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INLAND EMPIRE
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RIVERSIDE & SAN BERNARDINO COUNTIES, CALIFORNIA

YEAR 32 April 2020

INLAND EMPIRE 2020 FORECAST IN THE MIDST OF A PANDEMIC, SHUTDOWN & DEMONSTRATIONS

by
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Economic forecasting is difficult during normal times. In 2020, we are faced with the largest variety of unknowns in modern history. Covid-19 shut down much of the economy in March-April 2020. U.S. streets are filled with demonstrations. There is really no historic economic data relevant to this period of time. Right now, economists are somewhat flying blind. To establish a definite perspective, this QER is late as it was necessary to wait for the state's May 22nd Inland Empire data release to get the full picture of how deep the April job decline had been.

For the Inland Empire, one economist has ventured that we will see a "V" shaped recovery during the year. That means, the economy dove with the shutdown but will bounce back in a hurry. Another looks forward to a "Nike swoosh," meaning a rapid decline followed by a long slow recovery. This economist sees economic growth as a "check mark," down fast with a moderately rapid recovery though certainly not by the end of 2020.

There is no doubt that economists are all making educated guesses about the future. In this QER, the attempt has been made to build a forecast for 2020 by looking at the anticipated behavior of each sector of the Inland Empire's economy. It then discusses how annual average 2020 data is likely to compare to 2019.

This process relies on the pool of knowledge we have about how the various Inland Empire sectors will act. We know logistics is heavily dependent on e-commerce which is soaring and port imports which are somewhat restrained. Hospitals have been vitally

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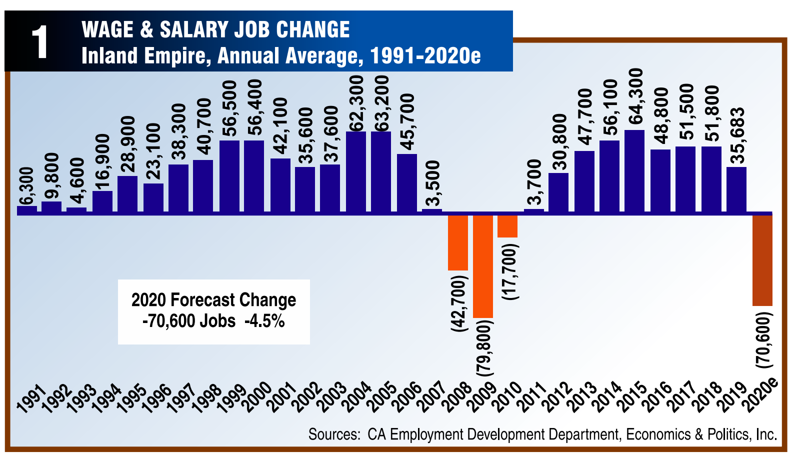
INLAND EMPIRE 2020 FORECAST … ANTICIPATING COVID-19'S ANNUAL IMPACT

John E. Husing, Ph.D.

As 2020 began, the Inland Empire appeared on track to add 32,000 jobs, which would have been another strong year. No more. Covid-19 has brought economic growth to a halt. By April 2020, the area was down -150,700 jobs from April 2019 (*-9.7%*). The unemployment rate jumped to 14.4% from 3.6% the prior April. Unlike other typical downturns, this one has been the result of efforts to restrain the virus by closing down sectors where people would be in close contact and asking residents to stay home. This has been particularly difficult for population serving groups like retailing, consumer services, eating and drinking, travel and entertainment.

Fortunately, the lockdown will not go on forever. California has undertaken a process that is reopening sectors in a phased fashion while generally allowing people to circulate again. To attack the virus, increased testing and isolation of those infected will be used. It is hoped a vaccine will be found, but likely too late for helping 2020.



ANNUAL 2020 FORECAST

As the economy opens from April until December, an important question is what 2020 Inland Empire annual average employment will be. This would include the strength in January and February, weaknesses in March and April and the growth anticipated through December. In 2019, average annual employment was 1,556,900. The 2020 annual average job level is estimated at 1,486,300, down -70,600 jobs or -4.5% (*Exhibits 1 & 8*). This forecast was derived from the sector by sector logic explained below.

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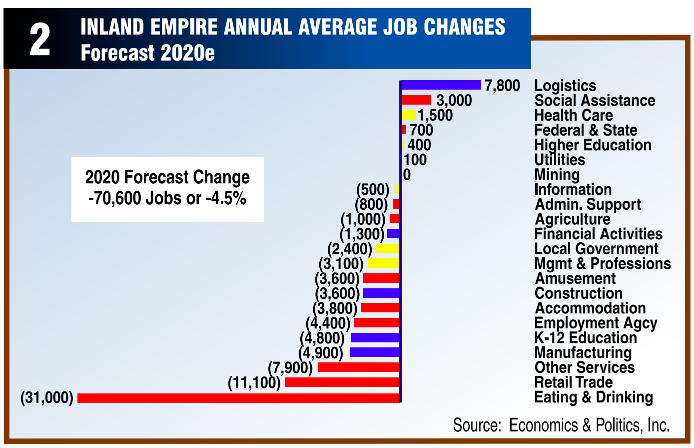
To forecast 2020, past CA Employment Development Department (*EDD*) data were used to estimate monthly seasonality factors for each inland sector. These were applied to EDD's January-April 2020 estimates. Next, estimates were made of how each sector would grow or decline from its seasonally adjusted April 2020 level to December 2020. These estimates were made based on recent discussions with over 30 local companies, work of other economists and this analyst's instincts about how the sectors have historically acted. The compounded monthly growth rates by sector were calculated between April data and December estimates. They were used to estimate employment by sector for the intervening months. Those figures were adjusted to include seasonality by using the historic share that each months' jobs have traditionally made of its annual total. Together with EDD's January to April job levels, the result was the estimated monthly growth by sector for 2020 (*Exhibit 8*). This allowed calculation of the annual average job growth by sector (*Exhibit 3*) and over all for 2020 (*1,486,300*) that was comparable to EDD's published average annual 2019 level (*1,556,900*).



