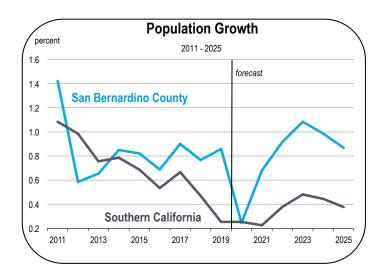
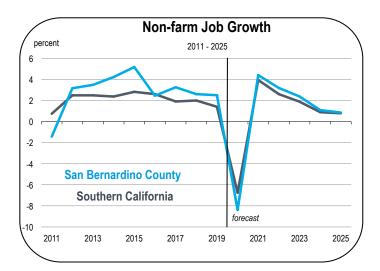
### **Forecast Summary**

- On an annual average basis, somewhere between 63,000 and 71,000 jobs will be lost in San Bernardino County during 2020. Job losses will be very heavy in the first half of the year.
- Employment losses will be largest in leisure services, retail trade, and government.
- The unemployment rate averaged 3.8 percent in 2019. It will average somewhere between 12 and 14 percent for the 2020 calendar year.
- The population is expanding faster than broader Southern California, and this trend will continue. Because of affordable home prices, net migration will remain positive for most of the 2020-2025 forecast period.
- Housing production will fall in 2020 but should rebound in 2021 and 2022.
- Home prices are not expected to change much during 2020 or 2021.

#### Job Growth

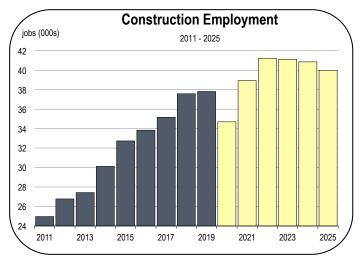
- Total employment in San Bernardino County will decline by 8 or 9 percent in 2020 on an annual average basis.
- In 2021, the county is expected to re-gain many of the jobs lost during the Coronavirus Recession.

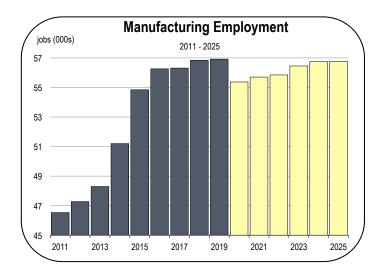




### **Construction Employment**

- The construction sector is expected to lose more than 3,000 jobs in 2020.
- Most California construction activity was deemed non-essential for several weeks in March and April, leading to significant construction layoffs that average down total employment in 2020.
- Construction employment will expand in 2021 and may return to pre-recession levels as early as 2022.



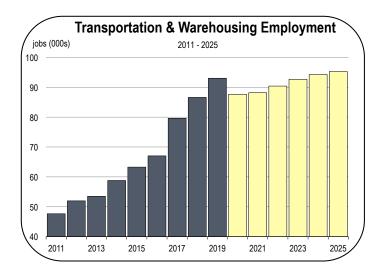


### **Manufacturing Employment**

- San Bernardino County has a diversified manufacturing sector that spans a range of product types. The most prominent are food and beverages, construction and building materials, aerospace equipment, furniture, and plastic bottles.
- Manufacturing employment is expected to decline by approximately 1,000 to 2,000 jobs during 2020. Employment could begin to rebound in 2021 but the manufacturing recovery is expected to be very slow.

### Transportation and Warehousing Employment

- Most transportation jobs in San Bernardino County are in trucking and warehousing, where firms deliver goods to and from businesses and store these goods in logistics facilities.
- San Bernardino County has become a hub for "Megawarehouses," logistics facilities larger than 1 million square feet, and has such facilities for Amazon and a number of major retailers.

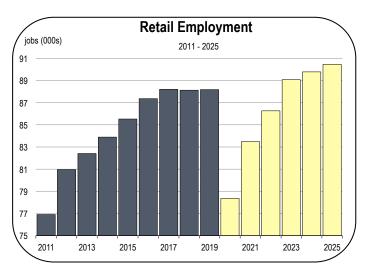


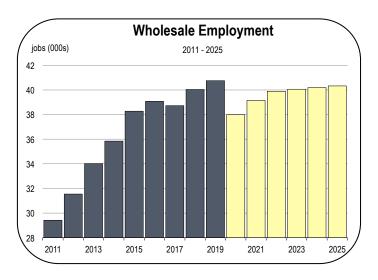
Transportation and Warehousing Sub-Sectors 2019	Jobs in Subsector (000s)	Subsector's Share of Overall Industry
Warehousing / Storage	47.1	50.7%
Trucking	21.1	22.7%
Delivery Services	14.6	15.7%
Other	10.2	10.9%

- Job growth in trucking and warehousing was exponential before the Coronavirus Recession, with overall employment levels more than doubling between 2009 and 2019.
- A meaningful number of jobs are in delivery firms like UPS, FedEx, and Instacart.
- Overall transportation and warehousing employment declined in March and April but began to expand again in May during Phase 2 of California's restart.

