Food and vulnerability in Aotearoa/New Zealand: A review and theoretical reframing of food insecurity, income and neoliberalism

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Abstract

The incidence of food insecurity in rich countries has remained stubbornly consistent in recent decades, even as rates of undernourishment in poorer countries have dived since 1990 (United Nations, 2015). This article addresses this apparent contradiction through a theoretical reframing of food insecurity in rich liberal democracies, built on a review of key literature and data. We draw a broad distinction between critical social science approaches to engaging with food insecurity and more empirical, policy-oriented approaches. These produce research emphasises, respectively, the determinate role of economic class and neoliberalism in generating food insecurity, and the wide array of other factors associated with suffering food insecurity. We argue that both offer useful but analytically confined accounts of food insecurity and its drivers in rich liberal democracies. We proceed, seeking to broaden rather than abandon the strengths of these two accounts, with a review of data on incomes and the incidence of food insecurity in the Aotearoa/New Zealand case. Our review reveals patterns of sociopolitical deprivation beyond class with parallels across both data sets, significantly along lines of gender and ethnicity. This both offers texturing specifics to a 'monolithic' generic view of neoliberalism and contextualises demographic trends of food insecurity within the neoliberalised "contours of contemporary political-economic power" (Peck & Tickell, 2002, pp.381-382). We subsequently argue for the utility of vulnerability as a concept to capture socio-political dynamics and engage with food insecurity in rich liberal democracies. The framing work done by the concept of vulnerability offers the opportunity to: (1) align the strengths of research approaches emphasising theoretically derived context empirically founded complexity; (2) account for consistencies and complexities observed in the relationship political-economic landscape of rich democracies following the neoliberal turn and the incidence of food insecurity; and (3) reconsider the relationship between political-economic and socio-political contexts of rich liberal democracies that consistently produce food insecurity groups of people who live and consistently suffer food insecurity

example as "structural violence" these countries, for (Shepherd, 2012, p.206).

Keywords Food insecurity; Neoliberal; Vulnerability; Aotearoa/ New Zealand

Introduction

Food insecurity is a complex problem and provides a compelling site for sociological discussion. It reaches into core terrain of social inequality, social policy and the wellbeing of households in rich liberal democracies like Aotearoa/New Zealand. Previous discussion in this journal has reflected many elements of this by touching on income inequality and the neoliberal framing of foodbank use as being due to 'poor choices' (Wade, 2013); the sustainability and social justice dimensions of local food (Duell, 2013); the geographic ease of access to particular kinds of foods (Bowie, Beere, Griffin, Campbell & Kingham, 2013); and the influence of class divisions, poverty and income inequality on New Zealander's lives more generally. This article, drawing on postgraduate research, enters this field of enquiry with the intention to: (1) productively bring together the literature of two research approaches engaging with food insecurity in rich liberal democracies; and (2) draw on the context of Aotearoa/New Zealand to reframe the production of food insecurity as socio-political vulnerability in the neoliberalised politicaleconomic landscape of a rich liberal democracy.

We characterise two broad approaches in research concerned with food insecurity in rich liberal democracies: critical social scientific approaches and more policy-oriented empirical-investigative approaches. We suggest that each of these approaches has strengths and weaknesses, and proceed on the basis that a conceptual reframing able to accommodate the insights of the two would positively contribute to research engaging with food insecurity. We suggest that turning to the concept of vulnerability can provide an effective way to retain the important explanatory power of neoliberalism, while also recognising other empirically significant influences on the incidence of food insecurity.

The concept of vulnerability has been utilised in framings of food insecurity before as afflicting Developing World "spaces of vulnerability" (Watts & Bohle, 1993) and as necessitating actions for "securing vulnerable populations from the structural violence of hunger" (Shepherd, 2012, p.206). We argue that the concept also has utility for expressing the character of food insecurity in rich liberal democracies, encompassing consistent socio-political patterns and other complexities within the conditions of a neoliberalised political-economic landscape. It accommodates evidence of a relationship between a raised incidence of food insecurity, the production of deteriorating class position through neoliberalisation, and the strong association with food insecurity of other social divisions like ethnicity and gender—inequalities which stem from historical forces other than neoliberalism.

We draw on the Aotearoa/New Zealand context to expand and contextualise our review. Trends in the incidence of food insecurity in Aotearoa/New Zealand—persistent across decades and increasing in the years following the Global Financial Crisis—are highly poignant due to the country's mythic historical identity as an egalitarian society and its continued substantial capacity for agricultural production. This apparent disjuncture prompted the compelling question of our review: How do we explain the generation of such want amongst plenty—the apparent contradiction of persistent food insecurity in a rich, liberal democracy with vast foodproducing capacity and a well-developed welfare system? We structure our review into four broad clusters, pairing social-scientific with empiricalinvestigative literatures, and income with food insecurity empirical data from the Aotearoa/New Zealand case. These clusters are somewhat forced but useful for revealing the core bodies of evidence and the priorities and assumptions that inform work on food insecurity. We then draw on this review to describe the potential strengths of a research approach oriented by the concept of vulnerability.

Before embarking on the review, we will position our course in relation to the specifically neoliberal elements of the Aotearoa/New Zealand context. The 'New Zealand experiment' (Kelsey, 1997) enacted a specific approach to the neoliberalisation of society and economy, preaching the enrichment of society. However, this approach has been repeatedly linked in social research to increases in disparities between rich and poor and a rising incidence of

financial and material deprivation (Harvey, 2005; Ongley, 2013; Rashbrooke, 2013; Roper, 2005; Wade, 2013). To effectively engage with neoliberalisation in Aotearoa/New Zealand while not devoting this article to details of these processes, we draw on Humpage's (2014) extension of Peck and Tickell's (2002) discussion of different waves of neoliberalisation. In Aotearoa/New Zealand, Humpage (2014) characterises these waves as: "roll-back" (1984-1999), which included the destruction of institutions supporting social citizenship, the abandonment of full employment, cutting of welfare payments, tightening superannuation and liberalising employment relations, as well as marketising social housing support (King, 2019); "roll-out" (1999-2008), which included restrengthening workers' rights, superannuation, targeted increases in welfare support and the Working for Families tax credit package—a major social transfer programme under a 'workfirst' approach—as well as reintroducing income-related rent support; and "roll-over" (2008 onwards), which included a more sedate pace of tightening the targeting of income support and limited employment relations reforms.

