MINISTRY OF SOCIAL DEVELOPMENT
TE MANATŪ WHAKAHIATO ORA

Dear

On 26 May 2017, you emailed the Ministry requesting, under the Official Information Act 1982, the following information:

- *Research Steven Joyce says MSD has done on the market response to the lifting of the supplement in 2005 (ie whether landlords lifted rents in response), he said it was done recently.*

Please find enclosed a copy of the document titled '*The phase 1 results of the Auckland Accommodation Supplement study: Does the accommodation supplement increase spending on rents*', dated 25 November 2016.

The principles and purposes of the Official Information Act 1982 under which you made your request are:

- to create greater openness and transparency about the plans, work and activities of the Government,
- to increase the ability of the public to participate in the making and administration of our laws and policies and
- to lead to greater accountability in the conduct of public affairs.

This Ministry fully supports those principles and purposes. The Ministry therefore intends to make the information contained in this letter and any attached documents available to the wider public shortly. The Ministry will do this by publishing this letter and attachments on the Ministry of Social Development's website. Your personal details will be deleted and the Ministry will not publish any information that would identify you as the person who requested the information.

If you wish to discuss this response with us, please feel free to contact OIA_Requests@msd.govt.nz.

If you are not satisfied with this response, you have the right to seek an investigation and review by the Ombudsman. Information about how to make a complaint is available at www.ombudsman.parliament.nz or 0800 802 602.

Yours sincerely

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MINISTRY OF SOCIAL DEVELOPMENT
TE MANATŪ WHAKAHIATO ORA

Phase 1 results of the Auckland Accommodation Supplement Study

Does the accommodation supplement increase spending on rents?

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Acknowledgements

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Disclaimer

These are phase 1 results of the study and should be treated as preliminary findings

Date

25 November 2016

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Executive summary

The accommodation supplement is a means tested subsidy for housing costs for low income individuals and families. The subsidy aims to improve living standards by providing additional income for those with high housing costs. The subsidy is currently paid to just under 290,000 recipients at a cost of over $1.1 billion per annum.

An important issue for the program is that there is a risk that the subsidy increases rents in the housing market, potentially through the channel of increased demand and a constrained supply of rental housing. If this happens it is landlords rather than low income renters who capture some of the benefits of the subsidy. The ability of the subsidy to improve living standards is reduced if the subsidy increases rents, as both the recipients of the subsidy, as well as potentially other low income renters end up paying higher housing costs.

The existing New Zealand research is somewhat limited, and presents contradictory findings about the impact of the accommodation supplement on rents (Stroombergen, 2004; Grimes and Hyland, 2013). The findings of research about the impact of similar subsidies in other countries is also mixed, although a recent review suggested that overall the literature was finding that landlords might capture between 30 to 78 per cent of the value of the subsidy (Brackertz et al., 2015).

This study presents new empirical estimates of the impact of the accommodation supplement on the amount of rent paid by subsidy recipients. The focus of the study is a change in subsidy rates that resulted from the establishment of a new Auckland city accommodation supplement area in 2005. The creation of the new area meant that there was a small relative increase in the value of accommodation subsidies within the new Auckland city accommodation supplement area.

To analyze the impact of the changes we created a geocoded dataset of all accommodation supplement claims in the wider Auckland region over the period 2003 to 2015. The geocoded nature of the dataset meant we were then able to restrict the analysis to the recipients who lived along a narrow corridor either side of the boundary of the new area.

The study finds no evidence that the more generous payment increased growth in the number of claimants on the Auckland city side of the boundary. There was also little evidence that a more generous accommodation subsidy on the central Auckland side of the boundary led to any growth in spending on rents.

The finding of no discernible impact on demand from a small change in the average value of the subsidy suggests that there also should not have been any wider impacts on the market price of rental housing.

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Background

Housing is a significant component of family budgets and plays a central role in the welfare of families. Homelessness, transience, overcrowding, poor quality indoor environments, and restricted family living standards as a result of high housing costs are all features of housing market outcomes that have undesirable impacts, particularly if they involve families with children.

The Accommodation Supplement is currently the government's largest direct investment in housing, and a key element of the overall approach to housing for low income families. The subsidy is available, subject to various criteria, to low income individuals and families with high housing costs. The program aims to ensure that housing is affordable, and also represents an important means of protecting the living standards of low income individuals and families.

Currently the payment subsidizes the housing costs of roughly 11% of the total population. Slightly less than a third of all people in rental accommodation appear to have their rents subsidized by the payment.

A key issue for the payment is that the maximum rates of accommodation supplement have not been adjusted for more than a decade. Just over 40% of recipients are currently paid the maximum rate of the subsidy, and in recent years the average amount of accommodation supplement has remained static at around $71 per week. Housing costs in many parts of the country have been increasing strongly, and this has resulted in the payment covering a diminishing percentage of the housing costs of recipients. Between June 2012 and June 2016 the average amount of housing costs subsidized by the payment declined from 30% to 28%.

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Table 1: Demand-side housing subsidies in New Zealand, year to June 2015

	Description	Coverage	Spending
Accommodation Supplement	Non-taxable second tier benefit that provides assistance towards a person's accommodation costs.	Approximately 290,000 recipients, representing 12% of population 16 years and above.	$1.1 billion in 2014/15 which represents approximately 1.5% of all core government expenditure
Temporary additional support*	Non-taxable third tier supplementary benefits that can be paid for a maximum of 13 weeks to help with essential living costs that cannot be met from existing income	Approximately 60,000 recipients, most of whom also receive accommodation supplement.	Just under $0.2 billion in 2014/15
Income related rents subsidy	Subsidized rent for social housing tenants with low incomes. The rate of subsidy is calculated based on income and household type.	Approximately 64,000 recipients. Not available for accommodation supplement recipients	Over $0.7 billion in 2014/15

*Just over 3,500 people also receive Special Benefit which was the program phased out for new recipients when Temporary Additional Support was established.

The Accommodation Supplement is part of a wider portfolio of government housing policies, programs and regulations. This wider portfolio includes other payments such as Temporary Additional Support, the Income Related Rent Subsidy for social

housing tenants, and various forms of housing and financial market regulation (eg the Residential Tenancies Act), taxation, and direct supply side measures.

Spending on the accommodation supplement represents around 1.5% of core crown expenditure and 0.5% of GDP. This level of spending is not unusual in an international context, with many other OECD countries having subsidies for low income families that provide a targeted subsidy for accommodation costs (OECD, 2011). Similar levels of investment in housing subsidies are recorded in the UK and Finland, while expenditure in the US represents just over 0.1% of GDP, and France invests slightly more at 0.8% of GDP.[1]

Across many countries the broad rationale for such housing subsidies are that they provide recipients with more choice over housing, harnesses the supply side efficiencies of the non-government sector, and potentially allow improved labour market mobility where the subsidy is portable (Collinson et al., 2015; Winnick, 1995).

High quality analysis of the impact of housing vouchers in the US context suggests that they can improve the housing conditions of low income individuals and families. Impacts include:

- reducing homelessness, overcrowding, and living with relatives or friends (Mills et al., 2006; Wood et al., 2008)
- improvements in the quality of neighbourhood characteristics (Mills et al, 2006; Orr et al., 2003)
- improvements in housing quality (Kennedy, 1980)
- reduced involvement with child protection and reduced exposure to intimate partner violence as a result of providing housing for homeless families (Gubits et al., 2015)

The US research also shows that means tested housing subsidies can improve other aspects of living standards apart from housing. A subsidy to those with high housing costs provides more income for other essential items of family budgets such as food and clothing. Evidence of these impacts are observed in a number of well conducted randomized trials in the USA (Jacob and Ludwig, 2012; Mills et al, 2006). The implication is that subsidizing the housing costs of low income families is a targeted means of directing resources to those with the restricted living standards.

There is also evidence of unintended impacts. Like the other components of a means tested income support system, the abatement of housing subsidies may impact on decisions about participation and hours of work. Recent US research find that recipients of income related rent subsidies earn less as a result of receiving the subsidy (Carlson et al., 2012; Jacob and Ludwig, 2012; Wood et al., 2008)

There is also some evidence (discussed in the following sections) that housing subsidies can also lead to an unintended impact on the market price of housing. In this instance some of the benefits of the subsidy are captured by landlords as higher

[1] Estimates of expenditure from Erickson and Ross (2015), Brewer et al., (2015), Viren (2013) Grislain-Letrémy and Trevien (2016)

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rental returns, and some of the costs may also be borne by non-subsidized low income households who face higher market rents.

The extent of an impact on market rents is an important consideration in the overall debate about the relative benefit of housing subsidies, and this study is designed to investigate whether this impact occurs in the New Zealand context.

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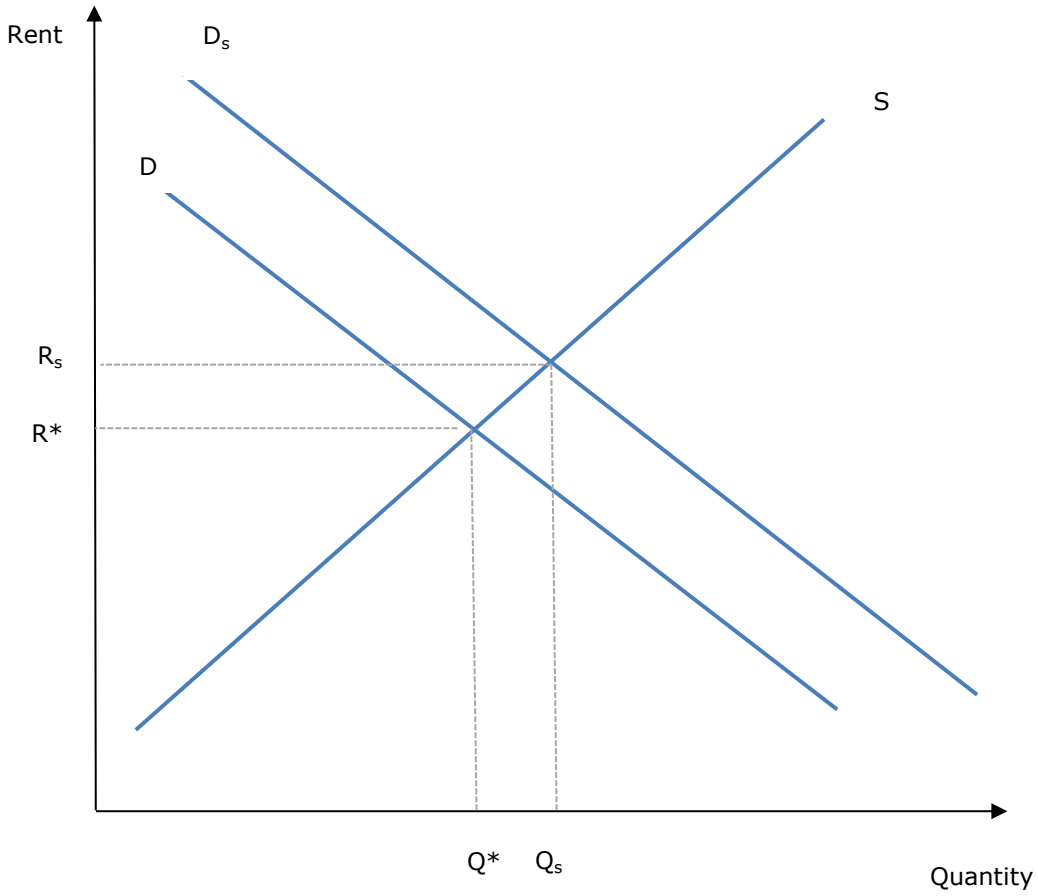
Research question

The key research question for this paper is the extent to which the accommodation supplement and related subsidies increase private market rents. As represented in figure 1, the standard market analysis of the impact of a housing cost subsidy is a straightforward analysis of demand and supply.

Fig 1: The impact of a housing subsidy on rents and quantity in the rental housing market



Incidence depends on the responsiveness of housing demand among low income recipients (particularly the extent to which a subsidy increases demand for housing rather than other items in the household budget such as food), and the nature of the supply side of the housing market (the extent to which the supply of housing is inelastic).

On the demand side, a pure housing subsidy is likely to impact on the demand for housing among those subsidized via both income and relative price effects. The subsidy increases housing demand for those subsidized due to higher incomes (in most cases it is assumed that housing is a normal good), and also because housing becomes cheaper relative to other forms of consumption.

Importantly, the extent to which a housing subsidy changes behavior through income or relative price effects will depend on the precise design of the subsidy. A key design issue is whether the subsidy is based on the actual rent paid by the household versus a local area benchmark.

One major approach is for the value of the subsidy to be tied to a local benchmark housing cost for a family type. In this instance the subsidy creates an income effect only as it does not change the rental cost faced by each subsidy recipient.

The alternative approach, which appears to be the dominant design used in various countries, is for the subsidy to be tied to some percentage of the actual rents paid by recipients, up to some maximum.[2] For recipients with rents not constrained by the maximum payment, a high rental subsidy rate is likely to induce more housing demand as it reduces the relative price of housing, as well as increasing incomes.

On the supply side, in a competitive market increased demand for housing bids up all rents unless supply is perfectly elastic. For a given increase in demand the magnitude of the rent increase depends on the extent to which the supply of housing can increase. The speed and extent of the supply side adjustment to changes in demand is therefore crucial in determining both the short and longer term impacts of a subsidy.

A relatively strong demand response combined with an inelastic supply will result in higher rents and much of the benefit of the subsidy will be captured by landlords. Alternatively, where the demand response is small (the subsidy is spent on other forms of consumption such as food and heating), or the supply is very responsive to changes in price, then there will be a relatively minor impacts on rents and the benefits of the subsidy will be captured by recipients.

The standard analysis uses a competitive model, but it is also useful to consider the impact of subsidies using alternative models of the housing market. One such approach is to focus on the impact of subsidies where there are search costs for individuals looking for houses to rent. In this instance some types of housing subsidies – those that provide a percentage of rent – change the payoff from continuing search. These subsidies likely increase the price of new rental agreements because there is less value in continuing to look for better value tenancy (Collinson et al., 2015).

Another approach focusses on long term tenancy agreements and the differential costs of contract termination. Where rent is determined by bargaining, and the costs of finding and moving house is larger for tenants than for landlords, then some proportion of the value of a percentage of rent subsidy may be divided up as part of the bargaining over a tenancy agreement. In this instance a change to the value of a housing subsidy may flow through into increased rents for both new and existing tenancy agreements as a result of bargaining and renegotiation (Susin, 2002).

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[2]This is the approach taken with the Accommodation Supplement in New Zealand (where the subsidy rate is 70%), and also the Housing Choice Voucher program in the USA (where the subsidy rate is 100%). In most countries with similar schemes the payment formulae is based on subsidizing the actual rents above an entry threshold and up to a maximum payment.

