

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

## International Baccalaureate Extended Essay

### Geography HL

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#### Question:

"To what extent is Lee's first claim on *Stream and Counter-Stream Migration* that "*migration occurs in well-defined streams*" an accurate description of post-WWII to contemporary\* German migration to Adelaide and subsequent intra-urban migration?"

\*post-WWII migration: 1950-1969, contemporary migration: 1970-2010.

To what extent is Lee's first claim on *Stream and Counter-Stream Migration* that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

## Abstract

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South Australia has a strong German heritage and sites known for their historical German settlement. According to Lee's claim on *Stream and Counter Stream* "migration occurs in well-defined streams", which can be seen in these German heritage areas. However, these culture-specific areas have become more multicultural as Adelaide developed over time, leaving the question of whether there are still patterns of German migration.

This investigation examined:

"To what extent is Lee's first claim on *Stream and Counter-Stream Migration* that "migration occurs in well-defined streams" is an accurate description of post-WWII to contemporary\* German migration to Adelaide and subsequent intra-urban migration?"

\*post-WWII migration: 1950-1969, contemporary migration: 1970-2010.

In order to evaluate Lee's statement primary data of German migrants was collected and analyzed both qualitatively and quantitatively. Questionnaires were distributed at four locations selected for their central locations and high German-born membership numbers. The data gathered enabled a detailed investigation into specific examples of migration streams whilst Census data from the Australian Bureau of Statistics supported findings.

Migration streams were separated into the components "Place of Origin", "Place of Arrival" and "Subsequent Internal Moves". Place of origin was plotted on a map, simultaneously indicating time of departure. The place of initial settlement was plotted according to place of origin and time of arrival on separate maps to indicate any migration patterns. Subsequent internal moves refer to migration within the city after initial settlement in Adelaide and were plotted on a map indicating the net movement of migrants.

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

Based on evaluation of the data as described above, it was concluded that German migration to Adelaide no longer occurs in well-defined streams despite the identification of smaller streams. However, the subsequent intra-urban migration within Adelaide produced distinct streams.

Word Count: 284

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

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## Introduction

The aim of this essay is to investigate migration patterns of German migrants to South Australia (SA). This topic was chosen due to the strong German influence on SA culture and personal experience of migration.

Between 1836 and 1861 Germans constituted around 7%<sup>1</sup> of SA migrants and were therefore a significant cultural group amongst pioneers of the state. Different cultural groups such as the English and Germans generally settled in separate areas which became renowned for their strong culture. Klemzig, Hahndorf, and Birdwood<sup>2</sup> are just some examples of settlements with high German populations in SA, indicative of a migration pattern.

### Geographical Theory

Lee's first claim on "*Stream and Counter-Stream Migration*" states that "*migration occurs in well-defined streams*". A well-defined stream is any distinct pattern of settlement such as a high concentration of migrants at one point or the formation of a corridor pattern. A radial pattern, the even distribution of migrants over a larger area stemming from a common centre, is not categorised as a stream. This concentric distribution of migrants does not reflect the preference to migrate to or settle a particular area and for this reason, is disregarded when considering streams of migration.

The German settlements previously listed are evidence of migrants conforming to Lee's claim 150 years ago. However, there is the question of whether this is still true today.

This investigation will focus on German post-WWII to contemporary migration to SA and test the validity of Lee's claim quoted above.

### Research Question

"To what extent is Lee's first claim on *Stream and Counter-Stream Migration* that "*migration occurs in well-defined streams*"<sup>3</sup> an accurate description of post-WWII to contemporary\* German migration to Adelaide and subsequent intra-urban migration?"

\*post-WWII migration: 1950-1969, contemporary migration: 1970-2010.

<sup>1</sup> Historical Census and Colonial Data Archive Document: "SA-1861-census" <[http://hccda.anu.edu.au/pages/SA-1861-census-03\\_129](http://hccda.anu.edu.au/pages/SA-1861-census-03_129)> 03 April 2010

<sup>2</sup> Flinders Ranges Research: "German Settlers in South Australia" <<http://www.southaustralianhistory.com.au/german.htm>> 02 July 2010

<sup>3</sup> Lewis, G, 1982, *Human Migration*, Croom Helm Ltd, London, p18.

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Intra-urban refers to migration within Adelaide after arrival.

Lee's claim is ambiguous in that it may refer to social (eg. age, gender, education/occupation level) as well as the spatial stream (place of settlement and origin) of migrants.

Due to word limitations only spatial aspects will be analysed, though consideration of social factors may at times be necessary for a deeper understanding.

## Hypothesis

- I. There will be well-defined streams of migration from Germany to Adelaide
- II. Streams of migration will become less defined over time.

\*Streams of migration will be defined by place of origin, initial settlement and subsequent patterns of migration within Adelaide.

## Justification and Geographical Background

Over the past 60 years people have become more mobile due to the increased accessibility to private and air travel. This trend decreased the strength of distinct migration streams which may have existed during the post-WWII migration (due to the need for sea travel and scarcity of private transport). Sea travel meant that all migrants would depart and arrive at the same location, speaking the same language. In addition to this, friendships formed during their voyage increased the chance of them settling together when compared to air travel (hypothesis I, II).

Intra-urban migration will occur in well-defined streams as housing prices in certain areas will make them more readily available (hypothesis I).

## Area of Study



Figure 1: Location of Adelaide in Australia

<http://www.e-forensics.eu/images/australia.jpg>  
Accessed on: 21.05.2010

The study area will be confined to metropolitan Adelaide so that data may be analysed in sufficient depth.

Adelaide, capital city of SA has a population of 1.3million and an area of 1827km<sup>2</sup> <sup>4</sup>. Of this population, there were 9,445 German-born migrants recorded in the 2006 Census.

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

Metropolitan Adelaide is situated on the coast of Gulf St. Vincent (10km from CBD) and is confined by Aldinga to the South, Adelaide Hills to the West and Gawler to the North.



Figure 2: Metropolitan Adelaide with CBD indicated and divisions used for this investigation

[http://www.blackwoodps.sa.edu.au/Location/location\\_guide.htm](http://www.blackwoodps.sa.edu.au/Location/location_guide.htm)

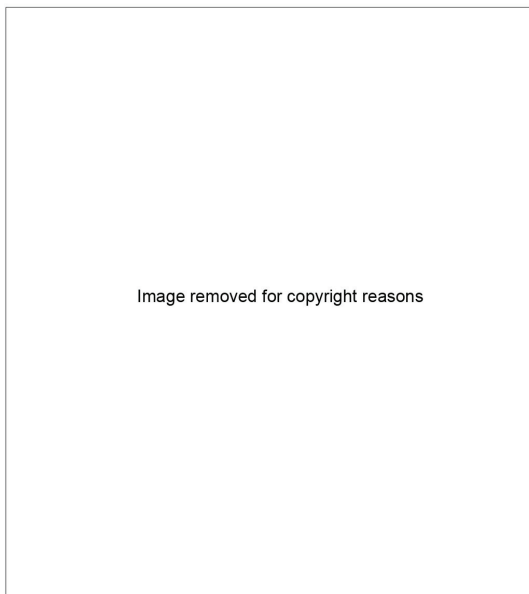
Accessed on 13<sup>th</sup> August 2010

<sup>4</sup> Australian Bureau of Statistics: National *Regional Profile: Adelaide (Statistical Division)*  
<<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/405Environment/Energy12004-2008?opendocument&tabname=Summary&prodno=405&issue=2004-2008>> Accessed on 24 May 2010

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## Methods of Data Collection

There was no pre-existing data available matching the requirements of this investigation which meant that a questionnaire formed the basis of research. Secondary sources were consulted to verify trends and explore migration streams.



A pilot survey was distributed (appendix I) to 15 members of the Seniorengruppe (German Club of Adelaide). The survey was unsuccessful due to complex structure and questions were modified (eg. year of birth and year of arrival instead of age of arrival). Survey was modified several times after trial until the final survey (appendix II) was produced relying on simplicity and logical structure.

Figure 3: Map indicating Locations of Data Collection

Base map from Google Maps 2010

Central locations (to avoid bias) known for German culture were targeted in order to obtain a sufficient sample of the German-born population (appendix III).

A total of 132 migrants were surveyed though the number of completed surveys reduced the sample size of 1.2% of Adelaide's German-born population (107 respondents).

In addition to the primary data, the correspondence with staff of the Australian Bureau of Statistics was undertaken to find Census data of first-generation German migrants within Adelaide. This information was not only current but also classified as "historical" and therefore not readily available.



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## Data Presentation

### Place of Origin and Year of Departure

This map was produced using a base map and placing individual points, representing one migrant, on location of departure and shaded according to year of departure (for identification of streams).



Figure 5: Map of Germany showing Place of Departure and Year of Departure  
 Base Map from [http://www.tulane.edu/~rouxbee/kids04/germany/\\_ccarpen2/text.html](http://www.tulane.edu/~rouxbee/kids04/germany/_ccarpen2/text.html)  
 22<sup>nd</sup> May 2010

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### Place of Initial Settlement in Adelaide

Maps in this section have been compiled using a combination of programmes:

- ArcMap: to create the base map
- Adobe Photoshop: maps manually shaded according to data
- Microsoft Word: legends, scales, orientation and borders created

They indicate the number of German migrants that settled in the individual suburbs of Adelaide, including the Adelaide Hills (officially regarded as part of the greater city of Adelaide).

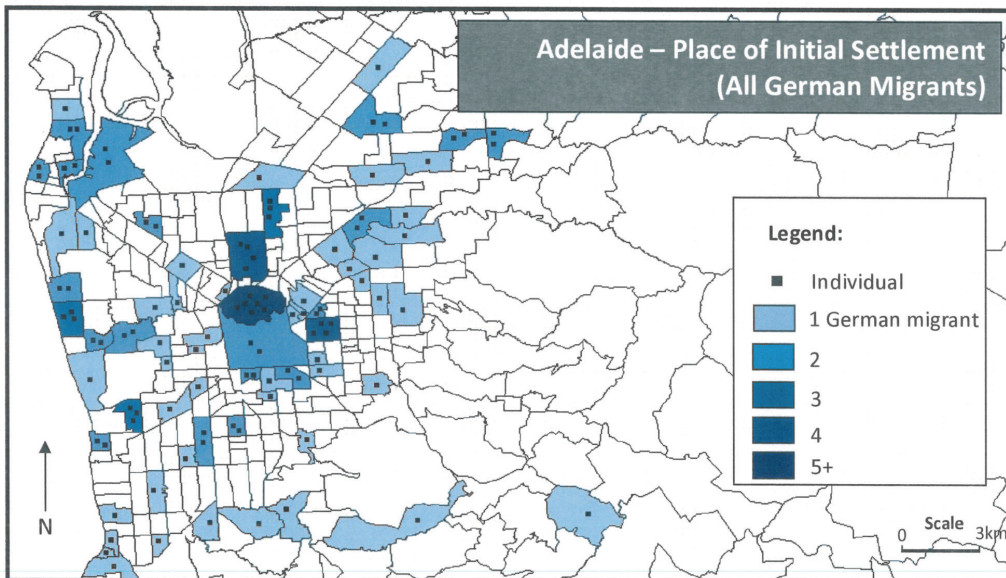


Figure 6: Map indicating Place of Initial Settlement of German Migrants 1950-2010  
Base Map created using ArcMap 2010

### Place of Initial Settlement by Place of Origin

For the purpose of this investigation the federal states of Germany have been classified into groups:

- North: Bremen, Schleswig-Holstein, Niedersachsen
- South: Bayern, Baden-Württemberg
- East: Mecklenburg-Vorpommern, Brandenburg, Sachsen, Sachsen-Anhalt, Thuringen,



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These were used to group migrants when considering place of initial settlement as seen on map below.

