

Beyond Commercial Real Estate Development: Student Spending and Economic Recovery

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Abstract

As consumer spending changes after a disaster, cities are often faced with ways in which to revitalise or renew certain nodes. This paper provides insights into how students can be leveraged to support economic recovery after a crisis. Apart from the skill benefits that arise from educating the students, they are also spenders of money and represent the ideal market that could fast track revitalisation of nodes. The spending made by students acts as a demand driver for activity in the retail, residential and quasi-commercial sectors, with increasing consumer activity and improvement of aesthetic appeal key contributors. In this research, activities that can benefit from student spending are derived from a student survey. The results reveal that students spend money on retail related goods that, rent higher density residential accommodation, and spend on entertainment and transport activities. Inner-city nodes, such as the Christchurch central business district, can benefit from a student or young-adult centric development plan where affordable, high-density housing is provided. This will have flow-on effects on other industries, as students spend within these nodes and at the same time, support recovery and renewal.

Keywords

Economic recovery, central city, urban planning, investment, student, expenditure

1. Introduction

The 22 February 2011 earthquake in Christchurch, New Zealand, changed the central city from an economic hub into rubble. The central city needed to be rebuilt. Soon thereafter, plans were initiated to rebuild and position the Christchurch central city into a strong, resilient, vibrant and prosperous 21st century city (Christchurch City Council 2020).

Ten years after the large-scale earthquake's damage to the central city, a review of development activity reveals that significant improvements have taken place in retail, office, entertainment and social services developments. One activity that still lags is the residential market.

The central city has attracted billions of dollars in reinvestment for development amounting to \$23.2 billion by 2017 (MBIE 2017). This investment injection also included new residential redevelopment within the central city, but latest data from Statistics New Zealand (2020) continues to show slow growth in central city resident population (see Figure 1).

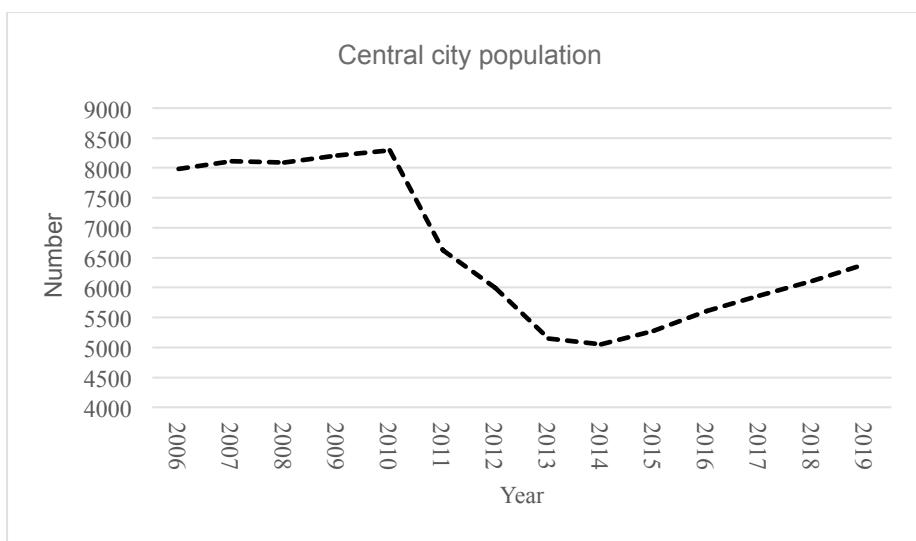


Figure 1. Christchurch central city population, 2006 – 2019

Source: StatsNZ (2020)

The lack in the resident population within the central city has become more apparent in the Covid-19 environment. Government policy initiatives to respond and manage the spread of

the virus in New Zealand (Anderson *et al.* 2020) are likely to restrict mobility and influence spending. The most recent data suggests consumption displacement during the initial period of lockdown, with a significant drop in consumer spending (Hall *et al.* 2020) away from the central city. The New Zealand national lockdown was announced on 23 March and came into effect on 26 March. Between 26 March and 27 April 2020, retail sales within the central city predominantly came to a halt. The lack of a resident population within the node exacerbated the lower spending (Figure 2).

