

## Adam Zack

---

**From:** Simpson, William (COM) <william.simpson@commerce.wa.gov>  
**Sent:** Thursday, December 12, 2019 10:00 AM  
**To:** Adam Zack  
**Cc:** Guida, Eric (COM); Smith, Valerie (COM)  
**Subject:** RE: more information on Employment Forecasting  
**Attachments:** 2019-11-18\_LCA\_Com\_Ind\_methodology (002) WS Comments.docx

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Hi Adam,

Thank you for the opportunity to review the County's methodology and provide feedback. In general, I thought it was an excellent document and clarifies the assumptions and process by which the County will consider capacity for employment growth. This is a more detailed and nuanced analysis than I often see in Eastern Washington, and the type of approach Commerce recommends to appropriately size UGAs and develop a strong foundation for economic development in local communities.

I've added a few comments and made a couple minor revisions to the first page of the paper. If you have questions or want to schedule a follow-up discussion feel free to give me a call or set up a time to talk next week.

Regards,

-Will

**William Simpson, AICP**  
*Senior Planner, Growth Management Services*  
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**From:** Adam Zack <adamz@sanjuanco.com>  
**Sent:** Tuesday, November 19, 2019 8:25 AM  
**To:** Smith, Valerie (COM) <valerie.smith@commerce.wa.gov>  
**Cc:** Simpson, William (COM) <william.simpson@commerce.wa.gov>; Guida, Eric (COM) <eric.guida@commerce.wa.gov>  
**Subject:** RE: more information on Employment Forecasting

Dear Valerie Smith and Will Simpson,

Thank you for sending that information about Island County's Land Capacity Analysis. After reviewing what you sent, I developed the attached draft methodology for comparing commercial land capacity, population growth, and employment.

Will you please review the attached methodology and let me know if there are any recommended improvements by December 19? The steps of the methodology are on pages one through six. The remainder of the document is additional background employment and demographic information, which probably does not require your review.

Please let me know if you need any other information. Your assistance is greatly appreciated.

Thanks,  
Adam Zack  
Planner III  
Department of Community Development  
San Juan County, WA  
360-370-7580  
[adamz@sanjuanco.com](mailto:adamz@sanjuanco.com)

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**From:** Smith, Valerie (COM) <[valerie.smith@commerce.wa.gov](mailto:valerie.smith@commerce.wa.gov)>  
**Sent:** Monday, October 28, 2019 11:29 AM  
**To:** Adam Zack <[adamz@sanjuanco.com](mailto:adamz@sanjuanco.com)>  
**Cc:** Simpson, William (COM) <[william.simpson@commerce.wa.gov](mailto:william.simpson@commerce.wa.gov)>; Guida, Eric (COM) <[eric.guida@commerce.wa.gov](mailto:eric.guida@commerce.wa.gov)>  
**Subject:** more information on Employment Forecasting

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Adam,

I checked-in with Will on your questions about calculating employment forecasts. In addition to the resources I already mentioned, Will suggested the WAC for more guidance: <https://apps.leg.wa.gov/wac/default.aspx?cite=365-196-310> (WAC 365-196-310)

And, Will also worked for Island County during the time they established their current methodology for calculating employment forecasts for their 2016 Comp Plan, and would be able to answer specific questions after you had a chance to review the following: [https://www.islandcountywa.gov/Planning/2016CompPlan/2016\\_Appendix-B.pdf](https://www.islandcountywa.gov/Planning/2016CompPlan/2016_Appendix-B.pdf)

Here's his contact information:

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*Valerie Smith's hours are Monday – Thursday, 7:30 a.m. – 6:00 p.m.*

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# Draft Land Capacity Analysis Employment Capacity Methodology November X, 2019

Preliminary Draft November 19, 2019  
San Juan County Department of Community Development  
Adam Zack, Planner III



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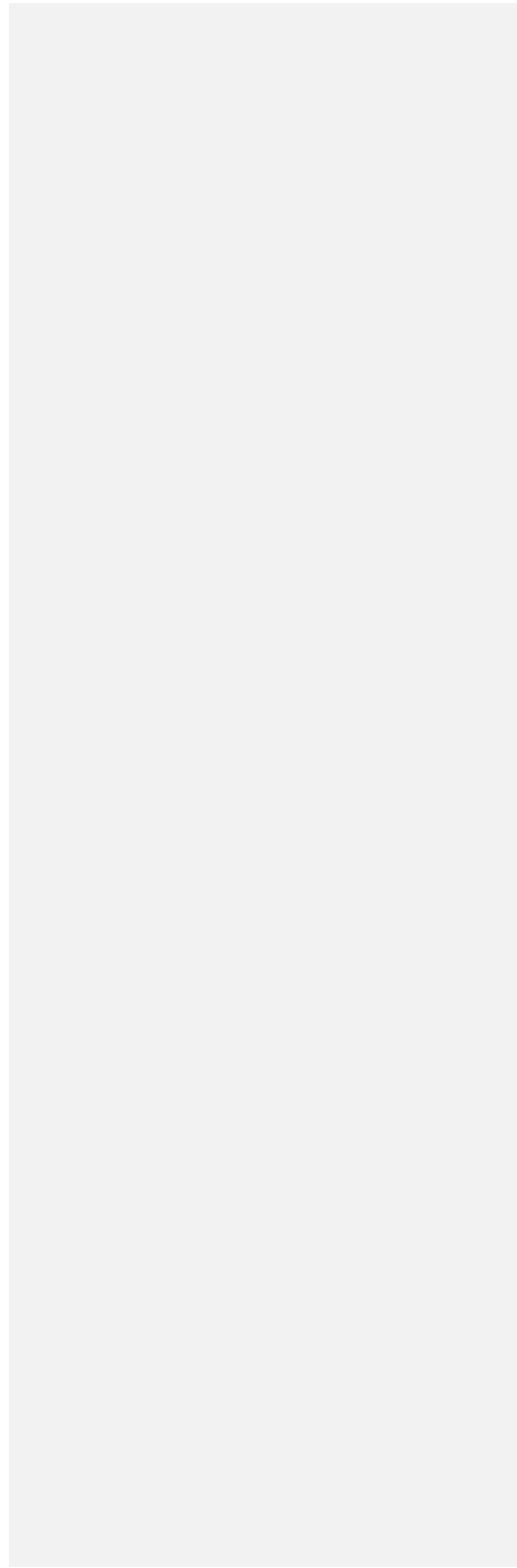
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PRELIM DRAFT



1 **I. Background**

2  
3 This methodology will be used to evaluate whether the County has sufficient employment capacity to  
4 serve the projected growth by the year 2036. This analysis is one component of the Land Capacity Analysis  
5 (LCA). The LCA evaluates what development is possible in San Juan County given existing development,  
6 current regulations, and land use designations.  
7

8 Under the Growth Management Act, the County must find that urban growth areas within the County as  
9 a whole ~~must~~ provide a sufficient amount of land for development or redevelopment that meets  
10 forecasted population and employment allocations (RCW 36.70A.110 and 36.70A.115). During the  
11 Comprehensive Plan update process, policy options related to development regulations or changes in land  
12 use designations will be evaluated. This assessment should determine the effects of policy alternatives  
13 on the capability of the development regulations and land use designations to provide sufficient capacity  
14 for growth allocations.  
15

