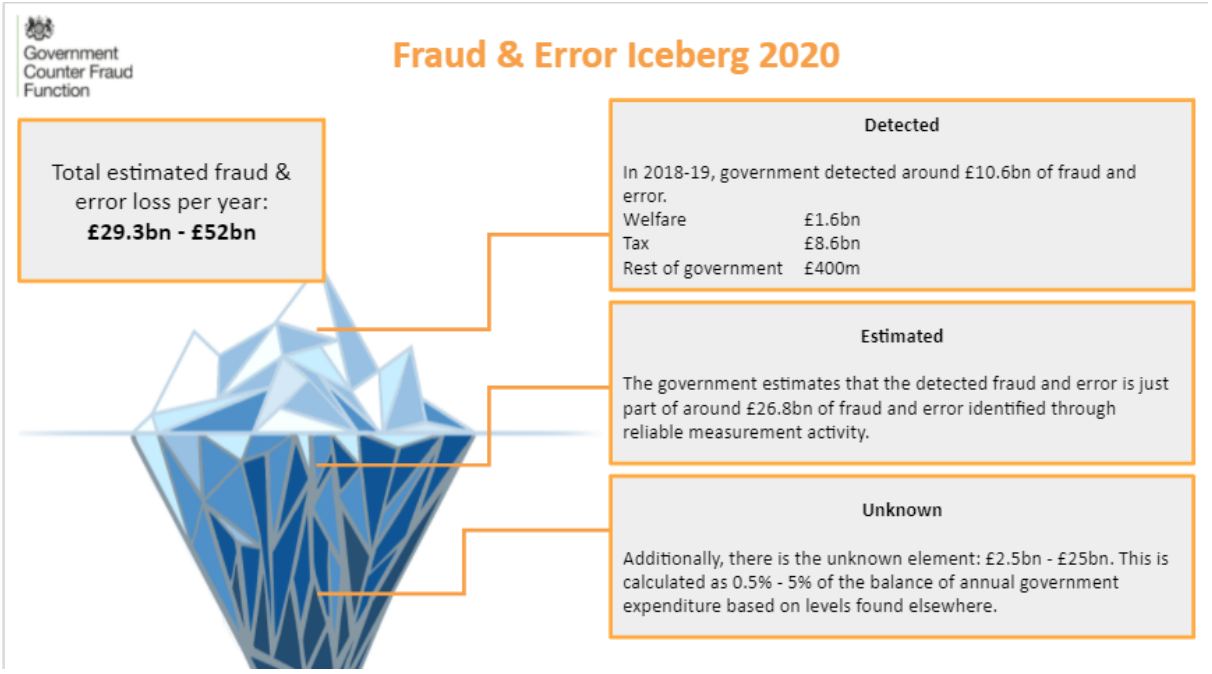
37. The FMA programme works on the premise of testing residual fraud risks, which represent the risk that remains despite any controls in place. Therefore, testing seeks to identify whether these gaps in controls have led to fraud occurring, and, if so, by how much. There is a real focus on looking for evidence of fraud and irregular spending - as opposed to testing whether controls are working (as is common in audit).

38. An independent Oversight Board oversees the programme. In November 2018, the independent Oversight Board, concluded that there is an upper and lower range for estimated loss in unmeasured areas of government spending. This range stands at 0.5% to 5.0% of expenditure. The Board intentionally arrived at a range, to show there is a significant degree of uncertainty on the level of fraud and error.

7 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/961505/2609-Executive-Summary-Fraud-Landscape-Bulletin-V7.pdf

39. The Board has concluded that their current view is that it is likely that the true scale of fraud and error loss lies towards the lower end of this range.

40. This decision was based on the results of FMA exercises undertaken in the UK government that were considered high quality and considered available comparators from the private sector, academia, and the US. This range of 0.5% - 5% is now used to calculate the estimated level of fraud and error loss within the “unknown” section of the iceberg model as seen below.




| Description | Measurement | Fraud & Error (%) |
|---|---|---|
| Unknown fraud & error (estimate) | Lower range | 0.5% |
| | Upper range | 5% |

| Limitations |
|---|
| • The 0.5 - 5% estimate takes into account a relatively small number of good quality fraud loss measurement exercises that received a ‘silver’ or ‘gold’ rating. This included 23 out of the 48 exercises completed by 2018, a population of spend area of approximately £3 billion.<br><br>• There is a potential that the exercises undertaken to a higher quality were in inherently higher risk areas - and as such there is a weakness in applying this over other spending. The Oversight Board |

took this weakness into account in agreeing the range, but it should be noted.

- The 0.5 - 5% estimate is based on fraud loss measurement exercises within the UK public sector. Private sector estimates, although considered by the Oversight Board, are likely to be different.

- The 0.5 - 5% estimate presents a wide range and there is a high level of uncertainty as to where in this range the actual loss levels lie. The government has a diversity of spending areas, which all have different levels of fraud exposure. It is therefore impractical to measure them all. The overall range helps to negate the level of uncertainty that exists.

## Fraud & error in the UK benefit system 2020/21[8]

41. The UK Department for Work and Pensions (DWP) pays welfare benefits to around 23 million people. Every year, it undertakes fraud and error loss measurement activity to establish an estimate of the level of irregular spending in the benefits system.'Fraud and Error in the Benefit System' is published every year and publishes the estimates for how much money the department incorrectly pays, either by paying people too much benefit – overpayments – or by not paying enough benefit – underpayments.

42. The reviewed report provided estimates of fraud and error levels in the benefit system in Great Britain for the financial year 2020/21. Previous reports are available.

43. The measurement exercises are undertaken using a statistically valid sample of payments for the key benefits schemes. This is then extrapolated as a level of loss. In the unmeasured areas, historical exercises are used that indicate the level of loss.

44. In 2020/21 measurement led to an estimate that 3.9% of spending was overpayments - a significant rise from 2.4% in the previous year. The rise was as a result of an increase in claimants as a result of COVID-19, a reduction in controls due to the high volumes and need to pay benefits in a timely manner and the introduction of Universal Credit (UC), which seems to have a high inherent overpayment level. 3.9% of loss meant that £8.4bn was overpaid.