What Peck and Tickell (2002, p.388) describe as "powerful family resemblances" between enacted neoliberalisms can be seen in the apparently enduring government emphasis on departing from social citizenship towards a 'workfirst' approach and targeting in welfare, the easing of controls in employment relations and restricting access to social services, and keeping taxes low. On this basis, Roper (2011, p.37) contends that "neither the 1999 nor the 2008 elections constitute major turning points in New Zealand's political history because neither government has removed any of the central features of the neoliberal policy regime." With these (dis)continuities in mind, we turn to food insecurity and the Aotearoa/New Zealand case.

Critical social science literature: Identifying the historical turn towards economic disadvantage under neoliberalism

Food insecurity, often measured at the household level, exists when there are limits to, or uncertainties about, the availability of nutritionally adequate and safe foods or the ability to acquire acceptable foods in socially acceptable ways (Anderson, 1990). At the *national* level, food security is not a concern for

Aotearoa/New Zealand but it has been clear for several decades that food insecurity at a *sub-national* level is a problem afflicting "food-rich countries" and not only "poorer countries" (Olson & Rauschenbach, 1997, p.1). Dowler and O'Connor (2012, p.45) provide a contextually relevant definition:

... 'food security' implies that people have sufficient money to purchase the food they want to eat, to meet social as well as health and nutritional norms; that this money is not absorbed in other expenditure demands (rent, fuel, debt repayment, etc.); [and] that people can ... obtain food in ways which are dignified and in keeping with social norms.

From the earliest introduction of neoliberal policies, a relatively simple relationship between neoliberalism and food insecurity has been described by many scholars within the critical social scientific tradition. This builds on a wide body of work which identifies neoliberalism as directly implicated in lowering the economic prospects of many people, driving poverty (Harvey, 2005), income inequality (Rashbrooke, 2013) and hampering economic growth (Organisation for Economic Co-operation and Development [OECD], 2014a). Riches (1986) offered an early account of *Food banks and the welfare crisis* in Canada, examining the deleterious effects of neoliberalism on people's ability to access food. Reflecting on decades of international evidence, Silvasti and Riches (2014, p.193) describe the "deepening and damaging impacts of ever stronger neo-liberal economic ideology on the most vulnerable people in the rich world." They state:

Harshening and constantly more punitive welfare reform policies aimed at disciplining labour, put into practice by cutting and freezing benefits and/or tightening the rules of eligibility for allowances, not only intensified but also produced food poverty (Silvasti & Riches, 2014, p.191).

Reflecting on food insecurity within the Aotearoa/New Zealand context, O'Brien (2014, p.103) emphasises neoliberalism as determinative: "Any discussion of food security, hunger and nutritional inadequacy in New Zealand needs to be placed within the framework of growing inequality and poverty", as well as punitive welfare cuts typical of neoliberal policy agendas. Similarly, Riches (1997, p.5) highlights neoliberal labour market reforms:

If the right to food security is to be constrained by people's ability to participate fully in the marketplace, particularly in societies which show little inclination to support full employment, the future is one of increasing risk and vulnerability.

The accounts offered in this literature tend towards usefully recognising the political-economic power of neoliberalism in a particular historical moment, without engaging with the specifics of processes of neoliberalisation, which have been characterised as waves of change elsewhere (Humpage, 2014; Peck & Tickell, 2002).

We suggest that the major narrative emerging within critical social scientific scholarship, guided by theories of neoliberalism, has foregrounded the economic in describing causal dynamics of food insecurity in rich countries, producing an analysis that is predominantly focused on class disadvantage. This focus builds, without a lot of reflection, on a generic neoliberalism and on an intuitive link between declining class position and a rising incidence of food insecurity. That is: access to sufficient food requires sufficient household income; neoliberalism does not benefit all, producing low incomes and poverty for many, which squeeze household budgets; and this pushes people into suffering food insecurity. This is not to say that such analyses lack nuance or ignore demographic data. For instance, O'Brien (2014, p.103) notes that in Aotearoa/New Zealand, as around the world, "both the widening income gap and growing poverty have not fallen evenly" and identifies groups which have "borne the brunt." However, understanding economic class as the central feature, and neoliberalism as the driving force producing poverty and, subsequently, food insecurity—is a dominant feature of this writing.

Investigative-empirical literature: Broadening the range of factors

Research which takes a more empirical, policy-oriented approach to examining food insecurity has revealed associations with a wide array of factors. The disaggregation of factors contributing to food insecurity does not contradict the critical social science literature. Indeed, researchers across rich countries have found "a strong relationship between low income and food insecurity" (Bowers et al., 2009, p.40), with insufficient income the "underpinning determinant" (Smith, 2011, p.22) and "the most frequently

identified factor associated with food insecurity" (Gorton, Bullen & Mhurchu, 2010, p.5).

The review by Gorton et al. (2010) identified four categories of 'environmental influences' on household food insecurity in high-income countries, which are summarised in Table 1. Their review "identified a wide range of factors associated with food security. Foremost among them was household financial resources, but many other factors were identified and the complexity of the issue was highlighted" (Gorton et al., 2010, p.1). Many identified factors, such as ethnicity, are potentially linked to economic class: "[S]ince both Pasifika and Māori are over-represented in the lower socio-economic groups it may be that ethnicity itself is not the determinant of food insecurity, but rather aspects of socio-economic status" (Parnell, Reid, Wilson, McKenzie & Russell, 2001, p.144).

