Population and the Challenges of Economic Development in Hong Kong

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Two Building Blocks

- The two building blocks of modern economic development
- Resources: land, labor, capital, knowledge
- Institutions: government, family, common beliefs
- Focus on labor, family, government, and land
- Labor – quantity and quality (human capital)
- Population with a lot of human capital solves many problems
- Human capital is mostly education, health, common beliefs
- Family is historically the most important institution in human capital formation
- Government is increasingly important in modern times
- Family and government sometimes work together and at other times against each other
• Demographic changes drive many things: economics, politics, society, inequality, mobility, beliefs, etc
• Marriage, divorce, fertility, mortality drive population changes
• What drives these latter factors are usually quite complex and there are different theories
• Complex interaction loops
## Ten-Year Percentage Changes of Population by Age Group

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<td>-3.3</td>
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Lifetime Earnings

- Better educated have higher earnings, rise faster
- Same for health and they last longer
- Earnings rise over the life cycle, why?
- Multiplier effects and opportunity costs
- A cross-section measure of individual income takes a snapshot at a moment in time
- Can a snapshot be representative of a lifetime’s earnings?
- Schooling is generally a much better measure of lifetime earnings of an individual
Hong Kong – Mean Earnings by Age, 2011

- **Degree or above**
- **Post Secondary**
- **Secondary and Matriculation**
- **Primary or lower**

Mean Earnings (HK$)
Lifetime Earnings

• What is a person’s true relative economic position? Who is rich? Who is poor?
• Implications for inequality and intergenerational mobility
• Role of family and government policy
Demographic Transition

• Demographic transition as a driver of economic development
• Drop in mortality leads to drop in fertility
• Women labor force participation rate rises
• Savings increases
• Investment in children increases
• Future economic productivity rises
Inequality and Intergenerational Mobility

• Growing public perception that intergenerational mobility has declined and income inequality has risen in HK
• Not really, but people still think otherwise
• Analyze trends in mobility for 1946-1986 birth cohorts using census data on children’s schooling and their parents’ schooling
Annual Percentage Growth of Real Median Monthly Individual Income by Decile Groups (1981-2011)
Upward Education Mobility Based on Parent’s Schooling Percentile Rank
Think of the income distribution as a ladder, with each percentile representing a different rung. The rungs of the ladder have grown further apart (inequality has increased), but children’s chances of climbing from the lower to higher rungs have not changed (rank mobility has remained stable).
Two main empirical results

• Income inequality has increased over time
  – Consequences of the “birth lottery” for the parents to whom a child is born are larger today than in the past

• Relationship between parent and child percentile ranks in income is unchanged, except for birth cohort in 1961-71
  – Chance of moving from bottom to top fifth of income distribution no lower for children entering labor market today than in the 1970s
Factors affecting upward mobility in the US

• **Segregation.** Upward mobility is significantly lower in areas with large, heavily segregated African-American populations. The study notes that whites in these areas also have low upward mobility rates.

• **Inequality.** Factors that erode the middle class hamper intergenerational mobility more than the factors that lead to income growth in the upper tail.

• **Quality of education.** Areas with higher test scores and lower dropout rates do better.

• **Social capital.** Strong community social networks and community involvement contributes to the community's upward mobility rates.

• **Family structure.** The percentage of single parents in a community is the strongest predictor of upward mobility. Children of married parents also have higher upward mobility if they live in communities with fewer single parents.
• More variables were included into separate multiple regressions
• Schooling attainment of individuals are lower if they live with a single parent
• Schooling attainments are lower if they themselves are recent immigrants, but the effect of whether parents are recent immigrants is weak
• Schooling attainment is lower if they live in public rental housing, but higher if parents are homeowners
Factors affecting upward mobility in the Hong Kong

<table>
<thead>
<tr>
<th>Birth Year</th>
<th>Male</th>
<th>Arrived in past 5 years</th>
<th>Parents arrived in past 5 years</th>
<th>Private home owner</th>
<th>Public home owner</th>
<th>Public tenant</th>
<th>Age 25-29</th>
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<td>*</td>
<td>-6.1</td>
<td>2011</td>
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Schooling, Immigration, and the Economy