ECONOMIC BASE SECTORS

Below the rationale for the estimated growth of each sector group from April 2020 to December 2020 is explained. This starts with the sectors traditionally bringing outside money into the Inland Empire's economic base:

Logistics. The logistics industry (*wholesale trade, trucking, warehousing*) has been the inland economy's primary driver in recent years due to e-commerce and international trade. In April 2020, the sector was up 4,200 jobs from the April 2019 (*Exhibit 9*) despite losing -7,100 jobs from March to April 2020. Now, the shutdown of most retail stores plus social distancing have caused people to expand e-commerce sales dramatically. With most of Southern California's e-commerce facilities in the Inland Empire, this should power logistics growth through December. Meanwhile, imported containers entering through the San Pedro Bay ports have fallen from a record 9.0 million twenty-foot equivalent containers (*teus*) in 2018 to an annualized 7.5 million in early 2020 due to tariffs and the pandemic (*Exhibit 12*). These difficulties should soften somewhat as world trade picks up through December. Given these factors and the sector's history, it is estimated that logistics will add jobs at 1.55% a month through December creating an annual average of 212,500. That would be 7,800 jobs above 2019, the lowest annual increase since 2012 (*Exhibit 6*).

Health Care has been hit hard by Covid-19 as the recent shutdown hurt employment with clinics, dentists, psychologists, and residential care while also hurting hospital revenues. By April 2020, the sector was down -7,300 jobs compared to April 2019 (*see Exhibit 9*) largely due to a -12,000 job loss from March to April. With the California economy reopening, this situation should reverse since health care services are essential and are difficult to delay for very long. It is anticipated that the sector will move towards normal relatively fast, growing at roughly 1% per month between April and December. That would give it at an annual average of 149,400 jobs compared to 147,900 in 2019. The gain of 1,500 positions would be the lowest since 2010 (*1,200*) (*see Exhibit 7*).

Construction has generally been one of the Inland Empire's strongest job creators due to heavy spending on infrastructure thanks to SB 1 funding and local sales taxes, plus the 21.2 million square feet of industrial space under construction in March 2020 and modest single family and multitenant building. The difficulties imposed by Covid-19 caused the sector to slow significantly from March to April 2020, down -13,700 jobs, leaving it -14,900 jobs below April 2019. Each of these construction elements should be back in business through December with jobs growing at 2.45% per month and yielding a compounded annual employment of 102,300 for 2020. That would be off -3,600 jobs from the 105,900 positions in 2019.

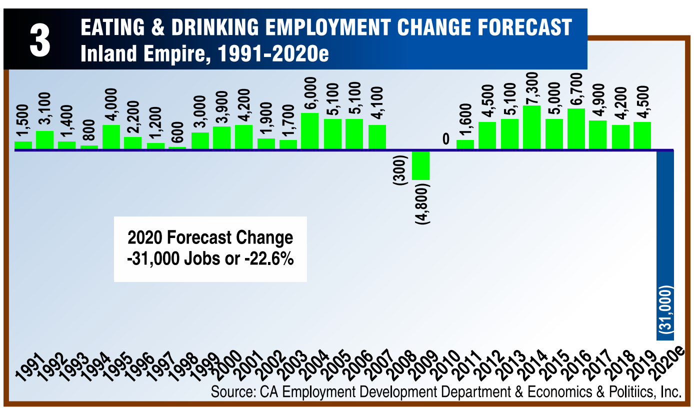
Manufacturing is no longer a major growth sector for the Inland Empire due to the high cost of operating in California. The Covid-19 shutdown slowed the sector by -5,100 jobs from March to April 2020 and left it -8,600 jobs below April 2019. With workers returning, it is assumed the sector will return to a little less employment by December (*97,800*) than occurred in January through March 2020 (*98,400*). A monthly growth rate of 0.59% would bring this about and leave the sector at an annual average of 96,300 positions in 2020, down -4,900 from 101,200 jobs in 2019.

POPULATION SERVING SECTORS

The Inland Empire sectors supplying services directly to residents have been particularly hurt in this downturn:

Eating & Drinking has been the hardest hit sector. From March to April 2020, the group lost -45,300 jobs, putting it -52,500 jobs below April 2019. The state is now allowing outlets to open but with seating restrictions. Also, surveys reveal some hesitancy by the public to congregate. Combined, these factors make it unlikely the sector will return to normal this year. It is anticipated to go from 86,800 jobs in April to 107,600 in December 2020, up 2.72% per month as restaurants and bars reopen. Employment was 136,300 in December 2019. The result is an annual average of 106,000 jobs for 2020, down -31,000 from 137,000 in 2019 (*Exhibit 3*).

Retail Trade & Consumer Services were also shutdown hard due to the pandemic. They lost -26,400 jobs from March to April 2020 leaving them -28,900 positions below April 2019. Many of these small businesses may not survive the slowdown. At the same time, some customers may be reluctant to return to normal shopping, others may simply continue their on-line shopping. Retail stores are assumed to grow from 162,400 workers in April to 177,200 at Christmas time, up 1.10% per month. The December level would be below the 191,000 in December 2019. This would give retailers an annual average of 170,200 jobs for 2020, down -11,100 jobs from 181,300 in 2019. Consumer services firms (*e.g., hair stylists, gyms, auto repair*) are anticipated to go from 33,500 jobs in April to 37,700 by December, up 1.49% per month. That would give them a 2020 annual average of 37,900 jobs down -7,900 from 45,800 in 2019. Together, they will be off -19,000 jobs (*Exhibit 4*).