Existing research on the impact of subsidies on rents

A recent review of high quality studies published within the period 2002-2013 found evidence to support the view that demand-side housing subsidies lead to higher rents in the private rental market. Estimates of the magnitude of the increase in rents that resulted from subsidies varied from 30 per cent to 78 per cent of the value of the subsidy (Brackertz et al., 2015).

The review also made the important point that the extent to which demand-side subsidies result in higher market rents depends on a number of factors including:

- the precise design of the demand side subsidies (e.g. who is eligible, how the subsidy is calculated, the overall generosity of the subsidy)
- contextual factors such as the size of the rental market, the stability of tenure, the extent of competition and regulation in the rental market, and the wider structure of social insurance and welfare

In what follows we briefly describe the studies reviewed by Brackertz et al (2015), and also include a number of both older and also more recent studies.

As with any research, a crucial issue is the ability to credibly identify a causal impact. This requires a methodology that identifies a comparison group whose outcomes can reliably be used to create a counterfactual for the outcomes observed for the treatment group. Identification and the choice of a comparison group is particularly challenging in this instance because the impact that is being estimated is a market price that is paid by both subsidized as well as unsubsidized renters.

A well conducted randomized trial with sufficient sample size and a design that takes account of spill over impacts could provide a means of estimating impacts. This could be achieved by randomly allocating a higher subsidy rate to recipients in a sample of local housing markets, and comparing rents in a randomly selected control group of housing markets. In this instance assignment to the subsidy would not be correlated with any other characteristics that might impact on future rents.

Quasi experimental analysis attempts to identify the 'treatment' impact where assignment has not been random, and where treatment status is likely correlated with other characteristics that might impact on future outcomes. The overall strategy of quasi experimental analysis is to adjust for any selection in the assignment process in order to create a comparison group as if there had been random assignment.

In the housing subsidy area, the risk with quasi experimental analysis is that more generous subsidies are made available to areas where policy makers are concerned there will be a future growth in rents. In such circumstances a weakness in the identification strategy can mean an increase in rents is mistakenly attributed to the subsidy as opposed to a selection effect.

Table 2 sets out our brief review of high quality studies, starting with the groundbreaking Experimental Housing Allowance Program conducted in the USA in the early 1970s. The table distinguishes between research that estimates impacts

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on the rents paid by subsidy recipients, as well as studies that attempt to measure wider impacts on market rent (ie impacts that include the rents for individuals who are not subsidized).

Table 2: International and New Zealand studies of the impact of housing subsidies on market rents

Study	Description	Estimated impacts
Experimental Housing Assistance program – Supply Experiment, USA (Lowry, 1982)	Quasi experimental analysis of income related housing subsidy to approximately 20,000 low income families who were either homeowners or renters living in two specific communities. Subsidy was not tied to actual rents paid by recipients. Research conducted over the period 1973-1979.	No impact on market rents or housing values compared to those observed nationwide or in similar communities over a five year period. Researchers attributed much of this finding to the fact that the extra income provided by the allowance generated only a modest increase in demand for housing
Experimental Housing Assistance Project – Demand Experiment, USA (Kennedy, 1980)	Randomised experimental study over the period 1973-1976 with sample of 2,400 low income households given different types of housing subsidies. Outcomes compared to a control group of 1000 households. The two major types of allowance plans tested were the housing gap plans (which paid the difference between the average local cost of modest standard housing and some fraction of household income), and the percentage of rent plans (which paid some fraction of a households rent).	The demand experiment found no impact on rents for subsidy recipients who received the 'income gap' payment. By way of contrast the percent of rent subsidy recipients ended up paying higher rents for their housing. The researchers concluded that this occurred because this form of the subsidy induced '…households to shop less carefully. As a result, recipients under these programs tend to pay higher than average prices for their units.' (Kennedy,1980 p133)
Section 8 voucher and certificates program, USA (Susin, 2002)	Quasi experimental estimates of impact on local market rents as a result of an expansion in the voucher program between 1974 and 1993. The analysis estimates the relationship between change in spending on subsidies within areas, and change in average rents controlling for area characteristics. Data from American Housing Survey and Census.	The study concludes the program raised market rent paid by unsubsidized poor households in the average metropolitan area by 16 percent.
Housing Choice Vouchers, USA (Collinson and Ganong, 2015)	Quasi experimental estimates using variation induced by three different policy changes that affected local area maxima. Administrative data used to assess impact on rents of recipients over the period 1990-2013	A $1 increase in the rent ceiling raised rents paid by recipients by $0.13-0.20 cents, although it was difficult to adequately control for unmeasured improvements in housing quality.
Housing Choice Vouchers,	Quasi experimental analysis	No evidence that the

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USA (Eriksen and Ross, 2015)	using panel data of rental units from the American Housing Survey. The research used a large and varied increase in the supply of vouchers across different local areas in 2000-2002.	voucher expansion increased the market price of rental housing.
Housing benefit, UK (Gibbons and Manning (2006)	Quasi experimental analysis using cross sectional household survey data on housing benefit recipients. The research uses changes to housing benefit in 1996 and 1997 that made the subsidy less generous for those who were starting a claim, compared to those with longer tenure with existing claims.	The research found that 60% to 66% of the cut was incident on landlords via reduced rents paid by subsidy recipients. However the size of the impact differed depending on the survey used.
Housing benefit, UK (Brewer et al., 2015)	The research uses a phased roll out of cuts to housing benefits in 2011-2012. Research uses monthly administrative panel data. Identification strategy uses new claimants (adjusted for time trend for counter factual), as well as differences-in-differences for claimants with the roll out.	The study concludes that there was very little impact on rents with 90% of the reduced housing benefit entitlements incident on the tenants rather than their landlords
Allocation de Logement, France (Laferrère and Le Blanc, 2002)	Between 1992 and 1994 rental housing allowances were extended to all low income households in France. The expansion began in the Paris region before expanding further. The research uses the Quarterly Rent Survey allows both cross sectional and panel fixed effects estimates of the impact of receipt of subsidy on rent.	The research finds that rent growth was significantly higher when tenants received a housing allowance.
Allocation de Logement, France (Fack, 2006)	The study uses the extension of the housing benefit system to low-income households without children over the period 1991-1993. The impact is measured within a difference-in-differences framework using higher-income households as the control group. The study uses cross sectional data from French Housing Survey and also the French Family Resources Survey.	The reform increased the rents of recipients by 78 cents for each euro of housing benefit.
Allocation de Logement, France (Grislain-Letrémy and Trevien, 2016)	The study uses an instrumental variable method based on a geographic discontinuity in the subsidy scheme where areas with more than 100,000 inhabitants received a higher subsidy.	The study finds housing subsidies had a positive impact on rents of subsidized as well as non subsidized households (with the magnitude being smaller for the later group). Impacts were particularly strong in

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	The study uses survey data over the period 1984-2012	metropolitan areas with tight housing markets.
Asumistuki, Finland Kangasharju (2010)	The study focuses on a 2002 change in the maximum payment. A difference-in-difference analysis is used with non assisted households as the control. Data is from a sample of Finnish households 1994 to 2003.	The study finds a 57 cents increase in rent for subsidized households in response to a one euro increase in subsidy.
Asumistuki, Finland Viren (2013)	The main part of the research uses an administrative panel dataset of 50,000 households that received housing allowances during the period 2000–2008. The analysis uses fixed effects focusing on assumed exogenous changes in the maximum payment.	The study finds an increase in rents of between 33%-50% of the value of the subsidy
Accommodation Supplement, New Zealand (Stroombergen, 2004)	The study uses a time series analysis with total AS spending as a covariate to explain changes in rents. Analysis over the period 1992 to 2004, and includes variables relating to lagged rents, bond rates, the rental housing stock, housing related costs, the dwelling occupancy rate and season variables.	The study found no discernible effect on rental prices.
Accommodation Supplement, New Zealand (Grimes et al., 2013)	The study uses a regional model of the NZ housing market, with components for house prices, rents, and land prices. The model inputs include incomes, population, existing dwellings, and AS expenditure. Data is for 1996-2012.	The model simulations find that an increase in the accommodation supplement would lead to an increase in rents, although the authors caution that the simulated responses may considerably overstate the impacts of an AS increase on house and land prices, rents and new housing supply

Overall the New Zealand and international evidence about the impact on rents is mixed, although the majority of studies find a positive impact. However interestingly, of the four papers published since 2015, only two find a positive impact on rents.

The detailed design of the accommodation supplement and other associated payments

In what follows we describe the detailed design of the Accommodation Supplement, as well as the other accommodation related payments called Special Benefit and Temporary Additional Support.

The Accommodation Supplement is a non-taxable benefit that provides assistance towards a person's accommodation costs. It is an important element of the overall income support system consisting of main benefits (this includes universal NZS), other supplementary add-ons which reflect specific individual costs (housing, disability, childcare and extra costs), discretionary payments and tax credits.

With some exceptions, any resident 16 years of age or older is eligible to receive the Accommodation Supplement if they have more than moderate accommodation costs, a low income and meet a cash assets test. Importantly, eligibility is not tied to being in receipt of a welfare payment, and low paid non-beneficiary working individuals and families are also eligible.

Individuals in social housing receiving the income related rent subsidy are not eligible for the accommodation supplement.

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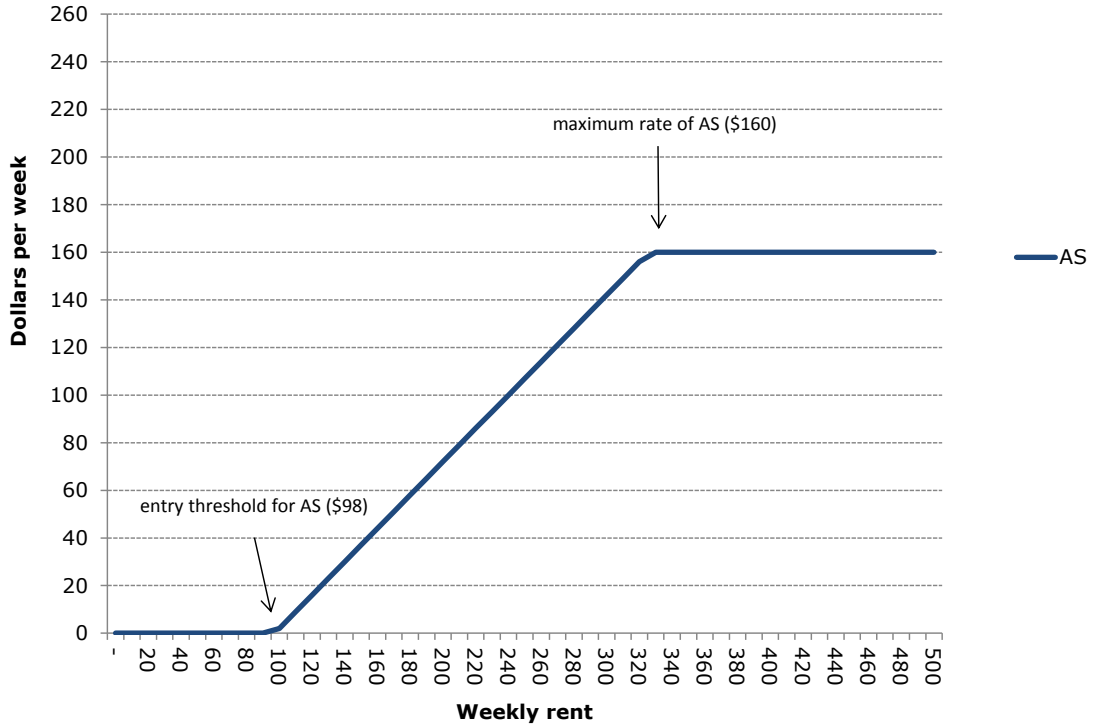
Fig 2: Relationship between rent and accommodation supplement for sole parent support recipient with one child in Auckland, 2015.



The accommodation supplement can be paid to renters, boarders, or individuals who own their own home and are paying a mortgage. For a person receiving a means tested main benefit, the value of the subsidy is 70% of their weekly accommodation costs that are above an entry threshold. The overall amount payable cannot exceed a maximum rate. The entry thresholds rates differ according to the type of main

benefit, the number of dependent children and the type of housing tenure. The maxima differ according to family size and region.

Figure 2 sets out the value of the payment for a recipient receiving the Sole Parent Support benefit who has one child and renting in the Auckland Accommodation Supplement area. The figure shows how the value of the weekly payment depends on their weekly rent.

Individuals not in receipt of a means tested main benefit are also eligible for the accommodation supplement as long as their assessed income remains below various income thresholds. Those on NZS with other income are eligible for the full payment unless their total income is above a cut-out point. For non-beneficiaries with other income and who are not on a means tested benefit or NZS, the assessed payment is abated by 25 cents in the dollar for income above an income threshold.

Table 3 sets out the characteristics of accommodation supplement recipients in June 2016. As can be seen, there were 287,764 recipients who on average had housing costs of $253 and received $71 per week in accommodation supplement.

Table 3: Accommodation Supplement recipients, June 2016

Category	Number	Percentage of recipients (%)	Average weekly payment ($)	Average weekly accommodation costs ($)
Means tested beneficiaries	192,995	67	69	234
NZS or Veterans Pension	37,527	13	59	231
Non beneficiaries	57,242	20	86	332
Total	287764	100	71	253
No dependent children	181,216	63	58	211
With dependent children	106,548	37	93	325
Total	287,764	100	71	253
Renting	191,215	66	83	265
Boarding	63,409	22	34	189
Own home	33,140	12	75	310
Total	287,764	100	71	253

An important feature is the duration of time individuals spend in receipt of the accommodation supplement. As an illustration of this, table 4 shows the average time in receipt of the subsidy for individuals who started a spell of receipt in 2007. Over the next 8 years this group spent around 4 years receiving the supplement.

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Table 4: Average years in receipt of subsidy for cohort commencing a spell of Accommodation Supplement in 2007, by age (N=349,833)

Age in 2007	Average total years in receipt in the following 8 years
Under 20	3.4
20 to 29 years	3.6
30 to 39 years	4.0
40 to 49 years	4.2
50 to 59 years	4.6
60 to 69 years	4.7
70 years and above	4.4
Total	4.0

Note: Analysis of primary recipients only

Individuals in receipt of Accommodation Supplement are also potentially eligible for other additional payments where they have high housing costs relative to their income. The most important of these is Temporary Additional Support which is a non-taxable payment that needs to be renewed every 13 weeks.[3] It provides temporary additional assistance to alleviate financial hardship for people with high essential costs compared to their income.

The payment is based on a calculation of disposable income which is the difference between income and allowable costs (which include those related to housing). A beneficiary is eligible for a payment if their disposable income is less than a benchmark of what is considered essential in the circumstances. The value of the payment is this deficiency in income up to a maximum which is 30% of the net rate of the relevant main benefit.

