

Brooke, Geoffrey T. F.; Endres, Anthony M.; Rogers, Alan J.

Working Paper

The Economists and New Zealand Population: Problems and Policies 1900–1980s

Economics Working Paper Series, No. 2016/08

Provided in Cooperation with:

Faculty of Business, Economics and Law, Auckland University of Technology (AUT)

Suggested Citation: Brooke, Geoffrey T. F.; Endres, Anthony M.; Rogers, Alan J. (2016) : The Economists and New Zealand Population: Problems and Policies 1900–1980s, Economics Working Paper Series, No. 2016/08, Auckland University of Technology (AUT), Faculty of Business, Economics and Law, Auckland

This Version is available at:

<https://hdl.handle.net/10419/242547>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



AUT

School of Economics

Working Paper Series

**The Economists and New Zealand Population:
Problems and Policies 1900–1980s**

Geoffrey T. F. Brooke, Anthony M. Endres, and Alan J. Rogers

2016/08

The Economists and New Zealand Population: Problems and Policies 1900–1980s

Geoffrey T. F. Brooke – Corresponding author.
School of Economics, Auckland University of Technology
Private Bag 92006
Auckland 1142
New Zealand
+64 9 921 9999 5076
geoffrey.brooke@aut.ac.nz

Anthony M. Endres
Department of Economics, University of Auckland
Private Bag 92019
Auckland 1142
New Zealand
+64 9 923 7141
a.endres@auckland.ac.nz

Alan J. Rogers
Department of Economics, University of Auckland
Private Bag 92019
Auckland 1142
New Zealand
+64 9 923 7148
a.rogers@auckland.ac.nz

Abstract

We examine contrasting modalities of economic thought by economists on population problems and policies in NZ, 1900–1980s. Since the early 1900s NZ economists have been concerned with interactions between economic and demographic outcomes. During the inter war period Malthusian concerns were muted because NZ's population growth approximated a stationary state. A 'laissez faire' position was articulated among some economists in terms of external migration flows; others debated the implications of a stationary population. The post WWII era ushered in a doctrine of 'stable population Keynesianism' based on optimistic neo-Malthusianism; that perspective clashed with contemporary views on population expansion and the promotion of immigration coextensive with the policy of planned industrialization. An intellectual void became apparent in the early 1980s, perhaps because concern with the dynamics of population change in a small, liberalized, open economy seemed misplaced. Lessons are drawn from this intellectual history that may inform modern debate on population policy, broadly conceived.

JEL categories:

B2, F22, J11

Key words

New Zealand, Population Policy, Migration, History of thought.

1. Introduction

When Wolfgang Kasper (1990) produced a research report for the NZ Business Roundtable entitled ‘Populate or Languish?’ he enthusiastically promoted the case for a more open immigration policy and for population expansion in general, compared to what had come before in NZ, at least as far back as the 1930s. Kasper’s report was a tract for the times. Indeed, the economic liberalization program prosecuted by successive governments from 1984 was coextensive with what might be called a moderate population expansion policy including progressively more liberal immigration policies.¹ Sociologists and demographers were quick to notice how the ‘tide of economic rationalism which...swept over New Zealand [from] 1984’ carried with it significant changes in immigration policy (Farmer 1997, p.1). In connection with a survey of liberal policy reforms affecting demographic change, Andrew Trlin (1997, p.22) concluded ‘that the careful, cautious liberalization initiated by Labour in 1986 as part of a broader programme of socio-economic restructuring and deregulation, has been continued since 1990 with rather more vigor by a National Government’.

While the NZ sociology and demography literature from the 1980s offers detailed commentaries on population problems, policies and immigration issues during the era of economic liberalization in the 1980s and 1990s (e.g. Trlin 1986, 1997; Bedford, Farmer, & Trlin 1987; Bedford 1993, 1994; Pool 1997), economists did not seem to make very much of population policies and questions of labor supply during that period. More precisely, the economists did not address population changes as either a necessary concomitant or a consequence of the contemporary economic policy reforms. For example, should a more liberal trade policy and open capital account of the balance-of-payments require changes in some aspect of population policy? If so, were these policy changes implemented and was population policy consistent with the other economic reforms? Neither the oft-cited collection of essays in Alan Bollard and Bob Buckle (1987), nor the essays in Brian Silverstone, Alan Bollard, & Ralph Lattimore (1996) that review economic reforms in the 1980s and early 1990s, consider population policy and labor supply. The former includes only passing mention of labor supply and migration issues in the chapter by Brian Easton

¹ The landmark statements by policymakers on this matter are Burke (1986) and Birch (1989).

(1987) on the labor market reforms.² The latter collection of essays, published some ten years later, contains only one entry each on population and migration in the index and labor supply is discussed in one chapter as a matter of fact rather as something that might be economically consequential or controversial.³ The authoritative, and otherwise comprehensive, study of Lewis Evans, Arthur Grimes, Bryce Wilkinson & David Teece (1996)—‘Economic Reform in New Zealand 1984–95’—also neglects to consider economic and demographic interactions, even omitting the important immigration policy changes in their ‘Appendix’ on ‘Key Dates’ of policy changes from 1982 to 1995.⁴

In retrospect, NZ economists were slow to consider the economic causes and consequences of population change and changes in aspects of population policy that might either go hand-in-hand with, or ensue from, extensive economic liberalization. That tardiness seems curious in the light of the fact that from the early twentieth century at least, the history of economic thought on population problems in NZ and the influence of government policy—on changes in population composition and distribution, rates of population growth, internal and external migration, fertility and so forth—is replete with discussion and debate on these subjects. In this paper our concern is to offer a history of economic thought perspective on the population question with special reference to the contributions of NZ economists up to the aforementioned reforms in the 1980s.⁵ The economists whose views we will revisit here would have been surprised that the ‘big’ questions concerning population (desired rate of growth, appropriate size, distribution and composition) were not fully addressed by policymakers contemporaneously with their major economic policy reforms in the 1980s and 1990s.⁶

² The references are to Braae and Gallacher (1983) and the then forthcoming work of Poot, Nana and Philpott (1988).

³ The discussion of these matters on the relevant pages of the text is perfunctory. The chapter by Chapple, Harris and Silverstone (1996) reports data on aggregate labour supply. The extensive work of Jacques Poot and others in the period from 1987-95 is not cited at all.

⁴ Again, in this publication the pioneering work of Jacques Poot from 1986 is ignored. More recently we note more serious research by economists on the subject of population. See for example, Bryant (2003); Poot (2005); Moody (2006); Maré, Morten, & Stillman (2007); Hodgson and Poot (2001); Reddell (2013); Fry (2014).

⁵ We will privilege work by NZ academic economists including some expatriates, and work by economists published by quasi-government authorities and research organizations. Biographical information on many of the NZ economists mentioned may be found in King (2007) and Blyth (2004, 2008). Space limitations preclude us from reporting too much personal detail on some others.

⁶ Population questions would have arisen not just directly through changes in immigration policy. For instance, welfare policy changes, trade policy and labor market reforms would also have effects on population.

In providing an account of their ideas and policy prescriptions we pose the following questions:

1. What were the main arguments offered by economists, in both theoretical and applied work, that turned on various aspects of population policy in NZ?
2. What induced shifts in thinking among those economists on population and labor supply questions (e.g. demographic developments, intellectual fads and fashions, changing trade policies, macroeconomic policy objectives)?
3. What salient lessons may be gleaned from the different perspectives provided by economists in the period under review?

Foreshadowing some themes in our discussion below, the ramifications of demographic factors for macro-level outcomes such levels of consumption and domestic investment, changes in per capita incomes, government expenditure, and for the prevailing trade policy regime and so forth, were all matters that preoccupied the thinking of NZ economists prior to policy reforms from the mid-1980s. Planned industrialization via a highly interventionist trade policy, import controls, exchange controls, fixed exchange rates, centralized wage fixing and later, export subsidies and activist industrial policies was a favored policy combination in NZ for a good part of the twentieth century. The basic theoretical lesson from Mundell (1957) is that such policies were broadly consistent if population expansion is contained and managed. Only then would full employment of, and returns to, (scarce) domestic labor be protected from ‘excessive’ population expansion. All that was to change from the late 1980s/early 1990s; that period therefore marks an appropriate end-date for our study.

Our paper is organized as follows. Section 2 examines the dimensions of the population debate among NZ economists in the inter-war years. We outline the prevailing anti-Malthusianism in the 1920s and the impact of the 1930’s economic crisis on thinking about the economic implications of population change in that period. Section 3 considers differing positions on population questions from 1945 in the light of the Keynesian revolution. The backdrop to this section is the policy emphasis on full employment, the constraints on the external accounts wrought by the Bretton Woods arrangements, coupled with gradual breakdown of support among economists for import licensing in the 1960s and 1970s. Section 4 considers the population optimists who were associated with the prevailing policy

of planned industrialization through import substitution and a welfare state supporting fertility. Section 5 draws together the work of NZ academic economists and economists working for quasi-governmental research groups in the 1970s and early 1980s. Section 6 concludes by summarizing some lessons from our study of the different modalities of economists' thinking on the population question since 1900.

2. Contributions of NZ Economists to the Population Debate up to 1939

2.1 Malthus's 'Devil' Exposed and then 'Chained Up'

The twentieth century initiation of concern about population questions in NZ may be traced to an early discussion of the affordability of the old-aged pension scheme introduced in the 1890s. Hugh Segar (1900) cast a spectre of Malthusianism over his analysis of NZ population trends in an article for the Royal Society of NZ.⁷ Census data revealed a deep-seated, dire trend: an ageing population structure (declining excess of births over deaths) portentous of a 'stationary state'. Indeed such a state 'must ultimately be reached' in NZ. Stationarity will either be 'brought about by a voluntary restriction of births, bringing down the birth-rate to the level of the death-rate' or from raising 'the death-rate to the level of the birth-rate by the increase of the severity of the struggle for existence, and the consequent falling-off in the standard of living' (p.462). In fact, voluntarily limiting family size 'is the only thing that can prevent ...misery, hardship and disease' (p. 463). Moreover, for Segar, no old-aged pension policy as generous as the NZ scheme could easily be financed if living standards declined in tandem with the trend toward a stationary population (pp. 464–5). Incentives built in to the scheme—that it discouraged thrift and actually prolonged life—remained for others to contemplate.⁸

⁷ Segar occupied the Chair of Mathematics, University College Auckland, from 1894 to 1934. He was likely almost exposed to political economy while studying at Trinity College Cambridge in the late 1880s and early 1890s; in reply to a question at the end of a public lecture on population at the Auckland Institute, Segar said that: "New Zealand was fulfilling the prophecy of Jno. Stuart Mill, who adopted the theory that population of the world could not increase for ever" (sic) (Population in New Zealand: A Stationary State, 1900). He contributed several articles on NZ's trade, NZ monetary problems, public debt, the gold standard, and population. For a time he acted as Vice President of the Auckland Branch of the Economic Society of Australia and New Zealand. See Briggs (1954–5).

⁸ William Pember Reeves (1902, p.276) agreed, noting that NZ's death rate was "the lowest in the world" and was doubtless assisted by the pension scheme, thereby possibly undermining its long-term viability.

Keeping the ‘Devil’ that Malthus disclosed firmly ‘chained up and out of sight’ (Keynes 1920, p.10) was something that the NZ economists achieved with ease in the 1920s. For those economists, population in NZ was affected by economic and social policy and was not an endogenous economic variable *à la* Malthus. Policies could moderate the direct economic effects of population change in the short-run. By the early 1920s, university academic economics in NZ began to flourish and senior appointments in the discipline were mostly held by those who had imbibed the guarded population optimism of late classical economics and Marshallian economics (Blyth 2008; Endres 2010). Several key events brought out this optimism: changing immigration policies and consideration of an optimum population for NZ along with the National Industrial Conference (1928) (hereafter: NIC) held against a backdrop of recession and rising unemployment; legislation creating a family allowance scheme in 1926 in the context of declining fertility; the shifting geographic distribution of the population with increasing urbanization and technological advances in agriculture. We will deal with economists’ reactions to these events *seriatim*.