45. DWP also considered the impact of their activity to reduce the level of overpayments (through fraud and error) when establishing the likely level that was lost. In 2020/21, DWP recovered £0.8bn of overpayments (£0.5bn Housing Benefit and £0.3bn other DWP benefits). This was a slight fall from £1.0bn in FY 2020. As a result, the net rate of loss from overpayments in 2020/21 was 3.6%, or £7.6bn. This has increased from the 2019/20 rate of 1.9% (£3.6bn). Just over half of the overall increase was due to the statistically significant increase in the UC overpayment rate, from 9.4% to 14.5%.

46. The testing methodology used by DWP tries to establish whether cases identified were fraud or error. It does this by looking at the nature of the mispayment, and the corporation of the claimant in the review, and making a call on whether this indicates potential dishonesty in the claim, as opposed to an error. The rate of fraud overpayments was 3.0%, an increase from 1.4% in FY 2020, and the monetary value

8 https://www.gov.uk/government/statistics/fraud-and-error-in-the-benefit-system-financial-year-2020-to-2021-estimates/fraud-and-error-in-the-benefit-system-for-financial-year-ending-2021

of fraud overpayments increased from £2.8bn to £6.3bn. The rise was primarily due to an increase in overpayments assessed as fraud in UC.

47. In addition, total Official Error and Claimant Error overpayment rates were the same as in FY 2020, at 0.4% and 0.6% respectively.

| Fraud type | Fraud & Error (%) |
|---|---|
| Rate of Loss from Overpayments | 3.6% |
| Fraud Overpayments | 3% |
| UC Overpayment Rate | 14.5% |

**Limitations**

- The increase in loss rates was primarily due to the effects of Covid (increased UC overpayment rate).

- Benefits payments are an inherently high risk area (high volume, mass awareness, pressure to make payments quickly) as such the level of fraud and error in this system is likely to be higher than in many other areas.

- The methodology for reaching an overall estimate of loss for the department (DWP) lowers the total level of fraud and error measured, as the overall figure is lowered by the dominance of the state pension, which counts for the majority of spending (£101bn out of £211bn) but has a fraud rate of 0.1% (due to the inherent design) and was last measured over 15 years ago. Actual measured levels in more recently measured benefits are much higher - Universal Credit - 14.5%, Housing Benefit - 6%, Employment and Support Allowance - 5.1%, Pension Credit - 5.3%, Carers Allowance - 5.2%, Job Seekers Allowance - 4.6%. These are the inherently higher risk schemes that, if viewed in isolation and compared to non-comparable areas, may give a distorted view.

## The Financial Cost of Fraud 2021 - Crowe UK[9]

48. The report builds on research first undertaken and published in 2009, 2011, 2013, 2015, 2017, 2018 and 2019 considering just what the financial cost of fraud really is. It represents an output of the collaboration between Crowe UK and the Centre for Counter Fraud Studies at the University of Portsmouth (CCFS).

49. The report considers and analyses 807 exercises which have been undertaken around the world during more than 20 years in an attempt to accurately measure the financial cost resulting from fraud. The exercises took place across 40 different types of expenditure in 49 organisations from 10 countries considering losses in expenditure with a total value of £25.9 trillion. Exercises were collated from Europe, North America, Australasia and Africa. None were found in Asia.

50. It is important to note that fraud loss measurement exercises cover both fraud and error. The 'Financial Cost of Fraud' report refers to fraud, however, it is likely that this includes error estimates due to the difficulties in proving intent and the lack of evidence in the majority of cases.

51. The range of percentage losses across all the exercises reviewed between 1997 and 2020 were found to be between 0.02% and 63.96%. The volume of data which is already available from exercises covering total expenditure of over £25.9 trillion. The conclusions taken are that this points to losses usually being found in the range of 3% to 10%, with an average of 6.42%.

52. The global average loss rate for the entire period of the research (6.42%), when taken as a proportion of the global Gross Domestic Product (GDP) for 2020 (£68.04 trillion), equates to £4.37 trillion.

53. For the purposes of this report, and the conclusions we make on the likely levels, **the upper range of 10% has been considered an outlier and has been excluded from the final tables** in **Annex B**. From our experience of the methodologies used in some of the testing relied upon here, some of the measurement exercises reach a conclusion of fraud being present earlier than we would. For example, if an invoice was not present for a payment, this could be categorised as fraud. The reality is that this may be fraud or an error in the process and alternative evidence may be available that points to this being a mislaid document rather than an irregular payment.

[9] https://f.datasrvr.com/fr1/521/90994/0031_Financial_Cost_of_Fraud_2021_v5.pdf

| Description | Measurement | Loss (%) |
|---|---|---|
| Any expenditure | Lower range | 3% |
| | Global average | 6.42% |
| | Upper range | 10% |

**Limitations**

- The exercises took place across 40 different types of expenditure but it is not clear whether fraud and error losses are much higher in certain areas of expenditure in comparison to others, which would increase the average.

- There is no differentiation between exercises from the public and private sector.

- Different methodologies have been used for different exercises due to the loss measurement work taking place in 10 countries with no common framework.

- Some methodologies used may incorrectly inflate the measured level of fraud. Our experience shows that some methodologies do not distinguish between fraud and a payment with missing evidence of correctness. The lack of evidence of irregularity in the process could result in labelling error as fraud without having the sufficient evidence to prove it and labelling payments as fraudulent when they are not. Therefore, the estimates in this report could appear higher than they would if such evidence was available.

- Potential conflict of interest - It should be noted that one of the organisations involved in the development of this report is a private sector organisation that offers counter fraud services.

## Annual Fraud Indicator 2017[10]

54. The UK's National Fraud Authority (NFA) was abolished in 2014 leaving a gap in the measurement of the cost of fraud to the UK. This report is the second undertaken by the UK Fraud Costs Measurement Committee and involved Crowe UK, Experian and the Centre for Counter Fraud Studies, University of Portsmouth (Crowe and the University of Portsmouth also produce the 'Financial Cost of Fraud' reports). The partners wanted to build upon the work of the NFA by offering the same detailed estimates of the cost of fraud to the UK, while also using a more developed and consistent methodology to allow dependable comparisons over time.

55. The report's methodology is stated to be overseen and reviewed by an independent panel of fraud experts drawn from the private and public sectors. A wide range of sources were reviewed to identify the cost of fraud figures. Each estimate is categorised as either gold, silver or bronze depending on the confidence of the estimate. The classification of confidence applied is stated to be as follows:

    - **Gold** - Gold standard analysis is met when a statistically valid sample of expenditure / income has been examined, with a clear and legally-anchored concept of fraud applied.
    - **Silver** - The silver standard is met when detected cost levels of fraud have been identified and underpinned by a credible estimate of undetected fraud to offer a credible total fraud cost.
    - **Bronze** - The bronze standard is met when an attempt at identifying the cost of fraud has been made, but there may be limited confidence in its credibility.