16 The County’s estimate of commercial and industrial capacity is provided in tables 18 through 33 beginning  
17 on page 46 of the November 4, 2019 Draft Land Capacity Analysis Report. Capacity was determined using  
18 the SJC *Land Capacity Analysis Methodology*. That methodology provides two methods for calculating  
19 commercial capacity. One is based on the maximum allowed building square footage under current  
20 regulations. The other reflects the Assessor’s records for building square footage for structures actually  
21 constructed, which produces the average achieved floor area ratio per land use designation.  
22

23 The Growth Management Act requires analysis of commercial capacity to determine whether there will  
24 be a sufficient capacity of land suitable for commercial and industrial development through the planning  
25 horizon. The County must show that commercial and industrial land capacity can accommodate projected  
26 population and employment growth (RCW 36.70A.115). This analysis is particularly important for sizing  
27 urban growth areas.  
28

29 To ascertain whether there is sufficient commercial/industrial capacity to accommodate the forecasted  
30 growth, countywide employment statistics are compared with the commercial and industrial building  
31 square footage capacity results from the Land Capacity Analysis. The following sections of this report  
32 provide planning estimates of projected job growth and their relationship to that capacity. They also  
33 describe the methodologies used to forecast additional employment and relate it to commercial and  
34 industrial capacity.  
35

36 The employment information analyzed in the remainder of this report is provided per Census County  
37 Division (CCD). The U.S. Census Bureau does not provide employment statistics for individual islands but  
38 provides it by three CCDs; San Juan, Orcas, and Lopez (Shaw is included with Lopez). The employment  
39 data by CCD is the most geographically specific data source available. The CCDs group the San Juan Islands  
40 as shown in Map 1 below. CCD is defined by the U.S. Census Bureau as:  
41

42 A subdivision of a county that is a relatively permanent statistical area established  
43 cooperatively by the Census Bureau and state and local government authorities. Used for

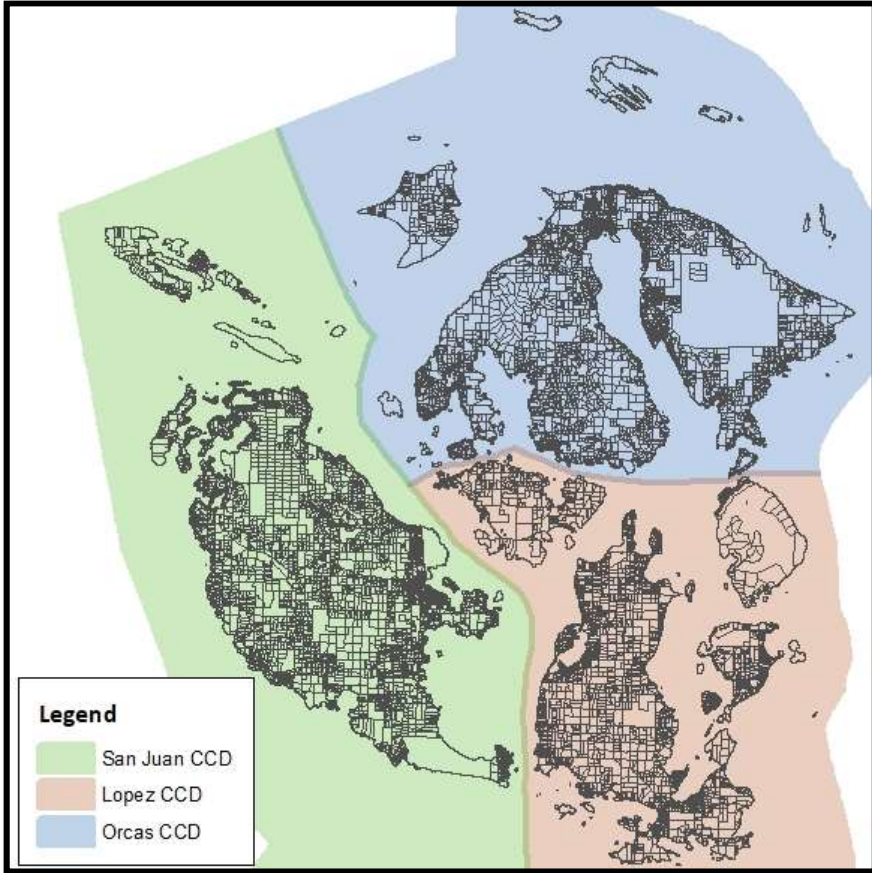
**Commented [SW(1):** Everything here is accurate, but I wanted to elaborate a bit on these requirements. The County’s primary statutory responsibility lies in ensuring there is enough capacity in urban growth areas to accommodate population and employment growth, along with other needs and uses such as medical, governmental, etc. RCW 36.70A.115 elaborates on and implements the requirements of 36.70A.110.

There is a lot of merit in doing a broader analysis to look at the capacity in unincorporated areas and LAMIRDs. From what I recall, SJC conducted a more detailed LCA as part of the periodic update. Assessing capacity in LAMIRDs and unincorporated areas can inform how much additional capacity is available for employment, what kind of transportation and infrastructure investments are necessary to support industrial growth, and what changes are necessary to the County’s Transportation and Capital Facilities Elements. It is also really important in developing an informed economic development strategy and/or Economic Development Element.

Looking at capacity for residential is a great exercises and is critical in considering how existing rural densities affect water resources or impact critical areas.

1 presenting decennial census statistics in those states that do not have well-defined and  
2 stable minor civil divisions that serve as local governments.

3 **Map 1. U.S. Census County Divisions (CCDs) in San Juan County.**



4

## 5 **II. Forecasting Future Jobs**

6

### 7 **II.A. Jobs to Households Ratio**

8

9 A ratio of jobs to households relates employment and population. This ratio (dividing the number of jobs  
10 by the number of households) describes the rate at which jobs occur relative to the population. It is  
11 calculated as:

12

13

14

15

**Jobs to Households Ratio =**

**Total jobs in San Juan County**

**Households in San Juan County**

The jobs to household ratio for each CCD is calculated in Table 1 below.

**Table 1. Jobs to Households in Each Census County Division (CCD), 2016.**

CCD	2016 Population	2016 Households	2016 Jobs	2016 Jobs per Household
San Juan without Friday Harbor	5652	2771	742	0.268
Friday Harbor	2250	1103	2172	1.969
Lopez	2858	1401	623	0.445
Orcas	5514	2703	1760	0.651

\*Source: U.S. Census Bureau and SJC 2036 Population Forecast adopted in Resolution 27-2017 and 2017 Technical Memorandum.

Jobs and household numbers from 2016 were used to calculate the jobs to household rate because the per-island population information in the SJC population forecast for that year was the best available information.

**II.B. 2036 Households and Forecast of Future New Jobs**

The jobs to household ratio allows for the extrapolation of expected future jobs based on the forecasted population. In this step of the methodology, the ratio of jobs to households is used to project how many jobs are expected in each CCD based on the County's 2036 population projection. The forecasted future jobs is an estimate of the number of jobs relative to population expected by the year 2036. For this analysis, forecasted future new jobs is the amount of additional jobs that will be demanded during the planning period, based on population growth.

Assuming the jobs to household ratio remains at the 2016 rate in each CCD, the total number of forecasted jobs in 2036 can be estimated by multiplying the jobs to household rate by the expected number of households. The expected number of households is derived by dividing the projected population in each CCD with the average number of people per household in San Juan County, 2.04 persons per household. Once the total number of forecasted jobs is calculated, the number of future new jobs is found by subtracting the existing 2017 jobs. Future new jobs are calculated as follows.