At the NIC in 1928, all-round support was given to implement immigration restrictions in the face of a cyclical downturn in export receipts. The government’s decision was made ‘in the interests of the working classes’ (Borrie [1939] 1991, p.166), presumably to keep unemployment down and protect that class from any unnecessary downward pressure on wages caused by immigration.⁹ Albert Tocker (1928) disagreed. He claimed that immigration policy had nothing to do with the disparity of export price trends (and thus farmer’s receipts) from labor costs in ‘sheltered’ domestic industries. Labor costs were maintained at an unsustainably high level by a centralized system of wage setting. Unemployment was caused by insufficient wage flexibility, not the size of the population of working age. Horace Belshaw’s address to the conference on behalf of the Research Committee of the Economic Society of Australia and NZ (1928, p. 70) referred cryptically to the ‘absorption capacity of the country for the time being’ as a reason to change immigration policy. Barney Murphy (1927) had already explained the concept of NZ’s ‘absorptive capacity’ to a NZ audience and linked it indirectly to the idea of an optimum level of population (given technology and social institutions)—an idea that had gained currency in

⁹ These objectives are implied in the Department of Immigration Annual Report (1928, p.1). The objective of regulating immigration in connection with the domestic unemployment situation is stated much earlier in the Department’s Annual Report in 1923 (p.2).

economics from its early formulation in Mill's *Principles* in the 1870s (Spengler 1972, p.337). Robbins (1927, p.119) noted that it is 'fairly safe to say that nowadays this theory is pretty generally accepted'. Murphy reduced the idea to the search for a 'best balance between population and resources' which he thought was fine in principle but difficult to test empirically.¹⁰ In given economic conditions population 'is like a gas, it automatically fills its container, and that container is the country in which it dwells, taken in conjunction with the lowest acceptable standard of life for the masses' (p.11).

In the short-run more immigration restrictions may be a 'palliative' for unemployment. In the long-run, optimum population levels and thus unemployment are determined by social conventions regarding acceptable minimum living standards and prospective changes in supply side phenomena such as technology in agriculture, resource discoveries, industrial organization and trade patterns. He maintains therefore that it is better to conceive of an optimum population growth rate on an intertemporal basis rather than a single optimum (citing Alfred Marshall's analogy, 'a series of shots at a moving target' p.10), rather than a given level at any point in time or over time. And this is what is alluded to in Belshaw's foregoing phrase—'for the time being'— in relation to a tolerable level of immigrant absorption in the economic conditions prevailing in 1928.

Murphy was right to identify social attitudes concerning minimum living standards (that diverged from some physiological minimum) as a key consideration in the analysis and deliberate societal management of economic and demographic interactions. Social legislation reflected certain attitudes in NZ. For example, consider the family allowances policy introduced in 1926. Richard Campbell (1927, p.382) argued that this policy was preeminently designed to alleviate poverty; it was not to be thought of as interacting with fertility decisions. Such 'allowances, as a means of encouraging procreation of children, are a highly objectionable device and unlikely to be effective in practice'. The latter claim was founded on evidence produced by the 1912 Royal Commission on the Cost of Living— improved living standards for low income families was generally 'reflected in a lower birth rate' (p.375).¹¹ Campbell (1927, p.273) rejected 'crude Malthusianism' which rested on the

¹⁰ He suggests that trying to find a statistical "index of optimum population density" would likely prove impossible (p.10).

¹¹ He might well have appealed to the work of Edward Neale (1923, p.454) who identified a "secular downward trend of the birth-rate" in NZ.

‘utterly untenable’ proposition that improved economic status raises the birth rate in the NZ case. Confirming this outlook, Jack Condliffe (1930, p.387) completely divorced social policies in this period from any objective deliberately to cause demographic effects. Like the pensions scheme in the 1890s, the family allowances policy was solely motivated by an ethos of poverty amelioration. That such a policy became, unwittingly, a ‘happier alternative solution to the population problem’ manifested in positive impacts on living standards and lower birth rates, was an unintended consequence of actions taken for other reasons (p.443).

Lloyd Ross (1929) (an economic historian at the University of Otago) recommended a highly selective immigration policy referenced to the growth of NZ’s ‘primary industries’. The notion of ‘absorptive capacity’ is used again here to underscore not the absolute limit of natural resources in NZ and thus an impending optimum population based on the likely onset of diminishing returns; rather, the rate at which NZ can attract sufficient capital to develop its primary industries and ‘raise production per head’ is the crucial constraint on realizing ongoing increasing returns in that sector. On this score there can only be ‘slow growth in New Zealand’s population’ (p.114–15) but growth was nonetheless an imperative. Again, like Murphy, it is some vague, inestimable optimum growth rate, and not optimum population size, that informs this treatment.

Much has been written about the vicissitudes of the theory of optimum population (e.g. Robbins 1927; Gottlieb 1945; Petersen 1955; Spengler 1972; Coleman 2014).¹² NZ economists rarely used the word ‘optimum’ and they did not ask ‘of what use is further population growth?’ As well, they did not feel the need to resolve potential policy problems implied by every new demographic statistic or projection that came upon the scene as a result of Edward Neale’s pioneering work in the 1920s (e.g. Neale 1924, 1925a, b).¹³ Furthermore, they did not give explicit reception to Keynes’s (1926, p.49) Malthusian plea

¹² For Australia in the 1920s, the matter has been reviewed by Cain (1974, pp.348–56), and Coleman (2014). Fleming and Jackson (1988, p. 50-51) consider the matter briefly in a review of the NZ literature. Tocker (1937, pp. 244-5) discusses the optimum concept but adds nothing new; he draws the same skeptical conclusions as Murphy a decade earlier.

¹³ Edward Percy Neale was trained as an economist at Otago. He turned toward demography in later doctoral research at Victoria University (Belshaw 1961; Blyth 2008 pp.40–41). His first publication defended official NZ death-rate data (showing the lowest recorded rate in the world)—data received with incredulity by Harvard economist Frank Taussig, who presumed that data collection in NZ must have been defective. See Neale (1923).

for ‘each country’ to design a ‘national policy about what size of population...is the most expedient’. The issue of an optimum was never clearly drawn in NZ during the 1920s and early 1930s in spite of copious work on the subject in the international literature prior to 1930. Instead the NZ economists were inclined to ask ‘when will further population growth be appropriate?’ and ‘how should the immigration component be selected?’¹⁴ Thus Condliffe (1931, p.504), in summarizing the contributions of NZ economists up to that date, commended their unique contribution to the ‘economics of development’. The essence of that contribution turned on their consideration of the ‘absorption point beyond which new labor and capital cannot be readily assimilated in a short time’. In the short-term, the NZ economy can be go from ‘booms to depressions’ so that periods of falling export prices lowers the ‘absorption point’ for labor and capital inputs and vice versa. Assuming, as they did, a population of stable age distribution, and looking through these business cycles, they believed in the existence of a trajectory, a long-term rate of increase in population that would contribute to the process of further economic development and growth in per capita incomes (in our reading, their substantially equivalent phrase was ‘growth in living standards’).

2.2 Structural Change and the Distribution of Population in the 1930s

By the end of the 1920s the non-economist, neo-Malthusians became alarmed at population movements toward urban areas in NZ. Did that movement indicate diminishing returns in agriculture and a state of over-population? Alan Fisher (1929, p. 251) dismissed this question, arguing that such movements gave ‘good reason for cheerfulness in regard to population growth’. In fact, if ‘population growth were too rapid, and the pressure on food supplies which the Malthusians feared were already a real thing, we should expect those who provide food to be relatively better off than the rest of the world’s population, and there would be movement towards industries which are engaged in the production of food’. Major structural changes in rural employment were the result of technological improvements in agricultural production and transportation, freeing up labor for urban work in services and manufacturing. The increase in urban unemployment in the late 1920s was accompanied by a popular view that more people should go back to the land because of an observed decrease in the proportion of total population engaged in farming. However, this was to confuse

¹⁴ We confirm for the NZ case an attitude that also pervaded Australian economic debate during the 1920s. In Australia “the *idée fixe* [was] that the prime goal of policy was to expand the Australian population” (McLean 2012, p.156).

marginal/relative from total/absolute changes (pp.248, 250).¹⁵ An increase in the availability of urban labor on the margin was a sign the NZ economy was moving to a higher stage of development in which manufacturing and services were to play a growing role (Fisher 1935a, p.9).¹⁶ Therefore, sending labor back to the land would be inimical to long-term growth (Fisher 1932).¹⁷

Fisher dissented from most of the key recommendations in the Report of the Economic Committee (1932). The Committee included several prominent economists (Belshaw, Copland, Hight, Tocker) and was appointed to offer policy proposals to deal with the economic crisis in the early 1930s (Endres 1990). It made no comments on the likely effects of the crisis on demographic factors but it alluded to the tighter immigration policy in the late 1920s that may later have reduced the severity unemployment (p.6). In the early 1930s the birth rate plummeted and remained historically low for most of the decade; net external migration became negative though net migration from Australia increased.¹⁸ The annual rate of increase in population over those years was the lowest in the history of NZ up to that time (Neale 1937, p. 102). That the Economic Committee favored a boost to farm incomes via a currency devaluation was of concern to Fisher in part because, coupled with contemporary demographic trends, it could reignite the popular nineteenth century notion that large scale immigration should be encouraged (post-Depression) to boost the rural population. For NZ, Geoffrey Billing (1935) identified a five-year ‘progression toward a stationary population’ (also Neale 1934 and Tocker 1937, 248–9). Billing cited the work of Edwin Cannan and Lionel Robbins who warned of a similar impending trend toward stationarity in older industrialized countries. He emphatically did not expect a stationary population inevitably to create falling living standards; indeed the opposite scenario could occur and be associated with the consumption of an extended variety and quality of

¹⁵ Fisher (1929) was also critical of a view propounded at the NIC in 1928 making the case for policy initiatives that would expand land settlement.

¹⁶ Belshaw (1929, p.78-9) came to a similar conclusion on the positive economic effects of urbanization in NZ.

¹⁷ For a fuller treatment of Fisher’s “structural” approach to economic development see Fisher (1935b) and Endres (1988). Cf. Ralph Souter (1939, p.15) Fisher’s successor at Otago: “transformation from farm into nation unquestionably demands progressively increasing diversification of skills, interests and occupations, if external economies ...are to be given proper scope”.

¹⁸ See Neale (1933). Neale (1932, p.824) reported that the “exceptional gain” from Australia in 1930s was due to the fact that economic conditions were relatively better in NZ; Australia’s wheat and wool industries were more severely impacted.

consumption goods.¹⁹ So long as productivity in traditional industries kept improving, appropriate microeconomic policies could be implemented to grow investment in the domestic market for consumption goods including upgraded housing standards, durable goods and services. Reminiscent of Keynes's recommended approach in the *General Theory* a year later, Billing urged policymakers to provide 'some central machinery to guide investment into appropriate channels' (p.174). More remarkable perhaps, is that Billing's outlook and confidence in the beneficial effects of a stationary population parallel's Keynes's (1937, p.16) position enunciated in a lecture delivered to the Eugenics Society in February 1937: 'Unquestionably a stationary population does facilitate a rising standard of life; but on one condition only—namely that this increase in resources [in capital per head] or in consumption, as the case may be, which the stationariness makes possible, does actually take place'.