56. It is estimated that private sector fraud could cost the UK economy just over £140 billion in 2017, while the public sector fraud is estimated to be £40.4 billion. In addition, the financial sector sales fraud includes all bronze rated data and in this report amounts to £5.2 billion and the cost of fraud in the non-financial sales sector is estimated to be just under £1.3 billion.

57. It is important to note that fraud loss measurement exercises cover both fraud and error. The 'Annual Fraud Indicator' report refers to fraud, however, it is likely that this includes error estimates due to the difficulties in proving intent and the lack of evidence in the majority of cases.

58. It is worth noting that this report includes sector specific fraud loss estimate percentages. These estimates are consistent across and cover the potential losses in the public, private, charity sector and fraud against individuals. The percentage range of fraud loss across these sectors is 0.02 - 5.50%.

[10] https://pure.port.ac.uk/ws/portalfiles/portal/18878333/Annual_Fraud_Indicator_report_1_2017.pdf

59. In critical consideration of the various evidence points, for the purposes of this report, we are only taking into consideration the 'gold' rated exercises. This is based on our view that we would be unable to place reliance on some of the measurement areas where a silver rating has been used if we were to consider them in our evidence base.

60. Our view is that the gold exercises represent the most reliable evidence base. These suggest an estimated range of **0.45 - 4.04%**.

61. The full table used in this report has been added in **Annex C** for information.

| Description | Measurement | Loss (%) |
|---|---|---|
| Expenditure | Lower estimate | 0.45% |
| | Upper estimate | 4.04% |

| Limitations |
|---|
| • Confidence in estimates per fraud type are different depending on data credibility, therefore, some estimates may not be as accurate as others.<br><br>• Estimates per fraud type do not clearly distinguish between public / private / charity sector and individuals (ie. payroll fraud in the public sector would use the same estimate as payroll fraud in the private sector which may not be accurate).<br><br>• Potential conflict of interest - some of the partners involved in the development of this report are private sector organisations that offer counter fraud services.<br><br>• The fraud loss rates by sector quoted in the report have been calculated by the authors of the report and refer to being based on high quality loss measurement exercises, however, the methodology for the calculations is not fully explained and the methodologies are likely to vary. |

## Annual report on the implementation of the EU budget for the 2019 financial year[11]

62. This report summarises results of the audits of the European Court of Auditors (ECA). It is focused on the consolidated accounts of the European Union, which comprise the consolidated financial statements and the budgetary implementation reports for the financial year ended 31 December 2019, as well as, the legality and regularity of the underlying transactions, as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

63. The report includes the estimated overall level of error in the accounts. The overall estimated level of error for expenditure accepted in the accounts for the year ended 31 December 2019 is 2.7%. The report states that the ECA has 95% confidence that the likely level of error in the population lies between 1.8% and 3.6% (the lower and upper level error limits respectively).

64. However, it also draws out a separate estimate for what it considers 'high-risk expenditure'. A substantial proportion of the expenditure - more than half, is considered high-risk. This concerns mainly reimbursement-based expenditure, in which the estimated level of error is 4.9%.

65. It should be noted that the report focuses on error rather than fraud specifically. An error is an amount of money that should not have been paid out from the EU budget. Errors occur when money is not used in accordance with the relevant EU legislation and hence not as the Council and European Parliament intended, or when it is not used in accordance with specific national rules.

66. However, due to the difficulty in proving intent and the lack of sufficient evidence, it is likely that these error estimates will also include some fraudulent transactions. As such we consider this a helpful comparator when used alongside other evidence sources.

67. The 2019 audit results and findings from previous years reaffirm assessment and risk classification, reflecting that the way funds are disbursed has an impact on the risk of error:

    - The risk of fraud and error is lower for expenditure subject to simplified / less complex rules. This type of expenditure encompasses mainly those entitlement-based payments, for which beneficiaries must meet certain, but not overly complex conditions.

[11] https://www.eca.europa.eu/Lists/ECADocuments/annualreports-2019/annualreports-2019_EN.pdf

- The risk of error is higher for expenditure subject to complex rules. This is mainly the case for reimbursement-based payments, where beneficiaries have to submit claims for eligible costs they have incurred. To this end, as well as demonstrating that they are engaged in an activity eligible for support, they must provide evidence of the reimbursable costs they have incurred. In doing so, they must often follow complex rules regarding what can be claimed (eligibility) and how costs can be properly incurred (public procurement or state aid rules).

| **Description** | **Measurement** | | **Error (%)** |
|---|---|---|---|
| EU funding<br><br>Level of error in EU payments | Across all expenditure | Lower range | 1.8% |
| | | Estimated average | 2.7% |
| | | Upper range | 3.6% |
| | High-risk expenditure | | 4.9% |

| **Limitations** |
|---|
| • Estimates only account for the level of error in payments and does not measure fraud specifically. It is likely that fraud is also covered but it is difficult to distinguish.<br><br>• Estimates (%) vary between high-risk expenditure (reimbursements) and low-risk expenditure (entitlement-based payments).<br><br>• Due to the nature of the European Union, the types of schemes and payments, including to national governments, the types of errors may not be as directly comparable as would be assumed. |

## ACFE Report to the Nations 2020 - Global Study on Occupational Fraud and Abuse[12]

68. This study is produced by ACFE - an international membership organisation of fraud specialists. To join, you have to pass an exam testing your knowledge of counter fraud practices. ACFE was started in the United States, and has grown worldwide. The Report to the Nations brings together research from across 125 countries, indicating the extent of fraud. ACFE states that the study represents the most comprehensive examination available of the costs, methods, victims, and perpetrators of occupational fraud (fraud committed by individuals against the organisations that employ them) throughout the world.

69. This study contains an analysis of 2,504 cases of occupational fraud that were investigated between January 2018 and September 2019 and identified losses of more than $3.6bn. It is recognised that this is a tiny fraction of the number of frauds committed each year against millions of businesses, government organisations, and nonprofits throughout the world.

70. The data presented was gathered through the ACFE's '2019 Global Fraud Survey'. The information was drawn from cases that occurred in 23 different industry categories across 125 countries. Detailed information about the cases they have investigated and the lessons learned was provided by thousands of Certified Fraud Examiners (CFEs) (members of ACFE).

