LOS ANGELES RISING

A City That Works for Everyone

March 2015

A report by Economic Roundtable
UCLA Labor Center
UCLA Institute for Research on Labor and Employment

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Daniel Flaming

Halil Toros

Yvonne Yen Liu

Patrick Burns

UCLA Labor Center

Lucero Herrera

Tia Koonse

Saba Waheed

UCLA Institute for Research on Labor and Employment

Robert Habans

Underwritten by the Los Angeles County Federation of Labor, AFL-CIO

Report available at: www.economicrt.org

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Executive Summary

Los Angeles Rising: A City That Works for Everyone

For many, Los Angeles evokes images of year-round sunshine and celebrity, a dream city of wealth and possibility. Yet in reality, half of L.A. residents living in poverty are employed, showing that low wages drive poverty as much as unemployment does.

This report assesses the benefits and consequences of raising Los Angeles's minimum wage to $15.25. The result will be an increase of $5.9 billion in wages with a stimulus effect for the region. Paying fair wages will be an adjustment for some businesses, but the result will be a bigger, more sustainable and inclusive economy for Los Angeles.

A Low Wage City with a High Cost of Living

Los Angeles is a low-wage city with a high cost of living.

- 723,000 employed, working-age adults earn less than $15.25 an hour. Twenty-two percent of those earning below $15.25 live in poverty.
- Workers today earn less in purchasing power than they did 35 years ago. Wages for low-wage earners, such as restaurant workers and retail cashiers, have lost a third of their buying power over the past 30 years.
- 67 percent of Los Angeles households make just 29 percent of the city's income, while 7 percent hold 31 percent of the city's income.

Wage growth has not kept pace with costs.

- Next to comparable cities, the cost of living in Los Angeles is among the highest. Yet, Angelenos earn less than in any other comparable city.
- San Francisco's cost of living is 20 percent higher, yet median earnings are 70 percent higher. Dallas's cost of living is 30 percent lower, yet median earnings are the same. Chicago's cost of living is 10 percent lower, yet median earnings are 20 percent higher.
- Wage theft, or violations of basic labor laws, exacerbates already low wages. More than half of garment workers and one-third of janitorial, retail, and private household workers report minimum wage violations.

A Stimulus Effect for the Region

A $15.25 raise in minimum wage will increase earnings by $5.9 billion for 723,000 workers in 2019. Workers aren't the only ones who benefit from having more earnings in their pockets. Businesses throughout the Los Angeles region will reap the rewards of increased spending by households. The multiplier impacts of $15.25 results in increased spending at neighborhood, service-oriented businesses such as health care, restaurants, and retail.

The stimulus effects for the region include:

- Every dollar increase in the minimum wage results in $1.12 stimulus to the economy.
- The region will create 46,400 new jobs, of which 24,875 will be in the City of Los Angeles.
- State and local governments will receive $414 million in added revenue and the federal government $546 million.
- Public assistance expenditures will be reduced by $313 million a year because higher wages will lift workers out of poverty.

Resilient Industries

Industries in Los Angeles are predominantly resilient. Many industries have few low-wage workers. Most that do employ low-wage workers are providing services to more affluent residents who can adjust to price increases that may result from a higher minimum wage. In these industries, Los Angeles residents provide services to other Los Angeles residents, but do not earn enough to make ends meet.

- 4/5 of low-wage jobs are doing face-to-face work that requires a physical presence in Los Angeles.
- Only 12 percent of low-wage jobs produce goods that leave the local economy.

Evidence from studies of wage increases in Los Angeles and in other cities indicates that businesses are able to make adjustments to moderate wage with minimal increases in price and negligible impacts on employee hours and benefits. Savings from lower turnover costs and increased productivity help balance the cost to businesses.

Los Angeles' wage increase to $15.25 is beyond the scope of past research, but because it is spread over five years there are readily available tools for monitoring and managing effects of the series of stepped wage increases. We identified seven industries that particularly important to monitor during the five annual increments of wage increases:

- Textile and apparel manufacturing
- Temps, guards, and janitors
- Home health care services
- Residential care and nursing facilities
- Child day care services
- Restaurants and bars
- Personal and repair services

These industries account for roughly a fifth of the jobs in Los Angeles. We see strength among firms with over 100 employees in the seven industries that can help businesses adjust to higher labor costs through investments in technology and human capital. Six of the seven industries are in the service sector where consumer demand is expected to support necessary price increases.

Geography of Opportunity

Mapping impacts and benefits, we found that raising the minimum wage will geographically address inequality. In particular, it has strong benefits on low-income areas in the region. Many businesses that will feel the impact from higher wage are located in higher income, economically resilient areas. Many businesses in low-income areas are likely to benefit from a surge in purchasing power of low-income workers.

Because Los Angeles is a deeply integrated, multi-sited economy, the benefits will spread beyond the city's boundaries to the broader region.

- Raising the wage will have a particularly strong ripple effect in low-income areas where people receiving the wage raise live.
- In South Los Angeles, for example, over 60,000 workers will see a wage increase. Families in these areas will circulate this added income into the local economy.

Raising the minimum wage will be an engine for economic recovery in low-income neighborhoods and build a more inclusive, sustainable economy across the city.

The labor force that finds jobs in Los Angeles is over a hundred times larger than that in neighboring cities with the largest flows of workers across the city line. This means that LA's action to raise the minimum wage is likely to influence wage levels beyond its borders as businesses compete to attract and retain competent workers. There is a strong prospect that higher wages will strengthen the city's capacity to attract the most capable workers, pressuring neighboring businesses and cities to increase their minimum wage levels to avoid losing their most productive labor force to Los Angeles.

Expanding Opportunities Parallel to Raising the Wage

Two separate reform initiatives will act in parallel to help raise the wage floor and boost employment and earnings for Los Angeles workers: (1) the Deferred Action for Childhood Arrivals (DACA) and Deferred Action for Parents of Americans and Lawful Permanent Residents (DAPA), and (2) Proposition 47, the Safe Neighborhoods and Schools Act.

Both programs will improve employment and earnings opportunities for low wage workers, independent of the $15.25 increase.

- DAPA and DACA are projected to raise wages for 15,000 eligible workers above the $15.25 threshold.
- We estimate that over 10,000 eligible persons in Los Angeles City will reduce their convictions under Proposition 47 and gain access to much broader employment opportunities.
- Expanded employment opportunities are projected to add $13.8 million in annual earnings for communities most impacted by mass incarceration.

Consequence of Inaction

Without action to raise the wage floor, the problems caused by incomes that are inadequate to sustain working families will become more acute. The cost of living is continuing to rise in Los Angeles and labor market projections by the California Employment Development Department show that the number of low-wage jobs will grow faster than the number of mid- and high-wage jobs. Inaction will mean that the share of the labor force that does not receive sustaining pay will grow and the gap between stagnating low wages and the cost of a basic standard of living in Los Angeles will continue to widen.

Toward a Smart, Enforceable Policy

Analyzing the approaches of other municipalities to raising and enforcing their minimum wage, we recommend the following best practices:

- Phase minimum wage increases to allow the city to adapt.
- Allow minimum wage to keep up with the cost of living.
- Apply the raised wage to all workers with no exemptions or deferrals.
- Enforce the wage with strong tools to enforce the wage, including a funded city authority to address claims, meaningful sanctions, and protection from retaliation.

We include tools to create a data dashboard to closely monitor the economic impacts of raising the wage, so the City can monitor and remedy any unintended effects.

Why LA Needs a Raise

Raising the minimum wage to $15.25 will provide social and economic benefits to our region. LA will see a $5.9 billion increase in worker earnings. Paying fair wages will be an adjustment for some businesses, but the result will be a bigger, more sustainable, and more inclusive economy for Los Angeles.

LA is Ahead in Inequality, But Lags in Wage Growth

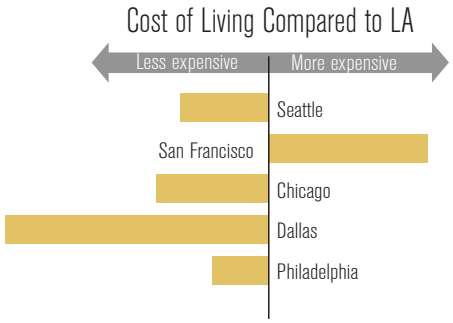
67% of Los Angeles households make just **29%** of the city's income, while **7%** of households hold **31%** of the city's income.

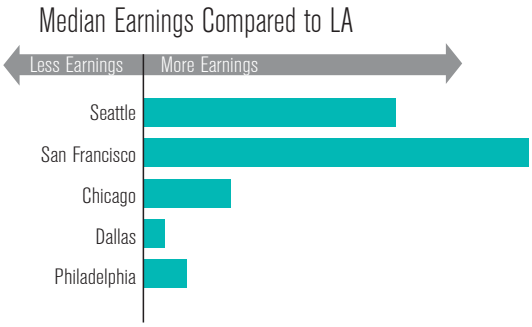
The wages of restaurant workers and retail cashiers have lost **one third** of their buying power over the past 30 years.

1979 = $1 2015 = 68¢

LA's Wages Are Low, but the Cost of Living is High

Los Angeles is a low-wage city with a high cost of living. Though rent, food, and transportation costs are high, Angelenos earn less than in any other other comparable city.





A Stimulus Effect for the Region

Raising the wage to **$15.25/hour** will put **$5.9 billion** into pockets of LA workers.
These earnings will have a ripple effect across the local economy.

Every dollar increase in minimum wage generates **$1.12** in economic stimulus.

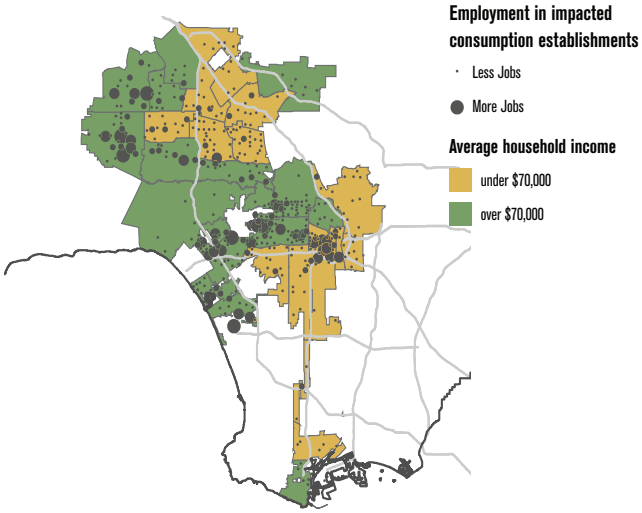
More money to spend at local businesses.

Adds **$414 million** in tax revenue.

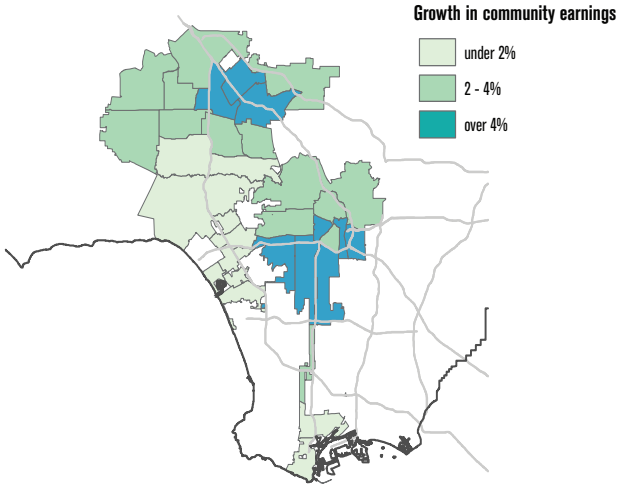
Creates **46,400 jobs** for LA region, concentrated in the consumer-oriented industries, such as restaurants, hospitals, groceries, and retail.

Address Inequality Across the City

Many businesses that will feel the impact from raising the wage are located in high income, economically resilient areas.



Raising the minimum wage will produce a surge in purchasing power that will reverberate throughout the region, especially low-income communities.

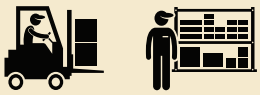


Industries Are Resilient

Many of LA's low wage jobs are service jobs that are difficult to outsource or have high consumer demand. In these industries, Angelenos provide services to other Angelenos, but do not earn enough to make ends meet.

80% of low wage jobs are face-to-face work.

Only 12% produce goods that leave the local economy.



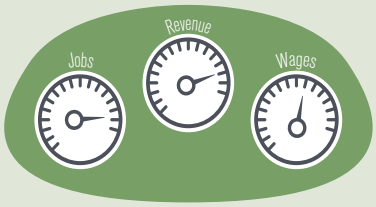
Multiple studies show that businesses are able to make adjustments with minimal job losses and price increases. Employees stay longer at work and are more productive.

Though some businesses will face challenges, the shared economic growth is worth it.

Toward a Smart, Enforceable Policy

To create a smart, enforceable policy, it's important to:

- Phase minimum wage increases to allow the city to adapt
- Allow minimum wage to keep up with the cost of living
- Apply the raised wage to as many Angelenos as possible
- Have strong tools to enforce the wage



We have the tools to closely monitor the economic impacts of raising the wage, so we can shift and adapt to any adverse effects.

A City that Works for Everyone

Sustaining Wages

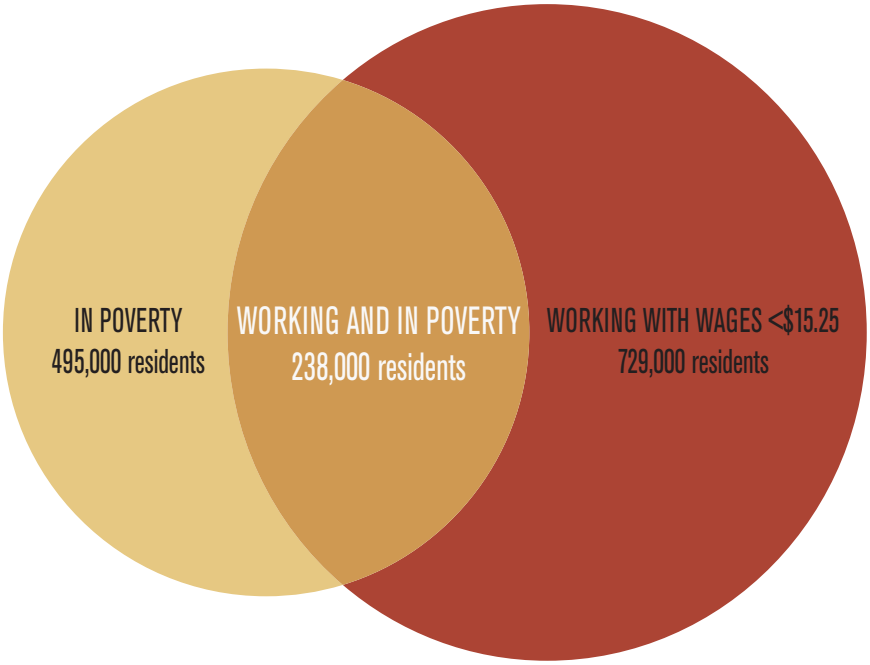
Half of the 495,000 working-age residents of Los Angeles who live in poverty have jobs (*Figure 2.1*). This high rate of working poverty indicates that low wages drive poverty as much as unemployment does. When people do not have enough money to pay for their basic needs, their lives are stressful and chaotic. In Los Angeles, poverty wages trap a quarter-million working-age adults in these conditions.

Earnings of at least $15.25 per hour ($32,000 annually) are required for a single adult to subsist in Los Angeles without public assistance.[1] Yet 729,000 employed, working-age Los Angeles *residents* (in contrast to workers employed, but not necessarily living in, L.A) earn less than $15.25. Poverty wages carry high public costs.

729,000 employed, working-age Los Angeles residents earn less than $15.25 per hour.

Los Angeles needs to be a place that works for everyone. Workers who create wealth for others need to receive a big enough share of that wealth to support a basic standard of living. The acute economic hardship faced by so many working Los Angeles families is a clear sign that the wage floor is unrealistically low.

Figure 2.1: Employment and Poverty among City of Los Angeles Residents



16 to 64 Years of Age

Source: Public Use Microdata Sample records from the 2009 to 2013 American Community Surveys. Data is for residents of the City of Los Angeles who are 18 to 64 years of age.

How Much, How Fast

Improving the lives of low-wage workers is not a zero-sum game in which one person has to lose for another to benefit. There is broad consensus that wages need to be raised. At the same time, no one wants to see the economy damaged. The practical question boils down to how much and how fast we can raise the minimum wage without harming the economy.

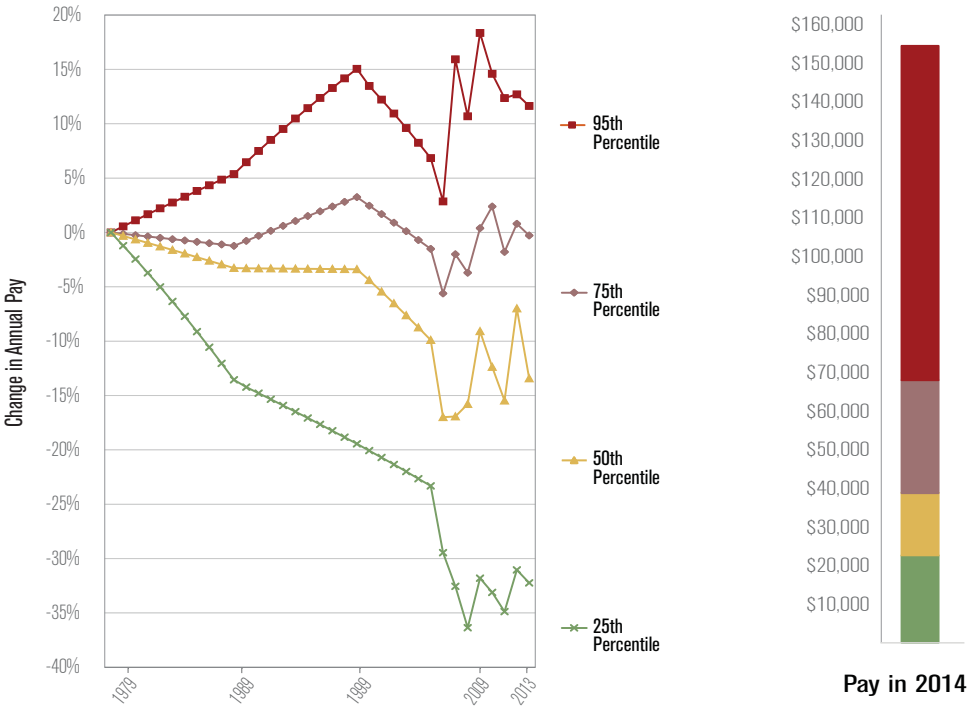
We gathered objective evidence to identify both benefits and risks of raising the minimum wage to $15.25 by 2019.

The values that guided this study include the need for objective evidence that identifies

Workers today earn less than comparable workers did 35 years ago.

both benefits and risks of raising the minimum wage to $15.25 by 2019. We offer practical tools to closely monitor the effects—positive and negative—of the new minimum wage over the course of annual increases. The key benchmarks for assessing the impact of a higher minimum wage include effects on employment, revenue, and wages.

Eroded Value of Wages



Because of the increased cost of living and stagnant wages, workers today make less money for the same work than in past decades. Changes in the buying power of wages since 1979 are shown in *Figure 2.2*.

Figure 2.2: Change since 1979 in the Buying Power of Workers' Pay

Sources: Public Use Microdata Sample records from the 1980 to 2000 decennial censuses, and from the 2005 to 2013 American Community Surveys. Wages adjusted to 2014 dollars. Data is for residents of the City of Los Angeles who are full-time wage and salary workers. Full-time employment is at least 35 hours a week for at least 50 weeks a year. Workers with less than $500 in annual earnings are excluded from the data.

If wages maintained the same buying power instead of increasing or decreasing, all lines would overlap in a flat line along the 0% mark on the side axis. However, the bottom three lines in the graph, representing three-quarters of the full-time labor force (everyone who earns less than $67,000) all dip below zero because of the declining buying power of wages. These workers earn less today than comparable workers did 35 years ago. The value of their wages has eroded.

As the steepest declines illustrate, workers who earn less experienced the greatest erosion of their buying power. The green line represents the working poor, in the bottom 25th percentile. These workers earn $22,000 a year. They fared worst, losing 32 percent of their buying power since 1979.

High-income workers were the only group whose buying power increased. The red

line represents workers who earn more than 95 percent of the labor force, at $152,000 a year. They earn 12 percent more than their counterparts did in 1979.

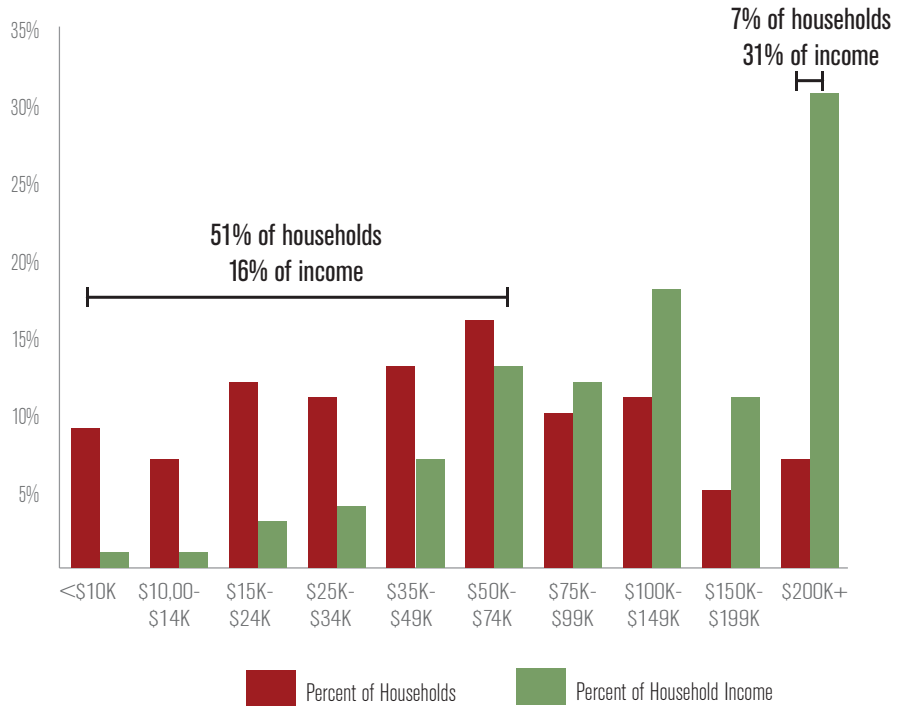
Compared to a few decades ago, most Los Angeles workers are being paid less to generate more wealth for their employers. This is an obstacle to economic stability.

Income Inequality

Inequality in Los Angeles is acute, and the divide is increasing, not diminishing. The 7 percent of households who earn more than $200,000 a year receive more income than the bottom 67 percent *combined*, as shown in *Figure 2.3*. The top 12 percent receives more than two and a half times as much income as the bottom half of households.

Projections of occupational growth over the coming decade by the State of California show that occupations paying less than $15.25 an hour are expected to grow 15 percent while occupations paying more than $15.25 are projected to grow only 11 percent.

The top 7 percent of households who earn more than $200,000 a year receive more income than the bottom 67 percent combined.



Inaction on increasing the minimum wage would mean that the share of the labor force that does not receive sustaining pay will grow and the gap between stagnating low wages and the cost of a basic standard of living in Los Angeles will continue to widen.

Figure 2.3: City of Los Angeles Households and Income, 2013

Source: 2013 American Community Survey, Table S1901: Income in the Past 12 Months.

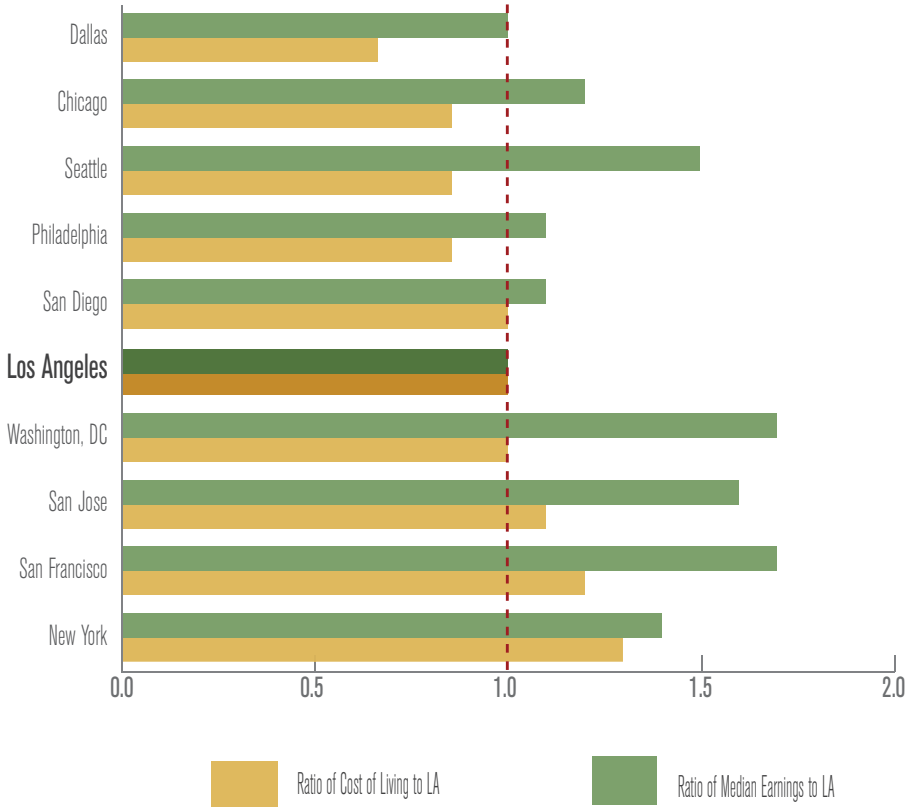
The advantages of a higher minimum wage include increased household buying power, a more stable labor force, and the affirmation of fairness in an economy where we are all interdependent and every segment of the labor force must be able to live decently for the economy to be sustainable. These outcomes benefit everyone, not just those at the bottom.

Low Wages, High Cost of Living

Los Angeles is the most unaffordable city in the nation – an expensive place to live and a difficult city to earn a living wage.

Los Angeles is a low-wage city with a high cost of living. Here, the median earnings of $27,854 in 2013 was lower than that in any of the other nine comparison cities shown in *Figure 2.4,* and the cost of living index of 136 was 36 percent higher than the national average. The comparison cities all have large populations, income inequality (high ratio between lowest and highest income), and two-thirds of them have recently raised the minimum wage.

Among comparison cities, only New York approaches, but does not match, Los Angeles' imbalance between costs and earnings. Each of the other nine cities is indexed as a ratio to Los Angeles' earnings and cost of living in *Figure 2.4.*



Every city, including Dallas, has higher earnings, and only three surpass our cost of living. The three cities more expensive than Los Angeles—New York, San Francisco, and San Jose—have far higher earnings levels, offsetting their comparatively high cost of living.

Figure 2.4: Ratio of Cost of Living and Earnings to Los Angeles

Sources: Table 728, Cost of Living Index-- 2010 - U.S. Statistical Almanac; ACS 2013, Table DP03, Median Earnings for Workers.

Seen this way, Los Angeles is one of most unaffordable cities in the nation—an expensive place to live and a difficult place to earn a living wage. This is why it is urgent for the city to make deliberate, intelligent policy choices that take into account basic fairness for the workers who do much of the heavy lifting in our economy.

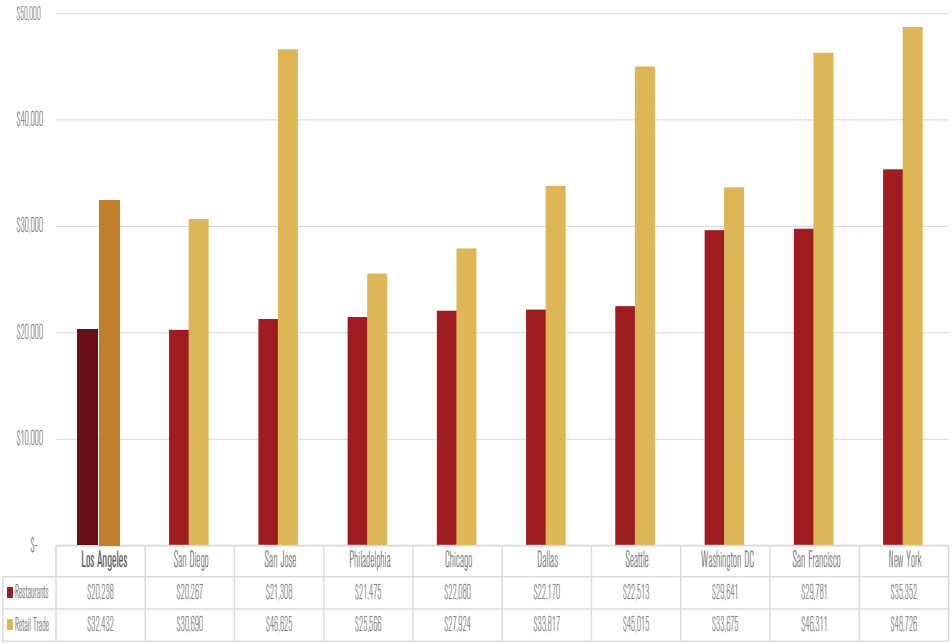
Figure 2.5 compares Los Angeles wage levels to nine comparison regions in the two largest low-wage industries, restaurants and retail trade. Los Angeles pays lower restaurant wages than any of the other cities and lower retail wages than all but three other regions (Chicago, Philadelphia, and San Diego), all which have lower costs of living than Los Angeles.

Six of the comparison cities have already enacted minimum wage ordinances: Chicago, San Diego,[2] San Francisco, San Jose, Seattle, and Washington, D.C.

The economic stresses experienced by Los Angeles in comparison to other cities are summarized in *Figure 2.6*. Low median earnings, high cost of living, low current minimum wage, high income inequality ratio, and high housing costs.

22 percent of those earning below $15.25 live in poverty.

Public Costs of Low Wages



	Los Angeles	San Diego	San Jose	Philadelphia	Chicago	Dallas	Seattle	Washington DC	San Francisco	New York
Restaurants	$20,238	$20,267	$21,308	$21,475	$22,080	$22,170	$22,513	$29,641	$29,781	$35,352
Retail Trade	$32,432	$30,690	$46,625	$25,566	$27,924	$33,817	$45,015	$33,675	$46,311	$48,726

Everyone pays the costs of keeping the minimum wage low, and not just through such programs as food stamps and other government subsidies for low-wage workers. We pay by having an increasingly unequal society, in which the social mobility we value is growing ever more difficult for those at the bottom to achieve.

Figure 2.5: Annual Wages in Restaurants and Retail, 2014

Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

More than half of front-line workers in garment manufacturing and one-third of janitorial, retail, and private household workers are paid subminimum wage.

Specific indicators of poverty and social safety net costs for workers employed in low-wage industries are shown in *Figure 2.7*. Among workers paid less than $15.25 in the 11 low-wage industries shown in the figure:

- 22 percent are below the official federal poverty threshold
- 14 percent receive food stamps
- 14 percent receive health insurance through Medi-Cal
- 6 percent receive cash public assistance

Wage Theft

Many workers in low-wage industries in Los Angeles make less than minimum wage due to wage theft (*Figure 2.8*). Wage theft occurs when employers do not pay workers

according to the law. Common forms of wage theft are not paying the minimum wage, non-payment of overtime, not paying for all the hours worked, not providing meal and rest breaks and even not paying a worker at all.

Compounding the effects of low wages, wage theft in low-wage industries occurs more frequently in Los Angeles than in any other city for which this information is available. More than half of frontline workers in apparel manufacturing and close to a third of

	Population (2013 - in thousands)	Percent Foreign-Born (2013)	Median Earnings (2013)	Cost of Living Index (2010)	Minimum Wage (2015)	Target Minimum Wage (2019)	Income Inequality Ratio (2012)	2-Bedroom Fair Market Rent
LOS ANGELES	**3,884**	**39%**	**$27,784**	**136.4**	**$9.00**	**$15.25***	**12.3**	**$1,294**
NEW YORK	8,405	37%	$37,788	182.9	$8.75	$11.50-$15.00*	13.2	$1,440
CHICAGO	2,718	21%	$32,269	116.9	$8.25	$13.00	12.5	$979
PHILADELPHIA	1,553	12%	$29,998	126.5	$7.25	$7.25	11.8	$1,135
SAN DIEGO	1,355	26%	$31,701	132.3	$9.00	$11.50	8.9	$1,354
DALLAS	1,257	24%	$28,961	91.9	$7.25	$7.25	11.2	$566
SAN JOSE	998	39%	$45,373	156.1	$10.00	$10.00	8.8	$1,649
SAN FRANCISCO	837	36%	$47,428	164.0	$11.05	$15.00	16.6	$1,956
SEATTLE	652	18%	$40,638	121.4	$11.00	$15.00	9.2	$1,123
WASHINGTON, DC	646	14%	$46,401	140.1	$9.50	$11.50	13.3	$1,469

*Minimum wage increase proposals

janitorial, retail, and private household jobs in Los Angeles report being paid less than the state minimum wage.[3] The core protection that most people take for granted—the right to be paid at least the minimum wage—is absent for many low-wage workers. The breadth of the problem, spanning most low-wage industries, as well as its harm to workers calls for enforcement of wage standards that support a decent standard of living in Los Angeles.

Figure 2.6: Economic Indicators in Los Angeles and Nine Comparison Cities

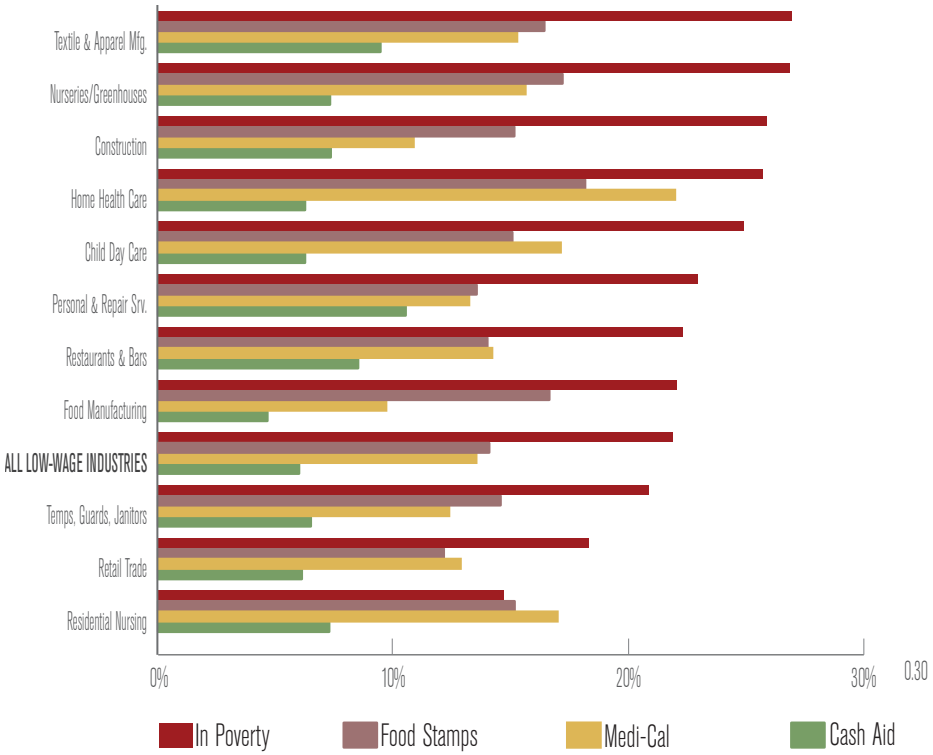
Data sources: U.S. Census Bureau: State and County QuickFacts, U.S. Statistical Almanac, American Community Survey 2013, Brookings Institute: Income Inequality 2012, U.S. Department of Housing and Urban Development, Fair Market Rent Documentation 2014.

Research Issues

The following chapters provide information about how a higher minimum wage will affect workers and industries and conclude with recommendations about how the wage floor should be raised. We analyze:

1. Economic benefits of raising the minimum wage to $15.25 by 2019;
2. Industries that will be most sensitive to a higher minimum wage and factors that affect their resilience;
3. The geography of opportunity based on where workers are employed and where they live;

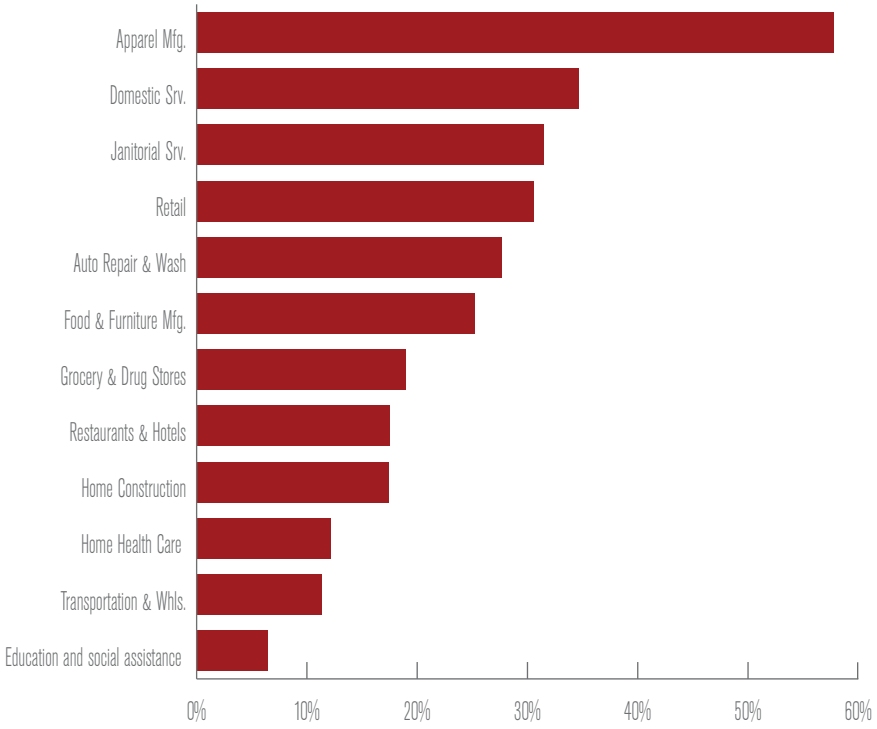
Figure 2.7: Poverty Rate and Social Safety Net Use by Los Angeles Workers Paid Less than $15.25



Source: American Community Survey PUMS 2009-2013. Unauthorized immigrant workers not included in Medi-Cal and cash aid indicators. Data is for City of Los Angeles residents with $500+ in wage and salary earnings.