Opining in the *NZ Financial Times*, Murphy (1937, p. 437) viewed the tendency toward stationarity as something that did not warrant growing public 'alarm, and even...hysteria'. He dismissed the popular assumption that 'a policy of immigration' would resolve the issue because there was no evidence to corroborate that reasoning (p. 438). Harold Rodwell (1937, p.13) concurred, expressing a conviction that to 'force the issue by large scale migration schemes is both unnecessary and unwise'. By contrast, Fisher believed he had sufficient evidence. Accordingly he denounced in more strident terms the case for forcing population growth by reformulating immigration policy specifically either to (i) expand land settlement and pastoral farming or (ii) artificially create employment opportunities for investment in domestic industries protected by tariffs or import licensing. First, large scale assisted immigration aimed at increasing farm labor and agricultural output was not justified on Fisher's (1929, pp. 240–42) reading of the price inelasticity of demand for traditional, bulk NZ food products in the British market and low income elasticity of demand for those products. Second, subsidizing manufacturing interests by more government-assisted immigration of skilled workers specifically to work in protected industries, compounded industrial inefficiencies and would 'do little to raise our income level' (Fisher 1937, p.76). To be sure, a growing population is desirable because it makes structural shifts in production and subsequent worker transference to new industries so much easier to execute: new

¹⁹ Billing (1935, p.173) cites Condliffe's work for the League of Nations on the economic effects of a "population which is approaching economic maturity". Neale (1934) remained agnostic on the economic outlook for the case of a stationary population.

workforce entrants were especially more versatile. For instance, wheat farmers who adopt more capital-intensive techniques of production may find their sons readily entering ‘new occupations’ (Fisher 1935a, p.13; 1935b, pp. 118–19, 155). Nonetheless, apart from immigration policy making marginal differences by being attuned to supplying skilled technical and professional workers for the growing service sector, Fisher, Murphy and also Albert Tocker (1937, p.248), believed that migration flows are best left unhindered; they should correspond with natural ebbs and flows of ‘general economic conditions’ in NZ relative to other countries. Tocker (1945, p.148), recalling a powerful force for migration in the nineteenth century, pressed this argument to the limit: the ‘free movement of people’ would be ‘accompanied by freedom to starve or thrive’. He lamented that this ideal outcome was dependent on free trade in goods and capital, free markets, and a stable international monetary system, all of which had been placed under threat in the mid-twentieth century. In short, Tocker, with Fisher and Murphy not far behind, provided the closest approximation to a *laissez faire* approach to the population question in this and later periods of NZ economic thought on the subject.²⁰

The structural changes wrought by the introduction of import licensing and associated policy of planned secondary industry development in the late 1930s, had some impact on J. B. Condliffe who shifted toward a more interventionist doctrine on population policy. According to Prime Minister Michael Joseph Savage writing in the *London Daily Telegraph* July 1936: ‘We in New Zealand believe that increased population is the first line of defence [from loss of export market share in the United Kingdom]...If ...we achieve a more balanced economy and produce more of our own manufactured goods we should be in a position not only absorb that considerable proportion of our people who are at present unable to find normal avenues of employment, but also maintain a much greater population’ (cited in Sutch 1936, p.136). In this view, unemployment could be interpreted as an index of under-population. Then at the LSE, Condliffe (1939, p.24) agreed. The population question was ‘of overriding importance for a country like New Zealand’. He saw some merit in the development of a protected manufacturing industry subsidized in effect by a

²⁰ On this question Neale (1939) vacillated. He introduces the likely prospect of a “declining population” in NZ unless “suitable immigration” policy is designed (p.86). Even then, such a policy might better be aimed, “other things being equal”, at creating a “stationary population or not too rapidly declining population”. He concludes: “whether an active immigration policy in New Zealand at the present time is desirable or not is...very much open to argument” (p. 91).

‘substantial flow’ of assisted immigrants.²¹ That NZ could, *ab initio*, have ‘really efficient large-scale production’ aimed at supplying a small, decentralized domestic market, made little sense. So there was an opportunity in the late 1930s for government to spend more ‘on selecting, training and bringing to the Dominion fairly large groups’ (emphasis added). This would be a new form of State ‘investment’ based on a long-term development strategy not referenced to short term per capita income effects. Large groups of immigrants of the kind intended would induce technology transfer since they would bring ‘new crafts...new ways of work’. Furthermore, manufacturers would gain scale economies from supplying a larger domestic market. Unlike other economists in the inter war period, Condliffe was adamant that ‘unless the population is increased and enriched, standards of living will fall’ over the long run.

3. The Emergence of Stable Population Keynesianism in the 1950s and Beyond

3.1 Belshaw’s neo-Malthusianism: Managing the Rate of Population Growth

A report commissioned by the NZ Treasury (Calvert 1946) and a special parliamentary committee (Dominion Population Committee 1946) considered the post-war prospects of the cessation of population growth in NZ and the need for a definite ‘population policy’ to increase population.²² In their submissions to the Population Committee the Employers Federation, Manufacturers Federation and Federation of Labor urged large-scale migration of skilled migrants to boost labor supply. The Committee however concluded otherwise: housing supply and fiscal constraints meant that ‘industrial expansion in the Dominion’ would have to be cramped for some time (1946 pp. 81, 98, 110). Neale (1947, p.71–2) reprimanded the Committee for failing to appreciate that the purported labor shortages were ‘accentuated by the artificial twist given to industry in New Zealand by import licensing’. Of relevance here is also Neale’s remark that the Committee only realized ‘belatedly’ that it should have sought ‘the advice of professional economists’; the only economist to make a

²¹ He was resigned to the fact that quantitative import controls “were inevitable once the decision was taken to embark upon enlarged government expenditures irrespective of the strain that might be placed upon the balance of payments” (p. 21).

²² Geoffrey Calvert was not an economist. On his report and its optimistic demographic predictions see Williams (1948, pp. 92–96) and Borrie (1973, p.10). The Population Committee’s final report was prepared with the assistance of Frank Stephens an economist trained in Auckland and for a time served on the faculty in the University of Auckland (Blyth 2008, p. 40).

submission was the Treasury Secretary and longstanding work by economists on population issues was completely ignored.

During the post war years Horace Belshaw made some major contributions to the population debate. He dismissed widespread opinion that NZ's population 'should be rapidly and considerably increased' in particular by expansion of immigration subsidies to serve the needs of secondary industry—an industry sector in which there was a national 'comparative disadvantage' compared with agriculture. Per capita incomes would not thereby increase (1944b, p. 188–189; 1947, p.121; 1954a, p. 175). Improving the efficiency of agriculture was imperative. If that led to more rural-urban drift this should be welcomed rather than resisted because it was a sign of growing economic maturity (for all the reasons Fisher gave in the 1930s too, Belshaw 1945, pp. 300–01). Against the popular view, in the short-and-medium term Belshaw believed that a declining population could have net advantages. Inside the front cover of his personal copy of Brian Reddaway's highly regarded *The Economics of Declining Population* (1939), he wrote: 'Generally tends to slip into (the correct) argument that factors making for increased per capita incomes are due to...population decline'.²³

While little should be done to alter immigration policy, falling fertility could, however, be addressed in order to buttress long-term economic development. Belshaw was a pro-natalist: gradual population expansion by natural increase and economic growth were complementary. Thus as early as 1944 he favored more generous family subsidies (including maternity leave provisions) that would not only reduce poverty, but also increase consumption of more adequate housing, childcare facilities, education and so forth 'that would relieve the burden of parenthood'. He was sure that such a 'vigorous policy' would increase fertility (1944a, pp. 104, 107; also 1947, p.122).²⁴ Moreover, NZ was in fact an 'economically developed country' that was already highly urbanized, though not traditionally 'industrialized' in the sense of possessing a significant manufacturing sector. NZ was amongst the top five nations in the world in terms of real income per capita

²³ He crossed out "or concomitant of" population decline and added that Reddaway may have tended to "overstate advantages" of that decline. (Belshaw's copy in possession of the authors).

²⁴ In retrospect, Belshaw was right to expect that the downward trend in NZ fertility noticed by Neale from the late 1920s, would not continue. Tocker (1945, p.142) was skeptical, requesting some 'real evidence' that what he called "baby bonuses" had any effect on birth rates.

(Belshaw 1955a, p.1). Agriculture was the key industry. Welfare expansion was only possible once high incomes per capita were generated in, or sourced ultimately from, that sector (Belshaw 1949, p.4). Belshaw never separated the question of desirable population growth rates from the prospects for, and technological improvements in, agriculture (e.g. Belshaw 1952, p.3; 1953 a, b; 1954 a, b). Increased aggregate income sourced from agriculture can be offset by excessive population growth.²⁵

In the context of NZ's economic development from the 1950s, coinciding with an acceleration of fertility during that period, Belshaw recast the population question. He created a hybrid version of what Derek Hoff (2012, p. 85–6) has called 'stable population Keynesianism'. In this view 'a stable population is consistent with a...growing economy'. Already we have seen that Belshaw minimized the value of short-term, policy-induced, rapid increases in population; he favored higher consumption effected through family subsidies that would influence the population age structure.

In his magnum opus *Population Growth and Levels of Consumption* (1956) he developed a more detailed economic rationale for deliberate population control. He described himself as a 'mildly optimistic neo-Malthusian' (p. xxvii). In NZ, as in the developing countries in Asia, capital shortages meant that population growth rates must be managed. An inappropriate population growth rate stunts capital formation. Employing a standard Cobb-Douglas production function, he assumes at best, constant returns to scale, and no technological advances in agriculture. In such conditions, which he thought often occurs for long periods in NZ, unchecked population growth would mean less capital is available to increase per capita income (p.66). With the assistance of Colin Simkin he was also able to show 'that in order to increase national real income more rapidly than population the geometric rate of increase in investment must be higher than the geometric rate of increase in income per head' (Belshaw 1953b, p.95).²⁶ So what was especially 'Keynesian' about Belshaw's approach? First, he acknowledges that if NZ 'is susceptible to unemployment

²⁵ Belshaw (1954c, p.541) labeled this phenomenon "the population dilemma", which "consists in the tendency for improvements in productive power to be absorbed in population increase".

²⁶ He recognized that the size of the returns to scale parameter in the aggregate production function was of critical (empirical) importance for this conclusion. He relied on estimates for NZ provided by the Otago economist John Williams (see Williams 1945) for the manufacturing sector (Belshaw 1955a, p.3).

arising from a shortage of effective demand, a growing population may have an expansive effect on aggregate demand or output even if output per head would not be increased by population growth at full employment'. In such a situation population change stimulates investment, making it easier to maintain full employment.²⁷ Secondly, in such conditions Belshaw expressed skepticism about major short-term changes in the rate of population growth: 'the occasions when population growth at full employment would be beneficial in terms of output per head is much less general than tends to be implicitly assumed' (p.70, his emphasis). It all depended on labor productivity coupled with concomitant technological innovations. Thus the standard Keynesian case for 'population growth in terms of the criterion of the rate of increase in consumption then rests on the failure to achieve full employment by other means' (70–71). And an increase in the rate of population growth tends to be inflationary 'because of the increased investment demand it induces' (also Belshaw 1953c, pp. 41–2). Thirdly, there were other policies besides those promoting population expansion per se, that could achieve full employment with low inflation: public infrastructure expenditure, improving the quality of labor supply by public education expenditure, public promotion of 'family limitation programmes', and policies encouraging innovation (1956 pp.71, 169, 191; 1955a, 16–17; 1955b, p.2;). All of these schemes turned on the Keynesian motivation for public control of manifold social investment programs, broadly conceived. Belshaw's key message was that high levels of per capita income and full employment could coexist without significant population growth.²⁸

Belshaw (1952) harbored a different, though related concern about NZ immigration problems and policies. The effects of external migration on capital/labor ratios in the economy could not be underestimated. Easy immigration policies making for a substantially larger, given level of population, induce capital widening investment 'to expand the present volume of real capital per head' (extensions of retail investment, construction, public infrastructure etc), at the expense of capital-deepening investment. Such immigration could adversely affect per capita income; it retards the highly productive capital/labor ratio in the 'deepening' sense that occurs naturally when a population grows slowly at a certain rate

²⁷ In NZ at the time policymakers had a preference for achieving full employment almost at any cost (see Endres 1984).

