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The Effects of a $15 Minimum Wage by 2019 in Santa Clara County and the City of San Jose

Summary of Key Findings

April 2016

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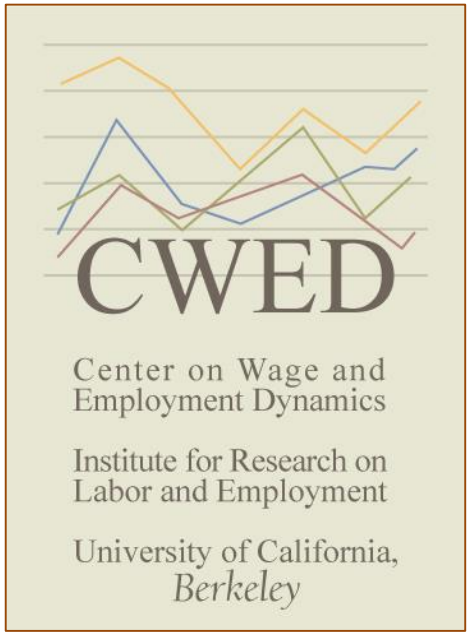


This report

- Provides an economic analysis of the effects of increasing minimum wages to $15 by 2019 in San Jose only and in all of Santa Clara County.
- Examines first the current economic context and then the effects of a $15 minimum wage on workers, businesses, and the economy.
- Assesses associated policy issues.
- The analysis in this report was completed before recent legislation raising the state minimum wage to $15 by 2023.

Key findings: San Jose

Increasing the minimum wage to $15 an hour by 2019 in San Jose would do the following:

- Increase earnings for 115,000 workers
- Raise average annual earnings of affected workers by 17.8 percent, or $3,000 (in 2014 dollars)
- Increase average prices in San Jose by 0.3 percent over three years
- Have a net effect on employment that is slightly negative at the city level (1,020 jobs) and close to zero at a ten county regional level

Key findings: Santa Clara County

Increasing the minimum wage to $15 an hour by 2019 in Santa Clara County would do the following:

- Increase earnings for 250,000 workers
- Raise average annual earnings of affected workers by 19.4 percent, or $3,200 (in 2014 dollars)
- Increase average prices in Santa Clara County by 0.2 percent over three years
- Have a net effect on employment that is slightly negative at the county level (1,450 jobs) and close to zero at a 10 county regional level

Economic context

The current economic situation in San Jose and Santa Clara County

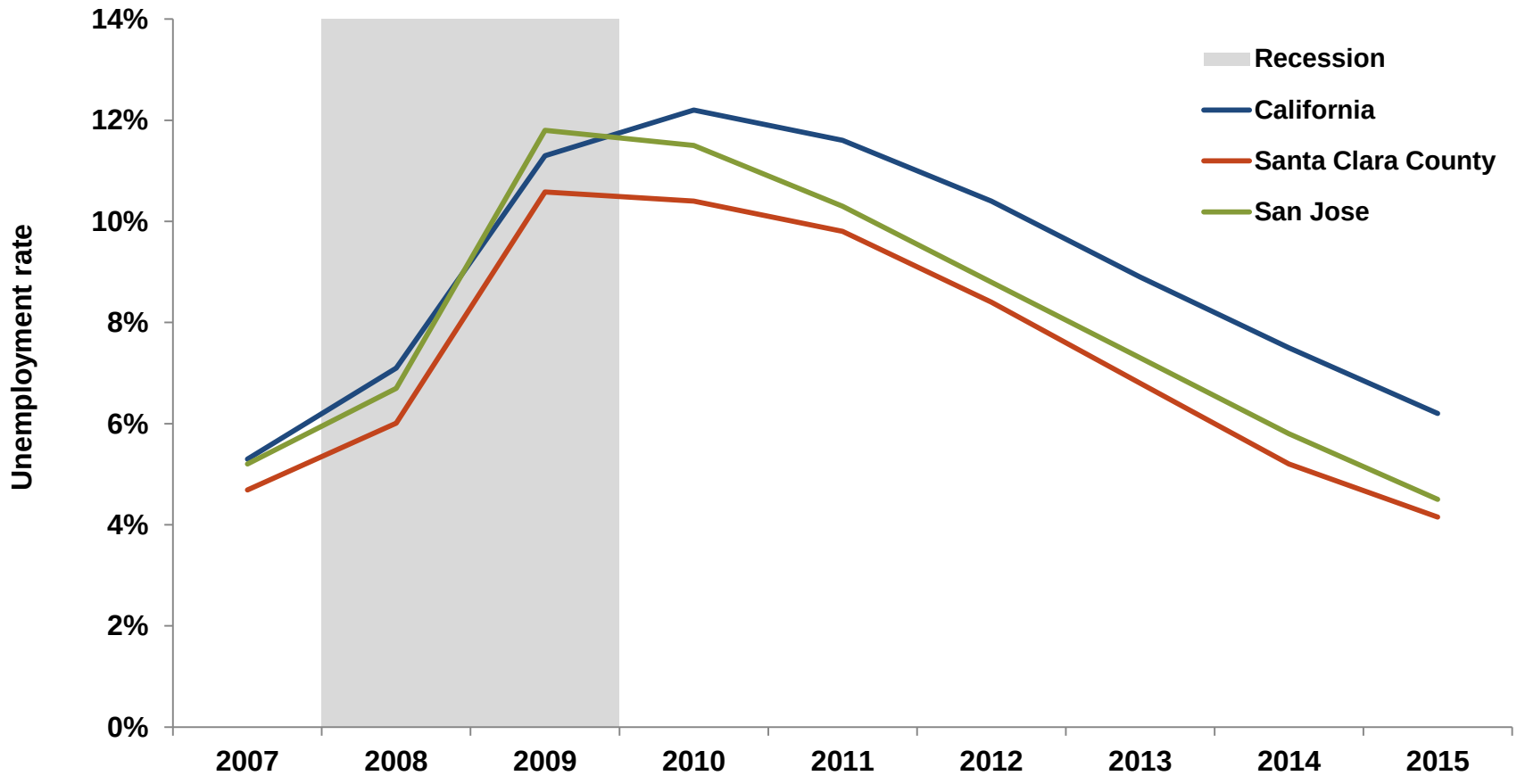
- Since 2009, unemployment, job growth and employment rates have continued to recover.

- Despite the economic recovery, median pay levels have continued to fall.