**Future New Jobs =**

**(Projected Households X Jobs to Household Ratio) – 2017 Existing Jobs**

**Table 2. Future Jobs per Census County Division (CCD).**

CCD	2036 Forecasted Population	Forecasted Households	Jobs per Household	Total Forecasted Future Jobs	2017 Existing Jobs	Forecasted Future New Jobs, 2036
San Juan without Friday Harbor	6,255	3,067	0.268	822	787	35
Friday Harbor	3,152	1,545	1.969	3,042	2,149	893
Lopez	3,403	1,668	0.445	742	646	96

Orcas	6,565	3,218	0.651	2,095	1,753	342
-------	-------	-------	-------	-------	-------	-----

\*Source: U.S. Census Bureau and SJC 2036 Population Forecast adopted in Resolution 27-2017.

Based on the forecasted population and ratio of jobs to households, 6,701 total jobs are forecasted to be in the County by the year 2036. In 2017, there were 5,335 jobs countywide. Based on this forecast, the County can expect 1,366 new jobs by the year 2036.

The San Juan County Comprehensive Plan (Plan) specifically requires the County to plan for allocating fifty percent of the projected growth per island to the UGA (Land Use Element, Policy 2.3.A.12). Table 3 below shows the fifty percent job growth allocation for Orcas and Lopez islands. On San Juan Island, more than fifty percent of the projected growth in jobs is expected to take place in Friday Harbor, see Table 2 above. In fact, this forecast predicts that more than fifty percent of the new jobs countywide will occur in Friday Harbor.

**Table 3. Job Growth Allocation for Eastsound and Lopez Village UGAs.**

Island	Total Future New Jobs in CCD	Fifty Percent of Future Jobs New Allocated to the UGA
Orcas (Eastsound UGA)	342	171
Lopez (Lopez Village UGA)	96	48

\*Source: Table 2 above.

### III. Jobs to Nonresidential Building Square Footage

#### III.A. Comparison of Existing Building Square Footage and Existing Jobs

The relationship between existing nonresidential building square footage and the number of existing jobs is used to identify the rate at which jobs occur per building square foot. This information is used to estimate how many new square feet of building area may be needed to provide for the number of new jobs forecasted for the year 2036.

This ratio is calculated using the LCA data set for existing building square footage from 2017 Assessor's data and U.S. Census Bureau job statistics. The commercial and industrial building square footage from the LCA Report is derived from the Gross Developable Lands Inventory (GDLI) the first step in the *Land Capacity Analysis Methodology* that characterizes fully and partially developed parcels.

A metric of building square feet per job is based on the relationship between existing commercial and industrial building square feet and the number of existing jobs. This metric is calculated by U.S. Census County Division (CCD) as shown on Map 1. This will allow for a more refined per-area rate rather than calculating the ratio countywide. Building square feet per jobs is calculated as follows:

$$\text{Building square feet per job} = \frac{\text{Existing building square feet in the CCD}}{\text{Existing jobs in the CCD}}$$

1 **Table 4. Building Square Feet per Job by Census County Division (CCD).**

Area	Nonresidential Building Square Feet	Existing Jobs	Building Square Ft./Job
San Juan CCD without Friday Harbor	247,696.9	787	314.74
Lopez CCD	268,264.1	646	415.27
Orcas CCD	930,839.1	1,753	530.99

2 \*Source: U.S. Census Bureau and SJC Land Capacity Analysis Report data.

3  
 4 The building square feet per job metric for the Eastsound and Lopez Village UGAs cannot be calculated  
 5 with the jobs data available. Jobs statistics are not provided for the UGA. Future commercial capacity in  
 6 the UGA will use the rate of square feet per job from that island's CCD.

**Commented [SW(2):** I think ESD will provide jobs at smaller geographies to cities and counties for planning purposes. It may not be necessary considering the level of detail in your analysis, but is an option in the future if you want to look at UGAs more closely.

7  
 8 **III.B. Future Employment Capacity and Building Square Feet per Job**

9  
 10 Using the assumption that the rate of building square feet per job remains the same for each CCD, a  
 11 forecast of employment capacity in number of jobs is calculated for each CCD. This analysis uses the  
 12 expected final capacity of nonresidential development in building square footage from the LCA Report  
 13 data. The draft *Land Capacity Analysis Methodology* outlines the process for identifying the possible  
 14 building square footage and final capacity. It includes two methods for calculating commercial capacity.  
 15 One is based on achieved floor area ratio per land use designation. The second is based on the maximum  
 16 allowed building square footage under the current development regulations. To compare future  
 17 commercial capacity and building square feet per job, the capacity numbers from the LCA Report based  
 18 on the achieved floor area ratio are used. Achieved FAR most accurately characterizes existing  
 19 development and what is most likely to occur. Future employment capacity is calculated as follows.

20  
 21 **Future Employment Capacity =**  
 22 **Commercial Capacity per CCD**  
 23 **Building Square Feet per Job per CCD**

24  
 25  
 26 **Table 5. Future Employment Capacity (FJC) per U.S. Census County Division (CCD).**

Area	Commercial Capacity Square Feet	Building Square Feet per Job	Future Employment Capacity In Jobs
San Juan CCD without Friday Harbor	874,965	314.74	2,780
Lopez CCD without the UGA	5,438,189	415.27	9,167
Lopez Village UGA	1,155,131	415.27	1,947
Orcas CCD without the UGA	114,484	530.99	216
Eastsound UGA	320,413	530.99	603

27 \*Source: Land Capacity Analysis Report Data Set and Table 4 above.

## IV. Forecasted Future Jobs and Future Job Capacity

Now that an expected number of future jobs (Tables 2 and 3) and a future employment capacity (Table 5) have been established it is possible to compare these two metrics. A potential future job capacity surplus or deficit is determined by comparing future jobs and future job capacity as follows.

$$\text{Future Job Capacity Surplus or Deficit} = \text{Future Jobs Capacity} - \text{Forecasted Future New Jobs}$$

**Table 6. Future Job Capacity Surplus or Deficit by U.S. Census County Division (CCD).**

Area	Future Job Capacity (in possible new jobs)	Forecasted Future New Jobs	Future Job Capacity Surplus or Deficit (+/-)
San Juan CCD without Friday Harbor	2,780	35	2,745
Lopez CCD without the UGA	9,167	48	9,119
Lopez Village UGA	1,947	48	1,899
Orcas CCD without the UGA	216	171	45
Eastsound UGA	603	171	432
<b>Countywide without Friday Harbor</b>	<b>14,713</b>	<b>473</b>	<b>13,808</b>

Source: Tables 2-5 above.

Placeholder for additional discussion of results.

## V. Assumptions and Caveats

### V.A. List of Assumptions and Caveats

Placeholder for a list of the assumptions used in the analysis above and some of the caveats (i.e. the amount of retirees in the County may skew the jobs per household ratio in the future; the economy may not grow in proportion with the population, etc.).

#### Assumptions

- The ratio of jobs per household will remain at 2016 levels through the planning period.
- The 2017 rate of employment per square foot in each CCD will remain through the planning period.
- Building square feet per job by CCD used to analyze employment capacity in the UGA. This island-wide rate includes commercial development in areas not within the UGA.
- The distribution of employment per sector will be similar to the sixteen-year (2002 – 2017) average of employment distribution per sector.