4. Parallel expansion of opportunities for fair wages that are emerging as a

Figure 2.8: Minimum Wage Violation Rate in Los Angeles



Source: Ruth Milkman et al. 2010. "Wage Theft and Workplace Violations in Los Angeles: The Failure of Employment and Labor Law for Low-Wage Workers." UCLA Institute for Research on Labor and Employment, p. 32.

result of DAPA, DACA, and Proposition 47;

5. Data tools for managing the new wage floor over five years of incremental increases;

6. Trends and best practices from other cities and smart, enforceable minimum wage policies.

1. California Budget Project. 2015. "Making Ends Meet: Family Budget Calculator." http://www.cbp.org/MakingEndsMeet/, (accessed February 26, 2015).

2. California Employment Development Department, Labor Market Information Division (December 2014), 2012-2022 Occupational Employment Projections, Los Angeles-Long Beach-Glendale Metropolitan Division, http://www.labormarketinfo.edd.ca.gov/county/losangel.html (accessed March 9, 2015).

3. The San Diego ordinance will be implemented if voters approve it on a referendum in June 2015.

4. Annette Bernhardt et al. 2009. "Broken Laws, Unprotected Workers: Violations of Employment and Labor Laws in America's Cities." National Employment Law Project, http://www.nelp.org/page/-/brokenlaws/BrokenLawsReport2009.pdf?nocdn=1 (accessed February 26, 2015).

A Stimulus Effect for the Region

Estimates of Affected Workers

The City of Los Angeles has a sprawling labor force of approximately 2 million workers earning a median income of $26,000 according to the 2013 American Community Survey (ACS). Given both the remarkable scale of this labor force and its demonstrably low earnings, it is nearly certain that the proposed increase in the minimum wage will affect a significant share of workers in the city.

In order to estimate the number of workers that will be impacted, we rely primarily on data used to identify the home locations (census tracts) throughout California of workers with jobs in the city, using the Longitudinal Employer-Household Dynamics (LEHD) Origin- Destination Employment Statistics (LODES). Then we allocate the workers identified in this data to the earnings distribution of workers by gender and ethnicity using census tract earnings distributions available from the ACS. Finally, using the Public Use Microdata Sample (PUMS) file of the ACS to derive the percentage of workers impacted by the minimum wage thresholds, we estimate the number of workers affected.

We selected the census tract as our unit of analysis so that we might both assess data and depict its geographic dimensions in a way that foregrounds detail at a clear and substantive level. The database that was created overcomes limitations of existing data. The American Community Survey is the richest source of information about individual workers, but it is based on where workers live. Most other available data is at the county level. The minimum wage ordinance will apply to workers employed in the city, regardless of where they live. Roughly 700,000 residents of Los Angeles work in other cities, and roughly 900,000 workers from other cities commute into Los Angeles to work. Furthermore, the workers commuting into the city typically hold higher paying jobs than workers living in the city. The database created for this study links rich ACS data to the city's entire labor force, with detailed geographic information linked to where both jobs and homes are located. A detailed description of the estimation methodology is provided in the Data Appendix.

We begin this section by drawing a broad picture of employment in the city. Then we show the number of workers affected by the proposed minimum wage increases. We follow by depicting the size of the impact, and conclude with a brief description of the demographic and employment characteristics of affected workers.

By 2019, the number of workers affected by an increase in the minimum wage will have nearly doubled to 723,000.

Table 3.1 City of Los Angeles Workers by Income Thresholds

City of Los Angeles Workers	Total Jobs	Low $Jobs ($0-$15K)	Mid $ Jobs ($15K-$40K)	High $ Jobs ($40K+)
All Jobs	1,708,000	424,000	559,000	725,000
Primary Jobs	1,520,000	278,000	522,000	719,000
Secondary Jobs	188,000	146,000	37,000	6,000
All Private Jobs	1,410,000	394,000	507,000	509,000
Private Primary Jobs	1,233,000	256,000	473,000	505,000
Secondary Private Jobs	177,000	138,000	34,000	4,000
Federal Jobs	18,000	0	3,000	15,000
State and Local Gov. Jobs	280,000	30,000	49,000	201,000

Source: U.S. Census Bureau, LODES data for 2011

The percentage of resident workers benefiting from the higher minimum wage is 10 percent higher than for workers communing in from other areas.

Distribution of the jobs in the formal economy of the City of Los Angeles

The LODES database that was created was used to show in *Table 3.1* that 1.708 million people worked in the city in 2011, with about 1.4 million in the private sector and 300,000 in the public sector. Because we are interested in tracing the effect of an increase of the minimum wage, we divide these employment figures into categories of low, mid, and high-earning jobs and then focus on the first two groups comprised of those making under $40,000 a year. We observe in *Table 3.1* that 58 percent of the work force—almost 1 million workers are employed in low- and mid-earning jobs.

As we see from *Table 3.2*, more than half of workers in the City of Los Angeles commute from other cities and counties. Among workers commuting into the city, roughly two-thirds live in the balance of the county and one-third in other counties. In comparing the earnings distributions of the lower-paid two groups we note a startling discrepancy: while resident workers hold more than half of the city's low-earning jobs, workers from elsewhere occupy more than 60 percent of the high-earning jobs in the city. In other words, while city resident workers are employed in lower wage jobs, workers are coming from other localities for higher paid jobs. This significant discrepancy between the earnings distributions of resident and non-resident city workers is one of the reasons why we rely on the LODES database and align it with ACS earnings distribution at the census tract level.

Table 3.2 Residency of LA City Workers by Income Thresholds

Residency of LA City Workers	Total Jobs	%	Low $ Jobs $0-$15K	%	High $ Jobs $40K +	%
Los Angeles City	788,000	46	225,000	53	285,000	39
Other Cities and Counties	920,000	54	199,000	47	440,000	61
Total	1,708,000		424,000		725,000	

Source: U.S. Census Bureau, LODES data for 2011

The earnings of city residents with jobs in the city are similar to the earnings of residents with jobs outside of the city, as shown in Table 2. Looking at both *Tables 3.1 and 3.2*, we observe that, besides the large group of almost 800,000 Angelinos both living and working in the city, around 200,000 resident workers in low earning jobs are replaced by comparable low-wage workers commuting in from other cities. The difference is in the high paying jobs where we observe an additional 200,000 high-paid workers commuting into to the city. The similar earnings profiles of Los Angeles residents employed in the city and those employed in other cities are shown in *Table 3.3*.

Table 3.3 Work Places of LA City Residents

Work Places of LA City Residents	Total Jobs	%	Low $ Jobs $0-$15K	%	High $ Jobs $40K +	%
Los Angeles City	788,000	52%	225,000	52%	285,000	54%
Other Cities and Counties	714,000	48%	211,000	48%	243,000	46%
Total	1,502,000	100%	436,000	100%	528,000	100%

Source: U.S. Census Bureau, LODES data for 2011

Estimated Number of Affected Workers

To estimate the number of workers who will be affected by the higher minimum wage, we analyzed the earnings distribution in each home census tract of workers with a job in LA City, the gender and ethnicity of low- and mid-earning workers, and work status (full or part-time). Because there are significant differences among gender and ethnic classes and particularly between full-time and part-time workers, keeping these details in mind makes our estimation process more accurate.

After allocating all workers working in the city to the simulated wage distribution as described above, we estimate, for each yearly phase-in step between the base year 2014 and 2019, the number of workers that would be affected by the increase and the additional wages they would receive as a result. We use PUMS data to estimate the number of workers affected by a wage increase in each earning bracket using hourly wages and hours worked. In building these estimates, we also adjust for projected employment growth in LA City based on the industrial composition of low and mid earning jobs. More information on our methodology is given in the Data Appendix.

We present the estimated number of affected workers in *Table 3.4* for three different groups working in LA City—city residents, commuter workers from other cities in Los Angeles County and from other counties. The first column shows the number of workers under the $9.00 minimum wage that became effective in 2014. The next five columns represent the numbers for the phased years between 2015 and 2019. The last column shows the number of all jobs in the city in 2014.

The total number of workers receiving wage increases is estimated to be 723,000 by 2019. This is a net increase of over 350,000 between 2014 and 2019. The numbers of affected workers will almost double for all three earnings groups. In average we see that every $1 increase in the minimum wage will raise the number of affected workers by 60,000 annually. However, we estimate that the rate of increase in the number of additional workers affected will decrease over time. While the first year impact is approximately 80,000 additional workers, it drops to 40,000 in the final year. This estimate can be attributed to the fact that there are more workers in the city working at wage levels in the $9 to $12 range than in the range $12 to $15.range

Table 3.4 Estimated Number of Affected Workers Who Work in LA City by Residency

Residency of LA City Workers	$9.00 California	Year1 $10.25	Year 2 $11.75	Year 3 $13.25	Year 4 $14.25	Year 5 $15.25	2019 LA City Jobs
LA City	201,120	250,909	294,667	333,261	359,516	380,747	829,765
LA County	114,098	144,897	172,843	198,321	215,470	229,443	645,031
Other County	53,241	71,155	83,942	100,555	107,216	113,237	330,540
Total	368,460	466,961	551,452	632,138	682,202	723,426	1,805,336

Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

Table 3.5 demonstrates that from the initial wage increase in the first year to the final increase in the fifth year, the percentage of workers affected by the proposed minimum wage will almost double from 20 to 39 percent of the total number of workers in the city. Among workers who reside in the city, the consequences are most striking: while 24 percent of resident workers are under the state's current $9.00 minimum wage, coverage will increase to 45 percent by 2019 when the minimum wage rises to $15.25. The percentage of resident workers benefiting from the higher minimum wage is 10 percent higher than for workers communing in from other areas.

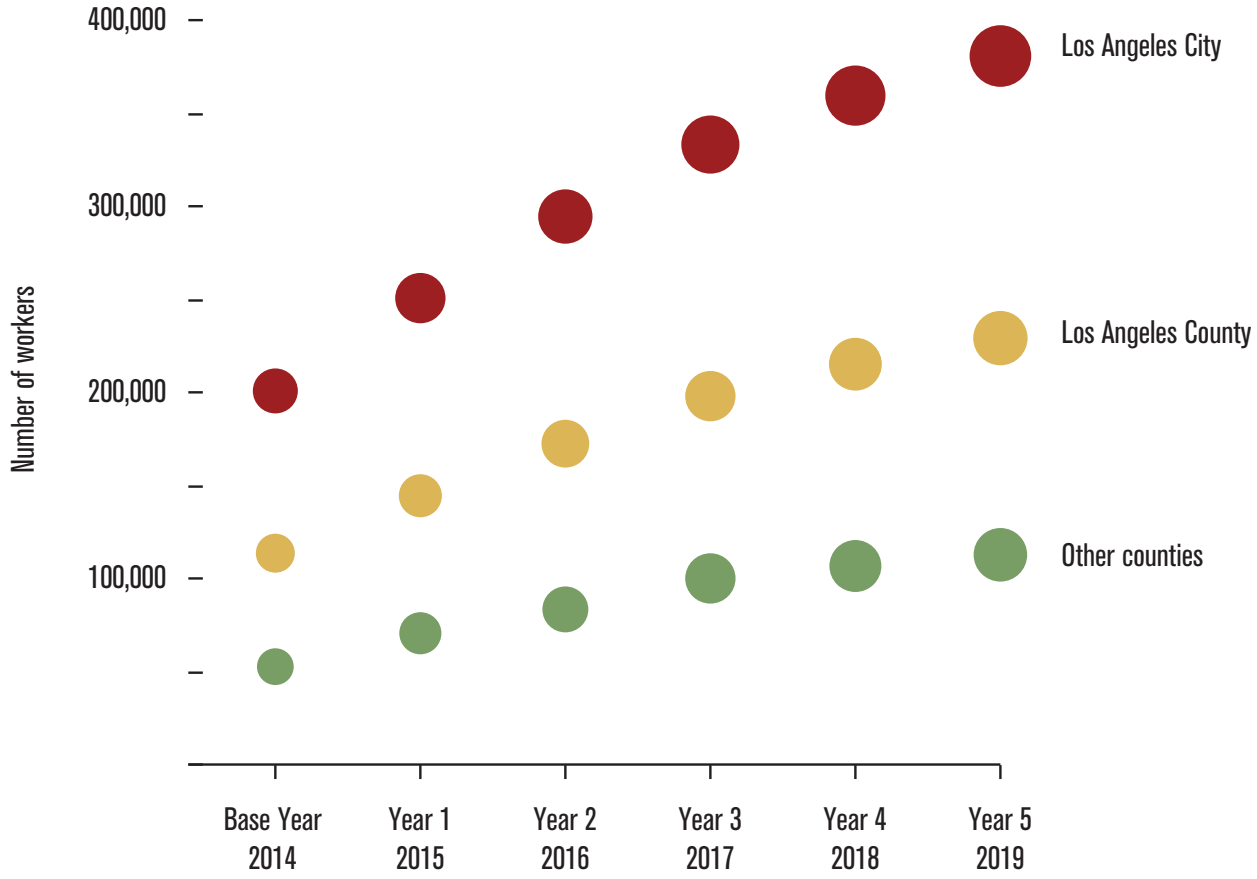
Table 3.5 Percent Estimates of Affected Workers Who Work in LA

Residency of LA City Workers	$9.00 California	Year1 $10.25	Year 2 $11.75	Year 3 $13.25	Year 4 $14.25	Year 5 $15.25
LA City	24%	30%	35%	40%	43%	45%
LA County	18%	22%	27%	30%	33%	35%
Other County	16%	21%	25%	30%	32%	34%
Total	20%	26%	30%	35%	37%	39%

Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

Combining the findings of *Tables 3.4 and 3.5* in *Figure 3.1* illustrates the trend of the impact of raising the minimum wage over a five year period. The size of the bubbles reflects the percent affected. The upward trend in workers receiving wage increases is greatest among the city's resident workers.

Figure 3.1 Affected Workers by Year and Place of Residence Sized by Percent Affected



Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

Finally, in *Table 3.6*, we present how these trends look by work status and earning levels. The table shows the number of workers affected for 4 classes—those working full-time in low and mid earning jobs and part-time workers in low and mid earning jobs. We observe the largest impact for full time workers working in mid earning jobs--over half of the total net increase followed by part-time workers working in low earning jobs. The rate of increase is the highest among part-time workers working in low earning jobs, with the number of covered workers increasing 13-fold.

Table 3.6 Affected Workers by Status and Income Thresholds

Work Status and Earnings Level	$9.00 California	Year1 $10.25	Year 2 $11.75	Year 3 $13.25	Year 4 $14.25	Year 5 $15.25	Additional Workers
Full-time < $15,000	135,373	136,912	138,097	139,138	140,217	141,195	5,822
Full-time $15 - 39,999	92,511	143,944	188,409	235,426	263,002	286,922	194,411
Part-time < $15,000	136,479	171,868	198,126	215,106	227,530	236,247	99,769
Part-time $15 - 39,999	4,097	14,238	26,821	42,468	51,452	59,062	54,964
Total	368,460	466,961	551,452	632,138	682,202	723,426	354,966

Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

Estimated Size of Earnings Increases

After estimating the number of workers affected, we estimate the additional earnings that these affected workers would receive as a result of the proposed city minimum wage law, relative to their earnings under the state's minimum wage law in the base year. *Table 3.7* presents the estimated increase in annual earnings. By full implementation in 2019, we estimate that annual workers' earnings will increase by about $5.9 billion as a result of the higher wage. All estimates are expressed in 2014 dollars. The table shows the numbers in $1,000.

Workers' earnings will increase by about $5.9 billion as a result of the higher wage rate.

The largest share of increased wages—almost $3.2 billion—will go to resident city workers. About 11 percent of the increase in additional earnings is attributable to the employment growth. The rest is attributable to the additional workers covered by the law. We observe that, unlike the impact of the minimum wage increases on the number of affected workers, the impact on additional earnings do not decline over the years. We estimate that a $1 increase in the minimum wage will contribute to approximately $1 billion in additional increase in total earnings at a steady level. This means that over the five years of sequential wage increases, the number of workers affected each year will decline, but the amount of the wage increase for individual workers will grow.

Table 3.7 Estimated Increased Earnings by Year of Implementation in 1,000s of Dollars

Residency of LA City Workers	Year1 $10.25	Year 2 $11.75	Year 3 $13.25	Year 4 $14.25	Year 5 $15.25
LA City	$492,030	$1,197,823	$2,028,708	$2,572,330	$3,163,023
LA County	$284,292	$704,778	$1,213,635	$1,551,163	$1,919,362
Other County	$116,233	$288,420	$525,960	$663,070	$817,588
Total	$892,555	$2,191,022	$3,768,303	$4,786,563	$5,899,973

Thousands of Dollars

Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

We show the additional earnings over 5 years by working status and earnings in *Table 3.8*. We observe some interesting trends in this table. As shown in *Table 3.6*, the largest increase is observed for full time workers working in mid earning jobs—almost $ 3 billion. However, unlike in *Table 3.6* where the number of affected workers is negligible for full-time workers in low earning jobs, their earnings are estimated to increase steadily but with a declining trend due to higher wages. Additional earnings for part-time workers in low earning jobs will also increase at a steady rate but the number of additional part-time workers in low earning jobs who are affected will decline each year.

In *Figure 3.2*, we illustrate the different trends observed in *Table 8*. The size of the bubbles reflects the number of affected workers. We can see the steep trend for full-time workers working in mid-earning jobs relative to all other groups.

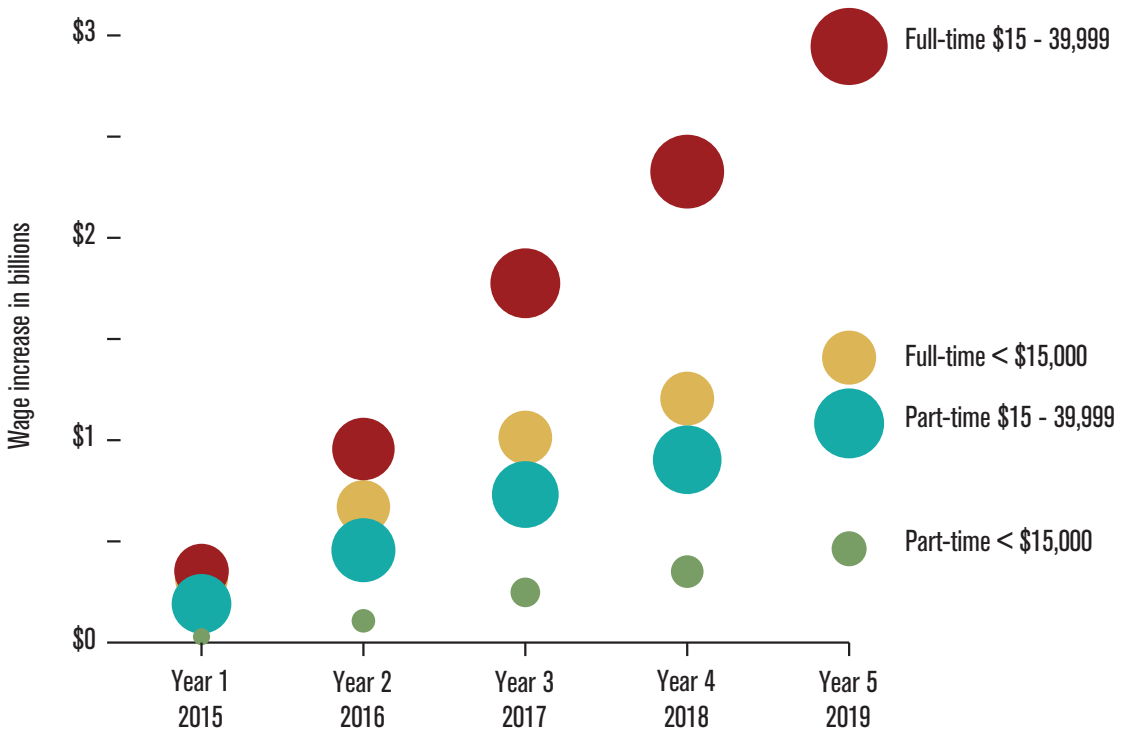
Table 3.8 Estimated Increased Earnings by Status and Income Thresholds

Work Status and Earnings Level	Year1 $10.25	Year 2 $11.75	Year 3 $13.25	Year 4 $14.25	Year 5 $15.25
Full-time < $15,000	$318,817	$670,562	$1,013,393	$1,205,609	$1,408,002
Full-time $15 - 39,999	$353,289	$956,544	$1,775,460	$2,327,028	$2,945,502
Part-time < $15,000	$191,401	$456,490	$731,419	$903,417	$1,083,048
Part-time $15 - 39,999	$29,048	$107,426	$248,031	$350,510	$463,421
Total	$892,555	$2,191,022	$3,768,303	$4,786,563	$5,899,973

Thousands of Dollars

Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

Figure 3.2 Wage Increase for Affected Workers by Status and Income Threshold



Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

Demographics and Job Characteristics of Affected of Workers

The demographic composition of affected workers is shown in *Table 3.9*. The table shows three basic demographic characteristics—age, gender and ethnicity. The first two columns show the proportion of affected workers in low-earnings industries for the base year-2014, and the final year--2019. For example, we observe that in 2014, 61 percent of male

workers in low-earning jobs were working at or below the state's minimum wage. In 2019, 81 percent of this group will have been affected by the five sequential increases in the minimum wage. Columns 3 and 4 show these breakouts for mid earning jobs. The last two columns breakout the share of affected workers in each demographic group. For example, 37 percent of all affected workers in low-earning jobs are between ages 16 and 25.

The share of low-earnings workers affected by the minimum wage will increase by 15-20 percent in each demographic group by 2019. For example, over 90 percent of low-earning Latino workers will be affected by the wage increases. Among workers in mid earning jobs, while all demographic groups show significant increases in coverage, the largest increase will be for Latino workers—from 18 percent affected in 2014 to 65 percent in 2019. Among low-earnings workers, there will be above average coverage for younger, female, Latino and white workers.

The reason why not every worker with low earnings will be affected by the higher minimum wage is that some part-time workers have a high hourly wage but work so few hours that their earnings are low.

Low-paid Latino workers, especially those who are male and younger, will be affected most immediately and deeply.

Table 3.9 Demographics of Affected Workers

	% of Workers in Earnings Group				% of Workers in Column	
Demographics	Low $ Jobs 2014 % affected	Low $ Jobs 2019 % affected	Mid $ Jobs 2014 % affected	Mid $ Jobs 2019 % affected	Low $ Jobs 2019 %	Mid $ Jobs 2019 %
Age						
Age 16 - 25	65%	80%	19%	60%	37%	17%
Age 26 - 35	65%	77%	17%	53%	23%	31%
Age 36 - 4	65%	78%	18%	53%	15%	23%
Age 45 - 55	63%	78%	15%	53%	15%	19%
Age 56 & over	58%	73%	14%	49%	10%	10%
Gender						
Male	61%	81%	17%	60%	45%	51%
Female	60%	83%	15%	54%	55%	49%
Race						
Asian	59%	80%	17%	53%	13%	16%
Black	56%	80%	19%	52%	12%	12%
Latino	69%	91%	18%	65%	38%	52%
Other	59%	78%	24%	61%	2%	4%
White	53%	76%	11%	48%	35%	17%

Source: Authors' analysis of LODES, ACS and PUMS data

Table 3.10 shows the composition of affected workers by work status and earnings level. The first two columns show the percent of each group that are affected in 2014 and 2019, and the last two columns show their shares in the total. The proportion of low-earnings full-time workers not affected by the minimum wage drops dramatically from 37 percent to just 20 percent over 5 years. The largest increase in the number of full-time workers affected, from 17 to 48 percent, occurs among mid-earning workers. It is important to note that over the five years, a large number of workers will move from the low-earnings group to the mid-earnings group, with its share of workers increasing from 25 to 40 percent. In contrast, the percentage of part-time workers in low-earning jobs leapt from 32 to 52 percent, but their share of the labor force decreased from 37 to 32 percent. This is because the number of covered workers overall will increase significantly over 5 years. So even though part-time workers in low-paid industries are covered at a much higher rate, their share drops due to a higher rate of increase

among full-time workers working in mid-earning jobs. We also estimate a significant increase for part-time workers in mid-level earning jobs—their coverage increases from 1 to 10 percent, and their share increases from 1 to 8 percent.

Table 3.10 Composition of Affected Workers by Status and Earnings Level

	% of Workers in Row, by Year		% of Workers in Column	
Work Status and Earnings	**% Affected 2014**	**% Affected 2019**	**% of Affected 2014**	**% of Affected 2019**
Full-time < $15,000	32%	31%	37%	20%
Full-time $15 - 39,999	17%	48%	25%	40%
Part-time < $15,000	32%	52%	37%	32%
Part-time $15 - 39,999	1%	10%	1%	8%

Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

Finally, in *Table 3.11*, we tabulate the industrial composition of affected workers. This table incorporates projections of industry growth based on trends over the past 15 years in the City of Los Angeles. It is important to note that these projections show higher rates of growth in low-earnings jobs than in mid- and high-earnings jobs, indicating that regulation of the minimum wage is important to prevent increased wage polarization.

Among low-earning workers, there are 10 percent to 30 percent increases in minimum wage coverage. The coverage increase in mid-earning industries is much higher—in the range of 30 percent-55 percent. In 2019, the industrial composition of low and mid-level industries for affected workers will not show much divergence, but the share of low-earning employment, such as in retail trade, education, hotels, and restaurants, is projected to be higher.

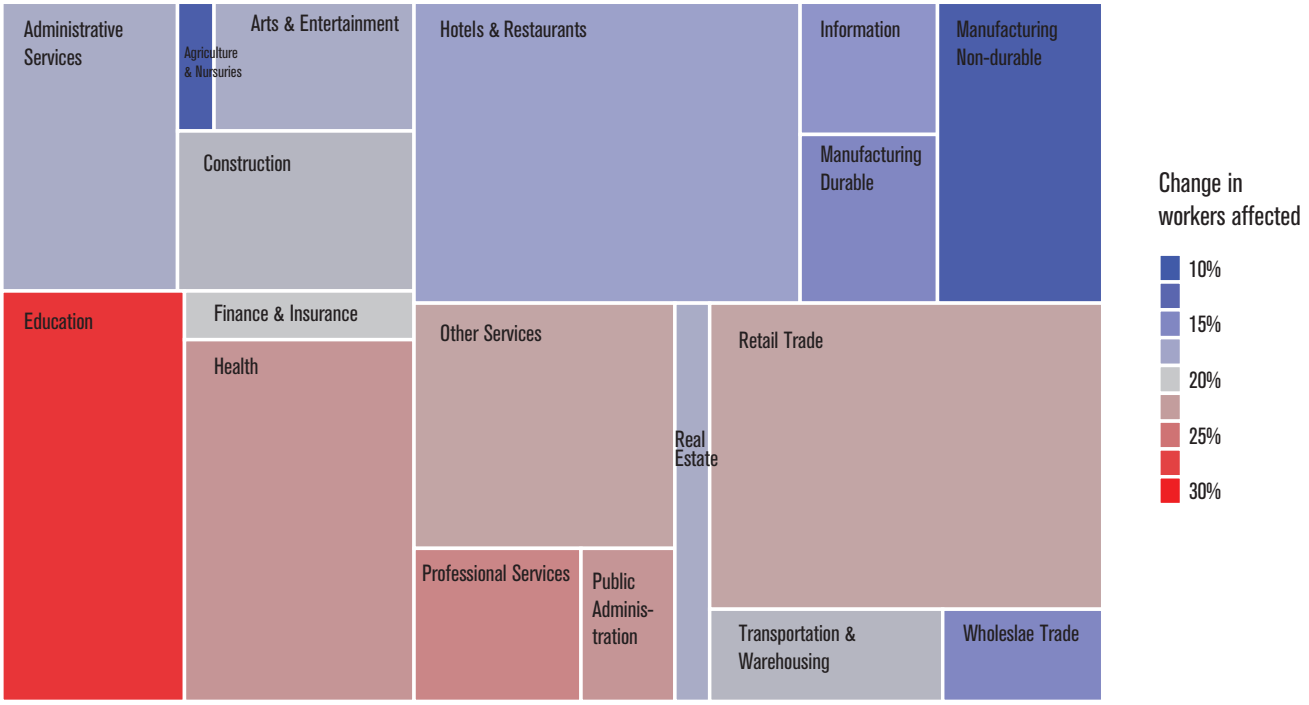
Table 3.11 Industrial Composition of Affected Workers

	% of Workers in Earnings Group				% of Workers in Column	
Industry	**Low $ Jobs 2014 % affected**	**Low $ Jobs 2019 % affected**	**Mid $ Jobs 2014 % affected**	**Mid $ Jobs 2019 % affected**	**Low $ Jobs 2019 %**	**Mid $ Jobs 2019 %**
Agriculture & Nurseries	79%	90%	22%	75%	0.7%	0.7%
Construction	63%	82%	17%	58%	4.8%	6.1%
Mfg. Non-Durable	82%	93%	36%	74%	7.1%	8.3%
Manufacturing-Durable	72%	86%	20%	63%	3.1%	6.2%
Wholesale Trade	72%	87%	19%	63%	1.9%	3.6%
Retail Trade	65%	87%	18%	63%	16.3%	13.4%
Transp. & Warehousing	64%	83%	16%	58%	2.7%	4.7%
Information	55%	71%	10%	41%	2.0%	2.5%
Finance & Insurance	55%	76%	6%	43%	1.3%	2.3%
Real Estate	60%	79%	10%	52%	1.7%	2.2%
Professional Services	45%	69%	7%	37%	2.7%	2.7%
Administrative Services	65%	84%	22%	70%	6.6%	8.2%
Education	47%	75%	7%	36%	8.7%	3.9%
Health	60%	83%	11%	53%	10.6%	11.3%
Arts & Entertainment	51%	70%	7%	44%	2.8%	2.1%
Hotels & Restaurants	74%	91%	22%	66%	16.4%	12.9%
Other Services	64%	86%	20%	65%	8.5%	7.8%
Public Administration	61%	84%	11%	42%	1.8%	1.1%

Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

Figures 3.3 and 3.4 illustrate the change in coverage—the change in the proportion of workers affected between 2014 and 2019. These tree maps show both the size of the industry (the size of the block) and the rate of change in minimum wage coverage (the block's coloring on a scale from blue for small change to red for large change.)

Figure 3.3 Distribution of Affected Workers among Low Wage Industries



Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

Among low-paid workers, education stands out with highest rate of increased minimum wage coverage. Durable goods manufacturing stands in the other end. The larger industries such as retail trade demonstrate a higher rate of coverage growth than hotels and restaurants.

Among mid-earning industries, the highest rate of change is in nurseries and greenhouses, but this is a very small industry. Among larger industries, such as administrative services, waste management, retail trade and repair and personal services, the growth in minimum wage coverage is greater than in health and education. Hotels and restaurants rank in the middle.

Comparing *Figures 3.3 and 3.4* we also see that for some industries the change is asymmetrical. For example, workers with education and professional services jobs will be highly affected in low earning jobs but not for mid-level ones. The reverse is true for administrative services and waste management and hotels and restaurants.

Economic Boost to the Economy

The impacts of a $15.25 minimum wage will sustain not just the workers and families who directly benefit from the raise, but also local businesses that gain from increased household spending. Workers who receive the infusion of extra income, $3.1 billion for residents of Los Angeles and $5.9 billion for the region by 2019, will have more money to spend on basic needs such as groceries, health care, and car repair. In this section, we calculate the ripple effects of the minimum wage by using an input-output model of Los Angeles. The model takes into account all the nodes along the supply chain as a product

or service passes through from its point of production to consumption. In addition, the model calculates how much of the output and employee compensation stays in Los Angeles and how much flows outside the county.

Figure 3.4 Distribution of Affected Workers among Moderate Wage Industries

Source: Authors' analysis of LODES, ACS and PUMS data and ES-202 projections.

Household Spending Boosts L.A. Economy

By 2019, workers' income will be increased by $3.1 billion for residents of the city, and $5.9 billion for residents of the region.

Families with lower incomes typically have pressing needs and quickly spend all of their earnings. Households in the United States that earn $20,000 or less per year, which includes many workers who will be affected by the $15.25 raise, incur debt to pay for basic needs (see *Figure 3.5*). The average household in that income bracket spends $25,506 a year on living expenses. Yet, the typical household brings home $18,203 in income after taxes. Low income households accumulates an average debt of $7,303, which is equivalent to 40 percent of their income.

Housing is, by far, the greatest expense for low income families. Paying for the roof over their heads takes up 55 percent of income for households with incomes below $20,000 a year. After paying for their daily expenses such as housing, food, and transportation, there is not much left over for other expenses including health care and education without going into debt.

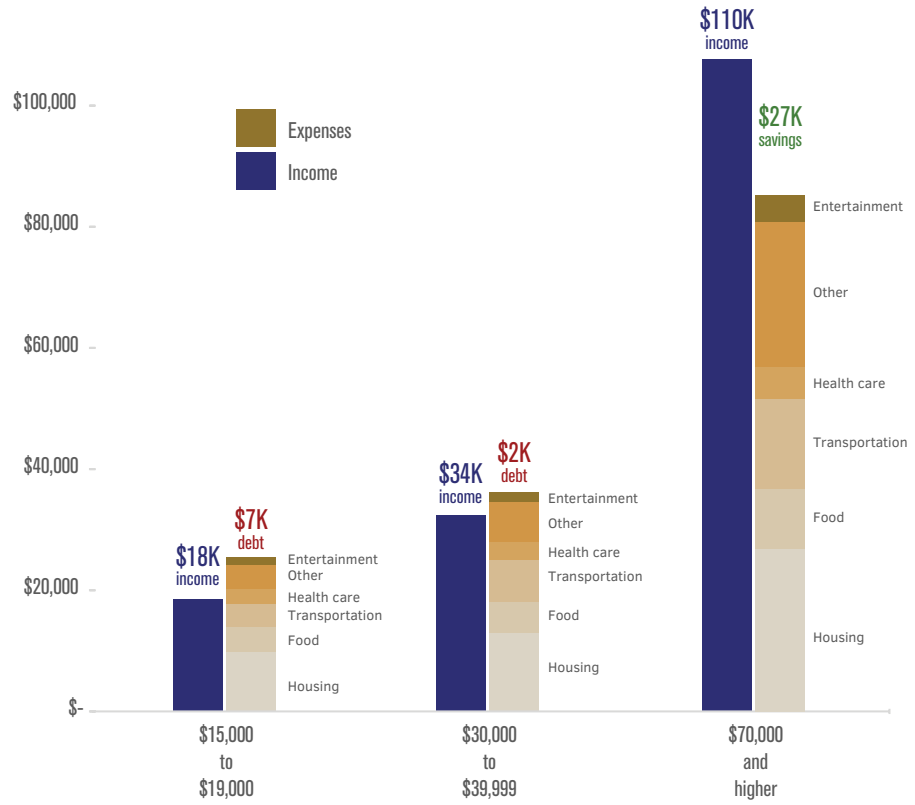
Households with incomes of $30,000 to $39,999, which includes workers that will be covered by minimum wage increases, have incomes that cover almost all their expenses. Their average annual expenditures are $36,093, which their income after taxes covers, with a slight accumulation of debt.

In contrast, high income households take in more money than they spend and save what's leftover, thereby slowing the circulation of money in the economy. Those who bring home $70,000 and more a year, which includes most shareholders in corporations that employ minimum wage workers, set aside almost a quarter of their earnings, or an average of $25,630 a year, as savings. Much of this is placed into nation and global investments that are far removed from Los Angeles' economy.

Because households with incomes under $35,000 spend money quickly, there is twice as much stimulus to the local economy from each additional dollar they receive as there is

from additional dollars received by households with incomes over $150,000. Additional information about these multiplier effects is provided in the Data Appendix.

Figure 3.5: Expenditures of Low, Moderate, and Upper Income Households, U.S., 2013



Source: Consumer Expenditure Survey, U.S. Bureau of Labor Statistics, Table 1202. Income before taxes: Annual expenditure means, shares, standard errors, and coefficient of variation, Consumer Expenditure Survey, 2013. Data is for the United States.

Economic Stimulus from $15.25 Minimum Wage

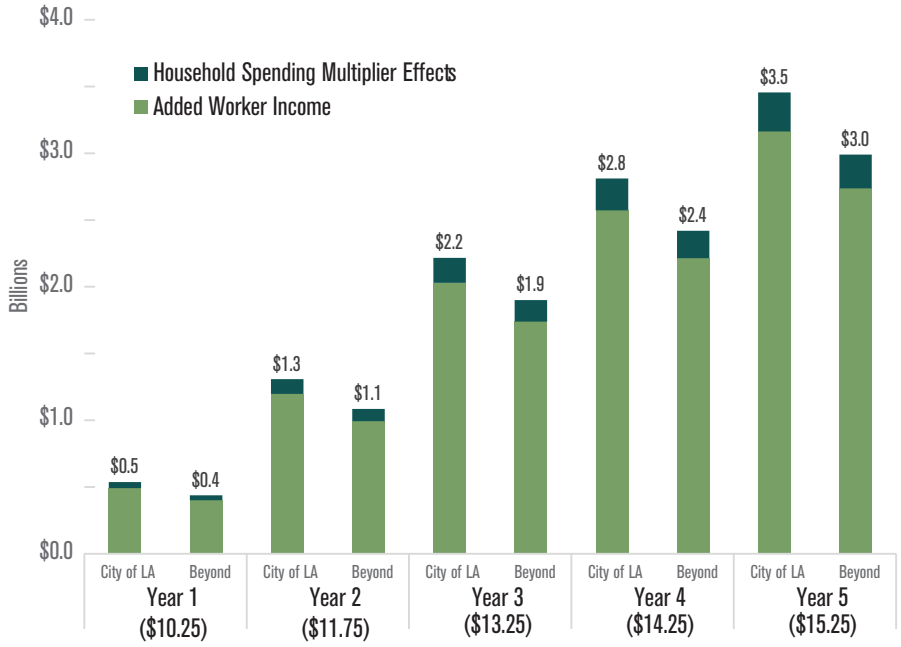
We estimate that after taxes are paid, a $15.25 minimum wage in 2019 will result in $6.4 billion in increased sales for the region, with $3.4 billion staying within the city (see *Figure 3.6: Additional Employment Supported by Minimum Wage Increases*). This is an addition of $650 million in spending from multiplier effects on top of the increased wage. For every dollar increase in minimum wage earned by households, output in Los Angeles County rises by $1.12. The largest share of the increased spending will go to housing providers (for rent or mortgage payments), almost 20 percent. Another 10 percent goes towards medical care, a cost that many Angeleno families struggle to pay for (see Establishing Base/Ceiling in Chapter 7).