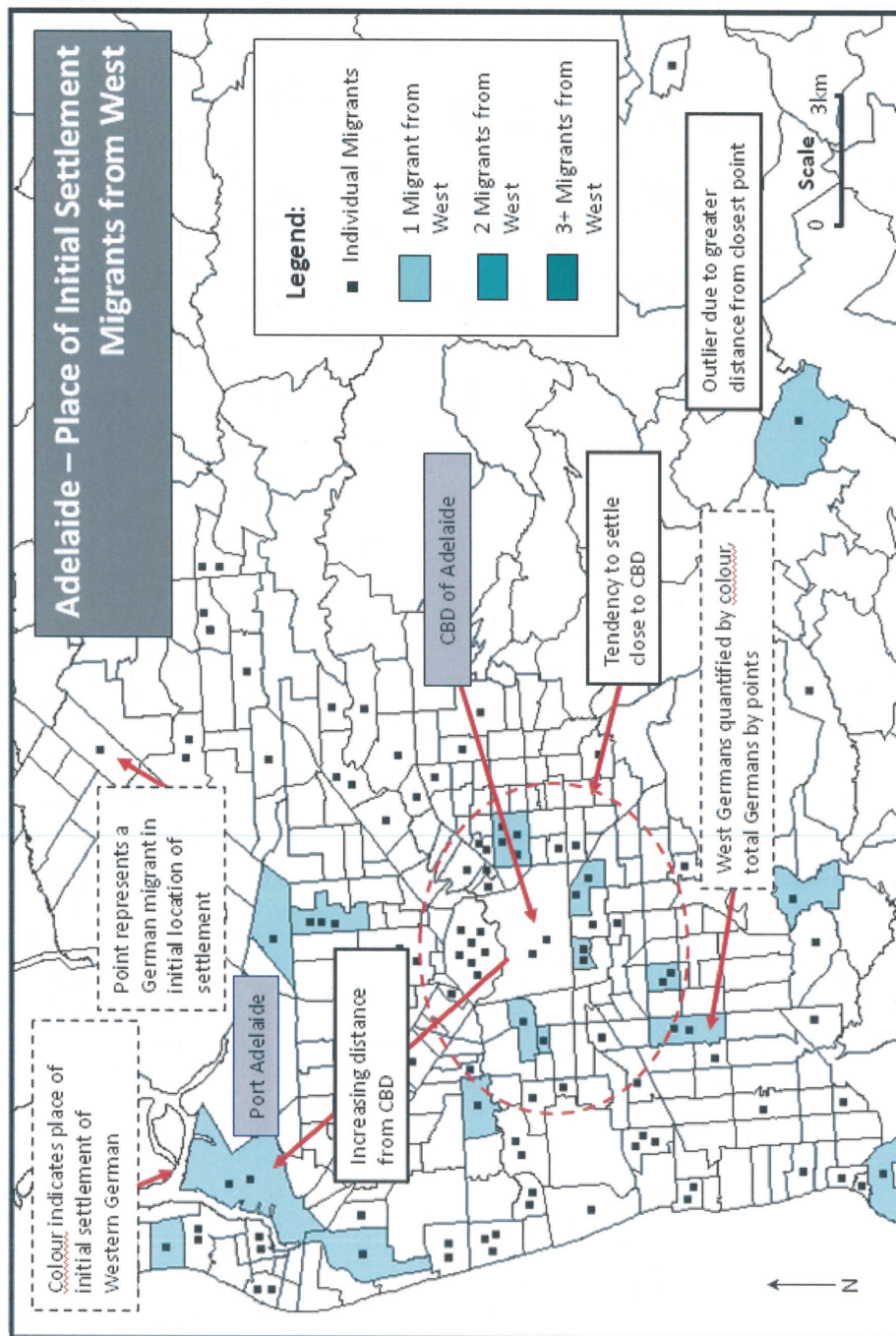


Figure 8: Map of Initial Place of Settlement of Western Germans in Adelaide  
Base map from ArcMap, 2010

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Whilst this demonstrates settlement distribution of Western German migrants, it does not enable quantitative analysis. Therefore, maps of metropolitan Adelaide were created using Excel, plotting the centre of each suburb (to 100m) as a coordinate. Suburbs settled by migrants were then superimposed on this framework and separated into patterns with measures of correlation for each.

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

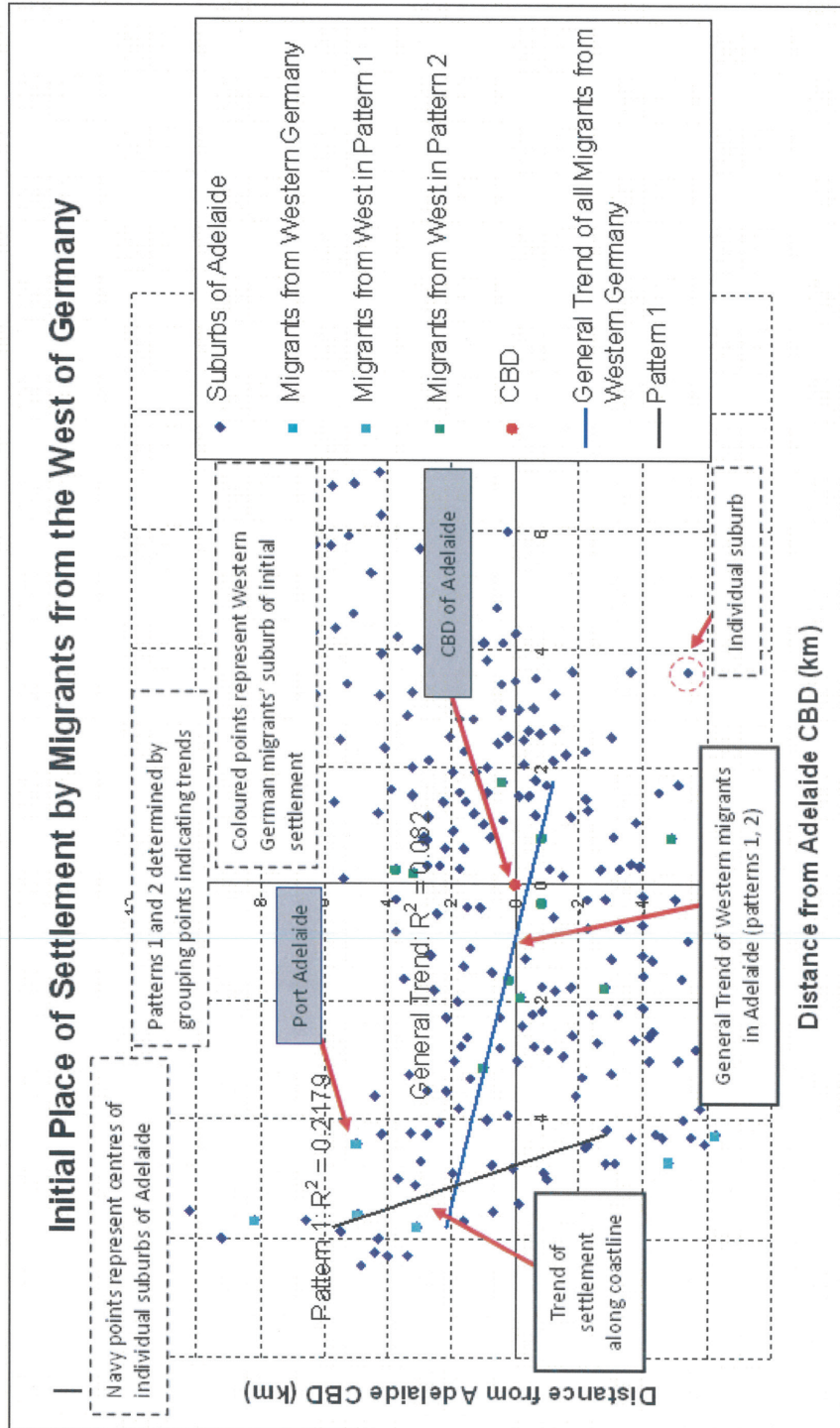


Figure 9: Annotated Excel map of Initial Place of Settlement of Western Germans in Adelaide (in two patterns)

To what extent is Lee’s first claim on Stream and Counter-Stream Migration that “migration occurs in well-defined streams” an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

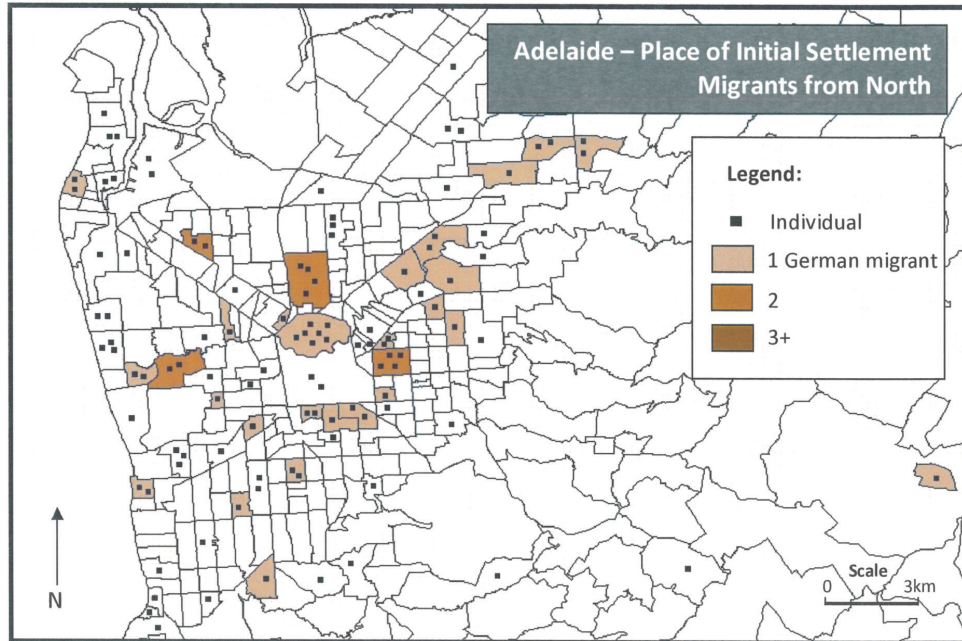


Figure 10: Map indicating Place of Initial Settlement by North German Migrants  
Base Map created using ArcMap 2010