**Commented [SW(3):** I like how you lay out your assumptions here in a separate section. Clearly articulating your assumptions is critical in developing a solid and defensible record.

- Development scenario B from the final capacity tables in the LCA Report was used when calculating employment capacity in mixed-use areas. Scenario B assumes that mixed-use development will occur at a ratio of fifty percent residential and fifty percent commercial.

*One of the assumptions that may change is the rate of jobs per household. As the County's population ages and the percentage of retirees in the County increases, the jobs per household rate may decline. Additional information about the expected changes in demographics is included in Section VI of this report.*

### V.B. Implications of Assumptions and Caveats

Placeholder for a discussion of what influence each of the assumptions listed above have on the analysis (does this make the estimates higher or lower, etc.).

## VI. Additional Employment Background

Placeholder for more information about the workforce in SJ. This may be supporting information for section V.B.

### VI.A. Employment Totals per CCD

Placeholder for discussion of trends.

**Table 7. San Juan County Jobs by U.S. Census County Division (CCD), 2012 to 2017.**

	2017	2016	2015	2014	2013	2012
Unincorporated San Juan	787	742	709	686	740	683
Friday Harbor	2,149	2,172	1,990	1,938	1,997	1,915
San Juan CCD Total	2,936	2,914	2,699	2,624	2,737	2,598
Orcas CCD	1,753	1,760	1,630	1,611	1,497	1,468
Lopez CCD	646	623	615	630	665	639
<b>Countywide Total</b>	<b>5,335</b>	<b>5,297</b>	<b>4,944</b>	<b>4,865</b>	<b>4,899</b>	<b>4,705</b>

\*Source: U.S. Census Bureau.

**NOTE: expand Table 7 to include more years and capture employment prior to 2008 recession.**

### VI.B. Geography of Employment

Maps 2 through 4 below show the generalized location of employment in each CCD. These maps show employment information provided by the U.S. Census Bureau with their *On the Map* web application. The job information shown on the maps are generalized by area and do not represent the precise location of employment. The maps provide some context as to where employment is approximately provided.

**Commented [SW(4):** I was wondering about this as I was reading the earlier sections of the analysis. It is fine assuming the rate stays the same, but possibly more realistic to assume it changes over the planning period considering the County's demographics. Of course, it may be the case that the rate stays roughly similar but the type of jobs change (i.e. increase in medical or social service jobs) as the population ages.

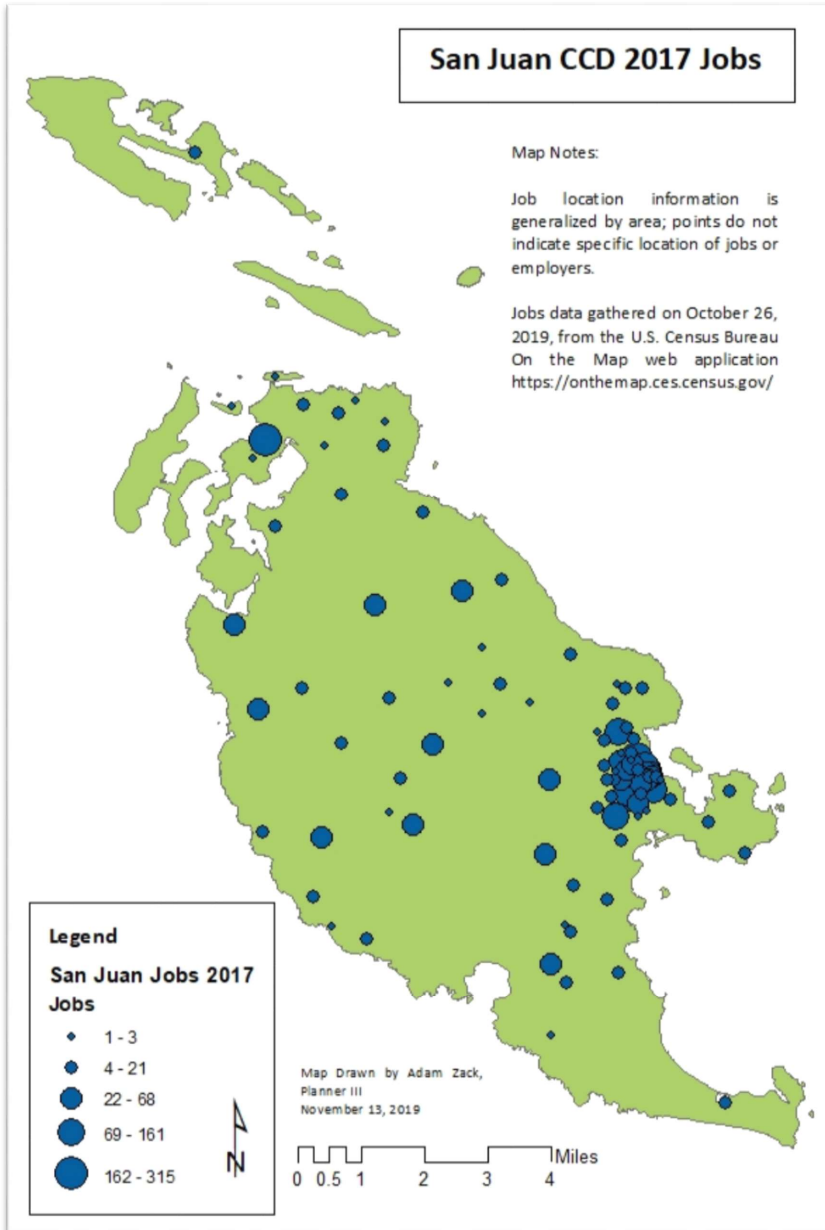
Broadly speaking, there are two ways I think about projecting population and employment growth. The first is that it is a necessary requirement to make some informed decisions about UGA sizing, infrastructure, and budget decisions. Things may change, but you are making big assumptions about where and how growth will occur, and can react as necessary during the planning period.

The second is that it is a precise exercise based on demographics, trends, and the best information you have that should predict with some certainty about where and how growth will occur. It is critical to look closely at the trends and demographics during the periodic update because the land use assumptions lead to infrastructure investments that have significant impacts on county or municipal budgets.

I tend to support a more careful and nuanced analysis, but understand that resource constraints often require local governments to lean more towards the former rather than the latter.

