



Brion Economics INC.

# City of Irvine Child Care Needs Assessment

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## **Executive Summary**

The City of Irvine retained Brion & Associates to prepare a child care needs assessment which includes analysis of the current supply and demand for child care in the City, and future demand through 2035. The City is interested in analyzing whether there is a current surplus or shortage of child care spaces by age, and what the future demand will be based on estimates for 2035, when the City is expected to be built out.

For the purposes of this report, the City of Irvine has been divided into three geographic study areas: North, Central, and South. The North area includes all areas north of the I-5 Freeway. Central refers to the area triangulated by the I-405 and I-5 Freeways. South includes all areas south of the I-405 Freeway, including the University of California, Irvine and Concordia University. Growth projections provided by the City for each of these three areas through 2035 have been used to analyze the expected demand for child care in 2035.

The City also provided estimates of existing child care facilities by study area, including number of child care spaces by type. Child care facilities are programs licensed by the State of California including private child care centers and small and large family child care homes. For this study, child care needs were evaluated for children from 0 to 12 years old, in the following categories:

- Infants: 0 to 2 years old
- Preschool: 3 to 5 years old
- School Age: 6 to 12 years old

These are typical age groupings, although the exact age ranges can vary from study to study. This analysis specifically focuses on children with working parents that require licensed child care facilities. Of the total number of children who have both parents working or live with a single parent who works, it is estimated that 37% of infants, 85% of preschool age, and 45% of school age children require licensed care. These percentages are accepted by the California Child Care Coordinators Association as standard demand for licensed care among working families. It is assumed that children with working parents not in licensed care are being cared for by other family members, nannies, or other license-exempt care. There are reasons other than employment for which parents seek child care, such as, to support social, emotional or cognitive development; these families are not included in this assessment. Thus, this analysis is considered conservative. This analysis follows the approach and methodology used in multiple child care needs assessments prepared at the county level throughout the State.

In addition to resident demand, it is important to assess the demand for licensed child care from non-resident employees that commute into the City since proximity to home or work is a key factor in accessing child care. It is estimated that approximately 1.2% of employees who work in Irvine and live outside of the City require licensed child care in the City. In similar child care needs analysis completed throughout the State, employee demand averages 3 to 15%, therefore this estimate is considered conservative. This study assumes the age breakdown of

the child care need of non-resident employees is distributed among infants and preschoolers as most parents place their school age children in child care that is near their school or place of residence. Resident and non-resident demand are combined to determine total existing child care demand, as of 2014.

The same methodology used to estimate current demand as of 2014 is applied to the future growth for the City as a whole and by study area to estimate child care demand for 2035. Since it is not feasible to estimate future supply of child care spaces created by new commercial child care centers or licensed family child care homes, only future demand is estimated. This projection indicates the anticipated number of spaces, over and above any existing shortages, that will be needed by age group and study area to accommodate the increase in residents and non-resident employees at the City’s build out, approximately 2035.

The section below describes the findings of the assessment, including existing child care supply and demand by age-group for the city overall and by study area, and projected additional child care demand needed by 2035.

## Existing Conditions

### 1. Children ages 0-12 years old

| Study Area | Children Requiring Licensed Care | Total Existing Spaces | Existing (Shortage)/Surplus |
|------------|----------------------------------|-----------------------|-----------------------------|
| North      | 5,227                            | 3,029                 | (2,198)                     |
| Central    | 5,789                            | 4,970                 | (819)                       |
| South      | 1,933                            | 2,517                 | 584                         |
| Citywide   | 12,949                           | 10,516                | (2,433)                     |

#### **Key Finding**

*Citywide, there is a shortfall of 2,433 child care spaces across all age groups, with the majority of the shortage (2,198 spaces) located in the North area.*

### 2. Infants (children ages 0-2 years)

| Study Area | Children Requiring Licensed Care | Total Existing Spaces | Existing (Shortage)/Surplus |
|------------|----------------------------------|-----------------------|-----------------------------|
| North      | 888                              | 264                   | (624)                       |
| Central    | 1,217                            | 494                   | (723)                       |
| South      | 379                              | 295                   | (84)                        |
| Citywide   | 2,484                            | 1,053                 | (1,431)                     |

**Key Finding**

*There is a shortage of infant care in all areas of the City. Overall, 42% of demand is met. The North and Central areas have the greatest shortages, 624 spaces and 723 spaces, respectively, compared with a shortfall of 84 spaces in the South area.*

**3. Preschool (children ages 3-5 years)**

| Study Area | Children Requiring Licensed Care | Total Existing Spaces | Existing (Shortage)/Surplus |
|------------|----------------------------------|-----------------------|-----------------------------|
| North      | 1,915                            | 1,389                 | (526)                       |
| Central    | 2,183                            | 3,107                 | 924                         |
| South      | 689                              | 1,578                 | 889                         |
| Citywide   | 4,787                            | 6,074                 | 1,287                       |

**Key Finding**

*Overall there is a surplus of 1,287 preschool age child care spaces in the City; approximately 127% of demand is met. These spaces are concentrated in the Central and South areas, while the North has a shortfall of 526 spaces. This analysis, however, does not account for parents who desire preschool age child care for social and developmental reasons, thus some of this surplus is likely absorbed by these families.*

**4. School Age (children ages 6-12 years)**

| Study Area | Children Requiring Licensed Care | Total Existing Spaces | Existing (Shortage)/Surplus |
|------------|----------------------------------|-----------------------|-----------------------------|
| North      | 2,424                            | 1,376                 | (1,048)                     |
| Central    | 2,389                            | 1,369                 | (1,020)                     |
| South      | 865                              | 644                   | (221)                       |
| Citywide   | 5,678                            | 3,389                 | (2,289)                     |

**Key Finding**

*There is a shortage of school age care in all areas of the City. Overall, there is a shortfall of 2,289 spaces, with 60% of total demand met. The North and Central areas have the greatest shortages, 1,048 spaces and 1,020 spaces, respectively, compared with a shortfall of 221 spaces in the South area.*

## Future Projections

### 1. Children ages 0-12 years old

| Study Area | Additional Children Requiring Licensed Care by 2035 | Existing (Shortage)/Surplus 2014 | Projected (Shortage)/Surplus 2035 |
|------------|---|----------------------------------|-----------------------------------|
| North      | 2,907   | (2,198)                          | (5,105)                           |
| Central    | 1,162   | (819)                            | (1,981)                           |
| South      | 482   | 584                              | 102                               |
| Citywide   | 4,551   | (2,433)                          | (6,984)                           |

#### **Key Finding**

*The City will require an additional 4,551 new child care spaces by 2035 to meet child care demand, with more than 2,900 new spaces needed in the North area. Combined with the existing shortfall of 2,433 spaces, the total need for new spaces citywide by 2035 is 6,984.*

### 2. Infants (children ages 0-2 years)

| Study Area | Additional Children Requiring Licensed Care by 2035 | Existing (Shortage)/Surplus 2014 | Projected (Shortage)/Surplus 2035 |
|------------|---|----------------------------------|-----------------------------------|
| North      | 483   | (624)                            | (1,107)                           |
| Central    | 263   | (723)                            | (986)                             |
| South      | 130   | (84)                             | (214)                             |
| Citywide   | 877   | (1,431)                          | (2,308)                           |

#### **Key Finding**

*The City will require an additional 877 new infant child care spaces by 2035 to meet child care demand, with 483 spaces in the North area. Combined with existing shortfall of 1,431 spaces, the total need for new infant spaces citywide by 2035 is 2,308.*

### 3. Preschool (children ages 3-5 years)

| Study Area | Additional Children Requiring Licensed Care by 2035 | Existing (Shortage)/Surplus 2014 | Projected (Shortage)/Surplus 2035 |
|------------|---|----------------------------------|-----------------------------------|
| North      | 1,060   | (526)                            | (1,586)                           |
| Central    | 447   | 924                              | 477                               |
| South      | 191   | 889                              | 698                               |
| Citywide   | 1,698   | 1,287                            | (411)                             |

**Key Finding**

*The City will require an additional 1,698 new preschool child care spaces by 2035 to meet child care demand, with the 1,060 spaces in the North area. Combined with the existing surplus of 1,287 spaces, the total need for new preschool spaces citywide by 2035 is 411.*

**4. School Age (children ages 6-12 years)**

| Study Area | Additional Children Requiring Licensed Care by 2035 | Existing (Shortage)/Surplus 2014 | Projected (Shortage)/Surplus 2035 |
|------------|---|----------------------------------|-----------------------------------|
| North      | 1,363   | (1,048)                          | (2,411)                           |
| Central    | 451   | (1,020)                          | (1,471)                           |
| South      | 161   | (221)                            | (382)                             |
| Citywide   | 1,976   | (2,289)                          | (4,265)                           |

**Key Finding**

*The City will require an additional 1,976 new school age child care spaces by 2035 to meet child care demand, with 1,363 spaces in the North area. Combined with existing shortage of 2,289 spaces, the total need for new school age spaces citywide by 2035 is 4,265.*

An overall summary of child care surplus and shortage for 2014 and 2035 is included as **Table 1**.

**Table 1**  
**Summary of Child Care Surplus/Shortage 2014 and 2035**  
**City of Irvine Child Care Needs Assessment**

| Item  | Children by Age Group |                        |                          | Total:<br>0 to 12 |
|---|-----------------------|------------------------|--------------------------|-------------------|
|   | 0 to 2 or<br>Infant   | 3 to 5 or<br>Preschool | 6 to 12 or<br>School Age |                   |
| <b>Total # of Children Requiring Licensed Care (1)</b>    |                       |                        |                          |                   |
| North   | 888                   | 1,915                  | 2,424                    | 5,227             |
| Central   | 1,217                 | 2,183                  | 2,389                    | 5,789             |
| South   | 379                   | 689                    | 865                      | 1,933             |
| <b>Total Citywide</b>                                     | <b>2,484</b>          | <b>4,787</b>           | <b>5,678</b>             | <b>12,949</b>     |
| <b>Total Existing Child Care Spaces</b>                   |                       |                        |                          |                   |
| North   | 264                   | 1,389                  | 1,376                    | 3,029             |
| Central   | 494                   | 3,107                  | 1,369                    | 4,970             |
| South   | 295                   | 1,578                  | 644                      | 2,517             |
| <b>Total Citywide</b>                                     | <b>1,053</b>          | <b>6,074</b>           | <b>3,389</b>             | <b>10,516</b>     |
| <b>Existing Shortage/Surplus</b>                          |                       |                        |                          |                   |
| North   | (624)                 | (526)                  | (1,048)                  | (2,198)           |
| Central   | (723)                 | 924                    | (1,020)                  | (819)             |
| South   | (84)                  | 889                    | (221)                    | 584               |
| <b>Total Citywide</b>                                     | <b>(1,431)</b>        | <b>1,287</b>           | <b>(2,289)</b>           | <b>(2,433)</b>    |
| Percent of Total Demand Met by Supply                     | 42%                   | 127%                   | 60%                      |                   |
| <b>New Demand for Child Care Spaces: 2014 to 2035 (1)</b> |                       |                        |                          |                   |
| North   | 483                   | 1,060                  | 1,363                    | 2,907             |
| Central   | 263                   | 447                    | 451                      | 1,162             |
| South   | 130                   | 191                    | 161                      | 482               |
| <b>Total Demand from Growth</b>                           | <b>877</b>            | <b>1,698</b>           | <b>1,976</b>             | <b>4,551</b>      |
| <b>Total of Existing and New Shortage 2035 (2)</b>        | <b>(2,308)</b>        | <b>(411)</b>           | <b>(4,264)</b>           | <b>(6,984)</b>    |

Note: Some totals may be slightly off due to rounding.

(1) Includes demand from residents and employees

(2) Since there is no planned future supply at this point, estimated new child care demand is added to current surplus/shortage.

Source: City of Irvine; Brion Economics, Inc.

## 1. Existing Child Care Supply and Demand Analysis

This section describes the approach, the source of demographic data, and the overall methodology and assumptions used to estimate current child care need in the City.

### ***Approach and Methodology: Existing Demand***

The following steps are used to determine current resident demand for child care. Initially, it is necessary to estimate the total number of children for each age group, Infants (0-2 years), Preschool (3-5 years), and School Age (6-12 years) by study area. The breakdown of children by age is calculated by applying the children by age data from the 2010 U.S. Census (most recent data available) to the current total City population, based on the City of Irvine Land Use Centralized Database, accessed in August 2014 (see **Appendix Tables A-1 , A-2, and A-3**).

The breakdown of children by age group by study area as of 2014, and children as a percentage of the overall population, is summarized in **Table 2**. In the North, children 0 to 12 years old equal 18.4% of total population, or 14,843 children; in the Central area, this figure is 16.6% or 14,871 children; and in the South area, this figure equals 11.3%, or 6,070 children.

By age group, infants make up 3.5% of the City's population, preschoolers comprise 3.7% of the City's population, and school age children make up 8.8% of the City's population. Overall, children 0 to 12 years old make up 16% of the total population in the City of Irvine, or 35,784 children.

The next step is to calculate the number of children with working parents. To do so, each number of children by age group is multiplied by the Labor Force Participation Rates (LFPRs) from the American Community Survey (ACS) 2008-2012 5-Year Estimates, from the U.S. Census Bureau by age and study area. LFPRs indicate the percentage of households with two working parents or with a single parent who works. This is a key data item used in estimating child care demand. Table 3 highlights the difference in labor force participation rates by study area and age group. The Census reports this data for working families with children under 6 and over 6. The study uses the under 6 data for infants and preschool age children and the over 6 for school age children. As shown, these factors vary by area and age. As children age, more women go back to work and the LFPRs increase in the over 6 category. This is common in all communities throughout the State.

The highest average LFPR in Irvine is that of parents with school age children in the Central area at 65.1%. The South study area has the lowest over 6 years old rate at 58.5% and the North study area has a similar rate to the Central area at 64.9%. LFPRs for parents of infants and preschool age children citywide (under 6 years old) is approximately 56%. The North study area has a LFPR of 59.2%, for both infants and preschool age children, higher than the two other study areas.