• What happens when the quality of your human capital growth slows?
• Compare Hong Kong versus Singapore
Annual Percentage Increase in Population Aged 15+ by Education (1961-2011)
Average Years of Schooling in Hong Kong and Singapore (aged 25+)

Years of Schooling

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<th>Men</th>
<th></th>
<th>Women</th>
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<td>7.3</td>
<td>8.3</td>
<td>9.2</td>
<td>10.2</td>
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<tr>
<td>Singapore</td>
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<td>7.3</td>
<td>5.0</td>
<td>8.0</td>
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<table>
<thead>
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<th>Year</th>
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<th>Singapore</th>
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<td>1991</td>
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<td>9.2</td>
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<td></td>
<td>9.2</td>
<td>8.1</td>
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</table>
Total Factor Productivity in Hong Kong and Singapore 1960-2011

TFP Level at current PPPs (USA=1)

- Hong Kong
- Singapore
Percentage of Men not in the Labor Force for No Compelling Reason by Age

% of relevant age group Men

- Age 20 to 29
- Age 30 to 39
- Age 40 to 49
- Age 50 to 59
Percentage of Women not in the Labor Force for No Compelling Reason by Age
Household Income Inequality

• Household earnings is the sum of the earnings of individual members
• It depends on each member’s earnings, i.e., wage rate, whether they work, and hours worked
• Why? And how has this changed over time?
• All these factors affect household earnings inequality; they also affect our children’s human capital and our economy in the future
Household and Individual Income Inequality in Hong Kong 1971-2011
Do Minimum Wages Reduce Inequality?

• Here is an example of a theory without a fact
• Minimum wages are introduced to help poor families
• Will it do so? What is your *intuition*?
• What proportion of the minimum wage workers are in low-income households?
Number of Households and Households with Minimum Wage Workers by Income Deciles 2011
Marital Sorting

• Educated men marries educated women
• More women became well educated over time and therefore more working women
• Over time households with well educated couples become a two-income family
• \[M:100 + W:50 \Rightarrow HH:100; \quad M:100 + W:75 \Rightarrow HH:175\]
• Households with less well educated couples remain a one-income family
• \[M:60 + W:30 \Rightarrow HH:60; \quad M:60 + W:45 \Rightarrow HH:60\]
• 50 years ago most women did not work, even well educated women
• Today more well educated women work, but many of the less well-educated still do not work
• Household earnings inequality therefore increases even if individual earnings inequality do not
Single Parenthood

- Divorces have increased rapidly in HK
- Higher among low-income families
- Consider two households:
  - Family R => M=100 W=100 Total=200
  - Family P => M=50 W=50 Total=100
  - Average household income = 150
- Now Family P divorces
  - Family R => M=100 W=100 Total=200
  - Family P1 => M=50
  - Family P2 => W=50
  - Average household income = 100 inequality widens
## HK Divorce Rate among Top 10 in the World

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<th>Country</th>
<th>Divorce Rate</th>
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</tr>
<tr>
<td>Belarus</td>
<td>4.1</td>
</tr>
<tr>
<td>USA</td>
<td>3.6</td>
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<td>Gibraltar</td>
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<td>Moldova</td>
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<td>Belgium</td>
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<td>Cuba</td>
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<tr>
<td>Czech Rep</td>
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<tr>
<td>Switzerland</td>
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<td>Ukraine</td>
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<tr>
<td>Hong Kong</td>
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<td>China</td>
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<tr>
<td>UK</td>
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<tr>
<td>Singapore</td>
<td>1.5</td>
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Number of Divorced and Separated Men per 1000 Households by Housing Tenure

- Divorced Private Housing Renters
- Divorced Public Housing Renters
- Divorced Private Housing Owners
- Divorced Subsidized Sale Flats (HOS/PSPS/TPS etc.)
Number of Divorced and Separated Women per 1000 Households by Housing Tenure

- Divorced Private Housing Renters
- Divorced Public Housing Renters
- Divorced Private Housing Owners
- Divorced Subsidized Sale Flats (HOS/PSPS/TPS etc.)
## Housing Tenure of Divorced Men and Women (‘000s)