²⁸ Harvey Leibenstein (1958, p. 87), on reviewing Belshaw (1956), distilled the following central message: "economic development would be significantly easier...with less rapid rather than more rapid rates of population growth".

with ongoing technological change and *pari passu*, the occupied population gradually redistributes itself among advantageous employment opportunities associated with that deepening process (pp. 15–16, 18, 20, 28–9). As well, immigration coupled with necessary capital widening leads to inflation when the NZ economy is approaching full employment (p.18–19; also 1953c, p.41; 1958, p.1). Here Belshaw revealed an inchoate grasp of endogenous growth doctrine, in which capital deepening implies increases in per capita productivity and this effect plays a crucial role in influencing the rate of per capita income growth. He was a population skeptic in the sense that, simply having a larger population did not guarantee resource augmentation; it made no appreciable difference to the pace of technological change or guarantee the discovery of new resources.²⁹

3.2 *Creating Effective Demand for Any Labor Supply? The Economists Demur*

Throughout the 1950s and 1960s NZ economists seemed to feel the need to reiterate Belshaw’s sanguine Malthusianism against what economic historians John Gould (1982, p. 61) and Gary Hawke (1985, p.185) identified as a widespread, contemporary public prejudice in favor of rapid population growth. Superficially, that prejudice may have been supported by the success of standard Keynesian aggregate demand management in stabilizing the NZ economy near full employment for most of that period. After all, the sharp increase in NZ’s population in the 1950s was absorbed without significant instability. Condliffe (1958, p. 173; 1959, p. 117) referred to that demographic event as a veritable ‘“population explosion” ’ and ‘one of the most rapid increases in the world’ compared with previous decades. However, as he noted, a boom in exports accompanied that ‘explosion’. A remarkable export performance generated foreign exchange that enabled importation of more raw materials and intermediate goods to facilitate expansion of secondary industries and services. There was nothing new in Condliffe’s commentary. Belshaw (1953c) had already made this point clear before the boom had supervened. A growing population necessitates the development of non-agricultural industries that accordingly require imported materials and capital goods; agricultural productivity and exports were preeminent as usual. Alan Danks (1957, p.1) averred: ‘production from our grasslands must match population growth’. More importantly, farm production must be associated with good terms of trade and he warned that such terms were not assured. Indeed the ‘Malthusian devil casts a

²⁹ In the international literature there are strong parallels between Belshaw’s views and those of Joseph Spengler in the US. See e.g. Spengler (1945, 1948, 1956).

shadow on our pastures; he is much more clearly discernible behind the counters of British grocers' shops' (p.2).

Population optimism was kept firmly in the forefront of the public mind during this period and had deep economic causes.³⁰ Economists were aware of those causes and they turned on nonagricultural, interest group rent seeking and interest group foreclosure of policy discussion on the subject. Manufacturers and labor unions in particular, popularized skill shortages while either (respectively) enjoying considerable protection from import competition and defending a centralized wages policy not directly linked to microeconomic factors: labor excess demands and supplies and enterprise-level profitability. Manufacturers also kept braying for more State-sponsored immigration. Alternative solutions to labor shortages made no headway in policy discussion. For example, nothing was made of Cornelis Weststrate's (1955) suggestion for more wage flexibility as a means of rewarding skilled workers and reallocating labor between industries. He maintained that the distribution of labor in NZ did not remotely correspond to the criterion of marginal productivity and 'the manufacturing sector would seem to have absorbed labor at the expense of the agricultural and, to some extent, of the servicing sector'. Centralized wage fixing tended to narrow margins for skill (Weststrate 1966 pp. 61, 114). Alan Danks (1960, pp.477–8) linked the prospects of new large scale projects in forestry, aluminum smelting and steel making to the likelihood that these 'burgeoning' industries 'will require protection' from international competition, while their proponents called for population expansion. Population growth in NZ was coextensive with 'urban growth' and 'industrial novelty', both of which increased consumption but not export volumes. Moreover, the corresponding higher rate of social capital formation required and its impact on the costs of exporting industries seems not to have been taken into account (also Gould 1966, p.315). The financing of capital formation was another matter of supreme importance. As Ken Blakey (1958, p.198) observed, while NZ was regarded as a developed nation, in fact it exhibited symptoms of a 'relatively under-developed economy' possessing economic and political institutions with a long-standing dirigiste bias. Pressed by interest groups, the State

³⁰ Hawke (1985, p.189) proposes that such optimism was supported variously on the grounds of bolstering defence capability, beneficial cultural developments such as "ballet and opera"; and having a more cosmopolitan population etc. See too Holmes (1966a, p.19–20). Gould (1982, p.62) referred to the power of manufacturers "pressing the State" for more workers, which accords with our perspective.

took control over population growth and responsibility for financing that growth, mostly through provision of more social overhead capital. For instance, the scale of investment and urbanization required for the rapidly growing population relied on wholesale government activity given the ‘absence of a capital market and the supply of entrepreneurship commensurate with that scale’. That capital may be needed for the discovery and exploitation of new resources in NZ in order to grow per capita incomes appeared as an afterthought in policy discussion (even Holmes (1967) fails to account for the importance of expanding the private capital market).

In a series of articles on the impact of immigration, Frank Holmes (1966a, p.19) also underscored the role of vested economic interests in capturing public policy discussion and amplifying the case for a larger population because they ‘had control of scarce resources which were relatively fixed in supply’ (e.g. urban land sites). As well, those operating in ‘controlled industries’ (e.g. import licenses) were equally concerned to support population expansion come-what-may.³¹ Holmes (1966b) made some telling arguments using Keynesian language opposing the idea that labor shortages necessitate a concerted immigration policy and macro-demand management to correct them. Thus, if

net immigration added to the national product without increasing effective demand in the same proportion, then it would contribute to a reduction in excess demand...however that excess demand may have been caused. On the other hand, if it increased national product less than proportionately to the increase of effective demand which it caused, it would contribute to an aggravation of excess demand, and tend to accentuate the labour shortage (p.19).

Holmes argued that the macroeconomic impacts of an uncontrolled, rapid rise in population from immigration in particular, were neglected. He began by reiterating Belshaw’s third point (above): labour shortages can be created by government policy—Holmes gave the example of expansionary fiscal and monetary policy—and in such circumstances changing the policy is a better cure for the labour shortages than increased immigration (1966b, p. 18).

³¹ Sutch (1966a, p.4) also noticed the construction industry and contractors’ groups in that sector publicizing the case for more migrants. John Gould (1964, p.79) argued that a “larger population” was not needed to develop significant unutilized resources “the use of which would raise per capita incomes”. In the event, all “that is needed is to reduce the artificial protection given to hothouse industries in order to free manpower for this other task”.

The labor shortages observed in the 1950s and 1960s appeared in conditions where full employment was the norm. Those shortages were skill- and industry-specific, so that simple encouragement of overall increases in population would tend to aggravate economy-wide labor shortages and raise money wages and prices (p.18). Apart from the inflationary consequences, the balance of international payments on the current account would worsen as the demand for imports increased. A report of the Monetary and Economic Council (1966) on immigration chimed in with similar arguments backed by data from simulation modeling.³² That report highlighted the power of vested interests in population expansion (via immigration) and warned policymakers accordingly. It identified a

disparity of interest between the economy as a whole and the particular employers who obtain immigrant labour. Their's is the benefit of output enhanced, a vacancy filled, and local and direct pressure to bid up wages relieved. But since the overall demand in the economy will have been raised more than the immigrants can supply, these pressures in the rest of the economy... [are those] to which Government must give overriding attention (p. 10).

We have so far considered contributions to the economics of population growth in NZ during the Keynesian era that were consistent in suggesting a variety of reasons for stable, highly restrictive population policies. However, they did not supplant an older, popular wisdom that preferred major population expansion. As we shall see in the next section, that 'wisdom' minimized the importance of per capita income effects over short and medium time horizons.

4. Perpetuating the Old Wisdom: Planned Industrialization and the Population

Question

Taken over the period from about 1938 to the early 1980s, 'planned industrialization' in NZ had two main pillars: (i) import substitution supported by licenses, discriminatory (rather than uniform) tariffs and exchange controls and (ii) export promotion supported by a myriad of

³² Two economists, H. Brian Low and Les Castle were major contributors to this report. Fleming and Jackson (1988, pp.54–5) outline the background to this report and note its methodological links to the contemporary modeling work of Mishan and Needleman in the UK. Fleming and Jackson argue quite correctly that the MEC application used a "long-run model for the derivation of short-run results" (p.55).

subsidies initially for manufacturing and later for agriculture (Brooke, Endres & Rogers 2016). In this approach to NZ's economic development the State would play a major role in economic activity, not only in the Keynesian sense of affecting aggregate demand. The implications of this development role for population policy, broadly conceived, deserve our attention.

Bill Sutch was a powerful force in a policy advice capacity from the late 1930s; he was instrumental in proselytizing the very long-term development view associated with planned industrialization. In this view, employment growth facilitated by population expansion dominated short-and medium-term per capita income considerations (Endres 1986, p.24). As Secretary of Industries and Commerce he published 'A Programme for Growth' (Sutch 1960), one element of which was the requirement for 'a greater flow and greater variety of migrants than the average' of the previous decade. NZ's population at the time was simply not large enough to sustain Sutch's notion of a 'higher rate of development' (p.29). He distinguished 'growth' from 'development'. The former related to material living standards *per se* and the latter implied a wider 'variety' of employment opportunities than was evident in the NZ economy at the time. A more balanced economy was required in the long-term in which employment directly or indirectly was not so much dominated by the volatile economic fortunes of the agricultural sector. Thus a faster rate of development required rapid industrialization through the expansion of mostly urban 'manufacturing in depth' and associated services (Sutch 1964a). A growing population should be encouraged by public policy in order to enhance the rate of development. Whereas growth was a comparative static notion in which a stable population growth rate was assumed, Sutch's concept of development meant something much more dynamic. Deliberate, planned augmentation of supply side factors must take priority within the extant import substitution and growing export assistance regimes in the 1960s. Here both the quantity and quality of population mattered: the former's rate of increase should be on a rising trajectory with the help of an expansive immigration policy; the latter engineered by a selective immigration policy and education policy.