Figure 3 sets out the value of a Temporary Additional Support for a sole parent support recipient with one child. As can be seen, the value of the payment increases up to a maximum in line with a person's accommodation costs. The graph also shows the combined value of the Accommodation Supplement and Temporary Additional Support. An important feature of this is that there will be a 100% marginal subsidy for accommodation costs over the range of rents where TAS is payable. This means that the total combined value of the subsidy increases by $1 for every $1 increase in rents.

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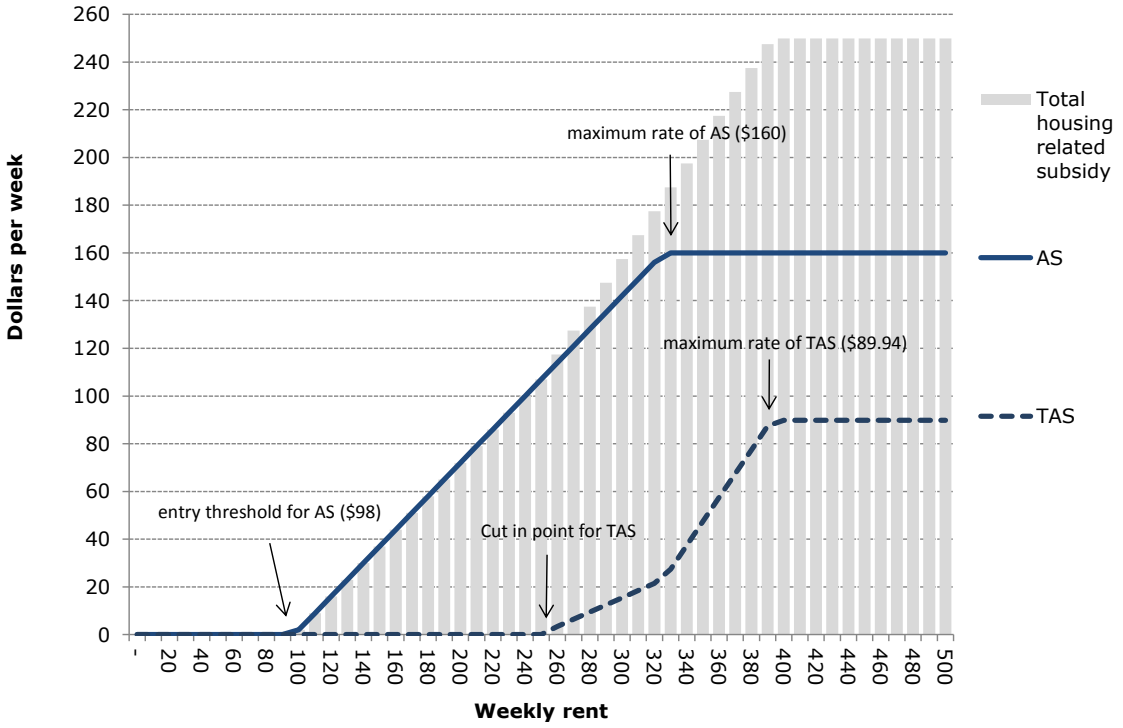
[3]Temporary Additional Support began on 1 April 2006. It replaced a similar payment more discretionary payment called Special Benefit which continued to be paid to those who were existing recipients. As at October 2016 a small number of recipients continued to receive this benefit.

Fig 3: Relationship between rent and accommodation cost related payments for sole parent support recipient with one child in Auckland, 2015.



Note: The modeled case assumes no other essential costs. The cut-in point of TAS will occur at a lower rent where the recipient has other essential costs that are counted by the TAS formulae.

Table 5 sets out the characteristics of temporary additional support recipients in June 2014. As can be seen, there were 60,459 recipients in total, and on average each recipient received $60 per week. Virtually all recipients also received the accommodation supplement.

Table 5: Number of Temporary Additional Support recipients and value of payments, June 2016

Category	Number	Percentage of recipients (%)	Average weekly payment ($)
Means tested beneficiaries	52,962	88	59
NZS or Veterans Pension	4,856	8	67
Non beneficiaries	2,641	4	75
Total	60,459	100	60
No dependent children	38,330	63	54
With dependent children	22,129	37	71
Total	60,459	100	60

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Research strategy

The research question this study seeks to address is the impact of accommodation supplement and related payments on the market price of rental housing.

We estimate housing market impacts quasi experimentally using the variation created by the establishment of a new accommodation supplement area in Auckland on 1 April 2005.[4]

Prior to the change the formulae for the Accommodation Supplement payment was the same either side of the boundary of the new region. After the change the formulae became more generous for those with high housing costs on the Auckland side of the boundary. For those with high accommodation costs, those on the Auckland side could be up to $35-$60 per week better off compared to those just outside.

Table 6: Change in maximum rates of accommodation supplement

	Household size	Outside Auckland boundary	Inside boundary	Difference
Before 1 April 2005	1	$100	$100	$0
	2	$115	$115	$0
	3+	$150	$150	$0
After 1 April 2005	1	$100	$145	$45
	2	$125	$160	$35
	3+	$165	$225	$60

Figure 4 below shows an example of the difference in the accommodation related payments created by the reform. Prior to the change a sole parent with one child received the same payment irrespective of which side of the boundary they were living. After the change those on the Auckland side of the boundary received a higher level of accommodation supplement if they were paying a weekly rent of just over $250 per week or more.

The extent of the difference in payments was however moderated by the impact of hardship payments (Special Benefit and its replacement Temporary Additional Support). While those in the new Auckland region were eligible to receive relatively larger Accommodation Supplement payments, these were sometimes partially offset by a reduction in hardship payments. In the situation modeled in figure 4, the relative increase in the maxima only created a more generous combined accommodation related for those with rents over $300 per week.

[4] Appendix 1 provides a historical chronology of these and other changes to the design of Accommodation Supplement and related housing payments over the period

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Fig 4: Difference in value of housing related subsidies either side of Auckland Accommodation Supplement boundary by weekly rent, sole parent with one child in April 2006

Note: The modeled case assumes no other essential costs, and represents the most extreme case of the TAS subsidy reducing the impact of the difference in the AS maxima.

In our analysis in the following sections we focus on the impact of the increase in the combined value of the accommodation supplement and hardship payments, and an important issue for our analysis is to assess if the policy changes led to a net increase in accommodation related payments.

Our focus is on accommodation supplement recipients either side of the geographical boundary of the new region. The reason for restricting attention to this geographical discontinuity is to ensure that the same local housing market factors were influencing both demand and rents. This means that any differences in rent or the number of recipients that emerge after the change might, subject to some assumptions, be attributed to the housing market adjustment caused by the policy change.

The map below shows the AS boundary after the change created the two new areas. The map sets out three 1km wide ribbons of land at the edge of the boundary. The control is the 'outside' ribbon, which is next to the boundary and outside the Auckland AS area. There are two treatment ribbons of land, the 'inside' ribbon (next to the boundary but on the inside of the new Auckland AS region), and the 'inside_inner' ribbon (next to the inside ribbon on the new Auckland AS region side).

The map also shows these ribbons of land relative to the Metropolitan Urban Limit. This feature is likely important given the research evidence about the impact of this planning rule on land valuations (Grimes and Liang, 2009; Zheng, 2013).

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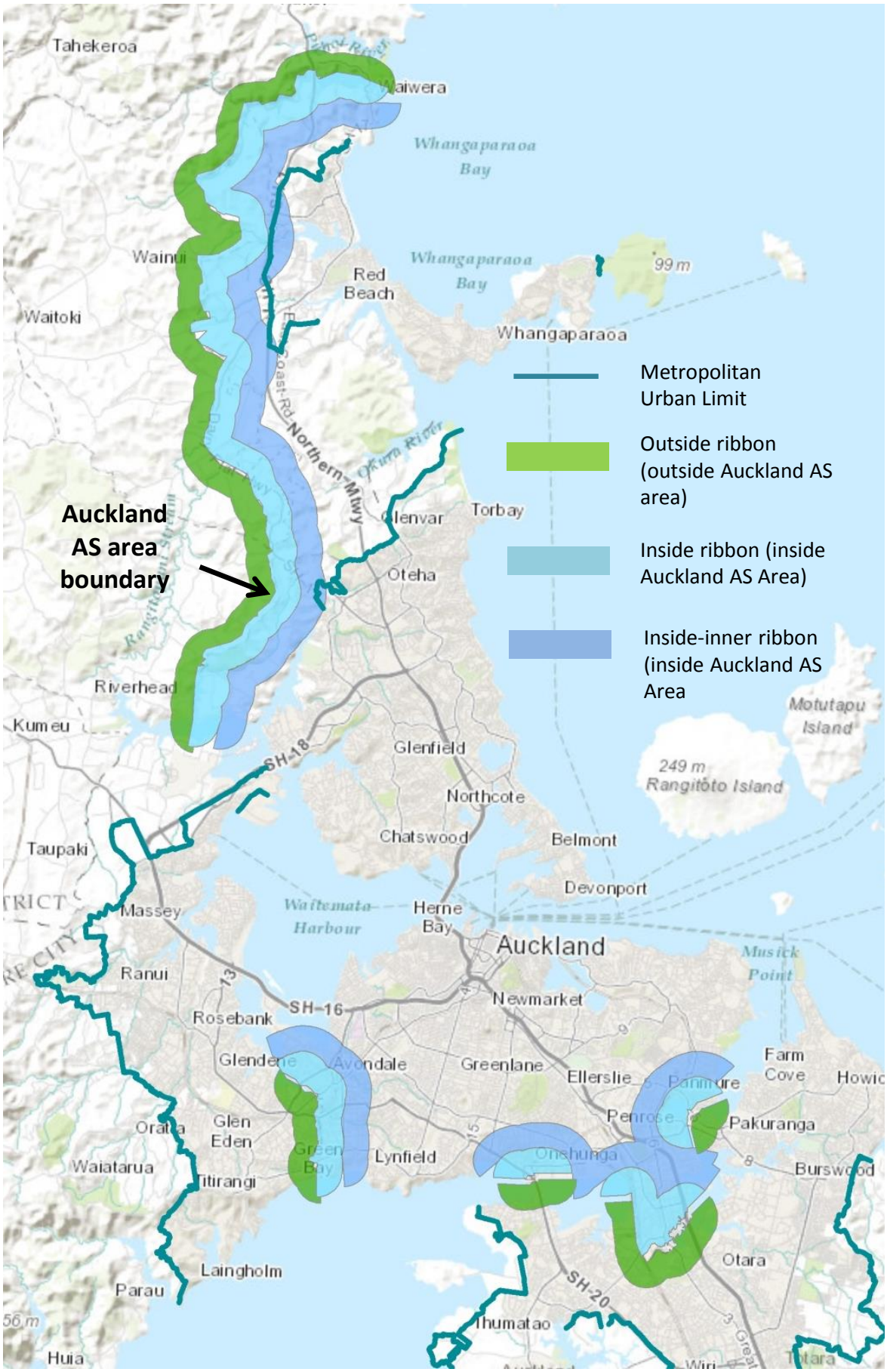
Fig 5: Auckland Accommodation Supplement Area after 1 April 2005



In the north the AS boundary traces the edge or urban development, and in the south the boundary follows the harbor. Across west Auckland the boundary transects an urban area, and figure 6 provides an aerial view of a specific neighborhood in West Auckland which is divided by the Accommodation Supplement boundary.

Fig 6: Detailed aerial view of Auckland Accommodation Supplement boundary after 1 April 2005

The standard market analysis predicts that a higher subsidy should lead to increased housing demand. Increases in the subsidy should allow low income individuals and families to spend more on housing and reduce over-crowding and the incidence of substandard accommodation.

From the perspective of this study, we expect to observe a relative increase in spending on housing by those in receipt of the more generous subsidy, as well as an increase in the number of subsidized recipients renting on the treatment side of the boundary.

To identify an increase in spending on rent we use a difference-in-difference approach across the boundary created by the new Auckland AS Region.[5] Assuming common trends, we would expect that impacts will be seen as the difference in the pre implementation difference.

It is important to note that assuming there is slow adjustment in housing supply, the increase in demand should also cause a relative increase in the quality adjusted price of rental housing on the treatment side of the boundary as the local market price of rental housing adjusts.

[5]For the next iteration of this research we plan to generalize this difference-in-difference approach into a regression discontinuity design. This would assess if the policy change created a discontinuity in the relationship between rents and distance from the boundary.

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Unfortunately our current dataset does not allow us to measure if this occurs, and we are not able to measure if any increase in spending on rent is associated with an increase in the wider market price of rental housing.

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Data for the study

The main dataset for the study is derived from the administrative records of all accommodation supplement claimants from January 2003 to February 2015. The data is a snapshot of all current payments on a specific day each month from the SWIFTT payment system. Each month for each individual who is a primary claimant for accommodation supplement there is information on their:

- physical address (which was geocoded)
- partnership status
- number of dependent children
- weekly earnings and other income declared to Work and Income
- type of housing arrangement (rent, board or ownership)
- type of landlord
- weekly cost of housing
- amount of the accommodation supplement subsidy
- the value of other housing related payment (Temporary Additional Support or Special Benefit)
- the value of all other benefits paid (excluding tax credits).

The underlying data forms the basis for payment of Accommodation Supplement. There will be some measurement error to the extent that there are mistaken calculations, failures to update records, fraud, and backdating of payments that have not been recorded in the monthly snapshot.

In addition to the information from the SWIFTT payment system, the dataset also contains geographical covariates based on the geocode of the place of residence. The use of a geocode is a particularly strong feature of this study as it allows a precise measurement of the treatment, whether the residence was likely affected by the Metropolitan Urban Limit, and a fixed effect for a recipients local area unit.

We restrict attention to renters (rather than boarders or homeowners) who make up 63% of all accommodation supplement recipients in the wider dataset. In total the dataset contains 804,085 records relating to 43,488 distinct individuals receiving rent related payments.

It is important to note that the dataset does not contain any physical information about the size or nature of the dwelling. This means that it is not possible to identify if adjustment along quantity or quality dimensions occurred. Further information on the accommodation supplement dataset is set out in Appendix 2.

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Formal estimation strategy

The first component of the formal estimation strategy is to describe characteristics of recipients in the treatment and control groups prior to the change in subsidies in 2005.

Second, we establish the size of the difference in the value of accommodation related payments either side of the boundary.

Third, we look for evidence of impacts on growth in the number of recipients either side of the boundary.