**Table 2**  
**Number of Children and Total Population by Study Area - 2014**  
**City of Irvine Child Care Needs Assessment**

| Study Area                        | 2014<br>Total<br>Population (1) | Children by Age (1) |                        |                          |                             |
|-----------------------------------|---------------------------------|---------------------|------------------------|--------------------------|-----------------------------|
|                                   |                                 | 0 to 2 or<br>Infant | 3 to 5 or<br>Preschool | 6 to 12 or<br>School Age | Total, 0 to 12<br>Years Old |
| <b>North</b>                      |                                 |                     |                        |                          |                             |
| Children as % of Total Population |                                 | 3.9%                | 4.2%                   | 10.3%                    | 18.4%                       |
| Total Population                  | 80,772                          |                     |                        |                          |                             |
| Estimated Children at 2014        |                                 | 3,150               | 3,394                  | 8,298                    | 14,843                      |
| <b>Central</b>                    |                                 |                     |                        |                          |                             |
| Children as % of Total Population |                                 | 3.6%                | 3.8%                   | 9.1%                     | 16.6%                       |
| Total Population                  | 89,836                          |                     |                        |                          |                             |
| Estimated Children at 2014        |                                 | 3,270               | 3,444                  | 8,156                    | 14,871                      |
| <b>South</b>                      |                                 |                     |                        |                          |                             |
| Children as % of Total Population |                                 | 2.7%                | 2.5%                   | 6.1%                     | 11.3%                       |
| Total Population                  | 53,731                          |                     |                        |                          |                             |
| Estimated Children at 2014        |                                 | 1,429               | 1,356                  | 3,285                    | 6,070                       |
| <b>Total City</b>                 |                                 |                     |                        |                          |                             |
| Children as % of Total Population |                                 | 3.5%                | 3.7%                   | 8.8%                     | 16.0%                       |
| <b>Total Population</b>           | <b>224,339</b>                  |                     |                        |                          |                             |
| <b>Estimated Children at 2014</b> |                                 | <b>7,849</b>        | <b>8,195</b>           | <b>19,740</b>            | <b>35,784</b>               |
| Percent distribution by Age       |                                 | 22%                 | 23%                    | 55%                      | 100%                        |

*Note: Some totals may be slightly off due to rounding.*

(1) Total population by study area is from City of Irvine Land Use Centralized Database, accessed August 2014.  
Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.

Sources: City of Irvine; U.S. Census 2010; Brion Economics, Inc.

**Table 3**  
**Labor Force Participation Rates by Study Area and Age Group - as of 2012**  
**City of Irvine Child Care Needs Assessment**

| Study Area      | Labor Force Participation Rates by Age (1) |                        |                          |
|-----------------|--|------------------------|--------------------------|
|                 | 0 to 2 or<br>Infant                        | 3 to 5 or<br>Preschool | 6 to 12 or<br>School Age |
| North           | 59.2%                                      | 59.2%                  | 64.9%                    |
| Central         | 54.8%                                      | 54.8%                  | 65.1%                    |
| South           | 48.7%                                      | 48.7%                  | 58.5%                    |
| <b>Citywide</b> | <b>55.5%</b>                               | <b>55.6%</b>           | <b>63.9%</b>             |

*Note: Some totals may be slightly off due to rounding.*

(1) Labor Force Participation Rates are for children with all parents working and are broken up by the U.S. Census into two age groups: children under 6 and children 6 to 17. Data for the three areas is based on Census tract level data and citywide data as reported for the City of Irvine. Data is derived from 5 years of data but represents an estimate for 2012. For the citywide rates, they are derived based on the totals for the three study areas.

(2) The citywide rates are derived by applying labor force participation rates to the number of children by age by study area, then adding the number of children with working parents for the three areas and dividing the sum by the total number of children by age group.

Sources: ACS 2008-2012 5-Year Estimates; Brion Economics, Inc.

The final step in calculating resident child care demand is to multiply the number of children with working parents by the percentage of children who need licensed care by age group (Licensed Care Demand Factor: 37% of infants, 85% of preschool age, and 45% of school age). These percentages and methodology have been adopted by the California Child Care Coordinators Association and are accepted as standard demand for licensed care among working families. It is assumed that families who do not require licensed care are using other family members, nannies, or other license-exempt care to meet their child care needs. There are 11,162 Irvine children requiring licensed child care spaces citywide, as shown in **Table 6**.

In addition to resident demand, it is important to assess the demand for licensed child care from non-resident employees that commute into the City since proximity to home or work is a key factor in accessing child care. The following data are used to determine **current non-resident employee demand** for child care:

As the basis for non-resident demand it is necessary to estimate how many employees commute to Irvine for work from outside the City. To do so, Journey-to-Work data from the U.S. Census (see **Table 4**) is applied to the total number of employees in the City and by study area, from the City of Irvine Land Use Centralized Database, accessed in August 2014 (see appendix **Table A-6** for total current employees). Using this data allows us to not double-count residents that live and work in the City.

Based on Census Tract level data for 2010, it is calculated that 24.9% of employees in the North, or 11,389 of 45,815 total employees in that area, live and work in Irvine, as shown in **Table 4**. Details of employment projections are found in **Table A-6**. The remaining 34,427 employees in the North live outside of the City and commute in for work. For the Central area, 22.5%, or 28,002 of the total 124,179 employees in the area, live and work in Irvine. The other 96,177 employees commute into Irvine for work. In the South, 26.0%, or 7,431 of the total 28,614 employees, live and work in Irvine. The other 21,183 employees in the South commute into Irvine for work. Citywide, a total of 151,787 employees commute into Irvine for work or 76.4%.

This study then assumes the age breakdown of the child care need of non-resident employees (1,787) is 49% infants (874) and 51% preschoolers (913), based on the current proportion of infants and preschool age children in the City, as shown in **Table 4**. Generally, most parents place their school age children in child care that is near their school, or place of residence. Thus we do not include non-resident employee demand for school age care.

**Table 4**  
**Employees Living Elsewhere but Working in Irvine - 2014**  
**City of Irvine Child Care Needs Assessment**

| Study Area   | Total Employees | % that Live/Work in Irvine in 2010 (1) | # of Employees Who Live/Work In Irvine | Non-Resident Employees Working in Study Area 2014 | Estimate of Employees Needing Child Care (2) | 0 to 2 Year Olds 49% | 3 to 5 Year Olds 51% |
|--------------|-----------------|--|--|---|--|----------------------|----------------------|
| North        | 45,815          | 24.9%                                  | 11,389                                 | 34,427  | 405  | 198                  | 207                  |
| Central      | 124,179         | 22.5%                                  | 28,002                                 | 96,177  | 1,132  | 554                  | 579                  |
| South        | 28,614          | 26.0%                                  | 7,431                                  | 21,183  | 249  | 122                  | 127                  |
| <b>Total</b> | <b>198,608</b>  | <b>23.6%</b>                           | <b>46,821</b>                          | <b>151,787</b>                                    | <b>1,787</b>                                 | <b>874</b>           | <b>913</b>           |

*Note: Some totals may be slightly off due to rounding.*

(1) Based on Journey-to-Work data from the 2010 U.S. Census by census tract summed and averaged by study area.

(2) See Table 4 for non resident employees that need care: estimate equals 1.2%

Sources: U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates;  
Special Tabulation: Census Transportation Planning; City of Irvine; Brion Economics, Inc.

To estimate the overall percentage of non-resident employee demand relative to total supply, the percentage of non-resident enrollees in licensed child care, based on the 2008 Irvine Child Care Provider Survey and Study, is applied to current licensed child care supply, based on the October 2014 Child Care Survey conducted by the City of Irvine, Child Care Coordination Office, resulting in a total of 1,787 spaces currently being utilized by non-resident employees. This number of spaces is then divided by the total number of non-resident employees (151,787). Therefore, it is estimated that 1.2% of employees who work in Irvine and live outside of the City require licensed child care in the City, assuming one child per employee (see **Table 5**). In similar child care needs analysis completed throughout the State, employee demand averages 3 to

15%, therefore this estimate is considered conservative.

**Table 5**  
**Non-Resident Employee Child Care Demand**  
**City of Irvine Child Care Needs Assessment**

| Item                         | Base<br>Employment<br>and Rate | Child Care<br>Centers | Large FCCHs | Small FCCHs | Total, All<br>Types |
|------------------------------|--------------------------------|-----------------------|-------------|-------------|---------------------|
| Total Existing Spaces (1)    |                                | 5,981                 | 756         | 736         | 7,473               |
| % Employee Demand - 2008 (2) |                                | 26.0%                 | 18.0%       | 13.0%       | 20.0%               |
| Employee Demand - 2014       |                                | 1,555                 | 136         | 96          | 1,787               |

Total Non-Resident Employees-2014 151,787  
Employee Child Care Demand as  
**Percent of Total Employees** 1.2%

*Note: Some totals may be slightly off due to rounding.*

- (1) Child care spaces from October 2014 Child Care Survey conducted by the City of Irvine, Child Care Coordinator's Office (see Table 7).
- (2) The 2008 Irvine Child Care Study conducted by Children and Family Futures for the City of Irvine found that 26% of preschool enrollees and 18% of Large Family Child Care Home and 13% of Small Family Child Care Home enrollees were non-residents of the City.

Sources: City of Irvine; Brion Economics, Inc.

Resident and non-resident demand are combined to determine total existing child care demand as of 2014, or 12,949 children, as illustrated in **Table 6**. There are 11,162 Irvine children requiring licensed child care spaces citywide and 1,787 non-resident employee children, ages 0 to 5, that also need licensed child care spaces.

**Table 6**  
**Existing Child Care Demand in City of Irvine - 2014**  
**City of Irvine Child Care Needs Assessment**

| Existing Conditions   | City of Irvine of 2014 |                     |                       |                          |
|---|------------------------|---------------------|-----------------------|--------------------------|
|   | 0 to 2 or Infant       | 3 to 5 or Preschool | 6 to 12 or School Age | Total, 0 to 12 Years Old |
| <b>EXISTING DEMAND</b>  |                        |                     |                       |                          |
| Estimated Total Irvine Children   | (1) 7,849              | 8,195               | 19,740                | 35,784                   |
| Average Labor Force Participation Rates                                   | (2) 55.5%              | 55.6%               | 63.9%                 | 60.2%                    |
| No. of Irvine Children With Working Parents                               | 4,353                  | 4,557               | 12,617                | 21,528                   |
| Licensed Care Demand Factor   | (3) 37%                | 85%                 | 45%                   | 52%                      |
| No. of Irvine Children Needing Licensed Care                              | 1,611                  | 3,874               | 5,678                 | 11,162                   |
| % of Total Irvine Children Needing Licensed Care                          | 21%                    | 47%                 | 29%                   | 31%                      |
| Est. Number of Children from Non-Resident Employees Needing Licensed Care | (4) 874                | 913                 | -                     | 1,787                    |
| <b>Total Demand for Child Care Spaces</b>                                 | <b>2,484</b>           | <b>4,787</b>        | <b>5,678</b>          | <b>12,949</b>            |
| % Distribution  | 19%                    | 37%                 | 44%                   | 100%                     |

*Note: Some totals may be slightly off due to rounding.*

- (1) Total population by study area is from City of Irvine Land Use Centralized Database, accessed August 2014. Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.
  - (2) Labor force participation rates are for children with two working parents or children with single working parents. Rates vary by age, under 6 and 6 and over (see Table 3).
  - (3) Not all children with working parents are assumed to need licensed care: the assumptions - % - under each age category are based on the California Child Care Coordinators Association Needs Assessment Form. Result is the number of children with working parents needing licensed child care.
  - (4) Includes demand from employees that work in the City but live elsewhere, assuming one child per employee.
- Sources: City of Irvine; California Child Care Coordinators Association Needs Assessment Form; Brion Economics, Inc.

### **Approach and Methodology: Existing Supply**

The current supply of child care facilities and spaces by study area, broken down by type of child care (child care center; large and small family child care home) is shown in **Table 7**. This data is from the October 2014 Child Care Survey conducted by the City of Irvine, Child Care Coordination Office. Currently, there are a total of 222 facilities citywide with 10,516 spaces across all age groups. The majority of facilities, 124, are in the Central area. The North has 58 and the South has 40. Citywide there are 76 child care centers, 92 small family child care homes (FCCHs), and 54 large FCCHs. Small FCCHs are licensed for up to 8 children and large FCCHs are licensed for up to 14 children. In terms of spaces, licensed centers provide 86% of spaces in the City, with small and large FCCHs providing 7% each.

The City of Irvine provides recreational school age license-exempt care throughout the City. There are 90 spaces in the North area, 60 spaces in the Central area and 140 spaces in the South totaling 290 spaces. These spaces are not counted in the total supply numbers because they are license-exempt though they help meet the child care need for some working parents.