### **Retail Trade Employment**

- The retail sector is expected to lose approximately 10,000 jobs in 2020 on an annual average basis, a decrease of 11 percent.
- Many national retail chains chose to furlough their employees rather than lay them off completely, and furloughed workers are not considered to be unemployed. This is a technical detail that will mask the true number of work stoppages in the retail sector.
- Accounting for furloughed workers, more than 15,000 retail workers could be effectively not working, and not earning an income, on an annual average basis in 2020.



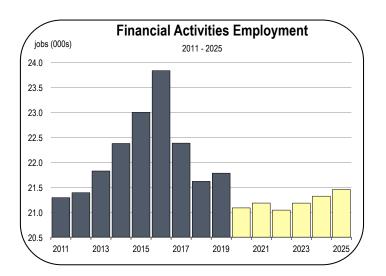


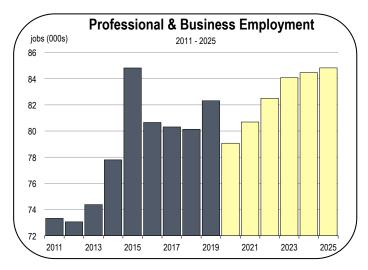
### Wholesale Trade Employment

- Wholesale trade employment is expected to fall by 6 or 7 percent on an annual average basis in 2020, a decline of more than 2,500 jobs.
- Wholesale employment should rebound in 2021 but may not return to pre-recession levels during the 2020-2025 forecast period.

### **Financial Activities Employment**

- Substantial job losses are expected in 2020 because many employers closed, committing their employees to shelter-in-place for health reasons.
- The most prominent losses are expected in real estate sales and lending.
- There have been fewer homes on the market in 2020 than there were in 2019, and this should translate into fewer home sales, reducing the need for real estate agents and mortgage brokers.





• Banks also reduced their head counts in 2020 due to a temporary reduction of in-person branch visits.

### **Professional and Business Services Employment**

- The professional and business services industry has a diverse array of subsectors, and each will be affected differently during the recession and recovery phases of 2020.
- Jobs in corporate security and building maintenance declined substantially during the recession but may rebound at office and industrial buildings with repopulating employment.
- Staffing agencies had significant losses during the contraction, but may bounce back quickly once the economy begins to expand again.
- Staffing agencies primarily employ temp workers. Temp workers are usually laid off first during a downturn but hired back first during a recovery.

Professional & Business Services Sub-Sectors 2019	Jobs in Subsector (000s)	Subsector's Share of Overall Industry
Staffing Agencies	22.9	27.8%
Building Maintenance	9.8	11.9%
Corporate Security	6.2	7.5%
Corporate Headquarters	5.6	6.8%
Engineering & Architecture	4.8	5.9%
Custom IT Services	4.3	5.2%
Business Consulting	3.0	3.6%
Accounting & Bookkeeping	2.7	3.3%
Law	2.4	2.9%
Other	20.6	25.1%

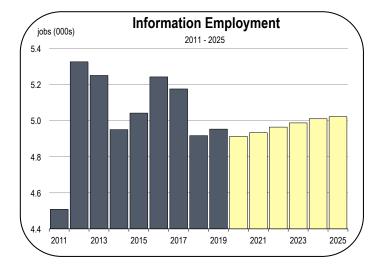
 Aside from security, maintenance, and staffing agencies, most subsectors of the professional business services industry were able to operate remotely and were less affected by the recession.

#### Information Employment

- In San Bernardino County, the information sector is dominated by telecommunications firms and movie theaters.
- Telecommunications jobs have been classified as essential and these workers largely remained employed throughout the recession.
- Movie theaters were completely shut down when the lockdowns were announced. Employment at movie theaters will return slowly through 2021 and 2022 because theaters will be required to institute social distancing practices that limit the number of people in each theater, and because some consumers will hesitate to visit confined spaces.
- Many newspaper and magazine workers were allowed to remain in their jobs, but advertising revenues shrank with the rest of the economy, giving employers little choice but to issue layoff notices.
- Most subsectors of the information industry are in long term patterns of decline, which will prevent meaningful job creation during the 2020-2025 forecast period.