By 2019, economic output will expand by more than half a billion dollars.

The boost to spending is focused on consumer-oriented businesses that require face-to-face interactions. Real estate, health care, restaurants and retail are place-based businesses that serve a client base that purchases goods and services within the vicinity of where they live (see Geography of Opportunity, Chapter 5). A majority of the stimulus will benefit establishments that serve Los Angeles residents. This added revenue will boost Los Angeles businesses, many of them in neighborhoods that until now have had limited purchasing power.

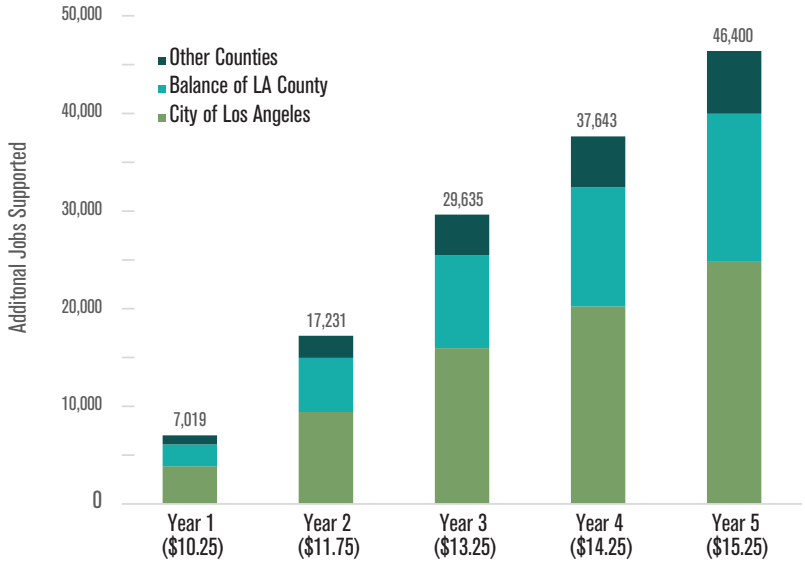
The $15.25 minimum wage will sustain an estimated 46,400 new jobs through expenditures of increased earnings across the region (see *Figure 3.7: Additional Employment Supported by Minimum Wage Increases*). The bulk of the job creation will be in the City of Los Angeles, where industries that respond to increased household spending will add an estimated 24,875 positions. This includes real estate, restaurants, hospitals, and retail.

Figure 3.6: Additional Employment Supported by Minimum Wage Increases



Source: IMPLAN version 3.1 software with IMPLAN data for Los Angeles County in 2013.

Figure 3.7: Additional Employment Supported by Minimum Wage Increases



Source: IMPLAN version 3.1 software with IMPLAN data for Los Angeles County in 2013

The region will benefit from increased employment starting with the first year the minimum wage increase is implemented. More than 7,000 jobs will be created when the minimum wage is raised to $10.25. The multiplier impacts increase over five years as the wage floor rises. By 2019, not only will the city enjoy an estimated 24,875 more jobs, but Los Angeles County will benefit from 15,095 in increased employment. Other counties where Los Angeles workers may live or travel to will reap 6,430 new jobs.

Increased sales and employment are projected to generate $960 million in increased public revenue by 2019. State and local governments will receive $414 million and the

federal government $546 million. Social safety net programs such as Social Security, State Disability Insurance, Worker's Compensation and Unemployment Insurance as well as the general budgets of local, state and federal government will receive an infusion of new funds to meet the needs of people in Los Angeles, the state and the nation.

Estimated Reduction in Public Assistance Spending

Los Angeles County public assistance programs cover a large population. The working poor are a significant part of public aid recipients. In December 2013, there were over 2,65 million persons receiving at least one type of aid (County of Los Angeles, Department of Public Social Services, statistical report, December 2013). Medical assistance recipients make up the largest group with over 1.87 million persons followed by 1.77 million Cal-Fresh recipients.

We have estimated how the proposed minimum wage law will affect the public assistance spending for three large programs—medical assistance (Medi-Cal), Cal-Fresh and cash aid (CalWORKs and General Relief programs). We use PUMS data to estimate program participation and average aid amounts in 2014, before minimum wage increases begin, and in 2019, after the final increment of increases. Then, we estimate the reduction in participation rates and apply these numbers to our estimates of workers affected by the proposed minimum wage law based on LODES data. We build all our estimations by gender, ethnicity and work status—full-time vs. part-time to reflect significant differences among groups. A description of the estimation methodology is provided in the Data Appendix.

At the end of five years, public assistance payments would be reduced by $314 million.

Table 3.12 Estimated Reduction in Public Assistance Participation between 2014 and 2019

Gender-Ethnicity-Work Status	% of Affected	CF part. % 2014	CF % impact	Medi-Cal part. % 2014	Medi-Cal % impact	Cash aid part % 2014	Cash aid % Impact
Asian-Male-Full Time	4.3%	6.8%	4.4%	33.9%	2.9%	2.9%	2.2%
Asian-Male-Part Time	2.2%	7.8%	4.3%	33.4%	1.5%	2.2%	1.6%
Asian-Female-Full Time	4.3%	4.3%	3.2%	32.9%	4.2%	2.1%	0.0%
Asian-Female-Part Time	2.7%	7.2%	1.5%	34.8%	6.7%	2.3%	0.0%
Black-Male-Full Time	3.1%	15.8%	11.8%	34.8%	4.6%	3.2%	2.4%
Black-Male-Part Time	1.9%	22.9%	14.8%	36.8%	19.4%	8.6%	7.0%
Black-Female-Full Time	3.3%	22.1%	3.6%	39.4%	14.2%	7.8%	2.3%
Black-Female-Part Time	2.4%	28.6%	10.8%	43.6%	0.0%	14.6%	4.0%
Latino-Male-Full Time	14.8%	17.0%	7.2%	52.0%	10.5%	2.9%	1.1%
Latino-Male-Part Time	7.0%	17.3%	4.7%	47.6%	2.7%	4.2%	1.4%
Latino-Female-Full Time	14.0%	15.8%	9.2%	51.2%	14.1%	3.7%	1.6%
Latino-Female-Part Time	9.6%	20.1%	6.7%	54.5%	17.2%	6.3%	2.7%
Other-Male-Full Time	0.9%	11.3%	9.2%	31.4%	26.0%	2.6%	0.0%
Other-Male-Part Time	0.4%	14.4%	0.0%	25.6%	21.7%	10.2%	10.2%
Other-Female-Full Time	0.8%	8.4%	0.0%	32.6%	2.8%	3.9%	3.9%
Other-Female-Part Time	0.5%	12.2%	0.0%	26.1%	0.0%	3.9%	0.0%
White-Male-Full Time	7.0%	5.9%	3.3%	20.0%	9.1%	2.8%	0.0%
White-Male-Part Time	6.6%	7.4%	2.4%	19.5%	5.2%	3.1%	0.0%
White-Female-Full Time	6.8%	4.5%	2.2%	18.8%	3.9%	1.9%	0.6%
White-Female-Part Time	7.7%	7.9%	1.5%	20.5%	0.9%	4.0%	0.9%

Source: *Authors' analysis of PUMS, ACS and LODES data*

The estimated reduction in public assistance expenditures for Cal-Fresh, Medi-Cal and cash aid programs is shown in *Table 3.12*. We show the proportion of each gender-ethnicity-work status sub-group in the total of 723,000 workers affected by the minimum wage increase. The largest sub-group is Latino workers, making 45 percent of the public assistance population affected by minimum wage increases. Next, we show the participation rate of each sub-group in the Cal-Fresh program. Black female workers with part-time jobs have the highest participation rate, close to 30 percent, followed by other Black and Latino workers. We show the net impact of spending in the Cal-Fresh program in column three, which we calculate by taking the difference between participation rates in the base year (higher rate) and 2019 (lower rate) when the minimum wage rises to $15.25. If the difference is not significant, we show it as no impact with 0 percent.

We observe the largest reduction in Cal-Fresh payments among Black male workers, Black female workers with part-time jobs and Latino female workers with full-time jobs. The next four columns show the participation rates and net reduction for Medi-Cal and cash aid programs. We observe the highest participation in medical assistance among Latino workers followed by Black and Asian workers. The reduction in medical assistance resembles the impact in the Cal-Fresh program affecting the same groups at the highest rates. The participation in cash aid programs is much lower and we observe the largest net impact for part-time Black and Other male workers.

We show the estimated reduction in public assistance payments in *Table 3.13*. The numbers are derived by applying average payment amounts to the net impact values we present in *Table 3.12*. The last column shows the proportion of sub-groups in total reduction in public assistance payments.

We estimate a total of $184.1 million reduction in Cal-Fresh payments by the end of full implementation of the proposed minimum wage law. Within this total, Latino workers will experience the largest decrease, $115 million, followed by Black workers.

We estimate a reduction in medical assistance payments of approximately $143 million. Latino workers will experience the largest decrease, $65 million, followed by White workers. We estimate that there will be a $14 million in reduction in cash payments. Over all, we estimate a total annual reduction of $314 million in public assistance payments by the end of the fifth year. Over 60 percent of the reduction is attributable to reduced public assistance benefits for Latino workers whose increased earnings will lift them out of the social safety net.

The total estimated savings of $314 million is not cumulative savings but savings in the fifth year. There will be gradual increases in the reduction in public assistance payments in each year. We project a linear increase as shown in table 3 that will yield a total of $942 million in savings over 5 years.

3.13: Estimated Reduction in Public Assistance Payments in 2019

Gender-Ethnicity-Work Status	Cal-Fresh Decrease	Medi-Cal Decrease	Cash aid Decrease	Total Public Aid Decrease	% of Decrease
Asian-Male-Full Time	$5,719,893	$1,454,304	$318,267	$7,492,465	2.2%
Asian-Male-Part Time	$3,369,532	$493,460	$24,468	$3,887,460	1.1%
Asian-Female-Full Time	$5,622,014	$2,648,672	$0	$8,270,686	2.4%
Asian-Female-Part Time	$1,750,426	$3,038,957	$0	$4,789,383	1.4%
Black-Male-Full Time	$10,563,266	$2,994,222	$6,519	$13,564,007	4.0%
Black-Male-Part Time	$4,666,242	$4,954,328	$67,833	$9,688,403	2.8%
Black-Female-Full Time	$4,483,602	$8,349,711	$1,100,882	$13,934,195	4.1%
Black-Female-Part Time	$9,302,629	$0	$3,506,269	$12,808,899	3.8%
Latino-Male-Full Time	$39,351,896	$28,093,565	$1,161,286	$68,606,747	20.1%
Latino-Male-Part Time	$12,073,036	$3,544,947	$954,443	$16,572,426	4.9%
Latino-Female-Full Time	$43,597,725	$30,623,135	$2,206,046	$76,426,906	22.4%
Latino-Female-Part Time	$21,910,690	$28,221,879	$3,211,469	$53,344,038	15.6%
Other-Male-Full Time	$1,209,534	$3,242,042	$0	$4,451,577	1.3%
Other-Male-Part Time	$0	$685,379	$0	$685,379	0.2%
Other-Female-Full Time	$0	$668,559	$0	$668,559	0.2%
Other-Female-Part Time	$0	$0	$0	$0	0.0%
White-Male-Full Time	$9,953,450	$13,135,546	$0	$23,088,996	6.8%
White-Male-Part Time	$3,782,276	$5,808,349	$0	$9,590,625	2.8%
White-Female-Full Time	$4,073,463	$4,153,073	$230,795	$8,457,331	2.5%
White-Female-Part Time	$2,664,603	$946,119	$1,286,623	$4,897,346	1.4%
Total	$184,094,279	$143,056,247	$14,074,901	$341,225,426	2.2%

Source: *Authors' analysis of PUMS, ACS and LODES data*

Table 3.14: Estimated Cumulative Reduction in Public Assistance Payments between 2014 and 2019

	Year1 $10.25	Year 2 $11.75	Year 3 $13.25	Year 4 $14.25	Year 5 $15.25
Annual Reductions	$62,800,000	$125,600,000	$188,400,000	$251,000,000	$314,000,000
Cumulative Reduction	$62,800,000	$188,400,000	$376,800,000	$627,800,000	$941,800,000

Source: *Authors' analysis of PUMS, ACS and LODES data*

Industry Resilience

Industries that are Most Sensitive to Wage Increases

Overview

Larger, more resilient employers account for most jobs.

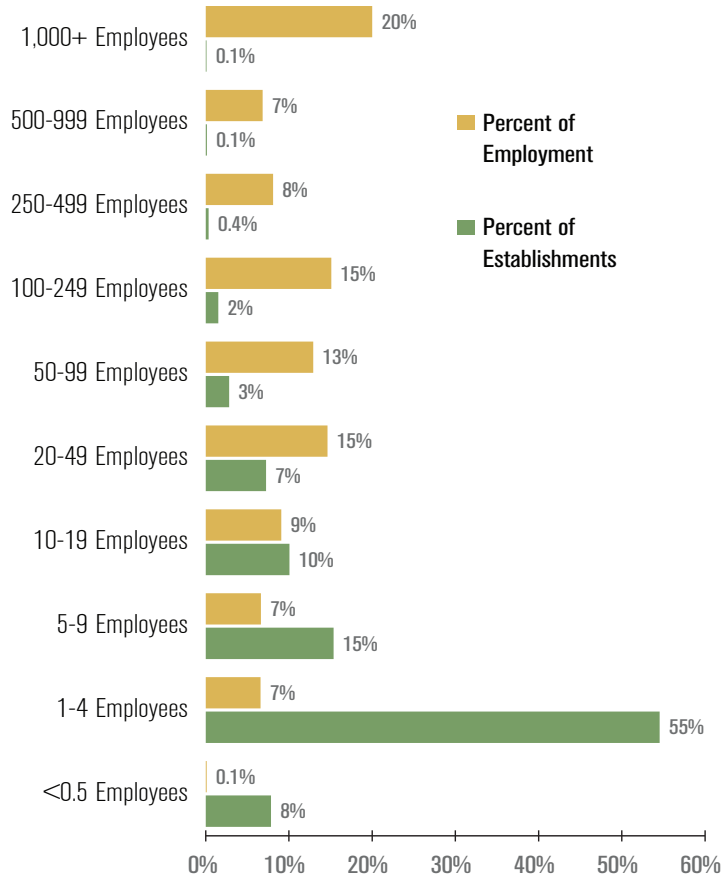
Crosscurrents from a higher minimum wage will include new sources of economic stimulus as well as the need for significant adjustments by low-wage businesses. Information about likely industry effects is a tool for anticipating and managing the impacts of a higher minimum wage.

We proceed from a detailed analysis of current industry employment, wages, profits, rates of growth-decline, and value added within the region. These data are analyzed to identify six different criteria for flagging industries that may be most stressed by increases in the minimum wage.

Application of these six criteria suggest that seven of 26 industries are likely to be most sensitive to increases in the minimum wage. Mitigating factors for potential adverse impacts on the seven industries are identified below.

Other chapters of this report identify and discuss additional factors that can shape industries' success in maintaining robust employment while paying higher wages. *First*, the geographic distribution of low-wage jobs – the share that are in communities that can readily absorb slight cost increases for needed services. *Second*, the local economic stimulus that results from channeling more business revenue into paying workers' wages. *Third*, the agility of employers in developing business models that factor in the requirement to pay sustaining wages.

Figure 4.1 – Number of Establishments and Employees in the City of Los Angeles Based on Firm Size, 2011



Data source: Quarterly Census of Employment and Wages (QCEW). Private household employment excluded

At the establishment level, the effect of higher wages on employment levels is likely to vary depending on whether establishments are large or small, industries are growing or declining, wages are high or low, workers' wages consume a large or small share of firm revenue, the amount of profit generated per worker is large or small, and the amount of value created by each worker is large or small. Each of these factors is discussed below.

Effects of establishment size

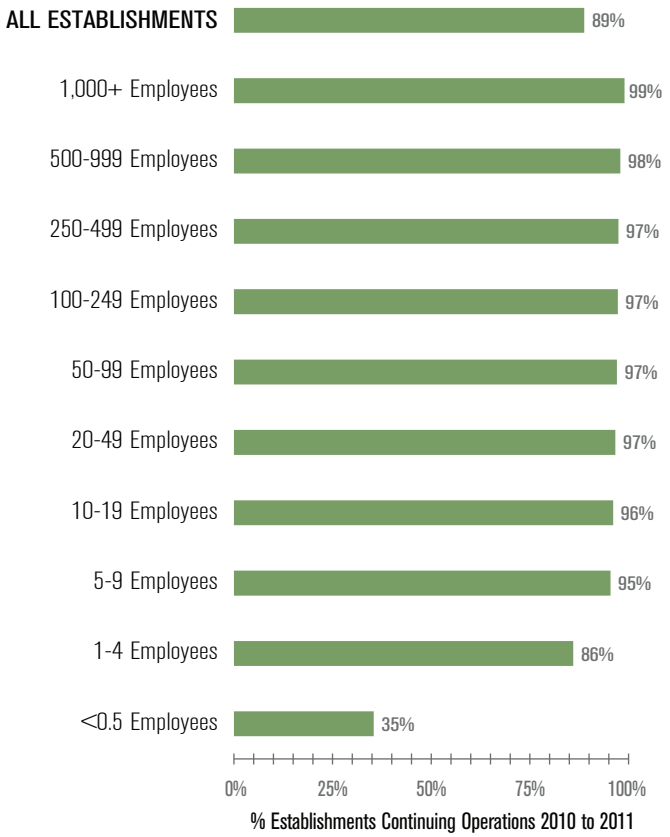
Establishments with five or more employees have a far higher survival rate than those that are smaller.

Establishments of different sizes have different roles in the city's economic ecology. Small employers are seedbeds of job generation and innovation as well as the source of most business startups and closures. Larger, more resilient employers account for most jobs.

At the upper end of the size range, a tenth of one percent of employers have one thousand or more employees, but they account for 20 percent of total employment. Only 2 percent of establishments have 100 or more employees and they account for 50 percent of total *employment*. A table showing the size distribution of establishments in each industry is provided in the *Data Appendix*.

The majority of businesses are small: 55 percent have four or fewer employees. Combined, however, these establishments account for a minor share of total employment, only 7 percent (*Figure 4.1*.) Eight percent are "micro-employers," employing one worker for five or fewer months and accounting for a tenth of one percent of total employment.

Figure 4.2 One-Year Survival Rate by Establishment Size City of Los Angeles 2010 to 2011



Data source: Quarterly Census of Employment and Wages, QCEW, private households excluded.

Among households that report employees, 99.9 percent employ four or less people. (Private household employment is not shown in *Figures 4.1* to *4.4*.) In setting the scope

of coverage for the minimum wage, it is important to note that the number of private household employers with four or fewer employees is nearly identical to the number of these small employers in all other industries combined.

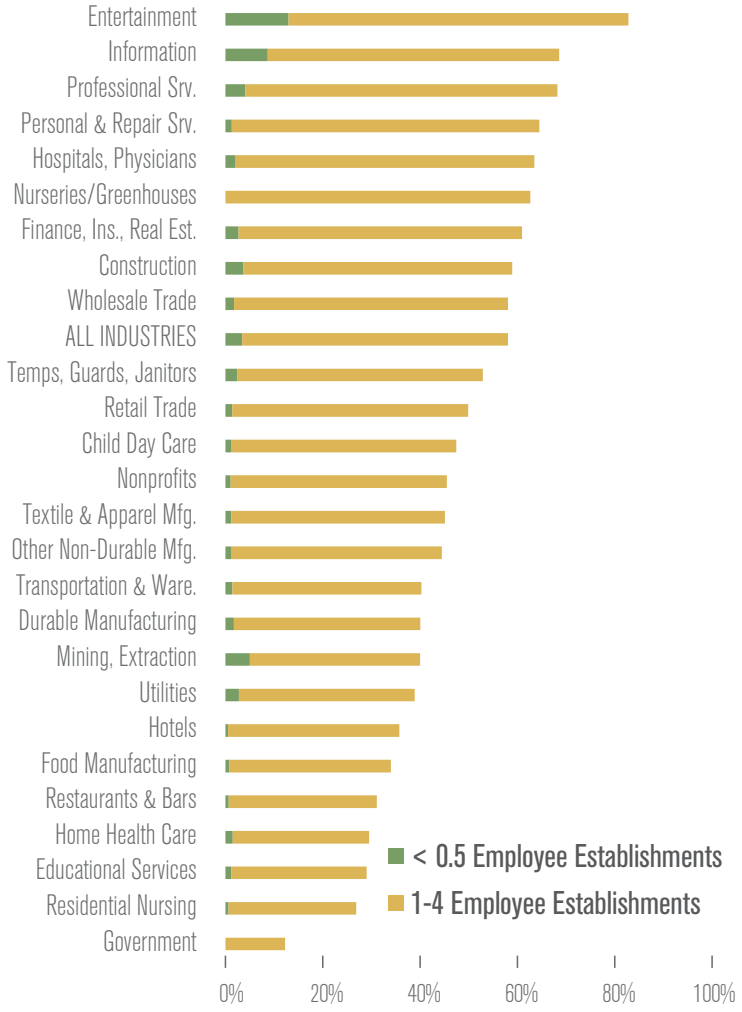
Survival rates based on establishment size are consistent across industries. Establishments with five or more employees have a far higher survival rate than those that are smaller, as shown in *Figure 4.2*. Fourteen percent of establishments with one to four employees close from one year to the next, and 65 percent of establishments with less than half of a year-round job close. The elevated level of risk for going out of business among these very small employers may be heightened in sectors that rely on low-wage labor.

In contrast, 95 percent of establishments with five to nine employees and 99 percent of establishments with 1,000 or more employees survive from one year to the next.

The size distribution among establishments varies by industry, as shown in *Figure 4.3*. Micro and very small establishments (<0.5 and 1 to 4 employees, respectively) make up the largest share of employers in three high-wage industries – entertainment, information and professional services, as well as among physicians and dentists.

The high attrition rate among micro and very small establishments is matched by a high start-up rate.

Figure 4.3 – Percent Small Establishments, City of Los Angeles 2011



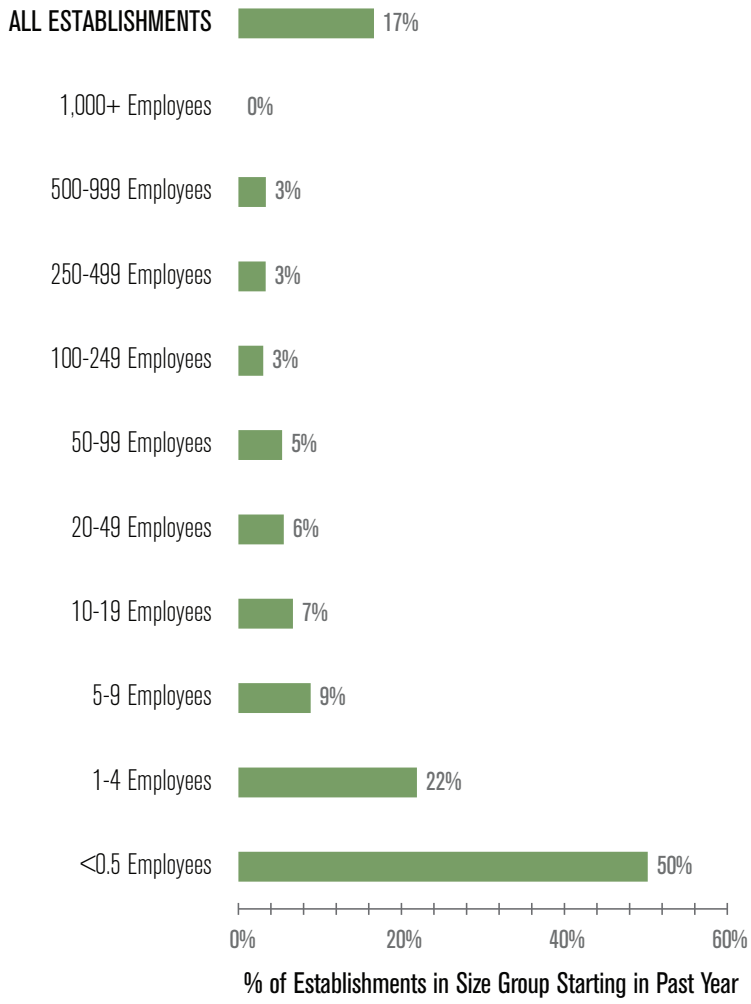
Data source: Quarterly Census of Employment and Wages, QCEW, private households excluded.

Two low-wage industries, personal and repair services and nurseries/greenhouses, also have above-average concentrations of micro and very small establishments.

Four-fifths of all jobs located in the City of Los Angeles are service jobs that entail one person providing services to another person.

The high attrition rate among micro and very small establishments is matched by a high start-up rate, as shown in *Figure 4.4*. Fifty percent of micro establishments and 22 percent of very small establishments have come into existence in the past year. These very small employers are a source of new jobs, business innovation and experimental responses to new opportunities.

Figure 4.4 – Percent of Establishments that Are Start-Ups City of Los Angeles 2011



Data source: Quarterly Census of Employment and Wages, QCEW, private households excluded.

In the normal course of events, there is stability among large employers and a high rate of closures and start-ups among very small employers. This pattern should be monitored during the course of raising the minimum wage, to assess possible adverse effects and timing of wage increases.

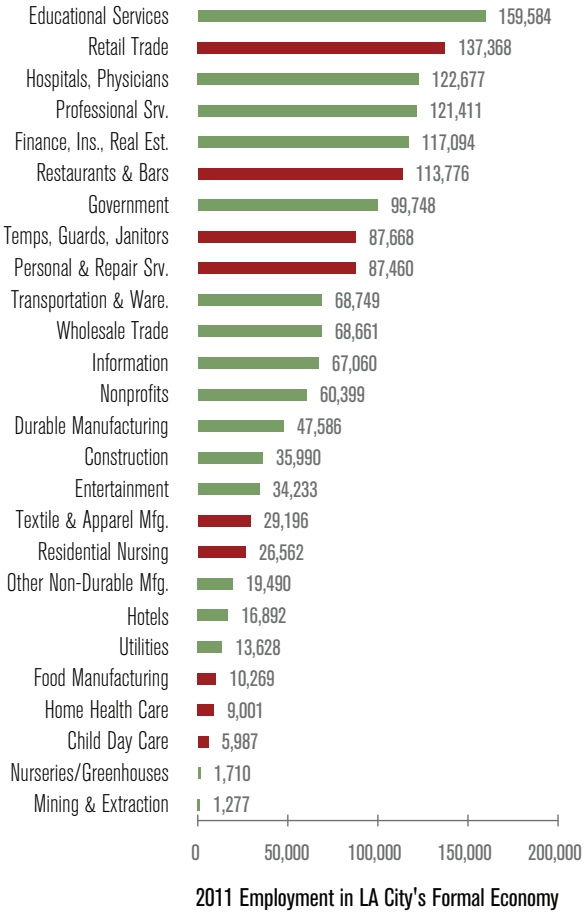
Following implementation of the minimum wage, higher concentrations of start-ups in low-income communities would be evidence that the increase in take-home pay is diversifying and broadening business growth.

Industry size

One of the city's strengths is the diversity of its industries. The 26 industry sectors shown in *Figure 4.5* are grouped based on homogeneous wage levels within sectors, with particular attention paid to providing more detailed breakouts of low-wage industries.[1] These 26 sectors cover the entire range of industries in Los Angeles. Low-wage industries are denoted by red bars.

Four-fifths of all jobs located in the City of Los Angeles are service jobs that entail one person providing services to another person. Education is the largest service employer, followed by retail trade, health care, professional services, financial activities, restaurants and bars, and government, as shown in *Figure 4.5*. Only one-fifth of jobs entail extracting raw materials, making goods out of those materials, or moving goods.

Figure 4.5 – Industry Jobs Located in City of Los Angeles, 2011



Data source: Quarterly Census of Employment and Wages, QCEW. Low-wage industries are denoted by red bars.

Industry growth trajectories

Because Los Angeles' industry structure changes steadily as markets for products and services change, impacts to a particular industry are better understood in the context of these growth dynamics.

The highest rates of industry growth over the past fifteen years have been in personal and repair services, mining,[2] home health care, child day care, restaurants, entertainment, and professional services, as shown in *Figure 4.6*.[3] There has been modest overall average employment growth of 0.2 percent a year. This growth can potentially mitigate any drag that may result from wage increases.

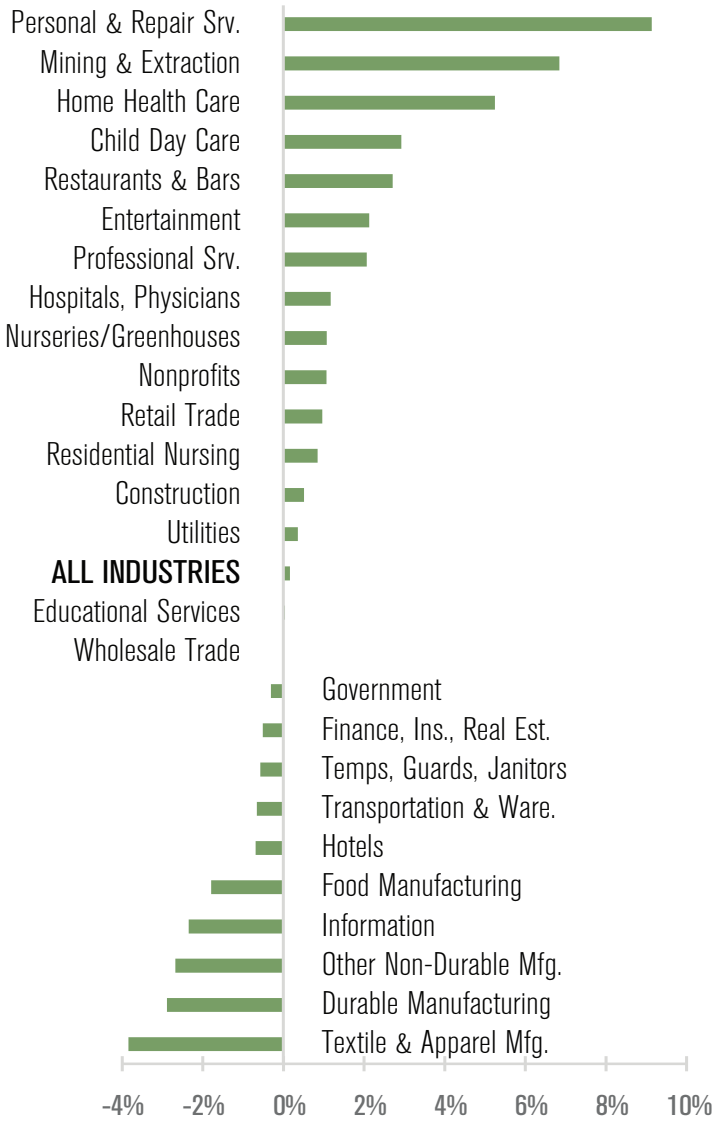
A few industries have significantly declined. The highest rate of decline is in textile and apparel manufacturing, which has lost over half of its employment during the past fifteen years, typically losing 3.8 percent of jobs it had in 1996 each year. The entire durable manufacturing sector has lost 2.9 percent of jobs a year, non-durable manufacturing excluding apparel and food has lost 2.7 percent of jobs a year, the information sector has lost 2.4 percent of jobs a year, much of it attributable to job losses at newspapers, and

62 percent of the city's full-time resident labor force is already paid at least $15.25 an hour.

Eighty-seven percent of the jobs in these low-wage industries are service jobs that serve other Los Angeles residents.

food manufacturing has lost 1.8 percent of jobs a year. These declining industries may be sensitive to increases in the minimum wage.

Figure 4.6 – Annual Employment Change from 1996 to 2011 as Percent of 1996 Employment



Data source: Quarterly Census of Employment and Wages, QCEW

Average industry pay

The city is home to industries with diverse wage profiles. Average annual wages range from $285,000 dollars in the small mining sector to $20,000 in the large *restaurant* sector, as shown in *Figure 4.7*.[4] Overall, 62 percent of the city's full-time resident labor force is already paid *at least* $15.25 an hour. Nine industries pay over 70 percent of their full-time workers at least $15.25 an hour: *entertainment* (72 percent), *hospitals and physicians* (73 percent), *finance* (78 percent), *education* (81), *mining* (84 percent), *information* (86), *government* (86 percent), *professional services* (88 percent), and *utilities* (95 percent). These industries are not likely to feel significant effects from a higher minimum wage.

Among service industries, higher wages are reported in education, health care, professional services, finance and government. However, most low-wage workers are in service

industries like retail trade and restaurants that provide services for improving the lives of other Los Angeles residents. They prepare and serve food, sell goods at stores, clean offices, provide personal care, and transport people and goods to desired destinations.

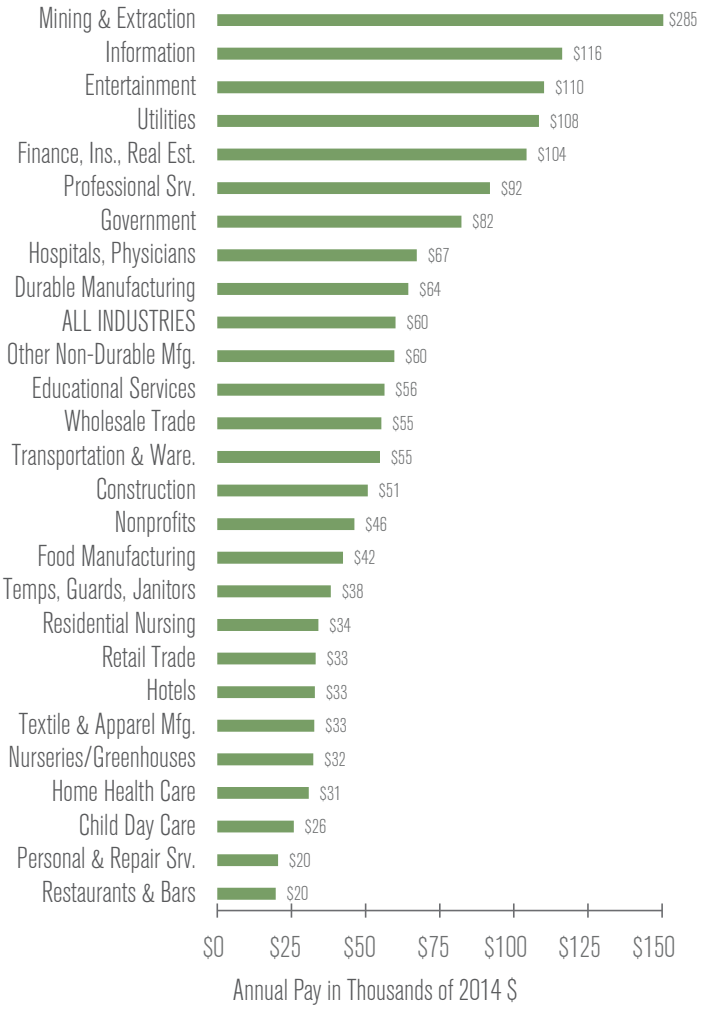
Nine low wage industries, where average wages for all workers from line staff through top managers average under forty thousand dollars a year, are *personal and repair services* ($20,000), *child day care* ($26,000), *home health care* ($31,000), *nurseries/ greenhouses* ($32,000), *textile and apparel manufacturing* ($33,000), *hotels* (before the hotel minimum wage was enacted, $33,000), *retail trade* ($33,000), *residential care and nursing facilities* ($34,000), *administrative support, waste management and remediation services* (temp, guards, janitors - $38,000).

The percent of the city's resident labor force[5] employed in each industry that earn less than the current equivalent of $15.25 an hour in 2019 (estimated to be $13.93) is shown in *Figure 4.8*.[6]

The eight lowest-paying industries (*Figure 4.7)* show up in *Figure 4.8*, not surprisingly, with the highest percentage of full-time workers earning less than $15.25 an hour. *Food manufacturing* and *construction* also are in that low-wage list. Eighty-seven percent of the jobs in these low-wage industries are service jobs that serve other Los Angeles residents (with half or more workers earning less than $15.25).

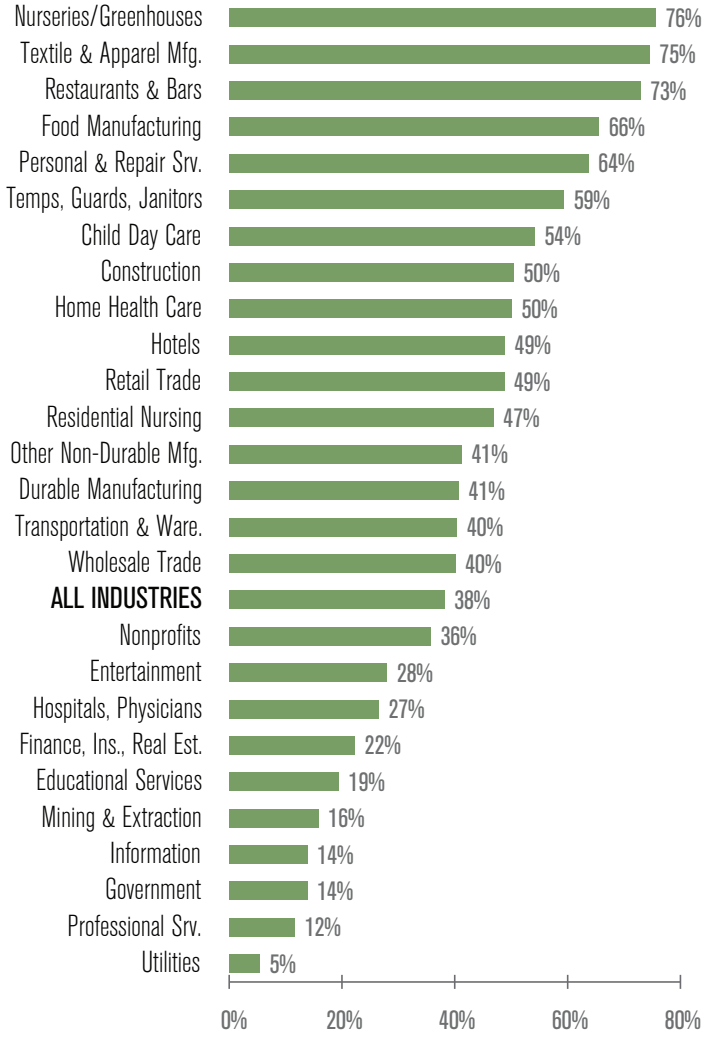
Industries in Los Angeles County spend 30 percent of revenue on employee compensation.