**Table 7**  
**Child Care Supply Data for City of Irvine - 2014**  
**City of Irvine Child Care Needs Assessment**

| Study Area and Type  | Number of Facilities (1) | Number of Spaces by Age |                     |                       |              | Total, 0 to 12 Years Old | Percent Distribution |
|----------------------|--------------------------|-------------------------|---------------------|-----------------------|--------------|--------------------------|----------------------|
|                      |                          | 0 to 2 or Infant        | 3 to 5 or Preschool | 6 to 12 or School Age |              |                          |                      |
| <b>North</b>         |                          |                         |                     |                       |              |                          |                      |
| Child Care Center    | (2)                      | 20                      | 179                 | 1,201                 | 1,291        | 2,671                    | 88%                  |
| FCCH Small           | (3)                      | 29                      | 58                  | 116                   | 58           | 232                      | 8%                   |
| FCCH Large           | (3)                      | 9                       | 27                  | 72                    | 27           | 126                      | 4%                   |
| <b>Total</b>         |                          | <b>58</b>               | <b>264</b>          | <b>1,389</b>          | <b>1,376</b> | <b>3,029</b>             | 100%                 |
| <b>Central</b>       |                          |                         |                     |                       |              |                          |                      |
| Child Care Center    | (2)                      | 34                      | 275                 | 2,591                 | 1,150        | 4,016                    | 81%                  |
| FCCH Small           | (3)                      | 51                      | 102                 | 204                   | 102          | 408                      | 8%                   |
| FCCH Large           | (3)                      | 39                      | 117                 | 312                   | 117          | 546                      | 11%                  |
| <b>Total</b>         |                          | <b>124</b>              | <b>494</b>          | <b>3,107</b>          | <b>1,369</b> | <b>4,970</b>             | 100%                 |
| <b>South</b>         |                          |                         |                     |                       |              |                          |                      |
| Child Care Center    | (2)                      | 22                      | 253                 | 1,482                 | 602          | 2,337                    | 93%                  |
| FCCH Small           | (3)                      | 12                      | 24                  | 48                    | 24           | 96                       | 4%                   |
| FCCH Large           | (3)                      | 6                       | 18                  | 48                    | 18           | 84                       | 3%                   |
| <b>Total</b>         |                          | <b>40</b>               | <b>295</b>          | <b>1,578</b>          | <b>644</b>   | <b>2,517</b>             | 100%                 |
| <b>Total City</b>    |                          |                         |                     |                       |              |                          |                      |
| Child Care Center    | (2)                      | 76                      | 707                 | 5,274                 | 3,043        | 9,024                    | 86%                  |
| FCCH Small           | (3)                      | 92                      | 184                 | 368                   | 184          | 736                      | 7%                   |
| FCCH Large           | (3)                      | 54                      | 162                 | 432                   | 162          | 756                      | 7%                   |
| <b>Total</b>         |                          | <b>222</b>              | <b>1,053</b>        | <b>6,074</b>          | <b>3,389</b> | <b>10,516</b>            | <b>100%</b>          |
| Percent Distribution |                          |                         | 10%                 | 58%                   | 32%          | 100%                     |                      |

*Note: Some totals may be slightly off due to rounding.*

- (1) Number of child care facilities by type and area from October 2014 Child Care Survey conducted by the City of Irvine, Child Care Coordination Office.
- (2) Number of spaces by age for child care centers from October 2014 Child Care Survey conducted by the City of Irvine, Child Care Coordination Office.
- (3) For family child care homes, it is assumed that small FCCHs have 2 infant spaces, 4 preschool spaces, and 2 school age spaces. For Large FCCHs, it is assumed that there are 3 infant spaces, 8 preschool spaces, and 3 school age spaces.

Sources: City of Irvine Child Care Coordination Office; City of Irvine Child Resource Center; Brion Economics, Inc.

### ***Current Supply and Demand as of 2014***

**Table 8** calculates the current citywide child care supply and demand in Irvine. Of the 35,784 children ages 0 to 12 years old in the City of Irvine, 11,162 or 31% require licensed child care spaces based on children with working parents and the percentage of those children requiring licensed care. An additional 1,787 children of non-resident employees require care, for a total demand of 12,949 spaces. Current supply provides 10,516 spaces, leaving a shortfall of 2,433 spaces.

Significant shortages exist in both infant and school age care categories throughout the City. There are 2,484 infants requiring licensed child care, with 1,053 total existing spaces, the result is a shortage of 1,431 spaces. Citywide, infant care has the greatest percentage of shortages with only 42% of demand currently met. This is followed by school age, which also has a shortage of 2,289 spaces and only 60% of demand currently met. For preschool age there is a surplus of 1,287 spaces and 127% of total demand being met, though these spaces are concentrated in the Central and South. Given that the analysis does not account for parents that desire child care for social and developmental reasons, this surplus is likely absorbed by these families.

The current supply and demand analysis for child care in the North, Central and South study areas is summarized in **Tables 9, 10** and **11**. **Table 12** provides a summary of current supply and demand by study area and age group.

**Table 8**  
**Existing Child Care Demand and Supply in City of Irvine - 2014**  
**City of Irvine Child Care Needs Assessment**

| Existing Conditions  | City of Irvine of 2014 |                     |                       |                          |                |
|--|------------------------|---------------------|-----------------------|--------------------------|----------------|
|  | 0 to 2 or Infant       | 3 to 5 or Preschool | 6 to 12 or School Age | Total, 0 to 12 Years Old |                |
| <b>EXISTING DEMAND</b>   |                        |                     |                       |                          |                |
| Estimated Total Irvine Children  | (1)                    | 7,849               | 8,195                 | 19,740                   | 35,784         |
| Average Labor Force Participation Rates                                      | (2)                    | 55.5%               | 55.6%                 | 63.9%                    | 60.2%          |
| No. of Irvine Children With Working Parents                                  |                        | 4,353               | 4,557                 | 12,617                   | 21,528         |
| Licensed Care Demand Factor  | (3)                    | 37%                 | 85%                   | 45%                      | 52%            |
| No. of Irvine Children Needing Licensed Care                                 |                        | 1,611               | 3,874                 | 5,678                    | 11,162         |
| % of Total Irvine Children Needing Licensed Care                             |                        | 21%                 | 47%                   | 29%                      | 31%            |
| Est. Number of Children from Non-Resident Employees<br>Needing Licensed Care | (4)                    | 874                 | 913                   | -                        | 1,787          |
| <b>Total Demand for Child Care Spaces</b>                                    |                        | <b>2,484</b>        | <b>4,787</b>          | <b>5,678</b>             | <b>12,949</b>  |
| % Distribution   |                        | 19%                 | 37%                   | 44%                      | 100%           |
| <b>EXISTING SUPPLY</b>   |                        |                     |                       |                          |                |
| Family Child Care Homes Supply   | (5)                    |                     |                       |                          |                |
| Licensed for 8   |                        | 184                 | 368                   | 184                      | 736            |
| Licensed for 14  |                        | 162                 | 432                   | 162                      | 756            |
| Existing Child Care Center Spaces  |                        | 707                 | 5,274                 | 3,043                    | 9,024          |
| Current Existing Spaces  |                        | 1,053               | 6,074                 | 3,389                    | 10,516         |
| % Distribution   |                        | 10%                 | 58%                   | 32%                      | 100%           |
| <b>EXISTING SURPLUS/(SHORTAGE)</b>   |                        | <b>(1,431)</b>      | <b>1,287</b>          | <b>(2,289)</b>           | <b>(2,433)</b> |
| Percentage of Demand Met<br>by Existing Facilities/Spaces                    |                        | 42%                 | 127%                  | 60%                      | 81%            |

*Note: Some totals may be slightly off due to rounding.*

(1) Total population by study area is from City of Irvine Land Use Centralized Database, accessed August 2014.

Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.

(2) Labor force participation rates are for children with two working parents or children with single working parents. See Table 3.

(3) Not all children with working parents are assumed to need licensed care: the assumptions - % - under each age category are based on the California Child Care Coordinators Association Needs Assessment Form. Result is the number of children with working parents needing licensed child care.

(4) Includes demand from employees that work in the City but live elsewhere, assuming one child per employee.

(5) See Table 7 for the sources of child care supply information.

Sources: City of Irvine: CCCA Needs Assessment Form; 2010 Census; Brion Economics, Inc.

**Table 9**  
**Existing Child Care Demand and Supply in North Study Area - 2014**  
**City of Irvine Child Care Needs Assessment**

| Existing Conditions  | North Study Area as of 2014 |                     |                       |                          |                |
|--|-----------------------------|---------------------|-----------------------|--------------------------|----------------|
|  | 0 to 2 or Infant            | 3 to 5 or Preschool | 6 to 12 or School Age | Total, 0 to 12 Years Old |                |
| <b>Estimated Total Irvine Children</b>                                       |                             |                     |                       |                          |                |
| Estimated Total Irvine Children  | (1)                         | 3,150               | 3,394                 | 8,298                    | 14,843         |
| Average Labor Force Participation Rates                                      | (2)                         | 59.2%               | 59.2%                 | 64.9%                    | 62.4%          |
| No. of Irvine Children With Working Parents                                  |                             | 1,865               | 2,009                 | 5,386                    | 9,260          |
| Licensed Care Demand Factor  | (3)                         | 37%                 | 85%                   | 45%                      | 52%            |
| No. of Irvine Children Needing Licensed Care                                 |                             | 690                 | 1,708                 | 2,424                    | 4,822          |
| % of Total Irvine Children Needing Licensed Care                             |                             | 22%                 | 50%                   | 29%                      | 32%            |
| Est. Number of Children from Non-Resident Employees<br>Needing Licensed Care | (4)                         | 198                 | 207                   | -                        | 405            |
| <b>Total Demand for Child Care Spaces</b>                                    |                             | <b>888</b>          | <b>1,915</b>          | <b>2,424</b>             | <b>5,227</b>   |
| % Distribution   |                             | 17%                 | 37%                   | 46%                      | 100%           |
| <b>EXISTING SUPPLY</b>   |                             |                     |                       |                          |                |
| (5)  |                             |                     |                       |                          |                |
| Family Child Care Homes Supply   |                             |                     |                       |                          |                |
| Licensed for 8   |                             | 58                  | 116                   | 58                       | 232            |
| Licensed for 14  |                             | 27                  | 72                    | 27                       | 126            |
| Existing Child Care Center Spaces  |                             | 179                 | 1,201                 | 1,291                    | 2,671          |
| Current Existing Spaces  |                             | 264                 | 1,389                 | 1,376                    | 3,029          |
| % Distribution   |                             | 9%                  | 46%                   | 45%                      | 100%           |
| <b>EXISTING SURPLUS/(SHORTAGE)</b>   |                             | <b>(624)</b>        | <b>(526)</b>          | <b>(1,048)</b>           | <b>(2,198)</b> |
| Percentage of Demand Met<br>by Existing Facilities/Spaces                    |                             | 30%                 | 73%                   | 57%                      | 58%            |

*Note: Some totals may be slightly off due to rounding.*

- (1) Total population by study area is from City of Irvine Land Use Centralized Database, accessed August 2014.  
Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.
  - (2) Labor force participation rates are for children with two working parents or children with single working parents.  
See Table 3.
  - (3) Not all children with working parents are assumed to need licensed care: the assumptions - % - under each age category are based on the California Child Care Coordinators Association Needs Assessment Form.  
Result is the number of children with working parents needing licensed child care.
  - (4) Includes demand from employees that work in the City but live elsewhere, assuming one child per employee.
  - (5) See Table 7 for the sources of child care supply information.
- Sources: City of Irvine: CCCA Needs Assessment Form; 2010 Census; Brion Economics, Inc.

**Table 10**  
**Existing Child Care Demand and Supply in Central Study Area - 2014**  
**City of Irvine Child Care Needs Assessment**

| Existing Conditions  | Central Study Area as of 2014 |                        |                          |                             |              |
|--|-------------------------------|------------------------|--------------------------|-----------------------------|--------------|
|  | 0 to 2 or<br>Infant           | 3 to 5 or<br>Preschool | 6 to 12 or<br>School Age | Total, 0 to 12<br>Years Old |              |
| <b>EXISTING DEMAND</b>   |                               |                        |                          |                             |              |
| Estimated Total Irvine Children  | (1)                           | 3,270                  | 3,444                    | 8,156                       | 14,871       |
| Average Labor Force Participation Rates                                      | (2)                           | 54.8%                  | 54.8%                    | 65.1%                       | 60.4%        |
| No. of Irvine Children With Working Parents                                  |                               | 1,792                  | 1,888                    | 5,310                       | 8,989        |
| Licensed Care Demand Factor  | (3)                           | 37%                    | 85%                      | 45%                         | 52%          |
| No. of Irvine Children Needing Licensed Care                                 |                               | 663                    | 1,604                    | 2,389                       | 4,657        |
| % of Total Irvine Children Needing Licensed Care                             |                               | 20%                    | 47%                      | 29%                         | 31%          |
| Est. Number of Children from Non-Resident Employees<br>Needing Licensed Care | (4)                           | 554                    | 579                      | -                           | 1,132        |
| <b>Total Demand for Child Care Spaces</b>                                    |                               | <b>1,217</b>           | <b>2,183</b>             | <b>2,389</b>                | <b>5,789</b> |
| % Distribution   |                               | 21%                    | 38%                      | 41%                         | 100%         |
| <b>EXISTING SUPPLY</b>   |                               |                        |                          |                             |              |
| Family Child Care Homes Supply   | (5)                           |                        |                          |                             |              |
| Licensed for 8   |                               | 102                    | 204                      | 102                         | 408          |
| Licensed for 14  |                               | 117                    | 312                      | 117                         | 546          |
| Existing Child Care Center Spaces  |                               | 275                    | 2,591                    | 1,150                       | 4,016        |
| Current Existing Spaces  |                               | 494                    | 3,107                    | 1,369                       | 4,970        |
| % Distribution   |                               | 10%                    | 63%                      | 28%                         | 100%         |
| <b>EXISTING SURPLUS/(SHORTAGE)</b>   |                               | <b>(723)</b>           | <b>924</b>               | <b>(1,020)</b>              | <b>(819)</b> |
| Percentage of Demand Met<br>by Existing Facilities/Spaces                    |                               | 41%                    | 142%                     | 57%                         | 86%          |

Note: Some totals may be slightly off due to rounding.

- (1) Total population by study area is from City of Irvine Land Use Centralized Database, accessed August 2014.  
Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.
- (2) Labor force participation rates are for children with two working parents or children with single working parents.  
See Table 3.
- (3) Not all children with working parents are assumed to need licensed care: the assumptions - % - under each age category are based on the California Child Care Coordinators Association Needs Assessment Form.  
Result is the number of children with working parents needing licensed child care.
- (4) Includes demand from employees that work in the City but live elsewhere, assuming one child per employee.
- (5) See Table 7 for the sources of child care supply information.

Sources: City of Irvine; CCCA Needs Assessment Form; 2010 Census; Brion Economics, Inc.