Unemployment rates are falling

Unemployment rates for San Jose and Santa Clara County have been falling since 2009 and are now below their pre-recession levels.

Annual unemployment rates, 2007-2015

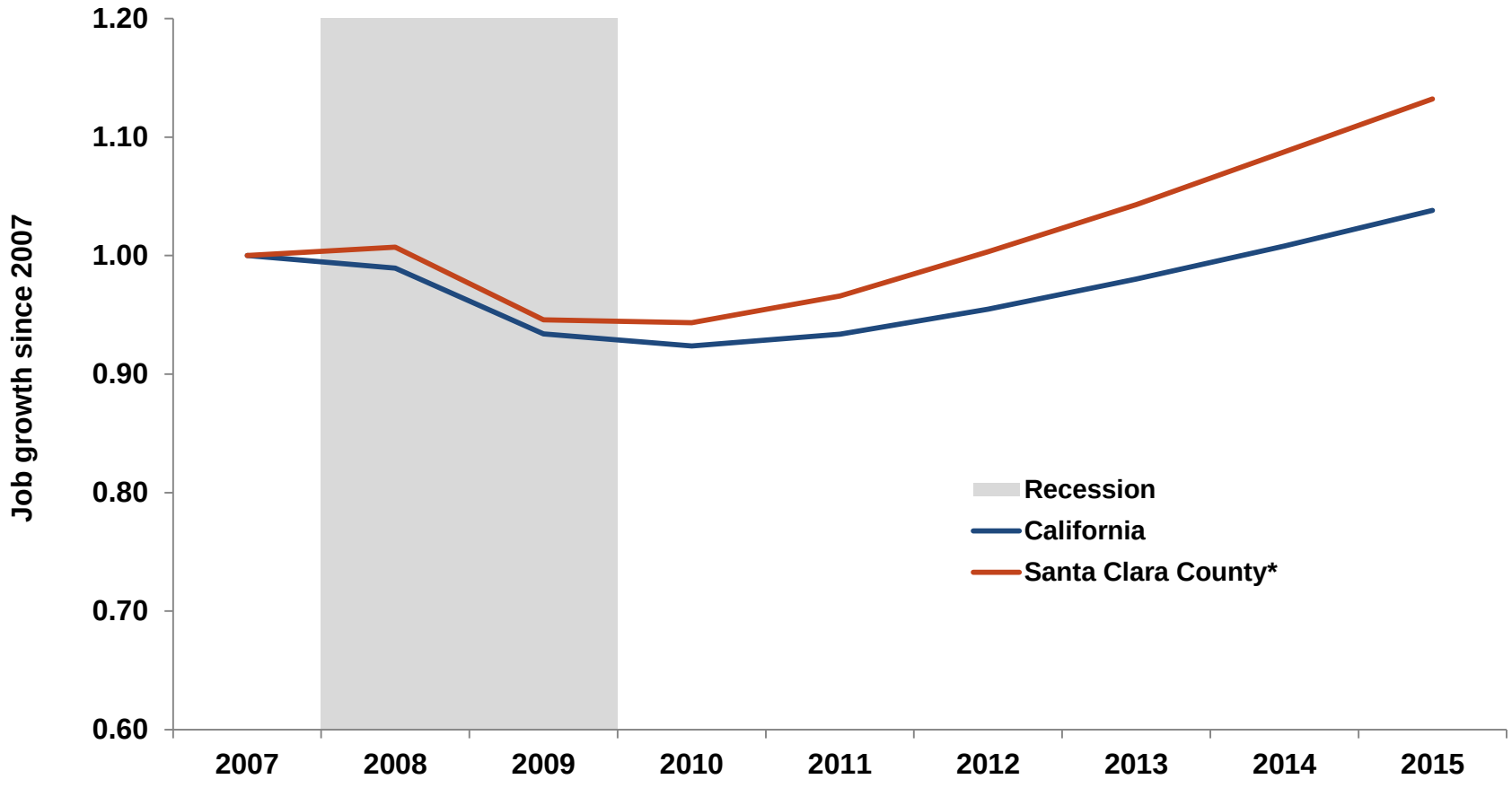


Sources: Annual unemployment rates are from the California Employment Development Department.

Job creation

Santa Clara County has outpaced California in job creation.

Job growth, California and Santa Clara County, 2007-2015



Source: Authors' calculation of growth in total nonfarm payrolls (annual averages) since 2007 are from Current Employment Statistics.
Note: *Data for Santa Clara County refers to the San Jose–Sunnyvale–Santa Clara MSA.

Higher employment rates

Over 62 percent of Santa Clara County residents are employed, compared to 57 percent for the state as a whole.