Sutch was surely prescient in applying certain phenomena that were being explored in the contemporary development-economics literature at the time. Instead of positing supply side changes such as human capital improvements and technology or 'know how' as factors independent of demographic change, he argued that population growth and the development of the capacities of that population interacted, and those interactions impacted positively on long-term growth in the conventional sense (Sutch 1964a, p.19). Population expansion, in his dual

sense (of quantity and quality) noted above, impacts not just on the level but also on the growth rate of per capita income in the long-term. Of course the work of Theodore Schultz (1961) on human capital investment and Kenneth Arrow (1962) on learning-by-doing, endogenous growth, occur to us now when reading Sutch's work in the 1960s, though he did not cite these leading authorities.³³ That he was thinking of these very forces when discussing NZ's population is undeniable. For instance, consider his hostile reactions to the Belshaw-Gould-Holmes (hereafter BGH) approach to population and immigration policy explicated in the previous section of this paper. First, he reiterates the development objective turning on employment diversity: that NZ provide a 'situation where people can choose jobs and not where jobs can choose people' (Sutch 1966a, p.4). Second, BGH offer a 'balancing exercise' in respect of proposing a measured immigration policy—a 'static hand-to-mouth policy' aimed at filling present labor market shortages (p.5). What about the long-term? In Sutch's view BGH offer no long-term vision of economic development in which demographic change is a central component of the plan for 'rapid, extensive and deep industrialisation' (1966b, p.182). That plan was agreed upon at the National Industrial Development Conference in 1960. Third, accepting (as Sutch does) the pillars of planned industrialization stated earlier, uppermost in his mind is the question of how to engineer a lasting and high rate of economic growth in that context. As we noticed in the previous section, there were aspects of the BGH approach that did not accept the constraints of import licensing though in this respect Sutch was reasoning consistently within the accepted public policy line at that time. He rejected the presuppositions held in common by BGH: i.e. constant returns to scale must prevail, and there would be no innovation and no changes in the ratio of the workforce to population within the planned industrialization setting (p.30). *Inter alia*, that setting was dependent on manpower planning coupled with ongoing selective immigration policy as a fundamental prerequisite (Sutch 1964b, 1964c, 1965). He was right to claim that the BGH assumptions (also made by the MEC 1966) were serious limitations of conventional neoclassical thought on economic growth. By contrast, Sutch assumed that factor supplies, especially labor supply could be augmented within and through the growth process itself. BGH do not proceed 'beyond the concept of 'natural resources'. No reference is made to the enrichment of environment through the development of

33 We are also reminded of the strong points of complementarity between Sutch's thinking on NZ development—especially the demography-technology nexus—and the work of Chenery and Syrquin (1975) in the more formal economics of development literature. For fuller exposition of Sutch's work during this period see Endres (1986) and for a more eulogistic treatment see Easton (1997).

‘human resources’—through encouragement of skill, research, technology and business management’ (1966a, p.37). Population expansion in Sutch’s case induced cross-border technology transfer and endogenous development of ‘know how’ within that expanding population environment.

Fourth, increasing the absolute size of the workforce-population ratio is a crucial policy variable because it creates economies of scale when new capital widening investment is demanded. Thus expenditure on infrastructure and public utilities can be justified more readily with sufficient population growth. Moreover, the domestic market for consumer goods grows and enables manufacturers, and the much maligned import-protected industries, to enjoy the cost advantages of greater scale (pp. 41–2). In both instances a larger population can be inflation dampening, not inflation creating as supposed by BGH and the MEC (1966, pp. 51–2). Altogether, contra BGH, the answer for the 1960s ‘is not to hinder supply by not taking the opportunity to bring in more workers’. Given the older age distribution of migrants they are more likely to hasten the desired rise in the workforce-population ratio.

At Canterbury, Wolfgang Rosenberg (1967) was an avid supporter of Sutch’s approach and equally critical of BGH and successive MEC reports in the 1970s because they adopted a cautious line on immigration.³⁴ Referring to the MEC (1966) Rosenberg (1970, p. 3) contended that economists in the 1960s had ‘returned to the hostile attitude to large scale immigration policy which has characterized the history of the country in the past’. Economic crisis and slow growth in the 1930s corresponded with ‘very slow population increase’ (Rosenberg 1971, p. 14). By contrast, in the 1950s, NZ enjoyed strong population and economic growth and full employment. Yet NZ was still a ‘relatively under populated and young country’, so that expanding population will ‘supply an automatically growing market’ thereby encouraging business growth. He refers to a growth spiral in which population growth begets economic growth because of pervasive scale effects. The MEC’s ‘inflationary fear of immigration’ was misplaced (Rosenberg 1970, p.3). He developed several arguments for wholesale population expansion over the long run. Specific skill prerequisites imposed on new

³⁴ Those reports, following the 1966 report on immigration already mentioned, included the Holmes-directed MEC (1970, 10–11 and 1971, p.11) highlighting emigration losses and skill shortages; and the Bert Brownlie-directed reports (1973 a, 1973b, 1975) which also treated contemporary population issues. More will be said about the mid-1970s reports in Section 5 below.

migrants were too rigid. This is because of dynamic externalities associated with immigration: ‘new initiatives, new blood and expanding markets for our domestic industries’; migrants should not generally be regarded as claimants on given resources since they expand those resource potentialities. Furthermore, export oriented manufacturers require a fast growing labor supply in order to expand production and serve larger foreign markets. As for the latter, easier temporary worker migration from the Pacific Islands was an important policy option available to assist the export promotion pillar of the planned industrialization strategy. Clearly, Rosenberg was assuming that manufacturers benefiting from export incentives were operating on rather low capital-labor ratios and would continue to do so as long as immigration policy was favorable. Rosenberg concluded: ‘the growth of the economy is sustained by a large migrant labor force’ (p.3).

Addressing the phenomenon of trans-Tasman migration Rosenberg (1970; 1971 p. 29) believed that NZ’s growth trajectory was periodically retarded by emigration of skilled workers. The recession beginning in the late 1960s was a case in point. In such circumstances a countercyclical population policy response must encompass ‘a very much accelerated programme of assisted immigration’.³⁵ Leaving external population flows to the free play of market forces (e.g. as implied by the MEC (1970, p.11; 1971, p.36) otherwise placed the planned industrialization strategy in jeopardy. This too was Sutch’s (1966a, p.50) perspective though he went further: ‘New Zealand abandoned the simple equilibrium economics of the Report a century ago, and while the country has not yet fully accepted the implications of development economics it has not shown any tendency to abandon economic development. That is why the Monetary and Economic Council’s Report is unreal and irrelevant’. Variations in the external migration rate in line with fluctuations in NZ’s economic situation were ultimately due to heavy dependence on the price and demand for basic agricultural products in world markets. Strong population growth, economic development and long-term economic growth could not be sustained in those circumstances (Sutch 1966b).

³⁵ Brian Philpott (1971, p.32) acted as commentator on Rosenberg’s (1971) paper. He held to the BGH line: “Immigration will not cure a labour shortage. In fact it may worsen the shortage. The removal of import licensing is a far better way to cure this problem”. Peter Lane’s (1970) contribution was exceedingly rare for the time: he proposed greater acceptance of wider income-earning differentials in NZ as a more effective response.

The Trans-Tasman freer trade agreement (NAFTA) would have deleterious effects not only on economic growth; it was also not likely to enjoy the benefits of favorable demographic-economic interactions and thus lead to lower levels of development in NZ. A balanced expansion of manufacturing industries across NZ would not occur under NAFTA. Indeed Sutch (1966b, p.178–9) asserted that NAFTA would lead to the de-industrialization (and thence de-population) of some parts of NZ (e.g. parts of the South Island). In this he garnered support from Peter Elkan (1965 a, b, c) at the NZIER who used more sophisticated theory and measurement techniques to arrive at a similar conclusion. In particular, Elkan drew upon Gunnar Myrdal's theory of 'backwash effects' to show how such effects—the concentration of manufacturing in growth poles which drew off labor and capital from other regions—could take hold in NZ, following a customs union with Australia (Elkan 1965d).

Altogether, the defenders of planned industrialization were in no mood to accept any semblance of Malthusianism. Yet in the contemporary economics literature there was a nagging, purely theoretical result that would seem to undermine the Sutch-Rosenberg variant of population optimism. Mundell (1957) demonstrated that free labor mobility in a context of heavy industrial protection would diminish the earnings of the suppliers of labor in the protected jurisdiction. Protection-induced wage increases and possibly even full employment in manufacturing could be threatened. This would also imply a labor abundant economy and highly labor-intensive industrialization. These implications are not drawn-out by Sutch-Rosenberg probably because, in keeping with the 'old wisdom', they were not focused on the per capita income effects of population expansion. To be sure, in the period from the 1950s to the 1970s, the Sutch-Rosenberg position did not recommend open-slather immigration but it nonetheless promoted a liberal approach to general population augmentation compared with their opponents BGH, the MEC and some other contemporary economists.

5. The Demise of Received Doctrine in the 1970s and early 1980s

Hawke (1985, p.188) reached the following conclusion on the economists' ideas we have surveyed in Sections 3 and 4 of this paper: that 'the economic case against population growth in the post-war economy was always a strong one'. Presumably he meant the 'strong' received economic doctrine (BGH and the MEC) relative to the Sutch-Rosenberg

case.³⁶ What are we to make of the fact that the received doctrine did not prevail in reality or make much difference in the realm of economic and social policy? Were some of the key assumptions (e.g. constant returns to scale) in that ‘strong’ case inapplicable in retrospect? Perhaps events overtook the analysis? Gould (1982, p.226) reported on the ‘80-odd percent rise in population since the war’. Reinforcing the ‘strong’ received doctrine, he adverted to the negative economic consequences of that post-war rise in population up to about 1975: it

1. reduced exports because of increasing domestic consumption of goods otherwise exported;
2. raised employment-creation in sheltered activities, thereby raising costs to consumers and to the export sector;
3. diverted investment into low productivity outlets associated with capital widening (p.226).

Gould’s conclusion was that the combined effect of 1–3 above, worsened the current account deficit on the balance of payments. In his view, NZ’s economic crisis in the early 1980s was in no small measure due to excessive post-war population growth.³⁷ These claims were afforded no empirical substantiation. Obvious counterfactual propositions might also pose complications rendering any such empirical work inconclusive. And there is also the question of causation: the actual macro-policy choices of centralized wage fixing, a rigid exchange control regime and fixed exchange rate, as contrasted with changes in population which were to a large extent not chosen by policymakers and mostly automatic, may well have deserved more responsibility for the crisis in the 1980s. For example, the crimping of capital flows by exchange controls and the associated, Lilliputian private domestic capital market was especially problematic in an economy exhibiting strong population growth in post-war years (Endres and Rogers 2014; recall also Blakey 1958, see section 3.2 above).

Migration and social policy reforms were made in the 1945–80 period but they seemed to have only marginal impacts on population growth rates (e.g. Rosenberg 1971; Interdepartmental Committee 1974, pp. 27–8; MEC 1975, p.35; Gould 1984). Major

³⁶ Again presumably, Hawke did not mean to include the Sutch-Rosenberg case in his remark that “[r]esistance to the economic case was fed mostly by fallacious arguments and prejudice” (1985, p.190).

³⁷ His words: “if ...New Zealand’s population had grown at a substantially lower rate—say 40 percent, instead of by 80-odd per cent—there would be no balance of payments problem at the present time”. And “rapid population growth up to 1975 has a lot to answer for in any discussion of New Zealand’s economic difficulties” (p.226).

external migration flows reacted largely to macroeconomic cycles (Prebble 1977; McGill 1981). Fertility rates continued their long decline for a range of social reasons following the 1950s boom (Braae 1968). In the 1970s economists persisted with their standard neoclassical aggregate production function approach when analyzing the relationship between population growth and economic growth (e.g. MEC 1973b). Despite making assumptions explicit and qualifying the results, the MEC reached a conclusion that was both arresting and incongruous in the midst of an economic boom and vigorous population expansion: ‘given constant returns to scale, now and in the future, the...results imply that on economic grounds a shift to a stationary population would be advantageous eventually’ (p.24). This result is vitiated if constant returns are not relevant, à la Sutch-Rosenberg. The received doctrine was heavily reliant on the prevalence of constant returns. Be all that as it may, for non-economists and policymakers who knew little about technicalities concerning returns to scale, a mere impressionistic view of the broadly positive population-economic growth experience since 1945 would have made it difficult to take the MEC result seriously.