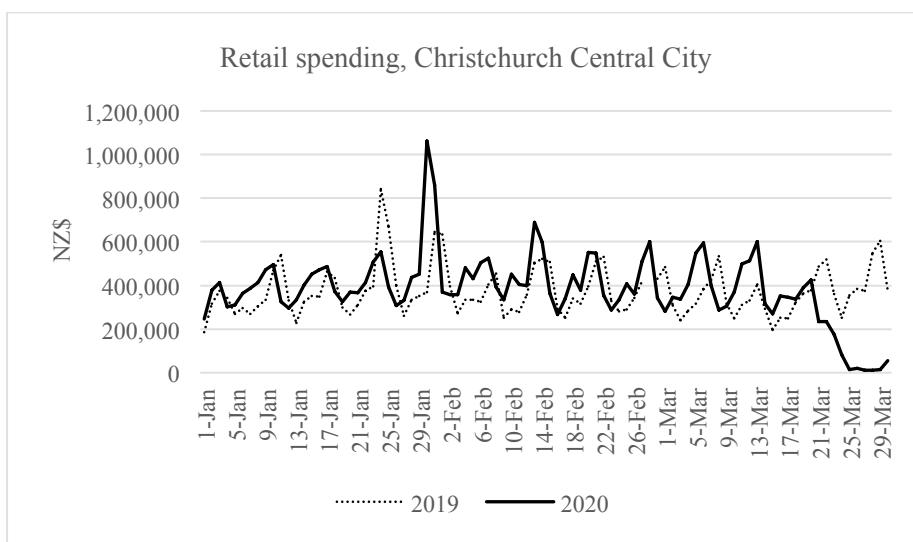


Figure 2. Retail spending in the Christchurch central city

Source: Verisk New Zealand (2020)

This research paper investigates how the student market can contribute towards the development of the central city of Christchurch by highlighting their economic benefit to act as a catalyst in growing its residential population. Initial investment shifts from office, retail and hotel to student living within the Asia-Pacific area (CBRE 2020) further supports the role that students are expected to have in the recovery.

The Covid-19 economic crisis again highlights the same important aspects that were evident in Christchurch after the 2011 earthquake, that being the resident population is as important in recovery and should not be diminished by favouring commercial real estate developments

only. Strong social distancing measures in place and a move to work from home (Anderson *et al.* 2020) have resulted in consumption and employment moving away from the central city and taking place elsewhere in the city.

The rest of this research paper is structured as follows: The methodology adopted in the research is discussed and followed by the concept of recovery and urban renewal and its relevance to Christchurch is provided in the next section. This is followed by investigating demand drivers of the student market with trends in spending, size and growth, which then leads to quantifying the economic value of the student market to the residential market for the central city. The research paper concludes with further research options, a summary and conclusion.

2. Methodology

The impacts of crises and disasters are spread uneven across space and time (Hall, 2013). Amongst other things, these impacts are noticeable with changing consumption behaviour in response to the crises with spill-over effect within the economy. The change in consumption behaviour is visible in several ways and referred to as being displaced. Hall *et al.* (2020) reveal that displacement in consumption has a spatial aspect and as a result influence where consumption takes place, it also includes a time aspect of when consumption takes place and finally it influence how consumption takes place. This has an effect on cities in general, but more specific also on certain business nodes as demand drivers change in response to the crises.

As a result, this research paper apply a quantitative approach to highlight how students can be leveraged to support recovery after a crises, with Christchurch central city as example. The approach apply market analysis concepts that discuss influential factors and quantify the

demand. Demand is quantified with floor-space demand modelling to demonstrate the value of the student sub-group in renewal.

3. Recovery and Urban renewal

Central city revitalisation and renewal are driving interests in central cities after a lengthy period of decline (World Bank 2019). In America (USA), the decline of central cities emerged after World War II during a period of recovery and has been attributed to a variety of forces with demographic changes and movement playing a major role in this (Morrill 1978). Economic trends and public policies also contributed to inner-city decline. These included new zoning rules, suburban housing construction techniques, subsidised highways, banking, tax and housing policies (Grogan and Proscio 2000, Bright 2003, Ferguson *et al.* 1996).

As central cities declined, the economic viability of business districts tied to nearby residential neighbourhoods deteriorated. Compounding the problem, the departure of urban manufacturing employment concentrated unemployment, poverty and other social problems in the inner-city. Businesses increasingly followed wealthier customers to the suburbs. The emergence of these rapidly growing suburbs as strong employment and retail centres further aggravated inner-city business districts' decline (Halpern 1995, Mulkeen 1997, Wilson 1996, Seidman 2004).

In New Zealand, especially Christchurch, the central city residential populations were not significant; therefore, population mobility between the city and the suburbs was less important than differences in the relative growth rates. In contrast to the USA, New Zealand had an influx of immigration from the 1950s, first from the UK and the Netherlands and later from the Pacific Islands. Most immigrants settled in the suburbs. Racial issues and central

city crime were minor problems in New Zealand in comparison to the USA and other parts of the world. Suburban housing choice, zoning and lending policy, transport technology changes and associated green-field industrial development, private automobile use and shopping mall development trends all, however, followed the patterns established in the USA (and other “new world” locations). This led to a similar pattern of deterioration of trading conditions for inner-city retailers and the inevitable flow-on effect to the finances of the owners of the central city buildings they occupied. The Christchurch Central City Business Association, for example, estimated NZ\$1.4 billion in retail turnover was lost from the central city to suburban malls in the 20 years since 1995. This forced inner cities to change and, similar to the economy, as it goes through periods of growth and contraction, cities are dynamic spaces, which change over time (Kleeman 2018). This change is evident as nodes undergo renewal to attract investment and maximise the economic value of their location.

Urban renewal is similarly activated for the main purpose of keeping the city competitive on an international level (Kleeman 2018). To stay competitive within the international market and to maximise the economic value offered by the node (Kleeman 2018), Sydney, Australia, promotes urban renewal even while the existing business node provides good investments.