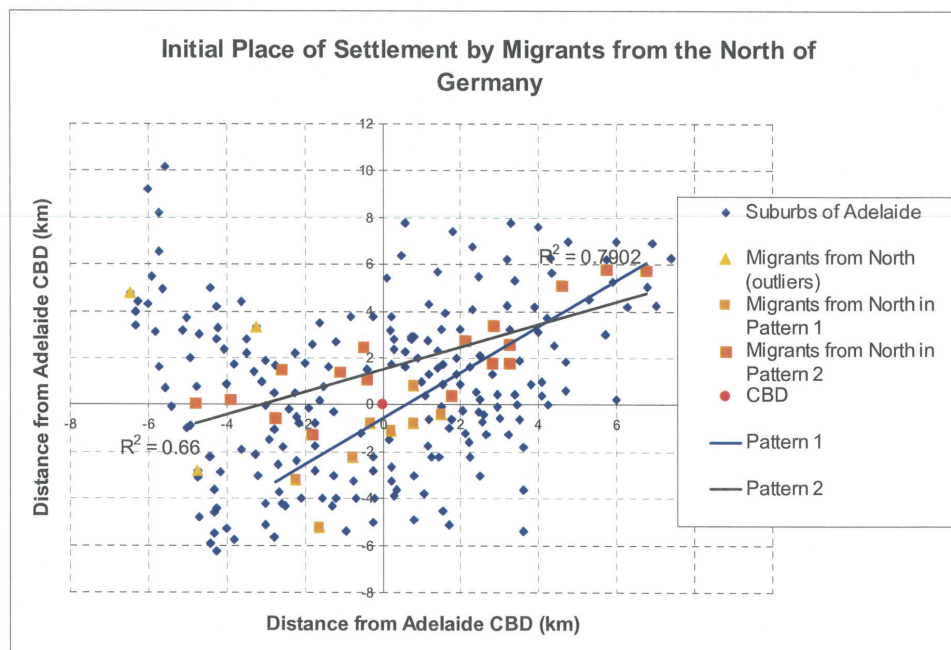


Figure 11: Graph indicating Pattern of Initial Settlement by North German Migrants (in two series)

To what extent is Lee’s first claim on Stream and Counter-Stream Migration that “migration occurs in well-defined streams” an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

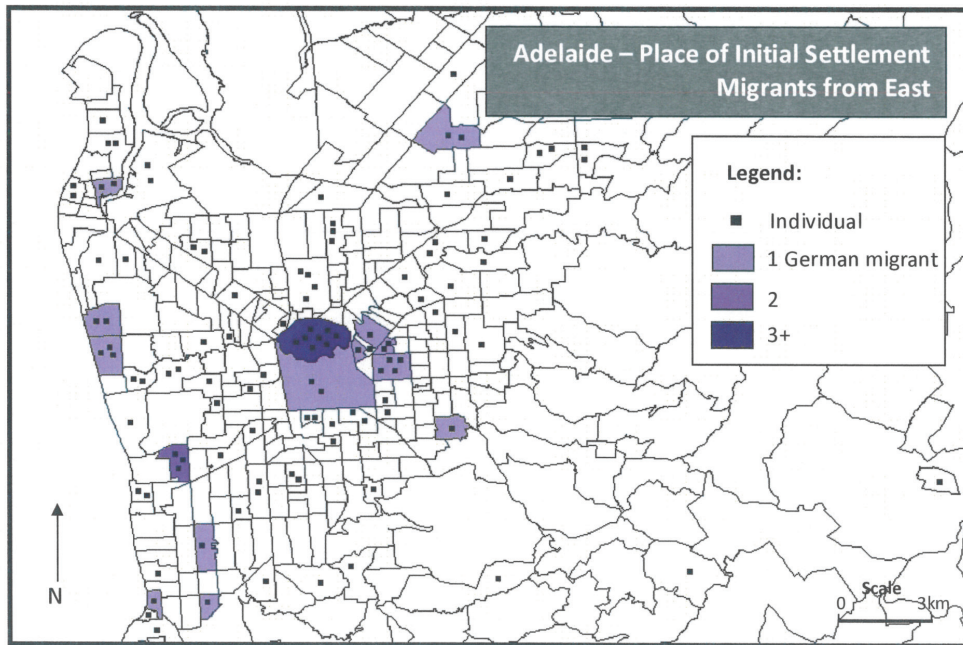


Figure 12: Map indicating Place of Initial Settlement by Eastern German Migrants  
Base Map created using ArcMap 2010

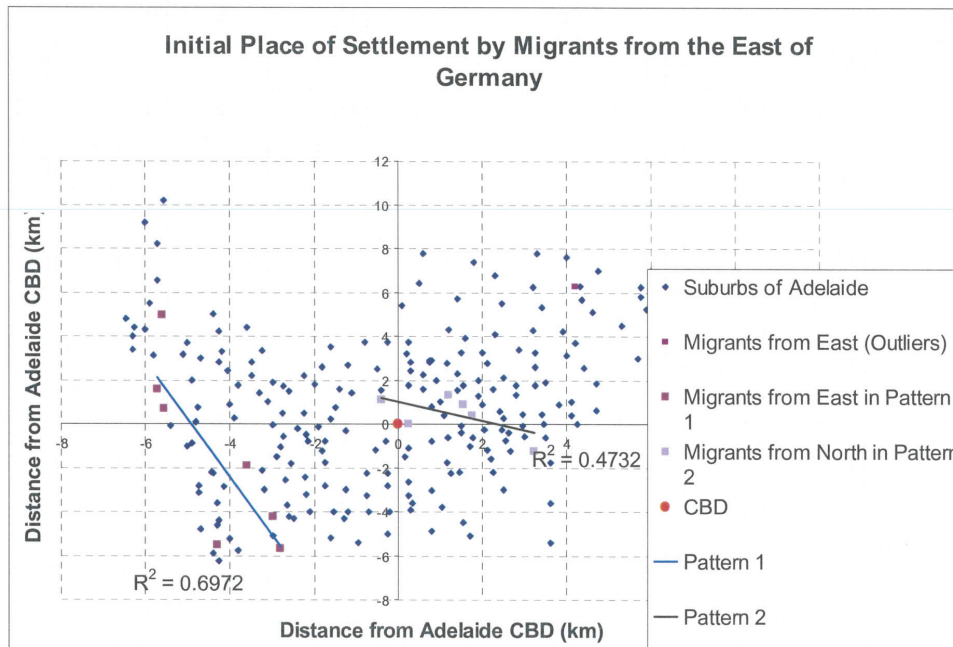


Figure 13: Graph indicating Pattern of Initial Settlement by Eastern German Migrants  
(in two series)



To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

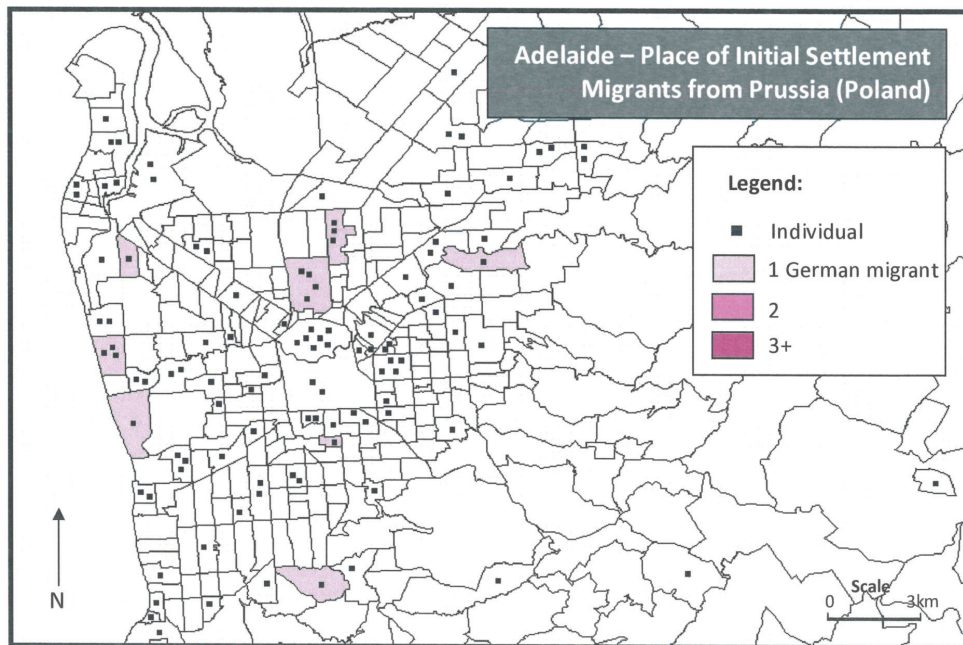


Figure 14: Map indicating Place of Initial Settlement by Migrants from Prussia (Poland)  
Base Map created using ArcMap 2010

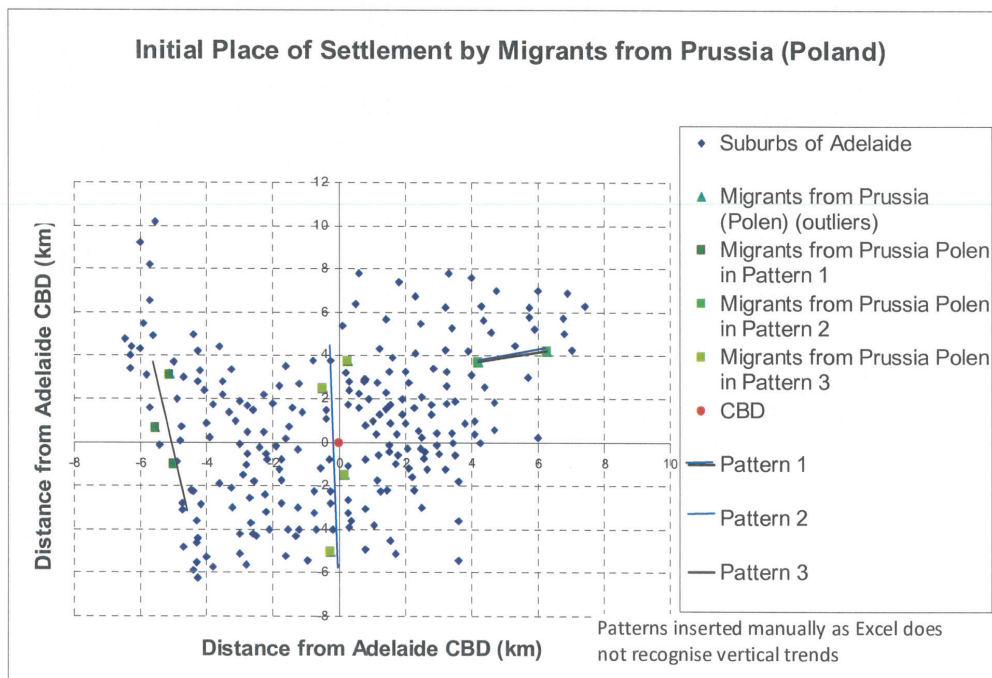


Figure 15: Graph indicating Pattern of Initial Settlement by Migrants from South Germany