Fourth, we estimate the impact on expenditure on rents using a difference-in-difference approach (Imbens and Wooldridge, 2009). Our models control for the composition of recipients and the nature of each geographical area. The most general version of the model we estimate has the following form:

$$Outcome_{it} = \beta_0 + \beta_1 Inside_i + \beta_2 Inside\_inner_i + \beta_3 Year_t + + \beta_4 Treatment\_inside_{it} + \beta_5 Treatment\_inside\_inner_{it} + \beta_6 Demographics_i + \beta_7 Geography_i + e_{it}$$

Where:

$Outcome_{it}$ is the rent paid by the ith recipient at time t

$Inside_i$ is a dummy variable indicating that the recipient is renting in the inside ribbon

$Inside\_inner_i$ is a dummy variable indicating that the recipient is renting in the inside ribbon_inner ribbon

$Year_t$ are annual time dummy variables

$Demographics_i$ are various characteristics of recipients including age, gender, family status, disability, main benefit type, and earnings

$Geography_i$ are dummy variables for area units, and also for whether the location was inside or outside the Metropolitan Urban Limit

B_4 is the difference-in-difference estimator of the impact of the policy change for recipients in the Inside ribbon. The dummy variable $treatment\_inside_{it}$=1 for recipients in the Inside ribbon from 1 April 2005 when the policy change occurred

B_5 is the difference-in-difference estimator of the impact of the policy change for recipients in the Inside_inner ribbon. The dummy variable $treatment\_inside\_inner_{it}$=1 for recipients in the Inside_inner ribbon from 1 April 2005 when the policy change occurred

e_{it} are unobserved disturbances

The regression uses monthly cross sectional data over the period January 2003 to February 2015 of all recipients. Standard errors are clustered on individual recipients (Bertrand et al., 2004; Donald and Lang, 2001).

Our difference-in-difference analysis looks at outcomes in the two years after the change, as well as over a longer time period where the identification strategy is weaker because the assumption of a constant difference becomes less reasonable.

A critical issue for the study is how the boundary for the new Auckland AS region was set. Ideally the exact placement of the boundary should have been random, with no consideration of the neighborhoods where future housing market pressures would emerge. In this instance the treatment impacts would not be correlated with other drivers of housing market outcomes.

The accommodation supplement boundary for the new Auckland area was based on the Statistics New Zealand defined boundaries for the central and northern Auckland

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urban zones. It was determined by allocating urban areas with lower quartile bond data rents greater than $270 per week to the new Auckland AS region (MSD, 2006). We are not aware of any other major differences in services or regulation either side of this boundary and we are cautiously hopeful we do not have an omitted variable bias problem with the estimated treatment effect.

Identification relies on the assumption of common trends and we report a test of this hypothesis using data before the policy change occurred in 2005.

Another important component of our identification strategy is to measure the impacts of the policy change for recipients in two treatment areas. Importantly, we would expect impacts across both treatment ribbons to be similar in magnitudes. Where this is not the case it would be evidence of other omitted variables, such as a change in the local relationship between rent and distance from central Auckland.

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Results

Characteristics and outcomes for treatment and control groups before the change

Table 7 sets out the characteristics of recipients in the different ribbons of land just prior to the reform of the Accommodation Supplement. At that time there were 4,630 households being paid under the same payment rate structure for the Accommodation Supplement. As can be seen, the groups were somewhat balanced across different demographic and characteristics. However there were differences in the number of recipients in each area, and also slight differences in accommodation costs across the different areas.

Table 7: Characteristics of AS recipients renting by ribbon, 28 February 2005

	Outside	Inside	Inside_inner	Total
Percentage inside metropolitan urban limit	98 (0.4)	98 (0.3)	97 (0.4)	98 (0.2)
Percentage female	65 (0.4)	60 (1.1)	61 (1.2)	61 (0.7)
Percentage single	78 (1.3)	80 (0.9)	76 (1.1)	78 (0.6)
Percentage sole parents	43 (1.5)	37 (1.1)	37 (1.2)	39 (0.7)
Average number of children per recipient	1.0 (0.04)	0.9 (0.03)	0.9 (0.03)	0.9 (0.02)
Percentage of recipients in receipt of disability allowance	23 (1.3)	22 (0.9)	23 (1.0)	22 (0.6)
Percentage who are non-beneficiaries	17 (1.1)	16 (0.8)	22 (1.0)	18 (0.6)
Average weekly earned and other income declared to Work and Income	100 (6.4)	92 (4.6)	124 (5.8)	105 (3.2)
Average weekly rent	226 (2.1)	217 (1.6)	230 (1.8)	224 (1.1)
Percentage receiving maximum AS payment	36 (1.5)	33 (1.1)	38 (1.2)	35 (0.7)
Average weekly accommodation supplement payment	97 (1.1)	93 (0.8)	96 (0.9)	95 (0.5)
Average weekly housing subsidy (AS and hardship payments)	117 (1.8)	109 (1.2)	115 (1.4)	113 (0.8)
Net rent after housing subsidy	109 (1.4)	108 (1.1)	115 (1.3)	111 (0.7)
Percentage of rent subsidized	50	49	49	49

	(0.5)	(0.3)	(0.4)	(0.2)
Number of recipients	1073	1923	1634	4630

Note: Means and figures in brackets are standard errors. All AS renters within a 3km wide ribbon of land around the Auckland AS region boundary at 28 February 2005.

Did the change to Accommodation Supplement maxima lead to an increase in the value of accommodation related payments in the treatment areas?

On 1 April 2005 as part of Working for Families package the maximum rates of payment in the wider Auckland region were increased. Those in the new Auckland AS area were increased by the largest amount as a result of the creation of the new area. The change increased the relative generosity of the accommodation supplement for the roughly one third of recipients paid at the maximum rate of accommodation supplement. Importantly, the exact size of the change in generosity was also affected by payment of Special Benefit and its replacement Temporary Additional Support.

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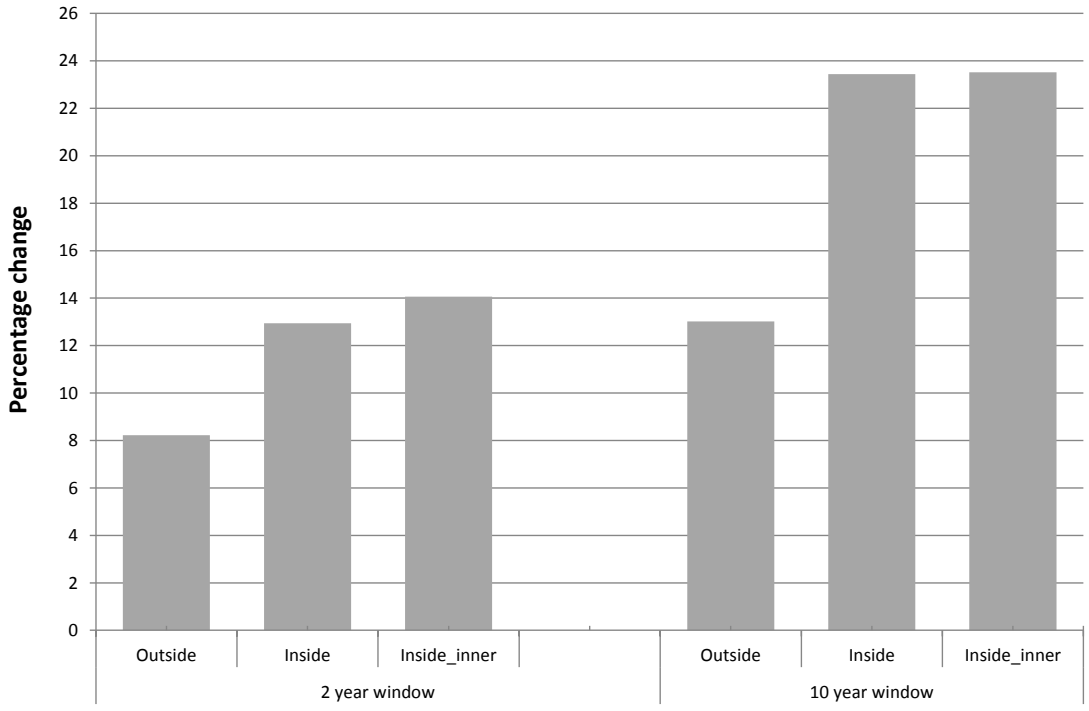
Figure 7: Percentage change in average accommodation related payments pre and post the 1 April 2005 changes in the maximum rates for Accommodation Supplement



Note: Percentage changes in payments in nominal dollars

Figure 7 shows the percentage change in the average value of accommodation related payments for recipients in the three different ribbons. In the two years following the policy change, average accommodation related payment received by recipients in inside the boundary increased by 5%-6% more than those outside. When measured over a 10 years window following the policy reform, accommodation

related payments grew by between 10%-11% more for those in the new more generous accommodation supplement area.

Graphs in appendix 3 show monthly trends in accommodation related payments in more detail. They show a relative reduction in the number of recipients being paid at the maximum rate of accommodation supplement for those inside the boundary, and an associated relative increase in the value of their weekly accommodation supplement payments. The impact on average accommodation supplement payments was immediate, but also grew overtime as an increased proportion of recipients in the outside ribbon became constrained by the maximum rates of payment for the accommodation supplement.

However, at the same time there was a countervailing relative increase in accommodation related hardship payments. Recipients outside the boundary received larger payments of Special Benefit and Temporary Additional Support. Overall, despite the countervailing impact of the hardship payments, the net effect was for recipients inside the boundary to experience a relative growth in accommodation related payments.

We undertook some supplementary analysis to check that the growth in accommodation related payments within the treatment areas were the result of the policy change, rather than differences in the composition of recipients or differences in the growth in rents in the areas.

To do this we estimated models of the payment system for recipients in the control ribbon, and then simulated these payment parameters as applying in the treatment areas. Separate regressions were estimated for the pre and post time periods to explain the average value of accommodation related payments for recipients in the outside ribbon. Each regression had covariates relating to family structure, broad categories of benefits, and also reported accommodation costs.

Table 8 shows the actual average payments and the simulation results. Prior to the policy change there were only minor differences in the level of payments between the ribbons as they were paid under the same payment rules and the composition was relatively similar. The difference between simulated payments and the actual payments was small, although statically significant (which suggests there may be some area specific factors that were different across the ribbons).

In the first two years after the change, recipients in the inside and inside_inner ribbons appear to receive $12-$15 per week more in in accommodation related payments compared to what they would have received if they were living outside the boundary.

Over the 10 year period, this difference between actual payments and simulated as if they were outside the boundary grew to $17-$19 per week. This modest increase in payments meant that over the following decade we estimate the total subsidy paid was between 15%-17% larger for those on the central Auckland side of the boundary.

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Table 8: Actual and simulation difference in average weekly accommodation-related payments before and after 1 April 2005 policy change

		Outside	Inside	Inside_inner
Pre 1 April 2005	Actual payments	103	100	105
	Simulated payments using 'as-if-outside' model	103	104	107
	Difference between actual and simulated	0	**-3**	**-2**
	p-value for difference	0.401	0.001	0.049
Post 1 April 2005 within 2 year window	Actual payments	111	114	120
	Simulated payments using 'as-if-outside' model	111	103	105
	Difference between actual and simulated	0	**12**	**15**
	p-value for difference	0.324	<0.000	<0.000
Post 1 April 2005 within 10 year window	Actual payments	118	124	129
	Simulated payments using 'as-if-outside' model	118	107	110
	Difference between actual and simulated	0	**17**	**19**
	p-value for difference	0.821	<0.000	<0.000

Note: Simulations based on a 70% random sample of the outside records to estimate accommodation related payment in either the pre or post periods. The regression models use covariates related to demographic characteristics and rents with adjusted r^2 of over 0.7. Parameters from regressions were used to calculate simulated accommodation payments for the 30% sample of outside, and the full sample of the inside groups. Standard errors were generated by 1004 repeated random samples and simulations. Bold indicates p-value<0.05.

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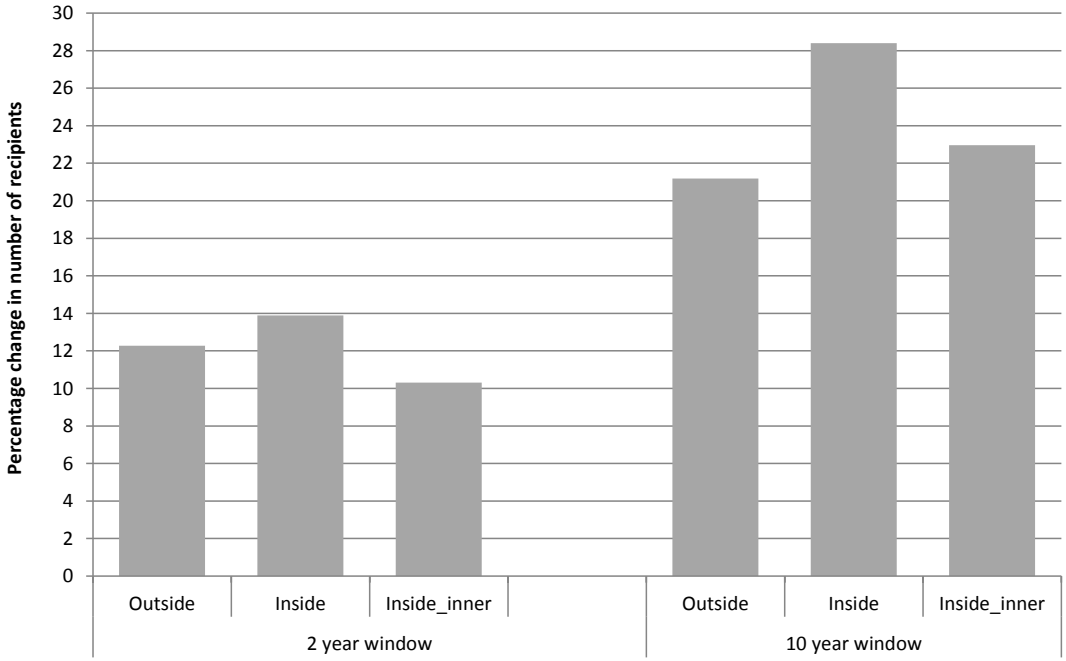
Was there a relative increase in AS recipients renting in the treatment areas?

More generous payments for housing in a local area should in theory mean an increase in individuals who are eligible for the payment seeking to rent in the area.

This section looks at the extent to which there is evidence that this occurred. Figure 8 shows the relative growth in the number of claimants either side of the boundary over both a two year and also ten year window. As can be seen, there was not a lot of difference in growth on the more generous side of the boundary over a short time period. However over a 10 year period there is some suggestion of a policy impact as a result of a large increase in the number of recipients in the inside ribbon. Figure 3.4 in appendix 3 shows a more detailed monthly time series view of these changes.

Figure 8: Percentage change in number of accommodation supplement recipients pre and post 1 April 2005



Importantly, the larger increase in the inside ribbon over the 10 year window was mostly driven by changes in one specific area (Otahuhu West), rather than being driven by increases in a number of areas around the boundary. This suggests that the difference that was observed was not as a result of the policy change but instead reflected other unmeasured factors.

Formally, we tested this by looking at whether treatment status was a statistically significant predictor of the growth in recipients within separate area units across the different ribbons of land around the boundary. In neither case was the impact of treatment statistically significant.

Did recipients in the treatment areas spend more on rents?

Figure 9 shows the percentage increase in the average weekly rents paid by accommodation supplement recipients after the policy changes in 2005.