Figure 4.7 – Average Annual Pay in City of Los Angeles Industries 2011 wages adjusted to 2014 $



Data source: Quarterly Census of Employment and Wages, QCEW

Figure 4.8 – Percent of Full-Time Workers Residing in the City of Los Angeles Paid Less than $15.25 an Hour



Data source: American Community Survey PUMS 2009-2013

Share of industry revenue used to compensate workers

Industries in Los Angeles County generate an average of $41,000 in profit per worker.

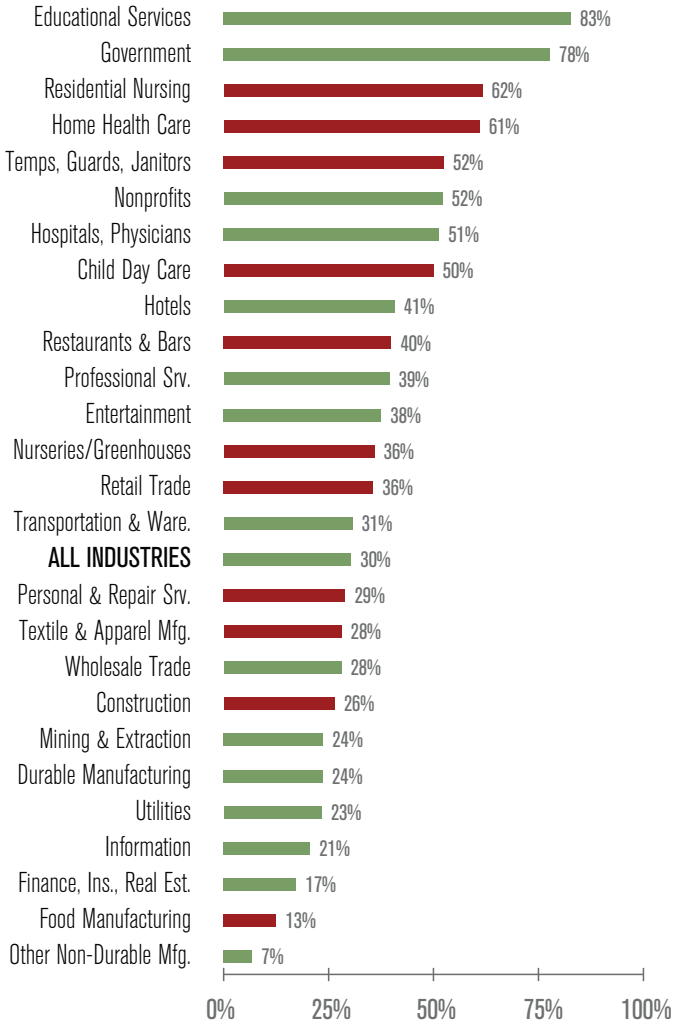
The likely impact of minimum wage increases on establishments can be understood more clearly by considering three other factors: industry revenues, measures of economic value-added, and profit per worker. This data is available only at the county level, but is valuable for understanding the financial environment of businesses in the city.

The percent of industry revenue that goes toward compensating workers is shown in *Figure 4.9,*[7] with low-wage industries denoted by red bars.

On average, industries in Los Angeles County spend 30 percent of revenue on employee compensation. However, some industries are more labor intensive than others. Industries that spend above 30 percent average revenue for employee compensation account for 24 percent of employment in the city. A sub-group of these labor-intensive industries paying below-average wages includes *residential nursing care* (62 percent), *home health care* (61 percent) *temps, guards and janitors* (52 percent), *child day care* (50 percent), *restaurants and bars* (40 percent), *nurseries/greenhouses* (36 percent), and *retail trade* (36 percent).

Given the high proportion of revenue that goes toward compensating workers in these industries and the very low wages of much of their labor force, some establishments in these industries will need to mitigate the impacts of increased labor costs with other strategies. Possible strategies are discussed below in profiles of the seven most-impacted industries.

Figure 4.9 – Percent of Industry Revenue Used to Pay Workers



Data source: IMPLAN 2013 data and model of Los Angeles County's economy.

Profit per worker

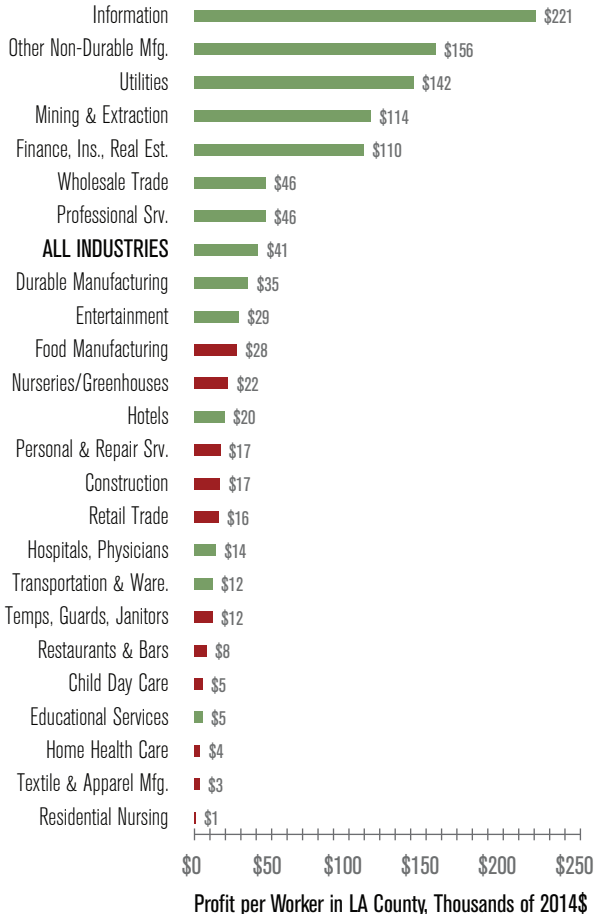
Industries with higher levels of profit per worker have an option to reallocate a portion of profit to offset higher labor costs. Overall, industries in Los Angeles County generate an average of $41,000 in profit per worker, as shown in *Figure 4.10,* with low-wage industries denoted by red bars.

Five industries pay low wages and generate under $10,000 per year in profit per worker: *residential nursing care* ($1,000), *textile and apparel manufacturing* ($3,000), *home health care* ($4,000), *child day care* ($5,000), and *restaurants and b*ars ($8,000). These industries account for 12 percent of the city's employment.

Industries with low levels of profit per worker and a low-wage labor force may find it necessary to increase prices or reduce non-labor outlays in order to pay a higher minimum wage.

Los Angeles industries add an average of $100,000 in value a year per worker.

Figure 4.10 – Profit per Worker



Data source: IMPLAN 2013 data and model of Los Angeles County's economy.

Value added per worker

At least two low-wage industries obtain a substantial share of their revenue from government agencies.

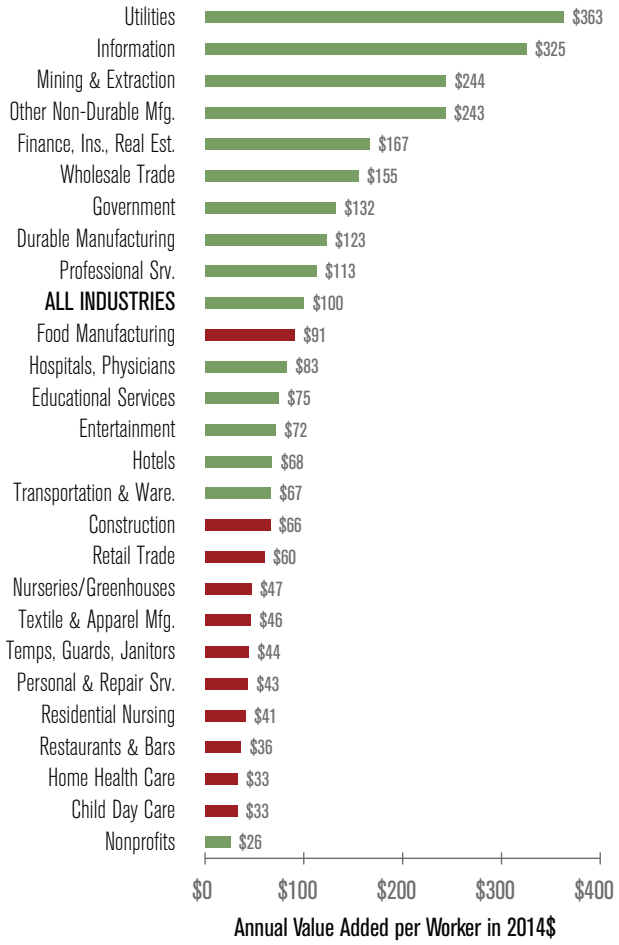
Another important indicator to consider for assessing broader economic impacts on the City and the region is the measure of value added per worker. Wages paid to workers who provide the services that generate revenue comprise a major portion of value that establishments create. The value created by industries roughly equates to the sum of profit, employee compensation and taxes.[8] Los Angeles industries add an average of $100,000 in value a year per worker, as shown in *Figure 4.11,* with low-wage industries denoted by red bars.

Low-wage, labor-intensive industries are likely to add low levels of value per worker. Eight low-wage industries add less than $50,000 a year in value per worker: *child day care* ($33,000), *home health care* ($33,000), *restaurants and bars* ($36,000), *residential nursing care* ($41,000), *personal and repair services* ($43,000), *temps, guards and janitors* ($44,000), *textile and apparel manufacturing* ($46,000), *nurseries/greenhouses* ($447,000). These industries account for 18 percent of the city's employment.

Low levels of added value are in large measure an outgrowth of low wages. Paying higher wages for services that continue to be purchased by Los Angeles residents will increase the economic value these industries contribute to the city and the region.

The success of service establishments in paying higher wages and thereby increasing the amount of value they create will be shaped by the three factors identified earlier: the geographic distribution of low-wage jobs, the local economic stimulus from channeling more business revenue to paying workers' wages, and the agility of employers in developing business models for paying sustaining wages.

Figure 4.11 – Value Added per Worker



Data source: IMPLAN 2013 data and model of Los Angeles County's economy.

Industries with revenue and wages set by other government bodies

State and federal funding will also impact feasibility of raising the minimum wage. At least two low-wage industries obtain a substantial share of their revenue from government agencies and are dependent on those entities to provide reimbursement rates that will support wage increases. The first is home health care services, which receives much of its funding from the California Department of Social Services. The second is nursing and residential care, which receives a substantial share of its funding through Medicare and Medi-Cal.

Enforcement of wage standards in these industries will need to take into account the approval process required to fund higher labor costs. These industries are small, accounting for only 2 percent of employment in the city.

If they are to be sustainable businesses they must adopt business models that pay legally mandated costs.

Low-wage industries with high rates of informal employment

The percent of workers in low-wage industries who are paid less than $15.25 an hour, broken out by immigration status, is shown in *Figure 4.12*. A third of the low-wage workers within low-wage industries are estimated to be unauthorized immigrants.[9] Because of their immigration status, these workers are often unable to demand wages commensurate with their skills and productivity. Because of economic necessity they accept informal employment conditions under which their employers do not pay legally mandated taxes or social safety net insurance premiums.

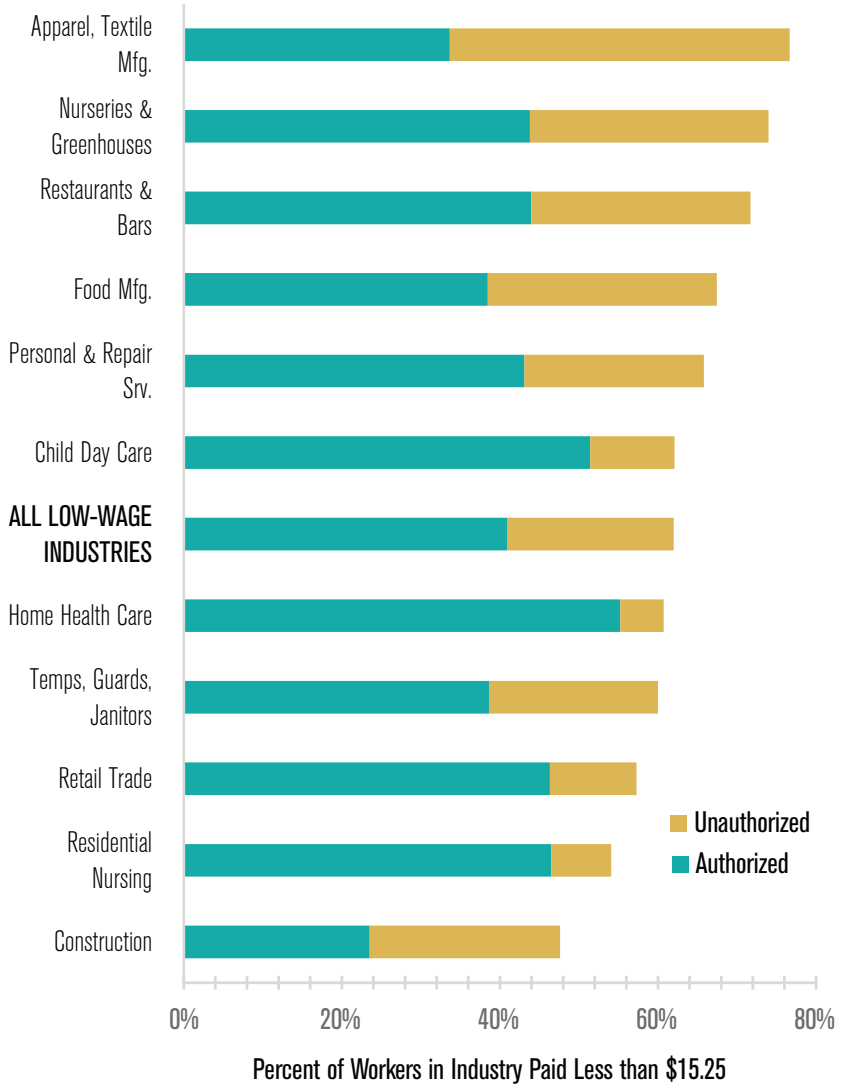
80% of businesses employ ten or more employees. These larger, more resilient businesses are less likely to be disrupted by raising the minimum wage.

Unauthorized immigrants account for much, but not all, of the informal workforce. An earlier Economic Roundtable report estimated that 65 percent of the city's informal workers are unauthorized immigrants.[10] By this benchmark, the total share of informal workers is roughly half again as large as the unauthorized share shown in *Figure 4.12*.

This report focuses primarily, but not exclusively, on workers in the formal economy where employers comply with tax and labor laws. The prevalence of informal employment in many low-wage industries means that enforcement of wage standards will often require reforming long-standing business models of noncompliance with tax and labor laws. The reality for employers that have gained an unfair competitive advantage by violating tax and labor laws is that if they are to be sustainable businesses they must adopt business models that pay legally mandated costs.

Wage levels for informal workers will also be improved by the administrative relief programs Deferred Action for Childhood Arrivals (DACA) and Deferred Action for Parents of Americans and Lawful Permanent Residents (DAPA). These impacts are discussed in a later chapter.

Figure 4.12 – Percent of Industry Workers below $15.25 per Hour by Immigration Status



Data source: American Community Survey 2009-2013 Public Use Microdata Sample.

Summary of industry effects

Indicators of industry sensitivity to a higher minimum wage are summarized in *Table 4.1.* Six areas of potential sensitivity are flagged when they are present for an industry.

1. *Declining industries*: Annual job loss of 1 percent or more of 1996 employment in contrast to overall industry-wide annual growth that was equivalent to 0.2% of 1996 employment.
2. *Low-wage industries*: Average pay that is 80 percent or less (<$48,094) of the average for all industries, which was $60,117.
3. *Large sub-minimum labor force*: Fifty-five percent or more of workers paid less than $15.25 (in 2019 dollars), compared to the citywide average of 42 percent.
4. *Labor intensive industries*: Industries in which compensation to workers (wages and employee benefits) is equal to 40 percent or more of industry revenue (i.e., output) in 2013.
5. *Low profit industries*: Industries in which profit per worker in 2013 was less than $15,000.
6. *Low productivity industries*: Industries in which value added per worker in 2013 was less than $60,000.

Table 4.1: Indicators of Industry Sensitivity to Minimum Wage Increasess

	Jobs in City of Los Angeles Formal Economy[1]			LA City Resident Workers[2]	Los Angeles County Industries, Total Economy[3]			
Industry	LA City jobs 2011	Annual job chg. as % of 1996 emp.	Average Annual Pay	% of workers paid less than $15.25	Wages as % of 2013 output	Profit per worker 2013	Value added per worker 2013	Most Sensitive
ALL INDUSTRIES	1,572,622	0.2%	$60,117	42%	30%	$41,340	$100,059	
Nurseries/Greenhouses	1,710	1.1%	$32,355	74%	36%	$21,921	$46,866	
Mining, Extraction	1,277	6.8%	$285,476	14%	24%	$114,350	$243,762	
Utilities	13,628	0.4%	$108,478	7%	23%	$175,464	$433,600	
Construction	35,990	0.5%	$50,752	48%	26%	$16,727	$65,867	
Other Non-Durable Mfg.	19,490	-2.7%	$59,700	43%	7%	$16,728	$243,200	
Food Manufacturing	10,269	-1.8%	$42,373	67%	13%	$27,619	$90,931	
Textile & Apparel Mfg.	29,196	-3.8%	$32,720	77%	28%	$3,436	$46,488	✓
Durable Manufacturing	47,586	-2.9%	$64,407	40%	24%	$34,996	$122,839	
Wholesale Trade	68,661	0.0%	$55,337	43%	28%	$46,198	$155,264	
Retail Trade	137,368	1.0%	$33,148	57%	36%	$15,689	$60,174	
Transportation & Ware.	68,749	-0.7%	$54,840	41%	31%	$21,443	$76,116	
Information	67,060	-2.4%	$116,277	17%	21%	$220,972	$325,106	
Finance, Ins., Real Est.	117,094	-0.5%	$104,257	25%	17%	$77,537	$128,369	
Professional Srv.	121,411	2.1%	$91,936	16%	39%	$46,154	$112,824	
Temps, Guards, Janitors	87,668	-0.6%	$38,282	60%	52%	$12,710	$45,653	✓
Educational Services	159,584	0.0%	$56,373	30%	83%	$4,175	$52,471	
Hospitals, Physicians	122,677	1.2%	$67,276	27%	51%	$4,176	$82,854	
Home Health Care	9,001	5.2%	$30,797	61%	61%	$3,855	$32,926	✓
Residential Nursing	26,562	0.8%	$34,071	54%	62%	$3,856	$40,932	✓
Nonprofits	60,399	1.1%	$46,209	44%	52%		$25,614	
Child Day Care	5,987	2.9%	$25,760	62%	50%	$5,406	$32,650	✓
Entertainment	34,233	2.1%	$110,228	32%	38%	$28,819	$71,705	
Hotels	16,892	-0.7%	$32,887	51%	41%	$19,610	$67,888	
Restaurants & Bars	113,776	2.7%	$19,682	71%	40%	$7,974	$36,461	✓
Personal & Repair Srv	87,460	9.1%	$20,448	66%	29%	$7,975	$43,253	✓
Government	99,748	-0.3%	$82,308	23%	78%		$105,950	

Criteria for highlighting potential industry sensitivities:

1. Annual job loss as % of 1996 employment of 1% or more.

2. Average pay: pay 80% or less of the average for all industries (<$48,094).

3. Percent of workers below $15.25: 55% of workers below $13.93 in 2014 dollars, equivalent to $15.25 in 2019.

4. Worker pay as % of output 2013: labor costs that are 40% or more of output.

5. Profit per worker 2013: annual profit <$15,000 per worker in 2013, adjusted to 2014 dollars.

6. Value added per worker in 2013: value added of less than <$60,000 per worker.

7. Sensitivity flag: four or more highlighted impacts for an industry.

Data Notes:

1. Jobs in City of Los Angeles formal economy is from the source data for the Quarterly Census of Employment and Wages (QCEW) and for jobs located in the city. Dollar values have been adjusted to 2014 dollars.

2. LA City resident workers data is from the American Community Survey PUMS 2009-2013 for workers living in the city. See the Methods Appendix for details. The percent of workers below $15.25 is based 2019 dollars, or $13.93 in current dollars.

3. Los Angeles County industry data is from IMPLAN data for Los Angeles County from 1998 through 2013. It includes all jobs, both formal and informal, located in the county. All dollar values have been adjusted to 2014 dollars.

There are seven industries, together comprising 23 percent of wage and salary employment in the city, that have four or more factors that indicate that some establishments, particularly smaller ones, will probably be sensitive to a higher minimum wage. We have flagged these industries for close monitoring throughout the five annual increments of minimum wage increases. Each of these industries is discussed below.

1. *Textile and apparel manufacturing:* This industry accounts for two percent of the city's jobs. Employment is declining at the same rate as manufacturing overall. Average industry wages are a little over half of the level in the city's overall labor market. Over three-quarters of workers are paid less than $15.25 an hour. Profit per worker is less than a tenth of the citywide average and value added per worker is less than half of the citywide average and less than a third of the average for manufacturing. Given that 93 percent of output is exported outside of Los Angeles County, the industry will benefit less than service industries from the local stimulus effects of a higher minimum wage.

   Potential mitigating factor: This industry has strengths in quickly translating new fashions into saleable garments and in the Made in LA image. Forty percent of employment is in establishments with 100 or more employees. These larger establishments may have the capacity to adapt to a more capital- and technology-intensive business model that is less reliant of low-wage labor.

2. *Temps, Guards and Janitors (Administrative support; waste management and remediation services):* This industry accounts for six percent of the city's jobs. Employment is declining slightly in contrast to overall city growth. Average industry wages are a little over half of the level in the city's overall labor market. Sixty percent of workers are paid less than $15.25 an hour. Worker pay consumes over half of industry revenue. Profit per worker is less than a third of the citywide average, leaving little room to reallocate profit to pay for higher wages. Value added per worker is less than half of the citywide average.

   Potential mitigating factors: Fifty-six percent of temps, guards and janitors employment is in establishments with 100 or more employees that have high resilience. All of the revenue for this industry comes from services provided to other industries. These client industries are likely to have the capacity to pay higher costs to offset wage increases.

3. *Home Health Care Services:* This industry accounts for half of one percent of the city's jobs. Employment is growing at a much faster rate than in the city overall and is likely to continue growing as the population ages. Average industry wages are about half of the level in the city's overall labor market. Sixty-one percent of workers are paid less than $15.25 an hour. Worker pay consumes over sixty percent of industry revenue. Profit per worker is less than a tenth of the citywide average, leaving little room to reallocate profit to pay for higher wages. Value added per worker is less than half of the citywide average. Forty-two percent of employment is in establishments with 100 or more employees that have high resilience. Much of the revenue for this industry comes from the California Department of Social Services.

   Potential mitigating factor: Although there may be delay, the California Department of Social Services is likely to raise compensation levels to offset the cost of Los Angeles' higher minimum wage.

4. *Residential Care and Nursing Facilities:* This industry accounts for two percent of the city's jobs. Employment is growing faster than in the city overall and is likely to continue growing as the population ages. Average industry wages are about half of the level in the city's overall labor market. Over half of workers are paid less than $15.25 an hour. Worker pay consumes over sixty-two percent of industry revenue. Profit per worker is less than a tenth of the citywide average, leaving little room to reallocate profit to pay for higher wages. Value added per worker is less than half of the citywide average. Sixty percent of employment is in establishments with 100 or more employees that have high resilience.

   Potential mitigating factor: Much of the revenue for this industry comes from Medicare and Medi-Cal. Although there may be delay, reimbursement rates are likely to adjust to reflect prevailing labor costs in Los Angeles.

5. *Child Day Care Services:* This industry accounts for less than half of one percent of the city's jobs. Employment is growing at a much faster rate than in the city overall. Average industry wages are very low – less than half of the level in the city's overall labor market. Sixty-two percent of workers are paid less than $15.25 an hour. Worker pay consumes half of industry revenue. Profit per worker is slightly more than a tenth of the citywide average, leaving little room to reallocate profit to pay for higher wages. Value added per worker is a third of the citywide average. Only 14 percent of employment is in establishments with 100 or more employees that have high resilience. This industry provides an essential service for working parents.

   Potential mitigating factor: It may prove to be the case that higher wages for working parents will make it possible to offset higher labor costs by increasing the price for child care services. As with other industries that are sensitive to a higher wage floor, outcomes for this industry should be monitored.

6. *Restaurants and Bars:* This industry accounts for seven percent of the city's jobs. Employment is growing at a much faster rate than in the city overall. Average industry wages are very low – less than a third of the level in the city's overall labor market, although many jobs are part time. Seventy-one percent of workers are paid less than $15.25 an hour. Worker pay consumes 40 percent of industry revenue. Profit per worker is about a sixth of the citywide average, leaving little room to reallocate profit to pay for higher wages. Value added per worker is a third of the citywide average. Only 18 percent of employment is in establishments with 100 or more employees that have high resilience.

   Potential mitigating factor: This industry provides a widely used and appreciated service. It may prove to be the case that higher wages for workers will have stimulus effects that increase consumption in this industry despite the likelihood of some price increases.

7. *Personal and Repair Services:* This industry accounts for six percent of the city's jobs. Employment is growing faster than in any other industry shown in this analysis. Average industry wages are very low – about a third of the level in the city's overall labor market. Two-thirds of workers are paid less than $15.25 an hour. Profit per worker is about a fifth of the citywide average, leaving little room to reallocate profit to pay for higher

wages. Value added per worker is about half of the citywide average. Only 21 percent of employment is in establishments with 100 or more employees that have high resilience.

Potential mitigating factor: This industry provides widely used and appreciated services, as evidenced by its unusually strong growth of over nine percent a year. It may prove to be the case that higher wages for workers will have stimulus effects that increase consumption in this industry despite the likelihood of some price increases.

In summary, outcomes in a number of industries should be carefully monitored. However, there is little evidence that potential job attrition in these industries will outweigh the likely stimulus effect from: 1) retaining a greater share of industry revenue in the region and 2) putting increased wages in the pockets of households that are likely to quickly recycle all of their added income back into the local economy. Even for apparel and textile manufacturing, possibly the most vulnerable industry, potential job losses appear to be an acceptable trade-off for the benefits to workers from a higher minimum wage.

The seven industries that are likely to be most sensitive to minimum wage increases provide about a fifth of the city's jobs. Ninety-two percent of these jobs entail providing needed face-to-face services for other Los Angeles residents and businesses. Sixty-nine percent of these jobs are in growing industries. It is reasonable to anticipate that demand for the services provided by these workers will remain resilient.

The most important conclusion to draw from this analysis of potential industry impacts is that the economic outcomes from raising the minimum wage to $15.25 cannot be known with certainty in advance of implementing the increases and that careful industry monitoring of the effects of raising the wage floor is essential throughout the five years in which sequential increases will occur. Later in the report we discuss methods for carrying out this monitoring.

Studies of Unintended Consequences from Raising the Minimum Wage

A central tenet of classical economics is that an increase in the minimum wage leads to unemployment. However, a landmark study comparing neighboring counties in New Jersey and Pennsylvania, after New Jersey increased the minimum wage but Pennsylvania did not, found that after the wage hike, employment in the fast food industry increased more in New Jersey counties than in neighboring Pennsylvania counties.[11] The authors, David Card and Alan Krueger, found that fast food restaurants in New Jersey increased employment by 13 percent relative to Pennsylvania restaurants.[12]

This was the beginning of new minimum wage research, much of it summarized in their book *Myth and Measurement*, where the authors concluded, "The weight of this evidence suggests that it is very unlikely that the minimum wage has a large, negative employment effect."[13] This new school of minimum wage research has its detractors, among them David Neumark and William Wascher, who adhere to the classical theory that raising the wage is linked to job loss, particularly for teens.[14]

It is beyond the scope of this report to summarize the strengths and weaknesses of the debate around the minimum wage.[15] What we attempt to do in this section is review unintended consequences and assess the fit of existing studies in predicting outcomes in Los Angeles. Hirsch, Kaufman, and Zelenska proposed that firms adjust to increased labor costs through "channels of adjustment."[16] The adjustments, commonly known as unintended consequences, include changes to employment, benefits, productivity, and prices.[17]

Some businesses will need to adjust policies regarding employment, benefits, productivity and prices, but the raise's economic stimulus is likely to drive new hiring.

Employment and Hours

Much of the literature on minimum wage impacts is devoted to employment and hour outcomes. As John Schmidt wrote, raising the wage doesn't increase the cost of hiring a worker, but it does make every hour of labor more expensive for employers.[18] Therefore, one method of adjustment could be businesses decreasing the number of hours, instead of reducing the number of employees.

Two studies approached the question from the national-level. One authored by Arindrajit Dube, William Lester and Michael Reich compared adjacent counties that were separated by state borders with different minimum wages.[19] Dube and his coauthors examined employment data from the Quarterly Census on Employment and Wages (QCEW) from 1990 to 2006 and found no negative impact on employment for workers in restaurants and other low wage industries. They concluded, "The impact on hours is not likely to be large."

The second study by Sylvia Allegretto et al. expanded the data sets to include the American Community Survey (ACS), Current Population Survey (CPS), Quarterly Workforce Indicators (QWI), in addition to the QCEW, up to 2010.[20] Allegretto and her coauthors "found that the employment effects are small in magnitude for the range of increases that have been implemented since 1990."

Benefits

Nonwage benefits account for roughly 25 percent of total compensation for workers.[21] If wages increase, firms may reduce their spending on benefits for workers such as health care, pensions, and training. Kosali Simon and Robert Kaestner used CPS data to look at the impacts of minimum wage increases on employer provision of health insurance and pensions from 1979 to 2000. They found that "our results show no strong evidence that binding increases in minimum wages caused an offsetting decline in the provision of fringe benefits or quality of working conditions."

Hire More Skilled Workers

A third adjustment employers may consider is a hiring preference for workers with higher skills because of the increased wages. The result may be that young workers with less experience and groups that already face barriers to employment, such as Black and Latino workers, may be passed over for employment. Information provided earlier in this report showed that people of color are over-represented in low-wage jobs and stand to benefit from increased household income. Allegretto, Dube, and Reich also examined the employment impacts of raising the wage on teens by race.[22] Using CPS data from 1990 to 2009, Allegretto et al. found no statistically significant negative effects on teen employment or hours, by race or gender.

Productivity

Firms can implement efficiency measures to increase productivity and output of existing workers, rather than decrease staffing. Hirsch, Kaufman, and Zelenska surveyed 66 managers at fast food restaurants in Georgia and Alabama in 2009 after a series of increases in the prior two years in the minimum wage. Less than a quarter of managers reported that they planned to reduce employment to adjust to higher wages.[23] Instead, 90 percent planned to set higher performance standards for their workers in exchange for the higher wages. This included asking workers for better attendance and on-time records, more proficiency in the performing of job duties, and the addition of responsibilities.

Fast food store managers reported in interviews that they valued preserving employee morale, in order to keep operations flowing smoothly and a positive customer service experience for consumers. Therefore, managers avoided laying off workers and reducing hours, activities they saw as detrimental to morale and productivity.

Turnover Savings

Job separations and turnovers in personnel are costly for employers. Firms have to reallocate resource to hire and train a replacement for an employee that leaves. Turnover costs vary by industry and geography, for hotel workers in Miami and New York the costs are $6,000 and $13,000 per worker, respectively.[24] Pollin and Wicks-Lim estimated that costs for fast food workers are $4,700 per worker.[25] These costs become savings for firms when the minimum wage is increased. Dube, Lester, and Reich calculated that for every 10 percent increase in minimum wage, the decline in the turnover rate would be 2.2 percent.

Prices

Firms can pass on the increase in labor costs to the consumer through higher prices. Lemos reviewed 30 studies that looked at the price effects of minimum wage increases. She concluded that "most studies reviewed above found that a 10 percent US minimum wage increase raises food prices by no more than 4 percent and overall prices by no more than 0.4 percent."[26]

Conclusion

The most authoritative and objective meta-analysis of economic research into the effects of the minimum wage is the recently published book, "What Does the Minimum Wage Do?" by Dale Belman and Paul J. Wolfson.[27] The authors conclude that moderate increases in the minimum wage have had little or no effect on employment and hours, however they caution that current research does not speak to whether the same results will hold for large increases in the minimum wage, such as are being considered in Los Angeles and other cities.[28] The size of the increase being proposed moves beyond the scope of existing authoritative economic research. This reality supports the need for the monitoring tools recommended later in this report.

Los Angeles Living Wage Case Study

In 1997 the City of Los Angeles enacted a living wage law[29] that raised the hourly wages for companies that are contracted by the city, receive economic subsidies from the city, or lease municipal land and property. The affected occupations included food servers, retail clerks, janitors, and parking attendants. The majority of the labor force were employed at the Los Angeles or Ontario airports.

Almost 6,500 workers in 375 firms were affected by this increase and thousands more by its requirements that employees be given 12 paid and 10 unpaid days off.[30] Employers were given incentives to provide health insurance to their workers. Firms were required to either pay a minimum of $8.50 per hour or $7.25 per hour plus a $1.25 contribution towards health benefits (in 1997 dollars). The living wage was indexed to the annual increase in the city employee pension fund.

At the time, only a few cities in the United States had taken this step and the debate in Los Angeles was scrutinized closely on the national stage. At stake were the livelihood of thousands of workers and families and their ability to make ends meet. Opponents asserted that the legislation would reduce jobs and force businesses to leave the area.

The impacts of the living wage ordinance were documented and studied by a team of researchers in a multi-year project, which makes it a useful case study to predict outcomes for the 2015 proposal.[31] Three surveys were collected of 320 workers and 82 employers affected by the wage increase. In addition, a control group of 210 non-living age firms were surveyed from similar industries, to compare the impacts of the raise.

Fairris, Runsten, Briones, and Goodheart found that the living wage increased earnings for 10,000 jobs with minimal reductions in employment and hours.[32] Most of the beneficiaries

The multiyear study found that "Living Wage Ordinances can provide tangible benefits to workers . . . with small negative impacts on business."

of the wage boost earned poverty-level wages and received a 20 percent earnings increase, approximately $2,600 per year.[33] One percent of all affected jobs, an estimated 112 jobs, were reduced as a result. Employers were able to adjust to increased labor costs through other channels of adjustment, similar to those discussed in the previous section.[34] This section will review the outcomes of those adjustments in Los Angeles.

A. - Employment and hours

Contrary to claims by opponents of the living wage, less than one percent of affected jobs were reduced because of the living wage. Four out of five affected firms surveyed by researchers did not reduce employment or hours. Only 11 firms out of the 82 surveyed reported job cuts. The average reduction in staff was under 20 percent.

Two factors stood out for the firms who did lay off staff. First, firms with the highest job loss, up to 40 percent of their workforce, were small in size. Firm size is a factor in determining the continuity of a business when placed under the stress of a raised wage.[35] Analysis by the researchers found marginal significance in this factor.

The 11 firms that reduced staffing were in the social service, janitorial, and miscellaneous industries.[36] All but one of the firms were located in the nonprofit sector, which is dependent on fixed revenue sources such as government contracts (see previous section). These were agencies that provided services for homeless, for job seekers, the disabled, and care for children. A child care center told researchers that three teachers were laid off from a staff of eight.

B. - Benefits

The majority of affected firms did not reduce nonwage benefits, such as health coverage and bonuses, however training didn't keep pace with the control group of employers. Eighty-nine percent of firms surveyed did not reduce benefits. The 11 percent that did change benefits, did so in the form of reducing or eliminating bonuses, health coverage, merit raises, or free meals (for restaurant workers). When compared to unaffected firms, employers impacted by the living wage increase offered less training for workers.

C. - Hire More Skilled Workers

Most of the firms, close to 80 percent, told researchers that their hiring standards did not change after the living wage went into effect. The majority also reported that the composition of the workforce did not change, in terms of race and gender.

D. - Productivity

A few firms made changes to equipment or machinery to increase the output of existing workers. A janitorial company told researchers it purchased new machines and required workers to increase their output. A food stand at the airport who was interviewed reported that the business started tracking sales revenue per worker hour to streamline their operations.

E. - Turnover Savings

Replacing workers is an expensive cost of operations for businesses. Firms impacted by the living wage enjoyed lower rates of employees leaving their positions, 21 percent, while unaffected employers lost nearly half of their staff due to turnover. The researchers calculated that, on average, affected firms saved 5 to 24 percent of the cost of increased wages due to lower turnover. Unscheduled absenteeism was also lower in living wage firms when compared to the control group.

F. - Prices

Half of the firms who responded to researchers reported that they were able to pass on increased labor costs to the city through higher prices. Nine of these businesses passed on the increase to the city.

G. - Conclusion

The report concluded, "our findings suggest that Living Wage Ordinances can provide tangible benefits to workers in poor and low-income families, with small negative impacts on business."

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1. Complete coding information for the 26 industry sectors is shown in the table below.

Chart Title	Industry	NAICS Codes	ACS PUMS 2009-2013 Codes	IMPLAN 2013 Codes
Nurseries/Greenhouses	Agriculture, Forestry, Fishing & Hunting	11	0170-0290	1-19
Mining & Extraction	Mining, Oil & Gas Extraction	21	0370-0490	20-40
Utilities	Utilities	22	0570-0690	41-51
Construction	Construction	23	0770	52-64
Other Non-Durable Mfg.	Other Non-Durable Manufacturing	312, 316, 322-326	1370-1390, 1770-2390	106-110, 131-133, 146-198
Food Manufacturing	Food Manufacturing	311	1070-1290	65-105
Textile & Apparel Mfg.	Textile and Apparel Manufacturing	313-315	1470-1690	112-130
Durable Manufacturing	Durable Manufacturing	321, 327-399	2470-3990	134-145, 199-394
Wholesale Trade	Wholesale Trade	42	4070-4590	395
Retail Trade	Retail Trade	44-45	4670-5790	396-407
Transportation & Ware.	Transportation & Warehousing	48-49	6070-6390	408-416, 518
Information	Information	51	6470-6780	417-432
Finance, Ins., Real Est.	Finance, Insurance, Real Estate	52, 53, 55	6870-7190, 7570	433-446, 461
Professional Srv.	Professional, Scientific & Technical Svcs.	54	7290-7490	447-460
Temps, Guards, Janitors	Admin. Support; Waste Mgmnt. & Remediation Svcs.	56	7580-7790	462-471
Educational Services	Educational Services	61	7860-7890	472-474
Hospitals, Physicians	Other Health Care	6211-6215, 6219, 622	7970-8090, 8180-8190	475-479, 481-482
Home Health Care	Home Health Care Services	6216	8170	480
Residential Nursing	Residential Care and Nursing Facilities	623	8270-8290	483-484
Nonprofits	Nonprofits	6241-6243, 813	8370-8390, 9160-9190	485-486, 513-516
Child Day Care	Child Day Care Services	6244	8470	487
Entertainment	Arts, Entertainment, & Recreation	71	8560-8590	488-498
Hotels	Hotels & Other Accommodations	721	8660-8670	499-500
Restaurants & Bars	Restaurants and Bars	722	8680-8690	501-503
Personal & Repair Srv.	Personal and Repair Services	811-812, 814	8770-9090, 9290	504-512, 517
Government	Government	92	9370-9870	519-526, 531-536

2. Includes a very small industry base in crude petroleum extraction and mining construction sand and gravel

3. The rate of growth that is shown is the slope value of annual employment change from 1996 to 2011 as a percent of employment in 1996. This data includes jobs in the formal economy that are located in the City of Los Angeles.