Many citizens who have worked and lived abroad have become used to an inner-city lifestyle (Dutton 2003) and in New Zealand, people are getting increasingly acquainted with this lifestyle, particularly for first-time homeowners, especially where suburban property prices are increasing.

There is wide debate in the literature as to what types of institutional arrangements best support viable central city revitalisation and renewal. Some support private sector business-led physical and economic development (Porter 1995, Butler 1996, Sawicki and Moody 1996), whereas others advocate for greater people-based social, cultural and community involvement (Fainstein and Gray 1996, Thomas 1996).

Lemann (1994) and others have strongly advocated for a people-based approach to central city revitalisation, arguing that strategies should focus on improving the well-being of individuals and expanding their access to economic opportunity and residential choice.

Ley (1994) states that people's views of suburban areas are changing as are their preferences for central urban life.

Affordability is also an economic concern. Many inner-city locations have, along with high densities and no car parks, often "bare space" apartments available. Here residents can design their own way of living in the area they lease. They have the flexibility to adapt it as they wish, whether it is for living, working or leisure (Lloyd and Clark 2001). Here they often have the flexibility to pay for only what they need. This makes inner-city living affordable to a relatively low-income market, such as students, despite high land prices.

In many ways, these developments are mixing up the ways land is used for both economic and social reasons. This was how land use was organised before urban planning began to zone various areas for specific uses. This often led to the profitable renewal of inner-city areas (Zukin 1989, Florida 2002).

Many young people and students find this type of living attractive. They wish to create their own style and to replace conventional lifestyles. There are also many ecologically minded persons who wish to re-use and recycle resources, and those who wish to have their areas of working, living and leisure in close proximity. This is reminiscent of the third stage of Warde's gentrification processes where people sharing cultural values gather together (Warde 1991). This also includes preferences of a specific group of consumers. This also relates to research on socio-cultural or community network-based theories of urban renewal (Ley 1994, Lloyd 2002, Florida 2002).

This has been a problem in Christchurch previously as such revitalisation efforts have often run up against planning rules and building regulations rather than being facilitated by them. There is also the problem that revitalisation and adaptive use may be contributing to gentrification – a term that has strongly negative connotations for some, but not all. Other social, cultural and style issues are important (but often neglected) aspects of successful revitalisation and renewal.

A recurring theme throughout all the urban revitalisation, renewal and new urbanism literature is that inner-city areas subject to these processes are often significantly impacted by the needs, desires and capacities of a group of people who differ somewhat from the mainstream (Zukin 1989, Ley 1994, 2003, Lloyd 2002). Florida (2002), Ray and Anderson (2000), Mokyr (1992) and others have termed this wider growing and influential group the Creative Class.

However, creatives (and the student subgroup) are not seeking complete revolution, rather they seek to meet their different-from-mainstream needs within the conventional economic system. As a result, developers must recognise this growing sub-group of society.

4. Christchurch Central City Transformation

In the pre-earthquakes Christchurch situation, there were decades of “top-down” place-based attempts by local government to address inner-city decline at the public and macro-level. The pedestrianisation of the City Mall, the redesign of Cathedral Square, and the purchase for inner-city residential redevelopment of the Turners and Growers site serve as examples. These have all had limited success. Perhaps what was missing are fully engaging actors and institutions across various levels and sectors and addressing the social and cultural, as well as the physical and economic dimensions.

As with many other cities in developed economies, retailing in the central city of Christchurch has suffered since the 1970s, as competition from suburban shopping malls has intensified. This situation was exacerbated by the decision in the late 1960s to move the campus of Canterbury University from the central city to a suburban location at Ilam. Another smaller tertiary institution, now Lincoln University, was already located approximately 22km from the CBD in the township of Lincoln. The Christchurch Polytechnic (now ARA) did not, however, move from the central city.

During the past three decades, Christchurch's commercial centre developed more towards entertainment and office use. It did, however, retain a concentration of struggling retail that was somewhat differentiated from the usual suburban mall retail offering (McDonagh 1997, Wilson 2005). True central city residential accommodation had not developed in Christchurch to any extent. From its establishment in the 1840s, the people resided mostly in its sub-urban areas (Morrison and McMurray 1999, Vallance *et al.* 2005). The rebuilding and recovery of the central city after the 2011 earthquake provided an opportunity to provide and introduce a strong residential component for the central city.

Ten years on, the rebuild continues. Much of the central city office and retail space has been replaced, but key government-funded “Anchor Projects”, promoted as catalysts for redevelopment, remain mired in delays and controversy. In contrast, the rebuild of suburban business and residential buildings was much faster, with many projects completed within four years of the earthquakes. Most of the CBD investment was in commercial property and Figure 3 shows the new floor space developed within the central city since 2012.