The nonchalant attitude of policymakers to ‘population policy’ is summarized in the NZ submission to the UN Population Conference in 1974 (Interdepartmental Committee 1974, p.29). NZ did not have a ‘specific population policy which directly influences the size, distribution or rate of population growth’. Further, ‘New Zealand has no specific target rate of population increase’. The Task Force on Economic and Social Planning (1976, p. 36–7; 72) led by Frank Holmes discerned a distaste in NZ for policies that directly affected demographic trends (fertility, marriage rates, life expectancy); no general societal philosophy on population growth; no urge to intervene in order to influence overall demographic outcomes, but acceptance of selectivity in formulating immigration policy.³⁸ Altogether, NZ policy was mostly ‘passive’ as regards population growth (p. 37). Reflecting on the economic aspects of long term migration to NZ, Mark Prebble (1977, p.28) concluded that ‘[u]ntil New Zealand develops a clear population policy, we cannot develop any meaningful policies on permanent immigration’. For economists interested in the interactions and implications of population change for macroeconomic stabilization, labor supply and labor market functioning, balance of external payments, and industrial development (the very issues that preoccupied economists’ thinking right back to the 1920s),

³⁸ In the public mind, immigration selectivity in the 1970s and early 1980s had more to do with cultural biases than economic factors such as skill shortages. See e.g. Northey and Lythe (1972); Miles and Spoonley (1985).

both the passive policy approach and public disinterest in population questions might well have seemed quite shocking.

In this period planned industrialization policies were further entrenched even as structural unemployment began to emerge. The Holmes-led NZ Planning Council (NZPC) (1978, p. 33; also Holmes 1978) foresaw slowing population growth 1978–83 as a major looming policy problem, yet continued to recommend two pillars of planned industrialization, i.e., ‘that suitable policies to encourage export growth and import substitution’ be pursued. There were recommendations for various departments of government to take account of demographic trends (health, education, welfare, housing, subsidized employment programs) but no overall approach to population growth.³⁹ The NZPC cited approvingly the work of Philpott and Choo (1978) proposing a labor-intensive industrial policy as a means of eliminating structural unemployment (p.35). Furthermore, the Sutch-Rosenberg warning about population backwash effects became supremely policy-relevant as regional development policies were implemented from the early 1970s and activist industrial policies (the notorious regional ‘think big’ projects) were formulated from the late 1970s. The Manufacturers’ Federation kept up their usual pressure to influence immigration policy in order to recover lost skills from emigration (Fisher 1979, p.2). The ‘strong’ received economic doctrine on population developed over previous decades disappeared from the discussion. The Sutch-Rosenberg interventionist perspective, with its emphasis on long-run development dynamics coextensive with rapid population growth, remained on the ascendancy and implicitly underpinned the overall economic policy framework.

As regards the population question in NZ, there was a void in the available alternative overarching intellectual frameworks articulated by economists in the late 1970s and early 1980s, subsequent to the revolutionary economic policy reforms. That void concerned attention to some big issues— such as the economic role of immigration policy and the relationship between the growth rate of population and economic growth—in a small open economy with a highly liberalized domestic economy. Our account in Section 2 of this paper reveals that Tocker, Murphy, Fisher and others had provided the basic set of elements for such a framework in a liberal economic environment. Their framework underscored the

³⁹ The NZPC (e.g. 1979, pp.101–6) began making projections of population change in later reports. More valuable economic policy-relevant work was begun by the NZPC’s Population Monitoring Group (1984), on the cusp of revolutionary policy reforms in the 1980s.

connection between broad population optimism and an irrepressible faith in markets. Like Sutch-Rosenberg, these early economists appreciated the long-run dynamics of the interaction between demographic and economic outcomes. However, unlike Sutch-Rosenberg, their optimism derived from the perceived benefits that would accrue from more extensive market pricing and limited scope for intervention in factor and product markets. Needless-to-say, both frameworks buried the Malthusian devil. Economists had to wait until Jacques Poot (1986, 1987) began the long process of developing the scaffolding for an alternative framework consistent with NZ's economic liberalization during the 1980s.

6. Conclusion

What lessons may we draw from this intellectual history? First, there is a general lesson mentioned by a British economist near the beginning of the period covered by our review that still remains pertinent. One of the founders of the theory of optimum population Edwin Cannan (1903, p.25) wrote:

To show that both under-population and over-population are possible is not the same as showing that either of these things exists now or has ever existed...The existence of overpopulation or under-population is not susceptible of exact demonstration.

Yet from time-to-time in the history of NZ economic thought on the subject, economists have tried to demonstrate, oftentimes implicitly and for a whole host of reasons, that NZ had in fact suffered from under- or over-population. Accordingly, the economists proceeded to offer policy prescriptions. We could adduce many examples from this survey. Consider as just one instance, Horace Belshaw's (1953c, p.42) truism that NZ 'population growth is not constant'. He then proceeded to claim that such growth is a 'cause of instability in its own right'. It is 'not likely', he continued, that population change 'will offset fluctuations in total net capital formation. Sometimes it may partly compensate, sometimes exaggerate them'. Thus population requires deliberate stabilization in Belshaw's Keynesian framework. Otherwise per capita real income (among other things) generated from the interaction of labor supply and capital formation (given land and natural resources) will be rendered unstable. If per capita real income could be demonstrated to have fallen because of a too rapid population expansion relative to net capital formation then following Belshaw we may submit a claim for the existence of over-population and recommend appropriate corrective policies. Of course such a claim would be contingent on several significant qualifications,

for example reasons for the capital constraint and the chosen time horizon etc. Belshaw was writing during an era when the external capital constraint was severe and a deliberate policy choice (between 1938 and 1985). It need not have been a major constraint. Why regard population as the bogey? As well, the Sutch-Rosenberg position was simply that Belshaw's time horizon was too limited. Short term mismatches between population and the supply of capital could be rectified by the economy-wide, dynamic advantages accruing from a growing population over the longer term. So much for an implicit claim of 'over-population' drawn from Belshaw's approach. This also illustrates why a workable, overarching national population policy has always been elusive in NZ.

Second, there is no single theory that economists can provide giving guidance as to when or how to observe and measure under-or over-population, at least without major qualifications. Therefore it was easy for interest groups to dominate not just the population debate; they were also able to capture rents from influencing immigration subsidies and immigration selectivity. Manufacturers, worker's groups and other interest groups in protected and ancillary industries enjoyed such rents in the era of planned industrialization. Nevertheless, those 'population rents' were a small by-product of the large rents earned from industrial protection proper. This is one reason however, why the so-called 'strong' economic case for population control pursued in the work of economists (e.g. BGH and MEC) seemed to gain little traction in the broader debate. It also explains why the essentials of the Sutch-Rosenberg line of thought remained in the foreground of economic policy for most of the period 1938–84.

Third, we find negligible evidence of the power of economists' ideas in informing or improving policies related in some way to population questions in NZ, 1900–1980s. To be sure, the economists were prone to asking 'big', even philosophical, questions in many instances; some of these could not directly be related to some specific aspect of economic or social policy (e.g. the relationship between population and economic growth or per capita real incomes). Hawke (1991, p.154) has maintained more generally in relation to the work of NZ 'think tanks' in which economists have often served (e.g. in our survey the MEC, NZIER, NZPC are notable here), that policies 'change in a day-to-day way through the people chosen to work on them, but in a longer-term, those people are influenced by ideas...Even in the shorter term the kind of analysis which think tanks concentrate on gradually shifts perceptions of what is possible'. We find little evidence that the ideas of

economists on population problems and policies from 1900–1980s had much impact on wider public ‘perceptions’, not to mention policymakers’ perceptions. We could imagine any one of the economists mentioned in Section 2 of this paper remarking during the inter-war period that ‘there is a common perception—at least among national and regional policymakers and the public in...New Zealand—that people mean prosperity’. In fact Poot (2005, p. 31) made this comment more recently.⁴⁰

Fourth, NZ economists working on population questions expounded ideas in an economic policy environment that relied on a certain native pragmatism more than deep analysis, carefully calibrated models or economic disquisitions turning on one or other reincarnation of Malthusian thought. While seemingly unsophisticated, if there was any approach among the economists that seems to make very basic sense across all the periods reviewed here, it is the default position first stated plainly by Tocker in the inter war period. This is what we have called the ‘*laissez faire*’ view that population in NZ will grow faster or slower depending ultimately on the capacity of the NZ business cycle to accommodate socially acceptable levels of living relative to other nations (such as Australia). In addition, the fiscal costs of population policy (family and immigration subsidies, education, social welfare and infrastructure etc.) will be more or less affordable depending on the pattern of those cycles. Various dimensions of population policy are subordinated to these larger, volatile macroeconomic cycles and have been periodically altered in line with those cycles.

Finally, there might be a lesson in our survey of economists’ ideas for more recent debate on NZ population problems and policies. Somewhat related to the *laissez faire* position on the population question in general, the doctrine of population expansionism or optimism in both the short and long-term is inherently more consistent with a much more open economy than the planned industrialization approach. As well in theory at least, the stable population, Keynesian approach becomes redundant. This is because the external balance of payments constraint and the capital-for-industrial-development (and entrepreneurship) constraint are expunged with free capital flows, much greater current account openness, and market determined exchange rates. A more flexible labor market from the 1990s could be regarded

⁴⁰ This is not say economists eschewed interest in population questions post-1985. As we noted in section 1, economists turned their research attention to subsidiary, micro-level population questions such as labor market flexibility and participation, regional issues, education, pensions policy and age distribution, social infrastructure problems and so forth.

as reducing the labor market threat from either ‘excessive’ emigration or immigration and, coupled with the demotion of absolute full employment as an immediate macro-policy goal this factor also supports population optimism. Moreover, as Fisher argued, population expansion and mobility facilitate structural change and as Sutch-Rosenberg stressed, the dynamic technological and positive economy-wide scale effects of population expansion should never be underestimated in the NZ case.

References

- Arrow, K.J. (1962). The economic implications of learning by doing. *Review of Economic Studies*, 29, 155–73.
- Bedford, R. D., Farmer, R. S. J., & Trlin, A. D. (1987). The immigration policy, 1986: A review. *New Zealand Population Review*, 13, 49–70.
- Bedford, R. (1993). Migration and restructuring: reflections on New Zealand in the 1980s. *New Zealand Population Review*, 19, 1–14.
- Bedford, R. (1994). Population studies in New Zealand: beyond the crossroads? *New Zealand Population Review*, 20, 59–68.
- Belshaw, H. (1928). Unemployment in New Zealand. In *National Industrial Conference: Report of Proceedings* (pp. 57–71). Wellington: Government Printer.
- Belshaw, H. (1929). Farm Production and Population in New Zealand. *New Zealand Affairs*, 1, 61–80.
- Belshaw, H. (1944a). Population and Immigration. *New Zealand Financial Times*. February, 103–05, 107.
- Belshaw, H. (1944b). New Zealand Population. *Far Eastern Survey*, 13, 188–190.
- Belshaw, H. (1945). Foundations of rural welfare. *International Labour Review (Geneva)*, 51, 279–301.
- Belshaw, H. (1947). Economic Organization. In H. Belshaw (Ed.), *New Zealand* (pp. 107–136). California: University of California Press.
- Belshaw, H. (1949). *Social welfare in rural communities*. Washington: Food and Agriculture Organisation of the United Nations.
- Belshaw, H. (1952). *Immigration problems and policies*. Wellington: Wright and Carman.
- Belshaw, H. (1953a). Economic development, population growth and the future of agriculture in New Zealand. *New Zealand Financial Times*, 24 (Nov.), 52, 69.