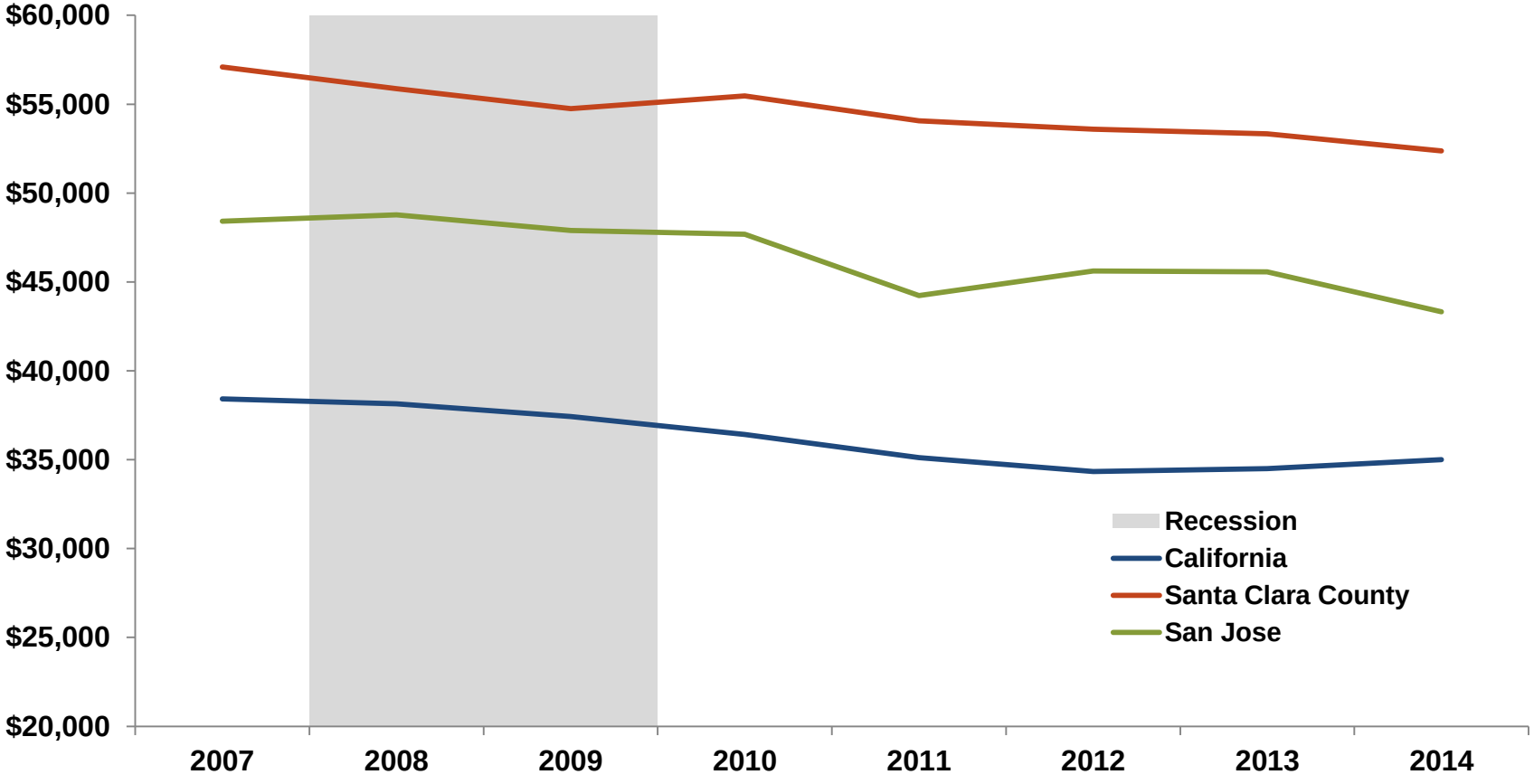
The employment rate (EPOPS), 2007-2014

Sources: California state employment-to-population ratios are calculated using annual employment data from the CPS and annual population data from the U.S. Census. Santa Clara County ratios are calculated using annual employment data from EDD and annual population data from the U.S. Census.

Falling pay

Real median pay levels have continued to fall since 2007. However, median pay for people who work in Santa Clara County is 50 percent higher than in the state as a whole; median pay in San Jose is 21 percent higher than in the state.

Real median earnings, 2007-2014



Source: American Community Surveys 2007-2014.
Note: Median annual earnings for workplace geography are in real 2014 inflation-adjusted dollars for workers 16 years and over with earnings.

Two minimum wage scenarios

A. City of San Jose

B. Santa Clara County

Scenario A:
City of San Jose $15 by 2019

	2017	2018	2019
Baseline schedule*	$10.53	$10.76	$11.00
Scenario schedule	$12.00	$13.50	$15.00

* San Jose's minimum wage schedule as of March 1, 2016. It does not take into account the state minimum wage increase enacted on April 4, 2016. San Jose's minimum wage was indexed to the U.S. All Cities CPI-W. We estimate each year's minimum wage using the average annual increase in the CPI-W over the past 10 years.

Scenario B: Santa Clara County $15 by 2019

	2015 workforce	2017	2018	2019
Baseline schedules*				
San Jose & Sunnyvale	431,000	$10.53**	$10.76**	$11.00**
Palo Alto & Santa Clara City	211,000	$11.25**	$11.50**	$11.75**
Mountain View	84,000	$13.00	$15.00	$15.37**
Rest of Santa Clara County (state schedule)	180,000	$10.00	$10.00	$10.00
Scenario schedule				
Santa Clara County (except Mountain View)	906,000	$12.00	$13.50	$15.00

* The schedules used for this analysis were those that were in effect as of March 1, 2016. Proposals being considered by individual cities were not used. We do not take into account the state minimum wage increase enacted on April 4, 2016.
** Where minimum wages are scheduled to increase according to CPI, we estimate the increase using the average annual CPI increase over the past 10 years. Mountain View's minimum wage is indexed to the San Francisco CMSA CPI-W. All other cities are indexed to the U.S. All Cities CPI-W.

New California minimum wage

The new statewide law increases minimum wages to $15 an hour by 2022 for large businesses and 2023 for small businesses. Starting in 2024, the minimum wage will be indexed to the cost of living.

Schedule of California minimum wage increases

	State schedule		Scenario schedule
	Business with more than 25 employees	Businesses with 25 or fewer employees	
2017	$10.50	$10.00	$12.00
2018	$11.00	$10.50	$13.50
2019	$12.00	$11.00	$15.00
2020	$13.00	$12.00	$15.33*
2021	$14.00	$13.00	$15.68*
2022	$15.00	$14.00	$16.03*
2023	$15.00	$15.00	$16.38*

* The scenario schedule after 2019 is indexed using the average annual increase in the U.S. All Cities CPI-W over the past 10 years, which is 2.2%.

Impacts on workers

Estimating effects on workers

- We estimate baseline wages for each year taking into account existing local minimum wage laws in Santa Clara County and projected wage growth without the policy.

- Estimates include:
  - ***Directly affected workers***
    Workers who earn less than the new minimum wage.
  - ***Indirectly affected workers***
    Workers who earn between $15 and $17.50; these workers are predicted to receive wage increases as a result of a ripple effect.

Estimated impacts

In Scenario B, about 250,00 workers in Santa Clara County would receive wage increases—25 percent of the workforce. By 2019, these workers would receive an average wage increase of $3,200, a 19.4 percent increase in earnings.

Workforce impacts	San Jose	Santa Clara County[1]
Percent of eligible workforce receiving pay increases[2]	31.1%	25.3%
Total number of workers receiving increases	115,000	250,000
Number of workers affected directly[3]	92,000	198,000
Number of workers affected indirectly[4]	23,000	52,000
Average annual earnings increase for workers receiving increases (2014 dollars)[5]	$3,000	$3,200
Average percent annual earnings increase for workers receiving increases	17.8%	19.4%
Total aggregate increase in wages (2014 dollars)	$345 million	$800 million

Source: Authors' analysis of ACS, OES, and QCEW data.