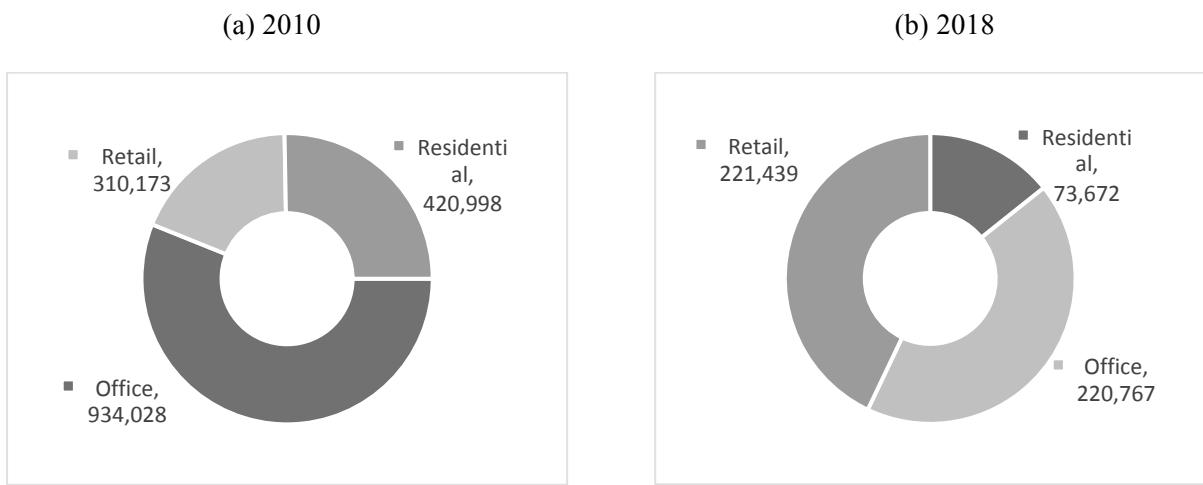


Figure 3. Completed floor space in the central city

Source: Christchurch City Council, ChristchurchNZ (2020)

The redevelopment of the central city relied much on resupplying the lost commercial office and retail stock within the area. This unique position for the central city can be ascribed to initial strong demand for CBD office space due to a lack of suitable office space within the Greater Christchurch region. This resulted in the quick absorption of new office floor space post-earthquake. Figure 3 shows that the residential supply has not been able to attract similar volumes in new floor space, even though the Christchurch City Council (CCC) has identified residential as an important land use within the central city (CCC 2020).

The weak supply in residential floor space for the central city could be attributed to the initial closure of the area immediately after the earthquake. At the same time, the implementation of the Land Use Recovery Plan (DPMC, 2013) supported the rebuild of residential property on the periphery of the city where vacant land was available. This has led to a steady pipeline of new houses and low house price inflation for the city since 2016. Furthermore, the city does not have a history of apartment living and with few natural environment barriers and the preference to use motor vehicles as the main form of transport, densification of the central city is lacking. More importantly, the closure of the central city after the earthquake led to an immediate change in consumer routes and behaviours as commercial activity moved into the

suburbs and strong residential growth in adjacent towns of Rolleston, Rangiora, Kaiapoi and Pegasus propelled decentralised development.

With the continuing rebuild of the Christchurch central city, the importance of consumers as a driver in renewal of the centre as a business node has become apparent. The process of redevelopment of the city centre can be assessed against the typical process of nodal development. Figure 4 shows the typical nodal development process that takes place over many years.

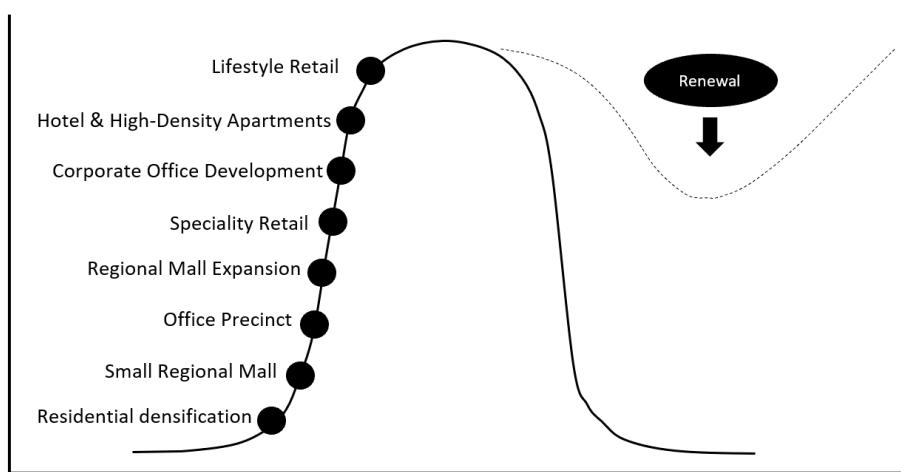


Figure 4. Natural process of nodal development

Source: Demacon (2010)

In the case of Christchurch, the natural disaster of a substantial earthquake acted in conjunction with many of the above underlying causes to accelerate, which is usually a more gradual process. Unintentionally, this process of renewal to attract investment in the central city has created a scenario where residential use and the densification thereof has not taken place. For this reason, the central city has positioned itself in a phase where corporate office and hotel developments are evident, but residential is lacking.