<table>
<thead>
<tr>
<th>Marital Status and Sex</th>
<th>Year</th>
<th>Public Renter</th>
<th>Private Renter</th>
<th>Subsidized Flats</th>
<th>Private Owner</th>
<th>Total</th>
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<td>5.9</td>
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<td>21</td>
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<td></td>
<td>2001</td>
<td>21</td>
<td>15</td>
<td>6</td>
<td>13</td>
<td>56</td>
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<td></td>
<td>2011</td>
<td>41</td>
<td>19</td>
<td>11</td>
<td>21</td>
<td>92</td>
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<td>Divorced women</td>
<td>1991</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td>11</td>
<td>29</td>
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<td></td>
<td>2001</td>
<td>33</td>
<td>24</td>
<td>11</td>
<td>25</td>
<td>92</td>
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<td>2011</td>
<td>78</td>
<td>33</td>
<td>23</td>
<td>42</td>
<td>176</td>
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</table>

6/24/2014
Why are there More Divorced Women than Men?

• Cross-border brides

• After China’s opening many low income single men living alone (some in caged homes or sub-divided units) can enjoy family life

• This has increased the demand for public rental housing

• For almost two decades, 40% of marriages involving a HK resident is a cross border one
Cross border marriages in China and HK

![Graph showing cross border marriages in China and HK from 1986 to 2012.](image)

- **Number of Marriages registered in China (estimated)**: Successful Applicants of Certificate of Absence of Marriage Records (CAMR) for the purpose of marrying in the mainland of China
- **Number of Marriages registered in HK**: Bridegrooms or brides from the mainland of China
- **Bridegrooms or brides from the mainland of China (Marriages registered in HK or China as % of total number of Marriages registered in HK and China)**
Are Recent Immigrants More Likely to Divorce?

- No. Estimates of divorce rates of men and women on years of arrival of recent immigrants over 0-5, 6-10, 11-15, 16-20 year intervals show their divorce rates are significantly lower.
- Recent immigrants more likely to stay married.
- Stories of fake marriages among recent immigrants are probably exaggerated.
- However, in 2006 and 2011 those who live in either public or private rental housing are about twice as likely to be divorced.
## Divorce Rates among Recent Immigrant Men Regression Effects

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<td>Divorce rate</td>
<td>0.011</td>
<td>0.012</td>
<td>0.016</td>
<td>0.016</td>
<td>0.025</td>
<td>0.033</td>
<td>0.042</td>
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<td>Immig05</td>
<td>16%</td>
<td>-22%</td>
<td>-7%</td>
<td>-34%</td>
<td>-52%</td>
<td>-81%</td>
<td>-48%</td>
<td>-55%</td>
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<tr>
<td>Immig10</td>
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<td>-70%</td>
<td></td>
<td>-47%</td>
<td>-65%</td>
<td>-73%</td>
<td>-45%</td>
<td>-52%</td>
</tr>
<tr>
<td>Immig15</td>
<td></td>
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<td>-23%</td>
<td>-49%</td>
<td>-44%</td>
<td>-66%</td>
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<td>Immig20</td>
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<td></td>
<td>-81%</td>
<td>-39%</td>
<td>-30%</td>
<td>-43%</td>
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<tr>
<td>Private owner</td>
<td>-96%</td>
<td>-67%</td>
<td>-66%</td>
<td>-74%</td>
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<td>-103%</td>
<td>-112%</td>
<td>-88%</td>
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<td>Public owner</td>
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<td></td>
<td></td>
<td>-1232%</td>
<td>-97%</td>
<td>-85%</td>
<td>-92%</td>
<td>-134%</td>
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<tr>
<td>Public renter</td>
<td>-103%</td>
<td>-52%</td>
<td>-36%</td>
<td>-40%</td>
<td>-31%</td>
<td>-43%</td>
<td>-36%</td>
<td>5%</td>
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# Divorce Rates among Recent Immigrant Women Regression Effects