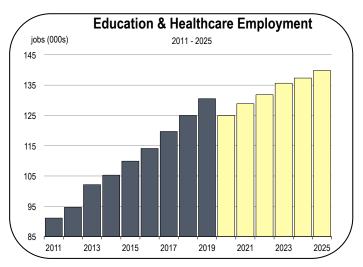
### Private Education and Healthcare Employment

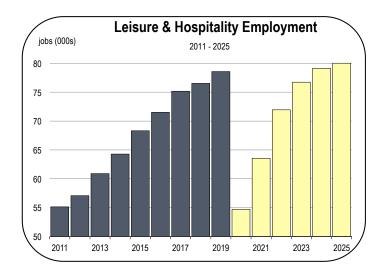
• There were 79,000 healthcare jobs in San Bernardino County in 2019, representing more than half of all jobs in the broader private education and healthcare sector.



Information Sub-Sectors 2019	Jobs in Subsector	Subsector's Share of Overall Industry
Telecommunications	2,400	48.4%
Movie Theaters	1,300	27.1%
Software Publishers	400	8.6%
Newspaper / Magazine / Book Publishing	400	7.3%
Other	400	8.7%

- Healthcare jobs were recession proof during the 2008-2009 financial crisis. However, some non-essential medical offices had to close in 2020, and hospitals reduced their employment levels because resources were not utilized as envisioned to support Coronavirus patients.
- There were approximately 34,000 social assistance jobs in 2019, including industries like childcare, housing shelters, and non-medical care for senior citizens.
- There were also 10,000 jobs in private schools and colleges, tutoring services, vocational schools, and other educational organizations.
- Jobs in social assistance and education were mostly classified as essential, but there were still layoffs at institutions with revenue shortfalls.



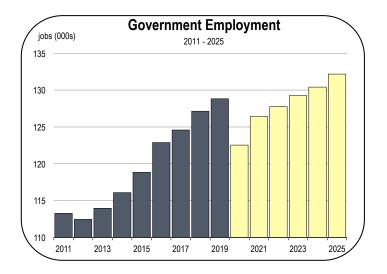


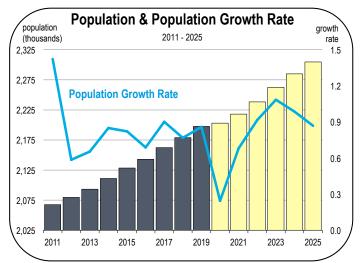
### Leisure and Hospitality Employment

- Leisure and hospitality firms were impacted by the lockdowns more than almost any other sector of the labor market.
- In 2019, San Bernardino County had 71,000 jobs in restaurants, hotels, and bars. Our research indicates that most were laid off, had their hours cut, or were furloughed in March and April.
- Jobs in this sector are not expected to return to pre-recession levels for a number of years.

### **Government Employment**

• Government agencies are expected to lose revenue from taxes and fees in 2020, and these revenue shortfalls will likely persist into 2021 and 2022.

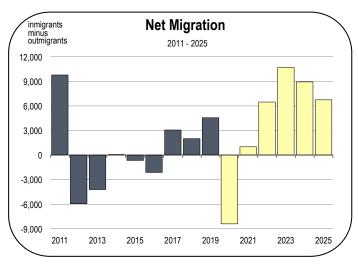


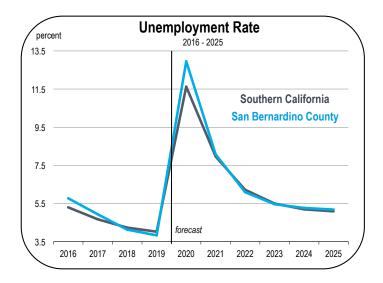


- When government agencies need to reduce expenditures on salaries, many workers are expected to be given unpaid furlough days that are distributed throughout the year, and many staffing reductions could be the result of hiring freezes rather than layoffs.
- However, if revenue shortfalls are severe and Congress does not appropriate funding to mitigate these shortfalls, government agencies may have no choice but to issue layoffs.

### **Population Growth**

- Population growth is slowing but San Bernardino County still added new residents at a faster pace than many other parts of Southern California in 2019.
- In 2019 people relocated from Coastal California to San Bernardino County for affordable housing options and job opportunities.