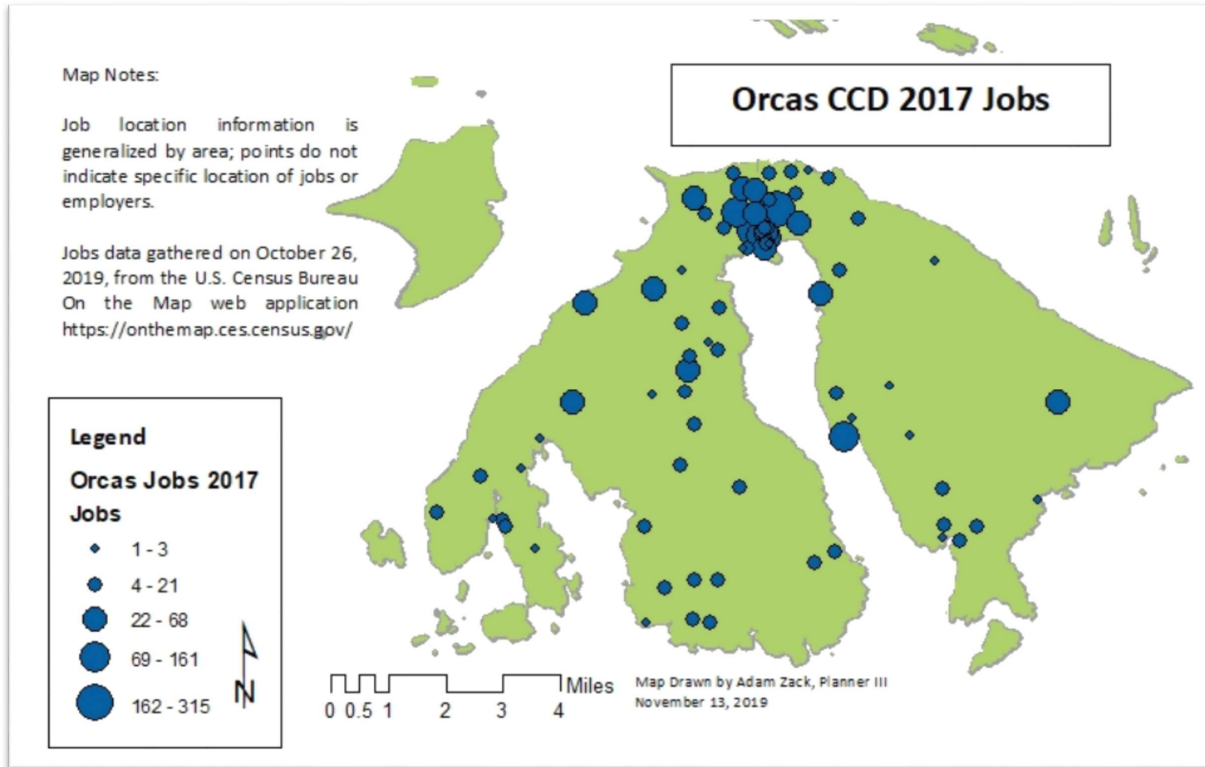
**Commented [SW(5):** One thing you may want to consider, though not necessarily in this paper, is the type of jobs you are expecting in the unincorporated areas of the County and how your zoning allows for or prohibits these jobs. For example, are tasting rooms/art studios/galleries, etc allowed in the rural zone? To what extent? Are you anticipating industrial activity in the county, and how does the existing land use designation match up with those expectations?

1 **Map 2. San Juan Island U.S. Census County Division (CCD) Generalized Job Locations.**



2

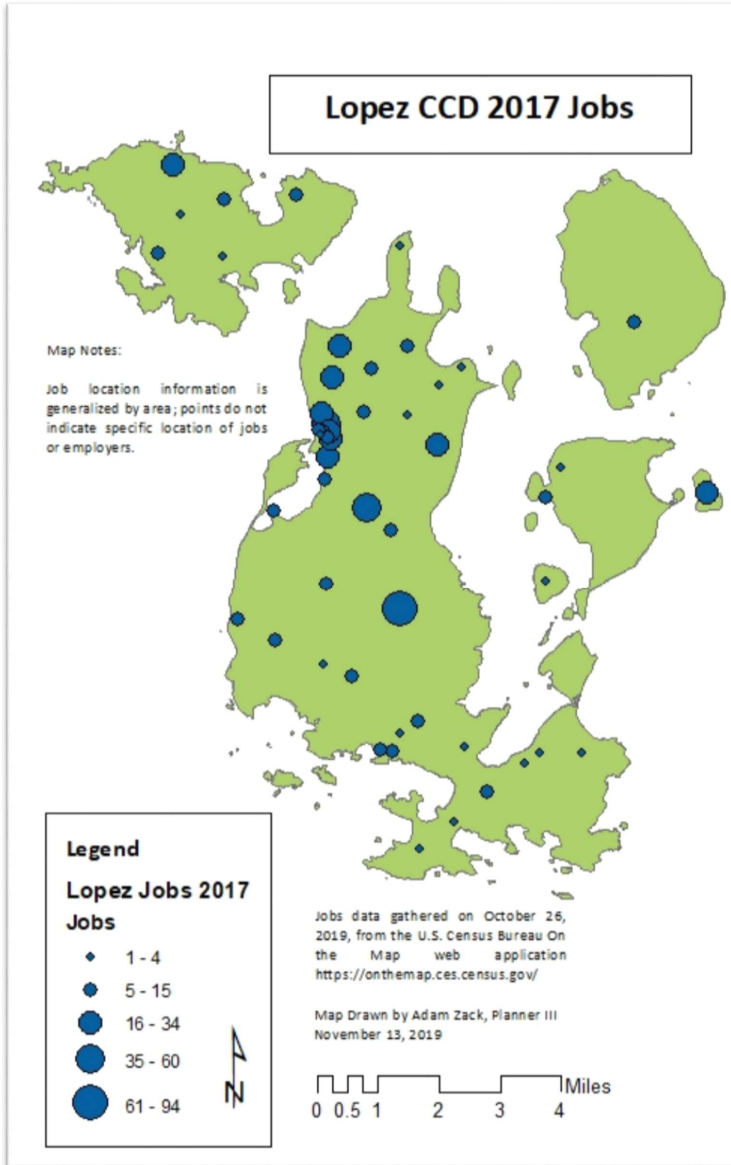
1 **Map 3. Orcas U.S. Census County Division (CCD) Generalized Job Locations.**



2

1 **Map 4. Lopez U.S. Census County Division (CCD) Generalized Job Locations.**

2



3

4

1 **VI.C. Recent Employment by NAICS Industry Sector**

2

3 The U.S. Census Bureau provides jobs data by North American Industry Classification System (NAICS)  
4 industry for each CCD. Employment data for each CCD is provided through *On The Map* for the years  
5 2002 through 2017. Tables 8 through 11 below provide the number of jobs per sector for each CCD for  
6 2012 through 2017.

7

8 *Placeholder for additional discussion of recent trends.*

9

1 **Table 8. Jobs by NAICS Industry Sector in San Juan U.S. Census County Division (CCD), Without Friday Harbor, 2012 to 2017.**