[1] Santa Clara County impacts include those for the entire county, including San Jose.

[2] Eligible workers are those that work in the city/county where the new minimum wage policy is implemented.

[3] Directly affected workers earned between 50% of the old minimum wage and 100% of the new minimum wage.

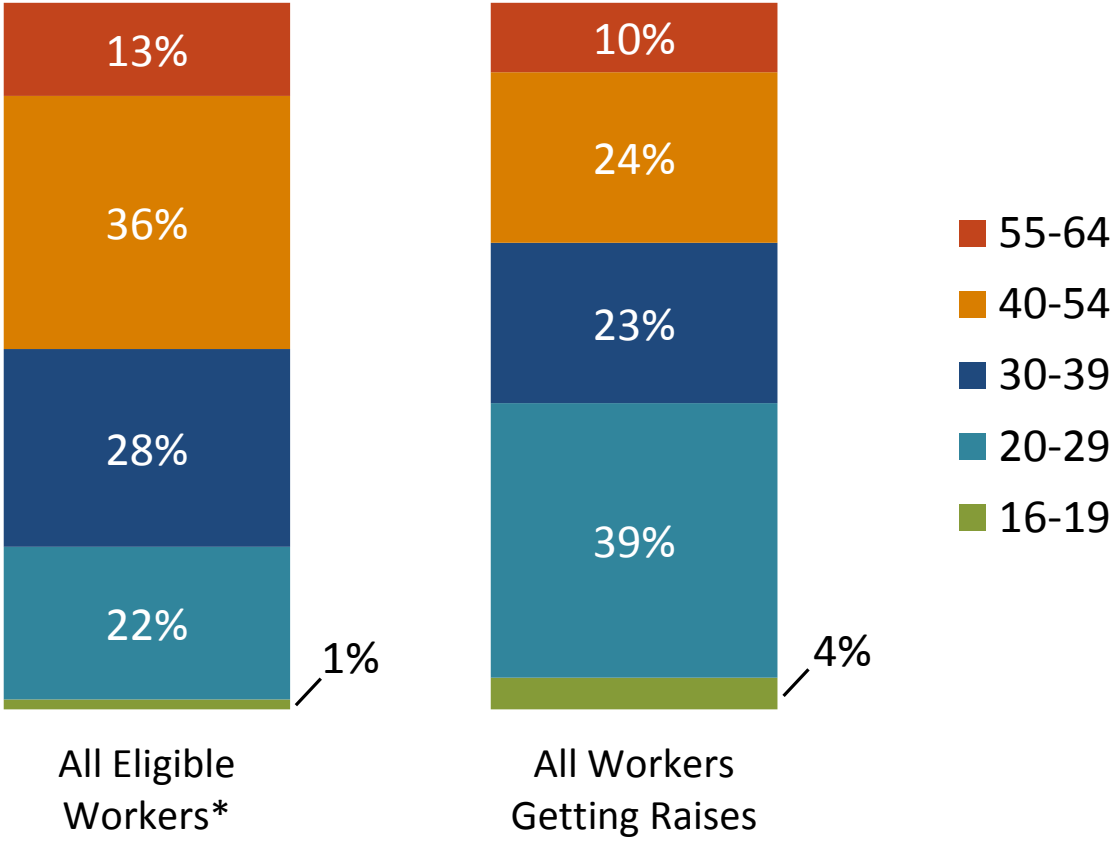
[4] Indirectly affected workers earned between 100% and 115% of the new minimum wage.

[5] Average annual earnings is per worker, not per job.

Age

96 percent of Santa Clara County workers receiving increases are over the age of 20, and 57 percent are over 30.