Table 1: Summary of environmental influences on household food security in high-income countries

Physical factors	Socio-cultural factors
Health	Cooking and financial skills/
Household facilities	nutrition knowledge
Home gardens	Cultural obligations
Transport	Education level
Rural/urban location	Household composition
Other	Immigration and acculturation
	Social networks
Economic factors	Media
Income	Embarrassment
Wealth	
Employment	Political factors
Living expenses	Government policy
Housing tenure	Welfare support

Source: Gorton et al. (2010).

Setting aside momentarily the inter-relation of many demographic factors with class position, the review by Gorton et al. (2010) makes clear that there are important dynamics which contribute to the incidence of food insecurity that a class-focused analysis does not fully capture. We argue that the evidence presented by literature such as that reviewed by Gorton et al. (2010) indicates that the incidence of food insecurity is influenced by economic disadvantage (which is more heavily suffered by people who are

non-white, non-male or not living in a two-parent family) in complex combination with socio-political dynamics of marginalisation associated with these non-hegemonic positions. Crucially, economic position cannot be reduced to its neoliberalised context and not can it be disassociated from this context. We will take this idea up again after reviewing empirical data from the Aotearoa/New Zealand case.

The value of the detailed perspective of investigative-empirical literature is apparent in the case of gender, which also shows the complexity of economic-class and social-gender dynamics in play. These dynamics are summarised below:

- Women consistently suffer higher incidences of food insecurity as a group within other social groups (class, ethnicity) (Carter, Lanumata, Kruse & Gorton, 2010);
- In the Aotearoa/New Zealand case, "There is very little difference in poverty rates (ie low-income AHC [After Housing Costs] rates) for females and males" (Perry, 2019, p.184);
- Gendered pay inequality makes gender an economic position distinguishable from class. This difference builds into differential wealth accumulation over time (Carter et al., 2010);
- Women are more likely to head sole-parent households, which face
 the difficulties of a single income, the costs of child-rearing and the
 dual demands of employment and childcare on one person's time
 (Carter et al., 2010; Stats NZ, 2014);
- A sole-parent household headed by a female is more likely to become food insecure (Carter et al., 2010) and less likely to stop being food insecure (Gorton et al., 2010), perhaps due to the types of work available to solo mothers;
- Mothers go without food in order to provide for their children (McIntyre et al., 2003)—a behaviour only necessary with household difficulty accessing sufficient food.

Two sets of insights for understanding the incidence of food insecurity in Aotearoa/New Zealand and elsewhere emerge from considering the two bodies of work we have described. The major contribution by the empirical body of work is a sense of the breadth, variety and entangled complexity of drivers of food insecurity. These details tend not to be explicitly located within the influences of a particular theoretically identified historical context. Gorton et al. (2010, pp.1 & 23) note of the literature they reviewed: "Few studies were prospective and even fewer tested the use of interventions", while "[t]here has been little research into the political factors directly influencing food security"—presumably research attuned to the policy and political-economic contexts formed by political rationalities like neoliberalism. We suggest that these approaches are also lacking a strong theoretical account which can involve both the hugely significant influence of processes of neoliberalism alongside other dimensions of the drivers of food insecurity in the midst of plenty.

The key contribution of the literature informed by critiques of neoliberalism is foregrounding the imprint of neoliberal processes on economic class, that is, the identification of dynamics in a particular historical moment. The idea of the 'neoliberal turn' offers a powerful means to contextualise and better understand social and economic contexts. However, the empirical research into food insecurity shows that a focus on neoliberalism/class runs the risk of missing the significance of other complexities. It can be useful to attend to neoliberal class processes and their implications for the incidence of food insecurity in a society. This is because insufficient household income is the primary factor associated with the incidence of food insecurity, a consistent finding in investigative-empirical research across rich liberal democracies (Bowers et al., 2009; Carter et al., 2010; Rose, 1999; Smith, 2011). While useful, the focus of the critical literature is limited in two ways.

First, it deals with a very significant factor in household income—the impact of neoliberalism on economic class—but not with other factors that shape income. Second, it deals with a very significant factor in food insecurity—(insufficient) income—but only strongly engages with this one factor. Despite income being "strongly associated with food security, it is by no means the sole factor, nor the sole solution" (Gorton et al., 2010, p.26). We suggest that a combination of attention to neoliberalism with attention to

empirically significant socio-political dynamics is more useful than either alone. Reconsidering opportunities for framing the incidence of food insecurity using the concept of vulnerability offers a way to bring the two insights of theoretically derived context and empirically founded complexity together. Before arguing for this, we review income and food insecurity data drawn from the Aotearoa/New Zealand case.

The income data reveal more factors influencing (low) household income than class: disadvantage runs along lines of gender, ethnicity and household structure, as well as those class dynamics foregrounded by an analysis preoccupied with neoliberalism like declining incomes for the majority of the population and the abandonment of support for the under- and unemployed. The food insecurity data reveal parallel patterns of deprivation, which we describe as linked to the socio-political positions of particular groups suffering both economic marginalisation and food insecurity over recent decades.

Structuring suffering: Economic marginalisation in Aotearoa/New Zealand

We turn now to review income data from the Aotearoa/New Zealand case. As anticipated by the link between neoliberalism and food insecurity embedded in the critical literature, these data describe a history of deteriorating class position. However, this general decline is neither uniform nor unidirectional, reflecting changes across waves of neoliberalisation (Humpage, 2014). Furthermore, the data also demonstrate the significance of other social divisions that produce socio-political disadvantage within the economic landscape, implicating a complex set of historical dynamics involving more than neoliberal influences. We argue that the economic marginalisation visible in income data parallels the socio-political marginalisation of groups which disproportionately suffer food insecurity. Both income inequality and food insecurity have most afflicted those people who can be described as being at the intersection of multiple social positions: having comparatively low incomes; being members of sole-parent households; being identified as part of an ethnic minority; or being women.