Accommodation & Entertainment are the other sectors most affected by the pandemic. These relatively small sectors lost -8,500 jobs from March to April 2020 leaving them -11,000 positions below April 2019. With people reluctant to travel on planes, trains, buses and taxis, much less sit together in confined entertainment spaces, these sectors will have trouble returning to normal in 2020. Hotels and other accommodations are assumed to grow from 13,100 jobs in April to 13,800 in December 2020, up 0.65% per month. They employed 18,000 in December 2019. This would mean an annual average of 14,400 jobs for 2020, down -3,800 jobs from 18,200 in 2019. Entertainment venues are anticipated to go from 16,100 jobs in April to 16,900 by December, up 0.61% per month. It reached 20,300 in December 2019. That would give entertainment outlets an annual average of 16,500 jobs for 2020, off -3,600 from 20,100 in 2019. Together, they will be down -7,400 jobs (*Exhibit 5*)

Management & Professions employment will likely be adversely affected as many workers who have begun working on-line from home will stay there. This will tend to reduce the need for support personnel. From March to April 2020, the sector lost -5,100 jobs putting it -6,600 positions below April 2019. It will grow 1.23% per month from April to December bringing it to 50,500 jobs, just below the 51,100 in December 2019. Annual average 2020 employment will be 48,500, down -3,100 from 51,600 in 2019.

Local Governments are beginning to see reductions in revenue as sales taxes fall with lower on-site sales and transient occupancy taxes decline with less travel. However, property taxes are still holding up as existing home prices grew 5.2% in Riverside County and 7.6% in San Bernardino County in first quarter 2020 (*Exhibit 14*). Also, property assessments began being made in late 2019 and early 2020. By December 2020, local government should have 78,100 jobs compared to 83,100 in December 2019, off -5,000 jobs. The annual average 2020 employment would be 79,800, down -2,400 from 82,200 in 2019.

K-12 Education will be affected as California cuts its budget due to declining income and sales taxes. How much local schools will be hurt is unsettled given the on-going debate between the Governor and Legislature. The schools dropped -6,500 jobs as schools shutdown from March to April 2020, leaving the sector -9,800 jobs below April 2019. It is assumed that most schools will reopen by year's end. From April to December, the sector is anticipated to grow at 0.49% per month reaching 139,800 positions. That would give it an annual average of 134,800 jobs, down -4,800 from 139,600 in 2019.

Other Sectors will see impacts from the slowdown. **Social assistance** will add 3,000 jobs as high unemployment adds to their importance. **Federal and state government** will add 700 due to the Census. **Finance, insurance and real estate** will drop -1,300 jobs due to stagnate real estate sales. **Administration** will lose -1,000 positions as offices need less help with staff working on-line from home. **Agriculture** will lose -1,000 due to the virus hitting workers particularly hard. **Employment agencies** will lose an annual average of -4,400 jobs as higher unemployment reduces the need for companies to depend on them. All other sectors will see annual average employment changes under 1,000 jobs.

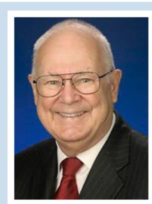
SUMMARY

The forecast that employment will drop an annual average of -70,600 jobs from 1,556,900 in 2019 to 1,486,300 in 2020 depends heavily on the considerations outline here as to how each sector is likely to change from April to December 2020. To the extent they approach reality, the forecast will be relatively accurate. They are enumerated here for review.

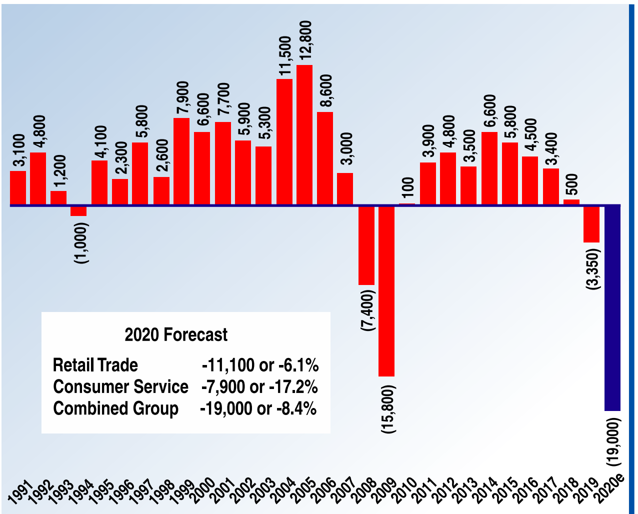
For further information on the economic analysis in the QER, visit Dr. John Husing's website at:

www.johnhusing.com

You'll also find pages on Dr. Husing's background, speaking engagements, downloadable presentations, adventures, and other items of interest.



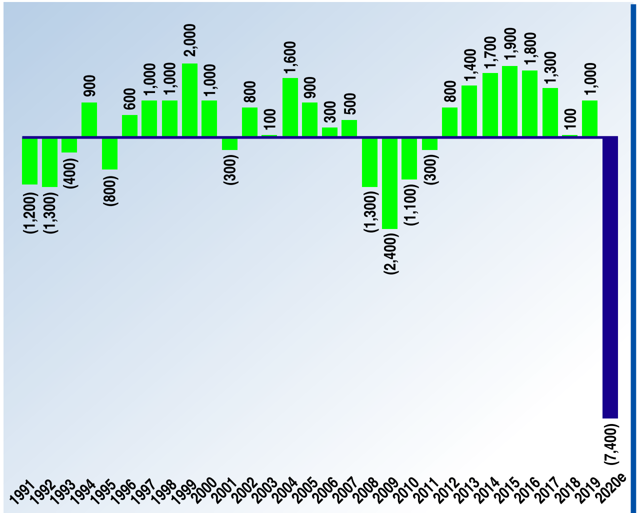
4 RETAIL TRADE & CONSUMER SERVICES EMPLOYMENT CHANGE
Inland Empire, 1991-2020e



Source: CA Employment Development Department & Economics & Politiics, Inc.

Retail & Consumer Services. By the end of 2020, it is forecasted that annual average retail trade will end up -11,100 jobs or -6.1% below 2019. Meanwhile, annual average consumer services be down by -7,900 jobs or -17.2% from 2019. Together, these two population serving sectors will have lost an average of -19,000 jobs or -8.4% in 2020 compared to 2019 (*Exhibit 4*). To reach these levels, both will recover somewhat from their April 2020 lows. Retail trade will go from 162,400 jobs that month to 177,200 in December, adding back 14,800 positions (*9.1%*). Consumer services will go from 33,500 in April to 37,700 in December, up 4,200 jobs (*12.4%*) (*see Exhibit 8*).