To address this gap within the central city, the possible solution in residential development and the most likely market that could provide an injection of residential demand may be students. A renewed focus on student living investment had entered the market during

COVID-19 (CBRE 2020), which seem to suggest a pivot to higher number of students in the coming years.

A central city urban culture and lifestyle are conflicting with most of the Christchurch population who are resolutely suburban and conservative with respect to housing and shopping. This is reflected by the success of new decentralised residential subdivisions and shopping malls over the past 40 years, coinciding with the commercial failure of new inner-city apartment developments and declining central city retailing activity.

Gulson (2005) refers to the interaction between policy and population, and how it shapes physical locations within a city. The understanding is that policies shape the spatial elements, which affect the place in which this policy is implemented (Gulson 2005). This will be similar for the recent residential development of the central city of Christchurch to promote multiple levels, small land areas, no need for a motor vehicle and the ability to walk down and immediately be within a truly urban context.

Very few people lived in this type of accommodation in Christchurch pre-earthquakes, perhaps as few as 800. In many studies, changes in the overall numbers and demographic profile of inner-city residential dwellers have been influential in both the decline and revitalisation of central city neighbourhoods (Ferguson 2005, Bright 2003, Grogan and Proscio 2000). Even before the earthquakes, the city council had a clear policy to increase the inner-city residential population. The post-earthquake represented an opportunity to accelerate this process substantially, notably by the designation of the large “East Frame” as an exclusively high-density inner-city residential area, but to date, this development has been slow in progress and attracting occupants.

5. Economic Value of Students

Tertiary education institutions can improve neighbourhoods through place-based activities that extend benefits beyond the boundary of the campus (Hendricks and Flaherty 2018). The literature on the economic impact of tertiary institutions has a strong focus on the expenditure-based benefits of the institution and its students on the economy (Drucker and Goldstein 2007). Additionally, tertiary education institutions represent anchor institutions with the ability to influence the urban landscape through its linkages with the various economic sectors. This benefit continues to increase if the institution continues to expand its student population (Dyason and Kleynhans 2017). Steinacker (2005) highlighted that such institutions are a steady presence in the community and relatively resilient to business cycle fluctuations, which makes them ideal in urban renewal initiatives. Again, as policy makers ponder recovery, the student market offers such an opportunity.

5.1 Student numbers

According to statistics released by the New Zealand Ministry of Education (2020a&b), a total of 36.9% of all school leavers in New Zealand enrol for tertiary education. In 2017, a total of 266,375 students were enrolled, of whom 84% were domestic students and 16% international students.

Within the Christchurch area, there are three public tertiary education institutions, namely the University of Canterbury (UC), Lincoln University (Lincoln) and ARA Institute of Canterbury (ARA). The University of Otago (UO) also has their medical school located within Christchurch with approximately 1000 students (University of Otago 2019). This represents a total of 20,865 students who study full-time at a national qualification framework (NQF) level seven and above within the city. After a period of decline between 2011 and 2015, the total number of full-time students within the city has increased annually since 2015.

The growth of student numbers from 2011 to 2019 reveals an average annual growth rate of 0.6%. The growth has been significantly faster between 2015 and 2019 at 2.1% annually and can be assumed to indicate the upward cycle of increasing student numbers for the City. The 2011 to 2019 growth rate is a better reflection of cyclical growth regarding both growth and contraction.

Figure 5 shows how Christchurch has benefitted in comparison with other major student cities regarding student enrolment growth.

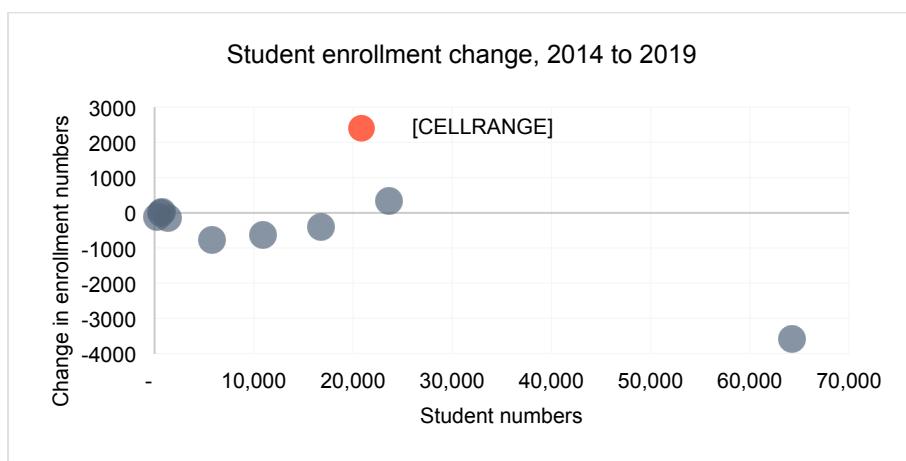


Figure 5: Christchurch benefitting from student enrolments, 2014 to 2019

Source: NZ Ministry of Education (2020a&b)

The increasing enrolment numbers for the city translates into increasing demand by students for residential and other retail-related goods and services. The central city is well positioned to absorb this increasing demand.