To what extent is Lee’s first claim on Stream and Counter-Stream Migration that “migration occurs in well-defined streams” an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

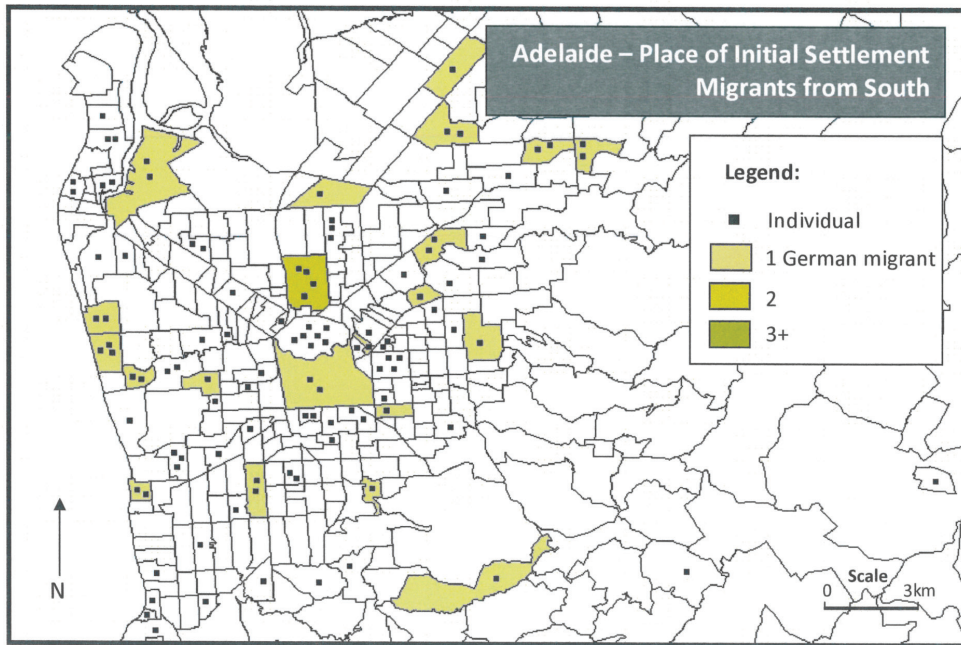


Figure 16: Map indicating Place of Initial Settlement by Migrants from South Germany  
Base Map created using ArcMap 2010

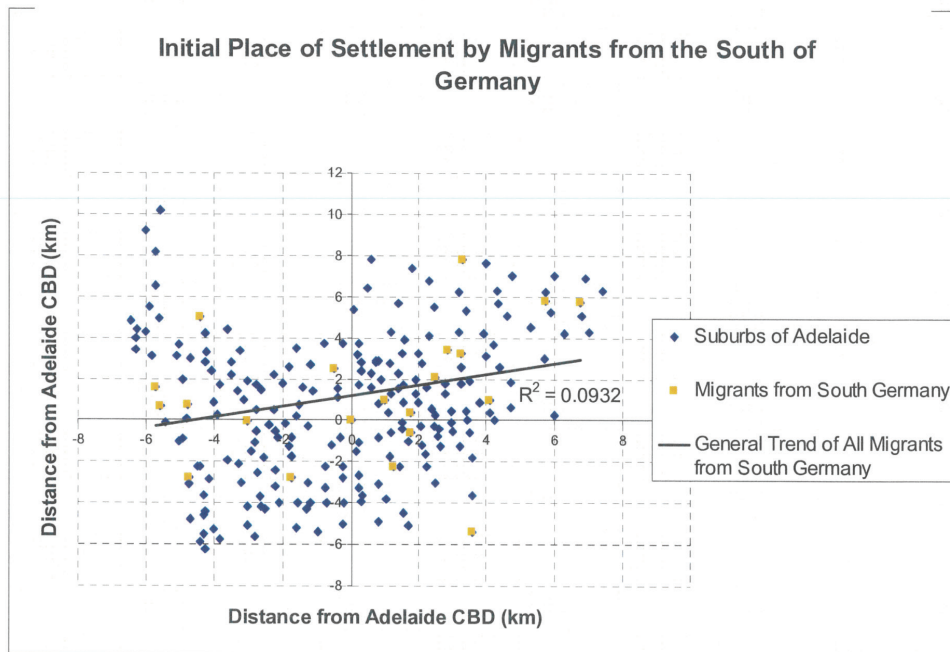


Figure 17: Graph indicating Pattern of Initial Settlement by Migrants from South Germany

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

### Place of Initial Settlement by Time of Arrival in Adelaide

The various years of migration were grouped into six decades, encompassing all respondents of the questionnaire and their respective years of arrival:

- 1950-1959
- 1960-1969
- 1970-1979
- 1980-1989
- 1990-1999
- 2000-2010

The final category includes three additional months though this should not distort data significantly.

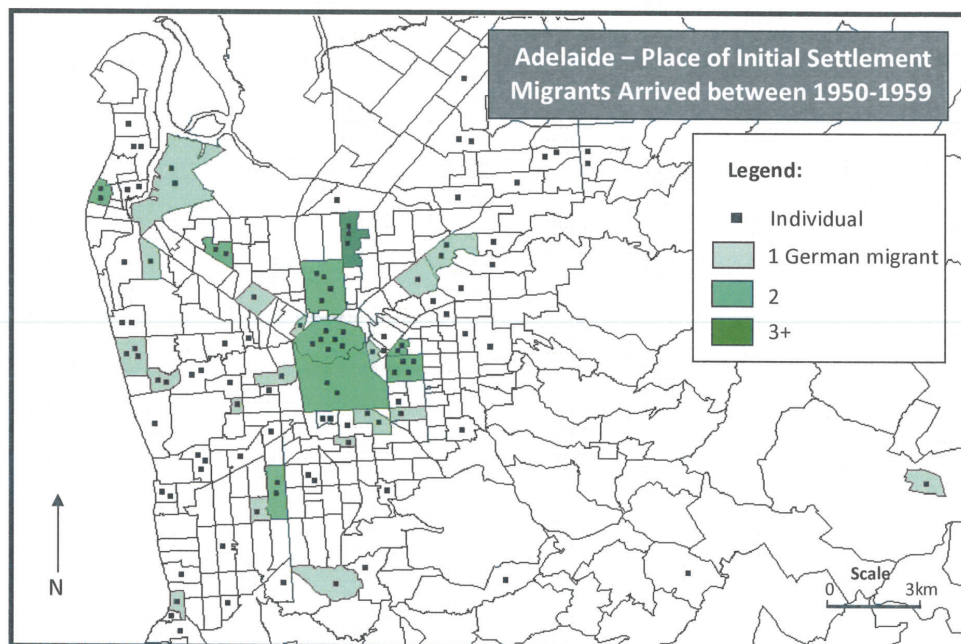


Figure 18: Map indicating Place of Initial Settlement for Migrants that Arrived between 1950-1959

Base Map created using ArcMap 2010

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

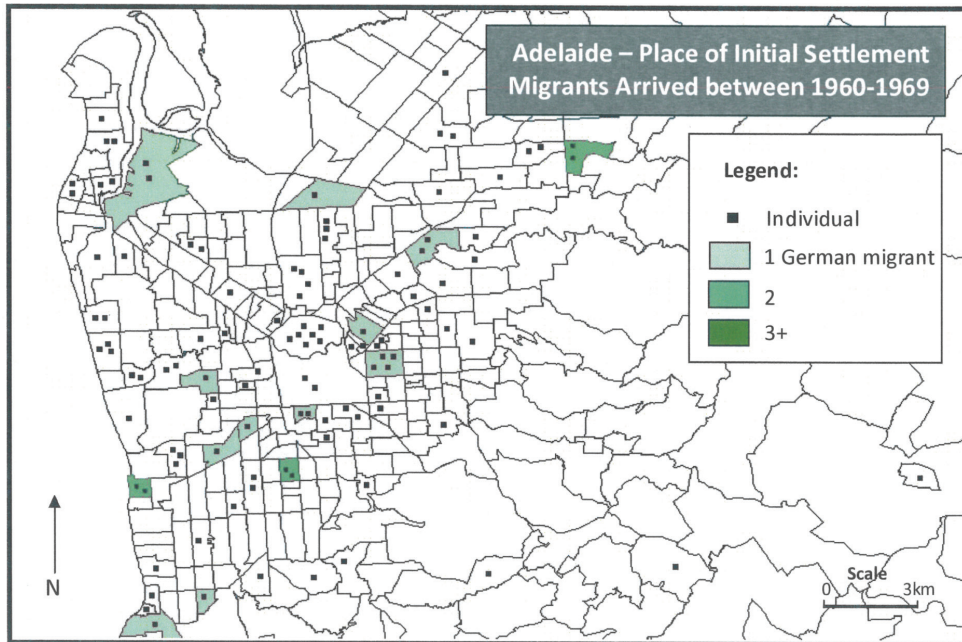


Figure 19: Map indicating Place of Initial Settlement for Migrants that Arrived between 1960-1969