71. Each CFE who took part in the survey was presented with a detailed questionnaire consisting of 77 questions about the single largest case of fraud they had investigated. These CFEs provided information on the method of fraud employed, the loss, the victim organization, the perpetrator, the means of detection, and the response by the victim organisation after the fraud had been detected.

72. Based on results from this study, it is estimated that organisations lose 5% of revenue to fraud each year.

73. The earlier 2012 Report to the Nations report includes global data among the 1,388 cases of fraud that were studied. As part of the research, each CFE who participated in the survey provided their best assessment of the percentage of annual revenues that the typical organization loses to fraud. The median response indicates that fraud leads assess that their organisations lose an estimated 5% of their revenues to fraud each year. It is important to note that this estimate is based on the collective

[12] https://acfepublic.s3-us-west-2.amazonaws.com/2020-Report-to-the-Nations.pdf

opinion of anti-fraud experts rather than on specific data or factual observations, and should thus not be interpreted as a literal calculation of the worldwide cost of fraud against organisations.[13]

| Description | Fraud (%) |
|---|---|
| Annual revenue lost to fraud | 5% |

| Limitations |
|---|
| • The report relies on the knowledge and experience of the CFEs but relies on them having completed a questionnaire only taking into account the single largest fraud case they have been working on.<br><br>• The 5% estimate is based on the collective opinion of anti-fraud experts rather than on specific data or factual observations. |

[13] https://www.acfe.com/uploadedfiles/acfe_website/content/rttn/2012-report-to-nations.pdf

## US Improper Payments Act Data 2020[14]

74. In the United States, the Improper Payments Information Act of 2002 (IPIA) mandates that public agencies should publish a 'statistically valid estimate' of the extent of fraud and error in their programs and activities. This was reinforced by the Improper Payments Elimination and Recovery Act of 2010. As a result most major US public sector agencies have been measuring and reporting losses for more than a decade.

75. Improper payments are payments made by the government to the wrong person, in the wrong amount, for the wrong reason or using the wrong process. To establish the level of fraud and error in high risk schemes, agencies undertake statistically valid sampling of payments to establish their integrity. The guidance relating to the original IPIA stated: 'The estimates shall be based on the equivalent of a statistical random sample with a precision requiring a sample of sufficient size to yield an estimate with a 90% confidence interval of plus or minus 2.5%[15].

76. To comply with the IPIA, all agencies' programmes and activities that meet a threshold level of risk, must measure and estimate the amount of improper payments within each. If losses in a given program or activity are estimated at $750m or above, it is called 'high priority,' and subject to additional measurement requirements.

77. The Improper Payments datasets also include "Confirmed Fraud" numbers. These are limited in that they represent only those fraud cases that have been confirmed by a court, and does not represent anything settled out of court with or without admission of guilt, or where the review assesses that on the balance of probability there was intent from the claimant. The 2020 figures indicate a total of $7,16 million confirmed fraud across the government agencies - which is notably low, when compared to the total amount of assessed improper payments.

78. Total assessed federal improper payments grew to over $206 billion in FY 2020[16]. The improper payment rate also increased from 5.1% of program outlays in FY 2019[17] to 5.6% in FY 2020, amounting to a $31.6 billion increase over FY 2019 levels. However, it is worth noting that the increase in FY 2020 improper payments is mostly attributable to the Medicaid program where improper

[14] https://www.paymentaccuracy.gov/payment-accuracy-the-numbers/
[15] https://fiscal.treasury.gov/files/dnp/OMB_M-15-02.pdf
[16] https://www.gsaig.gov/sites/default/files/audit-reports/A210015%20-%20Final%20Report%20-%20GSA%20Complied%20With%20the%20%20Improper%20Payments%20Acts%20in%20Fiscal%20Year%202020.pdf
[17] https://www.gao.gov/assets/gao-20-344.pdf

payments jumped from $57.35 billion in FY 2019 to $86.49 billion in FY 2020[18], equating to an improper payment rate increase of 14.9% to 21.36% of program outlays.

79. The extensive level of improper payments in the Medicaid program, indicate that the improper payment rate overall may be higher than may be expected in other administrations.

80. The Improper Payments Act covers fraud, error and some wider improper payments that other fraud (and error) loss measurement exercises would not cover. For example, it includes payments that are not 'properly documented'. While a lack of documentation may be an indicator of fraud or error, it does not inherently demonstrate that a payment has been made incorrectly, or used incorrectly.

| **Fraud type** | **Error (%)** |
|---|---|
| Government-wide improper payments | 5.6% |
| Medicaid program | 21.36% |

| **Limitations** |
|---|
| • There are things to consider with the implementation of IPIA. The most significant is compliance. Even amongst the 24 major agencies, a substantial minority are not in compliance, and compliance overall is unknown. The most common compliance failures are inaccurate estimates, poor sampling methodologies, incomplete risk assessments and inadequate corrective action / recovery.<br><br>• Incomplete Scope: Not all schemes and departments have developed estimates for all risk-susceptible schemes, or are not reporting on improper payments. The absence of reports may indicate a lack of understanding.<br><br>• Many reported improper payments are not due to evidence that the payment is fraudulent or in error, but rather that there is insufficient evidence that it was accurate. For example, the Department of Health and Human Services published data indicating that most improper payments are due to insufficient documentation to determine if the payment is actually 'proper' or not. This occurs when there is a lack of supporting documentation necessary to verify the accuracy of a payment identified |

[18] https://www.hhs.gov/sites/default/files/fy-2020-hhs-agency-financial-report.pdf

in the improper payment testing sample.

- One of the most frequent causes of improper payments is administrative or process errors made by the federal agency, state or local agency, or other party. These types of errors are caused by incorrect data entry, classification, or processing of applications or payments[19].

- The weak point of the Improper Payments regime is the risk assessment phase. There is little guidance or control over the risk assessments that agencies do to establish if a programme is high risk. As such, it is likely that there are many programmes which are assessed as lower risk, which would actually have material levels of improper payments if testing was done.

[19] https://www.hhs.gov/sites/default/files/fy-2020-hhs-agency-financial-report.pdf

## European Commission Fight Against Fraud 2020 (PIF Report)[20]

81. In line with Article 325(5) of the Treaty on the Functioning of the European Union (TFEU), the European Commission, in cooperation with EU Member States, submits an annual report to the European Parliament and Council on measures taken to counter fraud and other illegal activities affecting the EU's financial interests. This is called the 'PIF report'.