The effect on international students attending New Zealand institutions after Covid-19 would likely only be evident once the pandemic has passed, but it is encouraging to see that New Zealand has responded well to minimise the cases and some form of travel is likely to take place (Cooke 2020).

5.2 Age group size and life stage

Since its inception during the 1840s, Christchurch has been mostly suburban with residential use in the CBD lacking (see Section 2). Students represent an ideal market to change this trend within the city. In 2019, 72% of students in the city were below the age of 25, compared to the national average of 63%, indicating that the Christchurch student population is generally younger than the student population of other cities. As most people of this age represent single-person households, students are more likely to share accommodation to save money (Dyason 2018). In Christchurch, this has led to houses being sub-let between students and flatmates advertised via postings on popular rental sites such as Trademe (2020). Sub-letting and flatmates indicate the willingness of this consumer segment to share living space and in return save money.

The size of the core age group in which students attend university is estimated to remain close to current figures according to the medium-term population projections from Stats New Zealand (2020a).

The local market size is expected to, therefore, stay relatively stable. This excludes the international students who also attend tertiary institutions in New Zealand. Students' willingness to save money with sub-letting and house sharing, however, presents an opportunity of higher density residential living within the central city. This will form part of the residential demand estimation later in this research.

5.3 Student spending

Students are spenders in the local economy. The 2017 income and expenditure report by the New Zealand Union of Student's Associations (NZUSA) provides information regarding student spending trends. The report captures the general spending patterns by students from a survey that was distributed and completed by students from 11 tertiary institutions and received 1000 responses (NZUSA 2017). The survey received feedback from students of all

three of the city's tertiary institutions. The structure of the survey, however, restricts a regional analysis of student spending and, as a result, this research uses national averages.

The total average annual spending per student amounted to \$17 661 which translates into a spending market worth approximately \$346 million for the Christchurch area in 2017.

The spending by students on various types of consumer goods is illustrated in Figure 6. Accommodation represents the largest cost for students at 42% of their annual cost, followed by food and entertainment.

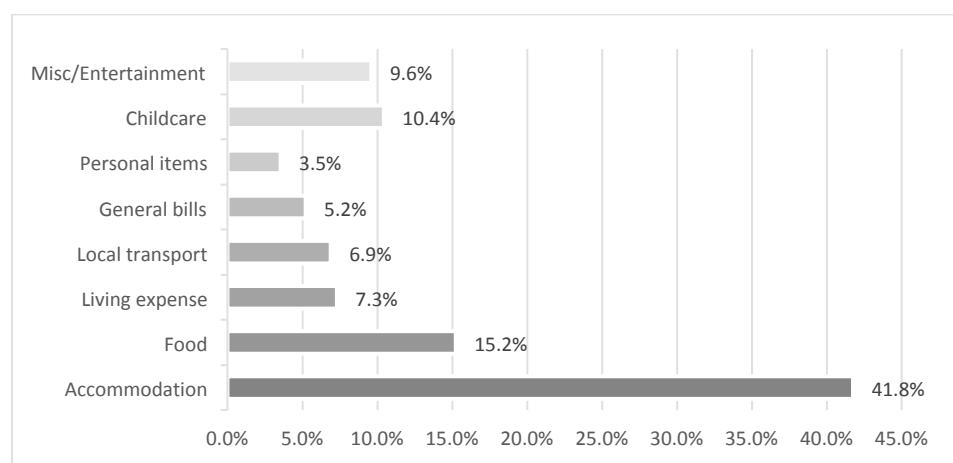


Figure 6. Average spending on consumer goods by students, 2017

Source: NZUSA (2017)

The spending by students within the city represents a significant injection within the economy, and for those activities that can attract student spending. The value that student spending has on the retail and residential market and the potential that a larger student resident population has for the central city is highlighted in the property demand estimation, which represents the quantitative representation of the economic value of students.

5.4 Demand estimation

The benefit of attracting students to the central city is that they increase the consumer market within the node. The market area of the central city from which it draws consumers is based on a variety of aspects including, but not limited to, the functionality, variety, accessibility,

cultural, social and economic aspects. This concept of a market area was first introduced by Von Thünen (1826), who highlighted that the market area is delineated by concentric circles around a central place (Neenan 1981). This has led to continuous debate about the ideal delineation for firms selling consumer goods; however, there is consensus that although the exact shape of the market delineation is not defined by circles or straight lines, the primary market within delineated area starts from the node (Du Toit 2018).

The residential and retail demand created from an increasing student market will be beneficial for the Central City. The purpose of the property space demand of the student market is to quantify the market-driven growth potential for the Central City.