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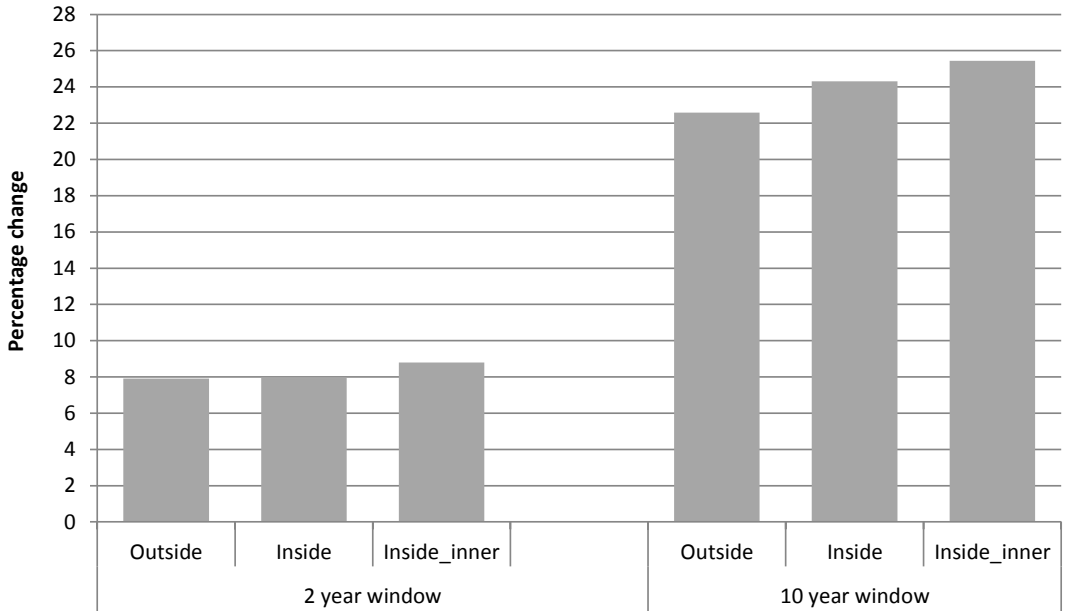
Figure 9: Percentage change in average weekly rents pre and post the 1 April 2005 changes in the maximum rates of payment for Accommodation Supplement



Over a 2 year window of time the rate of increase was the same for recipients in the outside and inside ribbons. The growth in weekly rent in the inside_inner ribbon was only marginally larger. Over a 10 year period after the policy change a slight difference emerged with a relatively larger growth in rents on the more generous side of the boundary. Average weekly spending on rent grew by 23% in the outside ribbon, while for those in the inside and inside_inner ribbons spending grew by a slightly larger amount.

A3.5-7 shows a more detailed time series view of monthly changes in rents changes in rents across the different ribbons.

If it is assumed that recipients in the three ribbons of land are broadly similar and also influenced by the same common trends, then it would be expected that in the absence of the policy change, the growth in rents would be the same. Under these assumptions, the difference in the growth in rents might be attributed to the policy change.

Using these assumptions, a simple difference-in-difference estimator from the aggregate changes suggests that the policy appeared to have had little impact on rents within two year period. There is however a suggestion that over a longer period of time, the policy might have increased spending on rents by around 1.7% in the inside region, and 2.9% in the inside_inner ribbon.

However, at this very aggregate level it is possible that the simple difference-in-difference estimates of impact on rents may reflect changes in composition of accommodation supplement renters in each area rather than assumed impacts. To control for changes in composition, and also establish the statistical significance of differences, we formally estimate impacts using a difference-in-difference model.

Table 9 reports our estimated impacts from regressions using 2 and 10 year windows of time over which to measure impacts. In both cases the dependent variable is the log of the rent paid by each recipient, and we control for a wide range of demographic and geographic covariates. The variables "treatment inside" and

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"treatment inside_inner" are the estimated impacts of the policy on the amount of rent paid by recipients in these ribbons. The coefficients multiplied by 100 can be interpreted approximately as the percentage change in rents as a result of the policy change.

Table 9: Estimated impacts on rents as a results of accommodation supplement changes on 1 April 2005

Two year window			
Variable	Estimates and standard errors		
Treatment inside	-0.002	0.001	0.009
	(0.010)	(0.008)	(0.008)
Treatment inside_inner	0.009	0.009	0.008
	(0.011)	(0.008)	(0.008)
Controls			
Time and areas	Yes	Yes	Yes
Demographics	No	Yes	Yes
Geography	No	No	Yes
No. Observations	231709	231709	231709
r^2	0.019	0.401	0.414
Ten year window			
Variable	Estimates and standard errors		
Treatment inside	0.005	0.009	0.011
	(0.011)	(0.008)	(0.008)
Treatment inside_inner	0.019	0.017	**0.017**
	(0.011)	(0.009)	(0.009)
Controls			
Time and areas	Yes	Yes	Yes
Demographics	No	Yes	Yes
Geography	No	No	Yes
No. Observations	803989	803989	803989
r^2	0.08	0.46	0.4713

Notes: Regression results for difference-indifference models with dependent variable log(rents). Demographics includes gender, age, family structure, number of children, benefit type. Geography controls for area units and a dummy for inside the metropolitan urban limit. Client-clustered standard errors in parentheses. Bolded impact variables denotes p-value<0.05.

Table 9 shows that over a 2 year timeframe after the policy change, there might have been very small positive increase on rental expenditure, but none of the estimates are statistically significant. Over a 10 year period there was a similar story. The estimated growth in spending on rents was positive and slightly larger than the shorter window, but in only one case was the estimated impact statistically significantly different from zero.

An important issue for these results to be considered robust is the assumption that in the absence of the policy change, rents in the three different areas would have grown at the same rate. This assumption is significantly weaker over the longer time period, as many other events influenced outcomes (such as a major economic recession and changes to the local authority).

One means of assessing the assumption of common trends is to look at outcomes prior to the reform. Figure A3.5-7 shows trends in rents prior to the reform, and visually they appear highly correlated across the different areas. We also tested the assumption of common trends more formally by looking at whether the time trend in rents for the treatment areas were different from those in the control. Estimates of separate time trends were very similar and not statistically significantly different.

Overall it is hard to interpret the results as showing any large measured impacts on rental spending as a result of the policy reform. The reform increased the generosity of subsidies by an average of around 15%-17%, but it is difficult to see any measurable growth in spending on rents as a result. This finding contrasts sharply with some of the overseas evidence that has found quite large impacts on rents as a result of similar increases in maximum payments.

The absence of any large measureable impact suggests that the increase in accommodation related payments may have been spent on other non-rent components of individual and family budgets.

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Supplementary analysis of rents in the wider housing market

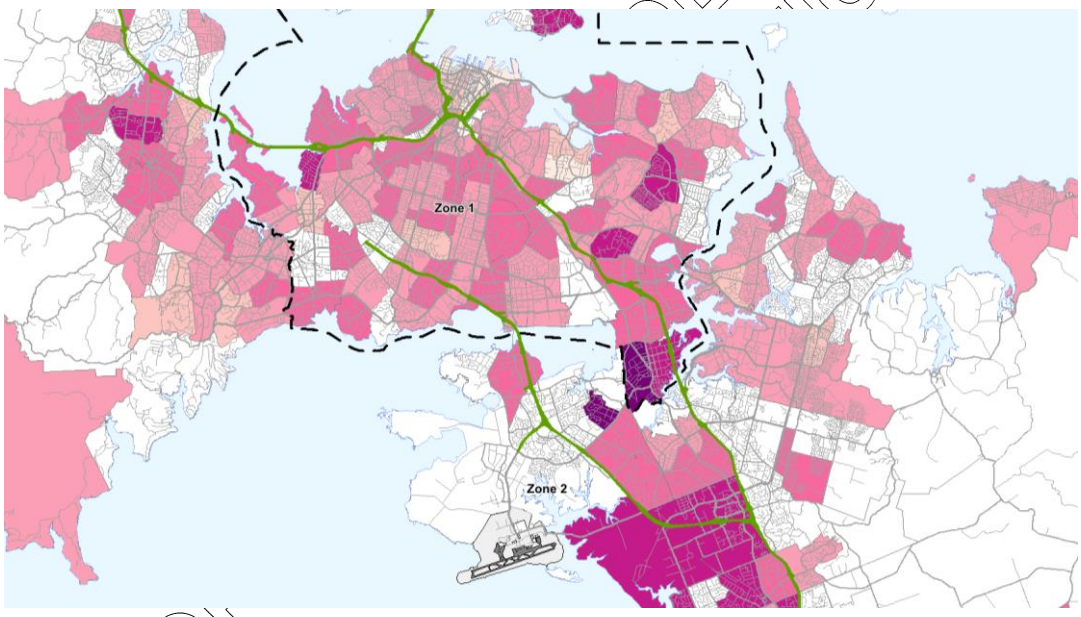
To supplement our analysis we have also begun to look at changes in average rents by area unit within the central Auckland area.

This data is derived from the rental bond dataset, and we focus on the value of rents related to bonds that were lodged across a 12 month period. The bond data allows a precise estimate of the market price of rental properties as all landlords are required by the Residential Tenancies Act to lodge information with about new tenancy agreements. Importantly, the data captures information about rents paid by subsidized and non-subsided tenants.

Figure 10 shows the percentage change in the average rents for area units within and around the Auckland accommodation supplement zone between 2004 and 2016.

Figure 10: Percentage change in average rents in area units between 2004 and 2016 (year to September)[6]

2 bedroom units



[6]We are grateful to Critchlow Associates for producing these maps.

3 bedroom units

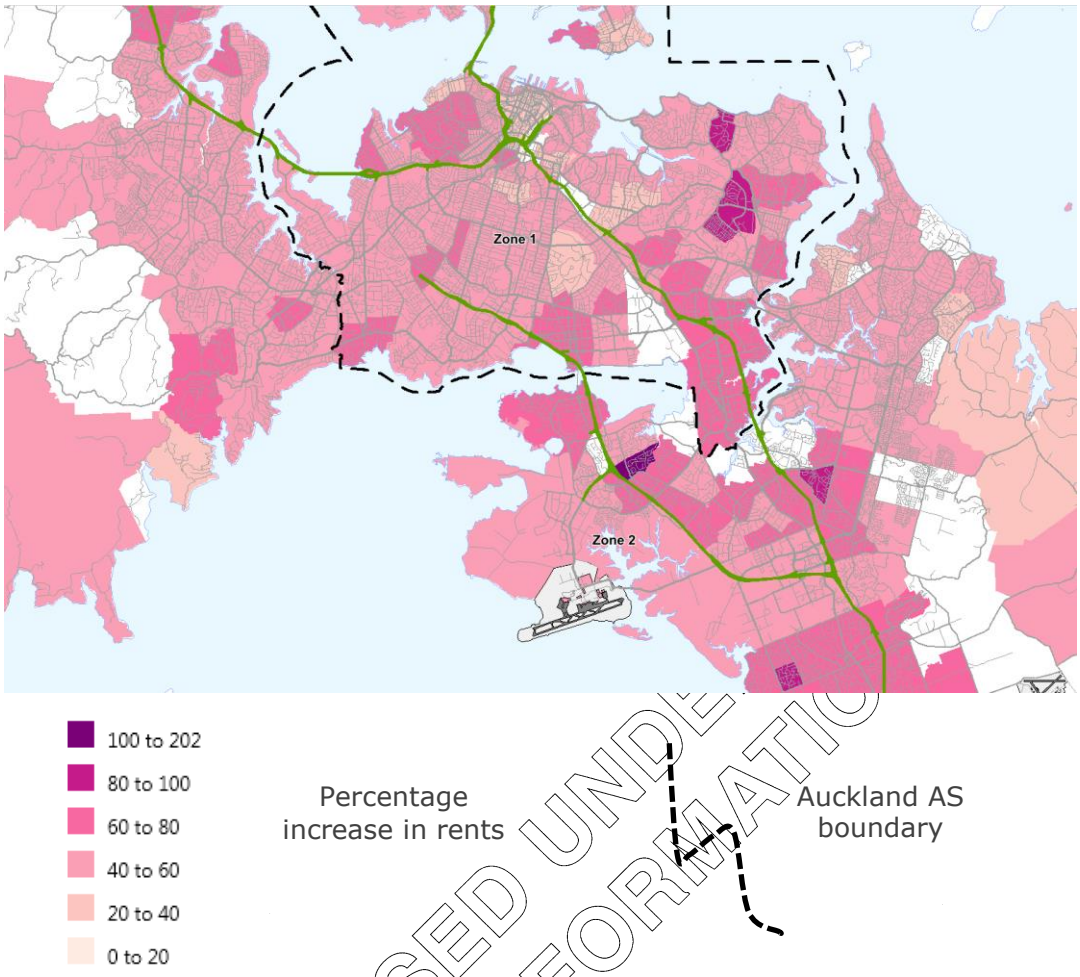


Figure 10 shows many area units on immediately on the outside of the Auckland accommodation supplement zone having rates of increase in rents that resemble the increase in rents observed on the central Auckland side of the boundary.

The next stage of our research aims to use this data to establish if the policy changes caused any impacts on rents in the wider rental market.

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Policy implications

The Accommodation Supplement provides an important form of financial support for low income households with high housing costs. International research tends to show that targeted housing subsidies provide a range of benefits for low income households. However uncertainty about the extent of an unintended impact on market rents has made some policy makers cautious. The findings in our analysis suggest that concerns about unintended effects on rents should be a less prominent concern.

These considerations have become particularly important in the context of the rising housing costs being faced by low income households. In recent years housing costs have grown substantially, while the maximum rates and area structure of the accommodation supplement have not been adjusted.

Figure 11 below sets out aggregate trends for beneficiaries who are renting and receiving the accommodation supplement. As can be seen, over the last decade there has been a substantial increase in average rents, while the average value of accommodation supplement payments has remained unchanged.