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<td>Divorce rate</td>
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<td>0.009</td>
<td>0.015</td>
<td>0.019</td>
<td>0.031</td>
<td>0.048</td>
<td>0.068</td>
<td>0.079</td>
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<tr>
<td>Immig05</td>
<td>8%</td>
<td>-55%</td>
<td>-63%</td>
<td>-73%</td>
<td>-102%</td>
<td>-111%</td>
<td>-86%</td>
<td>-53%</td>
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<td>Immig10</td>
<td>-7%</td>
<td>-52%</td>
<td>-45%</td>
<td>-42%</td>
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<td>-78%</td>
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<td>Immig15</td>
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<td>-11%</td>
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<td>-33%</td>
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<tr>
<td>Immig20</td>
<td></td>
<td>-11%</td>
<td>-27%</td>
<td>-18%</td>
<td>-18%</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Private owner</td>
<td>-61%</td>
<td>-41%</td>
<td>-50%</td>
<td>-53%</td>
<td>-82%</td>
<td>-108%</td>
<td>-103%</td>
<td>-80%</td>
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<tr>
<td>Public owner</td>
<td>-62%</td>
<td>-70%</td>
<td>-57%</td>
<td>-103%</td>
<td>-116%</td>
<td>-107%</td>
<td>-67%</td>
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<tr>
<td>Public renter</td>
<td>-82%</td>
<td>-59%</td>
<td>-74%</td>
<td>-65%</td>
<td>-65%</td>
<td>-54%</td>
<td>-13%</td>
<td>17%</td>
</tr>
</tbody>
</table>
What is to be done?

Vladimir I Lenin

• Should we be worried?
• About what?
  – Inequality?
  – Intergenerational mobility?
  – HK’s economic future
  – Fiscal budget balance in the future
What is to be done?

Vladimir I Lenin
It Pays to Invest in Early Education

• Nobel economist James Heckman evaluated numerous programs and concluded that early interventions makes a huge difference
• IQ becomes more difficult to change after 10
• Other factors like conscientiousness and motivation also play a huge role
• When it comes to the matter of forming skills, parenting is critical
• Alfred Marshall, in his Principles of Economics, remarked “The greatest capital that you can invest in is human capital, and, of that, the most important component is the mother.”
Head Start Programs for Promising Youth without Means

• Some kids grow up in one of the worst circumstances financially, living in some of the worst ghettos, and still they succeed
• They succeed because an adult figure, typically a mother, maybe a grandmother, nourishes the kid, supports the kid, protects the kid, encourages the kid to succeed
• Some body or some program has to spend time with the kid; it is a time intensive activity
• This overcomes the bad environment he was born into
A Toddler can Barely Walk Unassisted after One Year
A Foal can Stand Up to Feed One Hour after Birth
• What the US *War against Poverty* was doing 50 years ago was to give people money to change poverty and hopefully raise the standards of the next generation
• But it didn’t seem to have done much good
• What we failed to understand was that the real poverty was parenting (or an equivalent substitute spent using time)
• Of course, when the kid is starving and doesn’t get any food, then of course money would matter, but this is not what we are facing today here
• So what we are getting now is kids growing up in a new form of child poverty
• That new form of child poverty is actually threatening their ability to go to school, their willingness to learn, their attitudes and their motives
• That’s a major source of worsening intergenerational mobility and poverty
How Housing Policy Can Lower Divorce Rates, Improve Intergenerational Mobility and Reduce Poverty

• Homeownership encourages the poor not to divorce
• Poor children get a better deal
• Why concentrate the poorest in Public Rental Housing estates where divorce rates are highest
• Better role models in a mixed neighborhood is good for children’s development
• A city of homeowners is less politically divided
• Today’s median household income is $22000 plus, the poor can never become homeowners unless the property market collapses permanently
Property Price Index and Tender Price Index, 1979-2011

- Private Residential Property Price Index
  (Overall, 1979 Q4=2.31, logarithm(index))

- Building Works Tender Price Index
  (BWTP, the Architectural Services Department, Public Sector, 1979 Q4=1, logarithm(Index))