**Table 11**  
**Existing Child Care Demand and Supply in South Study Area - 2014**  
**City of Irvine Child Care Needs Assessment**

| Existing Conditions  | South Study Area as of 2014 |                     |                       |                          |
|--|-----------------------------|---------------------|-----------------------|--------------------------|
|  | 0 to 2 or Infant            | 3 to 5 or Preschool | 6 to 12 or School Age | Total, 0 to 12 Years Old |
| <b>EXISTING DEMAND</b>   |                             |                     |                       |                          |
| Estimated Total Irvine Children  | (1) 1,429                   | 1,356               | 3,285                 | 6,070                    |
| Average Labor Force Participation Rates                                      | (2) 48.7%                   | 48.7%               | 58.5%                 | 54.0%                    |
| No. of Irvine Children With Working Parents                                  | 696                         | 660                 | 1,922                 | 3,278                    |
| Licensed Care Demand Factor  | (3) 37%                     | 85%                 | 45%                   | 51%                      |
| No. of Irvine Children Needing Licensed Care                                 | 257                         | 561                 | 865                   | 1,684                    |
| % of Total Irvine Children Needing Licensed Care                             | 18%                         | 41%                 | 26%                   | 28%                      |
| Est. Number of Children from Non-Resident Employees<br>Needing Licensed Care | (4) 122                     | 127                 | -                     | 249                      |
| <b>Total Demand for Child Care Spaces</b>                                    | <b>379</b>                  | <b>689</b>          | <b>865</b>            | <b>1,933</b>             |
| % Distribution   | 20%                         | 36%                 | 45%                   | 100%                     |
| <b>EXISTING SUPPLY</b>   |                             |                     |                       |                          |
| Family Child Care Homes Supply   | (5)                         |                     |                       |                          |
| Licensed for 8   | 24                          | 48                  | 24                    | 96                       |
| Licensed for 14  | 18                          | 48                  | 18                    | 84                       |
| Existing Child Care Center Spaces  | 253                         | 1,482               | 602                   | 2,337                    |
| Current Existing Spaces  | 295                         | 1,578               | 644                   | 2,517                    |
| % Distribution   | 12%                         | 63%                 | 26%                   | 100%                     |
| <b>EXISTING SURPLUS/(SHORTAGE)</b>   | <b>(84)</b>                 | <b>889</b>          | <b>(221)</b>          | <b>584</b>               |
| Percentage of Demand Met<br>by Existing Facilities/Spaces                    | 78%                         | 229%                | 74%                   | 130%                     |

*Note: Some totals may be slightly off due to rounding.*

- (1) Total population by study area is from City of Irvine Land Use Centralized Database, accessed August 2014. Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.
- (2) Labor force participation rates are for children with two working parents or children with single working parents. See Table 3.
- (3) Not all children with working parents are assumed to need licensed care: the assumptions - % - under each age category are based on the California Child Care Coordinators Association Needs Assessment Form. Result is the number of children with working parents needing licensed child care.
- (4) Includes demand from employees that work in the City but live elsewhere, assuming one child per employee.
- (5) See Table 7 for the sources of child care supply information.

Sources: City of Irvine; CCCA Needs Assessment Form; 2010 Census; Brion Economics, Inc.

**Table 12**  
**Summary of Child Care Supply and Demand by Study Area - 2014**  
**City of Irvine Child Care Needs Assessment**

| Item   | Children by Age Group (1) |                        |                          |                             |
|--|---------------------------|------------------------|--------------------------|-----------------------------|
|  | 0 to 2 or<br>Infant       | 3 to 5 or<br>Preschool | 6 to 12 or<br>School Age | Total, 0 to 12<br>Years Old |
| <b>No. of Children Requiring Licensed Care</b> |                           |                        |                          |                             |
| North  | 888                       | 1,915                  | 2,424                    | 5,227                       |
| Central  | 1,217                     | 2,183                  | 2,389                    | 5,789                       |
| South  | <u>379</u>                | <u>689</u>             | <u>865</u>               | <u>1,933</u>                |
| <b>Total Citywide</b>                          | <b>2,484</b>              | <b>4,787</b>           | <b>5,678</b>             | <b>12,949</b>               |
| <b>No. of Existing Child Care Spaces</b>       |                           |                        |                          |                             |
| North  | 264                       | 1,389                  | 1,376                    | 3,029                       |
| Central  | 494                       | 3,107                  | 1,369                    | 4,970                       |
| South  | <u>295</u>                | <u>1,578</u>           | <u>644</u>               | <u>2,517</u>                |
| <b>Total Citywide</b>                          | <b>1,053</b>              | <b>6,074</b>           | <b>3,389</b>             | <b>10,516</b>               |
| <b>Existing Shortage/Surplus</b>               |                           |                        |                          |                             |
| North  | (624)                     | (526)                  | (1,048)                  | (2,198)                     |
| Central  | (723)                     | 924                    | (1,020)                  | (819)                       |
| South  | (84)                      | 889                    | (221)                    | 584                         |
| <b>Total Citywide</b>                          | <b>(1,431)</b>            | <b>1,287</b>           | <b>(2,289)</b>           | <b>(2,433)</b>              |
| <b>Percent of Demand Met</b>                   |                           |                        |                          |                             |
| North  | 30%                       | 73%                    | 57%                      | 58%                         |
| Central  | 41%                       | 142%                   | 57%                      | 86%                         |
| South  | <u>78%</u>                | <u>229%</u>            | <u>74%</u>               | <u>130%</u>                 |
| <b>Total Citywide</b>                          | <b>42%</b>                | <b>127%</b>            | <b>60%</b>               | <b>81%</b>                  |

*Note: Some totals may be slightly off due to rounding.*

(1) Including demand from children who live elsewhere, but have parents who work in Irvine.

Sources: City of Irvine; Brion Economics, Inc.

As shown in **Table 12**, the North study area has shortages in child care spaces for every age group or a total of 2,198 spaces. The Central and South areas have a surplus of preschool spaces, but shortages for infants and school age children.

The North and Central areas have the greatest amount of infant care shortages, approximately 624 and 723, respectively, compared with a shortfall of 84 spaces for the South. The North has a shortage of 526 preschool spaces while both the Central and South areas have surpluses. All areas have shortages in school age care with a city wide shortage of 2,289 spaces. Current demand for child care leaves Irvine with a total shortage of 2,433 spaces.

## 2. Future Child Care Demand Analysis

### ***Approach and Methodology: Future Demand***

The same methodology used to estimate current demand as of 2014 is applied to the future growth for the City as a whole and by study area to estimate child care demand for 2035, when the City is expected to be built-out. Since there is no planned future supply at this point, only child care demand as it relates to current supply is discussed below.

To determine **future resident demand** for child care it is first necessary to calculate the projected increase in population in 2035.

**Table 13**  
**Population Growth by Study Area - 2014 to 2035**  
**City of Irvine Child Care Needs Assessment**

| Study Area        | Population (1) |                |               |            |
|-------------------|----------------|----------------|---------------|------------|
|                   | 2014           | 2035           | 2014-2035     | % Change   |
| North             | 80,772         | 126,215        | 45,443        | 56%        |
| Central           | 89,836         | 106,809        | 16,973        | 19%        |
| South             | 53,731         | 63,715         | 9,984         | 19%        |
| <b>Total City</b> | <b>224,339</b> | <b>296,739</b> | <b>72,399</b> | <b>32%</b> |

*Note: Some totals may be slightly off due to rounding.*

(1) Based on City of Irvine Land Use Centralized Database providing estimated buildout data, accessed August 2014 (see Table A-2 in Appendix).

Sources: City of Irvine; Brion Economics, Inc.

**Table 13** summarizes current and future population in the City of Irvine and is broken down by each of the three study areas over the next 20 years. The City of Irvine’s total population is expected to grow by 72,399 residents or 32%, from 224,300 to 296,700, between 2014 and 2035 (see appendix **Table A-2** for details of future population).

The greatest residential development and population growth will take place in the North study area of the City, which will increase from 80,772 to 126,215 residents. This represents a 56% increase in population. The Central area will see the second greatest amount of population growth, increasing by 16,973 residents from approximately 89,836 to 106,809 residents, a 19% increase. The South area will see the smallest population growth, increasing by just fewer than 10,000 residents, from 53,731 to 63,715, or a 19% increase.

Next, it is necessary to estimate the projected number of children in Irvine, by each study area and in total. In order to do this, the 2010 US Census data was used to determine the percentage of children by age of the total population (See appendix **Table A-2**). The percentages were then applied to projected 2035 population, based on the City of Irvine Land Use Centralized Database (see appendix **Table A-4**).

**Table 14** summarizes population growth from 2014 to 2035 for the City of Irvine by age group and by study area. In the North, there will be a total of 8,351 new children, consisting of 1,772 additional infants, 1,910 additional preschoolers, and 4,669 school age children, representing the largest growth of any area. Central will see 618 new infants, 651 new preschoolers, and 1,541 new school age kids, for a total of 2,810 total new children. The South will see the least amount of growth with 266 new infants, 252 new preschoolers, and approximately 610 new school age kids, for a total of 1,128 new children. Overall, there will be 12,288 new children citywide.

**Table 14**  
**Number of Children and Total Population Growth by Study Area - 2014 to 2035**  
City of Irvine Child Care Needs Assessment

| Study Area                        | 2014 to 2035<br>Total Population<br>Growth (1) | Children by Age (1) |                        |                          |                            |
|-----------------------------------|--|---------------------|------------------------|--------------------------|----------------------------|
|                                   |  | 0 to 2 or<br>Infant | 3 to 5 or<br>Preschool | 6 to 12 or<br>School Age | Total 0 to 12<br>Years Old |
| <b>North</b>                      |  |                     |                        |                          |                            |
| Children as % of Total Population |  | 3.9%                | 4.2%                   | 10.3%                    | 18.4%                      |
| Totals                            | 45,443   | 1,772               | 1,910                  | 4,669                    | 8,351                      |
| <b>Central</b>                    |  |                     |                        |                          |                            |
| Children as % of Total Population |  | 3.6%                | 3.8%                   | 9.1%                     | 16.6%                      |
| Totals                            | 16,973   | 618                 | 651                    | 1,541                    | 2,810                      |
| <b>South</b>                      |  |                     |                        |                          |                            |
| Children as % of Total Population |  | 2.7%                | 2.5%                   | 6.1%                     | 11.3%                      |
| Totals                            | 9,984  | 266                 | 252                    | 610                      | 1,128                      |
| <b>Total City</b>                 |  |                     |                        |                          |                            |
| Children as % of Total Population |  | 3.7%                | 3.9%                   | 9.4%                     | 17.0%                      |
| <b>Totals</b>                     | <b>72,399</b>                                  | <b>2,656</b>        | <b>2,812</b>           | <b>6,820</b>             | <b>12,288</b>              |

*Note: Some totals may be slightly off due to rounding.*

(1) Total population by study area is from City of Irvine Land Use Centralized Database, accessed August 2014.

Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.

Sources: City of Irvine; US Census 2010; Brion Economics, Inc.

The total projected number of children by age group is then multiplied by the Labor Force Participation Rates (LFPRs) from the American Community Survey (ACS) 2012 5-Year Estimates, from the U.S. Census Bureau to calculate the projected number of children with working parents, as shown in **Table 15**.

The final step in estimating future resident child care need is multiplying the projected number of children with working parents by the percentage of children by age group requiring licensed care. The California Child Care Coordinators Association estimates 37% of infants, 85% of preschool age, and 45% of school age children require licensed child care (Licensed Care Demand Factor). It is assumed that those who do not require licensed care are using other family members, nannies, or other license exempt care.

**Table 15**  
**Labor Force Participation Rates by Study Area and Age Group - at 2035**  
**City of Irvine Child Care Needs Assessment**

| Study Area      | Labor Force Participation Rates by Age (1) |                        |                          |
|-----------------|--|------------------------|--------------------------|
|                 | 0 to 2 or<br>Infant                        | 3 to 5 or<br>Preschool | 6 to 12 or<br>School Age |
| North           | 59.2%                                      | 59.2%                  | 64.9%                    |
| Central         | 54.8%                                      | 54.8%                  | 65.1%                    |
| South           | 48.7%                                      | 48.7%                  | 58.5%                    |
| <b>Citywide</b> | <b>57.1%</b>                               | <b>57.2%</b>           | <b>64.4%</b>             |

*Note: Some totals may be slightly off due to rounding.*

- (1) Labor Force Participation Rates are for children with all parents working and are broken up by the U.S. Census into two age groups: children under 6 and children 6 to 17. Data for the three areas is based on Census tract level data and citywide data as reported for the City of Irvine. Data is derived from 5 years of data but represents an estimate for 2012. For the citywide rates, they are derived based on the totals for the three study areas, at 2035.
- (2) The citywide rates are derived by applying labor force participation rates to the increase in the number of children by age by study area, then adding the number of additional children with working parents for the three areas and dividing the sum by the total increased number of children by age group, which varies by study area.

Sources: ACS 2008-2012 5-Year Estimates; Brion Economics, Inc.

The projected demand for licensed child care by **non-resident employees** commuting into the City is factored into future child care demand as it was factored into current demand. To estimate future non-resident employee demand for child care it is first necessary to calculate the projected increase in employees working in the City in 2035.

**Table 16** summarizes current and future employment in the City of Irvine and by each of the three study areas over the next 20 years and calculates the growth by area and for the City overall. Employment in the City is expected to increase from 198,600 to 270,900, with approximately 72,300 new jobs by 2035, or a 36% increase citywide.

The Central area has and will continue to see the greatest number of jobs with almost 31,000 new jobs over the next 20 years or 25% growth. The North area will see almost 22,000 new jobs or a 48% increase and the South area will see almost 19,400 new jobs over the same time period or a 68% increase.

**Table 16**  
**Job Growth by Study Area - 2014 to 2035**  
**City of Irvine Child Care Needs Assessment**

| Item              | Employment (1) |                |               |            |
|-------------------|----------------|----------------|---------------|------------|
|                   | 2014           | 2035           | 2014-2035     | % Change   |
| North             | 45,815         | 67,778         | 21,963        | 48%        |
| Central           | 124,179        | 155,155        | 30,976        | 25%        |
| South             | 28,614         | 47,990         | 19,377        | 68%        |
| <b>Total City</b> | <b>198,608</b> | <b>270,924</b> | <b>72,316</b> | <b>36%</b> |

*Note: Some totals may be slightly off due to rounding.*

(1) Based on City of Irvine Land Use Centralized Database providing estimated buildout data, accessed August 2014 (see Table A-1 in Appendix.)

Sources: City of Irvine; Brion Economics, Inc.

Journey-to-Work data from the U.S. Census is then applied to the projected number of employees by study area (**Table 17**), based on the City of Irvine Land Use Centralized Data Base, to calculate the projected number of employees by study area that commute in for work from outside the City and the projected number of employees who live in Irvine. Using this data allows us to not double count residents that live and work in the City.