We recognise that income inequality (gaps between low- and highincome groups) and income poverty (income insufficient to live on, in an absolute sense) are different (Perry, 2019, p.91). In the context of food insecurity, income inequality produces vulnerability as what are *inequitable* incomes become *insufficient* incomes when household budgets are pressured, for instance when increases in housing, food, transport, medical or energy costs cut into food budgets. In this way, the widening of relative income *inequality* has supported income levels which are insufficient to access sufficient food in Aotearoa/New Zealand case.

Smith, Parnell, Brown and Gray (2013, p.283) found that "[h]ouseholds with the lowest incomes (<NZ\$35000) were spending, on average, over 30% of their net income on food." This high proportion is vulnerable to being cut into by housing and other costs. The income data reviewed here, particularly those relating to 'low income' and 'beneficiaries', form the context of incomes increasingly insufficient to meet the costs of living. On the other hand, less pronounced widening of income inequality between ethnicities, genders and household types since 1982 does not mean that present incomes are sufficient—they remain lower and so those groups are more vulnerable to suffering food insecurity. We have used 'after housing cost' (AHC) figures for income where available in recognition of a finding by Gorton and colleagues (2010, p.5): "Housing costs are one of the main expenses that take priority over food ... In low-income households, adequacy of spending on food declines as relative spending on housing increases." We draw on the periods described by Humpage (2014) as three waves of neoliberalisation (roll-back, roll-out and roll-over) in Aotearoa/New Zealand to structure this review of income data.

Low incomes

Income data illustrates the intensification of disparity between economic classes with the implementation of neoliberal reforms. Table 2 shows that changes in income across deciles since 1982 has been strongly uneven and that most of this disparity is the potent legacy of the initial roll-back wave. As Roper (2011, pp.19-20) argues, analysis along a:

... divide in society between a predominantly white, male, capitalist class and a disproportionately brown, female, working class ... [shows] there can be no doubt that the former were the major winners and the latter the major losers of the neoliberal restructuring from 1984 to 1999.

The roll-out wave, despite elements of retrenchment, saw substantial support for the lowest-income decile with the major social transfer programme Working for Families (WFF) in 2004, supporting the incomes of the working poor, with the effect of altering the "general pattern" of escalating income inequality: "The 2004 to 2007 period was the only one in the 25 years to 2007 in which the incomes [before housing costs] of low- to middle-income households grew more quickly than those of households above the median" (Perry, 2019, p.78). Households in the lowest income decile include recipients of welfare benefits, but the 'workfirst' approach to social support maintained in the roll-out wave saw this group receive little support, as they were excluded from the In-Work Tax Credit (Humpage, 2014).

Table 2: Percentage changes in real equivalised NZ household incomes (after housing costs) relative to 1982, for the top of nine deciles

Decile									
	P10	P20	P30	P40	P50	P60	P70	P80	P90
Roll-back 1982-1998	-27	-14	-7	-8	-4	1	3	7	14
Roll-out 1998-2008	31	20	15	18	18	18	17	18	21
Roll-over 2008-2017	12	19	18	21	23	23	20	19	21
1982-2018	6	22	30	34	43	48	49	55	73

Source: Adapted from Perry (2019). P10 = top of the bottom decile, P20 = top of the second decile, P90 = top of ninth decile, and so on.

Sole parent households

Sole parents must balance paid employment with domestic labour, including childcare. Paid childcare may be required to facilitate work, adding another cost to the household budget (Rose, 1999). In addition, fulfilling childcare as well as breadwinner roles promotes low-paid or irregular work (casual or night shifts), which can reduce time available for (cost-effective) food preparation, negatively affecting food security (Coleman-Jensen, 2011). Such dynamics in sole-parent households play a part in the lower income levels of these households, dynamics that two-parent households or childless working couples are less affected by, as shown in Table 3.

Table 3: Percentage changes and values in median equivalised household incomes (after housing costs) for selected NZ household types

Household type							
	Sole-parent	Two-parent	Couple < 65	Couple 65+			
Roll-back 1982-1998	-20%	-4%	-2%	1%			
Roll-out 1998-2008	20%	26%	8%	15%			
Roll-over 2008-2017	34%	15%	19%	43%			
1982-2018	14	43	31	70			
Values (in \$2018, after housing costs)							
1982	13,000	19,900	34,600	18,100			
2018	14,800	28,500	45,200	30,700			

Source: Adapted from Perry (2019).

As with class divisions, Table 3 shows a trend of declining income from 1982 to 2004, the period that was harshest for sole-parent households. This suggests that neoliberal economic reforms support the economic marginalisation of households in which a sole parent performs both earner and caregiver roles. Income after housing costs levels for sole-parent households have rarely surpassed the 1982 level of \$13,000 since (Perry, 2019, p.89). Even the redistributive support of WFF only brought income level back to \$13,000 in 2007, perhaps because WFF only supports in-work households and only about 35% of sole parents are employed full time (StatsNZ, 2014).

A roughly 1982 level of income after housing costs means that more and more sole-parent households are vulnerable to inequitable incomes becoming insufficient incomes as other costs pressure the money available to access food. In comparison, and notable in Table 3, is the growth of incomes for couples aged over 65. This is an effect of strong state support for maintaining adequate incomes for recipients of superannuation, which has been pegged not only to inflation but also to the average weekly wage since 2001.