82. The report presents an overview of the EU's financial interests, which includes:
    - the risks to which the EU's financial interests are and will be exposed, based on the irregularities and fraud detected by EU bodies and national authorities; and
    - the tools developed to fight fraud.

83. When the adverse impact on the EU budget is the result of a breach of rules, it is defined as an 'irregularity'. In case of intentional behaviour, such as any act or omission relating to the use or presentation of false, incorrect or incomplete statements or documents, or to non-disclosure of information in violation of a specific obligation, such behaviour amounts to 'fraud[21]'. Therefore, an irregularity may be the result of an incorrect interpretation of a rule, while fraud is the result of a deliberate breach of a rule.

84. Detecting fraud is far more difficult than detecting a 'simple' irregularity, where no deliberate attempt to defraud is made. The view of the Commission is that the latter usually may stem from a vulnerability in the first layer of control, the former, even when exploiting existing weaknesses, is the result of a specific action committed by individuals and/or organisations, with malevolent intent and methods varying from the simplest to the most complex schemes.

85. This report only focuses on detected fraud and irregularity rates and does not include any estimates on fraud and error from statistically valid samples of payments. Therefore, this was not taken into account for the final tables in **Annex B**.

86. It is worth noting that the number of reported cases compared with the five-year average declined for both fraudulent and non-fraudulent irregularities related to EU revenue. The related amount increased

[20] https://ec.europa.eu/anti-fraud/sites/default/files/pif_report_2020_en.pdf

[21] In respect of revenue arising from VAT own resources, the PIF Directive requires the Member States to criminalise offences against the common VAT system when they are connected with the territory of two or more Member States of the Union and involve a total damage of at least EUR 10 million.

for fraudulent irregularities but decreased for non-fraudulent irregularities[22]. This is illustrated in the tables below. What is not clear is if this is a result of declining fraud and irregularity rates, or declining activity to detect and take action. In the UK context, we know that in places such as tax and welfare, we detect and deal with only 40% of our losses. This indicates to us that when detection rates drop, this is likely to be due to a reduction in capacity or effectiveness of our fraud and irregularity detection and response, rather than necessarily an indication of reduction in overall loss.

**Revenue: Irregularities Detected by National Authorities - Traditional Own Resources**

| **Fraudulent Irregularities** | | **Non-Fraudulent Irregularities** | | **FDR[23]** | **IDR[24]** |
|---|---|---|---|---|---|
| Number | EUR (million) | Number | EUR (million) | % | % |
| 451 | 108 | 4 003 | 382 | 0.43 | 1.54 |

**Expenditure: Irregularities Detected by the Budgetary Sector in 2020 (TOTAL)**

| **Fraudulent Irregularities** | | **Non-Fraudulent Irregularities** | | **FDR** | **IDR** |
|---|---|---|---|---|---|
| Number | EUR (million) | Number | EUR (million) | % | % |
| 605 | 266.0 | 6 696 | 710.6 | 0.19 | 0.51 |

| **Limitations** |
|---|
| • The report focuses on detection rates, rather than estimated rates. The numbers are not based on fraud loss measurements exercises. The report does not include fraud estimates. |

[22] For comparability reasons with previous years, the analysis for the year 2020 is carried out based on the figures obtained for the EU of 27 Member States plus the UK.
[23] FDR – Fraud Detection Rate: Ratio of financial amounts related to fraudulent irregularities on the total payments made.
[24] IDR – Irregularity Detection Rate: Ratio of financial amounts related to non-fraudulent irregularities on the total payments made.

## Australian Government - Fraud against the Commonwealth 2019-20[25]

87. This Statistical Bulletin presents the results from the Australian Institute of Criminology's (AICs) annual Fraud Against the Commonwealth census for the period 1 July 2019 to 30 June 2020. It includes fraud allegations for which investigations were finalised during this period. As such, it should be noted that the fraud reported may have started or ended outside of this period. Data were collected from Commonwealth entities between 3 August 2020 and 31 December 2020.

88. A total of 153 entities completed the census for 2019–20. For security reasons, the responses from one entity were not analysed, so this analysis is based on the responses from the remaining 152. This report only focuses on detected fraud and recovered loss rates and does not include any estimates on fraud and error. Therefore, this was not taken into account for the final tables in **Annex B**.

89. For the purposes of the census, fraud is classified as internal fraud (fraud perpetrated against an entity by officials/contractors of that entity) and external fraud (fraud perpetrated against an entity by individuals who were not officials / contractors of that entity). Allegations are defined as courses of alleged fraudulent conduct which concerned one or more suspects.

90. The internal and external fraud losses and recoveries for 2019–20 are shown in the table below. Although the differences appear large, the lack of statistical significance is likely due to the small number of entities able to quantify the amount recovered.

91. Due to the way the data is recorded (based on finalised investigations) it is difficult to understand the level of detected fraud happening in a year, as some of these losses will be from frauds in previous years which have reached a conclusion.

| **Internal and External fraud losses and recoveries (2019 - 2020)** | **Total ($)** | **Number of entities** |
|---|---|---|
| Internal fraud loss identified | 2,977,152 | 11 |
| Internal fraud recovery | 495,912 | 6 |
| External fraud loss identified | 191,523,951 | 15 |
| External fraud recovery | 2,242,907 | 15 |

[25] https://www.aic.gov.au/publications/sb/sb31

| Limitations |
| --- |
| • Data is focused on detected and recovered fraud - the report does not include any fraud estimates.<br><br>• Data is based on a survey of agencies, and the response rate may not be complete.<br><br>• Data only includes fraud allegations for which investigations were concluded within the specified time frame. |

## Additional Sources

92. This section includes a number of additional reports that were reviewed as part of this report and contribute to the overall understanding of fraud loss but have not been included in the produced estimated ranges for fraud and error likely present in the New Zealand public sector:

| Source | Summary |
|---|---|
| **PwC's Global Economic Crime and Fraud Survey 2020**[26] | This report includes data on the most disruptive fraud events – by industry (%). The top 4 types of fraud identified are:<br><br>1. Customer Fraud;<br>2. Cybercrime;<br>3. Asset Misappropriation;<br>4. Bribery and Corruption.<br><br>With more than 5,000 respondents from across 99 territories, the report concludes that a total of $42bn losses were reported over the last 24 months. |
| **UK Finance (Fraud - the Facts) 2021**[27] | Unauthorised financial fraud losses across payment cards, remote banking and cheques totalled £783.8 million in 2020, a decrease of 5% compared to 2019.<br><br>Banks and card companies prevented £1.6 billion in unauthorised fraud in 2020.<br><br>In addition to this, UK Finance members reported 149,946 incidents of Authorised Push Payment (APP) scams in 2020 with gross losses of £479 million. This brings the total loss to fraud to £1.26bn. |
| **The OLAF Report 2020**[28] | OLAF concluded 230 investigations, issuing 375 recommendations to the relevant national and EU authorities.<br><br>OLAF recommended the recovery of €293.4 million to the EU budget. |