Based on a special data run of Census Tract level data for 2010, and by applying the same percentages as 2014 it is calculated that 24.9% of future employees in the North, or 16,848 of 67,778 total new employees will live and work in Irvine, as shown in **Table 17**. The remaining 50,930 employees in the North will live outside of the City and commute in for work. For the Central area, 22.5%, or 34,986 of the total 155,155 employees in the area, will live and work in Irvine. The other 120,169 employees will commute into Irvine for work. In the South, 26.0%, or 12,463 of the total 47,990 employees, will live and work in Irvine. The other 35,528 employees in the South will commute into Irvine for work. Citywide, a total of 206,627 employees are projected commute into Irvine for work by 2035. In 2014 we have 151,787 non-resident employees working in Irvine, for an increase of 54,840 non-resident employees. Applying the estimated 1.2% of non-resident employees needing care (as derived in **Table 5**), approximately 646 additional children of non-resident employees (assuming one child per employee) will need care in 2035.

As with the current demand, this study then assumes the age breakdown of the projected child care need of non-resident employees (646) is 49% infants (316) and 51% preschoolers (330),

based on the current proportion of infants and preschool age children in the City, as shown in **Table 17**.

**Table 17**  
**Employees Living Elsewhere but Working in Irvine - 2035**  
**City of Irvine Child Care Needs Assessment**

| Study Area   | Projected Total Employees in Irvine at 2035 (1) | % that Live/Work in Irvine in 2010 (1) | Projected # of Employees Who Live/Work in Irvine by 2035 | Projected Non-Resident Employees Working in Irvine by 2035 (2) | Non-Resident Employees Working in Irvine in 2014 (3) | Net Growth in Non-Resident Employees Working in Irvine 2014-2035 | Estimated Non-Resident Employees Needing Care 2014 to 2035 (4) | 0 to 2 Year Olds 49% | 3 to 5 Year Olds 51% |
|--------------|---|--|--|--|--|--|--|----------------------|----------------------|
| North        | 67,778  | 24.9%                                  | 16,848   | 50,930   | 34,427   | 16,503   | 194  | 95                   | 99                   |
| Central      | 155,155   | 22.5%                                  | 34,986   | 120,169  | 96,177   | 23,991   | 282  | 138                  | 144                  |
| South        | 47,990  | 26.0%                                  | 12,463   | 35,528   | 21,183   | 14,345   | 169  | 83                   | 86                   |
| <b>Total</b> | <b>270,924</b>                                  | <b>23.7%</b>                           | <b>64,297</b>  | <b>206,627</b>   | <b>151,787</b>                                       | <b>54,840</b>  | <b>646</b>   | <b>316</b>           | <b>330</b>           |

Note: Some totals may be slightly off due to rounding.

(1) Based on Journey-to-Work data from the 2010 U.S. Census by census tract summed and averaged by Study Area.

Total percentage is a weighted average. We assume the same ratio of employees that live and work in the City in 2010 for 2035.

(2) Assumes current rates of live/work in Irvine applied to future employment figures.

(3) See Table 5.

(4) See Table 4 for non-resident employees that need care: estimate equals

Sources: U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates;

Special Tabulation: Census Transportation Planning; City of Irvine; Brion Economics, Inc.

Citywide demand for licensed child care spaces based on future population projections is calculated in **Table 18**. An estimated additional 12,288 children, ages 0 to 12 years old will be residing in the City of Irvine by 2035 and 3,905 of those will require licensed care. Non-resident employees will demand an additional 646 spaces and the total demand for new spaces will be 4,551. This demand will consist of 877 new infant spaces, 1,698 preschool spaces, and 1,976 school age spaces. The estimated future demand for child care in the North, Central and South study areas is estimated in **Tables 19, 20 and 21**. **Table 22** provides a summary by study area of future child care demand throughout the City of Irvine.

**Table 18**  
**Future Demand for Child Care Spaces by Age and Type - City of Irvine - 2014 to 2035**  
**City of Irvine Child Care Needs Assessment**

| Future Conditions  | Notes and Assumptions | Citywide Demand from 2014 to 2035 |                     |                       |                          |
|--|-----------------------|-----------------------------------|---------------------|-----------------------|--------------------------|
|  |                       | 0 to 2 or Infant                  | 3 to 5 or Preschool | 6 to 12 or School Age | Total, 0 to 12 Years Old |
| <b>Future Child Care Need</b>                              |                       |                                   |                     |                       |                          |
| Net New Population   | 72,399                |                                   |                     |                       |                          |
| Children as % of Total Population by Age                   |                       | 3.7%                              | 3.9%                | 9.4%                  | 17.0%                    |
| <b>Estimated New Children Needing Care</b>                 |                       |                                   |                     |                       |                          |
| Estimated # of New Irvine Children                         | (1)                   | 2,656                             | 2,812               | 6,820                 | 12,288                   |
| Average Labor Force Participation Rates                    | (2)                   | 57.1%                             | 57.2%               | 64.4%                 | 61.2%                    |
| No. of Irvine Children With Working Parents                |                       | 1,517                             | 1,610               | 4,390                 | 7,517                    |
| Licensed Care Demand Factor                                | (3)                   | 37%                               | 85%                 | 45%                   | 52%                      |
| No. of Irvine Children Needing Licensed Care               |                       | 561                               | 1,368               | 1,976                 | 3,905                    |
| % of Total Irvine Children Needing Licensed Care           |                       | 21%                               | 49%                 | 29%                   | 32%                      |
| <b>Est. Number of Children from Non-Resident Employees</b> |                       |                                   |                     |                       |                          |
| Needing Licensed Care                                      | (4)                   | 316                               | 330                 | -                     | 646                      |
| <b>Total New Demand for Child Care Spaces</b>              |                       | <b>877</b>                        | <b>1,698</b>        | <b>1,976</b>          | <b>4,551</b>             |
| % Distribution   |                       | 19%                               | 37%                 | 43%                   | 100%                     |

*Note: Some totals may be slightly off due to rounding.*

- (1) Total population by study area is from City of Irvine Land Use Centralized Database providing estimated buildout data, accessed August 2014. Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.
  - (2) Labor force participation rates are for children with two working parents or children with single working parents. See Table 15.
  - (3) Not all children with working parents are assumed to need licensed care: the assumptions - % - under each age category are based on the California Child Care Coordinators Association Needs Assessment Form. Result is the number of children with working parents needing licensed child care.
  - (4) Includes demand from employees that work in the City but live elsewhere, assuming one child per employee.
- Sources: U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates; CCCA Needs Assessment Form; Brion Economics, Inc.

**Table 19**  
**Future Demand for Child Care Spaces by Age and Type in North Study Area - 2014 to 2035**  
**City of Irvine Child Care Needs Assessment**

| Future Conditions  | Notes and Assumptions | North Study Area from 2014 to 2035 |                     |                       |                          |
|--|-----------------------|------------------------------------|---------------------|-----------------------|--------------------------|
|  |                       | 0 to 2 or Infant                   | 3 to 5 or Preschool | 6 to 12 or School Age | Total, 0 to 12 Years Old |
| <b>Future Child Care Need</b>                              |                       |                                    |                     |                       |                          |
| Net New Population   | 45,443                |                                    |                     |                       |                          |
| Children as % of Total Population by Age                   |                       | 3.9%                               | 4.2%                | 10.3%                 | 18.4%                    |
| <b>Estimated New Children Needing Care</b>                 |                       |                                    |                     |                       |                          |
| Estimated # of New Irvine Children                         | (1)                   | 1,772                              | 1,910               | 4,669                 | 8,351                    |
| Average Labor Force Participation Rates                    | (2)                   | 59.2%                              | 59.2%               | 64.9%                 | 62.4%                    |
| No. of Irvine Children With Working Parents                |                       | 1,049                              | 1,131               | 3,030                 | 5,210                    |
| Licensed Care Demand Factor                                | (3)                   | 37%                                | 85%                 | 45%                   | 52%                      |
| No. of Irvine Children Needing Licensed Care               |                       | 388                                | 961                 | 1,363                 | 2,713                    |
| % of Total Irvine Children Needing Licensed Care           |                       | 22%                                | 50%                 | 29%                   | 32%                      |
| <b>Est. Number of Children from Non-Resident Employees</b> |                       |                                    |                     |                       |                          |
| Needing Licensed Care                                      | (4)                   | 95                                 | 99                  | -                     | 194                      |
| % Distribution   |                       | 49%                                | 51%                 | 0%                    | 100%                     |
| <b>Total New Demand for Child Care Spaces</b>              |                       | <b>483</b>                         | <b>1,060</b>        | <b>1,363</b>          | <b>2,907</b>             |
| % Distribution   |                       | 17%                                | 36%                 | 47%                   | 100%                     |

Note: Some totals may be slightly off due to rounding.

(1) Total population by study area is from City of Irvine Land Use Centralized Database providing estimated buildout data, accessed August 2014. Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.

(2) Labor force participation rates are for children with two working parents or children with single working parents. See Table 15.

(3) Not all children with working parents are assumed to need licensed care: the assumptions - % - under each age category are based on the California Child Care Coordinators Association Needs Assessment Form. Result is the number of children with working parents needing licensed child care.

(4) Includes demand from employees that work in the City but live elsewhere, assuming one child per employee.

Sources: U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates; CCCA Needs Assessment Form; Brion Economics, Inc.

**Table 20**  
**Future Demand for Child Care Spaces by Age and Type in Central Study Area - 2014 to 2035**  
**City of Irvine Child Care Needs Assessment**

| Future Conditions  | Notes and Assumptions | Central Study Area from 2014 to 2035 |                     |                       |                          |
|--|-----------------------|--------------------------------------|---------------------|-----------------------|--------------------------|
|  |                       | 0 to 2 or Infant                     | 3 to 5 or Preschool | 6 to 12 or School Age | Total, 0 to 12 Years Old |
| <b>Future Child Care Need</b>                              |                       |                                      |                     |                       |                          |
| Net New Population   | 16,973                |                                      |                     |                       |                          |
| Children as % of Total Population by Age                   |                       | 3.6%                                 | 3.8%                | 9.1%                  | 16.6%                    |
| <b>Estimated New Children Needing Care</b>                 |                       |                                      |                     |                       |                          |
| Estimated # of New Irvine Children                         | (1)                   | 618                                  | 651                 | 1,541                 | 2,810                    |
| Average Labor Force Participation Rates                    | (2)                   | 54.8%                                | 54.8%               | 65.1%                 | 60.4%                    |
| No. of Irvine Children With Working Parents                |                       | 339                                  | 357                 | 1,003                 | 1,698                    |
| Licensed Care Demand Factor                                | (3)                   | 37%                                  | 85%                 | 45%                   | 52%                      |
| No. of Irvine Children Needing Licensed Care               |                       | 125                                  | 303                 | 451                   | 880                      |
| % of Total Irvine Children Needing Licensed Care           |                       | 20%                                  | 47%                 | 29%                   | 31%                      |
| <b>Est. Number of Children from Non-Resident Employees</b> |                       |                                      |                     |                       |                          |
| Needing Licensed Care                                      | (4)                   | 138                                  | 144                 | -                     | 282                      |
| <b>Total New Demand for Child Care Spaces</b>              |                       | <b>263</b>                           | <b>447</b>          | <b>451</b>            | <b>1,162</b>             |
| % Distribution   |                       | 23%                                  | 38%                 | 39%                   | 100%                     |

*Note: Some totals may be slightly off due to rounding.*

- (1) Total population by study area is from City of Irvine Land Use Centralized Database providing estimated buildout data, accessed August 2014. Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.
- (2) Labor force participation rates are for children with two working parents or children with single working parents. See Table 15.
- (3) Not all children with working parents are assumed to need licensed care: the assumptions - % - under each age category are based on the California Child Care Coordinators Association Needs Assessment Form. Result is the number of children with working parents needing licensed child care.
- (4) Includes demand from employees that work in the City but live elsewhere, assuming one child per employee.
- Sources: U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates; CCCA Needs Assessment Form; Brion Economics, Inc.

As shown in **Table 22**, in the North, there will be a total of 8,351 new children, consisting of 1,772 additional infants, 1,910 additional preschoolers, and 4,669 school age children, the largest growth of any area. Central will see 618 new infants, 651 new preschoolers, and 1,541 new school age kids, for a total of 2,810 total children. The South will see the least amount of growth with 266 new infants, 252 new preschoolers, and approximately 610 new school age kids, for a total of 1,128 children. Overall, there will be 12,288 new children.

The City will require approximately 4,551 new child care spaces by 2035 to meet residential and employment child care demand, with 2,907 of them being in the North area.

**Table 21**  
**Future Demand for Child Care Spaces by Age and Type in South Study Area - 2014 to 2035**  
**City of Irvine Child Care Needs Assessment**

| Future Conditions  | Notes and Assumptions | South Study Area Demand from 2014 to 2035 |                     |                       |                          |
|--|-----------------------|---|---------------------|-----------------------|--------------------------|
|  |                       | 0 to 2 or Infant                          | 3 to 5 or Preschool | 6 to 12 or School Age | Total, 0 to 12 Years Old |
| <b>Future Child Care Need</b>                              |                       |   |                     |                       |                          |
| Net New Population   | 9,984                 |   |                     |                       |                          |
| Children as % of Total Population by Age                   |                       | 2.7%                                      | 2.5%                | 6.1%                  | 11.3%                    |
| <b>Estimated New Children Needing Care</b>                 |                       |   |                     |                       |                          |
| Estimated # of New Irvine Children                         | (1)                   | 266                                       | 252                 | 610                   | 1,128                    |
| Average Labor Force Participation Rates                    | (2)                   | 48.7%                                     | 48.7%               | 58.5%                 | 54.0%                    |
| No. of Irvine Children With Working Parents                |                       | 129                                       | 123                 | 357                   | 609                      |
| Licensed Care Demand Factor                                | (3)                   | 37%                                       | 85%                 | 45%                   | 52%                      |
| No. of Irvine Children Needing Licensed Care               |                       | 48  | 104                 | 161                   | 313                      |
| % of Total Irvine Children Needing Licensed Care           |                       | 18%                                       | 41%                 | 26%                   | 28%                      |
| <b>Est. Number of Children from Non-Resident Employees</b> |                       |   |                     |                       |                          |
| Needing Licensed Care                                      | (4)                   | 83  | 86                  | -                     | 169                      |
| % Distribution   |                       | 49%                                       | 51%                 | 0%                    | 100%                     |
| <b>Total New Demand for Child Care Spaces</b>              |                       | <b>130</b>                                | <b>191</b>          | <b>161</b>            | <b>482</b>               |
| % Distribution   |                       | 27%                                       | 40%                 | 33%                   | 100%                     |

Note: Some totals may be slightly off due to rounding.