Santa Clara County workers by age group

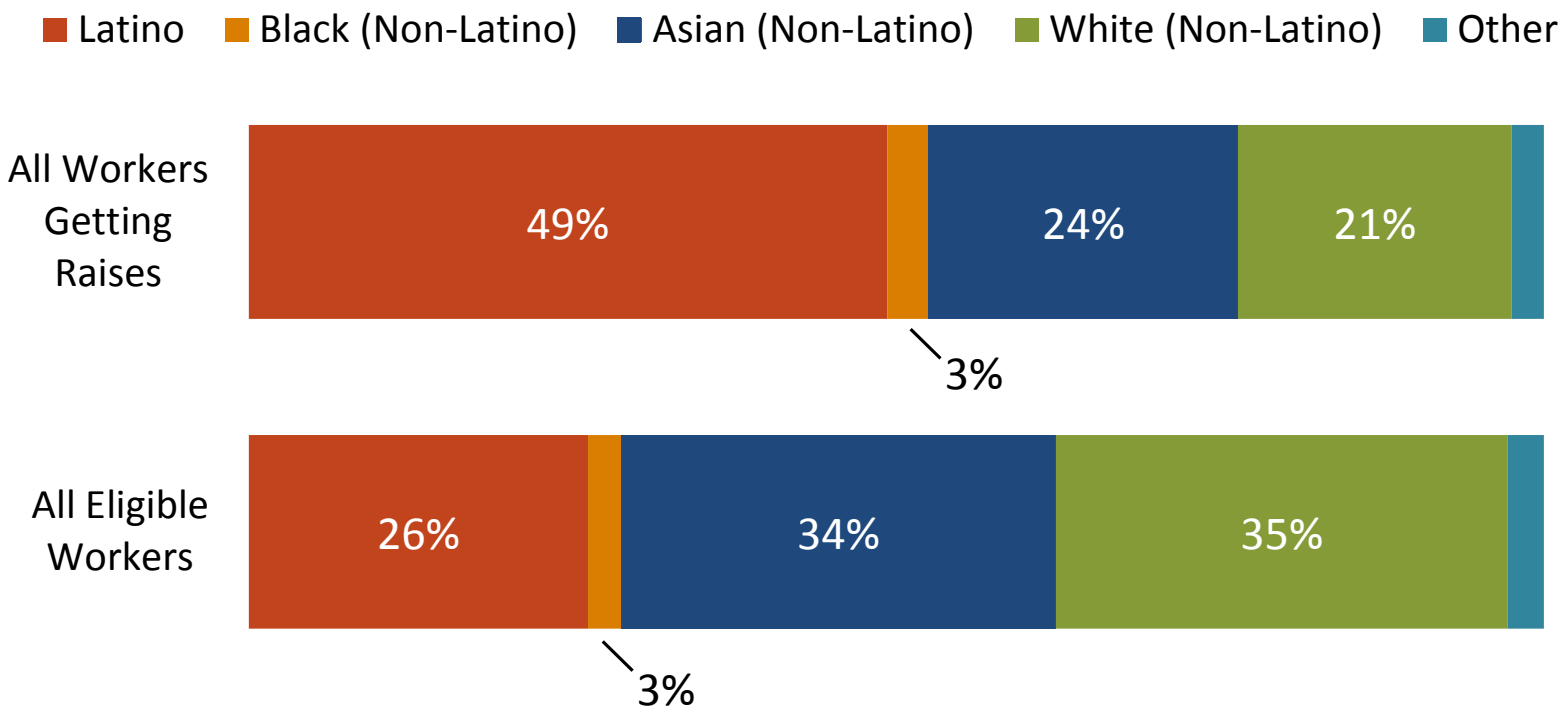


Source: Authors' analysis of ACS, OES, and QCEW data.
* Excludes federal and state employees, public education employees, and IHSS workers.

Race and ethnicity

Latino workers are more likely to benefit from a minimum wage increase. About 49 percent of the workers who would receive pay increases are Latino, compared with 26 percent for all workers.

Santa Clara County workers by race and ethnicity

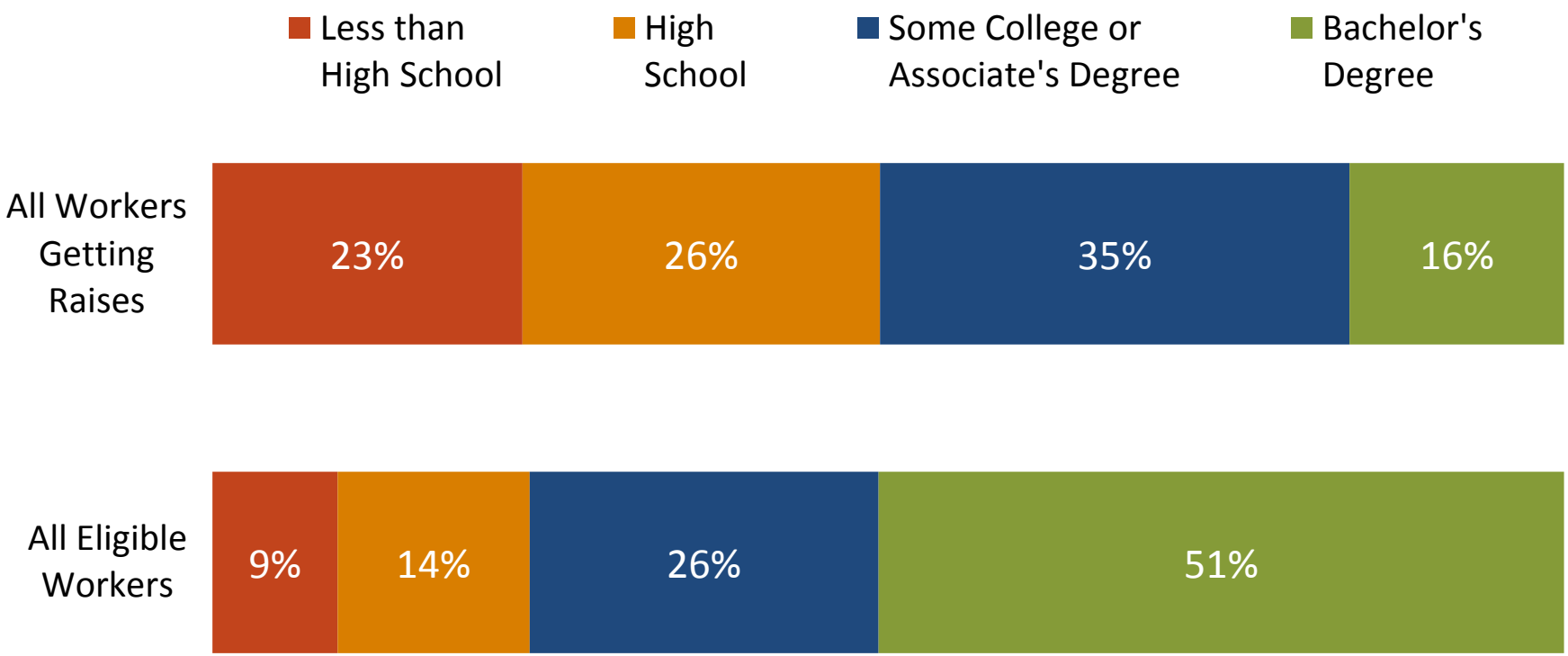


Source: Authors' analysis of ACS, OES, and QCEW data.

Education

Workers receiving pay increases have less schooling than the overall workforce. However, 51 percent have some college experience or higher.

