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Technical Memo

To:	WBOPDC	From:	Insight Economics
Date:	Thursday, 10 October 2024	Page:	8 (including this page)
Subject:	Peer Review of PC95 Economic Assessment on Locality and Market		

Kayley,
Thank you for asking us to peer review Nera's draft memo on "the geographic boundaries of local housing markets" dated 22 August 2024 (the **Nera memo** or the **memo**). This document summarises the key findings of our review.

Summary of the Nera Memo
The Nera memo notes that PC95 must be assessed against the National Policy Statement for Highly Productive Land (**NPS-HPL**), which in turn requires the locality and market in which the proposal falls to be defined using the latest Housing and Business Development Capacity Assessment (**HBA**). The memo further notes that the HBA defines the urban areas of Tauranga City and the Western Bay of Plenty District (**WBOPD**) as the relevant urban environment, but this traverses a wide area, and it is unclear whether any sub-markets are defined within that. However, because a recent plan change defined Te Puke as its own locality and market, Nera was asked to consider whether that locality and market also extends to the subject site.

Overall, the memo concludes that Pongakawa and Te Puke do comprise the same locality and market because, in its own words:

1. The proposed PC95 site is 15km from Te Puke, which is within the radius typically considered to establish the boundaries of a housing market;

2. The proposed PC95 site, as modified by the plan change, and Te Puke have similar accessibility to amenities such as commercial services, parks, schools, community facilities, and natural amenities;

3. The proposed PC95 site and Te Puke have similar accessibility to employment opportunities such as the Rangiuru Business Park, horticultural farms, and employment in Te Puke and Tauranga; and

4. House prices in Pongakawa and Te Puke are highly correlated, which is indicative of strong substitution between the two locations.

In addition, the Nera memo concludes that coastal settlements like Maketu and Pukehina Beach, although close to Te Puke, are sufficiently distinct in their beachside offerings, so they do not form part of the same locality and market as Te Puke, Paengaroa, and Pongakawa do.

We disagree with this conclusion and the underlying rationale for the reasons below.

Proximity of Pongakawa to Te Puke

Nera note that the PC95 site is about 15km from Te Puke, which it says "seems relatively close" but that it is unclear whether this is close enough to constitute the same locality and market. To investigate that possibility, Nera cite two overseas examples where regulators have defined radii of 15 kilometres to delineate the geographic extent of housing markets for the purposes of assessing merger applications in their local jurisdictions. Accordingly, Nera consider the subject site and Te Puke to form the same locality and market too.

We are not convinced by this logic, nor the reliance on two dated overseas studies to prove the point. In addition, critically, we note that Pongakawa is not even part of the WBOPD urban area, so it is not within the scope of the HBA in the first place. We also disagree with including Pongakawa based on its distance from Te Puke, but excluding Maketu, even though it is closer to Te Puke than Pongakawa is.

We also think that reliance on such basic rules of thumb is largely inappropriate for the task at hand and that other geographic aspects should also be considered, such as the attributes of the surrounding environment. For example, Pongakawa is a remote rural area, while Te Puke is a highly urbanised one centred on a major township. On that basis alone, the two areas have a very different "look and feel."

Statistics New Zealand also do not classify Pongakawa as part of the Te Puke functional urban area, which extends beyond the township into the nearby rural area, but which explicitly excludes Pongakawa and the PC95 site itself.

We also disagree with reliance on the recent hearing commissioner's decision for PC73 in Auckland, which found that Waiuku forms part of the same locality and market as various other rural settlements in the southern reaches of the Auckland region. Those townships all fall within the same functional urban area, but Pongakawa and Te Puke do not, so this example does not seem particularly relevant.

Finally, we note that the subject site falls outside the enrolment zone for most of the schools located in Te Puke, so prospective future households on the PC95 site would not be able to enrol children in the same schools that they could if they lived in Te Puke instead.

For the reasons above, we disagree that the PC95 site falls within the same locality and market as Te Puke simply due to its location and hence relative distance.

Access to Services and Facilities

The Nera memo also argues that the PC95 site offers the same access to services, community facilities, and other social infrastructure as Te Puke, which further reinforces their conclusion that they form part of the same locality and market. We strongly disagree. The subject site is in a highly rural area with very limited access to services, while Te Puke offers an extensive range of commercial, civic, retail, recreational, and community services, just as one would expect from a major township like it.