Base Map created using ArcMap 2010

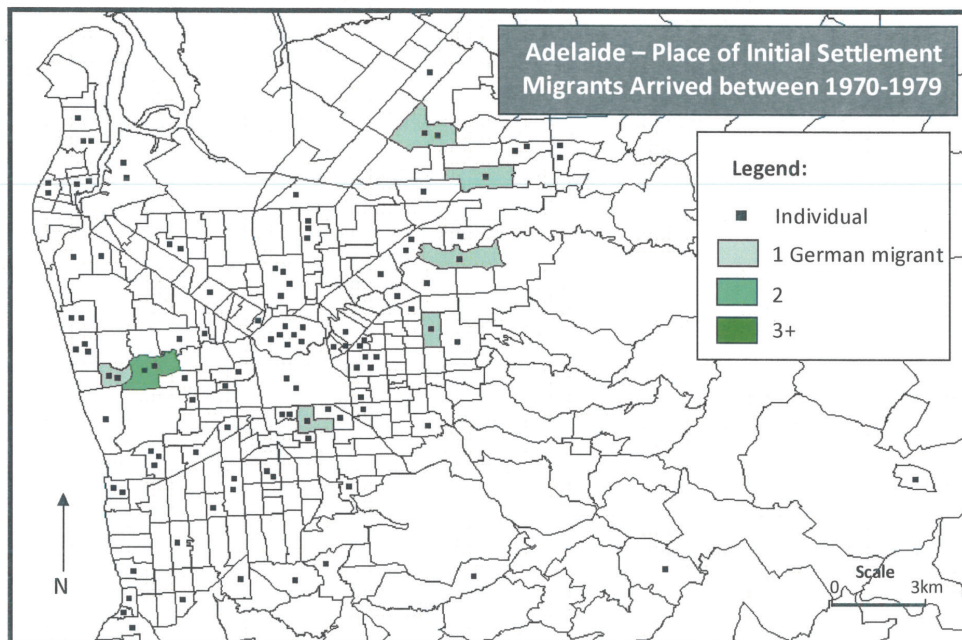


Figure 20: Map indicating Place of Initial Settlement for Migrants that Arrived between 1970-1979

Base Map created using ArcMap 2010

To what extent is Lee’s first claim on Stream and Counter-Stream Migration that “migration occurs in well-defined streams” an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

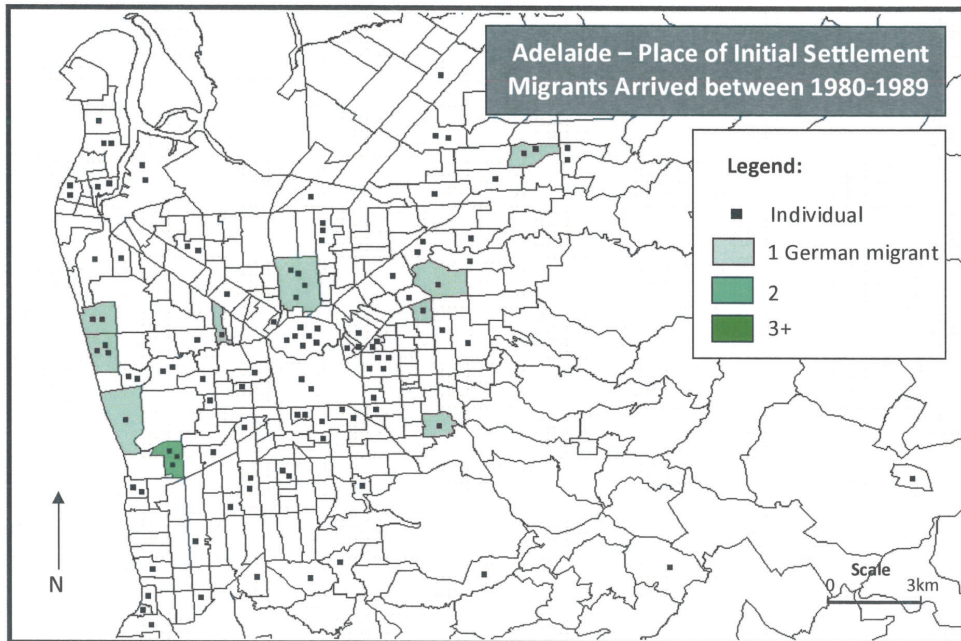


Figure 21: Map indicating Place of Initial Settlement for Migrants that Arrived between 1980-1989

Base Map created using ArcMap 2010

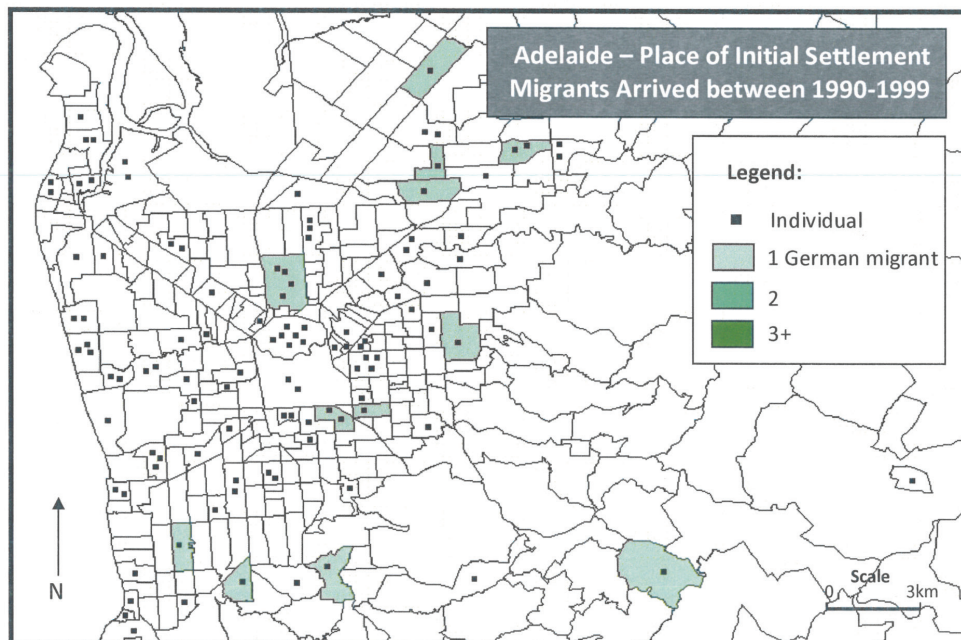


Figure 22: Map indicating Place of Initial Settlement for Migrants that Arrived between 1990-1999

Base Map created using ArcMap 2010

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

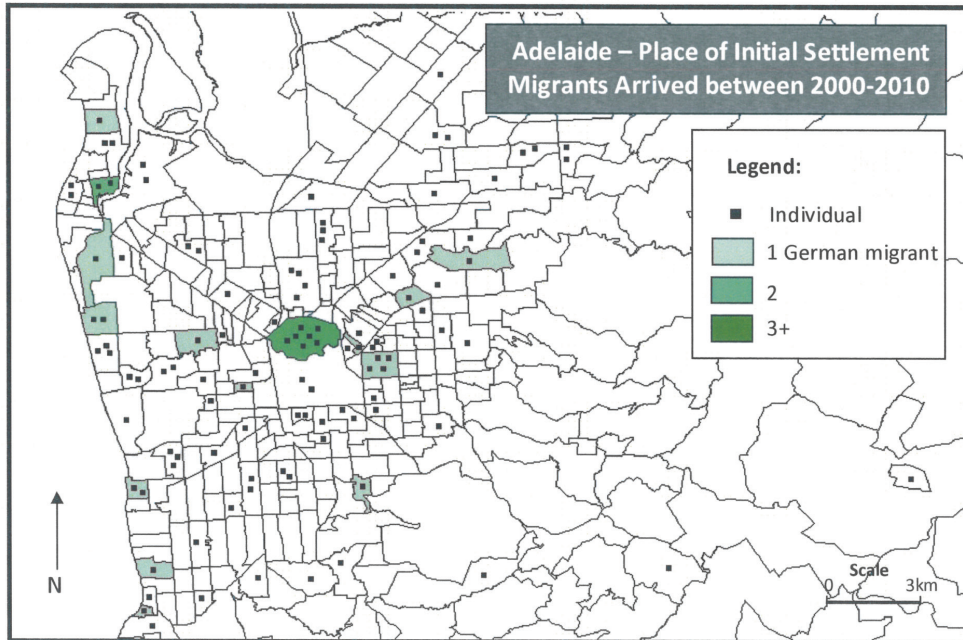


Figure 23: Map indicating Place of Initial Settlement for Migrants that Arrived between 2000-2010

Base Map created using ArcMap 2010

### Subsequent Intra-Urban Migration

This map was created by placing points on each suburb inhabited by a German migrant on the map. Each group of points was linked in chronological order, indicating patterns of internal migration. The size of each point is related to the time of stay in that particular suburb.

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

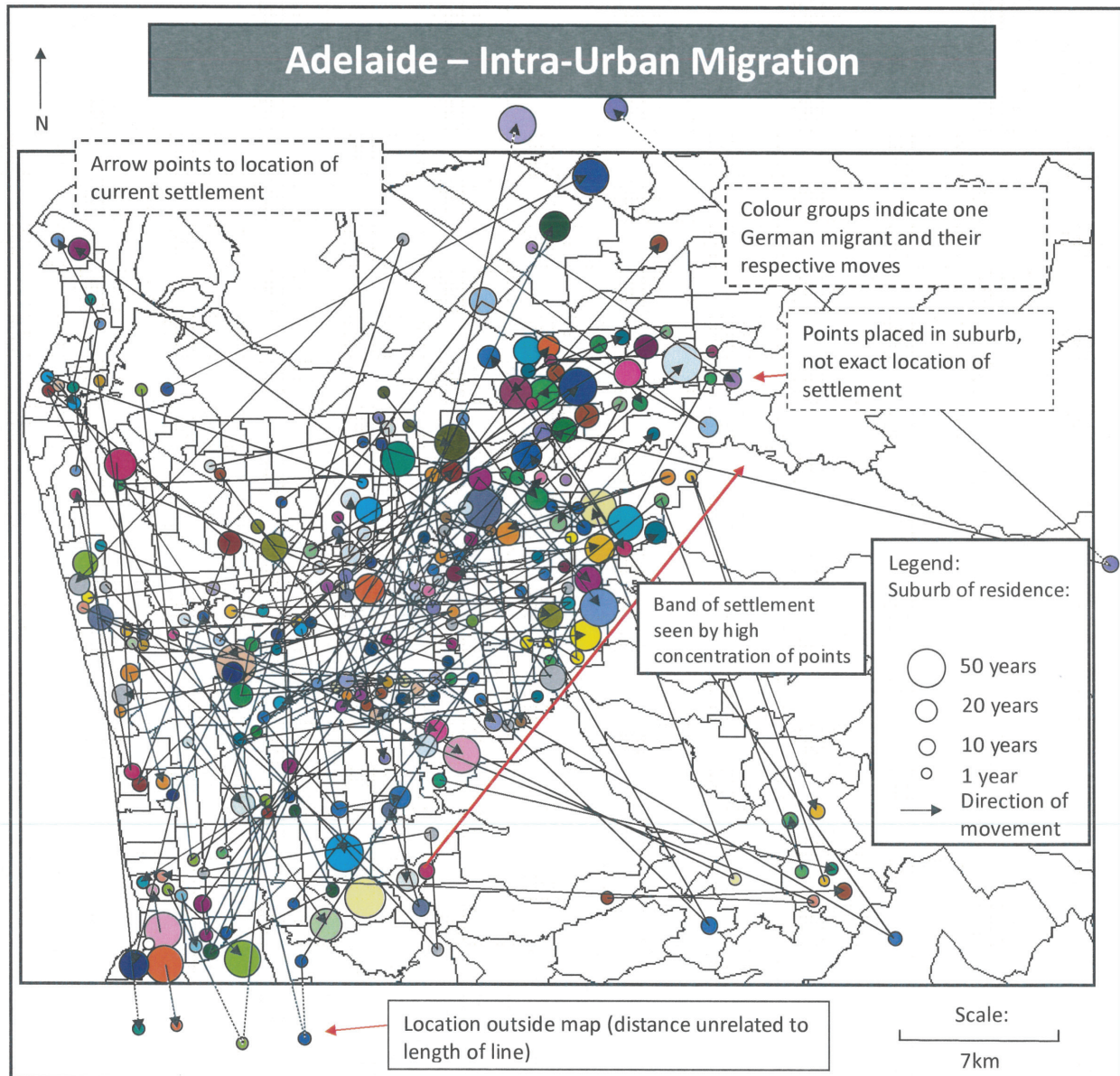


Figure 24: Moves of Migrants within Adelaide  
Base map from ArcMap 2010

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

## Data Analysis

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### Migration by Place of Origin and Time of Departure