4. Annual wages are per job, not per worker, and include both full- and part-time jobs located in the City of Los Angeles.

5. The American Community Survey is carried out at the homes of Los Angeles residents, so it captures responses from workers in both the informal and formal economies with the likely effect of showing somewhat lower wages than are shown in data for the formal economy that was used for the preceding wage graph. For detailed information about data sources see the Methods Appendix.

6. Based on a projected annual rate of inflation of two percent, the target of wage of $15.25 in 2019 is discounted by one percent for the second half of 2015, assuming that the first of five annual minimum wage increases will take effect near the end of 2015, and then two percent each following year from 2016 through 2019. The result is that the current value of the $15.25 minimum wage in 2019 is $13.93.

7. Data is for Los Angeles County in 2013. Worker compensation includes both wages and employee benefits. Total industry outlays for worker compensation were computed as a percent of industry output. For ease of explanation the term revenue is used in place of the term output. Output represents the value of industry production. In IMPLAN these are annual production estimates for the year of the data set and are in producer prices. For manufacturers this is sales plus/minus change in inventory. For service sectors production equals sales. For Retail and wholesale trade, output equals gross margin and not gross sales. IMPLAN Glossary, https://implan.com/index.php?option=com_glossary&view=glossary&glossid=13&Itemid=1481 (accessed February 14, 2015).

8. Value added is the difference between total output and the cost of intermediate inputs. It equals gross output (sales or receipts and other operating income, plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported). Value added consists of compensation of employees, taxes on production and imports less subsidies, and gross operating surplus. IMPLAN Glossary, https://implan.com/index.php?option=com_glossary&view=glossary&glossid=13&Itemid=1481 (accessed February 14, 2015).

9. This estimate is derived by applying 21 filters to American Community Survey 2009-2013 Public Use Microdata Sample records to identify non-citizens who have a high probability of being unauthorized immigrants. These filters are described in greater detail in the Methods Appendix.

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Geography of Opportunity

Geographic Distribution of Impacts

The neighborhoods of Los Angeles will experience the effects of an increased minimum wage in different ways. The distribution of these effects across the city will determine the overall outcome from raising the wage floor. Given the size and diversity of the Los Angeles economy, the industry and labor force composition of economic activity varies considerably across the city and the broader metropolitan area. The city's residential neighborhoods are distinguished by occupations and industries as well as by the wages and skill levels of their resident workers. Although many residents of Los Angeles commute to jobs outside of the city, the many residents of surrounding areas who commute into the city for work also stand to benefit from a higher minimum wage.

This analysis of the ways the minimum wage will be experienced across the city and county of Los Angeles comes with a disclaimer. Small-area business and employment data necessarily sacrifices detail and accuracy for greater geographic resolution.[1] Relying on the method reported in Chapter III to develop estimates at the census tract level, we use maps to illustrate the likely potential of particular areas to experience increases in the spending power of resident workers. Analyzing small-area data helps illuminate central questions about the effects of increasing the minimum wage, such as

- Where will most of the potential adverse effects occur, like increased prices and higher labor costs? What is the capacity of these communities to weather any price increases that result from raising the minimum wage?
- Which communities will receive most of the benefits of an increased minimum wage? Where is the greatest potential for increased earnings among low-wage workers to support a local economic stimulus at the neighborhood level?

Why Do Neighborhoods Matter for a Citywide Minimum Wage?

Although local governments shape the labor market through policies, regulations, subsidies, direct services, and infrastructure, labor markets do not neatly conform to municipal or county boundaries. Markets for many inputs of economic activity – including labor – extend to the scale of the urban region, especially in the sprawling, diverse, and deeply integrated metropolitan area of Los Angeles.

While labor markets are regional in scope, the smaller landscapes of everyday interactions at the neighborhood-level also matter to labor markets. The neighborhood-level effects from restructuring household income amplify the consequences for areas with limited purchasing power and employment opportunities in a manner analogous to regional multiplier effects. Low-income workers who benefit from a minimum wage increase are much more likely to spend their additional income than are higher-income individuals, who tend to save or invest their money. Much of this added spending will take the form of highly localized forms of consumption and everyday purchases, for example, at businesses like retail stores and restaurants. In this manner, the minimum wage may act as a local economic stimulus in communities where low-wage workers reside.

To be sure, the effect of dollars recycling through a neighborhood economy will be much smaller, for example, than the multiplier effect for an entire metropolitan region. Part of each dollar of additional spending will remain close to home, driving up localized demand for retail, food, restaurants, and other services in and around the worker's neighborhood of residence. The remaining part may "leak" out to surrounding areas as workers also make purchases in different parts of the city. Since the variability of socioeconomic status and purchasing power is higher across neighborhoods within a region than across regions themselves, a small but structural increase in purchasing power could help correct the serial gaps in access to goods, services, and job opportunities that contour the landscape of Los Angeles.

A small but structural increase in purchasing power will help correct serial gaps in access to goods, services, and job opportunities.

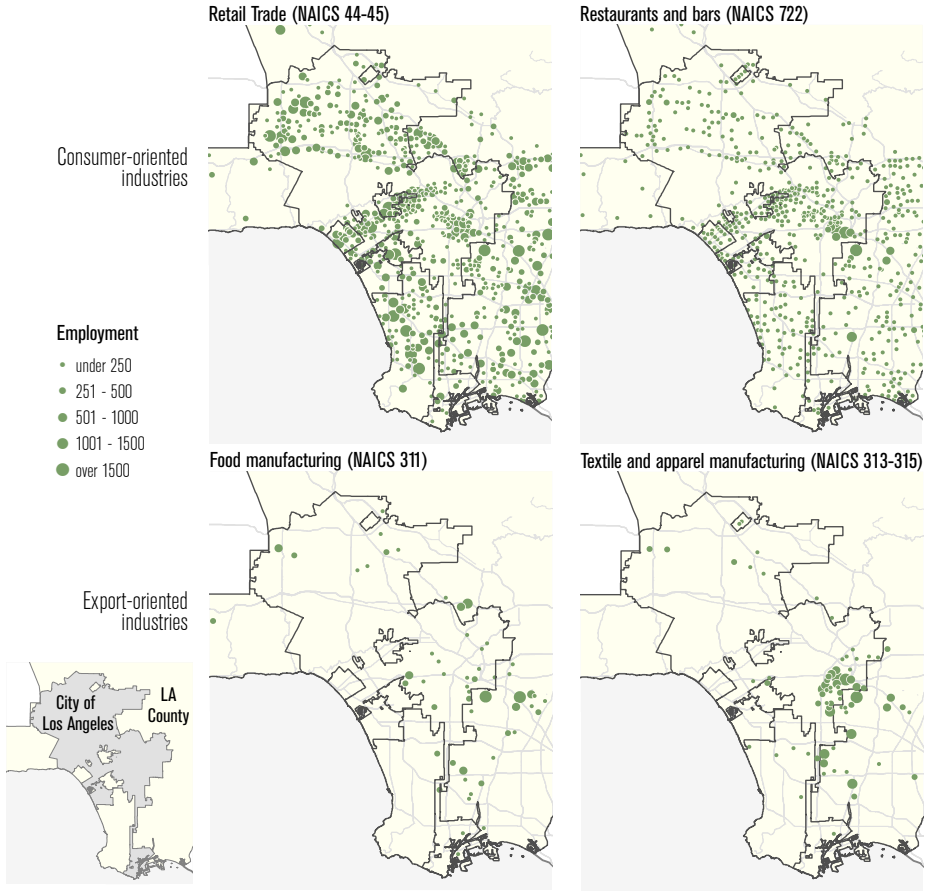
Mapping the Distribution of Impacts on Industries

Export-oriented versus Consumption-Oriented Industries

Consumption-oriented industries are geographically concentrated, interdependent, and relatively immune to disruption.

The preceding analysis of industry resilience identified industries that are likely to be particularly sensitive to the proposed minimum wage increase. Though these impacted industries share the potential for some disruption by an increased wage floor, that potential varies with the location of industries across Los Angeles County. These patterns underscore the important distinction between export-oriented industries, which produce goods for markets outside of the Los Angeles region, and consumption-oriented industries, which serve businesses and residents within the region. *Figure 5.1* illustrates this distinction in relation to spatial concentrations for selected industries. Export-oriented industries, such as textile and apparel manufacturing, exhibit a higher degree of geographic agglomeration. These establishments depend on access to suppliers, customers, and key infrastructures, including transportation networks. The Fashion District, popping out of the map of textile and apparel manufacturing employment, exemplifies this variety of specialized agglomeration.

Figure 5.1: Employment in Selected Consumer-oriented Industries and Export-oriented Industries by Place of Work



Sources: Author analysis of ES-202 administrative data. Tracts with employment less than 100 for each industry are suppressed.

In contrast, consumer-oriented industries exhibit a more diffuse location pattern. Clearly, the demand for establishments like retail stores and restaurants is closely tied to their accessibility to residential areas, business districts, and transportation corridors. The

distribution of jobs within consumption-oriented industries thus more closely parallels the distribution of population. To varying extents, establishments in industries that provide services to other local businesses will also cluster around business districts with a diverse range of service-sector tenants rather than around those associated with more specialized sectors, like manufacturing. Still, even relatively diffuse consumption-oriented industries are concentrated unevenly across the city. For example, the swath that extends from Hollywood through the Westside has a consistently high level of concentration in retail. In contrast, South and Southeast Los Angeles have a clear gap in access to retail.

Export-Oriented Industries

In discussing effects of the minimum wage increase, the distinction between industries oriented toward export and those oriented toward local consumption is crucial. To an extent, the former may be more footloose. Provided that adequate access to input and output markets, labor, and appropriate infrastructure exists elsewhere in the region, these industries could relocate outside of the city if labor costs increase beyond the cost of relocation. This possibility might be particularly acute for textile manufacturing, which already exhibits evidence of decline. For such labor-intensive producers with low margins, an increased minimum wage may inspire the shift to sites outside of the municipal boundary of Los Angeles.

Consumption-Oriented Industries

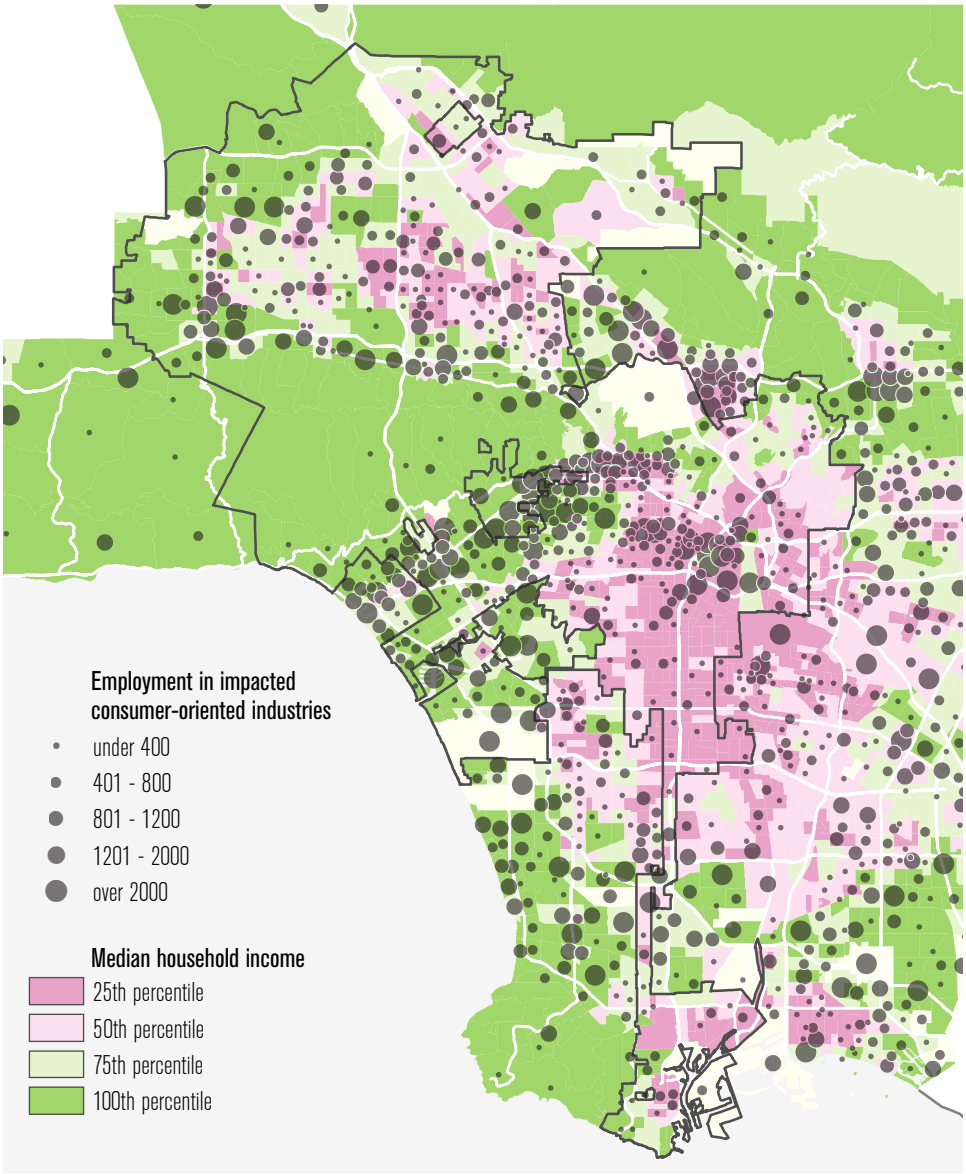
Industries that serve local consumption employ the highest numbers of low-wage workers and account for the vast majority of impacted businesses. These industries interact with the city's geography quite differently and in ways that influence the feasibility of raising the minimum wage. In particular, four features will shape their role in the geographic distribution of minimum wage impacts.

First, consumption-oriented industries depend on accessibility to clients and customers. Therefore, they locate near residential areas and business concentrations. Less-specialized establishments like restaurants, supermarkets, and laundromats depend on households and concentrations of other businesses to generate traffic. Temps, guards, and janitorial businesses also require access to client businesses. If local demand from unaffected residents and businesses remains strong, it is unlikely that these establishments will dramatically downsize or relocate without competitors or new entrants taking their place.

Second, even consumption-oriented industries are disproportionately located near business districts and major transportation corridors with large, diverse bases of economic activity. Within the city of Los Angeles, about 60 percent of jobs in affected industries lie within 1.5 miles of Santa Monica Boulevard through the Westside, the 110 through downtown Los Angeles, and the Ventura Freeway in San Fernando Valley. This suggests that, even if some businesses are adversely affected by the minimum wage increase, this alone will not likely disrupt the existing employment base or the broader economic vitality of these areas of concentrated activity.

Third, though disproportionately dependent on low-wage workers who often travel from their homes in lower-income areas of the city, jobs in affected consumption-oriented establishments in many cases are located in or near high-income areas. *Figure 5.2* illustrates that most of the jobs in these industries are actually located near areas with high income levels, whereas some lower-income areas have a noticeable lack of such jobs.[2] Census tracts that rank in the top half of the income distribution and their adjacent neighboring tracts[3] account for 86 percent of jobs in affected consumption-oriented industries. These areas have considerable spending power and will stand to bear the brunt of price increases if restaurants and other firms pass labor costs on to consumers.

Figure 5.2: Employment in Impacted Consumer-oriented Industries by Place of Work and Median Household Incomes by Quartile

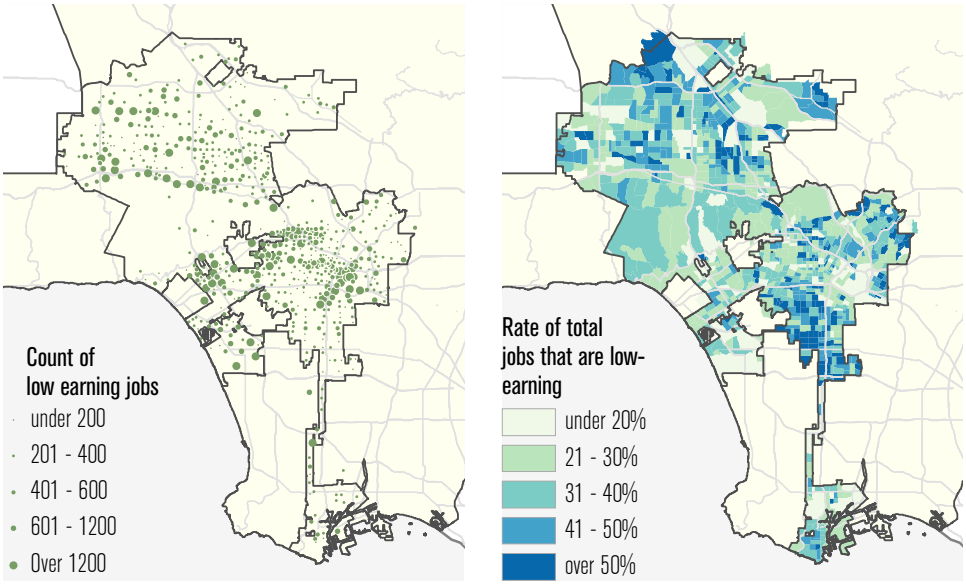


Sources: Author analysis of ES-202 administrative data, ACS 5-year estimates (2009-2013). Tracts with employment in impacted industries less than 200 are suppressed.

Fourth, in many areas with low absolute levels of employment in impacted businesses and low levels of income, low-earning jobs comprise a relatively high relative portion of the employment base. *Figure 5.3* compares absolute counts of low-earnings jobs with the portion of total jobs that are low earning. South Los Angeles provides an illustrative example.[4] Though jobs are relatively scarce, the jobs that do exist tend to be low-earning. In fact, areas like these will play a crucial role in the geographic dimension of the minimum wage's impacts. Given the possibility that the minimum wage increase is more disruptive than expected, the fragile employment base in areas like South Los Angeles may be more poorly poised to adjust than the more economically diverse and affluent areas where the majority of effects will occur, all else equal. However, weak market areas for consumption-oriented industries stand to receive the sharpest stimulus from an infusion of spending power driven by the minimum wage. With average household incomes about half of the citywide average, residents of South Los Angeles and Southeast Los Angeles stand to receive

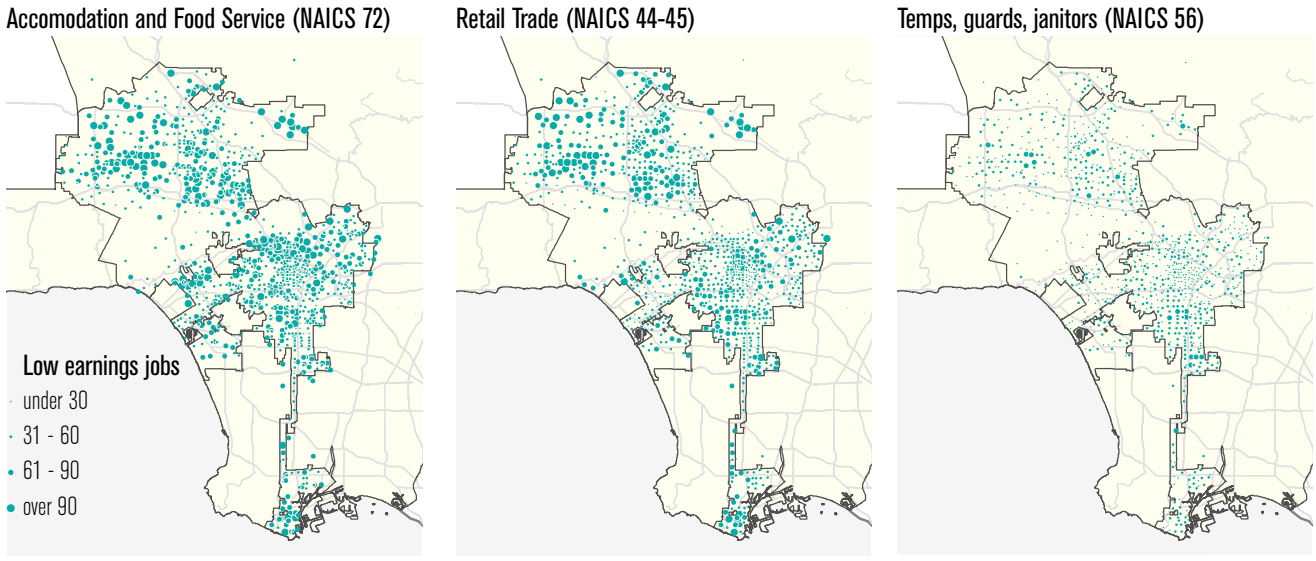
a combined earnings boost of over 5 percent. In other words, many of the dollars counted in the multiplier effect of the minimum wage increase will pass through local purchases in these areas, closing the gap with areas that have a stronger existing employment base in consumption-oriented industries. Will the minimum wage disrupt Los Angeles' more fragile neighborhood economies, or will these communities experience an increase in demand that will shore up the market for new and existing businesses? To examine this question, we turn to the distribution of impacts at the site of residence for affected workers.

Figure 5.3: Comparison of Counts and Rates of Low-earnings Jobs by Place of Work, 2011



Sources: Longitudinal Employer-Household Dynamics residence area files (2011). Tracts with counts below 150 are suppressed.

Figure 5.4: Low-earnings Jobs in Selected Industries by Place of Residence, 2011



Sources: Longitudinal Employer-Household Dynamics residence area files (2011). Tracts with low-earnings employment less than 150 are suppressed.

Mapping the Distribution of Impacts to Residential Communities

A surge in purchasing power will affect more than 60 thousand workers in South Los Angeles alone and amplify economic activity at the neighborhood level.

A central dynamic of the minimum wage increase is one of targeting. To what extent does a minimum wage increase constitute a poverty alleviation strategy? This question may also be applied at the level of neighborhoods and residential communities, particularly in low- and moderate-income areas where residents will be more likely to spend any increase in their income, and thereby recycle the money through nearby businesses. To the extent that a higher minimum wage infuses weaker markets with spending power, such an infusion may increase demand for new businesses, which suggests an indirect role for the minimum wage increase as a job creator.

Figure 5.4 shows the place of residence of workers in selected low-earnings jobs in industries that will be affected. Although low-earning workers reside in every portion of the city, many of them commute from low-income areas. Moreover, low-wage workers in different industries are sorted into different areas of town. Again, the minimum wage increase's effect in each industry will leave its own imprint on the city's neighborhood landscape in the form of increased spending power.

Projecting Benefits onto Los Angeles Communities

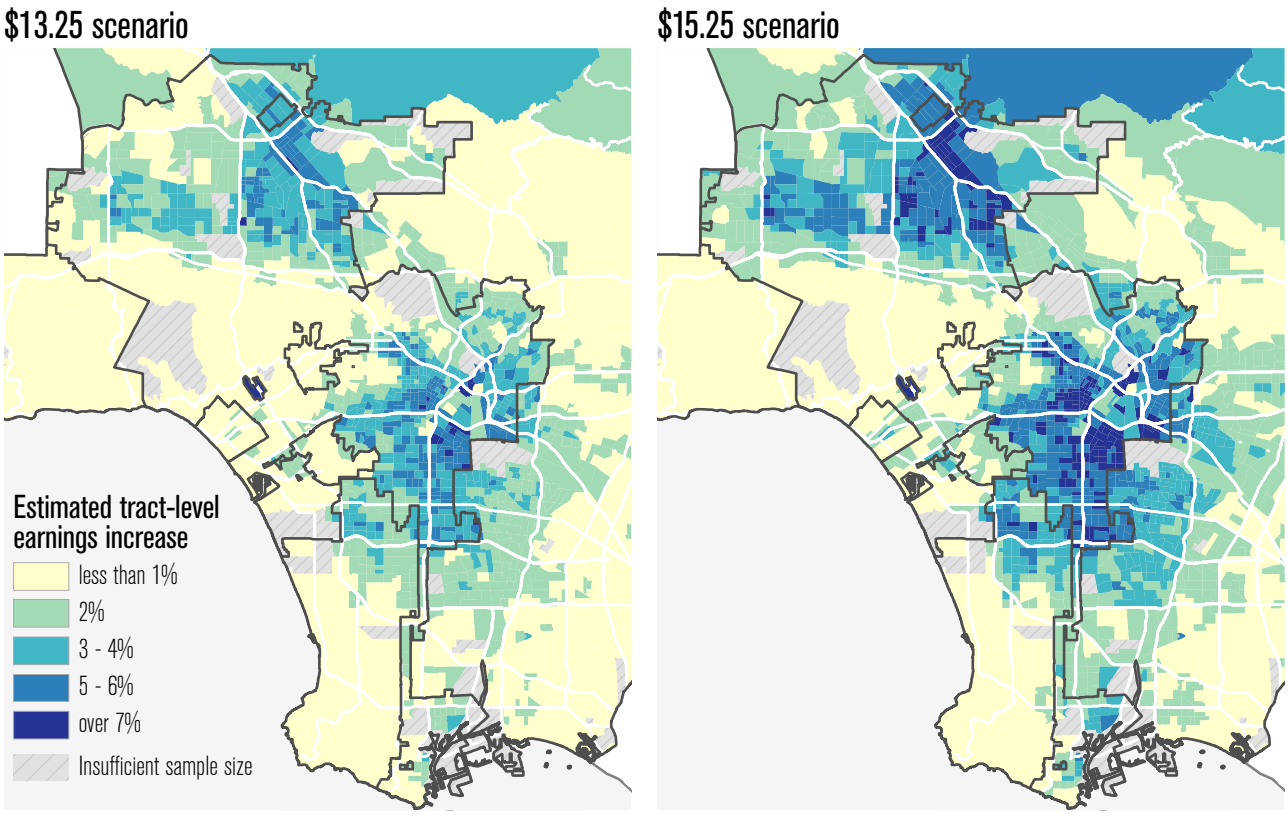
Although the issue of leakage highlights the potential imprecision of the minimum wage increase, the possibility of augmented spending power underscores its efficacy as a mechanism of community investment and economic inclusion. The census-tract level database described earlier that links workers' place of residence to their place of work was used to allocate the projected earnings increases due to the minimum wage increase to the census tract level. *Figure 5.5* shows estimates of the total earnings increase as a result of the minimum wage proposal for census tracts in Los Angeles County. Two increase scenarios are presented for comparison: $13.25 and $15.25.[5] These scenarios show that the earnings boost will be widespread throughout the city and will extend into surrounding portions of the county. Many of the lower-income portions of the city will stand to receive relatively large percentage increases in earnings. Especially in weak markets for consumer-oriented industries, this incremental increase will likely translate into an infusion of spending power into the neighborhood. In this sense, the minimum wage increase may be efficient if it redirects additional earnings into neighborhood contexts where this incremental gain will have the largest effect. The question is whether the incremental gains will be large enough to make inroads into the structural conditions that generate concentrations of weak markets for consumption-oriented industries, poor accessibility to jobs, and geographically segmented labor markets in the first place.

Table 5.1 summarizes projected impacts for each of the city's 37 Community Plan Areas.[6] The table allows the comparison of summary impacts of the minimum wage for both businesses and residents of a given community. Many communities, such as Westlake or Southeast Los Angeles, with average household incomes below the city average stand to gain the highest boost in earnings. *Table 5.2* presents related indicators for each community as shares of citywide totals. Although every Community Plan Area will experience different effects of the minimum wage, the tables underscore our overall conclusion: lower-income communities will experience most of the benefits, and the largest share of potential risks to businesses will fall in higher-income, more economically diverse communities.

A More Geographically Inclusive Labor Market

Duly noting the theoretical nature of the analysis, we can draw the following tentative conclusions. First, in absolute terms, the majority of potential impacts at the site of consumer-oriented business locations—possibly including reductions in hours and increases in prices—will likely occur in proximity to large, diverse concentrations of businesses and, in many cases, higher-income residential areas of the city. This underscores the case that strong markets and

Figure 5.5: Estimates of Aggregate Tract-level Earnings Increases from the Minimum Wage Proposals



Sources: Author analysis of Longitudinal Employer-Household Dynamics origin-destination and home area files (2011) and ACS 5-year estimates (2007-2011). All totals are based on 2014 dollars.

strong consumer bases will likely carry the majority of affected businesses through a period of adjustment. Export-oriented industries, particularly textile and apparel manufacturing, should be monitored by taking into account any adjustments to the division of labor and pattern of firm location across the city and surrounding areas.

Second, in some sections of the city, low-wage jobs account for a disproportionate share of the employment base, even though a relatively small number of low-wage jobs are actually located there. However, these same neighborhoods probably stand to benefit the most from an increase in the spending power of their residents, especially in the realm of typical consumption of goods and services, for example, restaurants, that draw on highly localized market areas. As a result, consumption-oriented businesses in areas like South Los Angeles may play a sentinel role for identifying costs and benefits of the minimum wage increase.

Third, effects of the earnings increase will radiate throughout Los Angeles's diverse neighborhood economies —as well as beyond the city's borders, as we discuss in the next section. Though the infusion of earnings income will be diffuse, many residents of the lower-income sections of the city that send low-wage workers to various employment centers will carry their higher earnings back to the neighborhoods where they live. Particularly in weaker markets, these dollars will generate additional demand, potentially closing existing gaps in nearby job opportunities and local consumption markets across the city's neighborhoods.

For these reasons, a rising wage floor will shift the landscape of opportunity across the neighborhoods and employment concentrations in Los Angeles. In light of the existing geography of low-wage work, some of the benefits will manifest as increased demand for consumption-oriented goods in areas of the city with weak markets and scarce job opportunities. Meanwhile, many of the potential costs to businesses and consumers will occur in areas relatively resilient to such adjustments. The minimum wage increase will work toward bringing all of Los Angeles into a more sustainable economy.

Baseline Analysis of Labor Market Flows between Los Angeles and Surrounding Cities

Raising in the minimum wage will drive economic recovery in low-income neighborhoods and evolve a more inclusive, sustainable economy across the city.

The Los Angeles region provides a paradigmatic example of a deeply integrated, multi-centered metropolitan economy. Extending beyond the 88 incorporated cities of Los Angeles County, the Los Angeles labor market is regional in scope. Much of the minimum wage's effects will extend far beyond the municipal boundaries of Los Angeles, possibly reshaping flows of labor between the city of Los Angeles and its surrounding municipalities. Below, we examine trends in flows of workers during the baseline periods of 2008 and 2011, both to examine the character of regional labor market integration and to illustrate the possibility for monitoring the effect of the minimum wage after its implementation.

Job Flows between the City of Los Angeles and Other Cities between 2008 and 2011

Table 5.3 shows the job destination of Angelinos who commute to work outside of the city by income thresholds as well as the change during the baseline period. The first three columns show the number of Los Angeles resident workers in other cities, and the last three columns reveal the change in number of workers between 2008 and 2011. We show these measures for all jobs, as well as low- and mid-earning jobs. The table shows a selected number of cities with significant number of Los Angeles City workers. Overall, we do not observe a large change during the base period.

Table 5.1: Impacts and Initial Income-levels by Community Plan Area

	Area businesses		Area residents		
Community Plan Area	**Impacted consumer-oriented jobs as a percentage of total jobs**		**Area residents receiving a raise**	**Aggregate earnings increase**	**Average household income relative to citywide average**
Sherman Oaks - Studio City - Toluca Lake - Cahuenga Pass	36%		9,702	1.3%	161%
Brentwood - Pacific Palisades	33%		4,357	0.5%	293%
Northeast Los Angeles	27%		21,938	3.0%	85%
Northridge	35%		6,614	2.1%	112%
Hollywood	41%		26,282	2.2%	101%
Canoga Park - Winnetka - Woodland Hills - West Hills	40%		15,512	2.0%	118%
Chatsworth - Porter Ranch	35%		9,402	2.0%	127%
Bel Air - Beverly Crest	33%		1,381	0.4%	370%
Harbor Gateway	35%		1,813	2.3%	78%
Westlake	30%		11,128	5.7%	48%
Encino - Tarzana	30%		7,628	1.5%	157%
Sunland - Tujunga - Lake View Terrace - Shadow Hills - East La Tuna Canyon	54%		5,895	2.4%	99%
Westwood	13%		2,925	0.7%	151%
Central City North	15%		2,204	4.1%	66%
Silver Lake - Echo Park - Elysian Valley	44%		8,187	2.6%	99%
Port of Los Angeles	13%		-	-	-
San Pedro	43%		3,886	1.2%	95%
Sun Valley - La Tuna Canyon	25%		10,924	4.7%	82%
West Adams - Baldwin Hills - Leimert	40%		18,514	4.1%	68%
Westchester - Playa del Rey	35%		3,216	0.7%	145%
Los Angeles International Airport	19%		294	6.5%	61%
North Hollywood - Valley Village	51%		18,438	3.6%	84%
Southeast Los Angeles	24%		22,133	6.4%	50%
Sylmar	23%		7,973	3.8%	90%
Wilmington - Harbor City	24%		3,869	1.9%	78%
Palms - Mar Vista - Del Rey	43%		9,579	1.5%	109%
Arleta - Pacoima	35%		11,600	6.2%	77%
Venice	53%		3,078	0.9%	162%
Reseda - West Van Nuys	36%		13,022	3.4%	87%
Van Nuys - North Sherman Oaks	35%		20,370	3.6%	84%
Wilshire	45%		30,959	2.6%	94%
Boyle Heights	26%		7,129	5.3%	54%
Mission Hills - Panorama City - North Hills	39%		16,157	4.5%	78%
Granada Hills - Knollwood	52%		5,825	2.1%	119%
South Los Angeles	31%		26,547	5.2%	54%
West Los Angeles	32%		5,798	1.0%	153%
Central City	12%		2,934	2.6%	66%

Sources: Author analysis of Longitudinal Employer-Household Dynamics origin-destination and home area files (2011), ACS 5-year estimates (2011).

Table 5.2: Share of Citywide Jobs, Initial Income, and Impacts by Community Plan Area

	Area businesses			Area residents		
Community Plan Area	**Jobs in all industries**	**Jobs in impacted consumer industries**		**Jobs receiving a raise**	**Aggregate earnings increase**	**Aggregate household income**
Sherman Oaks - Studio City - Toluca Lake - Cahuenga Pass	2.8%	3.4%		2.6%	2.4%	4.9%
Brentwood - Pacific Palisades	1.7%	1.8%		1.2%	1.1%	5.5%
Northeast Los Angeles	3.5%	3.2%		5.8%	5.8%	4.7%
Northridge	1.5%	1.8%		1.8%	1.7%	1.9%
Hollywood	5.6%	7.7%		7.0%	6.7%	7.3%
Canoga Park - Winnetka - Woodland Hills - West Hills	5.0%	6.8%		4.1%	4.0%	5.5%
Chatsworth - Porter Ranch	3.5%	4.1%		2.5%	2.5%	3.1%
Bel Air - Beverly Crest	0.3%	0.3%		0.4%	0.3%	2.2%
Harbor Gateway	0.7%	0.8%		0.5%	0.5%	0.6%
Westlake	3.2%	3.2%		2.9%	3.1%	1.4%
Encino - Tarzana	2.7%	2.7%		2.0%	2.0%	3.6%
Sunland - Tujunga - Lake View Terrace - Shadow Hills - East La Tuna Canyon	0.5%	1.0%		1.6%	1.5%	1.5%
Westwood	4.1%	1.7%		0.8%	0.7%	2.2%
Central City North	2.8%	1.5%		0.6%	0.6%	0.3%
Silver Lake - Echo Park - Elysian Valley	0.7%	1.0%		2.2%	2.1%	2.0%
Port of Los Angeles	0.3%	0.2%		0.0%	0.0%	0.0%
San Pedro	0.8%	1.1%		1.0%	1.0%	2.1%
Sun Valley - La Tuna Canyon	2.1%	1.8%		2.9%	2.9%	1.4%
West Adams - Baldwin Hills - Leimert	1.9%	2.6%		4.9%	5.0%	3.3%
Westchester - Playa del Rey	2.1%	2.5%		0.9%	0.8%	2.7%
Los Angeles International Airport	2.5%	1.6%		0.1%	0.1%	0.0%
North Hollywood - Valley Village	1.9%	3.2%		4.9%	4.8%	3.3%
Southeast Los Angeles	3.0%	2.5%		5.9%	6.1%	2.4%
Sylmar	1.3%	1.0%		2.1%	2.1%	1.4%
Wilmington - Harbor City	1.2%	0.9%		1.0%	1.0%	1.3%
Palms - Mar Vista - Del Rey	1.6%	2.2%		2.5%	2.6%	4.2%
Arleta - Pacoima	1.0%	1.2%		3.1%	3.1%	1.2%
Venice	0.7%	1.2%		0.8%	0.8%	2.3%
Reseda - West Van Nuys	1.8%	2.1%		3.5%	3.4%	2.3%
Van Nuys - North Sherman Oaks	3.3%	3.9%		5.4%	5.4%	3.6%
Wilshire	7.8%	11.6%		8.2%	8.6%	8.4%
Boyle Heights	1.4%	1.2%		1.9%	1.9%	0.9%
Mission Hills - Panorama City - North Hills	1.8%	2.3%		4.3%	4.3%	2.3%
Granada Hills - Knollwood	0.6%	1.1%		1.5%	1.5%	1.8%
South Los Angeles	3.2%	3.3%		7.0%	7.1%	3.2%
West Los Angeles	4.6%	5.0%		1.5%	1.5%	4.0%
Central City	16.5%	6.6%		0.8%	0.8%	1.0%

Sources: Author analysis of Longitudinal Employer-Household Dynamics origin-destination and residence area files (2011), ACS 5-year estimates (2013).