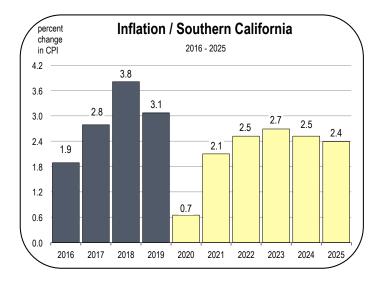


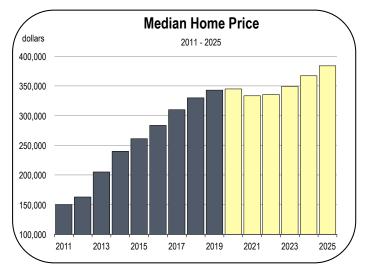


- More than 4,000 net migrants entered the county in 2019.
- An average of 4,200 net migrants are expected to enter the county each year between 2020 and 2025.
- Population growth will average 0.8 percent per year and the county will surpass 2.3 million residents by 2025.

#### **Unemployment and Inflation Rates**

- The unemployment rate in San Bernardino County averaged 3.8 percent in 2019, similar to the composite rate for Southern California.
- The unemployment rate is expected to average between 12 an 14 percent in 2020.

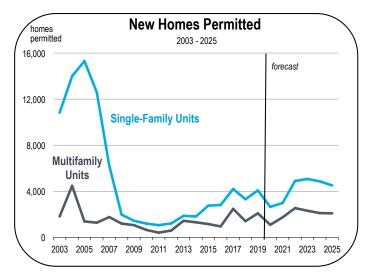




- The unemployment rate is expected to remain elevated for several years, but is likely to improve more quickly than after the 2008-2009 recession.
- Inflation decelerated in 2019 as energy prices declined and home prices increased more slowly than the previous year.
- Inflation is expected to be very low in 2020 but could accelerate in 2021 or 2022.

#### Home Prices and New Housing Production

- The median home price is expected to be largely unchanged in 2020 and 2021.
- From 2014 to 2019, an average of 4,700 new homes were started per year. Housing production is forecast to average 6,100 homes per year from 2020 to 2025.