Hamburg, Bremen and Berlin all have a distinctly high density of migrants from a small area. Hamburg and Bremen are the two smallest states in terms of area and yet had over 22% of all migrants. However, both cities are famous for their ports, which increased the accessibility of migration for inhabitants. The reduced intervening obstacles may therefore explain the abnormally concentrated number of migrants from one small area during post-WWII years, particularly for Bremen with all migrants departing before 1980.

Both cities indicate two distinct streams of migration from North Germany with small numbers of migrants originating from surrounding rural areas.

Berlin similarly indicated a centre of migration within Germany for the years 1950-1979 when considering surface area. Aside from Berlin, there is a noticeably small proportion of migrants originating from Eastern Germany due to political circumstances. From 1949-1990 two separate German states existed and movement between borders was severely restricted. Many migrants were unable to escape from the Eastern states indicating surmounting obstacles hindering migration streams.

Although this may explain the post-WWII era, it does not account for low numbers of migrants after the reunification. This may be due to one either limiting scope of the investigation in terms of data collection, low emigration numbers from the German Democratic Republic or preference for an alternative destination. The latter two indicate a reduced stream of migration from Germany to Adelaide.

Migration to Adelaide from Western Germany presents a linear formation from central Baden-Württemberg running North-West and finishing in central Nordrhein-Westfalen. This trend correlates with the flow of the river Rhine and main railway system leading to Hamburg. Due to increased accessibility to ports for post-WWII migrants, a defined stream of migration was formed.

The majority of migrants originated from cities, particularly in North and East Germany, as well as Nordrhein-Westfalen. However, migrants from the remaining federal states of Western and South



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To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

Germany tended to leave semi-rural areas. This may be an indication that push factors in large cities in North Germany were more significant than those in other areas of the country, with a similar trend for rural areas of South Germany. However, this is not certain and in order to better analyse features of migration streams, place of origin should be considered in conjunction with time of departure.

There is no distinct stream of migration for the migrants of 1950-1959. There are a number of scattered points in semi-rural areas of central and South Germany, though the majority left larger cities such as Hamburg and Berlin. Those who migrated between 1960-1979 show a similar trend with most leaving cities, though a few are scattered in various semi-rural areas of Germany.

An increased percentage of migrants were leaving semi-rural areas during the 1980s. This trend strengthens over the next 20 years, and is particularly evident in Rheinland-Pfalz and Baden-Württemberg between 2000-2010. As the majority were skilled migrants (figure 26) in search of employment, it may be deduced that they migrated to Adelaide for employment opportunities unavailable in their townships.

Despite trends emerging for most periods of migration, there were decades with lower surveyed migration rates to Adelaide, resulting in less conclusive analysis. For example, 40 surveyed migrants departed in the 1950s and only 8 during 1970-1979. Though this may initially suggest poor range in sample group, the social situation in both Australia and Germany must be considered in order to fully understand the reason for this uneven distribution in times of migration.

World War II caused living standards in Germany to decrease dramatically. Loss of life, destruction of infrastructure and food shortages caused many Germans to migrate in search of a better life. Many were unskilled workers unable to support their families (figure 26). For this reason the number of German-born people in SA increased from 10000 to 16000 in just 7 years (1954-1961).

During the 1970s and 1980s living conditions improved until there was little difference between Germany and Australia. Due to the reduction of strong push factors in Germany the number of migrants to SA decreased, seen by the minimal change in number of German-born people (figure 25).

To what extent is Lee’s first claim on Stream and Counter-Stream Migration that “migration occurs in well-defined streams” an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

The number of German-born people in SA has decreased significantly since 1954 despite living standards in Australia surpassing Germany (HDI values of 0.955 and 0.930 respectively<sup>1</sup>). However, the migrant group of the 1950s has now aged, increasing the mortality rate of Germans in SA. Although this is a contributing factor, it does not account for a decrease of 2000 people within 10 years, meaning that arrival numbers are decreasing. This is an indication of the importance of intervening obstacles (such as employment in other countries) aside from HDI values.

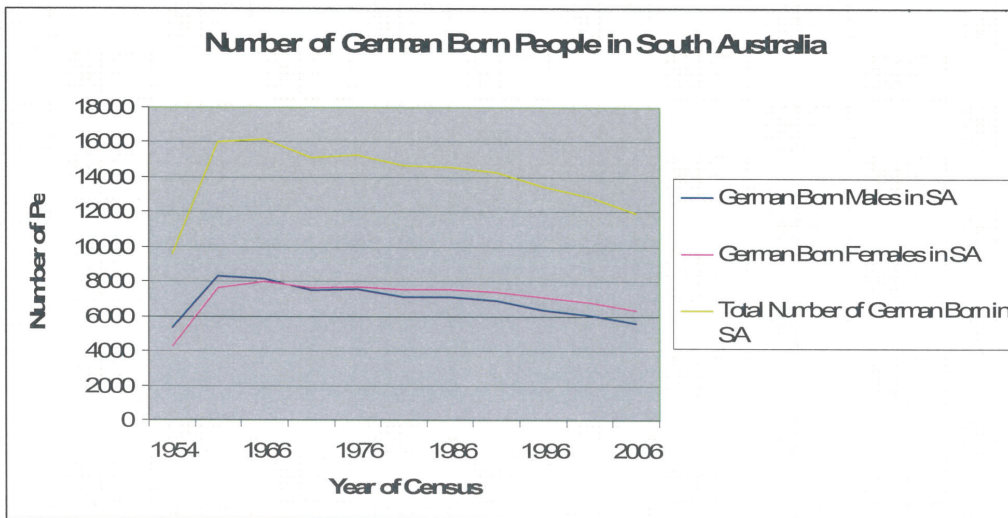


Figure 25: Number of German-born People in South Australia  
Data obtained from Australia Census

<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3105.0.65.0012008?OpenDocument>  
Accessed on 14<sup>th</sup> August 2010

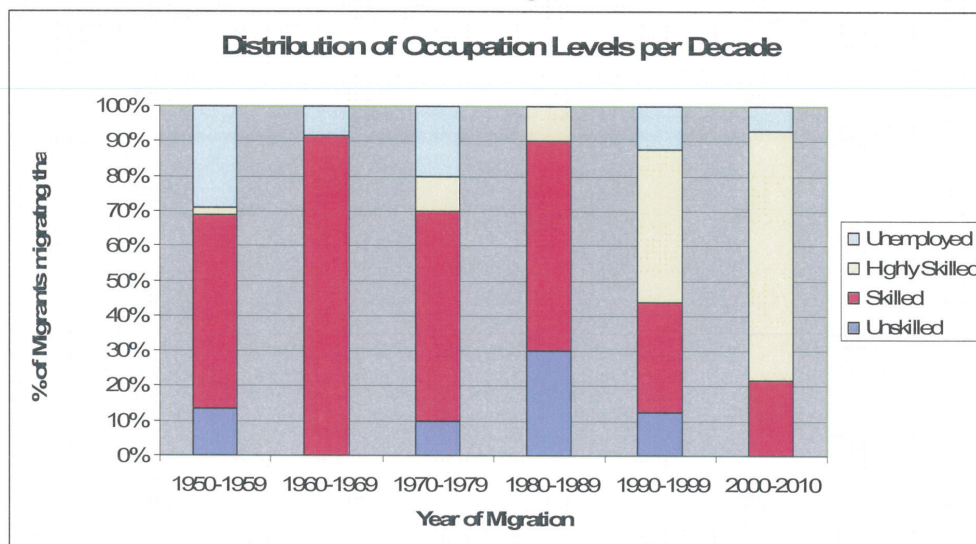


Figure 26: Occupation Level by Years of Migration

<sup>1</sup> Nation Master: Human Development Index  
[http://www.nationmaster.com/graph/eco\\_hum\\_dev\\_ind-economy-human-development-index](http://www.nationmaster.com/graph/eco_hum_dev_ind-economy-human-development-index) Accessed on 30th July 2010

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### Place of Initial Settlement in Adelaide

Figure 6 indicates all suburbs which were a place of initial settlement for the German migrants surveyed. Although there initially appears to be an evenly distributed radial pattern the shading indicates a tendency to cluster close to central Adelaide, North-East and North-Western suburbs. To consider this in more detail, the place of initial settlement has been considered by place of origin and year of arrival.

### Initial Settlement by Place of Origin

The migration pattern of settlement from the West of Germany (figure 8) appears generally radial, referring to the concentrated centre with corridors of settled suburbs stemming from this mid-point. Although evident when first viewing the map, it is possibly an illusion created by the pattern of transport corridors, leading away from the CBD. Suburbs have developed along these corridors of transport which reinforces this radial pattern. A radial pattern does not indicate a stream of migration and despite preference for Western suburbs of Adelaide there is no distinct stream evident, supported by the low correlation of the general trend.

Migrants from Northern Germany formed a corridor of settlement along North-Eastern suburbs as well as a cluster around the CBD. Figure 11 indicates two patterns of settlement, leading West and South-West, overlapping in the North-East of Adelaide with high correlation factors at 0.66 and 0.79. Although this provides evidence of a migration stream some scattered points did not conform to any obvious pattern and were omitted in the measurement of correlation. One such example is a migrant first settling in Woodside, a small town in the Adelaide Hills, 25km from Adelaide's CBD.