Ethnicity

Ethnic disparities in income in Aotearoa/New Zealand are related to colonial history, immigration, social marginalisation and decreasing social mobility,

as well as labour market changes prior to and following neoliberalisation. Table 4 shows the disproportionate impact of neoliberalisation on ethnic minorities 1988 and 1994: the decline in between incomes European/Pākehā households was substantially lower. The percentage increase from 1994 to 2004 is lower for this group, yet changes between 1988 and 2004 remain strongly favourable. The available data suggest that neoliberalisation entrenched and in places exacerbated pre-existing income inequalities between ethnic groups, (re)producing a racist socio-political dynamic in the structuring of economic marginalisation. Māori households, despite relatively equal percentage changes in income to European/Pākehā households between 1988 and 2018, have in 2018 an equivalised median household income before housing costs that is \$1,500 below that of European/Pākehā households in 2004. Pasifika households continue to trail both groups across percentage change and absolute measures.

Table 4: Percentage and values changes in real NZ equivalised median household income (before housing costs) by ethnicity, 1988-2018

		Ethnicity		
	Māori	European/ Pākehā	Pasifika	Other
Roll-back	0	-6	-6	-30
1982-1998	O	-0	-0	-50
Roll-out	26	19	17	19
1998-2008	20	19	17	19
Roll-over	15	19	8	0.1
2008-2017	15	19	0	21
1982-2018	53	35	36	42
	Values (in \$	2018, after hou	sing costs)	
1988	23,800	29,100	22,300	25,700
2018	32,200	44,600	30,400	36,500

Source: Adapted from Perry (2019). Where more than one ethnicity was reported, ethnicity was prioritised in the following order: Māori, Pasifika, Other, European/Pākehā.

Gender

Quantifying the economic marginalisation of women is not straightforward. We turn to the gender pay gap, which Table 5 illustrates diminished slightly through the roll-out wave and has fluctuated towards 9% in the roll-over wave. The impact of earlier waves of neoliberalisation on the gender pay gap

is not clear as data from the New Zealand Income Survey (Stats NZ, 1998-2015) is not available before 1998. The tendency towards decreasing the gender pay gap since 1998 is undermined by continued fluctuations from the low point of 9.1% in 2012. We also refer to Perry's (2019, p.152) finding that women are slightly, but persistently, more likely than men to live in low-income households (1-2% in the roll-over wave of neoliberalisation). This suggests that, while the roll-out wave of neoliberalism increased the proportion of women living in poverty, this was not more than a couple of percentage points disproportionate to the increase in men living in low-income households. The available data, then, suggest that the roll-out and roll-over waves of neoliberalisation have accommodated sexism as a socio-political dynamic structuring economic marginalisation. It does not appear that neoliberalisation exacerbated gendered income inequality—though it may have supported the lagging of gendered pay inequality behind cultural changes regarding gender inequalities.

Table 5: Percentage less earned by women than men (based on median hourly earnings), 1998-2019

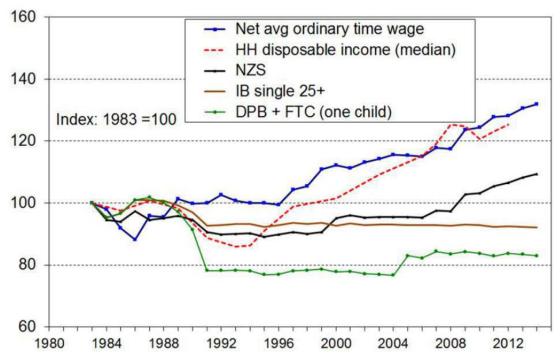
1998	16.3 2004	12.7 2011	10.3 2014	9.9 2017	9.4
2000	14.0 2006	12.1 2012	9.1 2015	11.8 2018	9.2
2002	12.3 2008	12.5 2013	11.2 2016	12.0 2019	9.3

Source: Ministry for Women (n.d).

Beneficiaries

Social security nets are typically curtailed by neoliberalism. The onset of substantial benefit cuts came in 1991, during the roll-back wave of neoliberalisation, and their effects are evident in Figure 1. Changes are evident in the roll-out wave from 1999, as the state's support for superannuants grew. So are consistencies in neoliberal influence, with no substantial variation in support for the (structurally) unemployed, and a boost in support for sole-parent beneficiaries through the WFF package limited by exclusion from the In-Work Tax Credit as noted above.

Figure 1: Relative changes in rates of main benefits, NZ Superannuation and income measures



Source: Ministry of Social Development (2014, p.28). HH = household; NZS = New Zealand Superannuation; IB = Invalid's Benefit; and DPB + FTC = Domestic Purposes Benefit and Full-Time Carer.

Common marginalisation

The data reviewed here reveals the socio-political character of the economic marginalisation in the Aotearoa/New Zealand case. It is clear not only that neoliberalisation has effected a disproportionate decline in the incomes of lowincome earners but also that the waves of neoliberalisation have seen social groups differently impacted. There is evidence of a disproportionate decline in the incomes of low-income earners, sole parents, ethnic minorities and beneficiaries. The data also illustrate the impact that a programme of state redistribution of income, like WFF, can have for low-income households. Roper (2011, p.19) argues that "class and ethnic inequality has generally increased since the mid-1970s, and especially during the period from 1984 to 1999." While the growth of income inequalities has eased since 1994, the gaps that stretched open in the 1980s and 1990s remain and core neoliberal reforms remain in place, despite the effective implementation of WFF (Roper, 2011, p.37). The data show that even with the support of WFF, a substantial level of income inequality persists between specific economically marginalised

groups and others. This is a situation in which many households are vulnerable to inequitable incomes becoming insufficient incomes for access to sufficient food.

The legacy of the neoliberal programme of reform is the marked and persistent economic marginalisation of the groups highlighted here. Harvey (2005, p.130) argues that "one persistent fact" in the "complex history of uneven neoliberalization" is "the universal tendency to increase social inequality and to expose the least fortunate elements of society ... to the chill winds of austerity and the dull fate of increasing social marginalization." The reviewed data supports the focus of the critical social science literature attending to food insecurity in rich countries on neoliberalism, revealing economic marginalisation along socio-political lines in Aotearoa/New Zealand that were deepened through neoliberal reform and remain markedly present today. As well as demonstrating that neoliberalism is an unavoidably significant factor when considering the ability of households to access sufficient food in Aotearoa/New Zealand, the incomes data support the view that neoliberalism is one among several factors.