### **Economic Indicators**

### 2015-2019 History, 2020-2050 Forecast

	Population (people)	House- holds (thousands)	Net Migration (people)	New Homes Permitted (homes)	Registered Vehicles (thousands)	Personal Income (billions)	Taxable Retail Sales (billions)	Total Taxable Sales (billions)	Real Industrial Production (billions)	Real per Capita Income (dollars)	Unemploymer Rate (percent)	Real nt Farm I Production (millions)(	
2015	2,128,386	624.3	-662	3,912	1,761	\$76.9	\$23.0	35.6	15.8	\$40,475	6.5	\$520	0.9
2016	2,143,033	629.8	-2,135	3,761	1,842	\$80.2	\$24.1	37.2	16.1	\$41,171	5.8	\$502	1.9
2017	2,162,347	631.1	3,051	6,672	1,854	\$83.2	\$25.2	38.4	16.4	\$41,174	4.9	\$497	2.8
2018 2019	2,178,940 2,197,650	633.9 637.6	2,003 4,551	4,713 6,158	1,883 1,938	\$87.6 \$92.7	\$26.5 \$27.0	40.6 41.5	16.7 17.5	\$41,411 \$42,160	4.1 3.8	\$489 \$484	3.8 3.1
2019	2,197,050	643.8	-8,402	3,744	1,958	\$92.7	\$27.0	39.0	17.5	\$40,610	13.0	\$404 \$475	0.7
2020	2,203,023	647.1	1,001	4,717	1,981	\$93.3	\$23.2 \$27.3	41.6	17.0	\$40,943	8.1	\$473 \$474	2.1
2021	2,238,320	651.4	6,468	7,439	2,000	\$98.8	\$28.6	43.7	17.5	\$41,906	6.1	\$470	2.5
2023	2,262,588	658.0	10,689	7,380	2,016	\$105.0	\$30.1	45.9	18.1	\$42,902	5.5	\$465	2.7
2024	2,284,895	664.6	8,922	6,973	2,030	\$110.4	\$31.5	48.0	18.6	\$43,578	5.3	\$462	2.5
2025	2,304,731	670.8	6,736	6,594	2,043	\$115.6	\$32.9	50.0	19.0	\$44,167	5.2	\$459	2.4
2026	2,323,087	676.7	5,658	6,172	2,054	\$120.2	\$34.2	52.1	19.4	\$44,507	5.0	\$456	2.3
2027	2,338,983	682.2	3,718	6,206	2,065	\$124.7	\$35.7	54.3	19.7	\$44,858	4.8	\$454	2.2
2028	2,352,577	687.8	1,928	6,180	2,074	\$129.3	\$37.2	56.6	20.0	\$45,221	4.8	\$451	2.3
2029	2,365,528	693.3	1,667	6,001	2,083	\$133.6	\$38.3	58.3	20.2	\$45,398	4.8	\$449	2.4
2030	2,378,146	698.6	1,738	5,798	2,091	\$138.1	\$39.3	59.8	20.5	\$45,640	4.8	\$446	2.3
2031	2,390,324	703.8	1,980	5,613	2,099	\$142.7	\$40.2	61.2	20.8	\$45,925	4.7	\$445	2.2
2032	2,401,794	708.8	1,827	5,535	2,107	\$147.4	\$41.2	62.8	21.0	\$46,126	4.7	\$442	2.4
2033	2,413,931	713.8	2,926	5,313	2,115	\$152.2	\$42.1	64.2	21.3	\$46,488	4.8	\$441	2.0
2034	2,426,952	718.5	4,463	5,278	2,123	\$157.4	\$43.1	65.7	21.6	\$46,802	4.7	\$439	2.2
2035	2,440,588	723.2	5,667	5,195	2,130	\$162.9	\$44.2	67.3	21.9	\$47,094	4.7	\$437	2.3
2036 2037	2,453,702 2,466,584	727.9 732.5	5,805 6,127	5,209 5,064	2,138 2,146	\$168.7 \$174.7	\$45.5 \$46.8	69.2 71.3	22.1 22.3	\$47,247 \$47,377	4.8 4.8	\$433 \$429	2.7 2.8
2037	2,400,584	732.5	6,079	4,836	2,140	\$174.7	\$40.0 \$48.1	73.3	22.5	\$47,577 \$47,588	4.8	\$429 \$426	2.6
2038	2,478,095	741.4	5,359	4,630	2,155	\$180.9	\$40.1 \$49.5	75.5	22.5	\$47,566 \$47,745	4.8	\$420 \$422	2.0
2035	2,409,675	745.5	5,191	4,444	2,174	\$193.8	\$51.0	77.6	22.8	\$47,929	4.8	\$419	2.0
2040	2,508,797	749.4	4,733	4,236	2,184	\$200.4	\$52.3	79.7	23.0	\$48,186	4.8	\$416	2.5
2042	2,516,235	753.2	3,486	4,023	2,193	\$207.0	\$53.7	81.8	23.3	\$48,486	4.8	\$414	2.4
2043	2,521,882	756.8	2,014	3,787	2,203	\$213.7	\$55.0	83.8	23.5	\$48,837	4.8	\$412	2.3
2044	2,527,445	760.2	2,228	3,635	2,212	\$220.5	\$56.3	85.7	23.7	\$49,251	4.8	\$411	2.1
2045	2,532,885	763.4	2,553	3,592	2,221	\$227.5	\$57.7	87.9	23.9	\$49,584	4.8	\$409	2.3
2046	2,537,996	766.6	2,363	3,557	2,230	\$234.6	\$59.1	90.0	24.1	\$49,943	4.8	\$408	2.2
2047	2,542,642	769.8	1,912	3,496	2,238	\$241.8	\$60.5	92.2	24.3	\$50,293	4.8	\$407	2.2
2048	2,546,811	772.9	1,505	3,437	2,246	\$249.2	\$62.0	94.4	24.5	\$50,653	4.8	\$405	2.2
2049	2,550,683	776.0	1,282	3,387	2,254	\$256.8	\$63.5	96.7	24.7	\$51,018	4.7	\$404	2.2
2050	2,554,436	779.0	1,212	3,311	2,261	\$264.7	\$65.0	99.0	24.9	\$51,383	4.7	\$403	2.2