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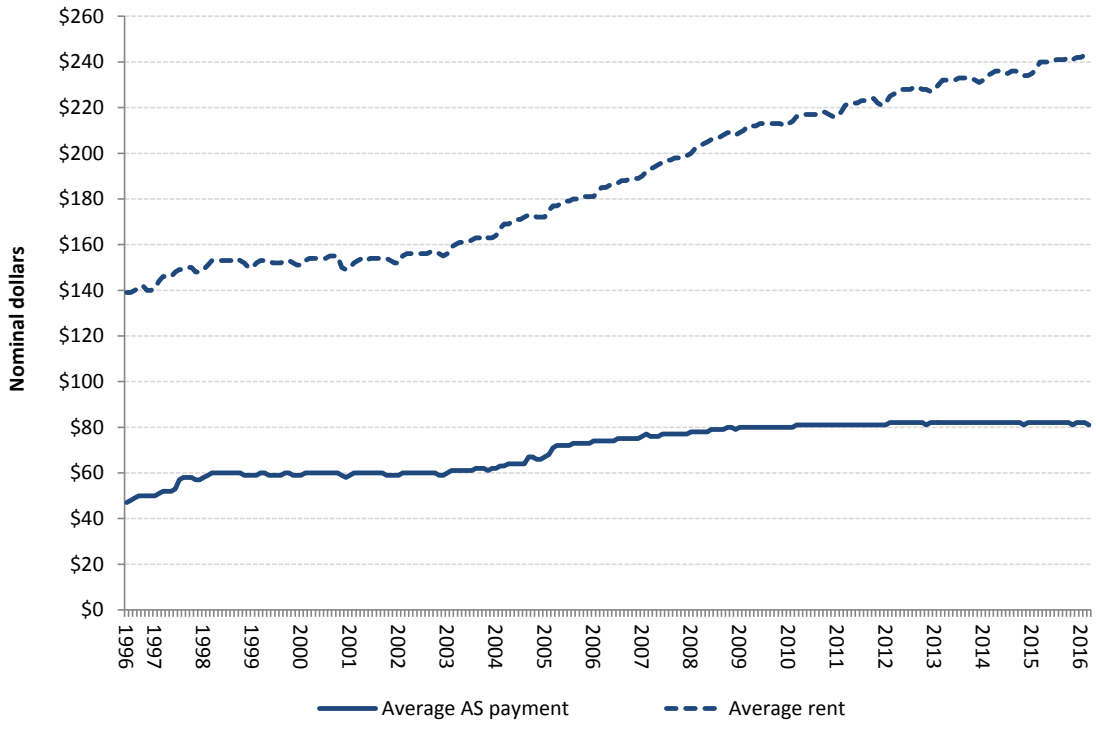
Fig 11: Trends in average rents and accommodation supplement payments for beneficiaries 1996-2016



The growing gap between average rents and accommodation supplement payment appears to have driven increased spending on other payments such as Temporary Additional Support. However despite this, rent growth has outpaced the overall growth in subsidies. This has meant that the real after housing cost disposable incomes of some groups of beneficiaries has declined in the last decade.

Despite the evidence presented in this paper that there does not appear to have been a large impact on rents as a result of increases in the generosity of the

accommodation supplement, it is also worth considering what design features might make a rent subsidy more or less likely to increase market rents.

A subsidy that creates more of an income rather than a substitution effect will reduce the risk of rent pressures. An important design feature in this regard is having a payment with a lower effective marginal subsidy or co-payment rate. For a given level of subsidy, a lower marginal subsidy rate means that recipients face more of the actual cost of housing.

Another important feature that will minimize the risk of an increase in rents is investment in the supply of low cost housing. The impact on rents will be lessened if supply can adjust quickly to changes in demand. Lastly, there are also some administrative measures such as benchmarking of rent subsidy claims against local market averages. Verifying claims that have above market rents may reduce the risk of inadvertent flow-on impacts to rents.

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Conclusion

This study has investigated the impact of the accommodation supplement and related payments on housing demand. The New Zealand and international evidence on the existence of these impacts is mixed, although many studies find quite large impacts on rents. The study uses the creation of a higher maximum subsidy area in Auckland from early 2005 to identify if there were any impacts. The research uses a new dataset relating to payments along a very narrow area on both sides of the boundary of the Auckland accommodation Supplement zone. The research shows no clear evidence of any impacts on either the number of recipients or rental expenditure.

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Appendix 1: Policy chronology

This appendix sets out Accommodation Supplement and related housing policy changes from the policy chronology authored by Alex McKenzie (2015).

Date	Change	Detail
1 July 1993	New Accommodation Supplement introduced	Prior to the creation of the Accommodation Supplement the housing assistance regime was a mixture of rents and mortgages subsidies provided by the Housing Corporation of New Zealand (HCNZ), and a cash accommodation grant (the Accommodation Benefit) provided by the Department of Social Welfare.
1 April 1994	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 1995	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 1996	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 October 1996	Accommodation Supplement changes	The number of cities in *Accommodation Supplement* Area 2 was expanded to include Hamilton, Tauranga, Napier, Hastings, Palmerston North, Rotorua, Nelson, and Christchurch. Prior to this only Wellington qualified for the intermediate maximum rate.
1 April 1997	Inflation adjustment of entry thresholds	Inflation adjustment of AS entry thresholds
1 July 1997	Accommodation Supplement changes to payment rates	The *Accommodation Supplement* subsidy rate was increased from 65 percent to 70 percent. The proportion of board costs regarded as accommodation costs was reduced from two thirds to 62 percent. Changes were made to the maximum rates of the *Accommodation Supplement*.
1 April 1998	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 1999	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 2000	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 December 2000	Income-Related Rents restored for state house tenants	Income-related rents for state housing tenants that had applied prior to 1991 were restored. For income up to the threshold the rent was set to reflect 25 percent of after tax income. Above the threshold, rent reflected 50 percent of after tax income. Income included the income of the tenant and his or her spouse. From this time state house tenants were ineligible to receive the *Accommodation Supplement* or the *Student Allowance Accommodation Benefit*. Payment to HNZC in the form of the Income Related Rent subsidy.

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1 July 2001	Housing New Zealand Corporation established	*Housing New Zealand Corporation* (HNZC) was established as a Crown entity with a Board. The new Corporation combined into one organisation *Housing New Zealand Limited*, *Community Housing Limited*, *Housing Corporation of New Zealand* and the housing policy function of the *Ministry of Social Policy*.
1 April 2002	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 2003	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 July 2003	Housing Innovation Fund established	A $63 million *Housing Innovation Fund* (HIF) was established to increase the availability of rental housing and home ownership opportunities for low income households and people with special needs.
1 April 2004	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 October 2004	Changes to Accommodation Supplement abatement for beneficiaries, entry threshold for non-beneficiaries. and income threshold for non-beneficiaries	The abatement of the *Accommodation Supplement* for beneficiaries was removed to provide an additional incentive for beneficiaries to undertake part time employment. Abatement was also removed for recipients of *New Zealand Superannuation* or *a Veteran's Pension* who were eligible to receive the *Accommodation Supplement*, though income above the applicable *Invalids Benefit* cut-out point continued to preclude eligibility to the *Accommodation Supplement*. The *Entry Threshold* for non-beneficiaries was lowered to align with the entry thresholds applicable to people receiving the *Unemployment Benefit*. The income threshold for non-beneficiaries was increased to align with the cut-out points for the *Unemployment Benefit*.
1 April 2005	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 2005	Accommodation Supplement area structure and maximum rates revised	The number of *Accommodation Supplement* areas was increased from three to four with Auckland divided into two areas. Some localities were moved into higher maxima areas and the maximum supplement payable was increased. The new maximum weekly rates of the *Accommodation Supplement* were: • (Area 1) $145 for a one person household, $160 for a two person household and $225 for a household of three or more people; • (Area 2) $100 for a one person household, $125 for a two person household and $165 for a household of three or more people; • (Area 3) $65 for a one person household, $75 for a two person household and $120 for a household of three or more people; and • (Area 4) $45 for a one person household, $55 for a two person household and $75 for a household of three or more people.
1 July 2005	Accommodation Supplement: Residents of	The *Accommodation Supplement* was extended to residents of Retirement Villages with "*Licence to*

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	Retirement Villages	*Occupy*" tenure.
1 April 2006	Temporary Additional Support replaced Special Benefit	The discretionary *Special Benefit* was replaced with a new rules based hardship benefit called *Temporary Additional Support* (TAS). The purpose of TAS was to provide temporary last resort financial assistance to alleviate financial hardship for people whose essential financial costs could not be met from their chargeable income and other resources, while ensuring that applicants take reasonable steps to reduce their costs or increase their income. The housing loading in TAS was intended to prevent TAS undermining the AS (as special benefit had done), by ensuring that people had to pay a portion of their housing costs themselves, before being eligible for the AS or TAS. People receiving a Special Benefit on 31 March 2006, were grandparented until their circumstances changed.
1 April 2006	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 2007	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 2008	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 January 2009	Transitional package for redundant workers (RESTART)	A two-year package *Transitional Package for Redundant Workers* was implemented to help workers made redundant during the economic slowdown. The programme included an additional payment (called 'Replace') for those who qualified for the maximum amount of *Accommodation Supplement* after they have been made redundant. This provided up to $100 per week (in addition to the AS, based on their actual accommodation costs).
1 January 2009	Redundancy Payments exempt as cash assets for the Accommodation Supplement	From this time, part or all of a redundancy payment up to maximum exemption of $25,000 (after tax) were exempt from the definition of cash assets applicable to the *Accommodation Supplement*. The exemption was time-limited and set to expire at the same time as the *ReStart Transitional Package for Redundant Workers*.
1 April 2009	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 2010	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 2011	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 2012	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 April 2013	Annual general adjustment	Inflation adjustment of AS entry thresholds
16 May 2013	Announcements on the reform of social housing	As part of the 2013 Budget, the Government announced major reforms to the provision of social housing. These included extending Income-Related Rent Subsidies to approved community providers, a more comprehensive housing needs assessment undertaken by the Ministry of Social

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		Development (from April 2014), and the creation of reviewable tenancies for all social housing tenants. The *Social Housing Reform Programme* had commenced in 2010 with the appointment of the *Housing Shareholders Advisory Group* to review the social housing sector and make recommendations for reform.
1 April 2014	Annual general adjustment	Inflation adjustment of AS entry thresholds
1 July 2014	Housing Support Package	The *Housing Support Package* was established to help people better access private housing and to assist tenants with the transition from social housing to private housing.
1 July 2014	Mäori Housing Strategy launched	The *Māori Housing Strategy – He Whare Āhuru He Oranga Tāngata* set out the governments long-term strategy to improve Māori housing and respond to the housing aspirations of whānau, hapū and iwi.

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Appendix 2: Data annex

The dataset for this study was drawn from administrative datasets maintained by the Ministry of Social Development.

On a specific day each month a snapshot of records from the payment information system (SWIFTT) are archived as official records. These are used by the Ministry as official counts. The records in the monthly snapshot differ slightly to what was actually received due to some small amount of backdating of information.

The records reflect payment details as well as the base information that accommodation supplement recipients have declared to Work and Income. This declared information includes housing costs, family composition, and other income and earnings.

The data extract from which the dataset is constructed is all accommodation supplement recipients over the period January 2003 to February 2015.

Currently records are automatically geocoded in the SWIFTT system. However this function only began in 2005 and to create the specific dataset we backdated the geocoding of older records.

Individuals were allocated to a ribbon of land either side of the AS boundary based on geocodes and the Ministry's official shapefile for the AS boundary. The accuracy of this was then confirmed by a variable in each post 1 April 2005 record relating to the accommodation supplement zone. There was a mismatch for approximately 1.6% of records.

There was a minor amount of data cleaning after the dataset was constructed. This involved removing records for individuals living in supported residential accommodation where the rent costs included reflected the costs of health support services.

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Table A2.1: Key variables in the study dataset

Variable(s)	Definition
SWN	Unique social welfare number
Mdate	Month extract date
Address_line_[number]	Text strings related to client address
Suburb	Suburb
City	City
Geocodes	X and Y coordinates
Ribbon	Dummy variables related to outside, inside and inside-inner
Distance	Distance from boundary (placebo=0, inside=1, outside=2)
MUL	Dummy variable indicating if in the north (outside the metropolitan urban limit=0) or south (inside metropolitan urban limit=1)
POST_CD	Post code
Sex	Male or Female
AGEEX	Age in years
NUMCHILD	Number of dependent children included in benefit
APORT	Benefit apportionment into '0' = 'Single client', '1' = 'Primary client', '2' = 'Partner', '9' = 'Not applicable
MainBenefit_[type]	Dummy variables for main benefit type (eg unemployment benefit etc). The dataset also contains a variable SERV which is detailed codes for benefit type.
AS_WKRT	Weekly rate of Accommodation Supplement
AS_WKCST	Weekly declared accommodation costs (ie rent, board home

	ownership costs)
AS_REGN	Accommodation supplement regions before and after policy change
AS_TENRE	Type of tenure including '1' = 'Renting', '2' = 'Boarding', '3' = 'Own Home', Other = 'Not Coded';
AS_LANDL	Type of landlord including private, council, HCNZ etc
SpecialTAS	Combined value of Special Benefit and TAS
DA_IND	Receiving disability allowance
PNETT	Net amount of main benefit paid per week
All_supps	Net amount of supplementary payments per week
Newincome	Other income declared to W&I
Total_net_income	Total net income (excluding tax credits)
WFF	Dummy variable for dates of policy change (1 April 2005 and afterwards)
Impact	Dummy variable to identify impact which is 1 if WFF=1 and inside/inside_1 = 1

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Appendix 3: Time series graphs

Figure A3.1: Percentage receiving Accommodation Supplement at (or above) maximum

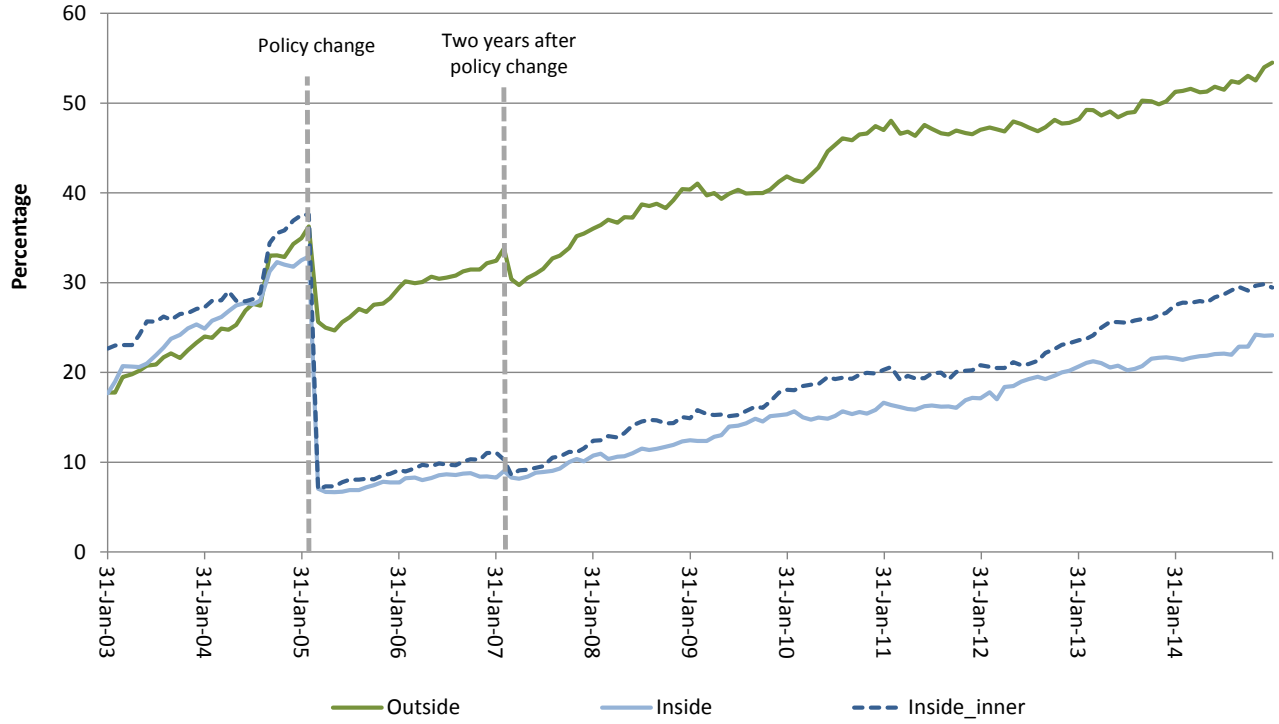

Figure A3.2: Average weekly Accommodation Supplement payment (nominal)