In recent decades, implementation of novel neoliberal policy has been more subdued than the rapid and radical implementation of 1984-1994. However, neoliberal political rationality remains embedded as a background common sense in Aotearoa/New Zealand. Legislation aligned with a neoliberal agenda has been tinkered with but not disassembled wholesale in recent decades, and in some cases has been strengthened. WFF has certainly helped but has softened rather than resolved the deepening income inequality of the early and harshest neoliberal reforms, and has done little for beneficiaries, work-poor or childless households.

While it is true that social divisions and economic marginalisation were present in Aotearoa/New Zealand in 1980, it is clear that the uneven effects of neoliberal reforms generated disproportionately negative outcomes for particular social groups. These have little to do with the discourse of meritocratic success associated with neoliberal political rationality and more to do with the incidence of food insecurity.

Food insecurity in households

We turn now to a review of empirical evidence concerning the incidence of household food insecurity in Aotearoa/New Zealand. At a national level, this data is only infrequently collected. This hampers a detailed analysis of waves of neoliberalisation but the available data in combination provide a workable account of a crisis of food insecurity of alarming constancy. We first review data from the three available National Nutrition Surveys (Russell et al., 1999; Ministry of Health, 2003; University of Otago & Ministry of Health, 2011) using locally-validated food security measures.

The 1997 National Nutrition Survey set out to "provide baseline data on the nutritional status and food security of the population" (Russell, Parnell & Wilson, 1999, p.4). A set of eight validated indicator statements were developed for this initial national survey (see Parnell et al., 2001), all of which "relate to the issue of affordability" (Russell et al., 1999, p.100). For brevity, we will follow three of these through the surveys which employ them:

- 1. We can afford to eat properly, which is concerned with financial access to food.
- 2. We eat less because of lack of money', which is concerned with the quantity of food accessible.
- 3. 'The variety of foods we are able to eat is limited by a lack of money', which is concerned with the nutritional quality of food accessible.

The data in Table 6 offer a number of potential insights into the differential experience of social groups. Much of the data is directly comparable; the shifting reporting of age groups and the change from quartile to quintile measurement in the New Zealand Index of Deprivation (NZDep) are exceptions but remain useful as strong indicators of the situation across time. A very basic comparison suggests that overall food insecurity has worsened since 1997; figures across categories are consistently lower in the initial data set. Within this trend, it appears that the incidence of food insecurity was more severe in Aotearoa/New Zealand in 2002 than in 2008/2009.

Table 6: Percentage responses to national surveys with a food security component of selected sub-populations

	1997	7	2002	2008	3
Financial access	to food				
% responding som	etimes to "w	e can aff	ord to eat prope	rly"	
	Female	Male	Households with children	Female	Male
Population	14	12	20	18	16
Age 15-44	20	15	_	24	19
Māori	33	24	34	40	29
European/Other	10	9	12	15	12
Pasifika	37	39	48	46	41
NZ Dep. Index	27	21	38	34	28

Quantity of food accessible

% responding often/sometimes to "we eat less because of lack of money"

	Female	Male	Households with children	Female	Male
Population	14	12	18	16	14
Age 15-44	14	16	-	20	18
Māori	29	26	31	29	31
NZ European/Other	11	9	10	14	12
Pasifika	41	37	51	42	41
NZ Dep. Index	24	18	35	30	31

Nutritional quality of food accessible

% responding *often/sometimes* to "the variety of foods we are able to eat is limited by a lack of money"

	Female	Male	Households with children	Female	Male
Population	29	25	35	33	28
Age 15-44	36	34	=	39	34
Māori	47	48	45	49	48
NZ European/Other	26	20	28	30	25
Pasifika	48	50	60	62	54
NZ Dep. Index	37	44	53	48	46

Sources: 1997 = 1997 National Nutrition Survey (Russell et al., 1999); 2002 = the 2002 National Children's Nutrition Survey (Ministry of Health, 2003); 2008 = the 2008/09 Adult Nutrition Survey (University of Otago & Ministry of Health, 2011). Note: Percentages reported here are gendered in line with their provision in reports, reflecting the significance of gender differences in rates of food security across social groups. The age band included highlights a vulnerable group: 15-44 for '1997' and 15-50 for '2008'. The NZDep is a geographic index of deprivation. Figures provided here are for: '1997', the most deprived 25% of the population by area in 1996; '2002', the most deprived 20% of the population by area in 2001; and '2008', the most deprived 20% of the population by area in 2006.

The data in Table 6 reveal stark differences in the experience of food insecurity across three ethnic categories: Māori, Pasifika, and 'New Zealand European and Others'. The scale and consistency of these differences demand attention. Pasifika people suffer food insecurity the most intensely, followed by Māori, while the 'New Zealand European and Others' group is comfortably the least food insecure ethnic category. This pattern of ethnic disparity appears to be generalisable across indicator statements and persistent across time. Within general population trends, departures for Māori are visible in Table 6: a decrease rather than the general increase from 1997 to 2002 for the nutritional quality statement; and increases rather than the general decrease from 2002 to 2008/2009 for the nutritional quality and financial access statements. While certainly not conclusive, this does suggest that factors which tend to buoy the food security of many social groups cannot be said to do so universally. This emphasises the complexity of the dynamics which influence a given household's food security status, suggesting the limits of a focus on economic class and neoliberalism.

Notable within each ethnic group is a higher rate of food insecurity for women compared to men. The gendered trend is supported by the finding of Carter et al. (2010, p.604) that in 2004/2005 "[t]he prevalence of food insecurity was much greater in females (19%) than males (12%)." The omission of gendered data in the 2002 National Children's Nutrition Survey makes comments on trends across time difficult but the consistency of higher incidences of food insecurity for women within other social categories is clear.