- Tender Price Index (Rider Levett Bucknall, Private Sector 1979 Q4=1, logarithm(Index))
• Current housing strategy will push our the fiscal budget further into deficit
• Historically for every 4 PRH units we build we also build 2 HOS units
• 1 of the HOS units is allocated to PRH households the other to low income private sector renters
• PRH units incur recurrent losses and have to be financed by profits from sale of HOS units
Percentage Shares of Housing, Education, Health and Social Welfare in Government or Public Expenditure, 1971/72-2014/15

As a % Government Expenditure

As a % Public Expenditure

1971-72: 20.0
1972-73: 10.4
1973-74: 6.1
1974-75: 1.9
1975-76: 13.8
1976-77: 14.1
1977-78: 5.8
1978-79: 12.9
1979-80: 16.8
1980-81: 22.7
1981-82: 17.1
Actual and Projections of Population Numbers and Health Care Cost Standardized Population Numbers 1950-2100

('000 persons)

- Health Care Cost Standardized Population (C&SD)
- Total Population (actual)
- Total Population(C&SD Projection)
- Total Population(UN Projection)
Public and Private Health Expenditure Projection (2012-2041)

- Public health expenditure will explode in the future
- Projections from 2012-2041 are as follows:
  - Optimistic scenario 2.9% to 5.8% of GDP
  - Pessimistic 2.9% to 7.2% of GDP
- It depends on costs rising as they have done so in the past
- Increasing the supply of health and medical care personnel will help hold down costs
Re-orient Subsidized Housing Strategy

- Re-orient our housing strategy towards subsidized homeownership scheme (SHS) for low-income families
- Similar in nature to Singapore’s HDB
- Land premiums on SHS units must be discounted to affordable levels benchmarked against income
Subsidized Homeownership Scheme (SHS)

- Unify PRH, TPS and HOS units into a single SHS scheme
- Convert existing PRH, TPS and HOS units into SHS
- Convert PRH into SHS scheme via a revised TPS
- Reduce exorbitant land premium for HOS and TPS units to converge on SHS units
- Allow no restrictions on resale after 5 years on open market
- Permit redevelopment rights
# 80% Homeownership by 2023

<table>
<thead>
<tr>
<th></th>
<th>2011 (Census)</th>
<th>2013 Q1 (GHS)</th>
<th>10-year Housing Strategy (2013/14 - 2022/23)</th>
<th>2023</th>
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<tbody>
<tr>
<td></td>
<td>Domestic</td>
<td>Domestic</td>
<td>188,000</td>
<td>1,466,200</td>
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<tr>
<td></td>
<td>Households</td>
<td>Households</td>
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</tr>
<tr>
<td></td>
<td>(No.)</td>
<td>(No.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td></td>
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<tr>
<td><strong>Homeownership Rate %</strong></td>
<td><strong>52.1%</strong></td>
<td><strong>51.4%</strong></td>
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<td><strong>82.8%</strong></td>
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<td>Private Housing</td>
<td>1,251,713</td>
<td>1,278,200</td>
<td>188,000</td>
<td>1,466,200</td>
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<tr>
<td>Private Owners</td>
<td>855,980</td>
<td>866,400</td>
<td>127,432</td>
<td>993,832</td>
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<tr>
<td>Private Renters</td>
<td>395,733</td>
<td>411,800</td>
<td>60,568</td>
<td>472,368</td>
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<td>Public Housing</td>
<td>1,098,507</td>
<td>1,089,700</td>
<td>282,000</td>
<td>1,371,700</td>
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<td>Subsidized Owners</td>
<td>377,615</td>
<td>360,100</td>
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<td>Subsidized Renters</td>
<td>720,892</td>
<td>729,600</td>
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<td>Unsold TPS</td>
<td>63,042</td>
<td>59,006</td>
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<td>Built before 1997/98</td>
<td>370,106</td>
<td>358,550</td>
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<td>Built 1997/98-2012/13</td>
<td>287,744</td>
<td>312,044</td>
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<td>Subsidized Homes Scheme (SHS)</td>
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<tr>
<td>Built 2013/14-2022/23</td>
<td>-</td>
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<td>Temporary Housing</td>
<td>18,580</td>
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<td><strong>Total</strong></td>
<td>2,368,800</td>
<td>2,386,200</td>
<td>470,000</td>
<td>2,856,200</td>
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Welcome 2023
and
Thank you