5.4.1 Retail demand

The retail demand model presented by Fanning (2005) and adjusted for the student market (Dyason 2018) is used to quantify the retail demand from student spending.

$$\text{New retail space demand per year in square meters} = \frac{cH \times AHi \times CR}{SR \text{ per sq.meter}} \quad (1)$$

where cH is the change in the number of students in the market area per annum, AHi is the average student spending per annum, CRi is the capture rate of student spending on retail, and $SR \text{ per sq. meter}$ is the number of sales needed for a retailer to develop one square meter of retail space.

The industry benchmark in SR per sq. meter differs between various retail types and products and is not well research and published in New Zealand. Data from the Shopping Centre Council of Australia estimate it at an average of approximately \$5,300 on a national level, while the value for Christchurch is available for the major shopping centres, but varied significantly between \$5600 and \$9000 in 2018. This retail demand model applies the lower

range estimate to align with the lower level for retail centres of Christchurch and is similar to the national value in Australia at \$5300 per square meter.

The retail demand for two scenarios is provided. Firstly, the student market retail spending in Christchurch is illustrated for the total retail spending based on the total students in the city during 2019, irrespective of where the students reside; and secondly, the projected additional retail demand created by student spending over the next five years. By attracting increasing numbers of students to the Central City, the growth in retail demand from student spending could be beneficial to the Central City. Various scenarios could be considered for modelling and the value of the benefit for retail will ultimately depend on the number of students who could locate or relocate to the Central City. To illustrate the benefit, the results in the retail model attribute only the growth in student numbers, in other words only the new additional students to the city, to the retail benefit of the central city.

Table 1. Retail demand, 2020-2025, square meter

Year	2020	2021	2022	2023	2024	2025
Student spending (cumulative, \$/mil)	\$2.4	\$2.5	\$2.5	\$2.5	\$2.6	\$2.6
Student supported retail space (sq.m)	30,650	30,928	31,209	31,492	31,778	32,066
Annual additional sq. meter in retail	278	281	283	286	288	291
Total retail demand (sq.m)	30,928	31,209	31,492	31,778	32,066	32,357

Note: Sq.m: square meter

Source: Authors' calculations

The growing student population in Christchurch, forecasted to grow by 590 over five years, will benefit the area in which they locate, preferably the central city. In total, \$12.9 million

will be spent by a growing student population resulting in an additional 1707 square metres of retail floor space demand between 2020 and 2025. The investment value to develop the total additional retail space amounts to \$3.1 million in 2019 figures. Over a 10-year period up to 2030, additional demand will increase to 2925 square metres.

5.4.2 Residential demand

Residential investment in the Christchurch CBD lags the investment value of retail and office growth during the rebuild (see Figure 2). The potential additional demand created by a growing student population should be considered as a target market to increase the residential population in the central city.

Accommodation cost is the largest single expense of students. In 2017, average cost per student on accommodation in Christchurch amounted to approximately \$150 per week (NZUSA 2017), and increased to between \$160 and \$170 for 2020 (UC 2020). The actual spending on rental will vary depending on the financial means of each student, while the mean rental price is an indication of average affordability levels.

The new residential units within the CBD continue to show high availability averaging approximately 13% of available rental units within the city. A comparison with the average residential rent of areas where students stay reveals that these areas' rentals remain near or below the city's average rents.

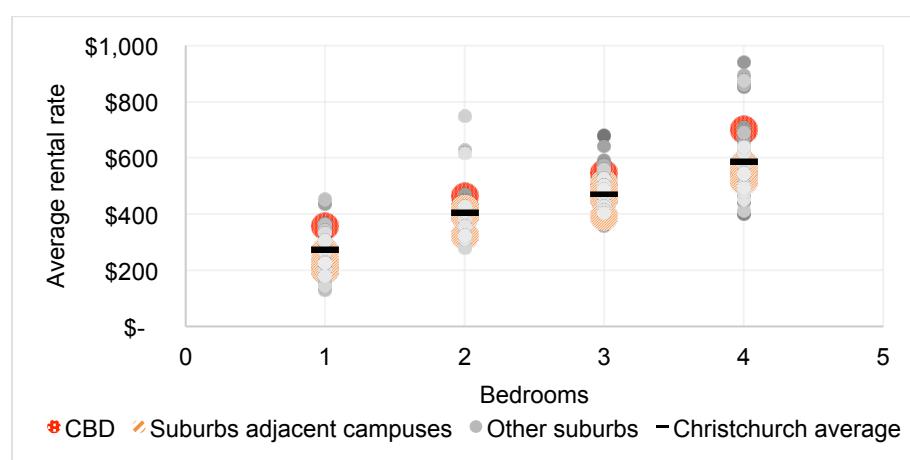


Figure 7. The average monthly rental price per suburb, six-month average to December 2019

Source: Trademe Property (2020)

The average rental rate for the central city is above the city's average for between one- and four-bedroom units and also higher than the averages in suburbs adjacent the university campuses. For the CBD to attract students and provide an alternative option within the market, the affordability levels are key indicators.

The suburbs near the various university campuses accommodate the majority of students; however, rental cost would likely impact on locational decisions of students. The average rental price is used as an indication of affordability and since (some) students are willing to share accommodation, this principle is used to evaluate the relationship between student accommodation affordability and current market prices.