This point was removed due to distortion of scale seen below:

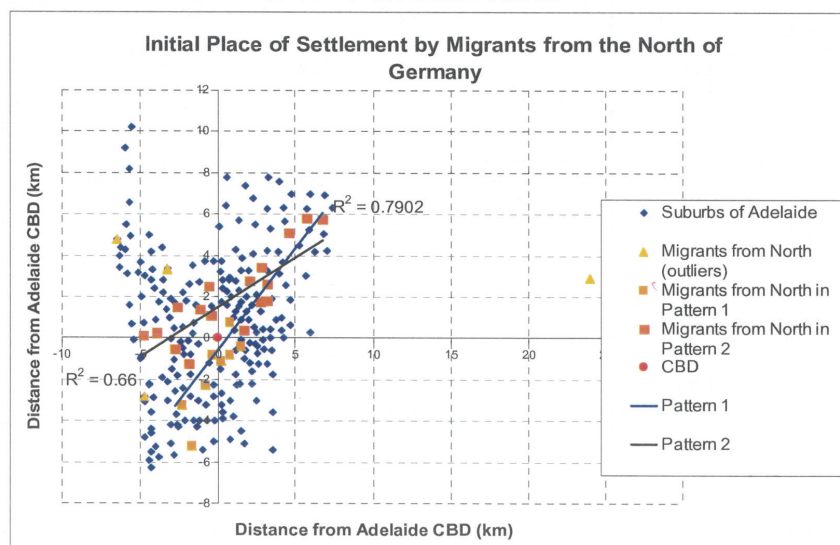


Figure 27: Place of Initial Settlement by North Germans including Outlier

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

It can be accounted for by the migrant camp in Woodside, active shortly after WWII. Despite this being evidence of a migration stream, the point has been omitted as the camp was only active until 1951<sup>2</sup>, only two years of the time periods concerned.

Migrants from Eastern Germany exhibited a tendency to settle within close proximity of the CBD and along the Adelaide coastline. The strong correlation of 0.70 for the trend along the coast indicates a migration stream while the remaining migrants, aside from one person, scattered in suburbs close to the CBD, forming a cluster, hence the lower correlation of 0.44. The point which does not appear to conform to either pattern in Para Hills (north-west) resembles the trend of North German migrants.

A similar pattern can be observed for migrants from Prussia (Poland), though they settled further from the CBD. The settlement pattern is less defined due to a smaller sample size (lower migration rate). Initially there seem to be three separate trends (figure 15). However, these could also be loosely grouped into the patterns below:

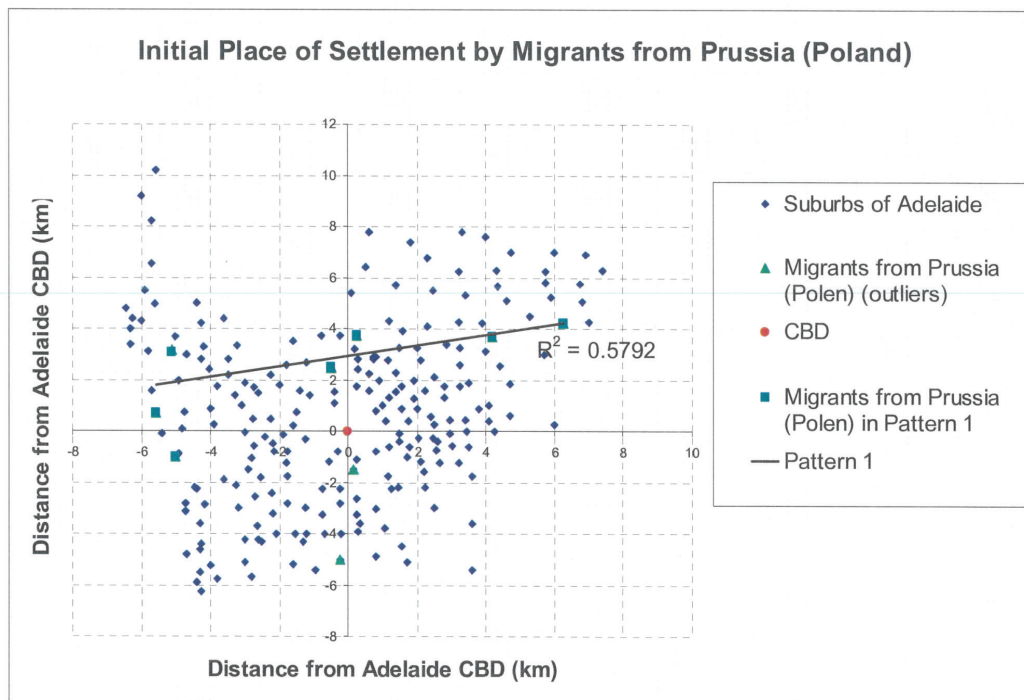


Figure 28: Graph indicating Possible Pattern of Initial Settlement for Migrants from Prussia (Poland)

<sup>2</sup> Flinders Ranges Research: Displaced Persons, ©1996-2010  
<<http://www.southaustralianhistory.com.au/displaced.htm>> Accessed on 12th August 2010

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

The medium-high correlation of trendlines for both graphs indicates the error in separating data into patterns before adding a trendline. This is particularly apparent in figure 28 due to lower numbers of migrants, indicating possible patterns, not streams.

South German migrants presented a strong radial pattern, though the trendline indicates slight preference for Northern Adelaide. This map is a general representation of all migrants (similarity to figure 7). No migration stream is evident due to evenly dispersed pattern.

Time of arrival is expected to produce a distinct pattern of initial settlement due to cheaper housing and rental opportunities for newly-arrived migrants in certain areas. For this reason the same base map has been used with the place of initial settlement classified by year of arrival.

#### **Place of Initial Settlement in Adelaide by Arrival Time**

The pattern of initial settlement for migrants that arrived during 1950-1959 is concentrated around central Adelaide, predominantly extending to North-East and -West. Although a pattern is beginning to emerge it is too dispersed to be classified as a "stream".

Within ten years the pattern changed from clustered to radial, signalling an increase in the independence of migrants. Due to changing morphology of Adelaide (development of smaller centres outside CBD) migrants were no longer as dependent on the CBD for facilities, increasing dispersion (no streams).

There is also no migration stream recognisable for the group arriving during 1970-1979. Although they tended to move to North-Eastern suburbs (possibly due to cheaper rental properties related to re-development of Modbury) dispersal is too great to identify a single pattern.

The following decade is similar, dispersed, though still within 15km of the city centre around Western and Eastern suburbs of Adelaide. Once again points do not indicate a pattern or stream of migration.

During the 1990s migrants settled closer to the CBD and Southern suburbs. Marion had become established as a centre for Adelaide's South and provided facilities otherwise found in the CBD. There is a tendency to settle within the Southern, Eastern and North-Eastern suburbs, though

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

there is no migration stream.

The 2000s depict a less dispersed pattern and is most similar in shape to that of the 1950s, with gravitation towards CBD. The pattern primarily extends to East and Western suburbs though a number settled in the South (similar to 1990). The pattern is not sufficiently distinct to be classified as a migration stream.

From 1950-2010 the pattern of distribution has become more dispersed indicating less dependence on the city centre. This illustrates independence of transport (more private) and hence increasing economic status of migrants. However, this is not supported directly by settlement patterns as there is no growing trend of gravitation towards wealthier local government areas considered to be the more exclusive suburbs of Adelaide. Instead, it is possible that the pattern has begun to fit the establishment of centres outside the CBD and that these suburbs (as they underwent re-development) offered cheaper old housing for newly-arrived migrants.

Due to the limited number of migrants from each decade, it is difficult to identify outliers as patterns of settlement are not strong enough. However, this may also be a sign of the lack of consistent streams of migration (initial settlement) to Australia when considering migration by time of arrival.

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### **Subsequent Intra-Urban Moves**

The map contains such a large number of points that it is difficult to track the moves of all individual migrants. However, the purpose is not to follow each migrant but rather obtain an appreciation for the net movement of German migrants within Adelaide after arrival (subsequent internal migration).

The points are most evenly distributed directly around the Adelaide CBD. Although there are a number of points in this strip, the majority are small and represent only between 1 and 5 years of residency. There are also very few arrow heads which means that this was either a popular place for initial settlement or an intervening move.

Moving West and South of the CBD the points become more dispersed though there is another

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To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

visible cluster around Brighton. The Western suburbs were also inhabited by a number of German migrants for shorter periods of time though not permanently. It should also be noted that Adelaide airport is located directly West of the CBD, creating a gap on the map.

Immediately East of the CBD there are very few points. This area is one of the most well-established areas of residence in Adelaide and would therefore generally be more expensive than other suburbs.

The densest points form a corridor leading north-east from the CBD. Point size increases with distance from the city centre indicating longer periods of residence. A similar pattern can be observed along Rostrevor (beyond Eastern suburbs) forming a belt leading to a cluster on the Southern coastline. Due to average point size of 25+ years, it can be assumed that the majority of these migrants bought family homes which would have been (and still are today, though to a lesser degree) available for reasonable prices 20 years ago.

Overall, there was a tendency for migrants to move towards north-eastern suburbs of Adelaide and reside there for longer periods of time. This is an indication of a migration stream, possibly due to cheaper family houses in this area.

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

## Conclusion and Evaluation

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### Conclusion

The "migration stream" has been separated into three main components:

- place of origin
- place of initial settlement
- subsequent internal moves

These factors were then further divided into year of arrival and place of origin for identification of migration patterns.

#### **Place of initial settlement:**

Categories of year of arrival indicated dispersed points of settlement throughout Adelaide which appeared to be randomly scattered points for most decades and hence no stream of migration (rejecting hypothesis II). The pattern of the 1950s was most similar to 2000s indicating that it did not become more dispersed over time. Whilst post-WWII settlement patterns became more dispersed, contemporary migrants tended to settle closer to the CBD as time progressed.

Place of initial settlement by place of origin on the other hand produced distinct streams of migration. Migrants from North Germany formed two corridors of settlement running East-West and along the North-Eastern transport line. The high correlation of trendlines (0.66 and 0.79 respectively) indicates the significance of the pattern so that it may be classified as a defined stream of migration (hypothesis I).

Migrants from Eastern Germany produced a pattern which can be divided into two groups: settlement along the coast and settlement South-East of CBD. Though not as distinct as that of the North German migrants, the pattern may still be considered a stream (strong correlation of 0.69) (hypothesis I).

South and West Germans indicate radial pattern of settlement which does not fall into the category of "stream of migration" (rejecting hypothesis I).

For Prussia the pattern is too ambiguous to conclude whether there is a distinct stream of



To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

migration though there were signs of a pattern evolving (inconclusive).

### **Migration Patterns from Place of Origin:**

Place of origin indicates two distinct streams of migration (hypothesis I), forming clusters in Hamburg, Bremen and Berlin and a band running South-East through the Western federal states. The migration stream shifted from large cities (post-WWII migration) and became more rurally orientated.