[26] https://www.pwc.com/gx/en/forensics/gecs-2020/pdf/global-economic-crime-and-fraud-survey-2020.pdf
[27] https://www.ukfinance.org.uk/system/files/Fraud%20The%20Facts%202021-%20FINAL.pdf
[28] https://ec.europa.eu/anti-fraud/sites/default/files/olaf_report_2020_en.pdf

## Conclusion - Potential Level of Fraud and Error Loss in the New Zealand Public Sector

93. The published evidence base review of the New Zealand public sector shows that there is no confident estimate of the level of fraud and error loss. The published data on detected fraud, indicates that the level of fraud being detected is lower than would be expected in this context. Below, we have provided data on detected fraud in public spending from a number of contexts.

| Comparator | Total Spend[29] | Detected fraud - Volume | Volume of detected fraud by £1bn | Detected fraud - Value |
|---|---|---|---|---|
| EU | 169 billion | 1,056 | 3 | €374 m |
| UK | 851 billion | 96,030 | 113 | £310 m |
| AUS | 493 billion | 3,229 | 7 | $194 m |
| NZ | 139 billion | 88 | 0.5 | ? |

94. From our analysis, it seems apparent that improvements could be made to collected, detected, prevented and recovered fraud data in the New Zealand public sector.

95. In the absence of a comprehensive understanding of the total cost of fraud against the New Zealand government, we have used the international evidence base to build a comparator that can then be applied to New Zealand public sector spending.

96. We have gathered publicly available New Zealand government information on public spending. This has been obtained through the Financial Statements of the Government of New Zealand for the years 2019, 2020 and 2021. The figures are included in the table below:

| Year | Revenue ($ billions) incl. tax revenue | Tax revenue ($ billions) | Spending ($ billions) incl. welfare | Spending ($ billions) excl. welfare | Spending Welfare ($ billions) | Total government spending and Revenue |
|---|---|---|---|---|---|---|
| 2021[30] | 129.3 | 98 | 133.7 | 96.9 | 36.8 | 231.7 |
| 2020[31] | 116 | 85.1 | 138.9 | 94.9 | 44 | 224 |

[29] Total spend was either taken from 2019 or from 2019/20 financial year depending on how funding was administered.
[30] https://www.treasury.govt.nz/system/files/2021-10/fsgnz-2021.pdf
[31] https://www.treasury.govt.nz/system/files/2020-11/fsgnz-2020.pdf

| | | | | | | |
|---|---|---|---|---|---|---|
| 2019[32] | 119.3 | 86.5 | 111.4 | 82.6 | 28.8 | 197.9 |

97. The actual cost of fraud and error occurring against the New Zealand Government is unknown as much is hidden, difficult to detect, or remains unreported. For the purpose of this report, we are trying to understand the likely level of fraud (and error) in the unknown area of the iceberg. We have based our calculations on the spending figures for 2021.

98. Based on the international comparators, the total cost of fraud against the New Zealand public sector is indicated to be between **$601m (0.45%)** and **$7.48bn (5.6%)** per annum. If the tax revenue figures were included in the estimation, the total cost of fraud against the New Zealand government could be as high as **$12.97bn** per annum. A detailed table with the fraud estimation calculations using the available international comparators has been included in **Annex B** alongside further information using the previous years spending (2019 and 2020).

99. We can refine this estimate, if we use the UK estimates for tax and welfare loss (both of which have statistically valid estimates) as a comparator for those areas and apply the broader range to the other areas of spending. The results of this are presented in the table below:

| **Fraud estimation calculations (Tax)** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Year** | **Tax Revenue** | **Estimated Fraud and Error in Tax Revenue (3.78%)** | **Welfare Spending** | **Estimated Fraud and Error in Welfare (3.6%)** | **Total Expenditure (excluding Welfare Revenue)** | **Estimated Fraud Range across Total Expenditure (0.45% - 5.6%)** | **Estimated Fraud Range (including Tax Revenue)** |
| 2021 | $98bn | $3.62bn | $36.8bn | $1.32bn | $96.9 bn | $436m - $5.42 bn | $5.37bn - $10.37bn |

100. It should be noted that there are limitations to this approach. The New Zealand welfare system, whilst conceptually similar, has different policies and processes, which means that the level of fraud and error loss is likely to be different. The same can be said for tax. However, it should be noted that when, in 2012, a comparison was done on error levels in New Zealand's welfare against other systems, it was not too dissimilar to the UK measured levels (2.7% in New Zealand and 2.3% in the UK at that time)[33].

[32] https://www.treasury.govt.nz/sites/default/files/2019-10/fsgnz-2019.pdf

[33] https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/research-archive/benefit-fraud-initiatives.pdf

101. Overall, we can conclude that there is a significant discrepancy between the cost of fraud against the New Zealand public sector as reported by government departments and the potential cost of fraud against the government based on international comparators.

102. By its nature, this figure has a significant level of uncertainty around it. By using a range, we can increase our confidence that the value will land in this range. However, it makes transparency difficult due to the lack of certainty on a precise figure. The range of likely loss is a call to arms, to consider whether more action is required. It may be that there is some level of discomfort with this figure, which is built from the best available comparators. If more certainty is desired, and the premise is not widely accepted in the public sector, the next steps would be for the New Zealand government to invest in their own measurement activity, in high risk areas, to test this theory. It should be noted that, to make this meaningful, a critical mass of high quality exercises would be needed.

103. If the indicative level of loss is accepted, carrying out additional measurements may not be the best course of action unless these were used to drive change in specific high risk areas. Instead, more progress may be made by using the evidence as the basis of increased fraud detection and prevention activity across the government.