The inclusion of data for people living in the most deprived areas, defined by the NZDep, provides some indication of the influence of economic class on the incidence of food insecurity. Compared to the general population, the most materially deprived 20% (25% for NZDep 1996) of the population consistently suffers food insecurity at a higher rate. The fact that the rate of food insecurity among Māori and Pasifika is generally higher than that of the most deprived 20% of the population reinforces the significance of ethnicity, perhaps linked to income, as a factor influencing a household's food security status.

A brief look at data from three nationally representative surveys in Table 6 also shows that food insecurity is not a problem that is being dealt with effectively; in slightly over a decade between the first and most recent national surveys, the incidence of food insecurity has *increased* across all three indicator statements and for each of the social groups described here, as well as for the general population.

The most recent national-level data comes from the Gallup World Poll, rather than the locally validated measures. Elements of this data available in reports on cross-national comparisons support the observations of constancy above. The OECD (2014b, pp.1 & 3) reported that following the Global Financial Crisis food insecurity "increased substantially" from 10.3% in 2007 to 17.2%. The most recently published data are not directly comparable to those in Table 6 as they are based on an analysis built around categories of severity of food insecurity. Fourteen percent of the national population was found to experience "moderate or severe" food insecurity in the period 2016-2018 in a report led by the Food and Agriculture Organization of the United Nations (2019, p.130), up from 10.6% across 2014-2016. A report on Household food insecurity among children in New Zealand, using data from the child component of the 2012/2013, 2014/2015 and 2015/2016 New Zealand Health Surveys, found that 19% of households with children experienced "severe-to-moderate food insecurity in 2015/16" (Ministry of Health, 2019, p.8).

The available data describe a trend in which a significant minority of people in Aotearoa/New Zealand suffer food insecurity at any given time. Within this trend are clear, significant and sustained socio-political disparities, marking the more desperate experience of certain groups. The lack of nationally representative data gathered using the same measure of validated indicator statements since 2008/2009 hampers a more nuanced commentary. It does seem clear, however, that the lowest figure from any of these data—9% of New Zealand European and Other males in 1997—is no cause for celebration. Furthermore, the data suggests an alarming persistence and constancy: since at least 1997, a significant minority of households in Aotearoa/New Zealand have suffered food insecurity.

The sharp differences visible in Table 6 in the incidence of food insecurity between ethnicities, genders and classes form a pattern of deprivation for social groups within the population. Carter and colleagues (2010) describe groups at an elevated risk of suffering food insecurity compared to the general population as 'low income' for household income level; 'female' for gender; 'Māori' or 'Pacific' for ethnicity; as well as 'sole-parent' (especially female-headed) for household structure. Given the primacy of the link between insufficient household income and food insecurity, the alignment of patterns in food insecurity and income data make sense: the most food-insecure groups overlap with the most economically marginalised groups in Aotearoa/New Zealand. Again, we view these parallels as tracing socio-political dynamics that drive the incidence of food insecurity, supporting a departure from a view that generic neoliberalism has increased the incidence of food insecurity and endorsing the idea that various waves of neoliberalisation have shaped poverty and, subsequently, food insecurity.

The trends in food insecurity in Aotearoa/New Zealand describe an outcome of social-political dynamics in a particular economic context, as do similar trends in other rich liberal democracies (Gorton et al., 2010). The data reviewed here indicate that financial disadvantage is intersecting across postcolonial and gendered terrain, as well as differences of economic class closely associated with critiques of neoliberal political economy. This intersection requires an ontological shift in the framing of the relationship between neoliberalism and food insecurity to account for these wider terrains of inequity and complexity in the relations between political economy, income and food insecurity. In the next section we attempt to engage this shift through applying a concept drawn from the study of poverty in the global south, in order to more fully account for the extent of the disadvantages intersecting under neoliberalism.

Explaining insecurity 'at home': Vulnerability despite plentyWe have outlined two bodies of literature and data on two themes focusing on the Aotearoa/New Zealand case where food insecurity exists in a rich country with a history of neoliberalisation. We now argue that we need to find a way

to characterise the relationship between neoliberalism, income and economic class and food insecurity, beyond the simple neoliberalism-poverty-food insecurity progression implicit in much critical social science literature. This characterisation should accommodate the literature and data reviewed here, and incorporate the socio-political dynamics forming multiple lines of inequity described in investigative-empirical research and apparent in income and food insecurity data. Our review of literature and data here has shown that an examination of food insecurity is stronger for incorporating:

- The analytic strength of identifying the particular dynamics of a
 historical moment in the configuration of political economy, policy,
 public opinion and beyond, which generates economic conditions
 and household financial situations in which people can(not) access
 sufficient food (critical social science approach);
- The socio-political dynamics which shape economic marginalisation (income data);
- Food being accessed through financial means, the persistent fact that insufficient income is the primary driver of food insecurity and the alignment of the demographic categories of people with fewer financial resources with those who suffer food insecurity (food insecurity data);
- The analytic detail of factors and demographics—financial, sociocultural and physical—associated with suffering food insecurity of the kind reviewed by Gorton and colleagues (2010) (empiricalinvestigative approach).

We argue that an appropriate and useful means to orient research, which can capture and bring together these elements, is to employ the concept of *vulnerability*. We maintain that this approach is capable of engaging the complexity of the theoretical-empirical context of food insecurity in rich liberal democracies, while still making sense of broader data concerning food insecurity and also providing a usefully concrete conceptual framework to ground practical efforts against food insecurity. Watts and Bohle (1993) develop a useful elaboration of the concept of vulnerability which includes three 'basic co-ordinates':

- The risk of exposure to crises, stress and shocks;
- The risk of inadequate capacities to cope with stress, crises and shocks;
- The risk of severe consequences of, and the attendant risks of, slow or limited recovery (resiliency) from crises, risk and shocks.