- Belshaw, H. (1953b). Economic development, population growth and the future of agriculture in New Zealand. *New Zealand Financial Times*, 24 (Dec. 1953–Jan 1954), 93–96.
- Belshaw, H. (1953c). Stability and growth. In R. S. Parker (Ed.), *Economic Stability in New Zealand*. Wellington: New Zealand Institute of Public Administration.
- Belshaw, H. (1954a). Economic development, population growth and the future of agriculture in New Zealand. *New Zealand Financial Times*, 24 (Feb.), 35–136.
- Belshaw, H. (1954b). Economic development, population growth and the future of agriculture in New Zealand. *New Zealand Financial Times*, 24 (Mar.), 175–176, 189–190.
- Belshaw, H. (1954c). Some social aspects of economic development in under-developed countries in Asia. *Civilisations*, 4, 525–545. [Also in NZ Institute of National Affairs. Paper No. 2, 1–22.]
- Belshaw, H. (1955a). Population growth and levels of consumption in New Zealand: Some comparisons with Asian Countries. *Economic Record*, 31, 1–17.
- Belshaw, H. (1955b). Population and Levels of Consumption in New Zealand. Correspondence with John A Durand, Population Division United Nations New York, May 1955. Horace Belshaw Papers. MSS & Archives A–3, 8/1. Special collections, University of Auckland library.
- Belshaw, H. (1956). *Population growth and levels of consumption: with special reference to countries in Asia*. London: Allen & Unwin 1956.
- Belshaw, H. (1958). A New Zealand institute of economic research. *Canterbury Chamber of Commerce Economic Bulletin* No. 398.
- Belshaw, H. (1961). Obituary: Edward Percy Neale. *Economic Record* 37, 98–99.
- Billing, G. C. (1935). Some economic effects of a stationary population. *Economic Record*, 11, 167–175.
- Birch, B. (1989). Immigration policy: guidelines for 1990. *New Zealand Population Review*, 15, 55–59.
- Blakey, K. A. (1958). Economic experiments in New Zealand and their political background. *Economic Record*, 34, 189–198.
- Blyth, C.A. (2004). A history of the economics department of the University of Auckland. Auckland: Department of Economics.
- Blyth, C.A. (2008). *Early academic economics in New Zealand: Notes on its history from the 1870's to the 1950's* (Working Paper No. 266). Auckland: University of Auckland Working Papers in Economics.

- Bollard, A., & Buckle, R. (1987). *Economic Liberalisation in New Zealand*. Wellington: Allen & Unwin.
- Borrie, W. D. ([1939] 1991). *Immigration to New Zealand, 1854–1938*. Canberra: Research School of Social Sciences, Australian National University.
- Borrie, W. D. (1973). *Population, Environment, and Society*. Auckland: Auckland University Press.
- Braae, G. P. (1968). Birth rates in New Zealand 1945–65. *New Zealand Economic Papers*, 2, 5–10.
- Braae, R. & Gallacher, J. (1983). *Labour supply in New Zealand, 1976 to 1981: New and familiar problems for descriptive and empirical analysis*. Proceedings of the Eighth Conference of the New Zealand Demographic Society.
- Brooke, G., Endres, A., & Rogers, A. (2016). Does New Zealand Economics have a useful past? The example of trade policy and economic development. *New Zealand Economic Papers*, 50. Advance online publication. doi: 10.1080/00779958809544137).
- Briggs, L.H. (1954–5) Biography of Hugh William Segar, MA, FRSNZ *Transactions of the Royal Society of New Zealand*, 82, 1195–99.
- Bryant, J. (2003). *Demographic change and New Zealand's economic growth* (Working Paper No. 03/04). Wellington: New Zealand Treasury
- Burke, K. (1986). *Review of immigration policy, August 1986*. Wellington: V.R. Ward, Government Printer.
- Cain, N. (1974). The economists and Australian population strategy in the twenties. *Australian Journal of Politics and History*, 20, 346–359.
- Calvert, G.N. (1946). *The Future of Population in New Zealand: A Statistical Analysis*. Wellington: Government Printer.
- Campbell, R. M. (1927). Family allowances in New Zealand. *The Economic Journal*, 37, 369–383.
- Cannan, E. (1903). *Elementary political economy* (3rd ed). London: Oxford University Press.
- Chapple, S., Harris R., & Silverstone B.S. (1996). Unemployment. In B.S. Silverstone, A. Bollard, & R. Lattimore, R. (Eds.), *A Study in economic reform: The case of New Zealand* (pp. 139–172). Amsterdam: North-Holland.
- Chenery, H., & Syrquin, M. (1975). *Patterns of development 1950-1970*. Oxford: Oxford University Press.

- Coleman, W. (2014). Theorising optimal population between the wars: the contribution of Australian economists. *History of Economics Review*, 59, 44–61.
- Condliffe, J. B. (1930). *New Zealand in the making: a survey of economic and social development*. London: George Allen and Unwin.
- Condliffe, J. B. (1931). The effect of falling prices upon labour conditions in New Zealand. *International Labour Review*, 23, 476–505.
- Condliffe, J. B. (1939). The international position as it affects New Zealand. *Economic Record*, 15(Supplement), 17–24.
- Condliffe, J. B. (1958). Population and economic development in New Zealand. *Economic Development and Cultural Change*, 6, 171–175.
- Condliffe, J. B. (1959). *The Welfare State in New Zealand*. London: George Allen and Unwin.
- Danks, A.J. (1957). The dismal science. *Canterbury Chamber of Commerce Bulletin* No. 387.
- Danks, A. J. (1960). The New Zealand economy 1959–60. *Economic Record*, 36, 465–478.
- Dominion Population Committee. (1946). *Report of the dominion population committee*. Appendices to the Journals of the House of Representatives, I 17. Wellington: Government Printer.
- Department of Immigration (1923). *Annual Report*. Appendices to the Journals of the House of Representatives, D9. Wellington: Government Printer.
- Department of Immigration (1928). *Annual Report*. Appendices to the Journals of the House of Representatives, D9. Wellington: Government Printer.
- Easton, B. (1987). The Labour Market. In A. Bollard and R. Buckle (Eds.), *Economic Liberalisation in New Zealand*. (pp. 181–205). Wellington: Allen & Unwin.
- Easton, B. H. (1997). *In stormy seas: the post-war New Zealand economy*. Dunedin: Otago University Press.
- Elkan, P. (1965a). *Freer trade with Australia. Why or how?* (NZIER Discussion Paper No. 8). Wellington: New Zealand Institute of Economic Research.
- Elkan, P. (1965b). *New Zealand's relation with Australia: Trade, size and structure* (NZIER Technical Memorandum No. 9). Wellington: New Zealand Institute of Economic Research.
- Elkan, P. (1965c). *Estimating New Zealand's manufacturing output in a Common Market with Australia* (NZIER Technical Memorandum No. 8). Wellington: New Zealand Institute of Economic Research.

- Elkan, P. (1965d) How to beat backwash: The case for customs-drawback unions. *Economic Journal*, 75, 44–62.
- Endres, A. M. (1984). The New Zealand full employment goal: 1950s to the 1980s. *New Zealand Journal of Industrial Relations*, 9, 33–44.
- Endres, A. M. (1986). The political economy of W.B. Sutch: Toward a critical appreciation. *New Zealand Economic Papers*, 20, 17–39.
- Endres, A. M. (1988). ‘Structural’ economic thought in New Zealand: The inter-war contribution of A.G.B. Fisher. *New Zealand Economic Papers*, 22, 35–49.
- Endres, A.M. (1990). The development of economists’ advice policy advice in New Zealand 1930–34: With particular reference to Belshaw’s contribution. *Australian Economic History Review*, 30, 64–78.
- Endres, A.M. (2010). Marshallian economics in New Zealand. In T. Raffaelli, T. Becattini, K. Caldari, and M. Dardi (Eds.), *The Impact of Alfred Marshall’s Ideas: The Global Diffusion of his Work*. Cheltenham: Edward Elgar.
- Endres, A.M., & Rogers, A.J. (2014). Trade policy and international finance in the Bretton Woods era: a doctrinal perspective with reference to Australia and New Zealand. *History of Economics Review*, 59, 62–81.
- Evans, L., Grimes A., Wilkinson, B., & Teece, D. (1996). Economic Reform in New Zealand 1984–94: The Pursuit of Efficiency. *Journal of Economic Literature*, 34, 1856–1902.
- Farmer, R. S. J. (1997). New Zealand’s targeted immigration policy, 1991 to 1996. *People and Place*, 5, 1–15.
- Fisher, A. G. B. (1929). The drift to the towns. *Economic Record*, 5, 234–252.
- Fisher, A.G.B. (1932). Land settlement and business principles. *Auckland Chamber of Commerce Journal*, 15th June, 2–3.
- Fisher, A. G. B. (1935a). The economic implications of material progress. *International Labour Review*, 32, 5–18.
- Fisher, A. G. B. (1935b). *The clash of progress and security*. London: Macmillan Press.
- Fisher, A. G. B. (1937). Present large scale migration policy. In W. G. K. Duncan & C.V. Janes (Eds.), *The future of immigration into Australia and New Zealand* (pp. 63–79). Sydney: Angus and Robertson.
- Fisher, P. (1979). *The impact of population change on public policy*. Paper presented to the annual conference of the New Zealand Demographic Society.

- Fleming, G., & Jackson, K. (1988). New Zealand Population Change and Economic Change: A Review of the Evidence and the Literature. *New Zealand Population Review*, 14, 46–60.
- Fry, J. (2014). *Migration and macroeconomic performance in New Zealand: theory and evidence* (New Zealand Treasury Working Paper No. 14/10). Wellington: New Zealand Treasury.
- Gottlieb, M. (1945). The theory of optimum population for a closed economy. *Journal of Political Economy*, 53, 289–386.
- Gould, J. D. (1964). Some economic consequences of rapid population growth in New Zealand. *Landfall*, 18, 78–87.
- Gould, J. D. (1966). A case of unbalanced growth [review of Butlin]. *Economic Record*, 42, 312–320.
- Gould, J. D. (1982). *The rake's progress: The New Zealand economy since 1945*. Auckland: Hodder & Stoughton.
- Gould, J. D. (1984). New Zealand migration, 1949–1981: Some problems of measurement and interpretation. *New Zealand Economic Papers*, 8, 31–48.
- Hawke, G. R. (1985). *The making of New Zealand*. Cambridge: Cambridge University Press.
- Hawke G. R. (1991). New Zealand: Think tanks and Quangos in New Zealand. In J. W Langford & K. L, Brownsey (Eds.), *Think tanks and governance in the Asia-Pacific Region* (pp. 139–156). PDS Research Publishing: Institute for Research on Public Policy, Halifax Nova Scotia.
- Hodgson, R., & Poot, J. (2001). *New Zealand research on the economic impacts of immigration 2005–2010: Synthesis and research agenda* (CReAM Discussion Paper Series CDP No. 04/11). London: Centre for Research and Analysis of Migration.
- Hoff, D. S. (2012). *The state and the stork: the population debate and policy making in US history*. Chicago: University of Chicago Press.
- Holmes, F. W. (1966a). Some thoughts on immigration. Part I. *NZIER Quarterly Predictions*, 9, 18–24.
- Holmes, F. W. (1966b). Some thoughts on immigration. Part II. *NZIER Quarterly Predictions*, 10, 18–22.
- Holmes, F. W. (1967). Some thoughts on immigration. Part III. *NZIER Quarterly Predictions*, 11, 19–24.
- Holmes, F. W. (1978). *Population, planning, and the planning council*. Paper presented to the annual conference of the New Zealand Demographic Society, Wellington.