- (1) Total population by study area is from City of Irvine Land Use Centralized Database providing estimated buildout data, accessed August 2014. Population by study area and age is based on 2010 US Census percentage of population by age applied to 2014 total population by study area.
- (2) Labor force participation rates are for children with two working parents or children with single working parents. See Table 15.
- (3) Not all children with working parents are assumed to need licensed care: the assumptions - % - under each age category are based on the California Child Care Coordinators Association Needs Assessment Form. Result is the number of children with working parents needing licensed child care.
- (4) Includes demand from employees that work in the City but live elsewhere, assuming one child per employee.
- Sources: U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates; CCCA Needs Assessment Form; Brion Economics, Inc.

**Table 22**  
**Summary of Future Child Care Needs by Study Area - 2014 to 2035**  
**City of Irvine Child Care Needs Assessment**

| Item  | Children by Age Group |                        |                          |                             |
|---|-----------------------|------------------------|--------------------------|-----------------------------|
|   | 0 to 2 or<br>Infant   | 3 to 5 or<br>Preschool | 6 to 12 or<br>School Age | Total, 0 to 12<br>Years Old |
| <b>Estimated No. of New Children: 2014 to 2035 (1)</b>          |                       |                        |                          |                             |
| North   | 1,772                 | 1,910                  | 4,669                    | 8,351                       |
| Central   | 618                   | 651                    | 1,541                    | 2,810                       |
| South   | 266                   | 252                    | 610                      | 1,128                       |
| Total Citywide  | 2,656                 | 2,812                  | 6,820                    | 12,288                      |
| <b>New Demand for Child Care Spaces: 2014 to 2035 (2)</b>       |                       |                        |                          |                             |
| North   | 483                   | 1,060                  | 1,363                    | 2,907                       |
| Central   | 263                   | 447                    | 451                      | 1,162                       |
| South   | 130                   | 191                    | 161                      | 482                         |
| <b>Total Demand from Growth</b>                                 | <b>877</b>            | <b>1,698</b>           | <b>1,976</b>             | <b>4,551</b>                |
| <b>Average Annual Demand</b><br>(for New Spaces - 2014 to 2035) | <b>42</b>             | <b>81</b>              | <b>94</b>                | <b>217</b>                  |

*Note: Some totals may be slightly off due to rounding.*

(1) Includes demand from residents and employees.

(2) Includes demand from 1.2% of non-resident employees in the City, assuming one child per employee.

Source: Brion Economics, Inc.

### 3. Conclusions

The analysis conducted for this effort finds that there is currently a shortage of child care spaces overall in the City. There are 12,949 children citywide requiring licensed child care; this includes demand from resident households and employees that work in Irvine. There are 10,516 existing child care spaces across all age groups, which results in an overall shortfall of 2,433 spaces. There is a shortfall of 1,431 spaces for infants and 2,289 spaces for school age children which totals a shortage of 3,720 spaces. There is a surplus in the amount of 1,287 spaces for preschool children. Some of these spaces likely serve parents that desire preschool for social and developmental reasons rather than for employment reasons. For infant/toddlers, over half, or 58%, of demand is not being met. For school age children, 40% of demand is not currently being met.

The significant amount of planned housing and commercial development in the City through 2035 will require an additional 4,551 child care spaces, to address the current shortfalls combined with future additional demand for child care spaces. The majority of the increased demand (64%) will be in the North study area, with 2,906 new children needing licensed child care. Thus, there is significant need for new child care currently and in the future although the amounts vary by study area.

The availability of child care is vital to ensuring the continued high quality of life and family-friendliness of Irvine. The data provided can be used to inform the development of new programs and policies that will help meet current unmet and future need, and to target services by geographic area as needed. A review of possible policy ideas to increase the supply of child care can be found in "Child Care and Housing Linkage Research Study" by Brion Economics, Inc. (previously Brion & Associates) with Vernazza Wolfe Associates, Inc. and "Planning for Child Care" by Kristen Anderson (2006).

## Appendix A: Detailed Demographic and Census Data Tables

The following Appendix presents supporting tables with demographic from the U.S. 2010 Census and growth and development data from the City of Irvine's Community Development Department.

### Appendix A Table Index City of Irvine Child Care Needs Assessment

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| Table #   | Table Name  |
|-----------|---|
| Table A-1 | 2010 Population by Age, Study Area and Census Tract                                   |
| Table A-2 | Existing and Future Population by Study Area and Land Use - 2014, 2035 and Net Growth |
| Table A-3 | Children by Age, 0-12 Years Old by Study Area - 2014                                  |
| Table A-4 | Children by Age, 0-12 Years Old by Study Area - 2035                                  |
| Table A-5 | Children by Age, 0-12 Years Old by Study Area - 2014 to 2035                          |
| Table A-6 | Existing and Future Jobs by Study Area and Planning Area - 2014, 2035 and Net Growth  |

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Source: Brion Economics, Inc.

Table A-1  
2010 Population by Age, Study Area and Census Tract  
City of Irvine Child Care Needs Assessment - 2014

| No. | Census Tract            | Study Area | Total Population | Under 1 Year | 1 Year       | 2 Years      | 3 Years      | 4 Years      | 5 Years      | 6 Years      | 7 Years      | 8 Years      | 9 Years      | 10 Years     | 11 Years     | 12 Years     | 0 to 12       | % Distribution |       |
|-----|-------------------------|------------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|----------------|-------|
| 1   | 052404                  | North      | 549              | 0            | 0            | 2            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0            | 0             | 2              | 0.4%  |
| 2   | 052408                  | North      | 6,154            | 49           | 40           | 56           | 58           | 63           | 56           | 75           | 74           | 66           | 66           | 76           | 83           | 80           | 100           | 876            | 14.2% |
| 3   | 052410                  | North      | 5,403            | 52           | 61           | 55           | 53           | 55           | 55           | 57           | 67           | 57           | 52           | 63           | 63           | 63           | 63            | 753            | 13.9% |
| 4   | 052417                  | North      | 6,771            | 57           | 61           | 75           | 75           | 87           | 91           | 87           | 87           | 72           | 75           | 70           | 93           | 98           | 98            | 998            | 14.7% |
| 5   | 052418                  | North      | 12,096           | 286          | 228          | 235          | 236          | 175          | 187          | 198          | 170          | 166          | 167          | 142          | 132          | 124          | 2,446         | 20.2%          |       |
| 6   | 052419                  | North      | 3,456            | 35           | 41           | 49           | 50           | 58           | 73           | 67           | 81           | 86           | 86           | 66           | 77           | 68           | 71            | 842            | 24.4% |
| 7   | 052420                  | North      | 21,098           | 275          | 264          | 292          | 312          | 365          | 385          | 420          | 444          | 401          | 424          | 421          | 398          | 398          | 4,799         | 22.7%          |       |
| 8   | 052421                  | North      | 5,111            | 33           | 35           | 31           | 39           | 43           | 49           | 51           | 59           | 62           | 65           | 66           | 85           | 72           | 690           | 13.5%          |       |
| 9   | 052524                  | North      | 7,952            | 110          | 108          | 115          | 103          | 121          | 115          | 140          | 110          | 122          | 125          | 91           | 89           | 107          | 1,456         | 18.3%          |       |
| 10  | 052525                  | North      | 15,473           | 191          | 181          | 216          | 205          | 211          | 221          | 186          | 185          | 198          | 193          | 171          | 179          | 193          | 2,530         | 16.4%          |       |
| 11  | 052426                  | North      | 7,957            | 124          | 134          | 116          | 112          | 112          | 118          | 117          | 118          | 108          | 93           | 128          | 104          | 134          | 1,518         | 19.1%          |       |
|     | <b>TOTAL NORTH</b>      |            | <b>92,020</b>    | <b>1,212</b> | <b>1,149</b> | <b>1,228</b> | <b>1,243</b> | <b>1,278</b> | <b>1,346</b> | <b>1,402</b> | <b>1,395</b> | <b>1,338</b> | <b>1,356</b> | <b>1,312</b> | <b>1,291</b> | <b>1,360</b> | <b>16,910</b> | <b>18.4%</b>   |       |
|     | <b>% Distribution</b>   |            | <b>34.5%</b>     | <b>1.32%</b> | <b>1.25%</b> | <b>1.33%</b> | <b>1.35%</b> | <b>1.39%</b> | <b>1.46%</b> | <b>1.52%</b> | <b>1.52%</b> | <b>1.45%</b> | <b>1.47%</b> | <b>1.43%</b> | <b>1.40%</b> | <b>1.48%</b> | <b>16,910</b> | <b>16.910</b>  |       |
| 12  | 052502                  | Central    | 5,913            | 73           | 57           | 64           | 70           | 57           | 66           | 78           | 86           | 57           | 74           | 74           | 80           | 66           | 93            | 921            | 15.6% |
| 13  | 052505                  | Central    | 4,916            | 60           | 32           | 52           | 47           | 45           | 44           | 46           | 54           | 40           | 61           | 61           | 37           | 53           | 59            | 630            | 12.8% |
| 14  | 052506                  | Central    | 2,490            | 18           | 12           | 17           | 29           | 23           | 28           | 24           | 25           | 25           | 25           | 25           | 26           | 33           | 43            | 328            | 13.2% |
| 15  | 052511                  | Central    | 5,672            | 43           | 45           | 57           | 53           | 58           | 60           | 57           | 61           | 53           | 53           | 96           | 64           | 73           | 75            | 795            | 14.0% |
| 16  | 052513                  | Central    | 5,675            | 43           | 58           | 57           | 74           | 60           | 65           | 56           | 69           | 58           | 53           | 74           | 79           | 75           | 821           | 14.5%          |       |
| 17  | 052514                  | Central    | 5,327            | 55           | 54           | 58           | 64           | 65           | 61           | 62           | 70           | 72           | 66           | 66           | 69           | 81           | 63            | 840            | 15.8% |
| 18  | 052515                  | Central    | 8,833            | 121          | 144          | 147          | 161          | 145          | 163          | 158          | 135          | 136          | 144          | 144          | 136          | 148          | 146           | 1,884          | 21.3% |
| 19  | 052517                  | Central    | 10,096           | 156          | 153          | 141          | 160          | 171          | 155          | 164          | 153          | 166          | 146          | 146          | 128          | 130          | 1,959         | 19.4%          |       |
| 20  | 052518                  | Central    | 2,688            | 34           | 31           | 23           | 18           | 13           | 13           | 10           | 9            | 4            | 2            | 2            | 14           | 6            | 7             | 184            | 6.8%  |
| 21  | 052519                  | Central    | 4,212            | 50           | 60           | 63           | 56           | 56           | 59           | 50           | 49           | 66           | 67           | 55           | 47           | 58           | 57            | 536            | 17.5% |
| 22  | 052520                  | Central    | 3,460            | 19           | 28           | 37           | 31           | 39           | 42           | 41           | 53           | 43           | 53           | 53           | 51           | 53           | 46            | 536            | 15.5% |
| 23  | 052521                  | Central    | 5,391            | 64           | 62           | 63           | 56           | 51           | 55           | 57           | 53           | 46           | 59           | 46           | 66           | 62           | 47            | 741            | 13.7% |
| 24  | 052522                  | Central    | 4,123            | 41           | 42           | 45           | 49           | 45           | 56           | 50           | 53           | 50           | 73           | 58           | 62           | 75           | 699           | 17.0%          |       |
| 25  | 052523                  | Central    | 4,175            | 52           | 32           | 34           | 47           | 39           | 42           | 42           | 49           | 45           | 48           | 48           | 50           | 53           | 41            | 574            | 13.7% |
| 26  | 052526                  | Central    | 4,355            | 34           | 40           | 35           | 35           | 45           | 47           | 48           | 53           | 45           | 57           | 55           | 64           | 59           | 617           | 14.2%          |       |
| 27  | 052527                  | Central    | 8,391            | 68           | 78           | 73           | 100          | 103          | 98           | 111          | 133          | 128          | 117          | 141          | 119          | 144          | 1,413         | 16.8%          |       |
| 28  | 052528                  | Central    | 3,469            | 38           | 29           | 35           | 51           | 39           | 41           | 39           | 44           | 45           | 64           | 48           | 48           | 49           | 57            | 579            | 16.7% |
| 29  | 075515                  | Central    | 15,295           | 324          | 271          | 281          | 275          | 249          | 232          | 238          | 206          | 204          | 208          | 205          | 177          | 168          | 3,038         | 19.9%          |       |
|     | <b>TOTAL CENTRAL</b>    |            | <b>104,481</b>   | <b>1,293</b> | <b>1,228</b> | <b>1,282</b> | <b>1,376</b> | <b>1,303</b> | <b>1,327</b> | <b>1,331</b> | <b>1,355</b> | <b>1,283</b> | <b>1,413</b> | <b>1,365</b> | <b>1,353</b> | <b>1,386</b> | <b>17,295</b> | <b>16.6%</b>   |       |
|     | <b>% Distribution</b>   |            | <b>39.2%</b>     | <b>1.24%</b> | <b>1.18%</b> | <b>1.23%</b> | <b>1.32%</b> | <b>1.25%</b> | <b>1.27%</b> | <b>1.27%</b> | <b>1.30%</b> | <b>1.23%</b> | <b>1.35%</b> | <b>1.31%</b> | <b>1.29%</b> | <b>1.33%</b> | <b>17,295</b> | <b>17,295</b>  |       |
| 30  | 062604                  | South      | 15,174           | 201          | 222          | 222          | 232          | 220          | 224          | 255          | 203          | 249          | 225          | 202          | 223          | 195          | 2,873         | 18.9%          |       |
| 31  | 062610                  | South      | 6,393            | 84           | 67           | 45           | 35           | 38           | 17           | 18           | 11           | 11           | 13           | 14           | 15           | 6            | 374           | 5.9%           |       |
| 32  | 062611                  | South      | 4,105            | 36           | 42           | 35           | 43           | 24           | 28           | 23           | 31           | 31           | 25           | 35           | 27           | 26           | 406           | 9.9%           |       |
| 33  | 062612                  | South      | 8,186            | 57           | 40           | 73           | 72           | 49           | 78           | 66           | 73           | 77           | 86           | 91           | 90           | 106          | 958           | 11.7%          |       |
| 34  | 062614                  | South      | 14,044           | 96           | 100          | 88           | 71           | 67           | 67           | 68           | 46           | 43           | 54           | 41           | 54           | 43           | 838           | 6.0%           |       |
| 35  | 062621                  | South      | 4,800            | 49           | 62           | 51           | 57           | 50           | 45           | 45           | 52           | 63           | 53           | 46           | 53           | 47           | 669           | 13.9%          |       |
| 36  | 062626                  | South      | 2,773            | 16           | 15           | 11           | 14           | 18           | 7            | 14           | 11           | 11           | 11           | 11           | 14           | 20           | 15            | 177            | 6.4%  |
| 37  | 062627                  | South      | 3,308            | 21           | 23           | 18           | 12           | 15           | 17           | 19           | 9            | 17           | 17           | 21           | 16           | 24           | 18            | 230            | 7.0%  |
| 38  | 062628                  | South      | 3,581            | 12           | 19           | 22           | 27           | 28           | 17           | 44           | 33           | 30           | 50           | 50           | 52           | 50           | 419           | 11.7%          |       |
| 39  | 062629                  | South      | 2,660            | 12           | 19           | 23           | 23           | 26           | 31           | 36           | 32           | 34           | 48           | 35           | 45           | 47           | 411           | 15.5%          |       |
| 40  | 062630                  | South      | 1,722            | 9            | 12           | 11           | 16           | 14           | 18           | 17           | 20           | 10           | 22           | 14           | 26           | 17           | 206           | 12.0%          |       |
| 41  | 062631                  | South      | 3,303            | 10           | 16           | 24           | 21           | 25           | 22           | 26           | 33           | 28           | 37           | 34           | 32           | 45           | 353           | 10.7%          |       |
|     | <b>TOTAL SOUTH</b>      |            | <b>70,049</b>    | <b>603</b>   | <b>637</b>   | <b>623</b>   | <b>623</b>   | <b>574</b>   | <b>571</b>   | <b>627</b>   | <b>554</b>   | <b>604</b>   | <b>645</b>   | <b>577</b>   | <b>661</b>   | <b>615</b>   | <b>7,914</b>  | <b>11.3%</b>   |       |
|     | <b>% Distribution</b>   |            | <b>26.3%</b>     | <b>0.86%</b> | <b>0.91%</b> | <b>0.89%</b> | <b>0.89%</b> | <b>0.82%</b> | <b>0.82%</b> | <b>0.90%</b> | <b>0.79%</b> | <b>0.86%</b> | <b>0.92%</b> | <b>0.82%</b> | <b>0.94%</b> | <b>0.88%</b> | <b>7,914</b>  | <b>7,914</b>   |       |
|     | <b>TOTALS, CITYWIDE</b> |            | <b>266,550</b>   | <b>3,108</b> | <b>3,014</b> | <b>3,133</b> | <b>3,242</b> | <b>3,155</b> | <b>3,244</b> | <b>3,360</b> | <b>3,304</b> | <b>3,225</b> | <b>3,414</b> | <b>3,254</b> | <b>3,305</b> | <b>3,361</b> | <b>42,119</b> | <b>15.8%</b>   |       |
|     | <b>% Distribution</b>   |            | <b>100%</b>      | <b>1.2%</b>  | <b>1.1%</b>  | <b>1.2%</b>  | <b>1.2%</b>  | <b>1.2%</b>  | <b>1.2%</b>  | <b>1.3%</b>  | <b>1.2%</b>  | <b>1.2%</b>  | <b>1.3%</b>  | <b>1.2%</b>  | <b>1.2%</b>  | <b>1.3%</b>  | <b>15,819</b> | <b>15,819</b>  |       |