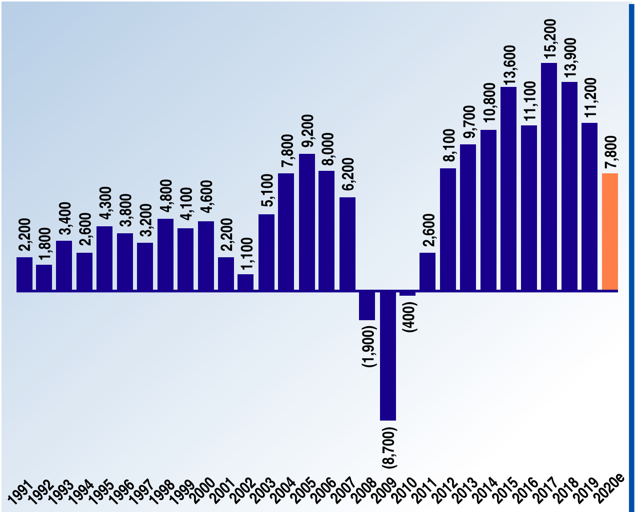
5 ACCOMMODATION & ENTERTAINMENT EMPLOYMENT
Forecasted Change, Inland Empire, 1991-2020e



Source: CA Employment Development Department & Economics & Politiics, Inc.

Accommodation & Entertainment. By the end of 2020, it is predicted that annual average accommodation outlets will be down by -3,800 jobs or -20.9% compared to 2019. Meanwhile, workers employed in entertainment venues will decline by annual average of -3,600 jobs or -17.9% from 2019. Together, these two population serving sectors will be down -7,400 jobs or –19.3% in 2020 compared to 2019 (*Exhibit 5*). To reach these levels, both grow somewhat from their April 2020 lows. Accommodation will expand from 13,100 jobs that month to 13,800 in December, adding back 700 positions (*5.3%*). Entertainment locations will rise from 16,100 in April to 16,900 in December, up 800 jobs (*4.8%*) (*Exhibit 8*).

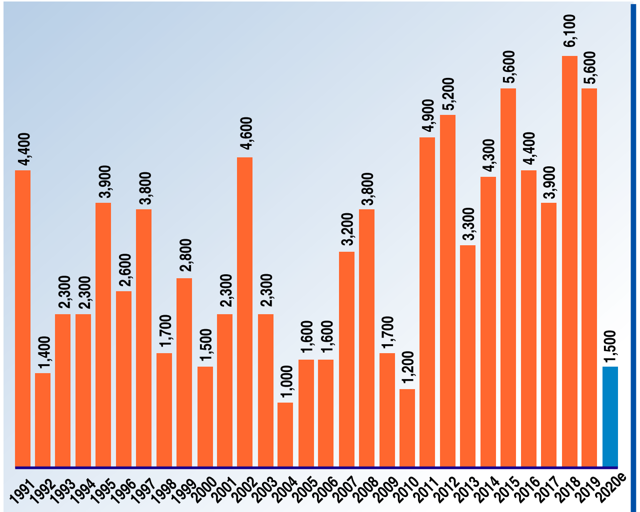
6 LOGISTICS SECTOR FORECASTED JOB GROWTH
Inland Empire, 1991-2020e



Source: CA Employment Development Department & Economics & Politiics, Inc.

Logistics. Logistics (*wholesale trade, warehousing, transportation*) is forecasted to end 2020 up 7,800 jobs or 3.8% on an annual average basis compared to 2019 (*Exhibit 6*). To reach this level the group will have to increase from its low of 201,300 jobs in April 2020 to 227,600 by December, adding 26,300 positions (*13.1%*) (*Exhibit 8*). This will depend upon two phenomena. First is the continuing increase in e-commerce jobs given that consumers are depending on the internet for much more of their retail spending. It will also require international trade through the ports of Los Angeles and Long Beach to return to volumes closer to normal.

7 HEALTH SERVICES FORECASTED JOB GROWTH
Inland Empire, 1991-2020e



Source: CA Employment Development Department & Economics & Politiics, Inc.

Health Care. Compared to 2019, the combination of hospitals, ambulatory care facilities (*e.g., outpatient medial groups, dentists*) and residential care is forecasted to end 2020 with 1,500 more positions, up 1.0% on an annual average basis (*Exhibit 7*). This means these providers will have to go from a low of 138,700 jobs in April 2020 to 159,700 by December, a gain of 21,000 jobs (*15.1%*) (*Exhibit 8*). This will require the reopening of ambulatory clinics, dentists' offices and psychologists practices as well as gaining control over the public health difficulties that have savage residential care facilities. Importantly, it will also mean that the funding of medical care will have to be boosted from its depressed level.