Not only do Te Puke residents have access to a much broader and deeper range of services than those living in Pongakawa, but they can also potentially access them without the need for private motor vehicle travel. This is not true for Pongakawa, whose residents rely almost exclusively on cars to access services in Te Puke and further afield. Accordingly, we strongly disagree with Nera that the two areas provide the same level of access to core household services.

Access to Employment Opportunities

The Nera memo also argues that the subject site provides the same level of access to employment opportunities as Te Puke. We disagree.

First, people living in Te Puke and Pongakawa tend to work in different industries and/or have different occupations. This is shown in the table below, which compares the occupations and work industries of residents according to census 2018 data. Shaded rows highlight the most obvious differences.

Table 1: Comparison of Occupations and Work Industries According to Census 2018

Occupations	**Pongakawa**	**Te Puke**
Clerical and Administrative Workers	9%	9%
Community and Personal Service Workers	6%	8%
Professionals	10%	11%
Sales Workers	5%	8%
Labourers	17%	26%
Machinery Operators and Drivers	7%	8%
Managers	34%	17%
Technicians and Trades Workers	10%	11%
Industries Worked In		
Administrative and Support Services	7%	12%
Agriculture Forestry and Fishing	35%	19%
Arts and Recreation Services	1%	1%
Construction	10%	8%
Education and Training	5%	5%
Electricity Gas Water and Waste Services	0%	0%
Professional Scientific and Technical Services	6%	5%
Public Administration and Safety	1%	2%
Rental Hiring and Real Estate Services	2%	1%
Retail Trade	5%	9%
Financial and Insurance Services	1%	1%
Food Services	3%	5%
Health Care and Social Assistance	5%	8%
Information Media and Telecommunications	0%	0%
Manufacturing	9%	9%
Mining	0%	0%
Other Services	3%	5%
Transport Postal and Warehousing	3%	5%
Wholesale Trade	4%	4%

Second, Pongakawa and Te Puke residents tend to work in different locations too. Specifically, Pongakawa residents mostly work locally (including from home), while Te Puke residents tend to work in the township, or further afield in Tauranga City. However, very few Te Puke residents work in Pongakawa, and vice versa, so the two areas are disconnected from a labour market perspective. This is demonstrated in the two figures below from Statistics New Zealand's Commuter Waka tool, which shows the work destinations – and travel modes – of residents in both areas.