Note: Some totals may be slightly off due to rounding.  
Sources: US 2010 Census; Brion Economics, Inc.

**Table A-2  
Existing and Future Population by Study Area and Land Use - 2014, 2035 and Net Growth  
City of Irvine Child Care Needs Assessment**

| Study Area             | Planning Area | 2014 Existing Population | Study Area %  | Estimated Population 2035 | Study Area %  | Net Change 2014-2035 |
|------------------------|---------------|--------------------------|---------------|---------------------------|---------------|----------------------|
| North                  | 1             | 1,452                    |               | 11,873                    |               | 10,421               |
| North                  | 4             | 20,519                   |               | 21,177                    |               | 658                  |
| North                  | 5             | 5,052                    |               | 10,284                    |               | 5,232                |
| North                  | 6             | 5,307                    |               | 13,617                    |               | 8,310                |
| North                  | 8             | 22,057                   |               | 22,244                    |               | 187                  |
| North                  | 9             | 20,656                   |               | 23,311                    |               | 2,655                |
| North                  | 40            | 5,277                    |               | 10,271                    |               | 4,995                |
| North                  | 51            | 453                      |               | 13,437                    |               | 12,984               |
| <b>Total North</b>     |               | <b>80,772</b>            | <b>36.0%</b>  | <b>126,215</b>            | <b>42.5%</b>  | <b>45,443</b>        |
| Central                | 10            | 7,441                    |               | 7,826                     |               | 386                  |
| Central                | 11            | 14,893                   |               | 14,893                    |               | -                    |
| Central                | 12            | 8,966                    |               | 9,057                     |               | 90                   |
| Central                | 13            | -                        |               | -                         |               | -                    |
| Central                | 14            | 12,819                   |               | 12,965                    |               | 146                  |
| Central                | 15            | 24,548                   |               | 24,548                    |               | -                    |
| Central                | 31            | -                        |               | -                         |               | -                    |
| Central                | 33            | 4,252                    |               | 6,161                     |               | 1,909                |
| Central                | 36            | 9,621                    |               | 23,515                    |               | 13,894               |
| Central                | 38            | 7,297                    |               | 7,845                     |               | 548                  |
| <b>Total Central</b>   |               | <b>89,836</b>            | <b>40.0%</b>  | <b>106,809</b>            | <b>36.0%</b>  | <b>16,973</b>        |
| South                  | 17            | 7,118                    |               | 7,181                     |               | 63                   |
| South                  | 18            | 1,644                    |               | 2,393                     |               | 749                  |
| South                  | 19            | 4,155                    |               | 4,265                     |               | 110                  |
| South                  | 20            | 7,951                    |               | 7,951                     |               | -                    |
| South                  | 21            | 11,032                   |               | 11,499                    |               | 467                  |
| South                  | 22            | 1,111                    |               | 1,238                     |               | 127                  |
| South                  | 23            | 57                       |               | 1,471                     |               | 1,414                |
| South                  | 24            | 6,246                    |               | 6,327                     |               | 81                   |
| South                  | 27            | -                        |               | -                         |               | -                    |
| South                  | 28            | 4,114                    |               | 5,067                     |               | 953                  |
| South                  | 29            | -                        |               | -                         |               | -                    |
| South                  | 28            | -                        |               | 615                       |               | 615                  |
| South                  | 34            | -                        |               | -                         |               | -                    |
| South                  | 39            | 3,945                    |               | 8,341                     |               | 4,396                |
| South                  | 50            | 6,358                    |               | 7,365                     |               | 1,007                |
| <b>Total South</b>     |               | <b>53,731</b>            | <b>24.0%</b>  | <b>63,715</b>             | <b>21.5%</b>  | <b>9,984</b>         |
| <b>TOTAL, Citywide</b> |               | <b>224,339</b>           | <b>100.0%</b> | <b>296,739</b>            | <b>100.0%</b> | <b>72,399</b>        |

*Note: Some totals may be slightly off due to rounding.*

Note: Based on City of Irvine Land Use Centralized Database, accessed August 2014 and population generation factors adopted by Irvine City Council, April 14, 2015.

Sources: City of Irvine; Brion Economics, Inc.

Table A-3  
 Children by Age, 0-12 Years Old by Study Area - 2014  
 City of Irvine Child Care Needs Assessment - 2014

| Age in Years & Age Groups            | North                          |                          |                       | Central                        |                          |                       | South                          |                          |                       | City of Irvine Total           |                          |                       |
|--------------------------------------|--------------------------------|--------------------------|-----------------------|--------------------------------|--------------------------|-----------------------|--------------------------------|--------------------------|-----------------------|--------------------------------|--------------------------|-----------------------|
|                                      | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population |
| 0                                    | 1,064                          | 7.2%                     | 1.3%                  | 1,112                          | 7.5%                     | 1.2%                  | 463                            | 7.6%                     | 0.9%                  | 2,638                          | 7.4%                     | 1.2%                  |
| 1                                    | 1,009                          | 6.8%                     | 1.2%                  | 1,056                          | 7.1%                     | 1.2%                  | 489                            | 8.0%                     | 0.9%                  | 2,553                          | 7.1%                     | 1.1%                  |
| 2                                    | 1,078                          | 7.3%                     | 1.3%                  | 1,102                          | 7.4%                     | 1.2%                  | 478                            | 7.9%                     | 0.9%                  | 2,658                          | 7.4%                     | 1.2%                  |
| 3                                    | 1,091                          | 7.4%                     | 1.4%                  | 1,183                          | 8.0%                     | 1.3%                  | 478                            | 7.9%                     | 0.9%                  | 2,752                          | 7.7%                     | 1.2%                  |
| 4                                    | 1,122                          | 7.6%                     | 1.4%                  | 1,120                          | 7.5%                     | 1.2%                  | 440                            | 7.3%                     | 0.8%                  | 2,682                          | 7.5%                     | 1.2%                  |
| 5                                    | 1,181                          | 8.0%                     | 1.5%                  | 1,141                          | 7.7%                     | 1.3%                  | 438                            | 7.2%                     | 0.8%                  | 2,760                          | 7.7%                     | 1.2%                  |
| 6                                    | 1,231                          | 8.3%                     | 1.5%                  | 1,144                          | 7.7%                     | 1.3%                  | 481                            | 7.9%                     | 0.9%                  | 2,856                          | 8.0%                     | 1.3%                  |
| 7                                    | 1,224                          | 8.2%                     | 1.5%                  | 1,165                          | 7.8%                     | 1.3%                  | 425                            | 7.0%                     | 0.8%                  | 2,815                          | 7.9%                     | 1.3%                  |
| 8                                    | 1,174                          | 7.9%                     | 1.5%                  | 1,103                          | 7.4%                     | 1.2%                  | 463                            | 7.6%                     | 0.9%                  | 2,741                          | 7.7%                     | 1.2%                  |
| 9                                    | 1,190                          | 8.0%                     | 1.5%                  | 1,215                          | 8.2%                     | 1.4%                  | 495                            | 8.2%                     | 0.9%                  | 2,900                          | 8.1%                     | 1.3%                  |
| 10                                   | 1,152                          | 7.8%                     | 1.4%                  | 1,174                          | 7.9%                     | 1.3%                  | 443                            | 7.3%                     | 0.8%                  | 2,768                          | 7.7%                     | 1.2%                  |
| 11                                   | 1,133                          | 7.6%                     | 1.4%                  | 1,163                          | 7.8%                     | 1.3%                  | 507                            | 8.4%                     | 0.9%                  | 2,804                          | 7.8%                     | 1.2%                  |
| 12                                   | 1,194                          | 8.0%                     | 1.5%                  | 1,192                          | 8.0%                     | 1.3%                  | 472                            | 7.8%                     | 0.9%                  | 2,857                          | 8.0%                     | 1.3%                  |
| <b>Total Ages 0-12</b>               | <b>14,843</b>                  | <b>100.0%</b>            | <b>18.4%</b>          | <b>14,871</b>                  | <b>100.0%</b>            | <b>16.6%</b>          | <b>6,070</b>                   | <b>100.0%</b>            | <b>11.3%</b>          | <b>35,784</b>                  | <b>100%</b>              | <b>16%</b>            |
| <b>Total Population (1)</b>          | <b>80,772</b>                  | <b>36.0%</b>             |                       | <b>89,836</b>                  | <b>40.0%</b>             |                       | <b>53,731</b>                  | <b>24.0%</b>             |                       | <b>224,339</b>                 | <b>100%</b>              |                       |
| <b>Total Infants (0-2 years)</b>     | <b>3,150</b>                   | <b>3.9%</b>              |                       | <b>3,270</b>                   | <b>3.6%</b>              |                       | <b>1,429</b>                   | <b>2.7%</b>              |                       | <b>7,849</b>                   | <b>3.5%</b>              |                       |
| <b>Total Preschool (3-5 years)</b>   | <b>3,394</b>                   | <b>4.2%</b>              |                       | <b>3,444</b>                   | <b>3.8%</b>              |                       | <b>1,356</b>                   | <b>2.5%</b>              |                       | <b>8,195</b>                   | <b>3.7%</b>              |                       |
| <b>Total School Age (6-12 years)</b> | <b>8,298</b>                   | <b>10.3%</b>             |                       | <b>8,156</b>                   | <b>9.1%</b>              |                       | <b>3,285</b>                   | <b>6.1%</b>              |                       | <b>19,740</b>                  | <b>8.8%</b>              |                       |

Note: Some totals may be slightly off due to rounding.

(1) Total population by study area is from the City of Irvine Land Use Centralized Database, accessed August 2014.

Population by area and planning areas is based on 2010 US Census ratios applied to 2014 total population by study area.

Sources: City of Irvine, U.S. Census 2010; Brion Economics, Inc.