Table 5.3 Work Places of Residents of the City of Los Angeles by Income Thresholds and the Change in Employment between 2008 and 2011

City	Total Jobs 2011	Low $ Jobs 2011	Mid $ Jobs 2011	Change Total Jobs	Change Low $ Jobs	Change Mid $ Jobs
Agoura Hills	6,517	1,103	2,291	147	-147	-27
Beverly Hills	25,177	4,649	9,450	-2,467	-447	-952
Burbank	84,459	41,136	18,470	1,521	1,216	-1,352
Calabasas	4,265	1,063	1,614	-686	58	-306
Carson	9,021	1,991	4,190	-398	-19	-455
Commerce	21,957	3,258	12,823	-1,003	-567	-846
Compton	7,353	1,430	3,592	-446	72	-463
Culver City	28,369	12,992	6,904	-799	-292	-814
Downey	4,798	1,384	1,950	64	2	-110
East Los Angeles CDP	6,544	1,707	2,685	1,845	407	630
El Segundo	11,873	1,146	2,563	2,124	66	179
Gardena	5,443	1,282	2,727	484	118	20
Glendale	28,973	8,421	11,071	40	372	-732
Hawthorne	4,605	1,213	1,887	414	10	74
Huntington Park	3,306	1,089	1,438	539	144	78
Inglewood	8,380	2,363	3,767	295	41	69
Long Beach	17,325	5,270	5,443	-792	-362	-1,191
Monterey Park	3,880	967	1,627	554	102	84
Pasadena	19,122	4,556	6,604	-951	-554	-649
Redondo Beach	4,204	1,097	1,428	-575	-26	-178
Rosemead	2,890	531	858	1,359	26	242
San Fernando	4,160	869	2,109	-681	-170	-536
Santa Clarita	11,572	2,931	4,797	-1,024	-337	-545
Santa Fe Springs	4,300	661	2,045	-400	-59	-340
Santa Monica	36,641	7,439	11,879	-576	-507	-660
South Gate	5,930	2,180	2,698	3,482	1,599	1,396
Torrance	18,025	4,093	7,118	-236	-267	-629
West Hollywood	13,793	3,784	5,409	-5,046	-1,010	-1,005

Figure 5.6 illustrates these patterns for the cities where low-earnings residents of the City of Los Angeles work. The sizes of the tiles reflect the relative number of low-wage residents of the city of Los Angeles who work in each receiving city and the color reflects the percentage change in employment between 2008 and 2011 for total jobs. Burbank, the largest recipient of low-earnings Los Angeles residents, showed an increase for 1,216. South Gate shows the largest increase, and West Hollywood shows the largest decrease.

While considerable variation exists among the labor flows between neighboring cities and Los Angeles during the 2008-2011 period, the overall trend has been a net flow of workers from other cities to Los Angeles. The average net flow to the city was over 1,000 workers for the cities included in in Table 5.4. Although many cities showed net increases, these increases were attributed to high-paying jobs. As depicted in Figure 5.7, for low-paying jobs, we observe a random pattern of job changes among different cities and an average change of approximately zero. Thus, we do not observe any baseline trend for low- and mid-paying jobs that will be affected by higher minimum wages. The dynamics after implementation should be monitored with this finding in mind.

Figure 5.6 Top Low-earnings Job Destinations for LA City Workers Sized by Total Low-earnings Jobs and Colored by Change in Low Paid Employment between 2008 & 2011

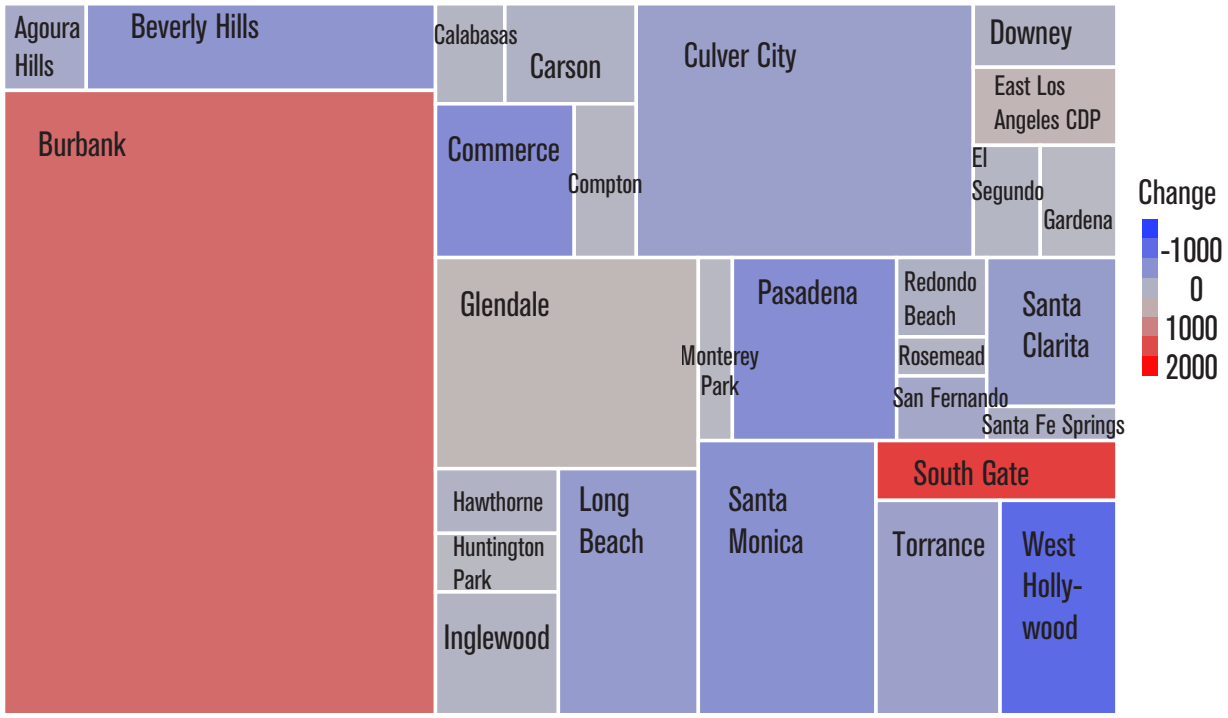
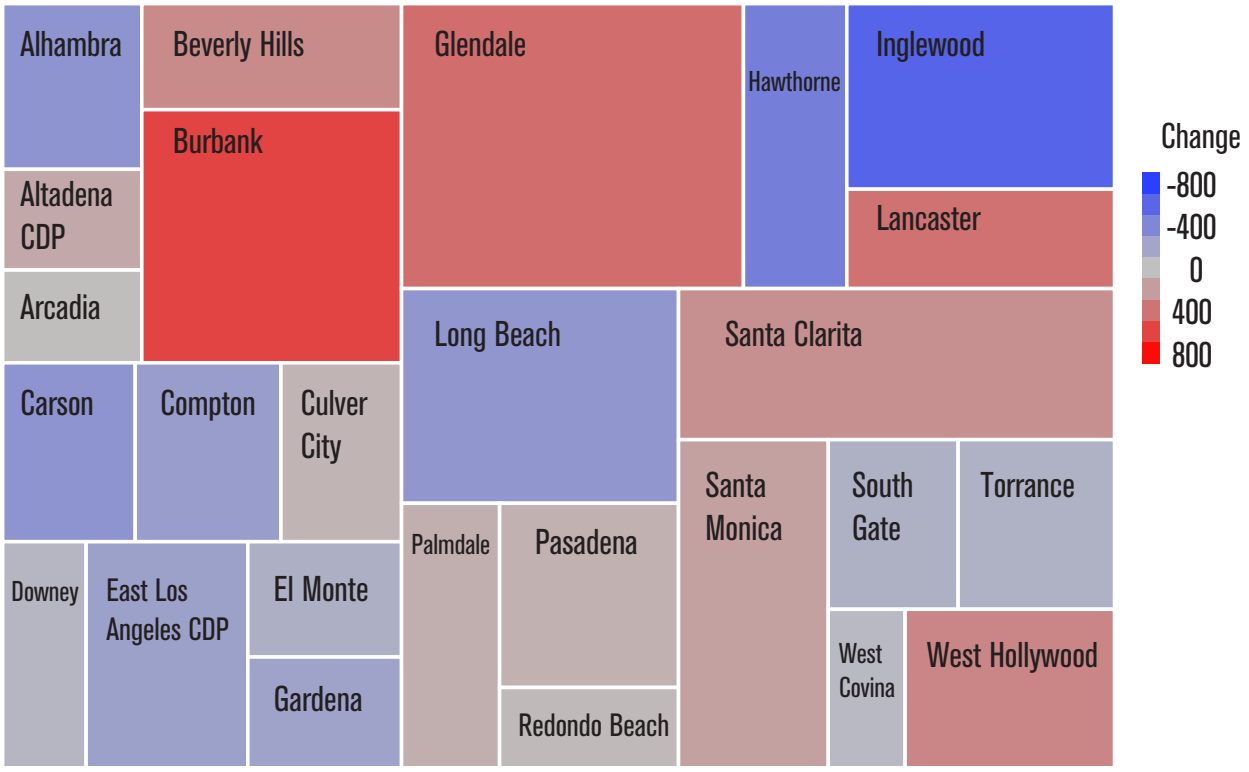


Table 5.4 Home Origins of Workers in the City of Los Angeles by Income Thresholds and the Change in Employment between 2008 and 2011

City	Total Jobs 2011	Low $ Jobs 2011	Mid $ Jobs 2011	Change Total Jobs	Change Low $ Jobs	Change Mid $ Jobs
Alhambra	10,921	2,071	3,213	358	-323	-317
Altadena CDP	6,059	1,247	1,349	908	143	32
Arcadia	6,902	1,141	1,603	782	20	-181
Beverly Hills	7,677	2,432	1,831	404	299	26
Burbank	21,022	5,778	5,732	1,832	602	-403
Carson	10,500	2,106	3,385	513	-326	-485
Compton	9,753	2,320	4,177	615	-262	-269
Culver City	9,230	1,898	2,302	568	78	-87
Downey	10,560	1,710	3,613	1,736	-79	89
East Los Angeles CDP	12,918	3,276	5,976	472	-239	-327
El Monte	7,334	1,537	2,670	311	-135	-198
Gardena	7,408	1,537	2,743	182	-222	-243
Glendale	32,546	8,591	9,877	2,112	433	-554
Hawthorne	12,419	2,606	5,680	-69	-459	-488
Inglewood	19,173	4,395	8,143	-176	-612	-817
Lancaster	11,171	2,310	3,580	3,145	410	461
Long Beach	27,557	5,266	8,807	3,107	-308	114
Palmdale	12,567	2,332	4,477	1,732	103	433
Pasadena	15,284	2,878	3,546	1,858	95	-82
Redondo Beach	8,598	1,325	1,687	707	45	-4
Santa Clarita	31,219	5,817	7,120	2,824	272	-193
Santa Monica	19,554	4,380	4,149	1,164	184	-30

City	Total Jobs 2011	Low $ Jobs 2011	Mid $ Jobs 2011	Change Total Jobs	Change Low $ Jobs	Change Mid $ Jobs
South Gate	8,453	1,961	4,002	75	-127	-445
Torrance	13,716	2,329	3,577	759	-123	-248
West Covina	6,932	1,101	1,786	901	-55	-186
West Hollywood	9,766	2,979	2,289	621	321	-101

Figure 5.7 Home Origins of Workers from Other Cities Working in Low-earnings Jobs in the City of Los Angeles Sized by Low Paid Jobs and Colored by Change in Low-earnings Employment between 2008 & 2011



Another way of assessing the dynamics of labor flows is to observe the change over time in the net balance of the flows between different municipalities. Table 5.5 compares the changing flows of workers between 2008 and 2011 in other municipalities that both send workers to and receive workers from the city of Los Angeles.

The first two columns show the inflow-outflow balance for each city—or the net difference between the number of Angelinos "imported" as labor and the number of residents "exported" to work in Los Angeles—in 2008 and 2011, respectively. Large numbers indicate that the city sends large numbers of workers to these cities relative to the number that it receives. We observe that the city has large balances (i.e., L.A. is a net exporter) with the affluent, net-importing cities of Beverly Hills, Burbank, Culver City and Santa Monica. Most of the remaining cities export more workers to the city than they import. Santa Clarita, Inglewood and Long Beach are the largest net exporters.

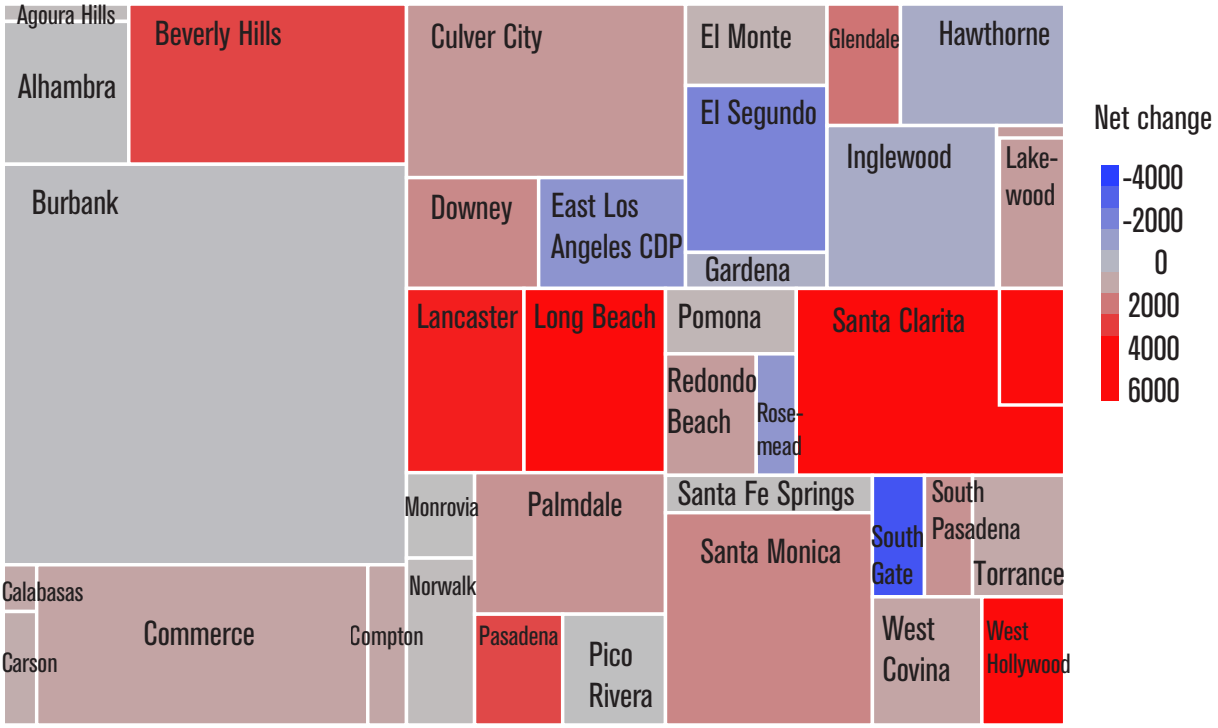
For each city included in the table, the city of Los Angeles exports an average of 1,700 workers. However, this large and positive balance is due to the four net-importing cities noted above. Los Angeles imports an average of 2,800 workers from the remaining cities.

The third column shows the change in the net balances for all jobs between 2008 and 2011. Are Los Angeles's labor flows between each surrounding city trending in the direction of importing or exporting workers? With a few exceptions, between 2008 and 2011, Los Angeles gained more workers from other cities, as reflected in positive net changes to L.A.'s status as a regional importer of labor. This finding is verified in Figure 5.8, where most of the cities show positive balances (shades of red) on average for cities with a net balance change of 1,000 workers.

Table 5.5. Labor inflows and Outflows between Los Angeles City and Other Cities—2008-2011 Period

City	LAC Net Balance 2008	LAC Net Balance 2011	Change Net Balance All Jobs	LAC Net Balance low $ 2008	LAC Net Balance Low $ 2011	Change Net Balance Low $ Jobs
Agoura Hills	1,475	901	574	163	-208	371
Alhambra	-6,713	-7,070	357	-1,104	-806	-298
Beverly Hills	20,371	17,500	2,871	2,963	2,217	746
Burbank	63,748	63,437	311	34,744	35,358	-614
Calabasas	370	-626	996	-170	-210	40
Carson	-568	-1,479	911	-422	-115	-307
Commerce	21,852	20,735	1,117	3,569	2,986	583
Compton	-1,339	-2,400	1,061	-1,224	-890	-334
Culver City	20,506	19,139	1,367	11,464	11,094	370
Downey	-4,090	-5,762	1,672	-407	-326	-81
East Los Angeles CDP	-7,747	-6,374	-1,373	-2,215	-1,569	-646
El Monte	-3,808	-4,572	764	-911	-893	-18
El Segundo	7,308	9,225	-1,917	664	688	-24
Gardena	-2,267	-1,965	-302	-595	-255	-340
Glendale	-1,501	-3,573	2,072	-109	-170	61
Hawthorne	-8,297	-7,814	-483	-1,862	-1,393	-469
Inglewood	-11,264	-10,793	-471	-2,685	-2,032	-653
Lakewood	-2,931	-4,220	1,289	-153	-186	33
Lancaster	-5,139	-8,580	3,441	-1,042	-1,709	667
Long Beach	-6,333	-10,232	3,899	58	4	54
Monrovia	-1,869	-2,326	457	-359	-449	90
Norwalk	-3,922	-4,475	553	-678	-624	-54
Palmdale	-9,150	-10,624	1,474	-1,583	-1,666	83
Pasadena	6,647	3,838	2,809	2,327	1,678	649
Pico Rivera	-4,055	-4,436	381	-718	-687	-31
Pomona	-2,714	-3,408	694	-617	-663	46
Redondo Beach	-3,112	-4,394	1,282	-157	-228	71
Rosemead	-3,195	-1,900	-1,295	-734	-576	-158
Santa Clarita	-15,799	-19,647	3,848	-2,277	-2,886	609
Santa Fe Springs	3,575	3,092	483	482	441	41
Santa Monica	18,827	17,087	1,740	3,750	3,059	691
South Gate	-5,930	-2,523	-3,407	-1,507	219	-1,726
South Pasadena	-805	-2,307	1,502	79	-63	142
Torrance	5,304	4,309	995	1,908	1,764	144
West Covina	-4,368	-5,461	1,093	-496	-515	19
West Hollywood	9,694	4,027	5,667	2,136	805	1,331

Figure 5.8. The change in net labor flow balance between LA City and Other Cities between 2008 and 2011



Consequently, the trend between 2008 and 2011 generally confirms that there is an increasing net flow of all workers from other cities to the city of Los Angeles. However, the last three columns of Table 5.5, which reflect the labor flows for low paid jobs, show that this trend is more moderate when limited to low-wage workers. The average net change was almost zero for cities included in the table, although L.A. had increasing balances with some cities and decreasing balances with others. This picture is also reflected in Figure 5.9 where we observe both red and blue/gray shades showing positive and negative net balances.

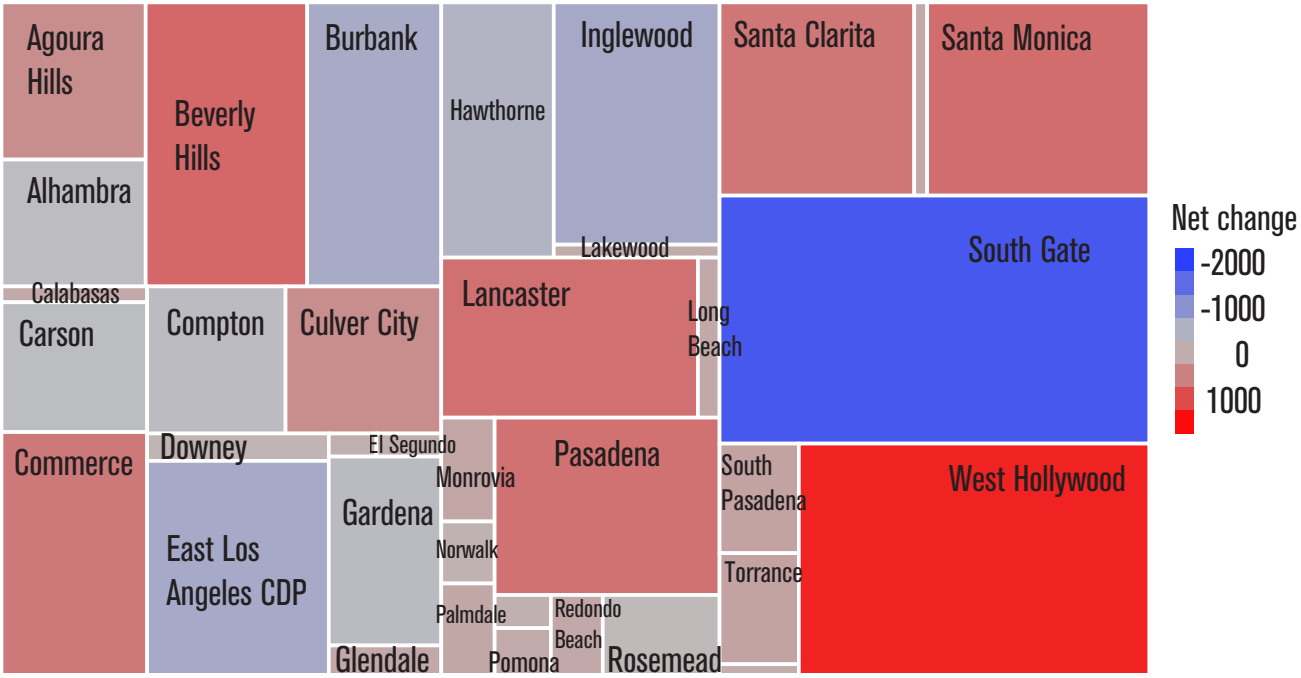
This examination of the baseline period from 2008 to 2011 suggests that the City of Los Angeles is an attractive labor market for mid- and high-paying jobs. For low-paying jobs, exchanges between the city of Los Angeles and its surrounding municipalities are more balanced. Hence, we expect that higher minimum wage levels will nudge the pattern for flows of low-earnings workers closer to the pattern observed for mid- and high-earnings workers. Favoring the prospect of higher earnings, low-wage jobs seekers may confine their search geographically to the city of Los Angeles. Eventually, low-wage workers with relatively higher levels of productivity will rise to the front of hiring queues. The attendant shift in labor supply toward the Los Angeles market will pressure neighboring cities to increase their minimum wage levels at the risk of losing their more productive labor force to Los Angeles.

The labor force that finds jobs in Los Angeles is over a hundred times larger than that in neighboring cities with the largest flows of workers across the city line. This means that L.A.'s action to raise the minimum wage is likely to influence wage levels beyond its borders as businesses compete to attract and retain competent workers. There is a strong prospect that higher wages will strengthen the city's capacity to attract the most capable workers, pressuring neighboring businesses and cities to raise wage levels to remain competitive.

In summary, this baseline analysis accentuates the various ways that the Los Angeles labor market is deeply integrated with its surrounding communities across the region. These relationships vary across cities and across wage and skill levels. They also vary over time,

even in absence of a discrete event, like the implementation of a higher minimum wage in the region's largest municipal labor market. There are two additional implications for the minimum wage increase worth noting. First, adaptations to the minimum wage in the form of flows of low-wage workers into and out of Los Angeles should be closely monitored after implementation. Second, the minimum wage will be most effective as a regional rather than single-city strategy.

Figure 5.9. The change in net labor flow balance for low paid Jobs between LA City and Other Cities between 2008 and 2011



1. For data sources reliant on samples, such as ACS estimates, sample sizes decrease with small areas, increasing the margins of error. Other indicators are derived from the Longitudinal Employer-Household Dynamics program of the Census Bureau, a source which builds randomness into the data to protect confidentiality. Notwithstanding these limitations for the confidence of small-area estimates, these sources still provide reliable indicators for examining the overall distribution of key factors, provided that estimation errors are consistent across space.
2. Affected consumption-oriented industries mapped here include the following: retail; temps, guards, and janitors; residential nursing; hotels; restaurants and bars; and personal and repair services. Two study industries identified as potentially prone to impacts were not included here: home health care services (6216) and child care day services (6244). The reason is that these industries are at the four-digit level, but the ES-202 counts are only available at the three-digit level.
3. Together, the top half of census tracts by median income and their adjacent tracts account for 77 percent of all census tracts
4. The LEHD data provides three earnings categories. "Low-earnings" refers to workers who earn $1250 per month or less. Since this is not equivalent to the minimum wage, it is used as a proxy for the geographic distribution of workers earning at or near the minimum wage.
5. See "Estimates of Affected Workers" in chapter 3 for further analysis of these estimates and a discussion of the methodology.
6. Community Plan Areas are designated by the Los Angeles Department of City Planning for the purposes of organizing land use decisions. Most Community Planning Areas encompass several adjacent neighborhoods.

Parallel Expansions of Opportunities for Living Wages

Higher minimum wages have the potential to lift Los Angeles's low-income neighborhoods into a sustainable economy. Two other reforms are also important to consider because they will make similar contributions to raising earning levels in low-income communities: (1) the administrative relief programs, Deferred Action for Childhood Arrivals (DACA) and Deferred Action for Parents of Americans and Lawful Permanent Residents (DAPA), and (2) California's Proposition 47.

The two reforms are parallel forces for raising the wage floor in Los Angeles. In this chapter we estimate the number and current wages of undocumented workers who are eligible for labor market inclusion as a result of DACA and DAPA, and then estimate future annual wage gains for these workers as a result of their ability to compete for jobs in the formal economy.

Reduced sentences under Proposition 47 are expected to soften wage and employment penalties. We estimate the number of persons who will be eligible to expunge felony offenses, project their employment rate and wage level, and estimate the amount of their increased earnings. We then analyze how these projected wage increases may contribute to raising the wage floor in Los Angeles independent of increases in the minimum wage.

DACA and DAPA

Overview

On November 20, 2014, the Obama administration announced the Immigration Accountability Executive Action, which revised and expanded deferred action programs for certain unauthorized immigrants and implemented other initiatives dealing with border security, enforcement priorities, and entry of skilled workers.[1] Under the deferred action programs, individuals approved for consideration are granted a renewable three-year protection status from deportation proceedings and become eligible for work authorization in the U.S. Table 6.1 illustrates DACA and DAPA eligibility requirements.

Approximately 1.5 million unauthorized persons will potentially qualify for the expanded DACA program. 3.9 million parents will be eligible for DAPA.

Table 6.1: DACA and DAPA Eligibility Requirements

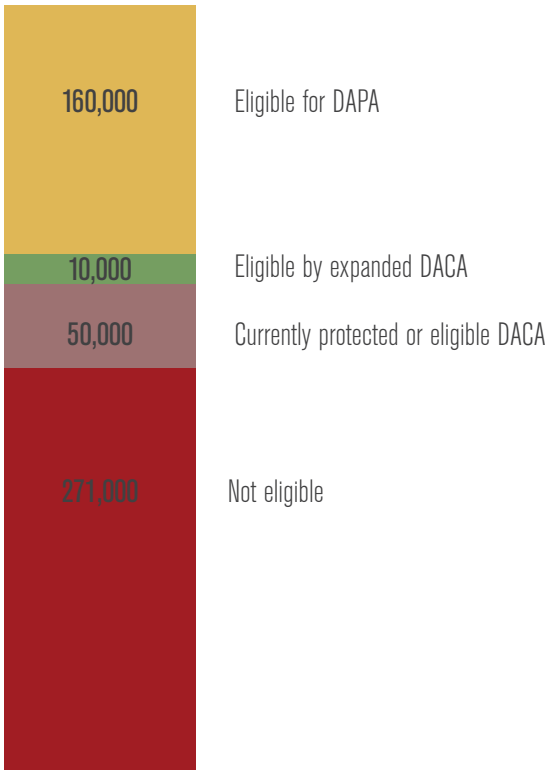
Expanded Deferred Action for Childhood Arrivals DACA	Deferred Action for Parents of Americans and Lawful Permanent Residents DAPA
▪ Have come to the U.S. before their sixteenth birthday. ▪ Have continuously lived in the U.S. since January 1, 2010. ▪ Have graduated high school or completed a GED certificate, or are in school. ▪ Have not been convicted of certain criminal offenses.	▪ Be the parent of a U.S. citizen or lawful permanent resident. ▪ Have continuously lived in the U.S. since January 1, 2010. ▪ Have not been convicted of certain criminal offenses, including any felonies and some misdemeanors.

Source: U.S. Department of Homeland Security, 2014.

DACA was originally implemented on August 12, 2012. The 2014 revision eliminated the age cap of 31 years at the time of application, and it changed the latest eligible year of entry from 2007 to 2010. Approximately 1.5 million unauthorized persons will potentially qualify for the expanded DACA program, in addition to 3.9 million parents eligible for DAPA.[2]

In the city of Los Angeles, the impact of this administrative action will be both positive and significant due to the high concentration of immigrants in the area (see Figure 6.1). The city is home to almost half of all the DACA and DAPA beneficiaries in Los Angeles County, and about 16 percent of all DAPA and DACA beneficiaries in California.

Figure 6.1. Unauthorized Residents in the City of Los Angeles



Source: ERt and UCLA Labor Center analysis of Public Use Microdata Sample (PUMS) data from the pooled 2009-2013 American Community Survey.

Profile of DACA- and DAPA-Eligible Workers

Individuals eligible for DACA and DAPA are concentrated in low-wage industries. The median hourly wage for a full-time DAPA- or DACA-eligible worker is $10.

About 45 percent of Los Angeles's 500,000 unauthorized residents could potentially qualify for DACA and DAPA. Of these, the overwhelming majority (~90 percent) are Latino, with about two-thirds coming from Mexico and one-quarter from Central America. Almost half of these individuals have no schooling or less than high school, and they have an unemployment rate of 5.4 percent, below the overall unemployment rate for the city at 6.7 percent.

Individuals eligible for DACA and DAPA are concentrated in low-wage industries, with almost half (45 percent) in construction, manufacturing, and restaurants and bars. The median hourly wage for a full-time DAPA- or DACA-eligible worker is $10, compared to that of authorized workers at $17.

Median age for those who qualify for DACA is 24 and for DAPA is 38. About two-thirds of the two groups combined are between the ages of 26 and 45, and 50 percent of these individuals arrived by 1995. Table 6.2 provides a profile of the population eligible for DACA and DAPA.

Table 6.2. Selected Characteristics of the DACA and DAPA Eligible Population in Los Angeles

	DACA Eligible	DAPA Eligible	DAPA/DACA Combined
Total	60,098	159,196	219,294
Gender			
Male	51%	47%	49%
Female	49%	53%	51%
Race/Ethnicity			
Latino	80%	92%	89%
White, Non-Hispanic	6%	2%	3%
Black, Non-Hispanic	1%	1%	1%
Asian	13%	5%	7%
Other	1%	1%	1%
Top 5 Countries of Origin			
Mexico	56%	64%	62%
El Salvador	11%	12%	12%
Guatemala	8%	12%	11%
Korea	5%	2%	3%
Philippines	4%	2%	2%
Age Categories			
16-25	62%	5%	21%
26-45	37%	76%	65%
45-55	.1%	17%	13%
56+	0%	2%	2%
Educational Attainment			
Less than HS	14%	63%	51%
High School Diploma	43%	23%	27%
Some College, BA or better	42%	15%	21%
Marital Status			
Married	15%	59%	47%
Never married	81%	32%	45%
Wages			
Median Annual Earnings, Full-Time Workers	$23,610	$20,418	$20,852
Median Hourly Wage, Full-Time Workers	$11.49	$9.93	$10.04
Unemployed	6.2%	5.1%	5.4%
Top 5 Industries			
Manufacturing	10%	19%	17%
Construction	8%	16%	14%
Restaurants and Bars	18%	13%	14%
Retail	19%	10%	12%
Personal and Repair Services	8%	14%	12%

About 75 percent of DACA- and DAPA-eligible persons earn less than $15.25 per hour. After their status change, 15,000 workers will earn above $15.25.

Estimated Impact on Wages and Employment

Many studies have examined the relationship between legalization of unauthorized resident status and the labor market outcomes. Most have focused on the impact of the Immigration, Reform, and Control Act (IRCA) of 1986, which granted temporary legal residence to about 1.7 million undocumented immigrants who later became eligible for U.S. citizenship. Although their findings are not uniform, these studies are generally in agreement that, as a result of legalization, the wages of these individuals increased:

- The U.S. Department of Labor Survey of Legalized Population (1996) reported that overall, the wages of the recently legalized rose by 15 percent in the four to five years following legalization.[3] On average, men experienced a 13.2 percent wage increase and women a 20.5 percent increase.
- Francisco Rivera-Batiz found that the wages of male IRCA beneficiaries increased 8.4 percent and that of female beneficiaries increased by 13 percent.[4]
- Catalina Amuedo-Dorantes, Cynthia Bansak, and Stephen Raphael estimate that the real wages of male IRCA beneficiaries had increased by 9.3 percent; while for women the increase was 2.1 percent.[5]
- Sherrie A. Kossoudji and Deborah Cobb-Clark found a 6 to 10 percent increase in wages on average of individuals legalized under IRCA.[6]

Although DACA and DAPA do not confer legal residency or a path to citizenship, we can assume that eligible individuals could potentially enjoy comparable wage increases as a result of their legal status authorization. Based on the estimates found on the literature, we use a 15 percent wage increase to calculate increased earnings as a result of DACA and DAPA status.

We also assume that every individual who qualifies will apply for these deferred action programs. However, in the two-plus years that DACA has been in place, the Migration Policy Institute estimates that only 55 percent of those who met the criteria had applied for relief. "Application costs, fear of self-identifying as unauthorized or potentially exposing other unauthorized relatives to government scrutiny and lack of information about the program and its temporary nature were among the barriers [for applying]."[7]

We begin by estimating the current wage distribution for individuals who qualify for DACA and DAPA, using as points of reference those who make below the current minimum wage at $9.00, and the two proposed new minimum wages, $13.25 and $15.25. We then calculate new hourly wages based on our 15 percent estimate, and reassess the new wage distribution, as shown in Table 6.3.

Table 6.3. Current and Projected Wage Distribution for DACA and DAPA Recipients

	DACA Eligible	DAPA Eligible	DACA and DAPA Eligible Combined
Current Hourly Wage			
Less than $9.00	38%	41%	40%
Less than $13.25	64%	68%	67%
Less than $15.25	72%	75%	75%
After 15% Increase			
Less than $9.00	29%	28%	29%
Less than $13.25	55%	59%	58%
Less than $15.25	64%	68%	68%

As can be seen, projected wage increases resulting from DACA or DAPA coverage can shift the current wage distribution for workers who will potentially be affected by changes in the minimum wage. For instance, currently, about 75 percent of the DACA- and DAPA-eligible population is earning less than $15.25 per hour, but after the status change and the projected wage increase take effect, this percentage drops by 7 points. In other words, about 15,000 workers benefiting from DAPA and DACA are projected to earn hourly wages above the $15.25 benchmark and will not be reliant on a higher minimum wage to lift them above the $15.25 threshold.

This increase in wages of a small but significant portion of the workforce in Los Angeles is one of the many factors raising the wage floor. Independent of increases in the minimum wage, about 15 percent of workers in Los Angeles will likely experience an increase in their wages, which will also translate into more tax revenue and increased consumer purchasing power, benefiting the local economy.

Many currently undocumented workers are constrained by lack of legal status in the jobs they can seek. Often these are in the informal sector, which results in lower wages. However, as the IRCA experience illustrates, legalization and work authorization increases the social mobility of previously unauthorized immigrants and allows changes in occupations, improving the returns on human capital for these individuals, while—as a recent report by the White House Council of Economic Advisers (CEA) shows—creating a positive macroeconomic impact, as well as a positive effect on the wages of both foreign-born and native-born workers.[8]

Proposition 47

In 2014, California voters passed Proposition 47, the Safe Neighborhoods and Schools Act, which reduces certain non-serious and nonviolent property and drug offenses from felonies to misdemeanors. Prop 47 addresses what is known as "wobbler" sentencing, when certain property crimes and drug offenses could be charged as either a felony or a misdemeanor. The crimes covered under Prop 47 include petty theft, shoplifting, property theft, writing bad checks, and check forgery all under $950 as well as drug possession for personal use with no intent to distribute. It will reduce the number of California residents convicted of felonies by more than 40,000 a year as well as allow those who were previously convicted of felonies to reduce their convictions.[9] In Los Angeles County, almost 10,000 people are expected to have their sentences reduced (Figure 6.2).[10] The savings from the reduction in the prison population will be reallocated to mental health and substance use services, truancy and dropout prevention, and victim services.

Prop 47 will reduce sentences for 10,000 in Los Angeles County and bring $1.6 million in earnings into communities.

A criminal record has negative effects on employment and earnings. Though misdemeanor convictions will still impact wage and earnings growth, the penalty is less for those with misdemeanors than those with felonies. We estimate that a reduced sentence will soften wage and employment penalties and bring $13.8 million in earnings back to the community. With a recidivism rate of 62 percent for those that have gone to prison for nonviolent and non-serious felonies, economic and employment stability is key to preventing recidivism and reducing crime.