Figure 1: Work Destinations of Pongakawa Residents

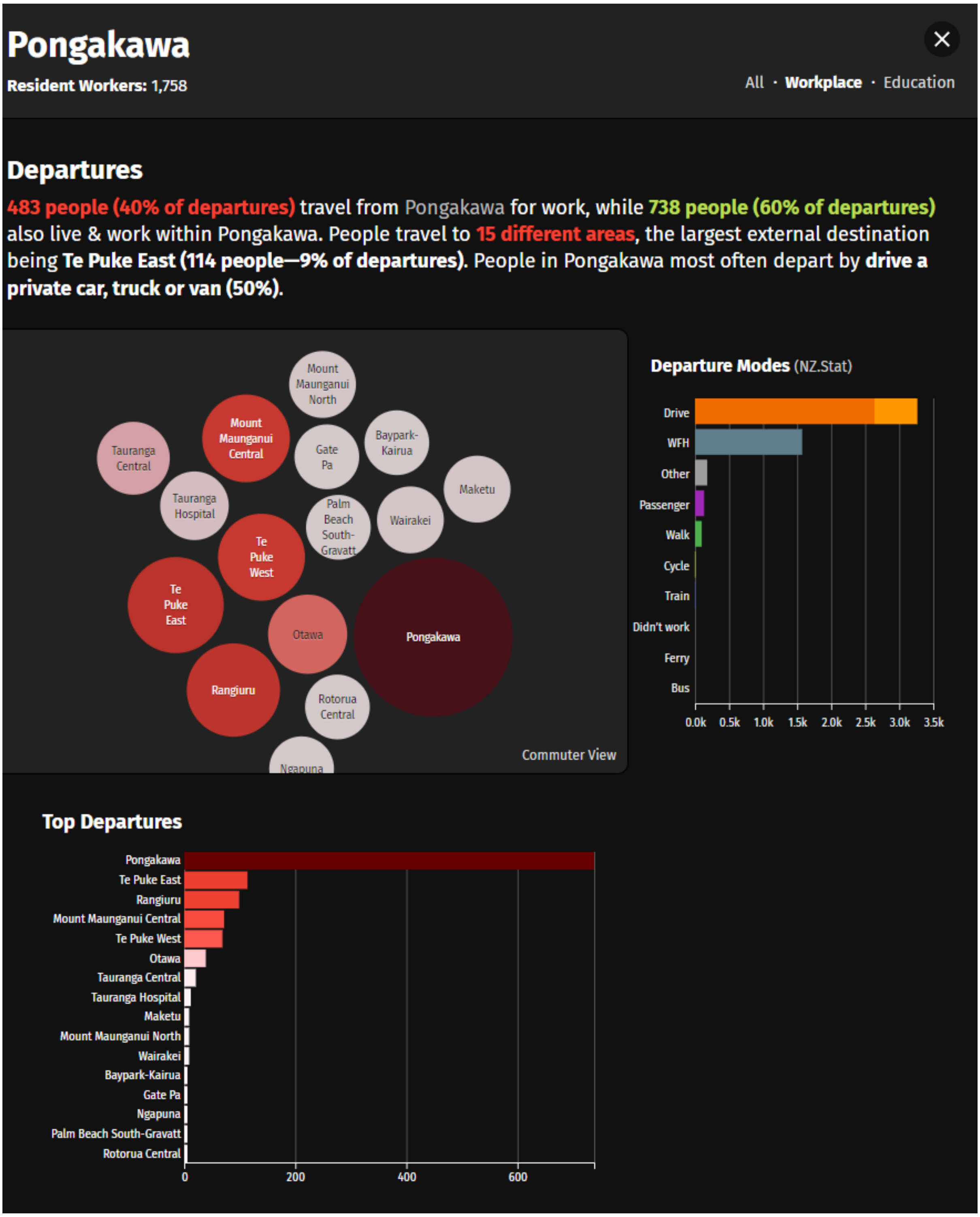
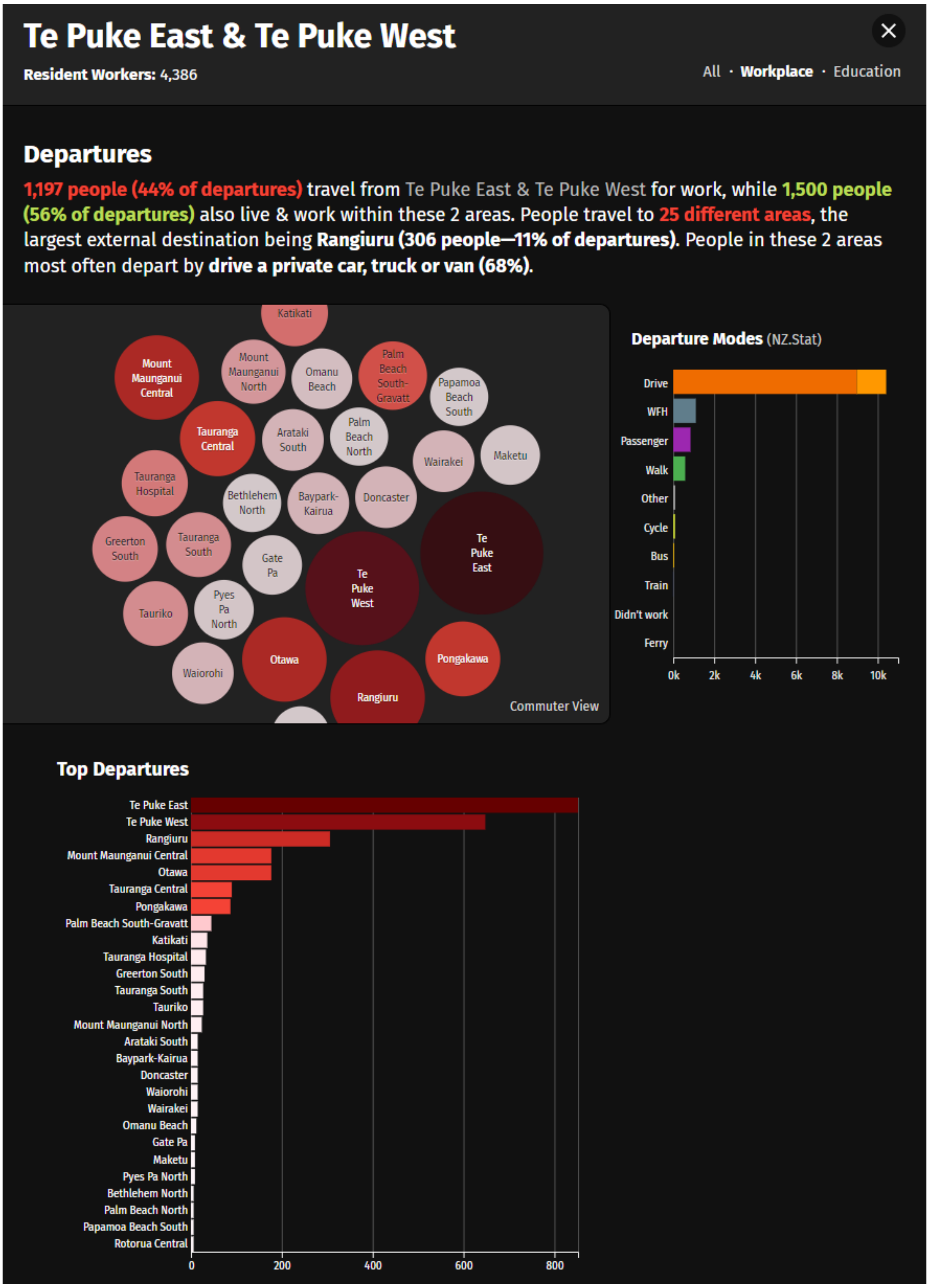