# ANNEXES

## Annex A

### List of New Zealand departments researched

- Crown Law Office
- Department of Conservation
- Department of Corrections
- Department of Internal Affairs
- Department of the Prime Minister and Cabinet
- Education Review Office
- Government Communications Security Bureau
- Inland Revenue Department
- Land Information New Zealand
- Ministry for Culture and Heritage
- Ministry for Pacific Peoples
- Ministry for Primary Industries
- Ministry for the Environment
- Ministry for Women
- Ministry of Business, Innovation, and Employment
- The Treasury
- Ministry of Defence
- Ministry of Education
- Ministry of Foreign Affairs and Trade
- Ministry of Health
- Ministry of Housing and Urban Development
- Ministry of Justice
- Ministry of Māori Development—Te Puni Kōkiri
- Ministry of Social Development
- Ministry of Transport
- New Zealand Customs Service
- New Zealand Security Intelligence Service
- Oranga Tamariki—Ministry for Children
- Public Service Commission
- Serious Fraud Office
- Statistics New Zealand
- Te Kāhui Whakamana Rua Tekau mā Iwa—Pike River Recovery Agency
- Office of the Auditor General

## Detailed information for selected departments

Inland revenue

- **$959 million recovered through investigations** yielding a ROI $8.75 per dollar spent.
    - Fraud within this only yielded $0.09 in 19/20 (it was $2.75 the year before).
- A program based on information sharing with the ministry of Development yielded 0 referrals for suspected fraud within benefits and students datasets.
- Program to monitor Goods and Services Tax (GST) returns yielded;
    - $106.8 million from 3,432 GST returns.
- Small business Cashflow Loan Scheme yielded;
    - 4,097 declined applications worth a total of $67.67 million.
    - This was a 43% decline rate from those reviewed.

Ministry of Social Development

- Specialist fraud investigators conducted **5,234** cases relating to benefit overpayment;
    - 57.1% of these investigations resulted in a change of entitlement.

Serious Fraud Office

- The NZ SFO successfully prosecuted 6 cases returning $210 million NZD.

## Annex B

To reach our conclusion on the likely level of fraud and error in New Zealand public spending, we have focused on the following comparators and drawn a range from them. For the purposes of this report, the 'Financial Cost of Fraud' report upper range of 10% has not been taken into consideration due to being identified as an outlier.

| Comparator | Fraud and Error Range |
|---|---|
| UK Government Fraud Measurement and Assurance Programme | 0.5% - 5% |
| UK Fraud and Error in the Benefits System | 3.6% |
| The Financial Cost of Fraud Reports[34] | 3% |
| UK Annual Fraud Indicator | 0.45% - 4.04% |
| EU Budget Annual Report | 1.8% - 3.6% |
| ACFE Report to the Nations | 5% |
| US Improper Payments Act | 5.6% |
| **Overall Range** | **0.45% - 5.6%** |

The following tables outline the fraud estimation calculations using the proxies identified for the financial years 2019, 2020 and 2021. We have included previous years (2019 and 2020) to show how these calculations change over time.

| Fraud estimation calculations - Year 2021 ($ billions) | | | | | |
|---|---|---|---|---|---|
| **Comparator** | **NZ Government Expenses (excluding tax)** | **NZ Government Expenses (including tax)** | **Proxy to be applied** | **Estimated value excluding tax** | **Estimated value including tax** |
| UK (CO) FMA Programme - lower range | 133.7 | 231.7 | 0.5% | 0.66 | 1.15 |
| UK (CO) FMA Programme - upper range | 133.7 | 231.7 | 5% | 6.68 | 11.58 |
| UK Fraud and Error in the benefit system 2021 | 133.7 | 231.7 | 3.6% | 4.81 | 8.34 |
| The Financial Cost of Fraud 2021 - lower range | 133.7 | 231.7 | 3% | 4.01 | 6.95 |

[34] Note, due to the lower confidence in these estimates, the lower part of the range has been used as a comparator and the average and upper range have been excluded.

| | | | | | |
|---|---|---|---|---|---|
| *The Financial Cost of Fraud 2021 - global average* | *133.7* | *231.7* | *6.42%* | *8.58* | *14.87* |
| *The Financial Cost of Fraud 2021 - upper range* | *133.7* | *231.7* | *10%* | *13.37* | *23.17* |
| UK Annual Fraud Indicator 2017 (lower estimate) | 133.7 | 231.7 | 0.45% | 0.60 | 1.04 |
| UK Annual Fraud Indicator 2017 (upper estimate) | 133.7 | 231.7 | 4.04% | 5.40 | 9.36 |
| EU Budget Annual Report - lower range | 133.7 | 231.7 | 1.8% | 2.40 | 4.17 |
| EU Budget Annual Report - estimated average | 133.7 | 231.7 | 2.7% | 3.60 | 6.25 |
| EU Budget Annual Report - upper range | 133.7 | 231.7 | 3.6% | 4.81 | 8.34 |
| ACFE Report to the Nations | 133.7 | 231.7 | 5% | 6.68 | 11.58 |
| US Improper Payments | 133.7 | 231.7 | 5.6% | 7.48 | 12.97 |

| **Fraud estimation calculations - Year 2020 ($ billions)** | | | | | |
|---|---|---|---|---|---|
| **Comparator** | **NZ Government Expenses (excluding tax)** | **NZ Government Expenses (including tax)** | **Proxy to be applied** | **Estimated value excluding tax** | **Estimated value including tax** |
| UK (CO) FMA Programme - lower range | 138.9 | 224 | 0.5% | 0.69 | 1.12 |
| UK (CO) FMA Programme - upper range | 138.9 | 224 | 5% | 6.94 | 11.2 |
| UK Fraud and Error in the benefit system 2021 | 138.9 | 224 | 3.6% | 5.00 | 8.06 |
| The Financial Cost of Fraud 2021 - lower range | 138.9 | 224 | 3% | 4.16 | 6.72 |
| *The Financial Cost of Fraud 2021 - global average* | *138.9* | *224* | *6.42%* | *8.91* | *14.38* |
| *The Financial Cost of Fraud 2021 - upper range* | *138.9* | *224* | *10%* | *13.89* | *22.4* |
| Annual Fraud Indicator 2017 (lower estimate) | 138.9 | 224 | 0.45% | 0.62 | 1.00 |
| Annual Fraud Indicator 2017 (upper estimate) | 138.9 | 224 | 4.04% | 5.61 | 9.04 |
| EU Budget Annual Report - lower range | 138.9 | 224 | 1.8% | 2.50 | 4.03 |