Table A-4  
 Children by Age, 0-12 Years Old by Study Area - 2035  
 City of Irvine Child Care Needs Assessment - 2014

| Age in Years & Age Groups            | North                          |                          |                       | Central                        |                          |                       | South                          |                          |                       | City of Irvine Total           |                          |                       |
|--------------------------------------|--------------------------------|--------------------------|-----------------------|--------------------------------|--------------------------|-----------------------|--------------------------------|--------------------------|-----------------------|--------------------------------|--------------------------|-----------------------|
|                                      | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population |
| 0                                    | 1,662                          | 7.2%                     | 1.3%                  | 1,322                          | 7.5%                     | 1.2%                  | 548                            | 7.6%                     | 0.9%                  | 3,533                          | 7.3%                     | 1.2%                  |
| 1                                    | 1,576                          | 6.8%                     | 1.2%                  | 1,255                          | 7.1%                     | 1.2%                  | 579                            | 8.0%                     | 0.9%                  | 3,411                          | 7.1%                     | 1.1%                  |
| 2                                    | 1,684                          | 7.3%                     | 1.3%                  | 1,311                          | 7.4%                     | 1.2%                  | 567                            | 7.9%                     | 0.9%                  | 3,562                          | 7.4%                     | 1.2%                  |
| 3                                    | 1,705                          | 7.4%                     | 1.4%                  | 1,407                          | 8.0%                     | 1.3%                  | 567                            | 7.9%                     | 0.9%                  | 3,678                          | 7.7%                     | 1.2%                  |
| 4                                    | 1,753                          | 7.6%                     | 1.4%                  | 1,332                          | 7.5%                     | 1.2%                  | 522                            | 7.3%                     | 0.8%                  | 3,607                          | 7.5%                     | 1.2%                  |
| 5                                    | 1,846                          | 8.0%                     | 1.5%                  | 1,357                          | 7.7%                     | 1.3%                  | 519                            | 7.2%                     | 0.8%                  | 3,722                          | 7.7%                     | 1.3%                  |
| 6                                    | 1,923                          | 8.3%                     | 1.5%                  | 1,361                          | 7.7%                     | 1.3%                  | 570                            | 7.9%                     | 0.9%                  | 3,854                          | 8.0%                     | 1.3%                  |
| 7                                    | 1,913                          | 8.2%                     | 1.5%                  | 1,385                          | 7.8%                     | 1.3%                  | 504                            | 7.0%                     | 0.8%                  | 3,802                          | 7.9%                     | 1.3%                  |
| 8                                    | 1,835                          | 7.9%                     | 1.5%                  | 1,312                          | 7.4%                     | 1.2%                  | 549                            | 7.6%                     | 0.9%                  | 3,696                          | 7.7%                     | 1.2%                  |
| 9                                    | 1,860                          | 8.0%                     | 1.5%                  | 1,444                          | 8.2%                     | 1.4%                  | 587                            | 8.2%                     | 0.9%                  | 3,891                          | 8.1%                     | 1.3%                  |
| 10                                   | 1,800                          | 7.8%                     | 1.4%                  | 1,395                          | 7.9%                     | 1.3%                  | 525                            | 7.3%                     | 0.8%                  | 3,720                          | 7.7%                     | 1.3%                  |
| 11                                   | 1,771                          | 7.6%                     | 1.4%                  | 1,383                          | 7.8%                     | 1.3%                  | 601                            | 8.4%                     | 0.9%                  | 3,755                          | 7.8%                     | 1.3%                  |
| 12                                   | 1,865                          | 8.0%                     | 1.5%                  | 1,417                          | 8.0%                     | 1.3%                  | 559                            | 7.8%                     | 0.9%                  | 3,842                          | 8.0%                     | 1.3%                  |
| <b>Total Ages 0-12</b>               | <b>23,194</b>                  | <b>100.0%</b>            | <b>18.4%</b>          | <b>17,680</b>                  | <b>100.0%</b>            | <b>16.6%</b>          | <b>7,198</b>                   | <b>100.0%</b>            | <b>11.3%</b>          | <b>48,073</b>                  | <b>100%</b>              | <b>16%</b>            |
| <b>Total Population (1)</b>          | <b>126,215</b>                 | <b>42.5%</b>             |                       | <b>106,809</b>                 | <b>36.0%</b>             |                       | <b>63,715</b>                  | <b>21.5%</b>             |                       | <b>296,739</b>                 | <b>100%</b>              |                       |
| <b>Total Infants (0-2 years)</b>     | <b>4,923</b>                   | <b>3.9%</b>              |                       | <b>3,888</b>                   | <b>3.6%</b>              |                       | <b>1,695</b>                   | <b>2.7%</b>              |                       | <b>10,505</b>                  | <b>3.5%</b>              |                       |
| <b>Total Preschool (3-5 years)</b>   | <b>5,304</b>                   | <b>4.2%</b>              |                       | <b>4,095</b>                   | <b>3.8%</b>              |                       | <b>1,608</b>                   | <b>2.5%</b>              |                       | <b>11,007</b>                  | <b>3.7%</b>              |                       |
| <b>Total School Age (6-12 years)</b> | <b>12,967</b>                  | <b>10.3%</b>             |                       | <b>9,697</b>                   | <b>9.1%</b>              |                       | <b>3,896</b>                   | <b>6.1%</b>              |                       | <b>26,560</b>                  | <b>9.0%</b>              |                       |

Note: Some totals may be slightly off due to rounding.

(1) Total population by study area is from the City of Irvine Land Use Centralized Database, accessed August 2014. Population by area and planning areas is based on 2010 US Census ratios applied to 2035 total population by study area.

Sources: City of Irvine; U.S. Census 2010; Brion Economics, Inc.

Table A-5  
Children by Age, 0-12 Years Old by Study Area - 2014 to 2035  
City of Irvine Child Care Needs Assessment

| Age in Years                         | North                          |                          |                       | Central                        |                          |                       | South                          |                          |                       | City of Irvine Total           |                          |                       |
|--------------------------------------|--------------------------------|--------------------------|-----------------------|--------------------------------|--------------------------|-----------------------|--------------------------------|--------------------------|-----------------------|--------------------------------|--------------------------|-----------------------|
|                                      | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population | Children by Age and Total Pop. | % of Children 0-12 Years | % of Total Population |
| 0                                    | 599                            | 7.2%                     | 1.3%                  | 210                            | 7.5%                     | 1.2%                  | 86                             | 7.6%                     | 0.9%                  | 895                            | 7.3%                     | 1.24%                 |
| 1                                    | 567                            | 6.8%                     | 1.2%                  | 199                            | 7.1%                     | 1.2%                  | 91                             | 8.0%                     | 0.9%                  | 858                            | 7.0%                     | 1.18%                 |
| 2                                    | 606                            | 7.3%                     | 1.3%                  | 208                            | 7.4%                     | 1.2%                  | 89                             | 7.9%                     | 0.9%                  | 903                            | 7.4%                     | 1.25%                 |
| 3                                    | 614                            | 7.4%                     | 1.4%                  | 224                            | 8.0%                     | 1.3%                  | 89                             | 7.9%                     | 0.9%                  | 926                            | 7.5%                     | 1.28%                 |
| 4                                    | 631                            | 7.6%                     | 1.4%                  | 212                            | 7.5%                     | 1.2%                  | 82                             | 7.3%                     | 0.8%                  | 925                            | 7.5%                     | 1.28%                 |
| 5                                    | 665                            | 8.0%                     | 1.5%                  | 216                            | 7.7%                     | 1.3%                  | 81                             | 7.2%                     | 0.8%                  | 962                            | 7.8%                     | 1.33%                 |
| 6                                    | 692                            | 8.3%                     | 1.5%                  | 216                            | 7.7%                     | 1.3%                  | 89                             | 7.9%                     | 0.9%                  | 998                            | 8.1%                     | 1.38%                 |
| 7                                    | 689                            | 8.2%                     | 1.5%                  | 220                            | 7.8%                     | 1.3%                  | 79                             | 7.0%                     | 0.8%                  | 988                            | 8.0%                     | 1.36%                 |
| 8                                    | 661                            | 7.9%                     | 1.5%                  | 208                            | 7.4%                     | 1.2%                  | 86                             | 7.6%                     | 0.9%                  | 955                            | 7.8%                     | 1.32%                 |
| 9                                    | 670                            | 8.0%                     | 1.5%                  | 230                            | 8.2%                     | 1.4%                  | 92                             | 8.2%                     | 0.9%                  | 991                            | 8.1%                     | 1.37%                 |
| 10                                   | 648                            | 7.8%                     | 1.4%                  | 222                            | 7.9%                     | 1.3%                  | 82                             | 7.3%                     | 0.8%                  | 952                            | 7.7%                     | 1.31%                 |
| 11                                   | 638                            | 7.6%                     | 1.4%                  | 220                            | 7.8%                     | 1.3%                  | 94                             | 8.4%                     | 0.9%                  | 952                            | 7.7%                     | 1.31%                 |
| 12                                   | 672                            | 8.0%                     | 1.5%                  | 225                            | 8.0%                     | 1.3%                  | 88                             | 7.8%                     | 0.9%                  | 984                            | 8.0%                     | 1.36%                 |
| <b>Total Ages 0-12</b>               | <b>8,351</b>                   | <b>100.0%</b>            | <b>18.4%</b>          | <b>2,810</b>                   | <b>100.0%</b>            | <b>16.6%</b>          | <b>1,128</b>                   | <b>100.0%</b>            | <b>11.3%</b>          | <b>12,288</b>                  | <b>100.0%</b>            | <b>17.0%</b>          |
| <b>Total Population (1)</b>          | <b>45,443</b>                  | <b>62.8%</b>             |                       | <b>16,973</b>                  | <b>23.4%</b>             |                       | <b>9,984</b>                   | <b>13.8%</b>             |                       | <b>72,399</b>                  | <b>100%</b>              |                       |
| <b>Total Infants (0-2 years)</b>     | <b>1,772</b>                   | <b>3.9%</b>              |                       | <b>618</b>                     | <b>3.6%</b>              |                       | <b>266</b>                     | <b>2.7%</b>              |                       | <b>2,656</b>                   | <b>3.7%</b>              |                       |
| <b>Total Preschool (3-5 years)</b>   | <b>1,910</b>                   | <b>4.2%</b>              |                       | <b>651</b>                     | <b>3.8%</b>              |                       | <b>252</b>                     | <b>2.5%</b>              |                       | <b>2,812</b>                   | <b>3.9%</b>              |                       |
| <b>Total School Age (6-12 years)</b> | <b>4,669</b>                   | <b>10.3%</b>             |                       | <b>1,541</b>                   | <b>9.1%</b>              |                       | <b>610</b>                     | <b>6.1%</b>              |                       | <b>6,820</b>                   | <b>9.4%</b>              |                       |

Note: Some totals may be slightly off due to rounding.

(1) Based on the City of Irvine Land Use Centralized Database providing estimated build out data, accessed August 2014 (see Table A-2).

Population by area and planning areas is based on 2010 US Census ratios applied to 2014 total population by study area.

Sources: City of Irvine; U.S. Census 2010; Brion Economics, Inc.

**Table A-6**  
**Existing and Future Jobs by Study Area and Planning Area - 2014, 2035 and Net Growth**  
**City of Irvine Child Care Needs Assessment**

| Study Area           | Planning Area | 2014 Jobs (1)  | Study Area %  | 2035 Jobs (1)  | Study Area %  | Net Change 2014-2035 (1) |
|----------------------|---------------|----------------|---------------|----------------|---------------|--------------------------|
| North                | 1             | 665            |               | 712            |               | 47                       |
| North                | 4             | 4,899          |               | 5,366          |               | 466                      |
| North                | 5             | 192            |               | 217            |               | 25                       |
| North                | 6             | 18             |               | 144            |               | 126                      |
| North                | 8             | 2,721          |               | 3,286          |               | 565                      |
| North                | 9             | 1,222          |               | 1,576          |               | 354                      |
| North                | 32            | 9,193          |               | 11,073         |               | 1,879                    |
| North                | 35            | 26,495         |               | 27,359         |               | 864                      |
| North                | 40            | 409            |               | 5,776          |               | 5,366                    |
| North                | 51            | -              |               | 12,270         |               | 12,270                   |
| <b>Total North</b>   |               | <b>45,815</b>  | <b>23.1%</b>  | <b>67,778</b>  | <b>25.0%</b>  | <b>21,963</b>            |
| Central              | 10            | 4,124          |               | 5,645          |               | 1,522                    |
| Central              | 11            | 2,491          |               | 2,504          |               | 13                       |
| Central              | 12            | 4,614          |               | 10,021         |               | 5,407                    |
| Central              | 13            | 6,729          |               | 9,465          |               | 2,736                    |
| Central              | 14            | 2,130          |               | 2,256          |               | 126                      |
| Central              | 15            | 4,157          |               | 4,279          |               | 123                      |
| Central              | 31            | 6,389          |               | 12,151         |               | 5,762                    |
| Central              | 33            | 9,112          |               | 15,910         |               | 6,798                    |
| Central              | 36            | 84,208         |               | 92,697         |               | 8,489                    |
| Central              | 38            | 226            |               | 226            |               | -                        |
| <b>Total Central</b> |               | <b>124,179</b> | <b>62.5%</b>  | <b>155,155</b> | <b>57.3%</b>  | <b>30,976</b>            |
| South                | 16            | 18             |               | 18             |               | -                        |
| South                | 17            | 419            |               | 2,471          |               | 2,052                    |
| South                | 18            | -              |               | -              |               | -                        |
| South                | 19            | 382            |               | 614            |               | 232                      |
| South                | 20            | 654            |               | 757            |               | 102                      |
| South                | 21            | 1,275          |               | 1,418          |               | 143                      |
| South                | 22            | 85             |               | 85             |               | -                        |
| South                | 23            | 393            |               | 393            |               | -                        |
| South                | 24            | 954            |               | 1,502          |               | 547                      |
| South                | 25            | 1,924          |               | 2,972          |               | 1,049                    |
| South                | 27            | 1,239          |               | 1,765          |               | 526                      |
| South                | 28            | 3              |               | 3              |               | -                        |
| South                | 29            | 280            |               | 2,180          |               | 1,900                    |
| South                | 34            | 8,671          |               | 10,162         |               | 1,490                    |
| South                | 39            | -              |               | -              |               | -                        |
| South                | 50            | 12,316         |               | 23,651         |               | 11,336                   |
| <b>Total South</b>   |               | <b>28,614</b>  | <b>14.4%</b>  | <b>47,990</b>  | <b>17.7%</b>  | <b>19,377</b>            |
| <b>Total City</b>    |               | <b>198,608</b> | <b>100.0%</b> | <b>270,924</b> | <b>100.0%</b> | <b>72,316</b>            |

Note: Some totals may be slightly off due to rounding.

(1) Employment data based on the City of Irvine Land Use Centralized Database providing estimated build out data, accessed August 2014.

Sources: City of Irvine; Brion Economics, Inc.