Industry Sector	2017		2016		2015		2014		2013		2012	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
Agriculture, Forestry, Fishing and Hunting	36	4.57%	30	4.04%	15	2.12%	10	1.46%	37	5.00%	35	5.12%
Mining, Quarrying, and Oil and Gas Extraction	4	0.51%	1	0.13%	8	1.13%	4	0.58%	6	0.81%	6	0.88%
Utilities	6	0.76%	4	0.54%	5	0.71%	7	1.02%	5	0.68%	5	0.73%
Construction	260	33.04%	245	33.02%	196	27.64%	158	23.03%	128	17.30%	140	20.50%
Manufacturing	14	1.78%	13	1.75%	12	1.69%	35	5.10%	23	3.11%	28	4.10%
Wholesale Trade	19	2.41%	22	2.96%	24	3.39%	26	3.79%	26	3.51%	20	2.93%
Retail Trade	18	2.29%	14	1.89%	27	3.81%	11	1.60%	14	1.89%	22	3.22%
Transportation and Warehousing	19	2.41%	15	2.02%	6	0.85%	5	0.73%	2	0.27%	5	0.73%
Information	1	0.13%	1	0.13%	14	1.97%	2	0.29%	10	1.35%	10	1.46%
Finance and Insurance	3	0.38%	4	0.54%	3	0.42%	3	0.44%	3	0.41%	6	0.88%
Real Estate and Rental and Leasing	1	0.13%	4	0.54%	3	0.42%	1	0.15%	3	0.41%	3	0.44%
Professional, Scientific, and Technical Services	23	2.92%	21	2.83%	20	2.82%	12	1.75%	12	1.62%	8	1.17%
Management of Companies and Enterprises	1	0.13%	1	0.13%	1	0.14%	2	0.29%	1	0.14%	1	0.15%
Administration & Support, Waste Management and Remediation	26	3.30%	30	4.04%	33	4.65%	33	4.81%	34	4.59%	29	4.25%
Educational Services	2	0.25%	2	0.27%	6	0.85%	3	0.44%	2	0.27%	5	0.73%
Health Care and Social Assistance	18	2.29%	6	0.81%	26	3.67%	40	5.83%	21	2.84%	15	2.20%
Arts, Entertainment, and Recreation	25	3.18%	32	4.31%	39	5.50%	38	5.54%	26	3.51%	38	5.56%
Accommodation and Food Services	222	28.21%	195	26.28%	178	25.11%	167	24.34%	217	29.32%	142	20.79%
Other Services (excluding Public Administration)	82	10.42%	95	12.80%	83	11.71%	119	17.35%	123	16.62%	120	17.57%
Public Administration	7	0.89%	7	0.94%	10	1.41%	10	1.46%	47	6.35%	45	6.59%

2 Source: U.S. Census Bureau *On The Map*.

3

1 **Table 9. Jobs by NAICS Industry Sector in Friday Harbor, 2012 to 2017.**

Industry Sector	2017		2016		2015		2014		2013		2012	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
Agriculture, Forestry, Fishing and Hunting	0	0.0%	0	0.0%	24	1.2%	0	0.0%	0	0.0%	0	0.0%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Utilities	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Construction	99	4.6%	107	4.9%	92	4.6%	112	5.8%	109	5.5%	93	4.9%
Manufacturing	47	2.2%	35	1.6%	48	2.4%	26	1.3%	42	2.1%	38	2.0%
Wholesale Trade	18	0.8%	14	0.6%	13	0.7%	16	0.8%	11	0.6%	14	0.7%
Retail Trade	293	13.6%	310	14.3%	287	14.4%	291	15.0%	272	13.6%	266	13.9%
Transportation and Warehousing	58	2.7%	59	2.7%	39	2.0%	39	2.0%	43	2.2%	48	2.5%
Information	50	2.3%	49	2.3%	48	2.4%	66	3.4%	41	2.1%	44	2.3%
Finance and Insurance	53	2.5%	43	2.0%	61	3.1%	68	3.5%	44	2.2%	64	3.3%
Real Estate and Rental and Leasing	86	4.0%	80	3.7%	84	4.2%	65	3.4%	49	2.5%	37	1.9%
Professional, Scientific, and Technical Services	54	2.5%	56	2.6%	39	2.0%	48	2.5%	55	2.8%	69	3.6%
Management of Companies and Enterprises	15	0.7%	13	0.6%	19	1.0%	18	0.9%	15	0.8%	15	0.8%
Administration & Support, Waste Management and Remediation	60	2.8%	64	2.9%	50	2.5%	52	2.7%	56	2.8%	57	3.0%
Educational Services	236	11.0%	236	10.9%	196	9.8%	217	11.2%	234	11.7%	220	11.5%
Health Care and Social Assistance	218	10.1%	237	10.9%	193	9.7%	187	9.6%	231	11.6%	209	10.9%
Arts, Entertainment, and Recreation	141	6.6%	125	5.8%	121	6.1%	89	4.6%	131	6.6%	127	6.6%
Accommodation and Food Services	380	17.7%	369	17.0%	319	16.0%	313	16.2%	321	16.1%	294	15.4%
Other Services (excluding Public Administration)	51	2.4%	60	2.8%	50	2.5%	52	2.7%	62	3.1%	48	2.5%
Public Administration	290	13.5%	315	14.5%	307	15.4%	279	14.4%	281	14.1%	272	14.2%

2 Source: U.S. Census Bureau *On The Map*.

3  
4

1 **Table 10. Jobs by NAICS Industry Sector in Lopez U.S. Census County Division (CCD), 2012 to 2017.**

Industry Sector	2017		2016		2015		2014		2013		2012	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
Agriculture, Forestry, Fishing and Hunting	4	0.6%	2	0.3%	6	1.0%	11	1.7%	2	0.3%	7	1.1%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Utilities	14	2.2%	9	1.4%	9	1.5%	5	0.8%	9	1.4%	5	0.8%
Construction	89	13.8%	76	12.2%	68	11.1%	65	10.3%	71	10.7%	75	11.7%
Manufacturing	42	6.5%	40	6.4%	34	5.5%	40	6.3%	43	6.5%	46	7.2%
Wholesale Trade	10	1.5%	9	1.4%	15	2.4%	17	2.7%	20	3.0%	8	1.3%
Retail Trade	105	16.3%	98	15.7%	94	15.3%	97	15.4%	93	14.0%	99	15.5%
Transportation and Warehousing	12	1.9%	12	1.9%	15	2.4%	10	1.6%	5	0.8%	5	0.8%
Information	8	1.2%	5	0.8%	8	1.3%	6	1.0%	6	0.9%	5	0.8%
Finance and Insurance	8	1.2%	10	1.6%	3	0.5%	6	1.0%	12	1.8%	6	0.9%
Real Estate and Rental and Leasing	31	4.8%	23	3.7%	27	4.4%	20	3.2%	19	2.9%	20	3.1%
Professional, Scientific, and Technical Services	9	1.4%	11	1.8%	12	2.0%	8	1.3%	7	1.1%	12	1.9%
Management of Companies and Enterprises	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Administration & Support, Waste Management and Remediation	32	5.0%	27	4.3%	40	6.5%	40	6.3%	42	6.3%	31	4.9%
Educational Services	95	14.7%	89	14.3%	101	16.4%	103	16.3%	109	16.4%	98	15.3%
Health Care and Social Assistance	42	6.5%	48	7.7%	53	8.6%	63	10.0%	54	8.1%	61	9.5%
Arts, Entertainment, and Recreation	36	5.6%	35	5.6%	14	2.3%	15	2.4%	36	5.4%	32	5.0%
Accommodation and Food Services	58	9.0%	86	13.8%	63	10.2%	60	9.5%	62	9.3%	62	9.7%
Other Services (excluding Public Administration)	39	6.0%	33	5.3%	43	7.0%	49	7.8%	58	8.7%	53	8.3%
Public Administration	12	1.9%	10	1.6%	10	1.6%	15	2.4%	17	2.6%	14	2.2%

2 Source: U.S. Census Bureau *On The Map*.

3  
4

1 **Table 11. Jobs by NAICS Industry Sector in Orcas U.S. Census County Division (CCD), 2012 to 2017.**