| | | | | | |
|---|---|---|---|---|---|
| EU Budget Annual Report - estimated average | 138.9 | 224 | 2.7% | 3.75 | 6.04 |
| EU Budget Annual Report - upper range | 138.9 | 224 | 3.6% | 5.00 | 8.06 |
| ACFE Report to the Nations | 138.9 | 224 | 5% | 6.94 | 11.2 |
| US Improper Payments | 138.9 | 224 | 5.6% | 7.77 | 12.54 |

| **Fraud estimation calculations - Year 2019 ($ billions)** | | | | | |
|---|---|---|---|---|---|
| **Comparator** | **NZ Government Expenses (excluding tax)** | **NZ Government Expenses (including tax)** | **Proxy to be applied** | **Estimated value excluding tax** | **Estimated value including tax** |
| UK (CO) FMA Programme - lower range | 111.4 | 197.9 | 0.5% | 0.557 | 0.98 |
| UK (CO) FMA Programme - upper range | 111.4 | 197.9 | 5% | 5.57 | 9.89 |
| UK Fraud and Error in the benefit system 2021 | 111.4 | 197.9 | 3.6% | 4.01 | 7.12 |
| The Financial Cost of Fraud 2021 - lower range | 111.4 | 197.9 | 3% | 3.342 | 5.93 |
| *The Financial Cost of Fraud 2021 - global average* | *111.4* | *197.9* | *6.42%* | *7.151* | *12.70* |
| *The Financial Cost of Fraud 2021 - upper range* | *111.4* | *197.9* | *10%* | *11.14* | *19.79* |
| Annual Fraud Indicator 2017 (lower estimate) | 111.4 | 197.9 | 0.45% | 0.50 | 0.89 |
| Annual Fraud Indicator 2017 (upper estimate) | 111.4 | 197.9 | 4.04% | 4.50 | 7.99 |
| EU Budget Annual Report - lower range | 111.4 | 197.9 | 1.8% | 2.00 | 3.56 |
| EU Budget Annual Report - estimated average | 111.4 | 197.9 | 2.7% | 3.00 | 5.34 |
| EU Budget Annual Report - upper range | 111.4 | 197.9 | 3.6% | 4.01 | 7.12 |
| ACFE Report to the Nations | 111.4 | 197.9 | 5% | 5.57 | 9.89 |
| US Improper Payments | 111.4 | 197.9 | 5.6% | 6.23 | 11.08 |

The following tables provide the data used to calculate the potential loss in the New Zealand public sector from tax revenue and welfare spending, if the UK comparators are used.

| Fraud estimation calculations (Tax) | | | | | |
|---|---|---|---|---|---|
| **Year** | **Tax Revenue ($)** | **Estimated Fraud and Error in Tax Revenue (3.78%)[35] ($)** | **Total Expenditure excluding Tax Revenue ($)** | **Estimated Fraud Range across Total Expenditure (0.45% - 5.6%) ($)** | **Estimated Fraud Range (including Tax Revenue) ($)** |
| 2021 | 98 billion | 3.62 billion | 133.7 billion | 601 million - 7.48 billion | 4.22 billion - 11.1 billion |
| 2020 | 85.1 billion | 3.21 billion | 138.9 billion | 625 million - 7.77 billion | 3.83 billion - 10.98 billion |
| 2019 | 86.5 billion | 3.20 billion | 114.4 billion | 501 million - 6.23 billion | 3.70 billion - 9.43 billion |

| Fraud estimation calculations (Welfare) | | | | | |
|---|---|---|---|---|---|
| **Year** | **Welfare ($)** | **Estimated Fraud and Error in Welfare (3.6%) ($)** | **Total Expenditure excluding Welfare ($)** | **Estimated Fraud in Total Expenditure excluding Welfare ($) (0.45% - 5.6%)** | **Estimated Fraud Range ($)** |
| 2021 | 36.8 billion | 1.32 billion | 96.9 billion | 436 million - 5.42 billion | 1.75 billion - 6.74 billion |
| 2020 | 44 billion | 1.58 billion | 94.9 billion | 427 million - 5.31 billion | 2 billion - 6.89 billion |
| 2019 | 28.8 billion | 1.03 billion | 82.6 billion | 371 million - 4.62 billion | 1.40 billion - 5.65 billion |

[35] The % for estimated fraud in tax revenue was calculated using the estimates of the value and share of tax gap for the 2019/20 year excluding non-payment, avoidance and legal interpretation (Fig 1.6) compared against the total tax revenue for that year.

## Annex C

The following table outlines the sector specific fraud loss estimate percentages identified from the Annual Fraud Indicator 2017 report:

| Fraud Type | Confidence | Estimated Fraud % |
|---|---|---|
| Tax fraud | G | 3.13 |
| Vehicle excise fraud | G | 1.38 |
| Television licence fee evasion | S | 5.50 |
| Procurement fraud | B | 4.76 |
| Payroll fraud | B | 1.70 |
| Grant fraud | B | 3.02 |
| Student finance fraud | B | 3.02 |
| Pension fraud | B | 3.02 |
| National Savings and Investments fraud | S | 0.02 |
| Dental charge fraud | G | 3.80 |
| Optical charge fraud | G | 3.00 |
| Prescription charge fraud | G | 3.09 |
| Dental contractor fraud | G | 3.49 |
| Pharmaceutical contractor fraud | G | 3.97 |
| Optical contractor fraud | G | 2.47 |
| General practice contractor fraud | B | 4.57 |
| Housing benefit fraud | G | 4.04 |
| Income Support | G | 2.12 |
| Jobseekers allowance | G | 3.20 |
| Employment and support allowance | G | 1.87 |
| Pension credit | G | 2.54 |
| Universal Credit | G | 2.65 |
| Disability living allowance | G | 0.45 |

| | | |
|---|---|---|
| Carer's allowance | G | 3.92 |
| Council tax reduction fraud | S | 1.22 |
| Unreviewed | S | 0.72 |
| Tax credits fraud | G | 1.70 |
| General insurance fraud | B | 3.99 |
| Mortgage fraud | B | 0.64 |
| Plastic card fraud | B | 0.07 |
| Retail | S | 0.05 |
| Telecoms fraud | S | 2.40 |
| Rail transport fare evasion | S | 1.80 |
| Mass marketing fraud | G | 0.53 |
| Identity fraud | S | 0.16 |
| Private rental property fraud | S | 1.96 |