Santa Clara County workers by education level

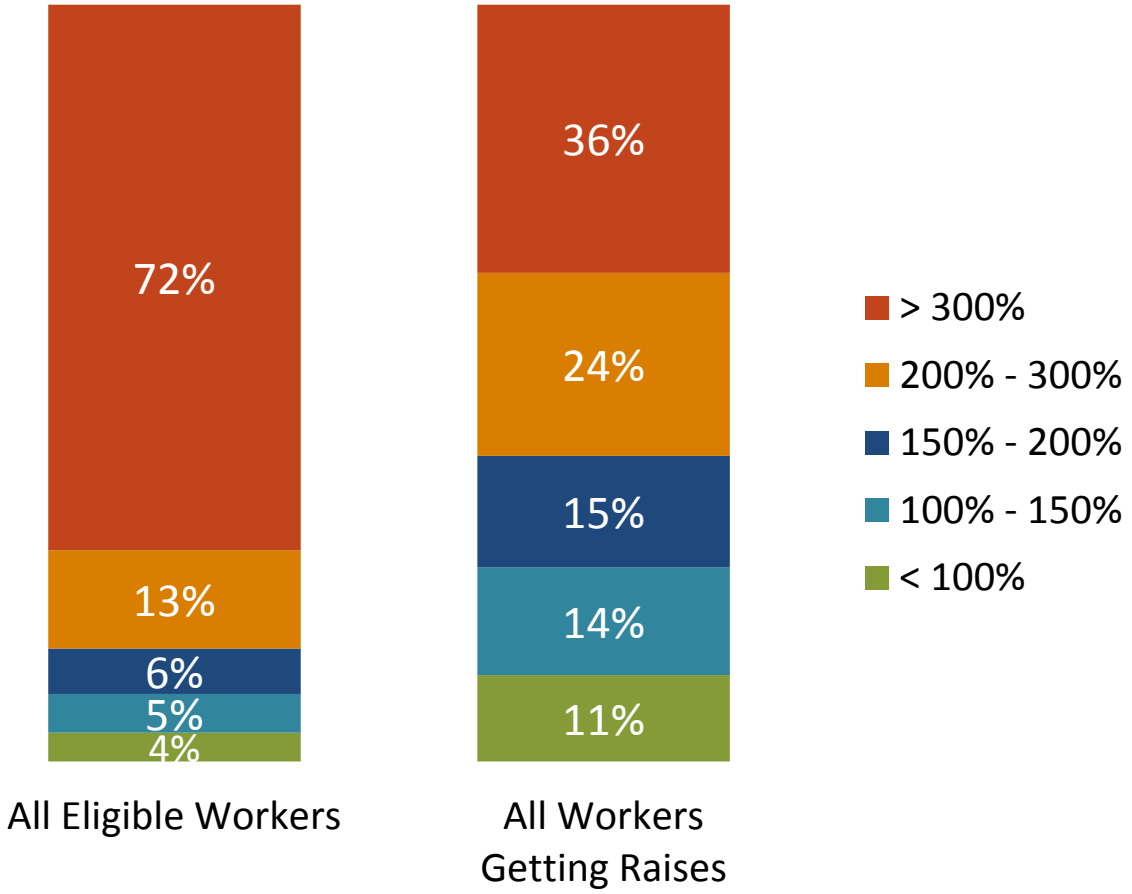


Source: Authors' analysis of ACS, OES, and QCEW data.

Family poverty level

Workers receiving pay increases are much more likely to live in families with incomes below the Federal Poverty Level (FPL). Forty percent of workers receiving increases live in families under 200 percent of the FPL.

Workers by family poverty level* – Santa Clara County



Source: Authors' analysis of ACS, OES, and QCEW data.
* The federal poverty threshold is based on family size, the number of children, and whether the head of household is under or over 65. In 2014, the threshold for a family of four with two children was $24,008.

Other characteristics

On average, affected workers contribute half of their family incomes; 34 percent have children.

Santa Clara County	All eligible workers	Workers getting raises
Median annual earnings (2014 dollars)	$59,500	$20,800
Average worker share of family income	60%	50%
Percent that work full-time	84%	65%
Percent with health insurance provided by employer	80%	53%
Percent that have children	45%	34%
Percent that are female	42%	49%

Impacts on businesses

Industry impacts

The three industries shown below account for over half of workers receiving increases in Scenario A and nearly half of all such workers in Scenario B.

	Scenario A: San Jose		Scenario B: Santa Clara County	
Industry	Percent of affected workforce	Percent of workers in the industry receiving an increase	Percent of affected workforce	Percent of workers in the industry receiving an increase
Restaurants	21.0%	77.8%	20.2%	71.0%
Retail	19.1%	46.8%	16.1%	44.4%
Administrative & waste management*	14.7%	50.7%	11.9%	47.6%

* Includes office administrative services, facilities support services, employment services, business support services, and waste management.

Increase in payroll costs

While wages rise by 16.4 percent for workers getting increases, those workers account for only 7.4 percent of total wages paid to workers in Santa Clara County. As a result, the increase in total wages for Santa Clara County workers is only 1.2 percent. Firms will realize savings due to reduced worker turnover, bringing the total increase in wages paid to 1.0 percent.

Total percent increase in affected workers' wages is 16.4%*

Affected workers' share of total wages is 7.4%

Increase in total wages is 1.2%

Increase in wages after accounting for turnover reduction savings is 1.0%

*Differs from average individual percent increase in wages reported on slide 17. Increase in wages reported on slide 17 is the average change per worker, not the average change in total wage bill.
All results shown for Santa Clara County.

Cost impacts

Payroll costs will increase by 1 percent across the entire economy, increasing operating costs and prices in Santa Clara County by 0.2 percent in 2019. Restaurant prices will increase by 2.9 percent and retail prices will increase by 0.2 percent, each by 2019.

	A: San Jose	B: Santa Clara County
All		
Percent change in payroll costs	1.2%	1.0%
Labor costs as percent of operating costs*	22.1%	22.1%
Percent change in operating costs and prices**	0.3%	0.2%
Restaurants		
Percent change in payroll costs	10.2%	9.6%
Labor costs as percent of operating costs*	30.7%	30.7%
Percent change in operating costs and prices**	3.1%	2.9%
Retail		
Percent change in payroll costs	2.2%	2.1%
Labor costs as percent of operating costs*	10.8%	10.8%
Percent change in operating costs and prices**	0.2%	0.2%