8 FORECAST OF SECTOR CHANGES 2019-2020

Sector	Avg. 2019	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Avg. 2020	19-20 Change
Health	147,900	151,600	151,600	150,700	138,700	140,900	142,900	146,100	148,900	150,900	154,200	157,100	159,700	149,400	1,500
Fed/State	39,400	39,300	39,400	39,600	40,300	40,200	40,400	40,300	40,400	40,400	40,300	40,400	40,100	40,100	700
Higher Ed.	19,200	20,200	21,000	21,100	19,900	19,300	19,000	17,200	16,800	18,800	20,300	21,300	20,300	19,600	400
Utilities	4,700	4,800	4,800	4,800	4,800	4,800	4,800	4,900	4,900	4,900	4,800	4,800	4,800	4,800	100
Mining	1,200	1,200	1,200	1,200	1,100	1,200	1,200	1,200	1,200	1,200	1,200	1,300	1,300	1,200	0
Information	11,500	11,300	11,300	11,200	11,000	11,000	11,000	11,100	10,900	10,700	10,700	10,900	10,900	11,000	(500)
Local Govt.	82,200	82,900	83,300	83,400	79,400	79,600	79,400	78,900	78,800	78,300	78,000	78,000	78,100	79,800	(2,400)
Mgmt/Prof	51,600	51,000	50,600	50,900	45,800	45,500	45,800	46,800	47,700	47,900	49,100	49,900	50,500	48,500	(3,100)
Good Pay	**357,600**	**362,300**	**363,200**	**362,900**	**341,000**	**342,400**	**344,400**	**346,500**	**349,500**	**353,100**	**358,700**	**363,600**	**365,600**	**354,400**	**(3,200)**
Logistics	204,700	209,100	208,800	208,400	201,300	204,000	206,800	210,400	212,400	215,100	219,800	226,100	227,600	212,500	7,800
Financial	44,200	43,300	43,600	43,700	41,300	41,700	41,900	42,400	42,700	42,800	43,700	43,900	44,200	42,900	(1,300)
Construct	105,900	102,900	106,400	103,900	90,200	93,300	97,200	100,300	103,900	105,600	107,000	107,900	109,500	102,300	(3,600)
K-12 Ed	139,600	139,300	138,800	140,900	134,400	135,400	135,300	121,600	125,100	130,100	137,600	139,600	139,800	134,800	(4,800)
Mfg	101,200	98,100	98,800	98,400	93,300	93,900	94,900	95,300	95,900	96,000	96,400	97,200	97,800	96,300	(4,900)
Mod. Pay	**595,500**	**592,700**	**596,400**	**595,300**	**560,500**	**568,400**	**576,000**	**569,900**	**579,900**	**589,700**	**604,500**	**614,700**	**619,000**	**588,800**	**(6,700)**
Social Aid	82,400	85,100	84,600	84,300	81,600	82,600	83,600	84,400	85,700	86,100	87,500	89,200	89,800	85,400	3,000
Admin	60,700	61,200	62,300	60,800	58,500	58,200	58,000	58,900	59,700	59,900	60,300	60,600	60,600	59,900	(800)
Agriculture	15,100	14,600	13,800	13,500	13,200	14,800	17,300	15,600	11,500	12,600	13,400	14,200	14,700	14,100	(1,000)
Amusement	20,100	20,300	20,300	19,900	16,100	15,500	14,700	14,300	14,300	14,400	14,900	16,100	16,900	16,500	(3,600)
Hotel	18,200	17,700	17,800	17,800	13,100	13,100	13,200	13,100	13,000	13,200	13,400	13,700	13,800	14,400	(3,800)
Temp Agcy	43,200	42,700	42,800	41,500	35,400	35,300	36,300	37,000	37,800	38,400	39,200	39,700	39,900	38,800	(4,400)
Other Serv.	45,800	44,800	44,800	43,600	33,500	34,200	34,800	35,100	35,800	36,100	37,000	37,500	37,700	37,900	(7,900)
Retail	181,300	181,900	180,000	178,700	162,400	163,300	163,000	164,000	164,700	164,500	166,900	175,500	177,200	170,200	(11,100)
Eat / Drink	137,000	134,400	136,900	132,100	86,800	89,200	91,300	93,100	95,600	98,100	101,200	105,300	107,600	106,000	(31,000)
Lower Pay	**603,800**	**602,700**	**603,300**	**592,200**	**500,600**	**506,100**	**512,200**	**515,400**	**518,100**	**523,400**	**533,900**	**551,700**	**558,100**	**543,100**	**(60,700)**
Total	**1,556,900**	**1,557,700**	**1,562,900**	**1,550,400**	**1,402,100**	**1,416,900**	**1,432,600**	**1,431,800**	**1,447,600**	**1,466,200**	**1,497,100**	**1,529,900**	**1,542,600**	**1,486,300**	**(70,600)**

Source: CA Employment Development Department, Economics & Politics, Inc.

INLAND EMPIRE EMPLOYMENT

By the time 2020 ends, it is forecasted that the Inland Empire will have an annual average of 1,486,300 jobs. That would be down -70,600 or -4.5% from 1,556,900 in 2019 (*Exhibit 8*). The economy had been down -150,700 (*-9.7%*) in April 2020 (*Exhibit 9*).

High Paying Sectors. Higher paying sectors will decline an annual average of -3,200 jobs in 2020 (*-0.9%*). Health care would average 149,400 (*1.0%*), just below its January 2020 high of 151,600 assuming funding will be found for the sector. It will be up 1,500 jobs from its 2019 level (*1.0%*). Management and professions would average 48,500 positions, mid-way between its January high and April low, as some offices consolidate elsewhere using online technology. It will be -3,100 jobs below 2019 (*-6.0%*). The other high paying sectors will average slightly over their April levels. Higher education will be 19,600 jobs, up 400 from 2019 (*2.2%*). Utilities will average 4,800, up 100 from 2019 (*1.4%*). Mining will have 1,200 jobs, unchanged from 2019. Information will average 11,000 positions, down -500 from 2019 (*-4.5%*). Local government will average 79,800, down -2,400 from 2019 (-2.9%) due to budget losses.

Moderate Paying Sectors. Moderate paying groups will be off -6,700 jobs from 2019 (*-1.1%*). Logistics will be the only growing sector, averaging 212,500 jobs, roughly 3,000 jobs above its January level and up 7,800 from 2019 (*3.8%*) as people continue using e-commerce to avoid social contact and international trade somewhat recovers. Construction will average 102,300, about its January 2020 level, as weather improves, industrial construction and some residential building returns. It will be down -3,600 jobs from 2019 (*-3.4%*). Finance, insurance and real estate will average 42,900 jobs, a little over its April level and -1,300 jobs below 2019 (*-2.9%*) as the economy remains somewhat flat. K-12 schools will average 134,800 positions, about the April level as schools have difficulty opening due to Covid-19. They will be -4,800 jobs below 2019 (*-3.4%*). Manufacturing will average 96,300, roughly its January 2020 level, and down -4,900 from 2019 (*-4.9%*).