The four elements present in our review highlighted that each approach and characterise food insecurity differently but they all engage with an influence on the *exposure*, *capacity to cope*, or *ability to recover* of a household or group. There are multiple lines of socio-political disadvantage (being female, a single parent, part of an ethnic minority, a beneficiary) that affect a person's 'risk of exposure'. Income is a major 'capacity', in the sense of "inadequate capacities to cope with stress, crises and shocks" (Watts & Bohle, 1993, p.118). The 'consequences' of living in a food insecure-household are more severe for women, especially mothers but also for households which go into debt to access food.

An approach to examining food insecurity built around the concept of vulnerability allows us to attend to things which generate vulnerability, "the historically and socially specific realms of choice and constraint" (Watts & Bohle, 1993, p.118), which determine exposure, capacity to cope and the potential for severe consequences. This is pragmatic and can also integrate broad structural influences and economic class dynamics often described in terms of neoliberalism without excluding other socio-political dynamics within or alongside specific processes of neoliberalisation. More broadly, multiple layers or scales of influences or drivers are accounted for by this approach: political economic; policy; socio-political; class; gender; ethnicity; physical and socio-cultural contexts; and household structure. None are privileged by the framing but the frame also does not prohibit claims about the relatively significant influence of factors, like declining class position or gender dynamics; these remain as empirical questions.

The concept of vulnerability also makes sense of what we know about the dynamics of food insecurity in two major ways. First, it allows for two qualities in the relationship between food insecurity and insufficient income. One is that this relationship exists *consistently*, which a significant body of research indicates it does; and levels of food insecurity decrease proportionately to increases in socioeconomic status in Aotearoa/New Zealand (Carter et al., 2010). The other is that this relationship is *complex*, not linear or one-to-one. While "[p]oor people are usually among the most vulnerable by definition", "not all poor people are equally vulnerable to hunger; indeed it is not necessarily the poorest who face the greatest risk" (Watts & Bohle, 1993, pp.117-118). Moreover, "a one-to-one correspondence between poverty-level incomes and hunger does not exist", as Rose (1999, p.517S) found in a United States (US)-based study.

Second, it suits the nature of food insecurity as a status, not an economic or social position. Many households that suffer food insecurity tend not to do so constantly or even necessarily for long periods. In the US, Nord, Andrews and Winicki (2002, p.197) describe how:

... about one third experienced the condition as occasional or episodic—occurring in only 1 or 2 months. Two thirds experienced the condition as recurring—occurring in 3 or more months [including] a subset... that experienced the condition as frequent or chronic ...

The presence of a similar pattern in Aotearoa/New Zealand is supported by the National Nutrition Survey data. Where participants' responses to statements indicated a food insecure status, the majority of these responses were 'sometimes' rather than 'never'/'often' (University of Otago & Ministry of Health, 2011, pp.264-271). This suggests that many households that suffer food insecurity are not constantly food insecure; they are vulnerable to being periodically food insecure. The concept of vulnerability also allows for agency, with people 'getting by' and 'managing' food insecurity within their circumstances (Radimer, Olson & Campbell, 1990).

Finally, the concept of vulnerability offers a strong point of departure when considering food insecurity across rich liberal democracies because it lends itself to clarifying policy responses—as noted above, it is pragmatically focused on drivers of vulnerability. If vulnerability is "defined in terms of exposure, capacity and potentiality ... [then] the prescriptive and normative response to vulnerability is to reduce exposure, enhance coping capacity, strengthen recovery potential and bolster damage control (ie minimize

destructive consequences) via private and public means" (Watts & Bohle, 1993, p.118). Along similar lines, Shepherd (2012, p.207) observes that the concept is capable of providing a baseline question for interventions, for example: 'Will this reduce vulnerability to food security?'—something that can be asked of any policy, effectively "narrowing food-security activity towards a clear and specific set of outcomes."

Conclusion: Reframing food insecurity under neoliberalism

Harvey (2005, p.19) describes the neoliberal turn "in practice" as a political project "associated with the restoration or reconstruction of the power of economic elites" which functions to increase social inequality." The data presented above support an elaboration of this understanding. Lines of sociopolitical disadvantage (re)produced in different ways by successive waves of neoliberalisation in Aotearoa/New Zealand have promoted the vulnerability of particular groups to suffering food insecurity by reducing their capacity to cope with life's difficulties. Within these economic pressures—of class dynamics and beyond—other socio-political dynamics further increase vulnerability to suffering food insecurity, such as gender dynamics, proximity to food shops, or access to effective public transport networks. The concept of vulnerability allows an examination of food insecurity to recognise each and/or all of these.

Social and economic marginalisation are inscribed upon one another and intersect with lines of disadvantage across postcolonial and gendered terrain, as well as the nuclear model of families. This is visible in data from Aotearoa/New Zealand concerning income and the incidence of food insecurity: marginalisation and deprivation are linked as socio-political inscriptions of economic dynamics. In making this claim, we do not wish to disregard the importance of economic class under neoliberalism as a driver of food insecurity. Rather, we want to allow for the recognition of greater nuance and complexity in the framing of household vulnerabilities to food insecurity, including accounting for intersections between the direct consequences of changing economic status under neoliberalism and older inequalities of gender and ethnicity. The significance of both context and complexity evident

across research into food insecurity in Aotearoa/New Zealand supports our construction of an account of food insecurity built around the concept of vulnerability. It offers conceptual flexibility, allowing the integration of elements that clearly contribute to the incidence of food insecurity which have been largely separated in the two prevailing approaches to examining food insecurity. Research that approaches food insecurity through the concept of vulnerability may offer a 'way forward', with consistency in data on the incidence of food insecurity showing this has been lacking since at least 1997. The idea of vulnerability is not new but the suitability of the concept for providing a framework for outlining the complex relationships between neoliberalism and food insecurity in rich liberal democracies reinforces the extent and intersecting nature of the persistent and systematic experiences of want amidst plenty.

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