Figure 2: Work Destinations of Te Puke Residents



We also disagree that the two areas' relatively equal distances to the Rangiuru business park means that they offer the same degree of access to employment. The business park has not yet been developed and will take many years, if not decades, to be fully built out and provide the job opportunities referred to by Nera. Even then, most Pongakawa residents are likely to continue working locally in agriculturally focussed jobs just as they do today, so this is a moot point anyway.

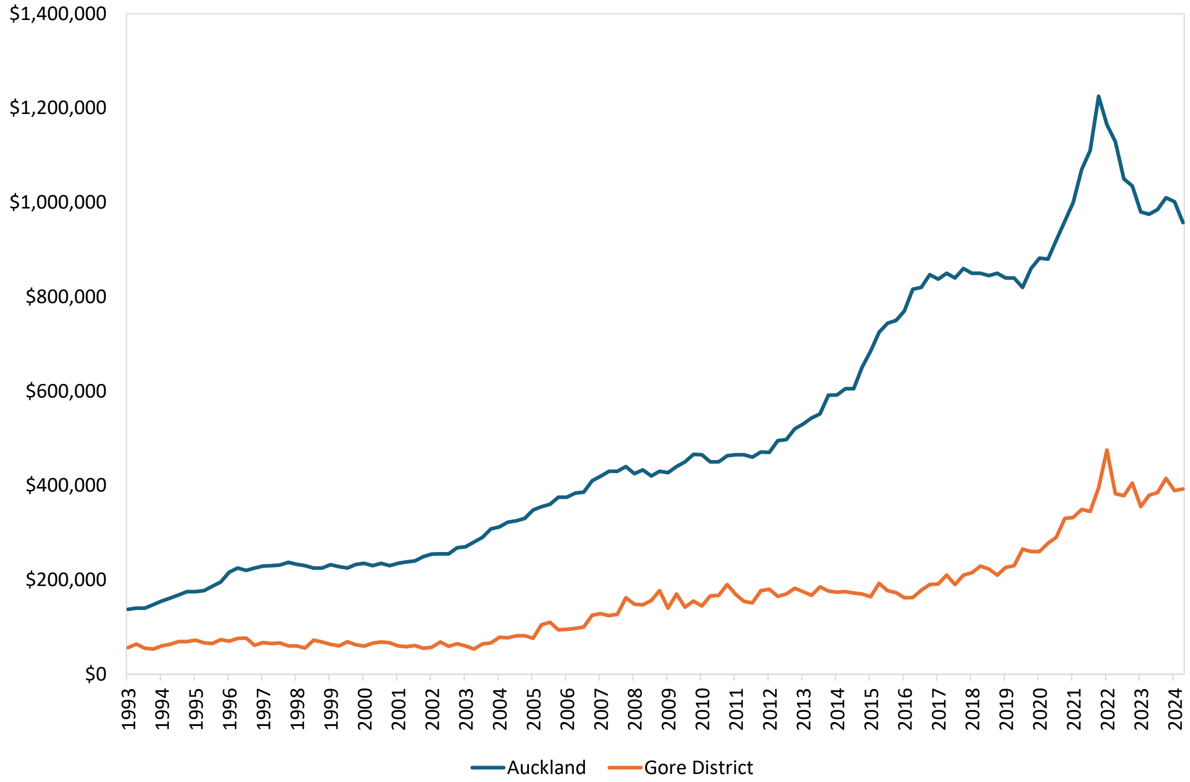
Finally, if PC95 causes people who would have otherwise lived and worked in Te Puke to instead live in Pongakawa but commute back to Te Puke for work – and to access other core services – the proposal just generates additional travel time/cost, plus higher greenhouse gas emissions. Given the NPSUD's mandate to foster well-functioning urban environments that avoid such outcomes, the proposal seems difficult to reconcile with that clearly-stated central Government policy direction.