Figure 8 shows the average rent per room for several suburbs adjacent to the campuses of the University of Canterbury, Otago University Medical School and ARA compared with the Christchurch CBD.

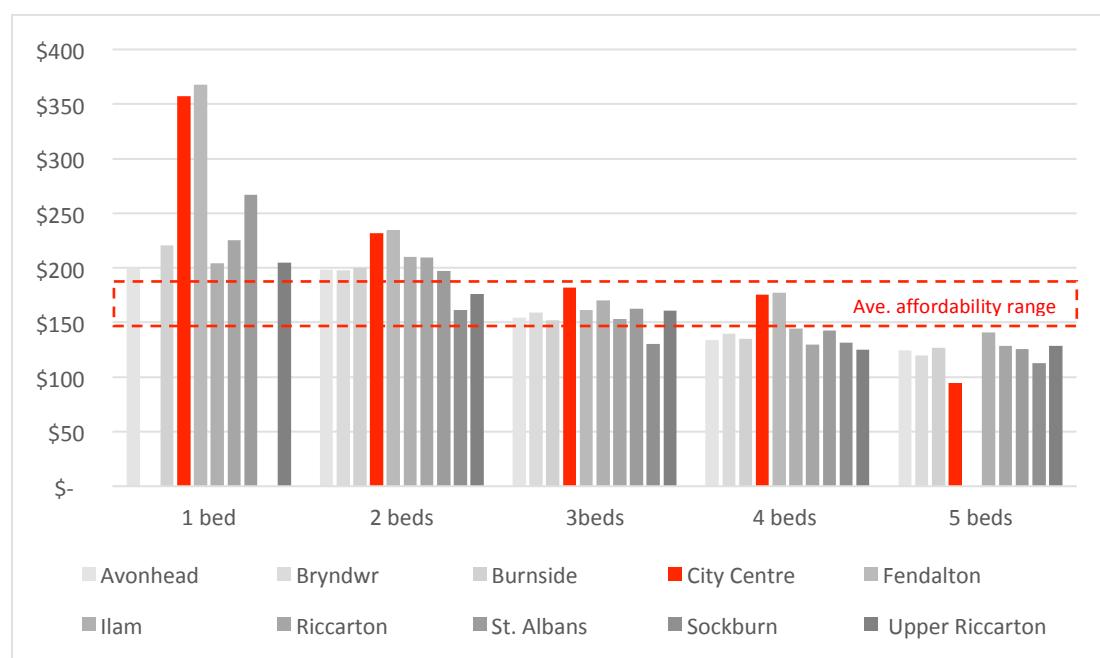


Figure 8. Average rent per room

Source: Trademe Property (2020), and authors' calculations

The average rent per room shows that the Christchurch CBD, at this time, does not cater for the student residential market and even the more affordable residential product of three- to four-bedroom units are at the higher-end of market affordability for students. For this to improve, more affordable units would have to be made available in the central city.

The residential typologies within the central city need to change to attract students. The market demand analysis does show that there is demand for new residential units and the CBD can provide the land and have the capacity to expand construction in residential development. Students would be the ideal high-density residential occupants as it will provide the CBD with more permanent consumers and the additional benefit of their spending that will support retail activity.

6. Conclusion

This research investigated the economic value of the student market to promote Central Business District (CBD) living within Christchurch in response to an economic crisis. Students represent a compelling case as a target market to encourage urban living and urban renewal within the Christchurch CBD, especially given recent trends to work from home in addressing the Covid-19 health pandemic and government policy limiting mobility and encouraging local spending. Additionally, investment in student living has been strong driven by an expectation to increased demand for education, driving investment in the industry because of COVID-19.

The volume of students attending Christchurch's tertiary institutions continues to increase, especially since 2015. This local growth is supported by an increasing international student population within New Zealand. This growth represents an injection into the Christchurch

economy through student spending and subsequent increases in the demand for accommodation, food and other living essentials.

Students represent a large and growing consumer market segment compared to other age groups within the country and at this life stage, consumers value social interaction and activities utilising hospitality, entertainment and social gatherings. This brings an element of excitement and energy to an area and would benefit the central city atmosphere.

The value of spending by tertiary students represents an economic benefit to the central city. The average annual spending by students on accommodation and living costs benefits both the retail and accommodation industry. As student numbers increase, the spending benefit will likely be mostly absorbed within the area of residence, which represents an important reason why provision of suitable accommodation in the central city will be beneficial to local retail tenants and other businesses. The growth in student numbers for Christchurch up to 2025 will inject an additional \$12.9 million of retail spending into the economy, which translates into 1707 square metres of new retail floor space.

The provision of appropriate residential units is necessary to attract these students to the central city, instead of the suburbs. At the current pricing levels in the central city student accommodation only becomes affordable when sharing three- and four-bedroom units and even these units are at the higher end of the price range and medium density. Since accommodation costs represent the highest weekly expense to students, the provision of accommodation at lower price levels is likely to be well received by the market and could likely be attainable at even higher density levels than other residential units in the central city.

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