Impact of Conviction on Employment and Earnings

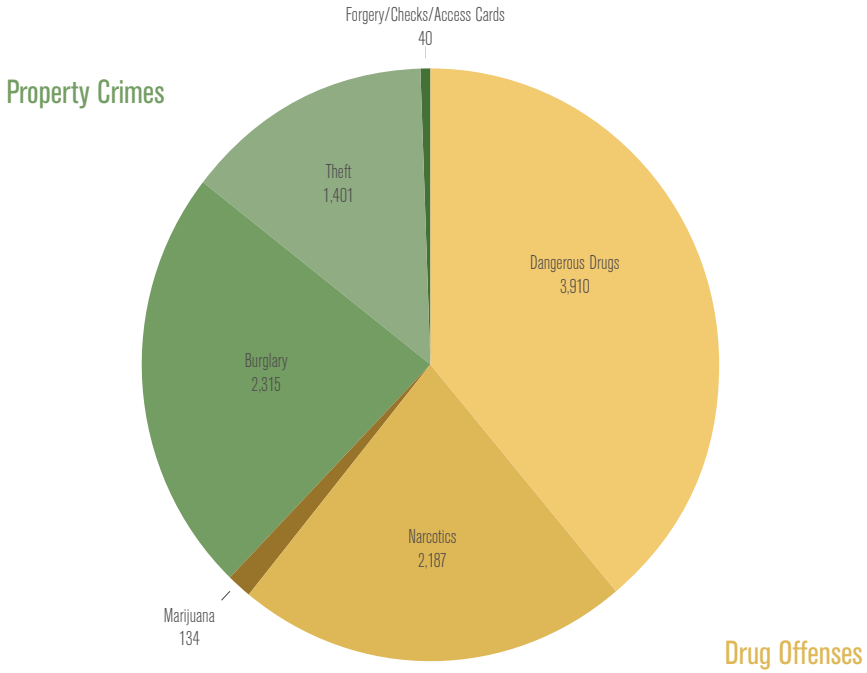
A felony conviction or time in prison significantly reduces the ability of ex-offenders to find jobs costing the U.S. economy an estimated $57 to $65 billion annually in lost economic output.[11]

Formerly incarcerated people and people with convictions face poor employment and earnings prospects on release. Employers are often reluctant to hire individuals with a felony record. Audit studies, where two candidates with similar profiles apply for a job but one has

Formerly incarcerated individuals earn 10 to 30 percent less than someone who has not been incarcerated.

a criminal conviction, have shown that employers are less likely to call back an individual with a felony record.[12] In a survey of over 600 employers in Los Angeles County, 40 percent indicated that they will "probably" or "definitely" not be willing to hire an applicant with a criminal record for a job not requiring a college degree.[13] Employers may also be less likely to take on the risk liability of hiring someone for jobs that involve interacting with the public or handling cash.[14] Other barriers include state laws and occupation licensing requirements that prohibit people with criminal records from certain jobs.[15]

Figure 6.2: Estimated people with reduced penalities under Proposition 47 in Los Angeles County, 2012



Source: Criminal Justice Statistics Center(2013); Department of Justice (2014) as cited in Center on Juvenile and Criminal Justice "Proposition 47: Estimating Local Savings and Jail Population Reductions"

In addition, formerly incarcerated individuals also experience a wage penalty. It is estimated that they earn 10 to 30 percent less than someone who has not been incarcerated, and their earnings will experience 30 percent lower growth rate than an equally qualified person who was not incarcerated.[16] In a recent study, Western estimates a formerly incarcerated man will lose $179,000 of what he would otherwise earn by age 48.[17] This is the case when age, education, school enrollment, region of residence, and urban residence are statistically accounted for. The impact of incarceration can be experienced years after the sentence is complete. Studies have found that formerly detained youth have higher unemployment rates and receive lower wages a decade or more after incarceration.[18]

Race also is a factor in reducing earnings for individuals with convictions. Black and Latino individuals who are incarcerated earn less or experience slower wage growth than formerly incarcerated white people.[19] In a study in Washington, even after controlling for additional factors, formerly incarcerated black individuals earned 10 percent less than do white individuals.[20] It is also important to note that African American applicants without a criminal record fare no better than whites just released from prison.[21]

The Potential for Reduced Wage Penalties through Reduced Sentences

Research findings vary about the extent to which an arrest or conviction affects earnings,[22] but incarceration definitely has negative effects on an individual's economic prospects.[23] Not serving jail or prison time due to sentencing changes from Prop 47 will reduce the employment stigma that comes with an incarceration history.

Even so, individuals with a misdemeanor conviction still face some employment barriers. Unless expunged, the conviction will show up on background checks, and a misdemeanor record can still bar a person from certain jobs and licenses. On the other hand, the reclassification from felony to misdemeanor is likely to reduce some barriers to employment. Whereas previous audit studies have shown that a felony record reduces the likelihood of an employer calling back a potential recruit,[24] a study in Minnesota found that a misdemeanor arrest did not disqualify a candidate from consideration.[25] Furthermore, in a survey of over 600 employers in Los Angeles, researchers found that employers are less averse to hiring someone with a drug- or property-related crime,[26] both of which fall into the six crimes covered under Prop 47.

Through the criminal record expungement process, individuals who have committed offenses and then served time in county jail or a period of probation can legally apply to have these past offenses erased from their public record. In Santa Clara County, expungement resulted in an additional $6,190 in an individual's income in the year following record clearance.[27] Unfortunately, not everyone knows about the process or is able to go through the legal steps to get their record expunged.

Earning mobility relies on stable, career jobs. As wages go up, an individual's propensity to commit a crime decreases.[28] Prop 47 is one step in alleviating post-conviction conditions that reduce employment opportunities, which could further support the successful reintegration of formerly incarcerated individuals back into society by providing better wages.

One individual earned $6,190 more a year after their record was expunged.

Potential Economic Benefits of Prop 47 and a Minimum Wage Increase

Prop 47 will reduce the number of people convicted of felonies by more than 40,000 a year across California and will reduce the number sentenced to prison by more than 3,000 a year.[29] It will also allow more than 9,000 people now in prison for felonies for low-level crimes to apply for reduced sentence and release. This includes about 1,500 people who are serving extended sentences for a second strike for one of these offenses (see Table 6.4).[30]

Table 6.4: Number and Sentences for Felony Convictions for the Six Low-Level Crimes in California, 2012

	Numbers and Sentences for Six Low level Crimes - Felony convictions- in CA, 2012
Probation only	16,300-17,300
County Jail + Probation	16,400-23,600
County Jail only	4,300-6,500
State Prison	3,500-5,200
Total	42,900-55,400
	Number Convicted of Misdemeanors
	8,700-12,900

Source: California Department of Corrections and Rehabilitation as provided by the Legislative Analyst's Office (2014), FY12/13 CDCR Admissions. Data By Principal Offenses; California Department of Justice, Hawkins Data Center as provided by the Legislative Analyst's Office (2014); Convicted Offenses- 2010 & 2012- Type of Disposition by Offense for Selected Offenses; as cited in Health Impact Partners (2014)

$1.6 million in additional earnings will support mostly low-income communities of color impacted by incarceration.

As mentioned, formerly incarcerated people experience a wage penalty of 10 to 30 percent. We estimate that Prop 47 will decrease the impact of the conviction and thereby the wage penalty experienced by formerly incarcerated individuals. The majority of people who are convicted of felonies in California are young, men, and people of color (Table 6.5). These communities are disproportionately affected by incarceration and, in many cases, incur harsher wage penalties. Furthermore, the current recidivism rate is 62 percent for people who have gone to prison for the six crimes.[31] Economic and employment stability is a strong intervention against recidivism and crime.

Table 6.5: Demographics Total Admissions to State Prison for a Felony Conviction 2013

Male	93%
Female	7%
Black	23%
White	25%
Latino	42%
Other	10%
18-29	43%
30-39	28%
40-49	18%
50 and above	11%

Source: California Department of Corrections and Rehabilitation (CDCR), Data Analysis Unit, Estimates and Statistical Analysis Section. Characteristics of Felon New Admissions and Parole Violators Returned with a New Term: Calendar Year 2013

To understand the earning and economic benefits of a reduced sentence, we use existing data on wage and employment penalties to estimate the lost earnings due to a felony conviction in Los Angeles. Because there is currently no administrative data on wages for people with felony convictions, we estimated earnings based on the entry-level wages. Because Prop 47 reduces convictions but does not eliminate them, we estimate that a reduced sentence will allow an individual to reduce only a portion of 10-30 percent penalty.

We compiled the total number of people convicted of a felony from the past 5 years. There is on average 200,000 felony convictions in California every year.[32] We narrowed down the sample by 21 percent for those who have been convicted of the six convictions[33] and by a quarter for the percent of felony conviction in Los Angeles County.[34] We used the county to city proportion to reduce the LA County population by 39 percent.[35] We further reduce the sample for those who may not be employed due to factors such as recidivism by 15 percent[36] for those on probation and 62 percent for those who spent time in jail or prison.[37] We then applied a 5 percent wage penalty, the amount a person with a reduced conviction may be able to recover annually. We also estimate the total earnings recovered annually for the city. Full details can be found in the Appendix.

Table 6.6 shows how reduced convictions have the potential to recover wages that will be lost due to stigma and employment barriers. Affected individuals could see an increase of $1,200 annually and a collective increase in earnings of $13.8 million as a result of Prop 47. These additional earnings will support mostly low-income communities of color affected by incarceration. Prop 47 is a first step in reducing the employment stigma and opening up some opportunities. It allows people to reintegrate into the society and contribute to their communities. There is a need for further positive policy that can increase the wage floor for formerly incarcerated people.

Table 6.6. Analysis of Recovered Earning Due to Prop 47

Estimates of individuals impacted by Prop 47 with felony convictions in LA City in the past five years	20,913
Subtract 62% of those that went to prison or jail for recidivism	12,615
Subtract 15% of those on probation for recidivism	11,486
Wage for entry level position (25th percentile)	$11.53
Estimate 5% wage penalty annually	$1,199.12
Total Annual Earnings Recovered by Prop 47	**$13,772,545**

Source: California Department of Justice (2013). Occupational Employment Statistics (OES) 2013. Number and Sentences for Felony Convictions for the Six Low-Level Crimes in California, 2012 via Health Impact Partners.

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Toward a Smart, Enforceable Policy

Best Practices from Other Cities

This section reviews other municipalities' approaches to raising and enforcing their minimum wage. It draws on interviews, literature, and commonalities across jurisdictions to suggest a set of best practices. Best practices include the following:

- Phased increases that break large increases in the minimum wage into incremental steps
- Benchmarking the minimum wage against inflation
- No (or very few) exemptions or deferrals
- Wage theft enforcement
  - Funding a city agency to receive and administer claims
  - A menu of meaningful sanctions, including revocation of city-issued business licenses, permits, or contracts; liens for unpaid wages; fines; and criminal penalties
  - Strong protection against retaliation
  - Private rights of action
  - Dedicated outreach and education
- Monitor ongoing effects of increasing the wage floor

2014 was a banner year for local minimum wage ordinances. Nationwide, 12 municipalities raised their minimum wage, 7 in California alone, raising the total to 18 local minimum wage laws in the nation. Another 14 states raised their minimum wage.[1] As of this writing, three cities are poised to follow suit, including Los Angeles, New York, and Portland, Maine.

2014 was a banner year for local minimum wage ordinances: 12 cities (7 in California alone) and 14 states raised their wages.

The following tables provide a quick comparison of the 18 current and 3 proposed local minimum wage laws.[2] A comprehensive, detailed table of these provisions can be found in the Appendix.

Minimum wage increases vary dramatically in magnitude, ranging from 13 to 65 percent. Municipalities tend to implement larger increases over time, gradually phasing in higher wages over a period of up to seven years by an average of 12 percent per increase. A third of the municipalities (6 of 18) have implemented minimum wage immediately without any phase-in wages. Another third will reach their maximum increase in two to three years. The final third (5 of 18) will reach their maximum in four to five years, and one outlier, Seattle, allows seven years for businesses with fewer than 500 employees to reach the new minimum wage.

Nationwide, increased local minimum wages range from $8 to $12.25 per hour; by 2019, those wages will range from $8.50 to $15. The great majority (14 of 18) tie their minimum wage to the Consumer Price Index (CPI) to increase annually, based on the cost of inflation.

Local minimum wage increases apply to the vast majority of work performed within the city, with very few exceptions.

Table 7.1. Overview of Current City Minimum Wage Laws

	Starting Wage	New Minimum Wage	% Increase	Increase Reached Over How Many Years	CPI?
Albuquerque, NM (2012) Ballot amended 2006 law	$7.50	$8.50	15%	0 (immediate)	Y
Berkeley, CA (2014)	$9.00	$12.53	39%	3 (2016)	N
Bernalillo County, NM (2013)	$7.50	$8.50	13%	2 (2015)	Y
Chicago, IL (2014)	$8.25	$13.00	58%	5 (2019)	Y
Las Cruces, NM (2014)	$7.50	$10.10	35%	5 (2019)	Y
Louisville, KY (2014)	$7.25	$9.00	24%	3 (2017)	Y
Montgomery County, MD (2013)	$7.25	$11.50	58%	4 (2017)	N
Mountain View, CA (2014)	$9.00	$10.30	14%	0 (immediate)	Y
Oakland, CA (2014)	$9.00	$12.25	36%	0 (immediate)	Y
Prince George's County, MD (2013)	$7.25	$11.50	58%	5 (2017)	N
Richmond, CA (2014)	$9.00	$12.30	37%	3 (2017)	Y
San Diego, CA (2014)* referendized	$9.00	$11.50	28%	3 (2017)	Y
San Francisco, CA (2014)* Ballot amended 2003 law	$10.74	$15.00	40%	5 (2018)	Y
San Jose, CA (2012)	$8.00	$10.00	25%	0 (immediate)	Y
Santa Fe, NM (2003)	$5.15	$8.50	65%	0 (immediate)	Y
Seattle, WA (2014)	$9.47	$15	58%	3 > 500 ee's < 7 years (2017)	N
Sunnyvale, CA (2014)	$9.00	$10.30	14%	0 (immediate)	Y
Washington, DC (2014)	$8.25	$11.50	39%	3 (2016)	Y

Note: Simplified figures not adjusted to 2014 dollars.

Table 7.2. Overview of Proposed City Minimum Wage Laws

	Starting Wage	New Minimum Wage	% Increase	% Increase Reached Over How Many Years	CPI?
Los Angeles, CA Council Proposal	$9.00	$15.25	69%	5 (2019)	Y
Los Angeles, CA Mayoral Proposal	$9.00	$13.25	47%	3 (2017)	Y
NYC Governor Proposal	$8.75	$11.50	31%	2 (2016)	?
NYC Mayoral Proposal	$8.75	$15.00	71%	5 (2019)	Y
Portland, ME	$7.50	$10.78	44%	3 (2017)	Y

Note: Simplified figures not adjusted to 2014 dollars.

Broad Application, No (or Very Narrow) Exemptions

Local minimum wage increases apply to the vast majority of work performed within the city or county. Application and exemptions are explained below.

No Tipped Wage

California is one of six states nationwide that prohibit lower minimum wages for tipped workers, commonly called "tipped wages."[3] In these six states, tipped workers must be paid the same minimum wage as everyone else.[4] Likewise, employers in California cannot count health care or other forms of compensation toward payment of minimum wages and employees must agree to any deductions in writing.[5]

Narrow Accommodations for Small Businesses

When raising the local minimum wage, some business groups and policy makers express concern about the ability of small businesses to absorb increased labor costs.[6] Only Richmond exempts small employers outright, defined as those who pay for less than 800 hours in a two-week period (roughly 10 full-time employees). Santa Fe originally exempted small employers but amended its law in 2007 to include all employers regardless of size. San Francisco delayed application for small businesses in 2003, defined as employers with 10 or fewer full- or part-time employees, for one year. (Its 2014 wage increase contains no such provision.) Seattle allows two additional years for employers with fewer than 500 employees to come into compliance.

Narrow Accommodations for Nonprofit Employers

No municipality exempts nonprofit employers categorically. Berkeley and San Francisco opted to delay application for nonprofit employers for one year. Temporary or part-time youth job programs operated by the government or nonprofits are exempted in Berkeley, Richmond, San Francisco, and San Diego. Santa Fe exempts nonprofits funded primarily by Medicaid waivers.

Nonprofits employ just 3 percent of the Los Angeles workforce.[7] While roughly one-third (36 percent) of their employees make less than $15.25 an hour,[8] they make up a vastly diverse group of employers, including such household names as University of Southern California and Children's Hospital of Los Angeles, who respectively brought in over $3 billion and $565 million in revenue in 2011. For this reason, we do not recommend categorical exemptions or deferrals of increased minimum wage for nonprofits.

Narrow Accommodations for Specific Classes of Workers

Very few individuals are exempt from coverage. Municipalities exempt varying narrow categories of individuals, such as those exempt from minimum wages under state laws, including apprentices, persons working fewer than two hours a week, and disabled workers and on-call employees while on call as defined in the Fair Labor Standards Act. A comprehensive chart in the *Legal Appendix* lists workers exempted from minimum wage under local and state laws.

Broad Exemptions for State and Federal Government Employers

Most localities exempt federal and state employees to varying degrees to comply with federal and state laws. Two of eight California cities, Mountain View and Sunnyvale, expressly exempt state federal, county, and school district employees.

Broad Exemptions for Collective Bargaining Agreements

To avoid conflict with federal law relating to union contracts, many municipalities expressly exempt employers who have entered collective bargaining agreements with employees. Those agreements must waive the minimum wage in clear and unambiguous terms.

Benchmarks and Setting the Minimum Wage

The real value of $15.25 adjusted for inflation is $13.93 in 2019.

Equity and Feasibility

The two key questions in setting the level of the minimum wage are, what is equitable? What is feasible? A World Bank report advises, "Set the minimum wage so as to provide a minimum acceptable standard of living for low-paid workers but simultaneously ensure that its 'bite' is limited, that is it does not cut too deeply into the wage distribution."[9]

A framework put forward by a Brookings Institute study for effective minimum wage policy recommends using half the local-area median wage for full-time workers as a gauge for setting an appropriate level of the minimum wage. This target has important historical precedence in the United States. In the 1960s, this ratio was 51 percent, reaching a high of 55 percent in 1968. Averaged over the 1960–1979 period, the ratio stood at 48 percent.[10]

The Brookings study also recommends taking into account the local cost of living in setting the minimum wage. "When the regional price parity-adjusted minimum wage differs considerably from the median wage-adjusted value, policymakers would do well to consider the regional price information—perhaps splitting the difference between the two approaches."[11]

The minimum wage proposal being acted on in Los Angeles includes five annual increases over the existing statewide minimum wage. The dollar benchmark for each annual increase is specified in current year dollars, although in reality the real value of these benchmarks will erode over the five years as a result of inflation. These benchmarks in current-year dollars and real dollars are shown in *Figure 7.1*.

The first proposed annual increase is to $10.25 in 2015, followed by four subsequent annual increases that reach $15.25 in 2019. However, the real value of the wage in 2019 is estimated to be reduced to $13.93 because of inflation.

Three factors are relevant for assessing whether the Los Angeles economy can support increasing the minimum wage to $15.25 by 2019.

First, there is an unusually wide gap in Los Angeles between the median wage, the typical wage of the middle worker, and the mean wage, the average for all workers. Median earnings in Los Angeles are only 44 percent of mean earnings, compared to 52 percent for the United States.[12] This indicates that median earnings understate the wealth and buying power of the region. Los Angeles may well be able to support a minimum wage that exceeds half of the median wage.

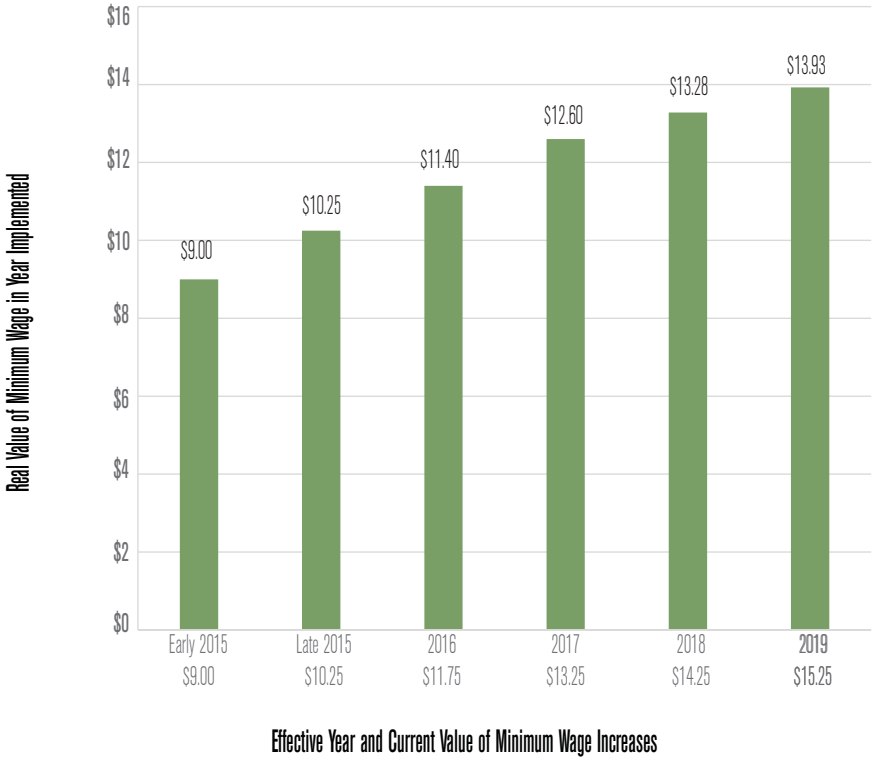
Second, the cost of living in Los Angeles is 36.1 percent higher than the national average, indicating that minimum wage benchmark may need to be adjusted to support a minimum acceptable standard of living.[13]

Third, there will be five annual increases in the minimum wage, with each likely to result in a higher wage distribution in the labor market.

The estimated mean and median hourly wage for full-time Los Angeles workers in 2015 is shown in Figure 7.2.[14] We estimate that the median hourly wage for full-time Los Angeles workers is $24.83; when it is adjusted for cost of living parity, it increases to $33.87.

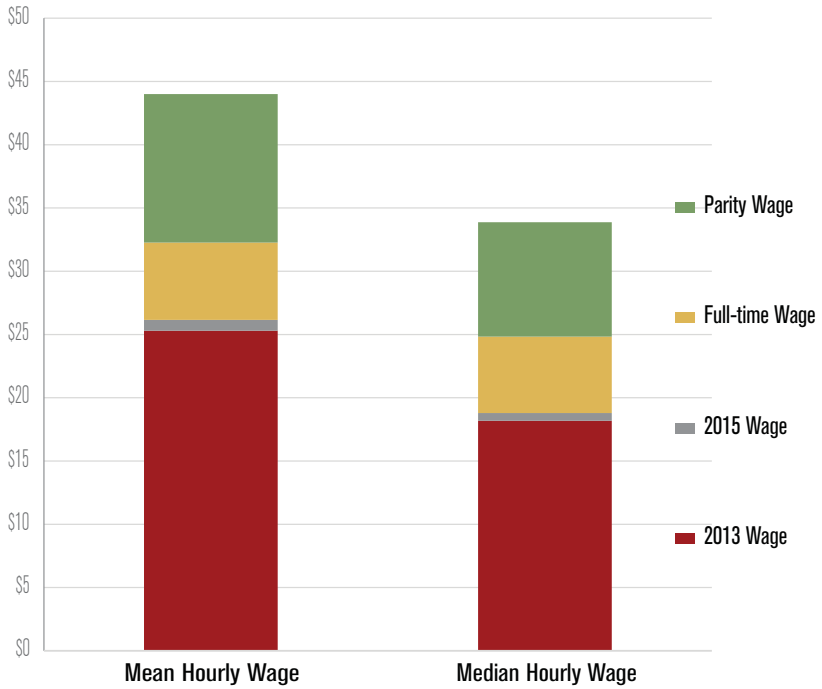
Splitting the difference between the median wage and the parity wage results in an hourly wage of $29.35. Half of this hourly wage is $14.68. This benchmark for a $14.68 minimum wage exceeds the value of $13.93 that the $15.25 wage is projected to have when it takes effect in 2019.

Figure 7.1. Value of the Minimum Wage Each Year with 2 Percent Inflation



Source: City of Los Angeles minimum wage proposal adjusted to account for 2 percent annual inflation.

Figure 7.2. Mean and Median Hourly Wage in Los Angeles County, 2015



Data sources: OES wage survey 2013, Consumer Price Index for All Urban Consumers, Los Angeles region, American Community Survey 2009-2013 Public Use Microdata Sample for City of Los Angeles residents, U.S. Census Bureau Cost of Living Index.

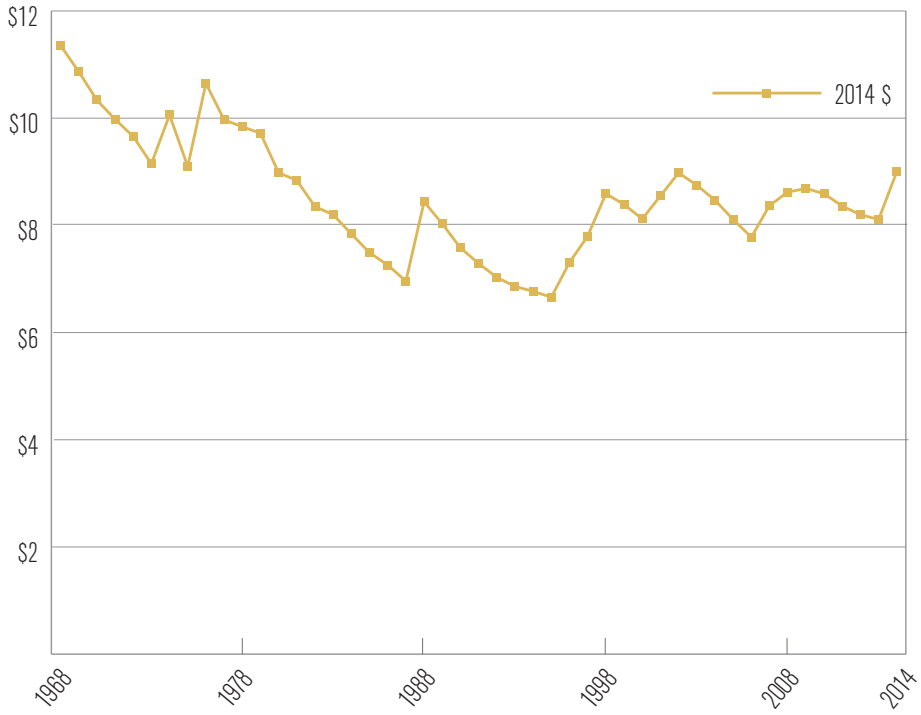
Angelenos' real purchasing power has steadily diminished due to inflation. Los Angeles needs to index the minimum wage to inflation to keep up with the cost of living.

Establishing Base/Ceiling and Incremental Increase

In this section, we recommend that Los Angeles adopt a base and a ceiling for minimum wage raises indexed to inflation.

California first set its minimum wage in 1916, 22 years before the first federal minimum wage, at 16 cents in nominal dollars. As we saw earlier, the real purchasing power of the minimum wage has steadily diminished because of inflation. The following table shows that this decline began in 1968, marked by a decrease from $11.36 to $9.00 in 2014 dollars (Figure 7.3).[15] Although the state increased the minimum several times over the course of half a century, these bumps have not kept up with increases in the cost of living. The value of the minimum wage continues to erode as the price of basic necessities rises.

Figure 7.3. Los Angeles Minimum Wage in 2014 Dollars



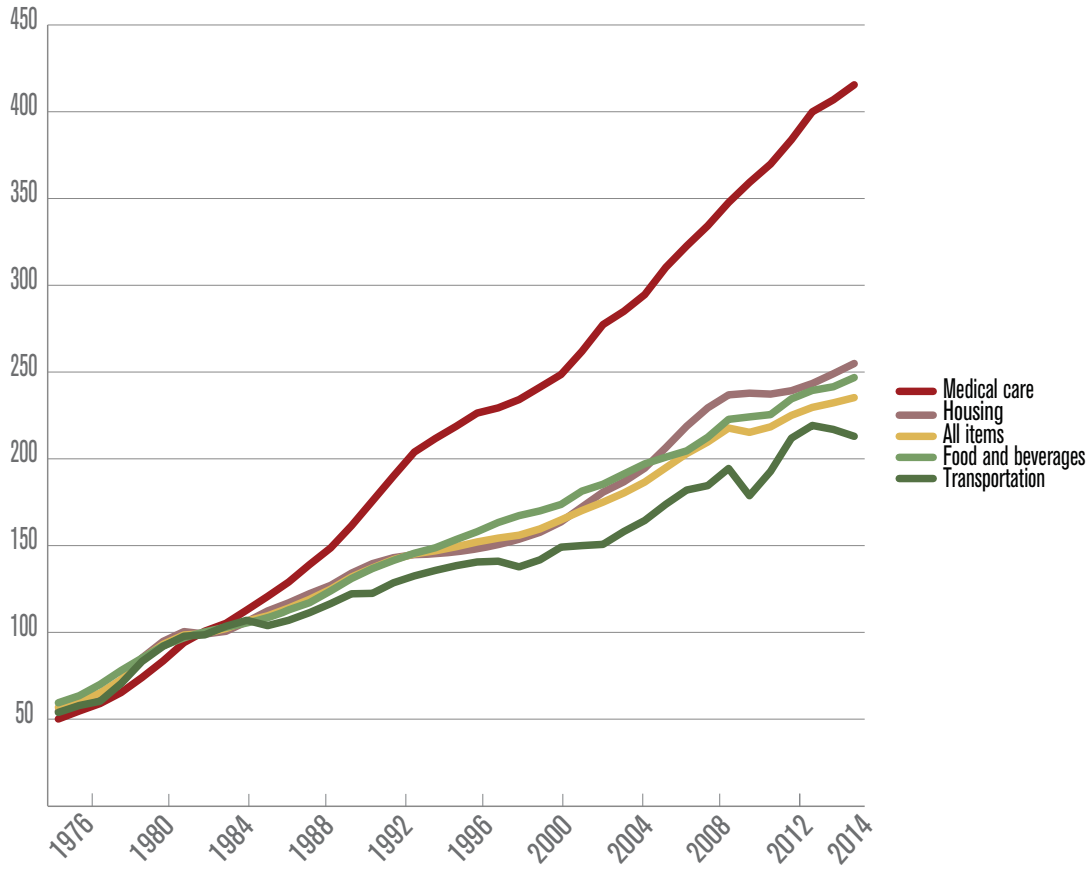
Sources: ERT analysis of California Department of Industrial Relations' History of California Minimum Wage and Bureau of Labor Statistics' Consumer Price Index for All Urban Consumers and Urban Wage Earners and Clerical Workers in Los Angeles-Riverside-Orange County, California, 1982–1984 base.

Figure 7.4 illustrates increases in basic needs over the past four decades. Among basic needs for Angeleno families, medical expenses rose most dramatically. This includes the cost of prescription drugs and medical supplies, doctor's visits, and hospital care. In 1999, one day in the hospital cost a Californian $1,408; in 2012, the daily bill totaled $3,002.[16] Fuel and utilities prices have also increased rapidly.

To prevent wage erosion, we recommend that Los Angeles, like 14 of the 18 municipalities that have increased their minimum wages, keep pace with increases in the cost of living by indexing the minimum wage to inflation after 2019. That means that after 2019, the annual increases to the minimum wage will be based on the Consumer Price Index for Urban Wage Earners and Clerical Work (CPI-W) in the Los Angeles region.[17]

The Consumer Price Index (CPI) is the best available economic benchmark for setting minimum wage increases. It is widely used and understood, and it is an accurate gauge of inflation. The CPI reflects the household spending patterns for basic goods and services, such as food and housing, in the Los Angeles region. The CPI for urban wage earners and clerical workers is the most appropriate measure of the population at or slightly above the minimum wage. According to the Bureau of Labor Statistics, CPI-W is a measure of families for which half of the income is from clerical or wage occupations and at least one of the earners has been employed for at least 37 weeks during the past 12 months.

Figure 7.4. Consumer Price Index for Los Angeles Region



Source: Bureau of Labor Statistics' Consumer Price Index for Urban Wage Earners and Clerical Work in Los Angeles-Riverside-Orange County, California, base period is 1982–84.

Many public programs use the CPI-W as an annual adjustment factor. For instance, Social Security beneficiaries and food stamp recipients have their benefits adjusted by the CPI.

The average rate of inflation for the Los Angeles region in the past 20 years is 2 percent. External factors can cause rising or deflating prices, despite the declared intention of the Federal Reserve to maintain inflation at 2 percent for the next decade.[18] To avoid abrupt changes to the minimum wage, we recommend that the ceiling and the floor of annual increases reflect an equivalent buffer above and below the projected rate of inflation. Therefore, we recommend an increase ceiling of no greater than 4 percent. Should the region experience deflation in the future, we suggest that the minimum wage stay constant. In sum, we propose an increase base of 0 percent and ceiling of 4 percent in annual adjustments to the minimum wage based on changes in the CPI-W.

Enforcement

Currently 30 percent of Los Angeles workers receive less than the minimum wage due to wage theft.

This section addresses best practices to enforce minimum wage laws and stop wage theft. Wage theft occurs any time a worker receives less than that to which he or she is legally entitled. Most common forms of wage theft include failure to provide minimum wage, overtime, or meal and rest breaks; requiring employees to work off-the-clock without compensation; and illegal deductions from pay, often by deducting tips from wages.[19]

Raising the minimum wage in Los Angeles has particular implications for wage theft enforcement because Los Angeles has the highest rate of wage theft in the country. Nationwide, 68 percent of low-wage workers experience wage theft in any given week.[20] In Los Angeles, that rate is 88.5 percent.[21]

Research related to wage theft has found:

- 30 percent of Los Angeles low-wage workers receive less than the minimum wage in any given week[22]
- Wage theft in Los Angeles is pervasive in 23 low-wage industries, from car washes to garment factories to restaurants, but also includes retail, and even banking and education[23]
- Low-wage workers lose 12.5 percent of their income to wage theft, more than $2,000 from an income of $16,500[24]
- Workers in Los Angeles collect just 13 percent of what the State Labor Commissioner says they're owed when they win wage claims for unpaid wages.[25]

Like local minimum wage laws, local efforts to combat wage theft have increased dramatically in recent years. Houston, Chicago, Miami, Santa Clara, San Francisco, Seattle, and Washington, D.C. have implemented local wage theft ordinances irrespective of increases to the minimum wage.[26] In addition, stronger wage enforcement provisions have accompanied local minimum wage increases.

Table 7.3 offers a bird's-eye view of the best wage enforcement practices across municipalities. A comprehensive chart in the Appendix provides detailed information about each provision across jurisdictions. We recommend that Los Angeles adopt all of them, as no single approach addresses wage theft across industries and employers

Designate an Enforcement Agency

Most municipalities designate a city entity to enforce wage laws. Processes vary across jurisdictions, but good enforcement results from designated funding, staffing, inter-agency cooperation, and proactive investigation.[27] Some, like Oakland, San Francisco, San Diego, Seattle, and Washington D.C., receive and adjudicate claims for unpaid wages. Others, like Chicago, Houston, and Santa Clara, don't receive claims, but task existing city agencies with enforcing claims once a state court or agency has decided them.[28] Although beyond the scope of this report to detail each city or county's enforcement agency, in general very few cities rely solely on workers to enforce unpaid wages through private lawsuits.

California cities in particular rely on city agencies to investigate claims for enforcement of minimum wage laws. This is because the state agency tasked with investigating and citing employers for unpaid wages, the Division of Labor Standards Enforcement's (DLSE) Bureau of Field Enforcement, cannot enforce minimum wages that are higher than the state minimum.[29] Furthermore, it remains unclear whether the DLSE has authority to hear claims for retaliation against workers for enforcing local minimum wage laws.[30]

Table 7.3. Enforcement across Jurisdictions

	Enforcement Agency	Revoke Licenses/ Permits/Contracts	Liens	Posting & Payroll Access	Fines & Penalties	Criminal Penalties	Private Right of Action	Retaliation Protection	Outreach & Education
Albuquerque, NM				Y			Y	Y	
Berkeley, CA	Y	Y		Y	Y		Y	Y	Y
Bernalillo Cnty., NM				Y			Y		
Chicago, IL	Y	Y		Y	Y		Y	Y	
Houston, TX*	Y	Y			Y			Y	
Oakland, CA	Y	Y		Y	Y		Y	Y	Y
Las Cruces, NM				Y			Y		
Louisville, KY					Y		Y		
Miami, FL*	Y				Y				
Montgomery Cnty., MD	Y							Y	
Mountain View, CA	Y	Y		Y	Y		Y	Y	
Richmond, CA	Y	Y		Y	Y		Y	Y	
San Diego, CA	Y				Y		Y	Y	Y
San Francisco, CA	Y	Y	Y	Y	Y		Y	Y	Y
San Jose, CA	Y	Y		Y	Y		Y	Y	
Santa Clara, CA*	Y	Y			Y				
Santa Fe, NM	Y	Y		Y		Y	Y	Y	
Seattle, WA	Y			Y	Y	Y	Y	Y	Y
Sunnyvale, CA	Y	Y		Y	Y		Y	Y	
Wash., D.C.	Y	Y	Y	Y	Y	Y	Y	Y	

**No higher minimum wage but implemented wage theft enforcement provisions*

Revoke, Suspend, and Terminate City-Issued Business Licenses, Permits, and Contracts

Most cities revoke, deny, or suspend the business licenses, permits, and contracts awarded by the city (if any) until employers with outstanding unpaid wages come into compliance. For employers whose business requires licenses, permits, or contracts with the city, this practice provides a powerful incentive to comply with the law.[31] Employers in the unregulated economy, however, or those who unscrupulously abandon businesses to evade liability, suffer little due to revoked licenses, permits, or contracts.[32]

Create Liens for Unpaid Wages

A lien is a temporary hold on the property of debtor until the debt is paid. Liens against employer property such as real estate, accounts receivable, and inventory help guarantee that workers receive unpaid wages.[33] Liens are necessary because workers who win wage court orders for unpaid wages seldom collect what they are owed. In California, 83 percent of workers with final judgments for unpaid wages from the DLSE never collect any payment.[34]

San Francisco allows its Office of Labor Standards Enforcement to place a lien on employer property for administrative fines and penalties, and Washington, D.C., allows workers and the city to file a lien on employer property for both outstanding wages and fines.

A lien for unpaid wages is an increasingly popular tool,[35] and we recommend they be available as early in the claim process as possible to prevent employers and assets from disappearing after a worker files a claim to recover wages.

Notice to Employees and Access to Payroll Records

Almost all cities and counties require employers to post notice of wage requirements in languages spoken by workers and to allow inspection of payroll records by employees, advocates, and investigators.

Impose Stiff Fines, Citations, and Penalties

Likewise, almost all cities and counties issue administrative fines, citations, and penalties greater than the state's. Hefty fees and fines generate revenue for the city, deter future violations, and compensate victims enough to make it worth the trouble to file a complaint.[36]

Criminalize Wage Theft

Several municipalities (including Seattle and Santa Fe) criminalize wage theft as a misdemeanor. Threat of jail time, bench warrants, and court fees and fines can deter violators and bring uncooperative parties to the table.[37]

Create a Private Right of Action

Nearly every city has created a private right of action enabling workers to directly sue their employers for unpaid wages.

Improve Anti-Retaliation Protection

Finally, the majority of cities and counties include heightened protection against retaliation. Fear of retaliation stops wage theft enforcement by preventing workers from filing complaints or cooperating with investigators. The best provisions to combat retaliation place the burden on employers to justify their actions (called a "rebuttable presumption"), protect immigrant workers, and protect the anonymity of workers who cooperate with investigators.[38]

Fund Outreach and Education

San Francisco and Seattle have dedicated resources to fund outreach and education to workers and employers; San Diego plans to do the same.[39] These cities direct funds to community-based organizations with cultural and linguistic expertise, whose outreach builds community trust and deepens awareness of wage laws.[40]

Best Practices in Action: San Francisco's Success

The foregoing enforcement measures are quite recent, limiting data about their efficacy. However, data from San Francisco, the oldest of these regimes, shows dramatically better outcomes than those of the state. Statewide, just 17 percent of workers with final judgments issued by the state's DLSE collect anything at all.[41] San Francisco's Office of the Labor Standards Enforcement (OLSE) collects full back wages plus interest in 90.5 percent of cases.