- Interdepartmental Committee on Population Questions (1974). *Country Statement 1974*. Wellington: United Nations.
- Kaspar, W. (1990). *Populate or languish? Rethinking New Zealand's immigration policy*. Wellington: New Zealand Business Roundtable.
- Keynes, J. M. (1920). *The economic consequences of the peace*. New York: Harcourt, Brace & Howe.
- Keynes, J.M. (1926). *The End of Laissez-Faire*. London: Hogarth Press.
- Keynes, J. M. (1937). Some economic consequences of a declining population. *The Eugenics Review*, 29, 13–17.
- King, J. E. (Ed.). (2007). *A biographical dictionary of Australian and New Zealand economists*. Cheltenham: Edward Elgar.
- Lane, P. A. (1970). Immigration and economics. In K. Thomson & A.D. Trlin (Eds.), *Immigration in New Zealand* (pp. 25–37). Massey University.
- Leibenstein, H. (1958). Review of 'Population growth and levels of consumption', by Belshaw, H. (1956). *Journal of Political Economy*, 66, 87–88.
- Maré, D.C., Morten, M., & Stillman, S. (2007). Settlement patterns and the geographic mobility of recent migrants to New Zealand. *New Zealand Economic Papers*, 41, 163–195.
- McGill, J. F. (1981). *Immigration and the New Zealand Economy* (Research Paper No. 26). Wellington: New Zealand Institute of Economic Research.
- McLean, I. W. (2012). *Why Australia Prospered: The Shifting Sources of Economic Growth*. Princeton, N.J. Princeton University Press.
- Moody, C. (2006). *Migration and Economic Growth: A 21st Century Perspective* (Working Paper No. 06/02). Wellington: New Zealand Treasury.
- Miles, R., & Spoonley, P. (1985). The political economy of labour migration: an alternative to the sociology of "race" and "ethnic relations" in New Zealand. *Australian and New Zealand Journal of Sociology*, 21, 3–23.
- Mundell, R. A. (1957). International trade and factor mobility. *The American Economic Review*, 47, 321–335.
- Murphy, B. E. (1927). Some fundamental problems of immigration. *New Zealand Highway*, 2, 10–11, 13.
- Murphy, B. E. (1937). The population question. *New Zealand Financial Times*, 2, 437–438.
- National Industrial Conference. (1928). *Report of Proceedings*. Wellington: Government Printer.

- Neale, E. P. (1923). A New Zealand study in seasonal fluctuations of external migration, with special reference to the computation of mean annual populations. *Journal of the Royal Statistical Society*, 86, 226–241.
- Neale, E. P. (1924). A study in New Zealand natality. *Journal of American Statistical Society*, 19, 454–467.
- Neale, E. P. (1925a). A New Zealand study in infant mortality. *Journal of the American Statistical Society*, 20, 354–367.
- Neale, E. P. (1925b). New Zealand vital statistics [Note]. *Economic Record*, 1, 154–156.
- Neale, E. P. (1932). Migration and depression: A note on a neglected point in economic history. *International Labour Review*, 26, 813–825.
- Neale, E. P. (1933). Migration and depression. *Journal of American Statistical Society*, 96, 663–665.
- Neale, E. P. (1934). The economics of a relatively stationary population. *The Accountants Journal*, 21, 286–88.
- Neale, E. P. (1937). The 1936 New Zealand census [Note]. *Economic Record*, 13, 100–105.
- Neale, E. P. (1939). Population prospects and problems in New Zealand. *Economic Record*, 15 (Supplement), 82–94.
- Neale, E. P. (1947). Some population maladjustments in New Zealand. *Economic Record*, 23, 66–74.
- New Zealand Economic Committee (1932). *Report of the Economic Committee*. Wellington: W.A.G. Skinner, Government Printer.
- New Zealand Monetary and Economic Council. (1966). *Increased immigration and the New Zealand economy* (Report No. 12). Government Printer, Wellington.
- New Zealand Monetary and Economic Council. (1970). *The current economic situation and outlook* (Report No. 20). Wellington: Government Printer.
- New Zealand Monetary and Economic Council. (1971). *Economic trends and policies* (Report No. 21). Wellington: Government Printer.
- New Zealand Monetary and Economic Council. (1973a). *Economic trends and policies* (Report No. 25). Wellington: Government Printer.
- New Zealand Monetary and Economic Council. (1973b). *Growth* (Report No. 26). Wellington: Government Printer.
- New Zealand Monetary and Economic Council. (1975). *Perspectives on the New Zealand Economy* (Report No. 29). Wellington: Government Printer

- New Zealand Planning Council. (1978). *Planning perspectives 1978–83*. Wellington: New Zealand Planning Council.
- New Zealand Planning Council. (1979). *Welfare state? Social policy in the 1980s*. Wellington: New Zealand Planning Council.
- New Zealand Planning Council Population Monitoring Group. (1984). *New Zealand Population: Patterns of Change* (Report No 1). Wellington: New Zealand Planning Council.
- Northey, R., & Lythe, B. (1972). *How white is our immigration policy?* Auckland: Wackrow Enterprises.
- Peterson, W. (1955). John Maynard Keynes's theories of population and the concept of "optimum". *Population Studies*, 8, 228–246.
- Philpott, B. (1971). Reported Commentary. *New Zealand Journal of Public Administration*, 34, 32–33.
- Philpott, B., & Choo, B. (1978) *A Victoria Model Analysis of Structural Unemployment in 1980*. Wellington: VUW Project on Economic Planning.
- Pool, I. (1997). New Zealand population policy: issues and challenges for the demographic profession. *New Zealand Population Review*, 23, 1–19.
- Poot, J. (1986). *Immigration and the economy: A review of recent Australian findings on economic consequences of immigration and the relevance of these findings for New Zealand*. (Occasional paper). Wellington: Institute of Policy Studies.
- Poot, J. (1987). *The New Zealand labour force: a demographic outlook*. Proceedings of the tenth annual conference of the New Zealand Demographic Society.
- Poot, J. (2005). The Quest for People: Population and Economic Development. In J. Rowe, (Ed.), *Economic Development in New Zealand* (pp. 31–46). Aldershot UK: Ashgate.
- Poot, J., Nana, G., & Philpott, B. (1988). *International migration and the New Zealand economy*. Wellington: Victoria University Press.
- Population in New Zealand: A Stationary State. (1900, June 5) *New Zealand Herald*. Retrieved from <http://www.paperspast.natlib.govt.nz>
- Prebble, M. (1977). Economic aspects of permanent and long-term immigration into New Zealand. *NZIER Quarterly Predictions*, 50, 25–28.
- Reddaway, W. B. (1939). *The economics of a declining population*. London: George Allen and Unwin.

- Reddell, M. (2013). Economic effects of immigration and the New Zealand economic histories. Retrieved (29/05/2016) from:
<https://croakingcassandra.files.wordpress.com/2015/07/economic-effects-of-immigration-and-the-new-zealand-economic-historians.pdf>
- Reeves, W.P. (1902). *State experiments in Australia and New Zealand*, Vol II. London: Grant Richards.
- Robbins, L. (1927). The optimum theory of population. In H. Dalton & T.E. Gregory (Eds.), *London essays in economics: in honour of Edwin Cannan*, (pp. 103–34). London: Routledge & Sons Ltd.
- Rodwell, H. R. (1937). Does New Zealand Need Immigrants? *The Commerce Journal*, May 25, 2–13.
- Rosenberg, W. (1967). Industry and Immigration. *New Zealand Manufacturer*, February, 43–7.
- Rosenberg, W. (1970). Immigration. *Canterbury Chamber of Commerce Economic Bulletin* No. 542.
- Rosenberg, W. (1971). A note on the relationship of family size and income in New Zealand. *Economic Record*, 47, 399–409.
- Ross, L. (1929). The absorption of immigrants. *New Zealand Affairs*, 1, 101–117.
- Schultz, T.W. (1961). Investment in Human Capital. *American Economic Review*, 51, 1–17.
- Segar, H. W. (1900). The population of New Zealand. *Transactions and Proceedings of the New Zealand Institute*, 33, 445–467.
- Silverstone, B., Bollard, A., & Lattimore, R. (Eds.) (1996). *A Study in Economic Reform: The Case of New Zealand*. Amsterdam: North-Holland.
- Souter, R. W. (1939). How do we want the New Zealand economy to behave? *Economic Record*, 15(Supplement), 7–16.
- Spengler, J. J. (1945). Population and per capita income. *Annals of the American Academy of Political and Social Science*, 237, 182–192.
- Spengler, J. J. (1948). Aspects of the economics of population growth—part II. *The Southern Economic Journal*, 14, 233–265.
- Spengler, J. J. (1956). The population problem: dimensions, potentialities, limitations. *American Economic Review*, 46, 337–351.
- Spengler, J. J. (1972). The economist and the population question. In R.S. Smith, F.T. de Vyver, & W.R. Allen (Eds.), *Population economics: selected essays of Joseph J. Spengler* (pp. 334–355). Durham: Duke University Press.

- Sutch, W. B. (1936). *Recent economic changes in New Zealand*. Institute of Pacific Relations. New Zealand Council.
- Sutch, W. B. (1960). A programme for growth. In *Report of industrial development conference*. Wellington: Department of Industries and Commerce.
- Sutch, W. B. (1964a). The future of manufacturing in New Zealand. In M.F.L. Prichard (Ed.), *The future of New Zealand* (pp. 9–23). New Zealand: Whitcombe & Tombs.
- Sutch W.B. (1964b). *Full development of Economic Resources*. Wellington: Department of Industries and Commerce.
- Sutch, W.B. (1964c). *Industrial development in NZ*. Wellington: Department of Industries and Commerce.
- Sutch, W.B. (1965). *Planning for development*. Wellington: Manufacturers Association.
- Sutch, W. B. (1966a). *Criteria for immigration*. Wellington.
- Sutch, W.B. (1966b). *Colony or Nation?* Sydney: Sydney University Press.
- Task Force on Economic and Social Planning (1976). *New Zealand at the turning point*. Wellington: Government Printer.
- Tocker, A. H. (1928). Professor Tocker's Reply. In *National Industrial Conference: Report of Proceedings*, (pp. 123–28). Wellington: Government Printer.
- Tocker, A. H. (1937). New Zealand's immigrant absorption capacity. In W.G.K. Duncan & C.V. Janes (Eds.), *The future of immigration into Australia and New Zealand* (pp. 241–256). Sydney: Angus and Robertson.
- Tocker, A. H. (1945). Population policy in New Zealand and elsewhere: a review of the objectives. *New Zealand Geographer*, 1(2), pp. 99–188.
- Trlin, A. D. (1986). New Zealand's immigration policy in the early 1980s. In A.D. Trlin, & P. Spoonley (Eds.), *New Zealand and international migration*. Department of Sociology, Massey.
- Trlin, A. D. (1997). For the promotion of economic growth and prosperity: New Zealand's immigration policy, 1991–1995. In A.D. Trlin & P. Spoonley (Eds.), *New Zealand and International Migration: a digest and bibliography, number 3* (pp. 1–27). Massey University.
- Weststrate, C. (1955). The shortage of labour and the distribution of the labour force among industries. *Canterbury Chamber of Commerce Bulletin* No. 371.
- Weststrate, C. (1966). *Portrait of a Modern Mixed Economy* (2nd ed). Wellington: Sweet and Maxwell Ltd.

Williams, J.W. (1945). Professor Douglas' production function. *Economic Record*, 21, 55–64.

Williams, J. (1948). *The New Zealand economy*. New York: Institute of Pacific Relations.