### **Subsequent Intra-Urban Moves:**

Migrants tended to live in North-Eastern suburbs of Adelaide for longer periods of time (20 years). This pattern is significant enough to be considered a stream (hypothesis I) as it consists of over half the largest points. It runs South-West and forms an arch around the Southern suburbs before reaching the coast and is likely to be an indicator of cheaper family homes.

### **Summary**

Once migrants were divided into different groups and these patterns analysed, a stream was discovered for Eastern and Northern Germans (hypothesis I). However, migrants from Southern, Western Germany and Prussia did not indicate streams (rejecting hypothesis I).

Therefore, it may be concluded that although there were some streams within groups of German migrants, there was no well-defined stream of migration from Germany to Adelaide as whole (rejecting hypothesis I). Based on this conclusion it can be said that Lee's claim is only partially supported by data collected.

Migration by time of departure did not produce well-defined streams with no considerable change in dispersion (rejecting hypothesis II).

Subsequent intra-urban moves indicated a well-defined stream of migration towards the band of settlement running from North Eastern to South-Western suburbs (hypothesis I).

### **Evaluation**

Sample size influenced the definition of streams, a greater sample possibly producing stronger patterns. However, it could simply indicate lower numbers of migrants from groups such as Prussia and would therefore not have a distinct stream of migration. To reduce this limitation equal numbers of respondents from each group (eg. West) should have been ensured. Also, study area

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

could have been extended to the Barossa Valley (strong German culture) for more extensive streams of migration.

To minimise the effects of uncertainty involved in manually selecting points for patterns, groups of migrants were only separated into two series if possible so that patterns may be generalised for the whole group. Smaller patterns would indicate greater dispersion and less defined stream despite high correlation. To further reduce uncertainty, a boundary (eg. 5km) could have been set so that points within this radius were grouped into series and remaining points omitted as outliers.

Despite Lee's claim involving stream and counter-stream, only stream was considered in this investigation as data collection only occurred in Adelaide (counter-stream migrants returned to Germany). This further explains the decrease in the number of German-born migrants living in SA over the past 10 years seen (figure 24).

In order to evaluate Lee's claim, streams of migration were only considered for place of origin, initial settlement and subsequent intra-urban moves. However, place of current residence and future moves should be included in further investigation for a more balanced analysis.

A further avenue for investigation would be social aspects of migration and their influence on migration streams. This may include an age and gender analysis and any observed changes over time or place of origin. Factors could then be analysed by distinct place of origin or further data such as employment and number of moves within Adelaide considered. These are only a few examples of a new perspective on Lee's claim, adding depth to the investigation.

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To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

## Bibliography

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### Books:

Codrington, S, 2002, *Planet Geography*, Solid Star Press, Adelaide.

Lewis, G, 1982, *Human Migration*, Croom Helm Ltd, London.

Tampke, J, 2006, *The Germans in Australia*, Cambridge University Press, New York.

### Websites:

Australian Bureau of Statistics: *Census data*, 2006, viewed on 14 August 2010

<<http://www.abs.gov.au/websitedbs/D3310114.nsf/home/Census+data>>

Australian Bureau of Statistics: *National Regional Profile: Adelaide (Statistical Division)*, April 2010, viewed 24 May 2010

<<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/405Environment/Energy12004-2008?opendocument&tabname=Summary&prodno=405&issue=2004-2008>>

Bernzweig, J, *Children of Germany*, December 2004, viewed on 22 May 2010

[http://www.tulane.edu/~rouxbee/kids04/germany/\\_ccarpen2/text.html](http://www.tulane.edu/~rouxbee/kids04/germany/_ccarpen2/text.html)

Flinders Ranges Research: *Displaced Persons*, 1996-2010, viewed on 12 August 2010

<<http://www.southaustralianhistory.com.au/displaced.htm>>

Flinders Ranges Research: *German Settlers in South Australia*, 1996-2010, viewed on 2 July 2010

<<http://www.southaustralianhistory.com.au/german.htm>>

Freie Universitaet Berlin: *Laender der Bundesrepublik Deutschland*, May 1997, viewed on 5 March 2010

<<http://userpage.chemie.fu-berlin.de/adressen/bl/bundeslaender.html>>

*Historical Census and Colonial Data Archive Document: SA-1861-Census*, viewed on 3 April 2010,

<[http://hccda.anu.edu.au/pages/SA-1861-census-01\\_i](http://hccda.anu.edu.au/pages/SA-1861-census-01_i)>

Nation Master: *Human Development Index*, 2003-2010, viewed on 30 June 2010-08-26

<[http://www.nationmaster.com/graph/eco\\_hum\\_dev\\_ind-economy-human-development-index](http://www.nationmaster.com/graph/eco_hum_dev_ind-economy-human-development-index)>

### Human Resources:

Personal correspondence with:

Heywood-Smith, C, National Centre for Culture and Recreation Statistics, Australian Bureau of Statistics

To what extent is Lee’s first claim on Stream and Counter-Stream Migration that “migration occurs in well-defined streams” an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

## Appendices

### Appendix I – First Version of Survey for Data Collection

**Survey**

This survey is part of a year 12 geography assignment at Glenunga International High School and is intended to investigate German migration patterns to South Australia. Thank you for taking your time to help me with this project.

1. Did you or your parents move from Germany to South Australia? If so, please fill in the table below.

First Name of migrant	Age at the time of migration	Place of origin

2. Where and when did they first settle in South Australia?

Year of Arrival	Location of initial settlement	Duration of Stay

3. Did anyone else migrate with them? If yes, please list the ages and how they were related.

Relationship	Age

4. Have they moved since first settling in South Australia?

Yes, please go to question 5

No, please go to question 6

5. Where did they move to?

Location (ie. Name of suburb, town)	Duration of Stay

6. Why did they migrate to South Australia? Please number from most important (1) to least important (7).

<input type="checkbox"/> Employment	<input type="checkbox"/> Political Reasons
<input type="checkbox"/> Educational Purposes	<input type="checkbox"/> Better living conditions
<input type="checkbox"/> Family	<input type="checkbox"/> Other: .....
<input type="checkbox"/> Marriage	

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

7. Did they move from Germany to South Australia directly?

- Yes, please go to question 9  
 No, please go to question 8

8. Where did they stop in between and for how long? (Name of country, state and town if possible)

Location	Duration of Stay	Why?

9. Was South Australia their intended destination when leaving Germany? If not, where did they want to migrate to?

Intended Destination	Did they reach it?	Why not? (if applicable)
	<input type="checkbox"/> Yes <input type="checkbox"/> No	

10. Do they plan to move in the future?

Future Destination(s)	Why?

Thank you for your time.

## Appendix II – Final Survey

### SURVEY ABOUT GERMAN MIGRATION

This survey is part of a year 12 geography assignment at Glenunga International High School and is intended to investigate German migration patterns to South Australia. Thank you for taking your time to help me with this project.

1. Please tick:

- I am male  
 I am female

2. Where were you born?

- in Australia

} This question ensures only German-born people are counted as well as enabling the place of origin to be considered.

To what extent is Lee’s first claim on Stream and Counter-Stream Migration that “migration occurs in well-defined streams” an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

- in Germany, in (town): .....
- in another country

- 3. What year were you born in? .....
  - 4. In what year did you migrate to Australia? .....
  - 5. What was your occupation in Germany? .....
  - 6. List the towns or cities **in Australia** you lived in **before moving to Adelaide**.
- } Questions 3 and 4 may be used to calculate the age at time of migration
- } This question allows the economic circumstances of migrants as well as the qualifications relative to push/pull factors to be considered

City	How many years did you live there for?
<i>Example: Sydney</i>	<i>2 years</i>

} This question enables the route of migration to be determined.

- 6. When did you first move to Adelaide? .....
  - 7. Which suburb did you live in that year? .....
  - 8. Have you moved suburbs since then?
    - Yes
    - No
- } Allows age of migration to Adelaide to be calculated.
- } Place of initial settlement in Adelaide is an important factor in the pattern of migration

9. List the suburbs/towns you lived in in South Australia.

Suburb or Town	How many years did you live there for?
<i>Example: Unley</i>	<i>2 years</i>

Question 9 allows a pattern of migration for each migrant to be mapped, including the time spent at each location.

To what extent is Lee’s first claim on Stream and Counter-Stream Migration that “migration occurs in well-defined streams” an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?




10. Why did you migrate to South Australia?

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Employment           | <input type="checkbox"/> Political Reasons        | } Indicates push/pull factors<br>..... |
| <input type="checkbox"/> Educational Purposes | <input type="checkbox"/> Better living conditions |  |
| <input type="checkbox"/> Family               | <input type="checkbox"/> Other: .....             |  |
| <input type="checkbox"/> Marriage             |   |  |

11. Please tick the option you felt more strongly.

- |  |  |
|--|--|
| <input type="checkbox"/> I migrated because I wanted to leave Germany.     | } Question 11 illustrates whether push or pull factors were more significant |
| <input type="checkbox"/> I migrated because I wanted to live in Australia. |  |

12. List any family members and their ages that migrated with you.

Family Member	Age at time of migration	Occupation in Germany
<i>Example: Brother</i>	<i>18</i>	<i>Baker</i>

This question will give a broader picture of the ages and circumstances of migrants.

Note: surveys were shortened (spaces for entering data).

To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

### Appendix III – Locations of Data Collection

Place of Data Collection	Sub-groups	Number of Surveys
German Club of Adelaide	<i>Accordiongroup</i> <i>(Akkordeongruppe)</i>	1
	<i>Adelaide German Band</i>	1
	<i>Adelaider Liedertafel</i>	19
	<i>Bushwalkers' Group</i> <i>(Wandergruppe)</i>	17
	<i>Carnival Group</i> <i>(Karnevalsgruppe)</i>	6
	<i>Chess Group (Schachgruppe)</i>	3
	<i>German Folkdance Group</i> <i>(Deutscher Volktanzkreis)</i>	1
	<i>German Folksong Choir</i> <i>(Deutscher Volksliederchor)</i>	3
	<i>Women's Gymnastics Group</i> <i>(Damengymnastikgruppe)</i>	10
	<i>Seniors Group</i> <i>(Seniorengruppe)</i>	15
	<i>Patrons of the German Club</i>	3
German Club of Elizabeth Incorporated		9



To what extent is Lee's first claim on Stream and Counter-Stream Migration that "migration occurs in well-defined streams" an accurate description of post-WWII to contemporary German migration to Adelaide and subsequent intra-urban migration?

School of German Language	Adelaide High School Campus (Years 3-12)	26
	Sturt Street Campus (Reception – Year 2)	11
Krabbelgruppe	Playgroup for German-speaking toddlers	9