Low Paying Sectors. The low paying sectors have been particularly damaged by Covid-19 and will lose an average of -60,700 jobs in 2020 (*-10.1%*). Given the economic hardship, only social assistance will grow, reaching an average of 85,400 jobs, up 3,000 from 2019 (*3.6%*). Administrative support will be up slightly from April, averaging 59,900, but down -800 from 2019 (*-1.3%*). Agriculture will be a little below its January level at 14,100, down -1,000 jobs from 2019 (*-6.6%*). With accommodation

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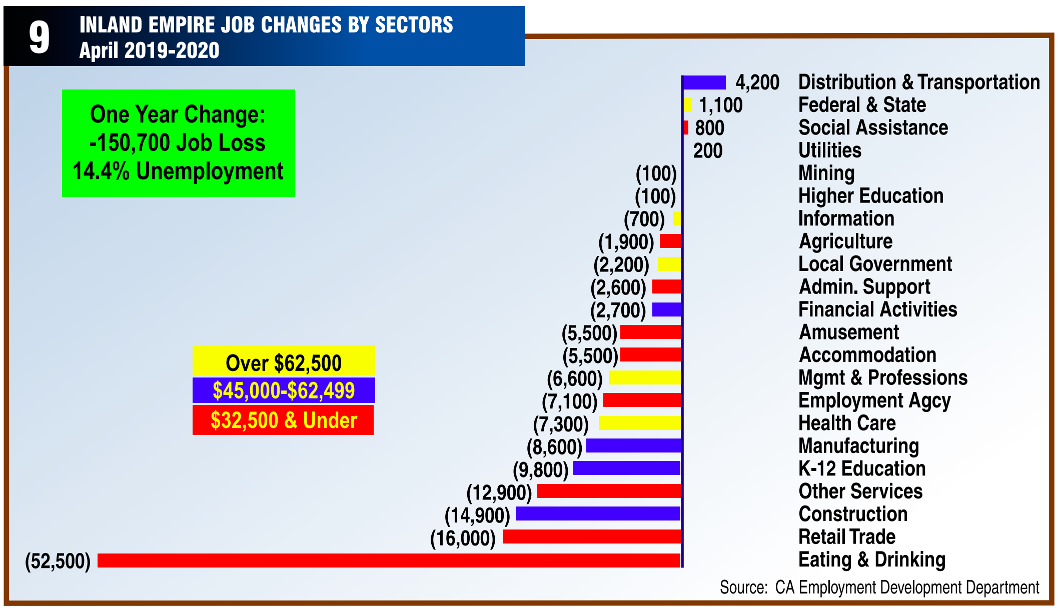
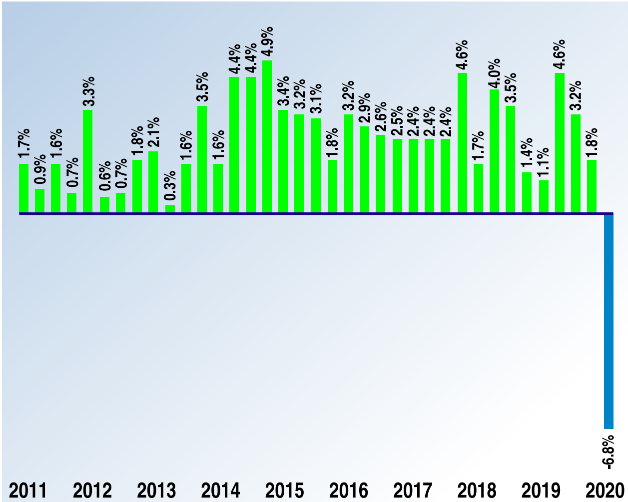
(*14,400*) and entertainment (*16,500*) hit by Covid-19, both will remain close to their April levels. Respectively, they will be down -3,800 (*-20.9%*) and -3,600 (*-17.8%*) from 2019 levels. With unemployment high, temporary agencies will average between their January high and April low at 38,800 jobs, down -4,400 from 2019 (*-10.2%*).

Population services will remain hurt by Covid-19 with each recovering only somewhat from their April lows. Consumer services will average 37,900 jobs, up 4,200 from April (*12.4%*), but down -7,900 from 2019 (*-17.3%*). Retailing will average 170,200, up 14,800 (*9.1%*) from April but down -11,100 (*-6.1%*). Eating and drinking will average 106,000, up 20,800 from April (*24.0%*) but down -31,000 from 2019 (*-22.6%*).



Unemployment. Had April 2019-2020 data referred to whole years, the loss of jobs in that period would have taken unemployment from 74,000 to 295,500, up 221,500, and a 14.4% rate. Of the 221,500 jobs lost, 150,700 were by workers who lost local jobs. If the forecast discussed above occurred, only 70,600 workers would have lost their local jobs, and there would be 80,100 fewer unemployed (*150,700 minus 70,600*). Unemployment would be 215,400, not 295,500 and an unemployment rate from a labor force of 2,047,500 of 10.5%, not 14.4%. This omits the fact that only about 80% of local workers have local jobs; the other 20% are commuters. If all of Southern California acted like the Inland Empire and unemployment was 80,100 lower locally, there would also be 16,020 fewer unemployed commuters (*20%*) meaning a total of 96,120 fewer unemployed inland workers. Total unemployment would be 199,380 not 295,500 with an unemployment rate of 9.7% not 14.4%. Based upon the forecast, the rough conclusion is a 2020 unemployed rate forecast between 9.7% to 10.5%.