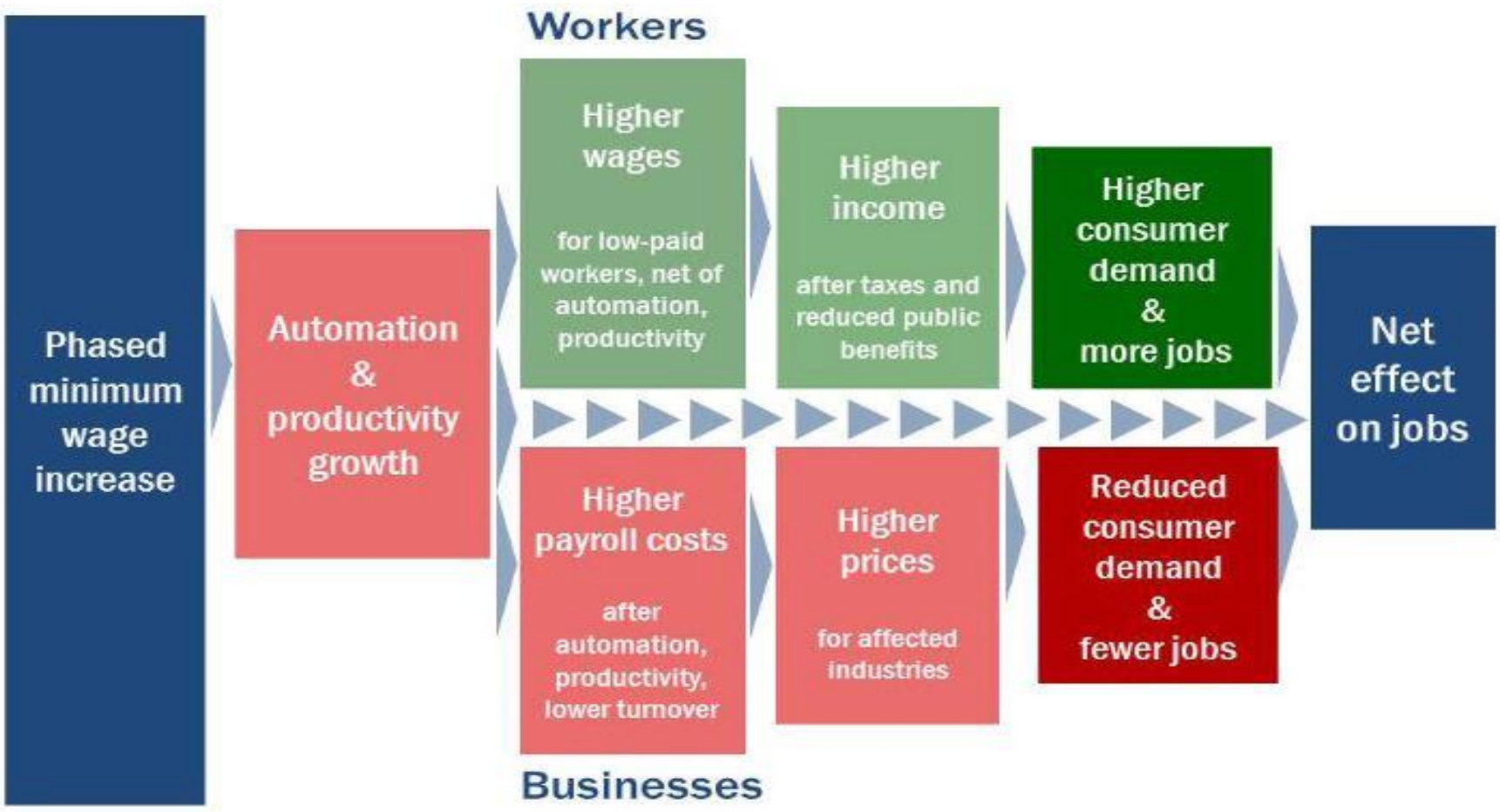
* US Census Annual Wholesale Trade Report

** Numerous studies find that operating cost increases are passed through fully to prices. See: Ariel Pakes. 2016. "Empirical Tools and Competition Analysis: Past Progress and Current Problems." NBER Working Paper No. 22086.

Impacts on the economy

IRLE Minimum Wage Model

Higher wage costs are absorbed by employers through higher productivity, reduced worker turnover costs, and price increases. Higher wages increase consumer demand. The net effect on jobs reflects the balance among these different factors.



Source: UC Berkeley IRLE Minimum Wage Research Group.

Spending leakages

Some of the increased worker spending will take place outside the City of San Jose or Santa Clara County--since some workers commute in from other places. As a result, the economic benefits of the wage increase will be spread across the broader region from which workers commute.

- 35 percent of affected workers in San Jose live outside of the city.
- 16 percent of affected workers in Santa Clara County live outside of the county.
- The next slide accounts for these spending leakages.

Scenario A: San Jose

An increase to $15 by 2019 will reduce employment by 1,020 in San Jose but increase employment in the surrounding region by 980, resulting in a net loss of 140 jobs.

	Impact of Scenario A in San Jose City only	Additional impact in the rest of Santa Clara County & nine nearby counties	Total impact of Scenario A in SJ City, the rest of Santa Clara County and nine nearby counties
A. Cumulative reduction in wage bill due to automation and productivity gains			
Reduction in jobs from substitution effects and productivity gains	-1,190	n.a	-1,190
B. Scale effect: Cumulative reduction in consumer spending			
Reduction in consumer spending from price increase (millions)	-$107	n.a	-$107
Reduction in number of jobs due to the scale effect	-630	n.a	-630
Reduction in GDP due to the scale effect (millions)	-$71	n.a	-$71
C. Income effect: Cumulative increase in consumer demand			
Aggregate increase in consumer spending (millions)	$203	+$101	$304
Increase in number of jobs due to income effect	800	+880	1,680
Increase in GDP due to income effect (millions)	$91	+$106	$197
D. Cumulative net change in employment			
Net change in employment	-1,020	+980	-140
Net change in employment, as a percent of total employment	-0.3%	+0.3%	0.0%
Net change in GDP (millions)	$20	+$105	$125
Net change in GDP, as a percent of total GDP	0.0%	+0.1%	0.1%

Sources: Authors' calculations using the regional economic impact model IMPLAN.
Note: The nine nearby counties taken into account are: Alameda, San Mateo, San Francisco, Santa Cruz, Monterey, San Benito, Contra Costa, San Joaquin, and Merced. All estimates are in 2019 dollars.

Scenario B: Santa Clara County

An increase to $15 by 2019 will reduce employment by 1,470 in Santa Clara County but increase employment in the surrounding region by 1,410, resulting in a net loss of 60 jobs.

	Impact of Scenario B in Santa Clara County only	Additional impact in nine nearby counties	Total impact of Scenario B in Santa Clara County, and nine nearby counties
A. Cumulative reduction in wage bill due to automation and productivity gains			
Reduction in jobs from substitution effects and productivity gains	-2,700	n.a	-2,700
B. Scale effect: Cumulative reduction in consumer spending			
Reduction in consumer spending from price increase (millions)	-$214	n.a	-$214
Reduction in number of jobs due to the scale effect	-1,240	n.a	-1,240
Reduction in GDP due to the scale effect (millions)	-$140	n.a	-$140
C. Income effect: Cumulative increase in consumer demand			
Aggregate increase in consumer spending (millions)	$601	+$103	$704
Increase in number of jobs due to the income effect	2,470	+1,410	3,880
Increase in GDP due to the income effect (millions)	$285	+$169	$454
D. Cumulative net change in employment			
Net change in employment	-1,470	+1,410	-60
Net change in employment, as a percent of total employment	-0.1%	+0.1%	0.0%
Net change in GDP (millions)	$144	+$170	$314
Net change in GDP, as a percent of total GDP	0.1%	+0.0%	0.1%

Sources: Authors' calculations using the regional economic impact model IMPLAN.
Note: The nine nearby counties taken into account are: Alameda, San Mateo, San Francisco, Santa Cruz, Monterey, San Benito, Contra Costa, San Joaquin, and Merced. All estimates are in 2019 dollars.