Correlations Between House Prices

The Nera memo also asserts that Pongakawa and Te Puke are in the same housing market because prices in both areas have followed the same trend and are therefore statistically correlated. It presents data from the NPSUD dashboard showing that house prices in the two areas has followed a similar pattern, which it concludes is evidence of substitutability between them from a housing perspective.

We consider this an unusual and highly flawed approach for two reasons. First, house prices in most areas are highly correlated because they are influenced by the same macroeconomic factors – such as interest rates – which strongly determine them. However, this does not mean that they form part of the same housing market as Nera suggest. For example, the graph below compares house prices in the Auckland region to those in the Gore district. Despite serving entirely different housing markets, their prices have also followed similar trends. In fact, the degree of statistical correlation between Auckland and Gore is the same as Nera calculated for Pongakawa and Te Puke (0.94).

Figure 3: Auckland vs Gore District Median House Prices



Second, economists don't generally consider two goods or services to be substitutes just because their prices follow similar trends. Instead, the price levels themselves must be similar too. However, the graph shown in the Nera report confirms that house prices are very different in Pongakawa and Te

Puke, with the former being much higher than the latter. In fact, according to the underlying data, the most recent median prices were:

- $1.04 million in Pongakawa;
- $741k in Te Puke East; and
- $711 in Te Puke West.

In other words, Pongakawa house prices are about 40% to 45% higher than in Te Puke. Consequently, and somewhat unsurprisingly, the two areas tend to attract varying demographics. This is shown in the tables below, which are based on census 2018. Again, shaded rows highlight obvious differences.

Table 2: Census 2018 Demographic Comparisons

Age in broad groups	**Pongakawa**	**Te Puke**
Under 15 years	24%	21%
15-29 years	17%	22%
30-64 years	48%	39%
65 years and over	11%	18%
Ethnic group		
Asian	4%	17%
European	71%	54%
Māori	20%	23%
Middle Eastern Latin American African	1%	1%
Other Ethnicity	1%	1%
Pacific Peoples	2%	4%
New Zealander	1%	1%
religious affiliation		
No religion	62%	45%
Buddhism	0%	1%
Christian	30%	33%
Hinduism	1%	3%
Islam	0%	0%
Judaism	0%	0%
Māori religions, beliefs and philosophies	2%	4%
Other religions, beliefs and philosophies	3%	14%
Spiritualism and New Age religions	1%	0%
Partnership status in current relationship		
Partnered	70%	60%
Non partnered	30%	40%
Work and labour force status		
Employed Full time	58%	49%
Employed Part time	17%	15%
Not in the Labour Force	22%	32%
Unemployed	2%	4%
Status in employment		
Paid employee	69%	88%
Self employed and without employees	15%	7%
Employer	12%	4%
Unpaid family worker	5%	1%

Total personal income	Pongakawa	Te Puke
$5,000 or less	10%	11%
$5,001 – $10,000	4%	5%
$10,001 – $20,000	16%	21%
$20,001 – $30,000	12%	18%
$30,001 – $50,000	23%	25%
$50,001 – $70,000	18%	12%
$70,001 or more	17%	8%
Dwelling type - private dwelling		
Separate house	93%	88%
Joined dwelling	5%	11%
Other private dwelling	2%	1%
Number of bedrooms		
One bedroom	4%	5%
Two bedrooms	9%	19%
Three bedrooms	50%	52%
Four bedrooms	28%	19%
Five or more bedrooms	8%	5%
Motor vehicles		
No motor vehicle	2%	5%
One motor vehicle	23%	35%
Two motor vehicles	47%	40%
Three+ motor vehicles	29%	20%

I trust this document provides all the information that you need for now, but please let us know if you'd like anything further.

Sincerely,

Fraser Colegrave
Managing Director
Insight Economics Limited