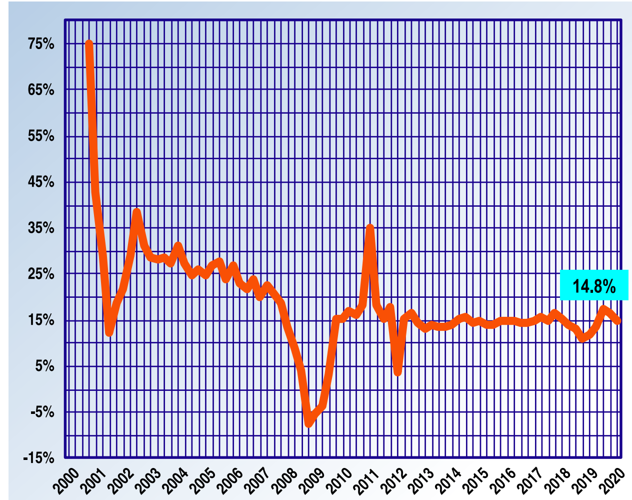
10 CONSUMER SPENDING GROWTH
Annualized Percent Change, by quarter, 2011-2020e



Source: U.S. Bureau of Economic Analysis

U.S. Consumer Spending. As the U.S. economy entered the first quarter of 2020, consumer spending fell by -6.8%. That was the first such decline since 2009 and the largest such decline since -8.7% in second quarter 1980 (*not shown*). This did not include the severe lockdown that occurred in April 2020 indicating that in the second quarter of 2020 the consumer spending change will likely be much worse. This has particularly affected spending in the retail, consumer services, restaurant, hotel and entertainment sectors of the Inland Empire economy.

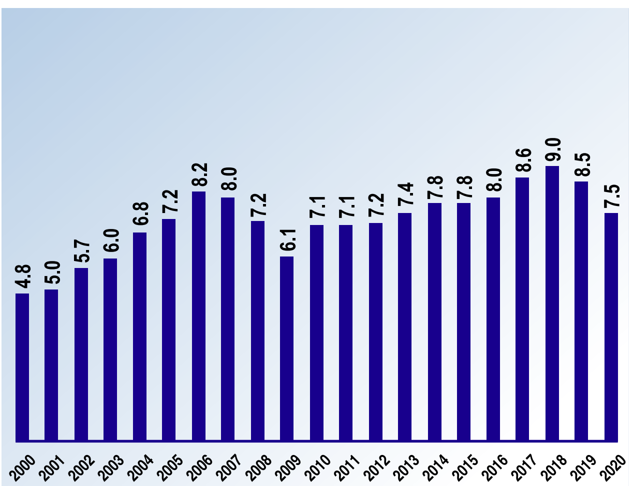
11 U.S. E-COMMERCE GROWTH RATES
Quarter over Same Quarter Prior Year, 2000-2020



Source: Bureau of the Census, Quarterly Retail Sales

E-commerce. The share of U.S. retail sales through e-commerce companies has continued to soar. In first quarter 2019-2020, it grew another 14.8%. It has grown each year at a compound annual rate of 12.6% since 2011. As a result, the share of U.S. retail sales through operations like Amazon now represents 11.8% of all consumer buying. With the shutdown in April 2020, the growth and the share will no doubt set records. Locally, this is propelling employment by logistics companies in the Inland Empire.

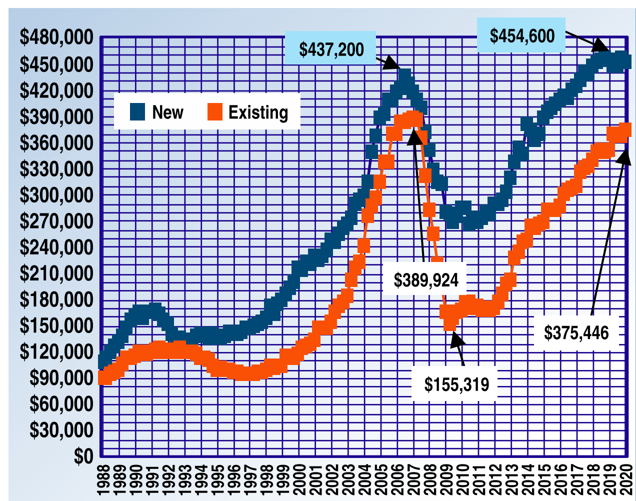
12 IMPORT VOLUME, 2000-2020e
Ports of Los Angeles & Long Beach (mil. teus)



2020e = Based upon growth experienced Year to Date, April
Source: Port Import Export Reporting Service (PIERS), collected from Vessel, LA-LB for 2011-2020e

Port Volumes. A key driver of the Inland Empire's economy is the volume of cargo flowing through the ports of Los Angeles and Long Beach. In 2018, the two ports saw imported containers reach 9.0 million twenty-foot equivalent containers (*teus*), a record. From there, volume has declined. It fell to 8.5 million in 2019 due to the President's tariff policies. In 2020, it has begun the year falling back to 7.5 million as both tariffs and the Covid-19 decline in international trade has hurt volumes. That brings it down to just over the 2013 level. As a good deal of this cargo ends up in Inland Empire warehouses, this has slowed logistics sector growth in the area.

13 PRICE TRENDS, NEW & EXISTING HOMES
Inland Empire, 1988-2020, Quarterly



Source: Dataquick & Economics & Politics, Inc.

Residential Prices. During first quarter 2020, the Inland Empire's residential prices continued rising. Existing median home prices rose from $353,381 in first quarter 2019 to $375,446 in 2020, up $22,064 or 6.2%. Since the 2009 low of $155,319, prices have far more than doubled (*141.7%*) but remain -3.7% under the $389,924 high in 2006. Since many of the homes sold at the 2005-2007 peak were overpriced and purchased with questionable mortgages, prices need not reach the record highs for the market to be normal since large numbers were lost to foreclosures and short sales. New homes were $454,600 in early 2020, down -0.2% from $455,329 in first quarter 2019. That was still $17,400 or 4.0% above the 2006 record of $437,200.