Industry Sector	2017		2016		2015		2014		2013		2012	
	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share	Count	Share
Agriculture, Forestry, Fishing and Hunting	33	1.9%	34	1.9%	29	1.8%	16	1.0%	14	0.9%	10	0.7%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Utilities	73	4.2%	71	4.0%	69	4.2%	71	4.4%	77	5.1%	74	5.0%
Construction	239	13.6%	219	12.4%	205	12.6%	225	14.0%	190	12.7%	190	12.9%
Manufacturing	59	3.4%	52	3.0%	58	3.6%	59	3.7%	50	3.3%	46	3.1%
Wholesale Trade	23	1.3%	21	1.2%	23	1.4%	22	1.4%	36	2.4%	28	1.9%
Retail Trade	260	14.8%	227	12.9%	219	13.4%	195	12.1%	190	12.7%	198	13.5%
Transportation and Warehousing	22	1.3%	20	1.1%	17	1.0%	17	1.1%	17	1.1%	15	1.0%
Information	43	2.5%	34	1.9%	29	1.8%	27	1.7%	24	1.6%	28	1.9%
Finance and Insurance	34	1.9%	13	0.7%	20	1.2%	26	1.6%	13	0.9%	27	1.8%
Real Estate and Rental and Leasing	32	1.8%	36	2.0%	42	2.6%	28	1.7%	32	2.1%	24	1.6%
Professional, Scientific, and Technical Services	64	3.7%	99	5.6%	50	3.1%	55	3.4%	56	3.7%	59	4.0%
Management of Companies and Enterprises	6	0.3%	1	0.1%	1	0.1%	0	0.0%	2	0.1%	1	0.1%
Administration & Support, Waste Management and Remediation	79	4.5%	81	4.6%	85	5.2%	81	5.0%	75	5.0%	76	5.2%
Educational Services	137	7.8%	141	8.0%	127	7.8%	126	7.8%	133	8.9%	128	8.7%
Health Care and Social Assistance	108	6.2%	122	6.9%	140	8.6%	118	7.3%	99	6.6%	83	5.7%
Arts, Entertainment, and Recreation	38	2.2%	52	3.0%	42	2.6%	46	2.9%	38	2.5%	41	2.8%
Accommodation and Food Services	412	23.5%	419	23.8%	381	23.4%	403	25.0%	355	23.7%	340	23.2%
Other Services (excluding Public Administration)	77	4.4%	62	3.5%	72	4.4%	68	4.2%	62	4.1%	70	4.8%
Public Administration	14	0.8%	56	3.2%	21	1.3%	28	1.7%	34	2.3%	30	2.0%

2 Source: U.S. Census Bureau *On The Map*.

3

1 **VI.D. Employment Projections for Northwest Washington Workforce Development Area**  
2 **(WDA).**

3  
4 The Washington State Employment Security Department (ESD) provides employment projections for  
5 areas in Washington State, called workforce development areas (WDA). San Juan County is located in  
6 WDA 3, which includes Whatcom, Skagit, and Island counties. ESD provides projections for two, five, and  
7 ten year periods. They annually update these employment projections. The most recent ten-year  
8 projection covers the years 2017 to 2027. The ESD projections for the Northwest Washington WDA is  
9 provided in Table 13 below.

10  
11 ESD employment projections and information about how the projections were made is available at  
12 <https://esd.wa.gov/labormarketinfo/projections>

13  
14

**Table 13. Employment Projections for Northwest Washington WDA (Two Pages).**

Title	Estimated employment 2017	Estimated employment 2022	Estimated employment 2027	Average annual growth rate 2017-2022	Average annual growth rate 2022-2027
<b>TOTAL NONFARM</b>	<b>166,200</b>	<b>179,600</b>	<b>190,000</b>	<b>1.56%</b>	<b>1.13%</b>
NATURAL RESOURCES and Mining	500	500	500	0.00%	0.00%
Logging	300	300	300	0.00%	0.00%
Mining	200	200	200	0.00%	0.00%
CONSTRUCTION	13,600	15,700	16,400	2.91%	0.88%
MANUFACTURING	17,100	17,800	18,100	0.81%	0.33%
Durable Goods	9,600	9,800	10,000	0.41%	0.40%
Wood Product Manufacturing	2,100	2,100	2,100	0.00%	0.00%
Nonmetallic Mineral Product Manufacturing	500	500	500	0.00%	0.00%
Fabricated Metal Product Manufacturing	800	800	800	0.00%	0.00%
Machinery Manufacturing	1,400	1,800	1,900	5.15%	1.09%
Computer and Electronic Product Manufacturing	500	500	500	0.00%	0.00%
Electrical Equipment and Appliance Mfg	400	400	400	0.00%	0.00%
Other Transportation Equipment	1,500	1,300	1,300	-2.82%	0.00%
Other Durable Manufacturing	1,100	1,200	1,300	1.76%	1.61%
Non Durable Goods	7,500	8,000	8,100	1.30%	0.25%
Food and Beverages Manufacturing	4,000	4,300	4,300	1.46%	0.00%
Printing and Related Support Activities	200	200	200	0.00%	0.00%
Other Non Durable	3,200	3,400	3,500	1.22%	0.58%
WHOLESALE TRADE	4,200	4,400	4,500	0.93%	0.45%
RETAIL TRADE	21,400	22,000	22,900	0.55%	0.81%
Food and Beverage Stores	4,500	4,500	4,600	0.00%	0.44%
Motor Vehicle and Parts Dealers	2,700	2,700	2,800	0.00%	0.73%
Other Retail Trade	14,200	14,800	15,500	0.83%	0.93%
TRANSPORTATION, WAREHOUSING AND UTILITIES	4,700	5,100	5,300	1.65%	0.77%
Utilities	500	500	500	0.00%	0.00%
Transportation and Warehousing	4,200	4,600	4,800	1.84%	0.85%
INFORMATION	1,800	1,700	1,800	-1.14%	1.15%

**Table 13. Employment Projections for Northwest Washington WDA (Two Pages).**

Title	Estimated employment 2017	Estimated employment 2022	Estimated employment 2027	Average annual growth rate 2017-2022	Average annual growth rate 2022-2027
Software Publishers	400	500	500	4.56%	0.00%
Other Publishing Industries	400	200	200	-12.94%	0.00%
Other Information	1,000	1,000	1,100	0.00%	1.92%
<b>FINANCIAL ACTIVITIES</b>	<b>6,800</b>	<b>7,200</b>	<b>7,500</b>	<b>1.15%</b>	<b>0.82%</b>
Finance and Insurance	4,500	4,700	4,900	0.87%	0.84%
Real Estate, Rental and Leasing	2,300	2,500	2,600	1.68%	0.79%
<b>PROFESSIONAL and BUSINESS SERVICES</b>	<b>13,200</b>	<b>14,700</b>	<b>15,900</b>	<b>2.18%</b>	<b>1.58%</b>
Professional, Scientific and Technical Services	6,000	6,700	7,300	2.23%	1.73%
Management of Companies and Enterprises	600	700	700	3.13%	0.00%
Other Professional Services	5,100	5,500	6,000	1.52%	1.76%
Employment Services	1,500	1,800	1,900	3.71%	1.09%
<b>EDUCATION and HEALTH SERVICES</b>	<b>21,400</b>	<b>23,500</b>	<b>26,100</b>	<b>1.89%</b>	<b>2.12%</b>
Education Services	2,200	2,500	2,800	2.59%	2.29%
Health Services and Social Assistance	19,200	21,000	23,300	1.81%	2.10%
<b>LEISURE and HOSPITALITY</b>	<b>19,700</b>	<b>21,900</b>	<b>23,300</b>	<b>2.14%</b>	<b>1.25%</b>
Arts, Entertainment and Recreation	2,600	2,800	3,000	1.49%	1.39%
Accommodation and Food Services	17,100	19,100	20,300	2.24%	1.23%
<b>OTHER SERVICES</b>	<b>7,000</b>	<b>8,000</b>	<b>8,300</b>	<b>2.71%</b>	<b>0.74%</b>
<b>GOVERNMENT</b>	<b>34,800</b>	<b>37,100</b>	<b>39,400</b>	<b>1.29%</b>	<b>1.21%</b>
Federal Government	3,200	3,200	3,200	0.00%	0.00%
State and Local Government Other	14,800	15,700	16,700	1.19%	1.24%
Government Educational Services	16,800	18,200	19,500	1.61%	1.39%