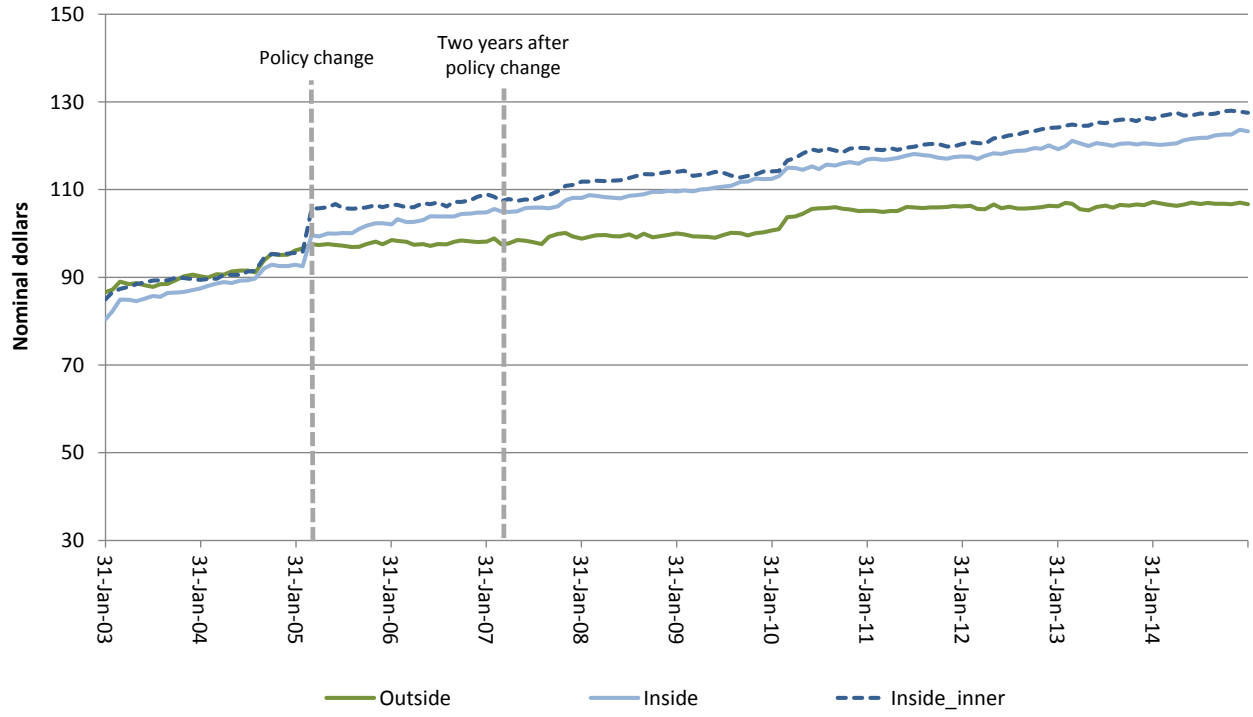

Figure A3.3: Average weekly Special Benefit and Temporary Additional Support payments (nominal)

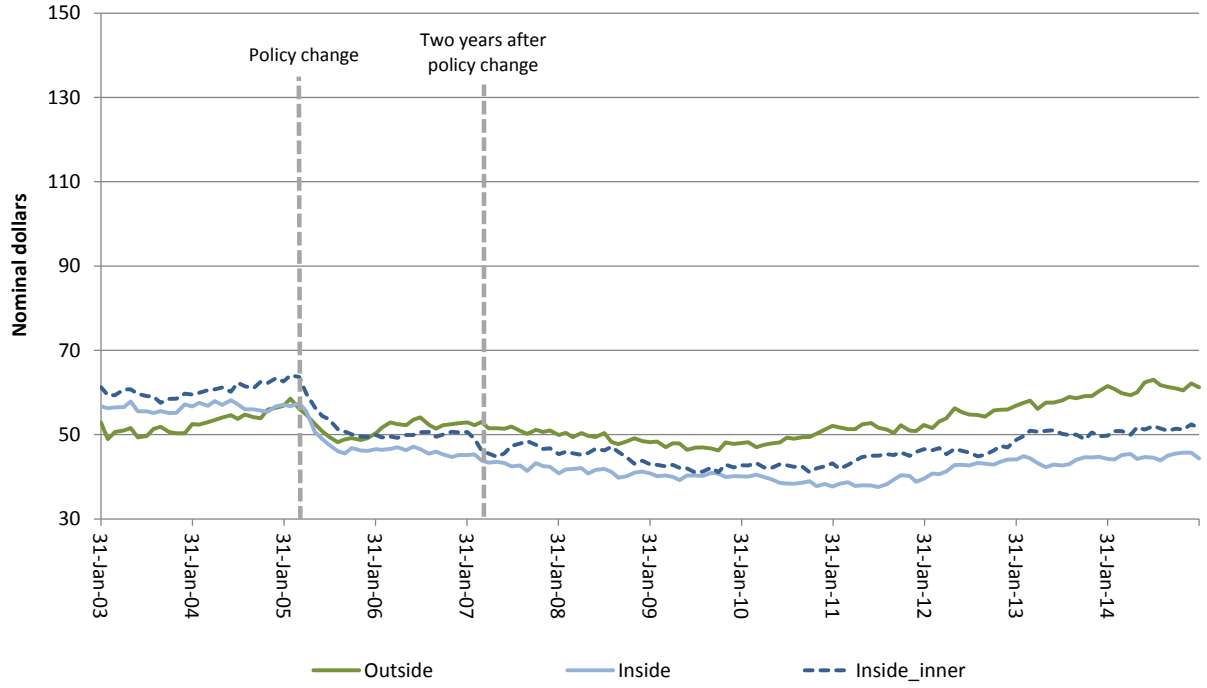

Figure A3.4: Average weekly total accommodation related payments (nominal)

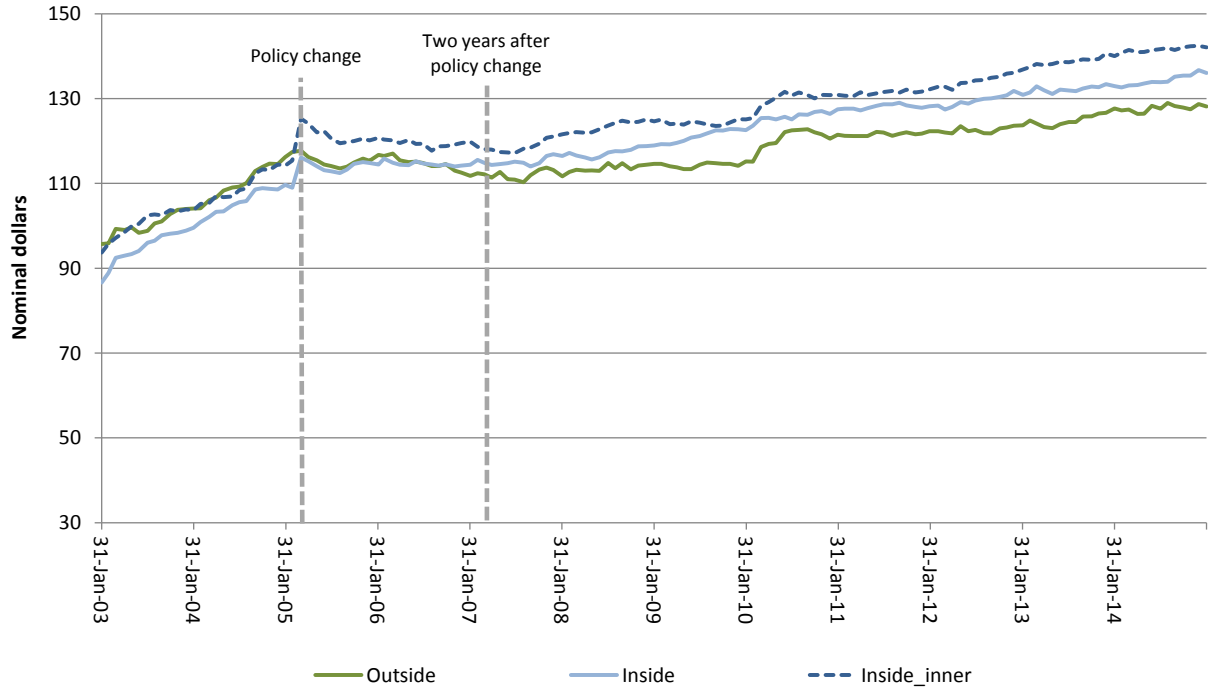

Figure A3.4: Monthly number of Accommodation Supplement recipients

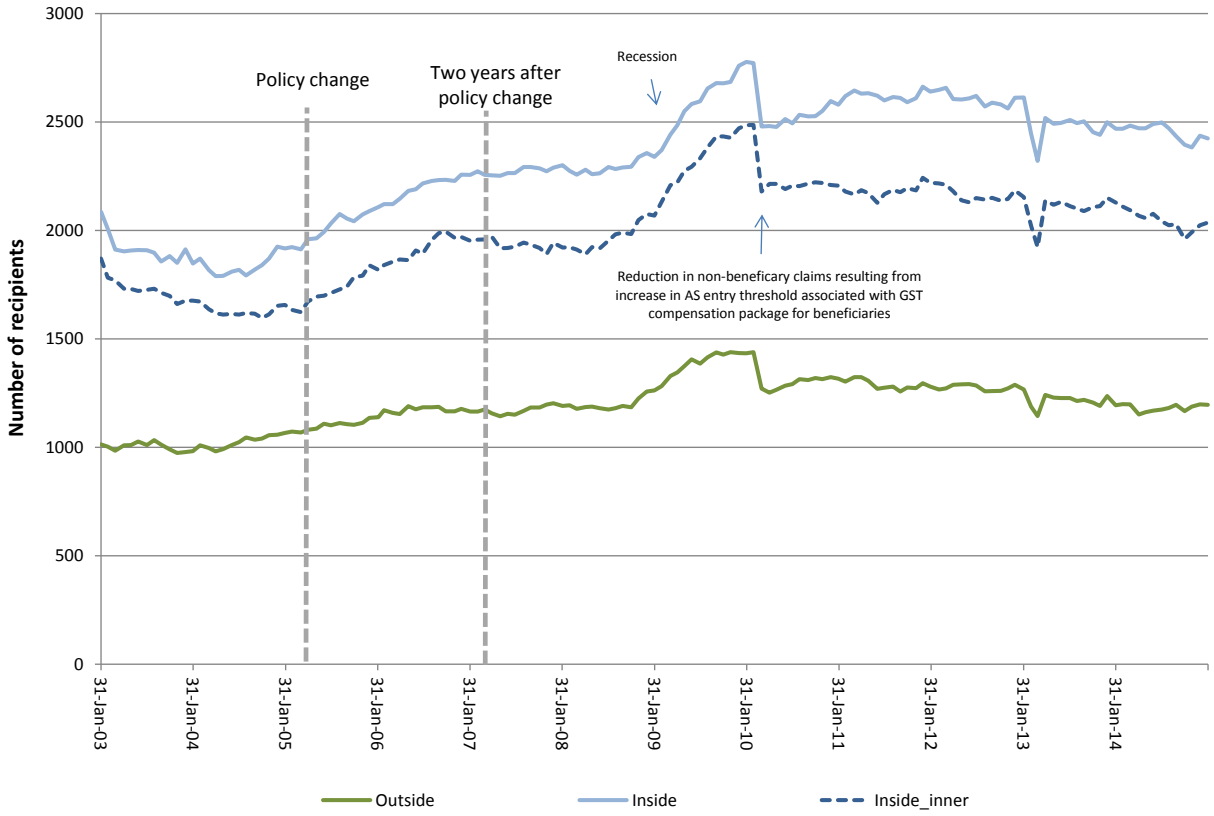

Figure A3.5: Average rent paid by 1 person households receiving the Accommodation Supplement ($nominal)

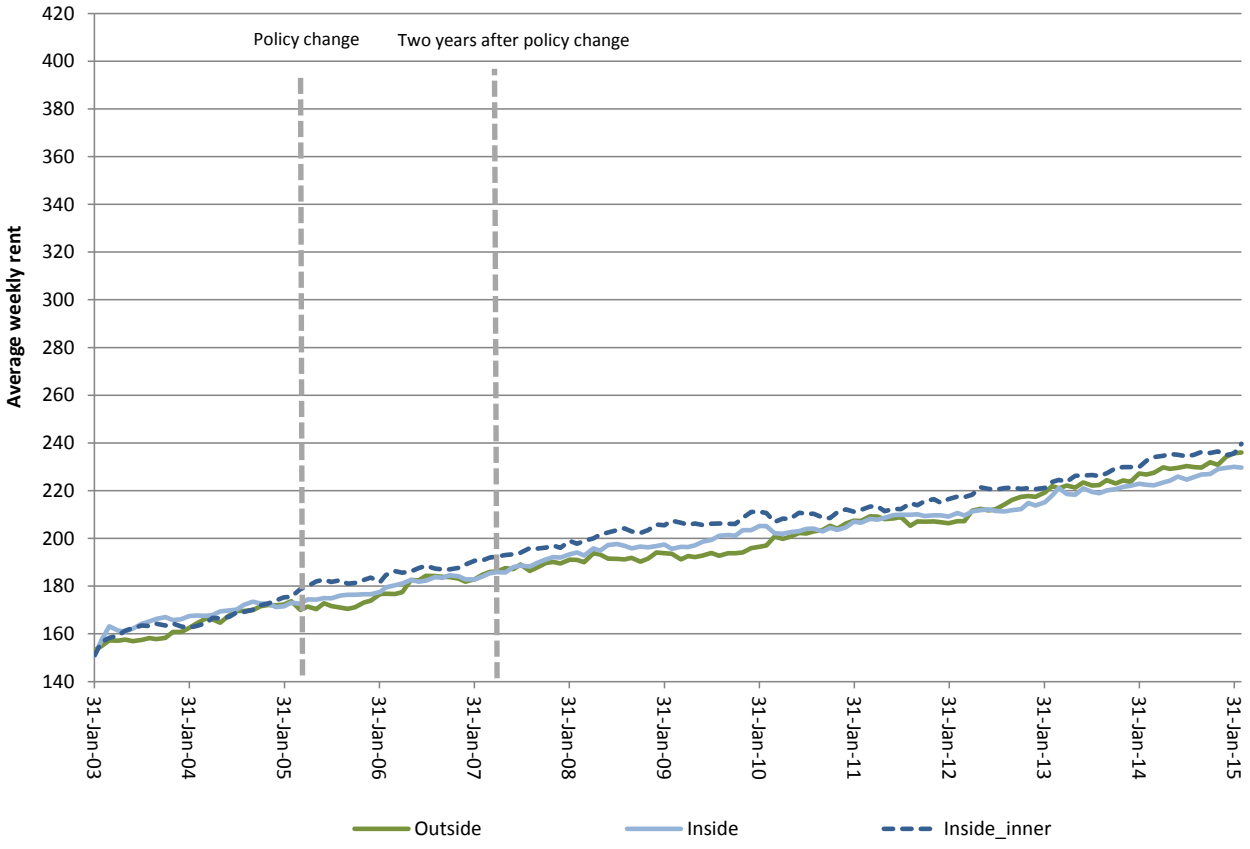

Figure A3.6: Average rent paid by 2 person households receiving the Accommodation Supplement ($nominal)