14 SOUTHERN CALIFORNIA HOME PRICES
1st Quarter, 2019-2020

County	1st Qtr-19	1st Qtr-20	% Chg.
NEW HOMES			
Riverside	$435,000	$434,000	-0.2%
San Bernardino	$493,500	$486,750	-1.4%
Los Angeles	$657,000	$666,250	1.4%
Orange	$1,015,250	$911,000	-10.3%
San Diego	$638,500	$667,500	4.5%
Ventura	$680,000	$612,250	-10.0%
So. California	$631,400	$598,600	-5.2%
EXISTING HOMES			
Riverside	$385,000	$405,000	5.2%
San Bernardino	315,000	339,000	7.6%
Los Angeles	615,000	665,000	8.1%
Orange	760,000	820,000	7.9%
San Diego	595,000	641,500	7.8%
Ventura	615,000	635,000	3.3%
So. California	$535,800	$577,700	7.8%

Source: Dataquick

15 HOME DEED RECORDINGS
Inland Empire, 1st Quarter, 2019-2020

NEW HOMES				EXISTING HOMES			
Area	1st-2019	1st-2020	% Chg.	Area	1st-2019	1st-2020	% Chg.
SB Mountains	2	11	450.0%	West of I-15	942	1,117	18.6%
East of I-215	8	41	412.5%	SB Mountains	572	666	16.4%
I-15 to I-215	68	208	205.9%	Victor Valley	956	1,104	15.5%
Victor Valley	84	124	47.6%	I-15 to I-215	708	776	9.6%
West of I-15	354	423	19.5%	San Bdno-Highland	630	651	3.3%
SB Desert	6	6	0.0%	SB Desert	531	545	2.6%
San Bdno-Highland	63	28	-55.6%	East of I-215	402	391	-2.7%
SAN BDNO COUNTY	**585**	**841**	**43.8%**	**SAN BDNO COUNTY**	**4,741**	**5,250**	**10.7%**
Riverside	85	138	62.4%	Southwest Co.	1,720	2,100	22.1%
Corona, Norco	126	199	57.9%	Rural Desert	419	511	22.0%
Coachella Valley	82	118	43.9%	Pass Area	316	372	17.7%
Rural Desert	65	87	33.8%	Moreno Valley	394	440	11.7%
Perris, Hemet, S.Jacinto	148	179	20.9%	Perris, Hemet, S.Jacinto	1,087	1,164	7.1%
Moreno Valley	68	78	14.7%	Riverside	767	820	6.9%
Southwest Co.	383	391	2.1%	Coachella Valley	1,255	1,320	5.2%
Pass Area	125	125	0.0%	Corona, Norco	631	650	3.0%
RIVERSIDE COUNTY	**1,082**	**1,315**	**21.5%**	**RIVERSIDE COUNTY**	**6,237**	**6,969**	**11.7%**
INLAND EMPIRE	**1,667**	**2,156**	**29.3%**	**INLAND EMPIRE**	**10,978**	**12,219**	**11.3%**

Source: Dataquick

Inland Empire Housing Market Prices Moderated Sales Better, But Effects of Covid-19 Coming

Single family home sales in the Inland Empire's residential market remain stuck in neutral. Since 2010, they have fluctuated from 14,500 to 16,000 seasonally adjusted sales, picking up a little to 16,711 in first quarter 2020 (*Exhibit 16*). Meanwhile, prices have flattened in the inland new home markets but were up strongly in existing home markets.

PRICES

In the inland area, new home prices flattened but existing home prices were strong. In first quarter 2020, the median priced San Bernardino County new home sold for $486,750, down -1.4% from first quarter 2019. In Riverside County, new homes sold for a median of $434,000, down -0.2%. Existing homes in Riverside County sold for a median of $405,000, up 5.2%. In San Bernardino County, they sold for $339,000, up 7.6% (*Exhibit 14*). The traditional savings for households to migrate inland from the coastal counties were seen in the substantial savings compared to coastal county home prices. There, new homes ranged from $612,250 to $911,000 and existing homes ranged from $635,000 to $820,000.

16 ALL HOME SALES, INLAND EMPIRE
Seasonally Adjusted, by quarter, 1988-2020

Source: Dataquick, Economics & Politics, Inc.

VOLUME

Looking at raw volume data, Riverside County had 6,969 existing home sales in first quarter 2020, up 11.7% from 6,237 in 2019 (*Exhibit 15*). San Bernardino County had 5,250 existing home sales, up 10.7% from 4,741 in first quarter 2019. By sub-market, southwest County had Riverside County's largest percentage gain in volume and total volume (*2,100; 22.1%*). In San Bernardino County, the areas west of the I-15 led in percentage gain and total volume (*1,117; 18.6%*).

Riverside County's first quarter 2020 new home volume was 1,315, up 21.5% from 1,082 in 2019 with the largest percentage gain in the Riverside city (*138; 62.4%*). The volume leader was the southwest county (*391; 2.1%*). San Bernardino County's volume was 841 units, up 43.8% from first quarter 2019's volume of 585. The mountain areas had the largest percentage gain (*11; 450.0%*), while the largest volume was west of the I-15 (*423, 19.5%*).

SUMMARY

Looking ahead, Inland Empire homes should continue to hold a substantial advantage for families compared to the coastal markets. This will be the case despite Covid-19's impact as it will likely affect supply and demand in all Southern California markets. Sales volumes in all markets will slow in the second quarter as potential buyers stay home and sellers decide to stay in place. Some sales recovery will likely occur in quarter three as lock-down requirements ease. Prices will likely continue rising as 2020 unfolds with the lack of supply meeting slowly increasing demand.

Continued from front page

important but we know clinics, dentists and others closed but should recover quickly as many procedures cannot be delayed for long. Restaurants closed fast and we know their recovery will be slow given public fears and requirements to cut capacity. Services like hair salons and gyms shut down but we know they should recover relatively fast as pent-up demand is released. Hotels and entertainment venues slowed rapidly and we know their recovery will be delayed by people's fears of close-knit travel and auditoriums.

We all have opinions about how the economy will recover in the future. The analysis here is based upon what appears to be true about the various sectors and how that would seem to have a good chance of playing out for the economy for the rest of 2020.

Note: The next QER will be the October 2020 issue which will look at the most recent data on the 52 cities and both counties of the Inland Empire.

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