Policy issues

Minimum wage and teens

- California regulations allow for youth “learner” employees to be paid 85 percent of the minimum wage during their first 160 hours of employment, in occupations in which the employee has no previous similar or related experience.

- Of the 18 local minimum wage laws in California:
  - Most incorporate the above state regulation
  - 11 have no other special provisions for teens or learners
  - 4 exempt youth training programs operated by a non-profit corporation or government agency (Sacramento, Richmond, Berkeley, San Diego).
  - 1 exempts publicly subsidized job-training and apprenticeship programs for teens (San Francisco)
  - 2 extend the state learner provision to 480 hours or 6 months (Santa Monica, Long Beach)

Minimum wage and teens (continued)

- Teens make up 4 percent of workers affected by the increase.
- Teen unemployment is persistently higher than adult unemployment.
- In theory, a higher minimum wage could reduce the incentive for employers to hire less skilled workers, thus disadvantaging teens. Higher minimum wages might also draw more teen workers into the labor market, leading to an increase in teen employment.
- A large body of research suggests that the effect of minimum wage laws on teen employment is small, and may run in either direction.[1]
- Subminimum or training wages for teens may create an incentive to hire middle-class teens over low-wage adult workers from more disadvantaged backgrounds.

[1] See, for example, John Schmitt. 2013. "Why Does the Minimum Wage Have No Discernible Effect on Employment?" Washington, DC: Center for Economic and Policy Research. http://cepr.net/documents/publications/min-wage-2013-02.pdf

Transitional jobs programs

- Transitional jobs programs provide short-term, subsidized employment and supportive services through a non-profit organization to help participants overcome barriers to employment.
- Most minimum wage laws treat transitional jobs programs the same as other non-profit organizations.
- In Los Angeles and Santa Monica, participants in transitional jobs programs that meet specified criteria are exempted from the higher minimum wage for a maximum of 18 months.

Small business

- The new California minimum wage law (SB 3) and a number of the local laws provide an additional phase-in year for small businesses.

- “Small business” is commonly defined in these laws as 25 employees or fewer.

Higher wage level

- Setting a higher minimum wage (such as $20) is likely to:
  a) Increase the negative consumption effects caused by higher prices;
  b) Reduce the positive consumption effects caused by higher incomes (a greater portion of the higher incomes would leak into savings); and therefore
  c) Generate larger negative net employment effects.
- Outcomes at higher wage levels than previously studied are more uncertain

Impacts of a higher state minimum wage

- The higher state minimum wage will change the baseline for any local policy.

- This will reduce the impacts of the policy on each of the effects discussed in this report:
  - The policy will have a smaller effect on wages and prices;
  - As a result, the employment effects will be smaller.

Pay by occupation 2005-2015

	2005	2012	%change	2015	% change 12-15
All occs	$21.76	$25.71	18.2	$28.32	10.2
Managers	57.93	68.66	18.5	74.98	9.2
Software developers	46.73	55.80	19.4	67.90	21.7
Restaurant servers	7.90	9.15	15.8	11.50	25.7

Source: OES data, San Jose-Sunnyvale-Santa Clara metro area, May of each year.

San Jose metro area relative to CA

	San Jose metro	California
Cost of living, 2013 (U.S. = 100.0)	121.3	112.3
Median full-time wage (2016)	$32.06	$21.46
Ratio of $15 (in $2022) to median f-t wage	40.9%	61.9%

Sources: BEA, CPS and OES. Wage projections to 2022 based on 2.4 percent annual nominal wage growth.

Long-term effects

The research literature suggests that there may be downstream benefits from the proposed wage increase such as:

- Improved health outcomes for both workers and their children[1]
- Improved mental health[2]
- Increases in children's school achievement and cognitive and behavioral outcomes[3]
- Reduced public assistance expenditures[4]

[1]Paul J. Leigh and Juan Du. 2012. "Are Low Wages Risk Factors for Hypertension?" *European Journal of Public Health*, 22(6): 854-859. Kerris Cooper and Kitty Stewart. 2013. "Does Money Affect Children's Outcomes? A Systematic Review." Joseph Rowntree Foundation. http://www.jrf.org.uk/sites/files/jrf/money-children-outcomes-full.pdf
[2]Kerris and Cooper, Ibid.
[3]Aaron Reeves, Martin Mckee, Johan Mackenbach, Margaret Whitehead and David Stuckler. 2016. "Introduction of a National Minimum Wage Reduced Depressive Symptoms in Low-wage Workers: A Quasi-natural Experiment in the UK." *Health Economics* 1–17. DOI: 10.1002/hec.3336.
[4] See for example: Rachel West and Michael Reich. 2014. "The Effects of Minimum Wages on SNAP Enrollments and Expenditures." Center for American Progress. https://www.americanprogress.org/issues/economy/report/2014/03/05/85158/the-effects-of-minimum-wages-on-snap-enrollments-and-expenditures/

Conclusions and next steps

Interpretation of these results

- Higher wage costs would be absorbed through improved productivity, reduced worker turnover, and modest price increases.
- Net effects on employment would be very slightly negative at the city and county levels and close to zero at the regional level.
- The resulting improvement in living standards would outweigh the small effects on employment.

Upcoming detailed report, June 2016

- More detailed account of how San Jose and Santa Clara County would absorb an increase in the minimum wage to $15 over three years.
- Analysis of policy considerations.
- Qualitative discussion of the impact of an increase to $20 an hour.
- Full description of the underlying economic model.

Data sources

- American Community Survey (ACS) 2013 & 2014 One Year
- Quarterly Census of Employment and Wages (QCEW) Employment and Payroll Data 2015 Quarter 1
- LEHD Origin-Destination Employment Statistics

The Institute for Research on Labor and Employment (IRLE) is a research organization at UC Berkeley. Created in 1945, IRLE brings together faculty from multiple academic departments and supports interdisciplinary research about labor and employment relations. IRLE sponsors several community service programs and research centers.

This is a presentation from the Center on Wage and Employment Dynamics at IRLE. The Center on Wage and Employment Dynamics was established in June 2007 to provide a focus for academic and policy research on wage and employment dynamics in contemporary labor markets.