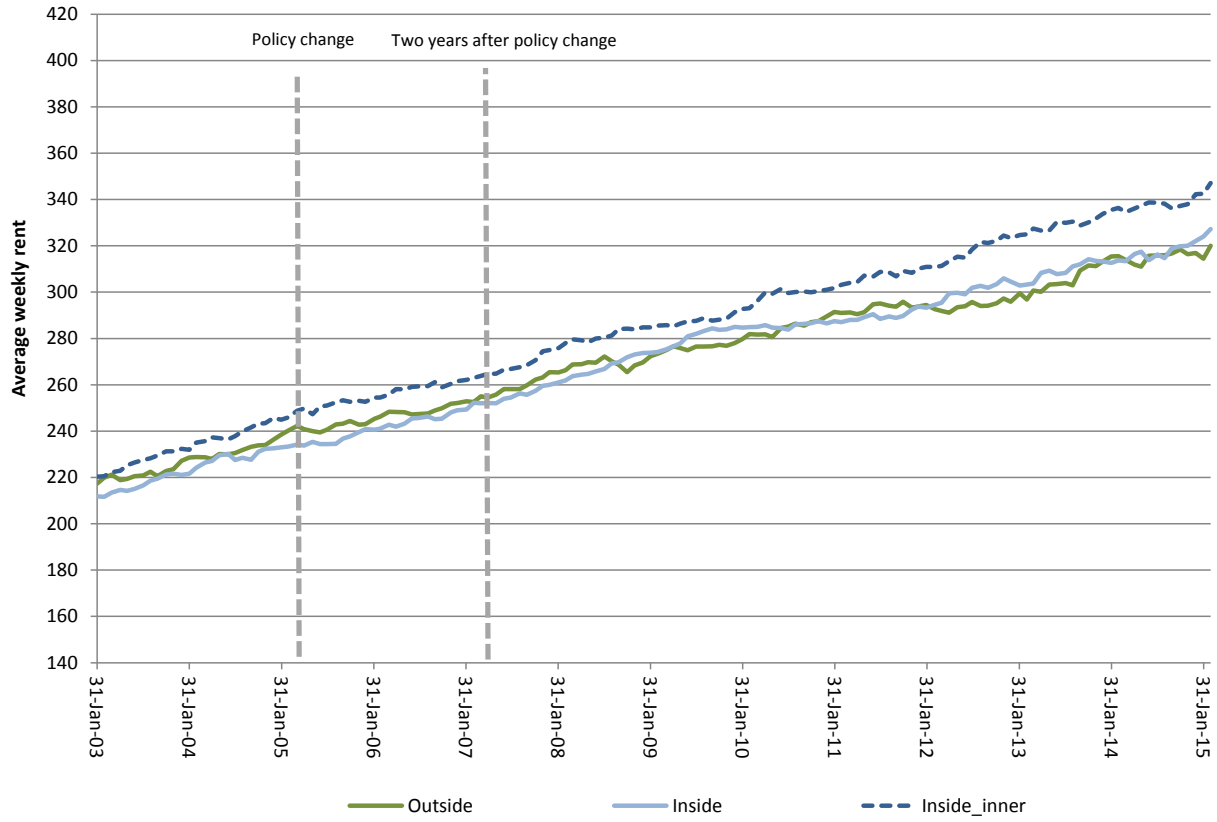

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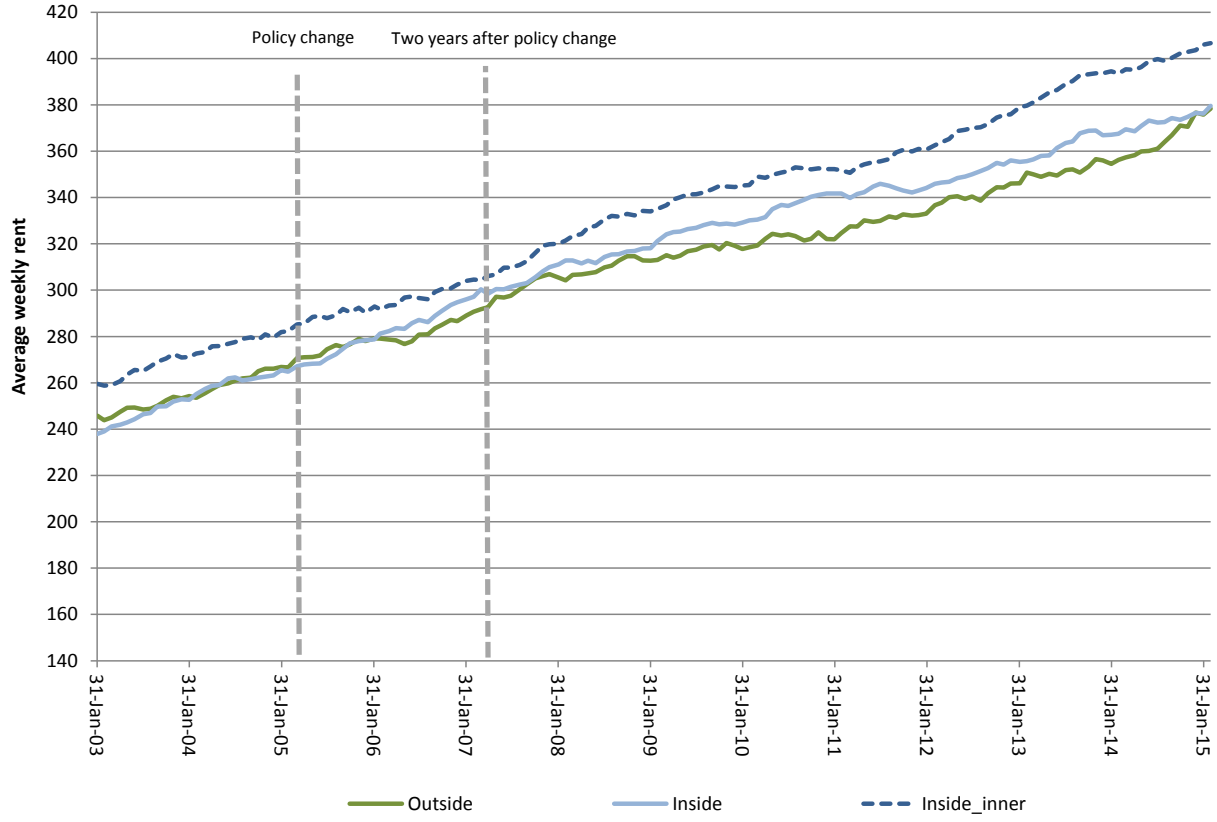
Figure A3.7: Average rents paid by 3 or more person households receiving the Accommodation Supplement ($nominal)



References

Bertrand, M., Duflo, E. and S. Mullainathan (2004). How much should we trust differences-in-differences Estimates?, Quarterly Journal of Economics 119 (1): 249-275.

Brackertz, N., de Silva A., and Fotheringham M., (2015) Literature review on the impact of demand-side housing subsidies on the housing market', Australian Housing and Urban Research Institute, https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/literature-reviews/impact-housing-subsidies-housing/impact-housing-subsidies-housing.pdf

Brewer, M., Emmerson, C., Hood, A. and Joyce, R. (2014) Econometric Analysis of the impacts of Local Housing Allowance reforms on existing claimants, Department for Work and Pensions Research Report no. 871.

Carlson, C. Haveman, R., Kaplan, T. and Wolfe, B. (2012) "Long-Term Earnings and Employment Effects of Housing Voucher Receipt," Journal of Urban Economics, vol. 71, no. 1 (January 2012), pp. 128–150 http://tinyurl.com/ndevvs2.

Chetty, R., Hendren, N., & Katz, L. (2015) The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment. Cambridge, M.A.: Harvard University and National Bureau of Economic Research. http://www.equality-of-opportunity.org/images/mto_paper.pdf

Collinson, R. and Ganong, P. (2014) The Incidence of Housing Voucher Generosity: http://ssrn.com/abstract=2255799 or http://dx.doi.org/10.2139/ssrn.2255799

Collinson, R., Ellen, I.G. and Ludwig, J. (2015) Low-income housing policy, NBER Working Paper 21071: http://www.nber.org/papers/w21071

Donald, S., and Lang, K (2001) Inferences with Difference in Differences and Other Panel Data, Working Paper, Boston University

Eriksen, M. and A. Ross (2015). Housing Vouchers and the Price of Rental Housing. American Economic Journal: Economic Policy forthcoming 7 (3), 154–176.

Fack, G. (2006) 'Are housing benefit an effective way to redistribute income? Evidence from a natural experiment in France', Labour Economics, 13(6), 747-771.

Gibbon, S. and Manning, A. (2006) The Incidence of UK Housing Benefit: Evidence from the 1990s Reforms. Journal of Public Economics, 90 (4-5), pp. 799-822.

Grimes, A. and Hyland, S. (2013) A New Zealand Regional Housing Model, Motu Working Paper 13-02 Motu Economic and Public Policy Research, Wellington.

Grimes, A. and Liang, Y. (2009), Spatial determinants of land prices in Auckland: Does the Metropolitan Urban Limit have an effect? Applied Spatial Analysis and Policy, 2:1, 23-45.

Grislain-Letremy, C., and Trevien, C. (2014) The Impact of Housing Subsidies on the Rental Sector: The French Example, Centre de Recherche en Economie et Statistique, Working Papers: 2014-24. http://www.ieb.ub.edu/files/PapersWSUE2016/WSUE2016_Trevien.pdf

Guanyu Zheng (2013) The effect of Auckland's Metropolitan Urban Limit on land prices, New Zealand Productivity Commission Research Note.

Gubits, D., Shinn, M., Wood, M., Bell, S., Dastrup, S., Solari, C., Brown, S., McInnis, D., Tom McCall, T., Kattel, U., (2016) Family Options Study 3-Year Impacts of Housing and Services Interventions for Homeless Families, U.S. Department of Housing and Urban Development Office of Policy Development and Research https://www.huduser.gov/portal/sites/default/files/pdf/Family-Options-Study-Full-Report.pdf

RELEASED UNDER THE OFFICIAL INFORMATION ACT

Howden-Chapman P., Crane, J., Chapman, R. & Fougere, G. Improving health through community-based housing interventions, International Journal of Public Health, 2011, DOI 10.1007/s00038-011-0287-z ..

Imbens, G., and Wooldridge, J. (2009) 'Recent developments in the econometrics of program evaluation'. Journal of Economic Literature, 47(1)5-86.

Jacob, B. and Ludwig, J. (2012) 'The Effects of Housing Assistance on Labor Supply: Evidence From a Voucher Lottery,' American Economic Review, vol. 102, no. 1 (February 2012), pp. 272-304, www.aeaweb.org/articles.php?doi=10.1257/aer.102.1.272.

Kangasharju, A. (2010) 'Housing allowance and the rent of low-income households', Scandinavian Journal of Economics, 112(3), 595-617.

Kennedy, S.D. (1980) Final Report of the Housing Allowance Demand Experiment, Abt Associates Inc., Cambridge, Massachusetts.

Laferrère, A. & Le Blanc, D. (2004) 'How do housing allowances affect rents? An empirical analysis of the French case', Journal of Housing Economics, 13(1), 36-67.

Lowry, I. (1982) Experimenting with housing allowances: The final comprehensive report of the housing assistance supply experiment, Rand Corporation, https://www.rand.org/content/dam/rand/pubs/reports/2006/R2880.pdf

McKenzie, A. (2014) Social Assistance Chronology – a chronology of social assistance policy and programmes in New Zealand – 1844 to present, Ministry of Social Development, http://www.msd.govt.nz/about-msd-and-our-work/about-msd/history/social-assistance-chronology-programme-history.html

Mills, G., Gubits, D., Orr, L., Long, D., Feins, J., Kaul, B., Wood, M., Amy Jones & Associates, Cloudburst Consulting, and the QED Group (2006) The Effects of Housing Vouchers on Welfare Families. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.

Ministry of Social Development (2006) Review of the Accommodation Supplement: Key information for Stakeholders.

OECD (2015) Economic Policy Reforms: Going for Growth 2011, http://www.oecd.org/eco/labour/economicpolicyreformsgoingforgrowth2011.htm

Orr, L., Feins, J., Jacob, R., Beecroft, E., Sanbonmatsu, L., Katz, L., Liebman, J., and Kling, J. (2003) Moving to Opportunity for Fair Housing Demonstration Program: Interim Impacts Evaluation, Report prepared by Abt Associates Inc. and the National Bureau of Economic Research for the U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Washington, DC: U.S. Department of Housing and Urban Development.

Productivity Commission (2012) Housing Affordability Inquiry http://productivity.govt.nz/sites/default/files/Final%20Housing%20Affordability%20Report_0_0.pdf

Raven, J. (2015) Financial Incentives to Work: The size of the margin between benefit and in-work incomes', Policy Quarterly (11)4:26-33.

Sinai, T. and Waldfogel, J. (2004) 'Do low-income housing subsidies increase the occupied housing stock?', Journal of Public Economics, 89, 2137-2164.

Stroombergen, A. (2004) The Effects of the Accommodation Supplement on Market rents, Working Paper 02/04, Centre for Social Research and Evaluation Te Pokapū Rangahau Arotaki Hapori.

Susin, S. (2002) 'Rent vouchers and the price of low-income housing', Journal of Public Economics, 83, 109-152.

Viren, M. (2013) 'Is the housing allowance shifted to rental prices?', Empirical Economics, 44(3), 1497-1518.

RELEASED UNDER THE OFFICIAL INFORMATION ACT

Wood, M., Turnham, J. and Mills, G. (2008) Housing affordability and family well-being: results from the housing voucher evaluation. Housing Policy Debate, 19(2): 367-412.

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