### **Employment Sectors**

### 2015-2019 History, 2020-2050 Forecast

	1 2											
	Total Wage & Salary	Farm	Construction	Manufac- turing	Transportation & Utilities	Wholesale & Retail Trade	Financial Activities	Professional Services	Information	Health & Education	Leisure	Government
						(triou	sands of jobs	5)				
0045	740.4	0.0	20.7	54.0	<b>CD D</b>	402.0	02.0	04.0	5.0	400.0	<u> </u>	440.0
2015	710.1	2.2	32.7	54.9	63.3	123.8	23.0	84.8	5.0	109.9	68.3	118.8
2016	727.1	1.9	33.8	56.3	67.0	126.4	23.8	80.7	5.2	114.1	71.5	122.9
2017	750.9	2.2	35.2	56.3	79.6	126.9	22.4	80.3	5.2	119.7	75.2	124.6
2018	770.3	2.0	37.6	56.9	86.6	128.2	21.6	80.1	4.9	125.0	76.5	127.1
2019	789.5	2.1	37.8	56.9	93.0	128.9	21.8	82.3	5.0	130.5	78.6	128.8
2020	723.2	1.8	34.7	55.4	87.7	116.3	21.1	79.1	4.9	124.9	54.7	122.5
2021	755.2	2.0	38.9	55.7	88.2	122.6	21.2	80.7	4.9	128.8	63.6	126.4
2022	779.1	2.0	41.2	55.9	90.4	126.2	21.0	82.5	5.0	131.8	71.9	127.8
2023	797.5	1.9	41.1	56.5	92.6	129.1	21.2	84.1	5.0	135.6	76.7	129.3
2024	806.0	1.9	40.9	56.8	94.3	130.0	21.3	84.5	5.0	137.3	79.1	130.4
2025	812.8	1.9	40.0	56.8	95.3	130.8	21.5	84.8	5.0	139.8	80.0	132.2
2026	815.7	1.9	37.9	56.8	96.3	131.7	21.6	85.2	5.0	140.8	80.8	132.8
2027	820.1	1.9	37.6	56.8	97.2	132.7	21.8	85.6	5.0	141.7	81.3	133.4
2028	821.9	1.9	35.3	56.6	98.0	133.8	21.9	86.0	5.1	142.3	81.7	134.0
2029	823.7	1.8	33.4	56.5	98.7	134.3	22.1	86.4	5.1	143.1	82.0	134.6
2030	826.2	1.8	32.3	56.4	99.6	134.7	22.3	86.8	5.1	143.9	82.3	135.2
2031	828.9	1.8	31.3	56.2	100.4	135.1	22.5	87.2	5.1	144.8	82.8	135.8
2032	831.9	1.8	30.7	56.1	101.2	135.4	22.7	87.6	5.1	145.6	83.1	136.5
2033	835.0	1.8	30.3	56.0	102.1	135.7	22.9	88.0	5.1	146.5	83.3	137.2
2034	838.8	1.8	30.1	55.9	103.0	136.0	23.1	88.4	5.1	147.3	83.8	137.9
2035	842.7	1.8	29.9	55.8	103.9	136.3	23.2	88.8	5.1	148.1	84.3	138.7
2036	846.6	1.8	29.9	55.8	104.8	136.6	23.4	89.2	5.1	149.0	84.9	139.4
2037	850.6	1.7	29.8	55.7	105.6	136.9	23.6	89.6	5.1	149.8	85.4	140.2
2038	854.6	1.7	29.8	55.6	106.4	137.2	23.8	90.0	5.1	150.8	85.9	140.9
2039	858.5	1.7	29.7	55.6	107.2	137.5	24.0	90.4	5.1	151.7	86.4	141.6
2040	862.3	1.7	29.7	55.5	107.8	137.8	24.2	90.8	5.1	152.7	86.9	142.4
2041	866.3	1.7	29.6	55.5	108.5	138.1	24.4	91.2	5.1	153.6	87.3	143.2
2042	870.0	1.7	29.5	55.4	109.2	138.4	24.6	91.6	5.1	154.6	87.8	143.9
2043	873.8	1.7	29.5	55.4	109.7	138.7	24.8	92.1	5.1	155.6	88.3	144.5
2044	877.5	1.7	29.4	55.4	110.2	139.0	25.0	92.5	5.2	156.5	88.8	145.2
2045	881.2	1.6	29.4	55.3	110.8	139.3	25.3	92.9	5.2	157.5	89.2	145.8
2046	884.9	1.6	29.4	55.3	111.4	139.6	25.5	93.3	5.2	158.5	89.7	146.4
2047	888.5	1.6	29.4	55.3	112.0	139.9	25.7	93.8	5.2	159.5	90.1	147.0
2048	892.2	1.6	29.4	55.2	112.5	140.2	25.9	94.2	5.2	160.6	90.5	147.6
2040	895.9	1.6	29.4	55.2	113.0	140.5	26.1	94.6	5.2	161.6	90.9	148.2
2050	899.6	1.6	29.3	55.2	113.5	140.9	26.3	95.0	5.2	162.7	91.3	148.8
2000	000.0		20.0	00.2			20.0	00.0	0.2		00	