1 Source: Washington State Employment Security Department.

1 **VI.E. Trends**

2

3 Placeholder

4

5 **Table 12. Population by Age Cohort, 2017 American Community Survey (U.S.Census).**

Cohort	Estimate	Percent
Under 5 years old	463	2.9
5 to 9 years old	701	4.3
10 to 14 years old	615	3.8
15 to 19 years old	744	4.6
20 to 24 years old	550	3.4
25 to 34 years old	1,242	7.7
35 to 44 years old	1,604	9.9
45 to 54 years old	2,031	12.5
55 to 59 years old	1,622	10
60 to 64 years old	1,688	10.4
65 to 74 years old	3,189	19.7
75 to 84 years old	1,314	8.1
85 years or older	458	2.8
<b>Median Age</b>	<b>55.7</b>	

6 \*Source: U.S. Census Bureau 2017 ACS.

7

8 **Table 12. County Population and Employment, 2011 to 2017.**

	2010	2011	2012	2013	2014	2015	2016	2017
Population	15784	15844	15849	15909	16010	16198	16304	16725
Jobs	4728	4580	4705	4899	4865	4994	5297	5335
Jobs to Household Ratio	0.61	0.59	0.61	0.63	0.62	0.63	0.66	0.65
Population Added	-	60	5	60	101	188	106	421
Jobs Added	-	-148	125	194	-34	129	303	38

9 \*Source: U.S. Census Bureau and SJC Population Forecast.

10

11 Placeholder

12

13 **VII. Data Sources**

14

15 **VII.A. Job Statistics**

16

17 Job statistics come from the U.S. Census Bureau *On the Map* web application  
18 (<https://onthemap.ces.census.gov/>) provided as part of the Longitudinal Employer-Household Dynamics  
19 (LEHD) program. LEHD describes the source for *On the Map* as follows:

20

1 The employment data used in this application are derived from several sources:

- 2
- 3     ▪ Unemployment Insurance (UI) Wage Records reported by employers and maintained by
- 4       each state for the purpose of administering its unemployment insurance system provide
- 5       information on employees and jobs (relationship between employee and firm). These
- 6       data are provided for "UI-covered employment," which typically includes private-sector
- 7       employment as well as state and local government.
- 8
- 9     ▪ The Office of Personnel Management (OPM) provides information on employees and jobs
- 10       for most Federal employees.
- 11
- 12       ○ See [http://www.fedscope.opm.gov/datadefn/aboutehri\\_sdm.asp#cpdf3](http://www.fedscope.opm.gov/datadefn/aboutehri_sdm.asp#cpdf3).
- 13       This link to a non-federal Web site does not imply endorsement of any
- 14       particular product, company, or content and
- 15       <http://www.fedscope.opm.gov/datadefn/index.asp#location>. This link to a
- 16       non-federal Website does not imply endorsement of any particular product,
- 17       company, or content for major exceptions. In addition, LODES/OnTheMap
- 18       does not include all workers covered by OPM. In particular, civilian
- 19       employees of the Department of Defense and the Armed Forces are
- 20       excluded. Starting in 2015 some additional suppressions are applied to
- 21       federal employment. See [lehd.ces.census.gov/doc/help/onthemap/LODES](http://lehd.ces.census.gov/doc/help/onthemap/LODES)
- 22       [Data Note - Fed Emp 2015.pdf](#). Data on Federal Workers are not currently
- 23       available for 2016 and 2017.
- 24
- 25
- 26     ▪ The Quarterly Census for Employment and Wages (QCEW) provides information on firm
- 27       structure and establishment location. These data are collected by each state under an
- 28       agreement with the U.S. Bureau of Labor Statistics (BLS).
- 29
- 30       ○ Age, earnings, and industry profiles are compiled by the U.S. Census Bureau
- 31       from a state's records and are supplemented with other Census Bureau
- 32       source data. Final compilations and confidentiality protection are
- 33       performed by the U.S. Census Bureau. The states assign employer locations,
- 34       while workers' residence locations are assigned by the U.S. Census Bureau
- 35       using data from multiple federal agencies.
- 36

## 37 VII.B. Population Forecast

38

39 Population figures, including future population numbers, come from the population forecast adopted for

40 use in the SJC Comprehensive Plan update in Resolution 27-2017. The population forecast is based on the

41 County's proportionate share of Washington State's population. An April 11, 2017 staff report provides

42 background on the population projection (<https://www.sanjuanco.com/DocumentCenter/View/11845/>).

43

## 44 VII.C. Housing Units

45

46 Housing unit information is provided in the draft **March 28, 2019** *SJC Housing Needs Assessment* (HNA)

47 (<https://www.sanjuanco.com/DocumentCenter/View/18231>). The HNA combines data from many

48 sources, including County permit and U.S. Census Bureau data.

49

1 **VII.D. Census County Division (CCD)**  
2

3 The U.S. Census Bureau does not provide jobs numbers for individual islands but provides it by three  
4 census county divisions (CCD) in San Juan County. The CCDs groups the San Juan Islands as shown in Map  
5 1. CCD is defined by the U.S. Census Bureau as:

6  
7 A subdivision of a county that is a relatively permanent statistical area established  
8 cooperatively by the Census Bureau and state and local government authorities. Used for  
9 presenting decennial census statistics in those states that do not have well-defined and  
10 stable minor civil divisions that serve as local governments.

11  
12 Link to definition: [https://factfinder.census.gov/help/en/census\\_county\\_division\\_ccd.htm](https://factfinder.census.gov/help/en/census_county_division_ccd.htm)  
13

14 **VII.E. Decennial Census and American Community Survey (ACS)**  
15

16 General information about population and demographics was also gathered from the U.S. Census Bureau  
17 using the American Factfinder website ([factfinder.census.gov](https://factfinder.census.gov)).  
18

Field Code Changed

19 **VII.F San Juan County Land Capacity Analysis (LCA) data set**  
20

21 The LCA data uses several County sources including the Assessor’s parcel data. It is described in the draft  
22 *SJC Land Capacity Analysis Methodology*. The November 4, 2019 Land Capacity Analysis Report identifies  
23 the gross and net developable land, possible future dwelling units under existing development and current  
24 development regulations, and capacity for future nonresidential building square footage based on existing  
25 Comprehensive Plan land use designations and regulations.  
26

27 **VII.G Employment Security Department (ESD) Workforce Development Area  
28 Employment Projections**  
29

30 ESD provides employment projections for areas in Washington State called workforce development areas  
31 (WDA). San Juan County is located in WDA 3, which includes Whatcom, Skagit, and Island counties. ESD  
32 provides projections for two, five, and ten year periods. They annually update these employment  
33 projections. The most recent ten-year projection covers the years 2017 to 2027.  
34

35 ESD employment projections and information about how the projections were made are available at  
36 <https://esd.wa.gov/labormarketinfo/projections>