As Table 7.4 indicates, San Francisco's OLSE has received 653 claims for unpaid minimum wages since 2003, when the city first increased its minimum wage. It found that employers owed wages in 423 of these cases. Only 10 employers failed to pay anything at all.

Table 7.4. San Francisco's OLSE Collections of Back Wages Owed, February 2004–July 2013

Cases in which OLSE found employer owed back wages	423	Percent of Cases
Back wages & interest collected	383	90.5
Employer making payments (as of July 2013)	30	7.1
Employer failed to pay all back wages & interest	10	2.4

Source: San Francisco OLSE Minimum Wage Ordinance Annual Report (2013).

As of February 2015, OLSE has just one half-time and five full-time investigators designated to receive and investigate claims for unpaid minimum wage and overtime, at an estimated cost of $1.4 million for investigator salaries.[42] OLSE attributes its success to a number of factors, including:

- Anonymous claims and investigation process. Unlike the state administrative claims process, which functions much like a court claim in which the worker wins her case and collects independently, OLSE is a confidential, complaint-driven investigative agency. When a worker files a complaint, investigators control the claim from start to finish on behalf of the claimant and all similarly situated workers, dramatically improving the likelihood of success.[43]
- Sustained education and outreach for both employers and workers. OLSE awards $482,125 in contracts to community-based organizations to spearhead intensive multilingual education and outreach programs. This initial point of contact builds trust between workers and OLSE investigators.[44]
- Interagency cooperation. OLSE works closely with the state's DLSE, the county Board of Health, and other agencies to conduct investigations, audit payroll records, and revoke permits.[45]

Table 7.5 illustrates outcomes of all claims filed with the OLSE since 2004.

Referred to other agency	65	9.95%
Case closed/no back wages paid	140	21.44%
Full back wages + interest paid	383	58.65%
Employer in process of payment	30	4.59%
Unrecovered claims	10	1.53%
Administrative hearing	5	.77%
Total complaints received	653	100%

Source: San Francisco OLSE Minimum Wage Ordinance Annual Report (2013).

Wage Theft Enforcement in Los Angeles

Under state law, any worker may sue his or her employer in court for unpaid wages or file an administrative claim for unpaid wages with the state DLSE. The DLSE has offices located throughout the state. As an under-resourced agency, the downtown Los Angeles field office has two deputies to conduct hearings for roughly 5,000 claims filed a year. Between 2008 and 2011, the DLSE ordered employers to pay over $32 million in unpaid wages to workers in Los Angeles. Employers paid just $4 million, or about 13 percent of wages owed. Raising the minimum wage in a city with dramatic under-enforcement of the current wage demands stronger enforcement tools.

We recommend that the City of Los Angeles adopt the menu of enforcement options outlined in Table 7.3.

Data Dashboard: Tools for Managing Impacts

Tools to monitor the effects of the minimum wage increase on the economy will enable City of Los Angeles elected officials, public agency staff, residents, and business owners to implement five annual increases in the minimum wage with confidence that

any unintended impacts can be identified and managed. We recommend that the city monitor the impacts of these increases by comparing annual changes in Los Angeles's economic performance to select regions in the following data points – comparisons we refer to as the "Data Dashboard":

- Business sales
- Employment
- Wages

Tools to monitor the effects on the economy will enable the City of Los Angeles to implement increases in the minimum wage with confidence

The Data Dashboard provides benchmarks showing how the City of Los Angeles performs in business sales, employment, and wages relative to the balance of Los Angeles County and the State of California. The Dashboard uses public data from the U.S. Census Bureau, U.S. Bureau of Labor Statistics, California Employment Development Department, and California Board of Equalization, as well as administrative data that the City government already collects. We recommend frequent monitoring increments for geographic comparisons, as well as modeling a forecast of the city's economic trends separately in order to asses 'outlier' years. We recommend that the Legislative Analyst submit annual Data Dashboard updates to the Mayor's Office and the City Council's Economic Development Committee to report on effects of the minimum wage ordinance.

Los Angeles Today: Business Baselines before the Minimum Wage Increase

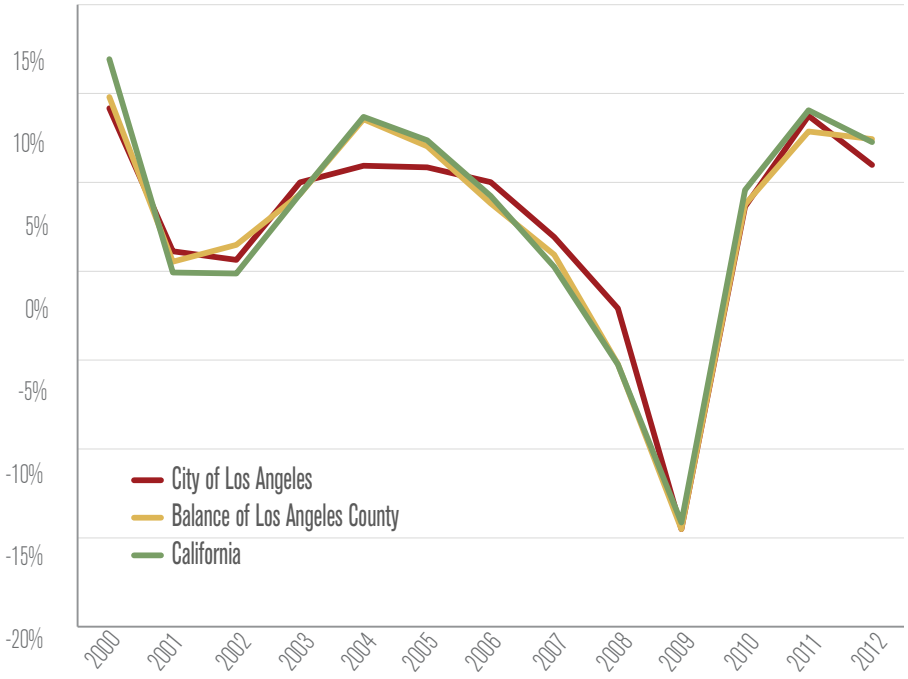
Taxable sales volume provides direct evidence about how well the retail economy is adapting to increased labor costs. We recommend monitoring the following Data Dashboard indicators about the city's business environment:

How much Revenue is Business Generating?

- Recommended method: review taxable sales by city and industry
- Recommended data source: California Board of Equalization, Taxable Sales in California (Sales & Use Tax), quarterly
- Breakouts by retail business types for taxable sales
- Recommended comparison regions:
  - Balance of Los Angeles County
  - State of California

Baseline trend data for taxable sales in the City of Los Angeles appear in Figure 7.5, alongside comparison regions. Percentage changes in taxable sales are remarkably similar for the past 13 years in compared to the balance of the county and the state. The largest negative variance between the City of Los Angeles and the balance of Los Angeles County and the State of California is -2.8 percent in 2000 (Table 7.6). We recommend using this negative variance of as a preliminary flag that calls for further examining minimum wage impacts on the health of the local economy. In addition, we recommend that the city have in place a more in-depth analysis of the *Median Absolute Deviation* of business sales trends discussed later in this section, with breakouts by retail business types. This additional analysis will equip the city to differentiate negative variation that is attributable to anomalies in the city's economy from variation that is attributable to anomalies in the comparison regions.

Figure 7.5: Percent Annual Change in Taxable Sales, All Industries



Source: California Board of Equalization. 1999-2012. Taxable Sales in California (Sales & Use Tax).

Table 7.6: Variation in Annual Sales Tax Growth between the City of Los Angeles and Other Regions

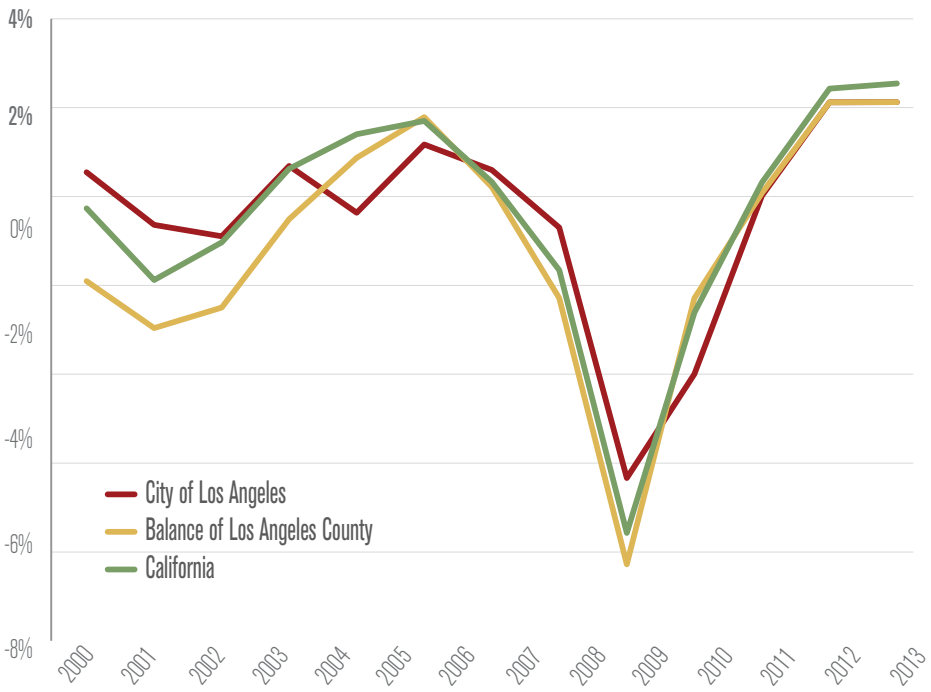
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
City of Los Angeles	9.2%	1.1%	0.6%	5.0%	5.9%	5.8%	5.0%	1.9%	-2.1%	-14.5%	3.6%	8.7%
Balance of Los Angeles County	9.8%	0.5%	1.5%	4.3%	8.5%	7.0%	3.8%	0.9%	-5.2%	-14.5%	3.8%	7.9%
State of California	11.9%	-0.1%	-0.1%	4.3%	8.7%	7.4%	4.2%	0.2%	-5.2%	-14.1%	4.6%	9.1%
Max Annual Change	11.9%	1.1%	1.5%	5.0%	8.7%	7.4%	5.0%	1.9%	-2.1%	-14.1%	4.6%	9.1%
Min Annual Change	9.2%	-0.1%	-0.1%	4.3%	5.9%	5.8%	3.8%	0.2%	-5.2%	-14.5%	3.6%	7.9%
Difference: LA City vs. Max	-2.8%	0.0%	-0.8%	0.0%	-2.7%	-1.5%	0.0%	0.0%	0.0%	-0.4%	-0.9%	-0.3%

Los Angeles Today: Employment Baselines before the Minimum Wage Increase

A second core metric of the city's economy is employment. Sustaining and increasing employment levels over time is of paramount important to the City of Los Angeles, and—barring periodic recessions—is a reasonable expectation amid a phased-in minimum wage increase. We recommend monitoring the following Data Dashboard indicators about employment:

1. Is Employment Growing or Shrinking?
    - Recommended method: total employment, all industries, including self-employment, with possible breakout by industry sector
    - Recommended data sources: California Employment Development Department, Quarterly Census of Employment and Wages, confidential establishment-level data (ES-202); U.S. Census Bureau County Business Patterns
    - Recommended comparison regions:
        - Balance of Los Angeles County
        - State of California
2. Are People Working More or Less?
    - Recommended method: weeks and hours worked for employed persons, workers per family, and share of workers who are self-employed
    - Recommended source: U.S. Census Bureau, American Community Survey, annual, U.S. Bureau of Labor Statistics, Nonemployer Statistics
    - Recommended comparison regions:
        - Balance of Los Angeles County
        - State of California

Figure 7.6: Annual Employment Change, All Industries



Source: California Employment Development Department-Labor Market Information Division. 2000-2013. Quarterly Census of Employment and Wages, including public (county) and confidential establishment-level data ES-202 (City of Los Angeles) data series. Notes: (*) denotes estimates of City of Los Angeles and balance of LA County made for 2012 and 2013 based on 2011 county-level trends, in the absence of establishment-level data.

Annual percentage changes in employment in the City of Los Angeles also have mirrored the balance of Los Angeles County and the State of California, especially in recent years (Figure 7.6). The largest negative variance in annual employment change between the City of Los Angeles and the balance of the county and the state over the past 13 years was -1.5 percent in 2005 (Table 7.7). We recommend using this negative variance of as a preliminary flag that calls for further examining minimum wage impacts on the health of the local economy. We also recommend analyzing the median absolute deviation of employment trends, with breakouts by industry sector, to provide insights for understanding how employment in the city changes in relation to comparison economies.

Table 7.7: Variation in Employment Change between the City of Los Angeles and Comparison Regions, State of California

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
City of Los Angeles	1.10%	0.10%	-0.12%	1.22%	0.33%	1.62%	1.14%	0.04%	-4.72%	-2.74%	0.65%	2.43%	2.43%
Balance of Los Angeles County	-0.98%	-1.87%	-1.48%	0.21%	1.37%	2.15%	0.81%	-1.30%	-6.36%	-1.30%	0.70%	2.43%	2.43%
State of California	0.41%	-0.95%	-0.24%	1.16%	1.82%	2.07%	0.91%	-0.76%	-5.77%	-1.57%	0.90%	2.69%	2.79%
Max Annual Change	1.1%	0.1%	-0.1%	1.2%	1.8%	2.1%	1.1%	0.0%	-4.7%	-1.3%	0.9%	2.7%	2.8%
Min Annual Change	-1.0%	-1.9%	-1.5%	0.2%	0.3%	1.6%	0.8%	-1.3%	-6.4%	-2.7%	0.6%	2.4%	2.4%
Difference: LA City vs. Max	0.0%	0.0%	0.0%	0.0%	-1.5%	-0.5%	0.0%	0.0%	0.0%	-1.4%	-0.3%	-0.3%	-0.4%

Los Angeles Today: Wage Baselines before the Minimum Wage Increase

Along with employment levels, another core metric of the city's economy and its workers' well-being is wages. Although the proposed minimum wage ordinance itself should boost average wages across the City of Los Angeles, it is important to validate this expectation. We recommend monitoring the following Data Dashboard elements about wages:

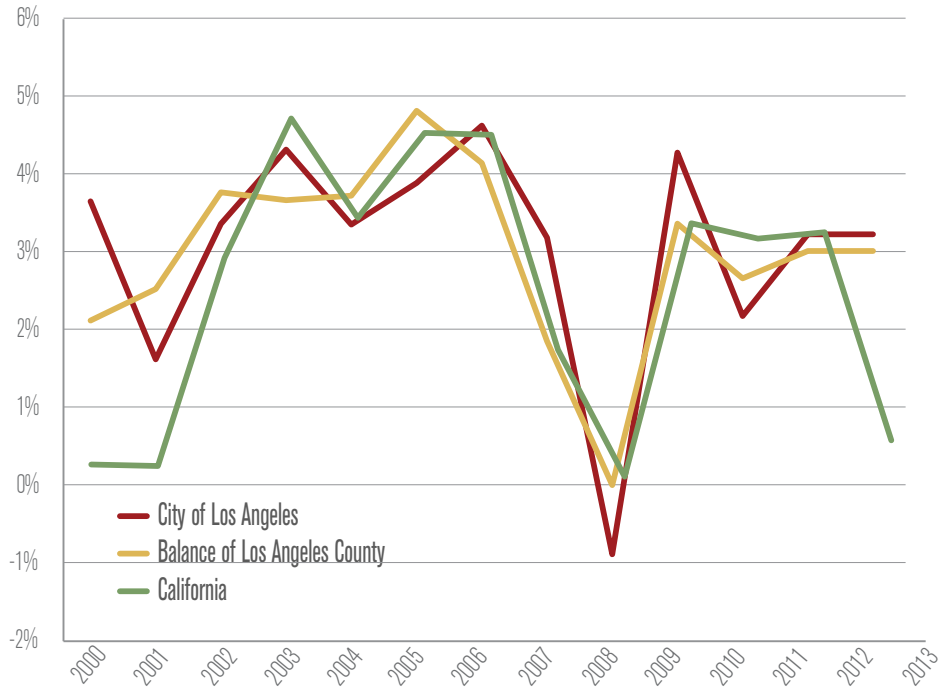
1. How Much Are People Earning?
    - Recommended method: annual average, for all industries and broken out by industry sector
    - Recommended data sources: California Employment Development Department, Quarterly Census of Employment and Wages, confidential establishment-level data (ES-202); U.S. Census Bureau County Business Patterns; U.S. Census, American Community Survey
    - Recommended comparison regions:
        - Balance of Los Angeles County
        - State of California

Average wages change more dramatically year to year than employment or taxable sales (Figure 7.7). We attributable some of this volatility to the two severe economic recessions, but the City of Los Angeles nonetheless still roughly resembles the two comparison regions. The largest negative variance in annual average wage change between the City of Los Angeles and the balance of Los Angeles County and State of California was -1.0 percent in 2009 and 2011 (Table 7.8). We recommend using this

negative variance of as a preliminary flag that calls for further examining minimum wage impacts on the health of the local economy. We also recommend analyzing the median absolute deviation of wage trends, with breakouts by industry sector, to provide insights for understanding how wages in the city change in relation to comparison economies.

Comparisons between the City of Los Angeles and neighboring cities within the county provide further insights, in addition to the county aggregate analysis featured above. This analysis may reveal upward pressure on the city's immediate neighbors as the minimum wage ordinance is implemented. Furthermore, disaggregated industry and sector data can reveal wage differences across industries, not otherwise revealed in data on all industries combined.

Figure 7.7: Annual Average Wages Change, All Industries



Source: California Employment Development Department-Labor Market Information Division. 2000-2013. Quarterly Census of Employment and Wages, including public (county) and confidential establishment-level data ES-202 (City of Los Angeles) data series. Notes: (*) denotes estimates of City of Los Angeles and balance of LA County made for 2012 and 2013 based on 2011 county-level trends, in the absence of establishment-level data.

Table 7.8: Annual Average Wages Change, All Industries

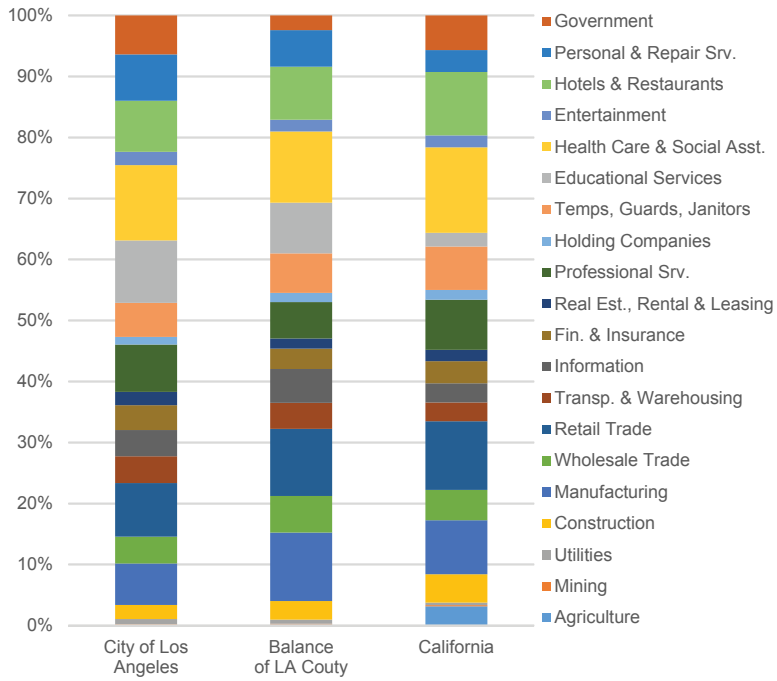
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
City of Los Angeles	3.6%	1.6%	3.4%	4.3%	3.3%	3.9%	4.6%	3.2%	-0.9%	4.3%	2.2%	3.2%	3.2%
Balance of Los Angeles County	2.1%	2.5%	3.8%	3.7%	3.7%	4.8%	4.1%	1.8%	0.0%	3.4%	2.7%	3.0%	3.0%
State of California	0.3%	0.2%	2.9%	4.7%	3.4%	4.5%	4.5%	1.7%	0.1%	3.4%	3.2%	3.2%	0.6%
Max Annual Change	3.6%	2.5%	3.8%	4.7%	3.7%	4.8%	4.6%	3.2%	0.1%	4.3%	3.2%	3.2%	3.2%
Min Annual Change	0.3%	0.2%	2.9%	3.7%	3.3%	3.9%	4.1%	1.7%	-0.9%	3.4%	2.2%	3.0%	0.6%
Difference: LA City vs. Max	0.0%	-0.9%	-0.4%	-0.4%	-0.4%	-0.9%	0.0%	0.0%	-1.0%	0.0%	-1.0%	0.0%	0.0%

Differences in the Industrial Composition of Los Angeles and Comparison Regions

The economies of the balance of Los Angeles County and the State of California closely resemble that of the City of Los Angeles since 2000, compared to other regions we studied, including the City of Long Beach, Orange County, City of San Diego, San Diego County, and the nine-county San Francisco Bay region. But the city has no exact twin: its mix of employment broken out by industry is slightly different from the balance of the county and the state (Figure 7.8), which appear to be the best points of comparison for the city.

Differences between the city and the two comparison regions include agricultural employment, which is minimal within Los Angeles County while it remains significant statewide (three percent). Manufacturing and Retail are a smaller share of employment in the City of Los Angeles than in the balance of the county and the state, while the city has a greater share of employment in education services. The city and state have similar shares of employment in the public sector (six percent), while the balance of the county has only two percent. These variations in industry sector-level employment can cause differences in business cycle timing between the three areas, since slowdowns often originate in specific industries before later affecting the overall economy.

Figure 7.8: Employment by Industry for the City of Los Angeles, Balance of County and State



Source: California Employment Development Department-Labor Market Information Division. 2000-2013. Quarterly Census of Employment and Wages, including public (county) and confidential establishment-level data ES-202 (City of Los Angeles) data series.

Investigating Changes in the City of Los Angeles' Economic Trends by Analyzing the Median Absolute Deviation of Data Dashboard Indicators

We are recommending a two-bell approach to identifying unintended consequences of minimum wage increases. As just explained, the first bell is negative variation in annual change in the city's taxable sales, employment or wages compared to the two comparison regions that exceed the maximum negative variation that has occurred since 2001. However, this technique does not explain the causes behind such changes. When a negative change is initially flagged by the City of Los Angeles, it will be necessary to assess its

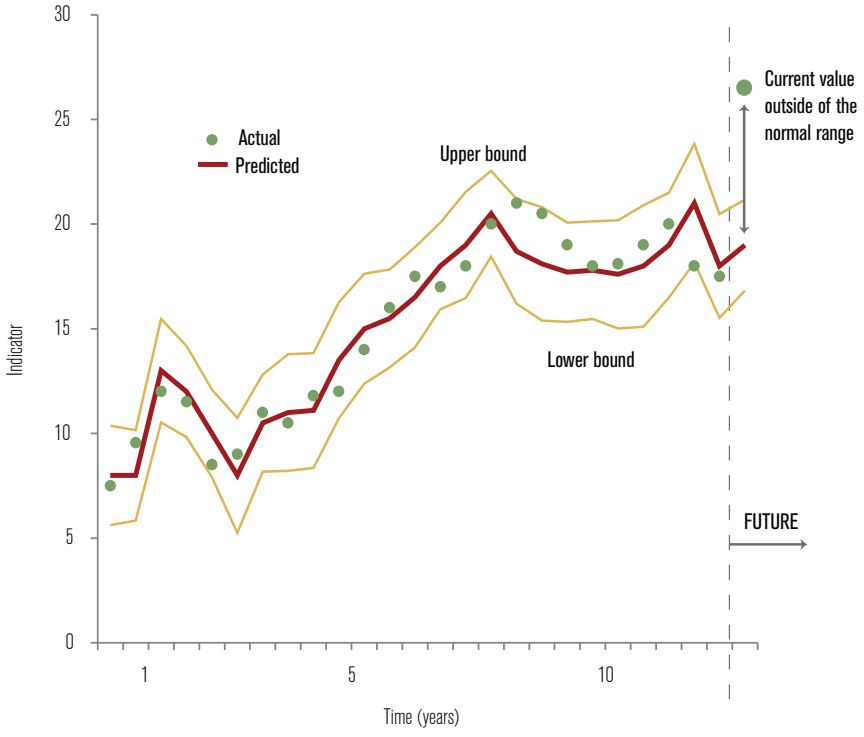
significance through a deeper analysis of the dynamics behind it to determine if there is a second bell – a problem linked to higher minimum wages.

To accomplish this, we recommend using multiple forecasting models to project trends for data indicators such as taxable sales, employment and wages at the level of industry sectors, retail business types, and sub-city geographical scales. This procedure analyzes median absolute deviation in existing baseline data to develop the model, then tests the model using past data, and after the model is refined and validated uses it to assess future outcomes from the three data dashboard monitoring elements.

The objective in doing this approach is to detect changes over time in the City of Los Angeles' economic trends so that any outlier that does not fit within the city's existing trends—those falling outside the expected range on the basis of the prior years' pattern of the trend and seasonality—can be identified, as illustrated in Figure 7.9. These changes can be additive outliers (an unusual value in the indicator series due to a temporary shock such as a strike, extremely cold winter or random effects) and level shifts (a permanent shift, either up or down, in the level of the indicator series showing a structural change). The effect of the proposed minimum wage increase can be a level shift and a forecasting model may be needed to detect it for specific industries and geographies.

We recommend using forecasting models to decompose the observed historical data into trend, seasonal, and irregular components and assign smoothing weights to the existing data points according to how important they are in predicting future quarters' indicator values. Predicted data points should be estimated with upper/lower confidence interval bounds and plotted graphically to compare the current quarter's mean with previous means and predicted means to identify the outliers—if the current quarter value is an outlier. This way, industries and geographies triggering the unusual behavior for the city can be identified. Please refer to our data appendix "Detecting Anomalous Behavior in Los Angeles' Economic Performance" for detailed instructions.

Figure 7.9: Using Forecasting to Flag Data Points outside the Confidence Interval Bounds



Source: Hypothetical data for illustration purposes only.

How Soon Data Dashboard Elements Become Available

We recommend annual reporting intervals. Public agencies responsible for the economic data cited in this section typically produce it annually, quarterly or monthly, and release it after some time lag due to the data collection process and subsequent data cleaning and adjustments (Figure 7.10). Building off of baseline data presented in this report, each subsequent data release can offer an additional window into the effects of a minimum wage ordinance, allowing City of Los Angeles officials to track the effects of this important policy. These annual reports will be most informative in years three through five, when the complete array of recommended data is available.

Figure 7.10: Chronology and Sources of Data Dashboard Elements

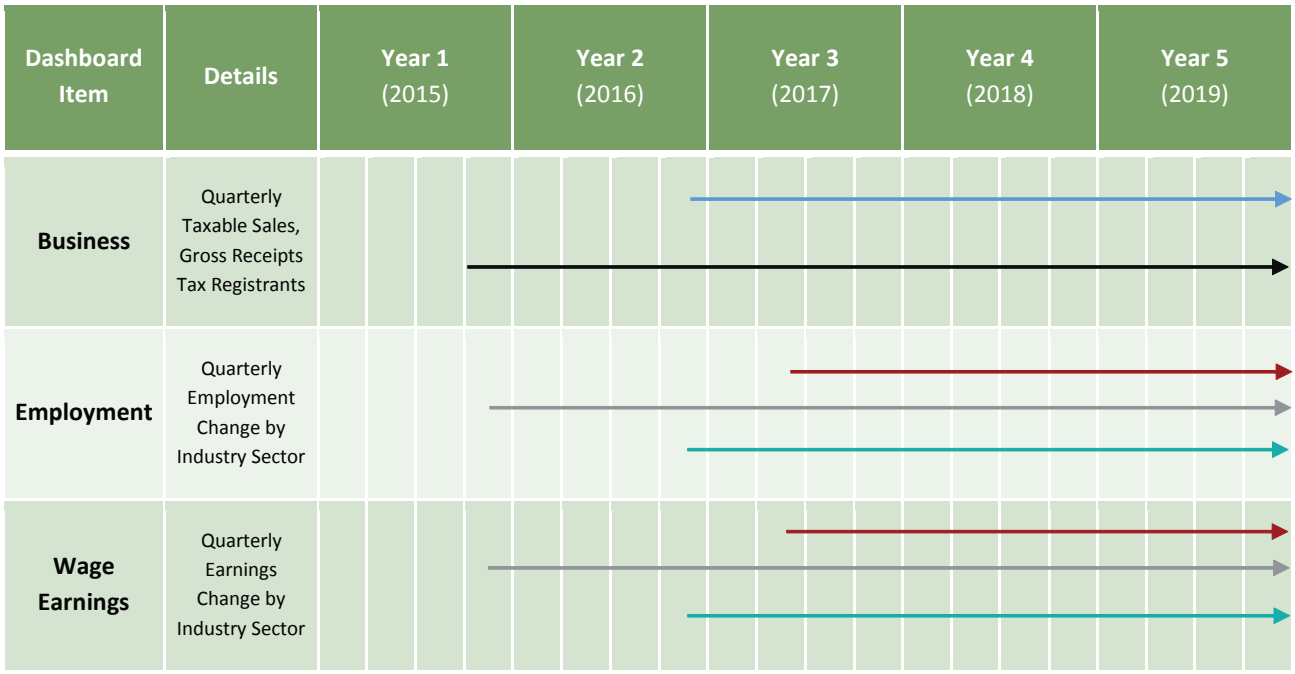


Table notes: The Legend for data sources in Figure 7.10:

- City of Los Angeles, Department of Finance, *Business Tax Registry*
- CA Board of Equalization, *Taxable Sales in California (Sales & Use Tax)*
- CA Employment Development Department, *Quarterly Census of Employment and Wages*
- U.S. Census Bureau, *American Community Survey*
- U.S. Census Bureau, *County Business Patterns*

1. National Conference of State Legislation, (2015, February 24). Review of state minimum wages in 2014. Retrieved from http://www.ncsl.org/research/labor-and-employment/state-minimum-wage-chart.aspx
2. San Diego's 2014 minimum wage ordinance will take effect if voters approve it on a referendum in June 2016.

3. United States Department of Labor (2015, January 1). Minimum Wages for Tipped Employees. Re-trieved from http://www.dol.gov/whd/state/tipped.htm

4. Cal. Labor Code § 351; see also Henning v. Industrial Welfare Commission, 46 Cal.3d 1262, 1278 (1988).

5. Cal. Min. Wage Order 2014; Cal. Labor Code §§ 221, 224.

6. Interview with Gary Toebben, CEO Los Angeles Chamber of Commerce. (2015, February 18).

7. International Revenue Service, (2015, February 9). Exempt Organizations Business Master file. Re-trieved from http://www.irs.gov/Charities-&-Non-Profits/Exempt-Organizations-Business-Master-File-Extract-EO-BMF

8. Ibid.

9. Jan Rutkowski. 2003. "The Minimum Wage: Curse or Cure?" Human Development Economics, Europe and Central Asia Region, World Bank, http://siteresources.worldbank.org/inteconeval/Resources/MinimumWageNoteJul03v2.pdf (accessed February 26, 2015), p. 13.

10. Arindrajit Dube. 2014. "Designing Thoughtful Minimum Wage Policy at the State and Local Levels." Brookings Institute, http://www.brookings.edu/research/papers/2014/06/19-minimum-wage-policy-state-local-levels-dube (accessed February 26, 2015), pp. 1–2.

11. Ibid., p. 5.

12. American Community Survey 2013, Table S2001, Earnings in the Past 12 Months (in 2013 Inflation-Adjusted Dollars).

13. U.S. Census Bureau, Cost of Living Index, Table 728. Selected Urban Areas: Annual Average 2010, U.S. Statistical Almanac.

14. The estimated 2015 mean and median wage was computed by (1) increasing the 2013 OES wage survey mean and median wage for Los Angeles County by 3.4 percent to account for in-flation from 2013 to 2015; (2) increasing the mean wage by 23 percent and the median wage by 32 percent to correct the effect of part-time workers in reducing hourly earnings in the OES sur-vey, which treats all annual wages as full-time employment, dividing them by 2080 hours to es-timate hourly wages—the correction factors were derived by comparing earnings reported in ACS 2009 to 2013 for all workers to full-time workers; and (3) increasing earnings by 36.4 percent to account for the higher cost of living in the Los Angeles region compared to the United States.

15. Based on presentation by Manuel Pastor at Economic Sustainability Roundtable, October 15, 2014.

16. Kaiser Family Foundation. "Hospital Adjusted Expenses per Inpatient Day." Retrieved from http://kff.org/other/state-indicator/expenses-per-inpatient-day/ (accessed on February 14, 2015).

17. Consumer Price Index. Bureau of Labor Statistics. Retrieved from http://www.bls.gov/cpi/.

18. Federal Reserve Bank of Cleveland. 2015 (January 16). "Cleveland Fed Estimates of Inflation Expectations." Retrieved from https://www.clevelandfed.org/en/Our%20Research/Indicators%20and%20Data/Estimates%20of%20Inflation%20Expectations.aspx (accessed on February 14, 2015).

19. Ruth Milkman et al. 2010. "Wage Theft and Workplace Violations in Los Angeles: The Failure of Em-ployment and Labor Law for Low-Wage Workers." UCLA Institute for Research on Labor and Emloyment, p. 2-3.

20. Annette Bernhardt et al. 2009. "Broken Laws, Unprotected Workers: Violations of Employment and Labor Laws in America's Cities." National Employment Law Project, p. 5.

21. Ruth Milkman et al. 2010, p. 30.

22. Ibid.

23. Ruth Milkman et al. 2010., p. 12, 40.

24. Ibid., p. 4.

25. Author's analysis of Division of Labor Standards Enforcement wage claims adjudication unit data from 2008-2011.

26. Houston Mun. Code, Ch. 15, Art. IV, "Wage Theft Ordinance" (2013); Chicago Mun. Code Ch. 4-4-320 (2013); Miami-Dade County Mun. Code Ch. 22, "Wage Theft" (2010); Santa Clara Bd. of Supervisors Pol-icy Manual Ch. 5, §§ 5.5.5.4 (2015); San Francisco Ord. 205-06, "Minimum Wage Implementation and Enforcement" (2006); Seattle Ord. No. 123596, "Wage Theft Ordinance" (2011); Washington D.C. Coun-cil Bill 200671, "Wage Theft Prevention Amendment Act" (2014).

27. National Employment Law Project. 2011. "Winning Wage Justice: An Advocate's Guide to State and City Policies to Fight Wage Theft." P. 41-49, 53-54. Consult the Appendix for a complete table comparing these cities' agency processes and expenses.

28. "Winning Wage Justice: An Advocate's Guide to State and City Policies to Fight Wage Theft." 2011. p. 391.

29. Cal. Labor Code § 1197.1(a). Interview with David Balter, DLSE Staff Attorney. (February 25, 2015.)

30. Interview with David Bell, Staff Attorney DLSE. (February 25, 2015.)

31. "Winning Wage Justice," p. 25- 27. Interview with David Balter, DLSE Staff Attorney. Inter-view with Steve Zrucky, Senior Staff Attorney Legal Aid Foundation of Los Angeles. (February 25, 2015.)

32. Interview with Matthew Sirolly, Director Wage Justice Center Director. (February 20, 2015.)

33. Ibid, p. 113-116

34. Eunice Cho et al. 2013. "Hollow Victories: The Crisis in Collecting Unpaid Wages for California's Workers. National Employment Law Project and UCLA Labor Center.

35. Maryland enacted prejudgment wage liens in 2013. Legislators in New York and Washington intro-duced similar legislation this year. California introduced similar legislation last year. Md. Labor and Em-ployment Code §§ 3-1101 et seq. (2013); New York S-2232 (A-5501), 2015-2016 Reg. Sess. (2015); Wash. Sen. Bill 5567, 2015 Reg. Sess. (2015); Cal. A.B. 2416, 2013-2014 Reg. Sess. (2014).

36. "Winning Wage Justice," p. 19-20, 28-30.

37. Ibid, p. 34-36.

38. Ibid., p. 57-67.

39. San Francisco Office of Labor Standards Enforcement. 2013. Minimum Wage Ordinance Annual Re-port 2012-2013. P. 14. City of Seattle. 2015. Proposed Budget for 2015-2016. P. 462-463. http://www.seattle.gov/financedepartment/15proposedbudget/documents/OCR.pdf (accessed March 2, 2015). San Diego's Office of the Independent Budget Analyst. 2014. Estimated Cost of Enforcing Pro-posed New Minimum Wage and Sick Leave Laws. P. 8.

40. San Francisco Wage Theft Task Force. San Francisco Wage Theft Task Force Final Report. 2013. P. 23. Diego Rondon Ichikawa and Rebecca Smith. 2014. Delivering $15: Community-Centered Wage and Hour Enforcement in Seattle. National Employment Law Project, p. 12.

41. "Hollow Victories," p. 2.

42. Authors' analysis of staff salaries of 5.5 Contract Compliance Officers (CCO) that enforce the Minimum Wage Ordinance (MWO) and Paid Sick Leave Ordinance (PSLO). Salaries range from $78,702 to $125,346. Office of the Mayor, City and County of San Francisco. "Proposed Salary Ordinance as of June 2, 2014." Page 9. http://sfcontroller.org/Modules/ShowDocument.aspx?documentid=5390. (Accessed March 2, 2015.) Department of Human Resources, City and County of San Francisco. "Class Specification Contract Compliance Officer II." http://www.jobaps.com/SF/specs/classspecdisplay.asp?ClassNumber=2978 (Accessed March 2, 2015.)

43. San Francisco Office of Labor Standards Enforcement. 2013. Minimum Wage Ordinance Annual Re-port 2012-2013. P. 6.

44. Ibid, p. 14.

45. Ibid, p. 15-16.

46. Cal. Labor Code §§ 90.3-90.5. Workers may also file claims with the U.S. Department of Labor's Wage and Hour Division, but much less through this process than with the DLSE because federal minimum wage and overtime laws provide lower wages California. See 29 U.S.C. § 206; Cal. Lab. Code § 310.

47. Author's analysis of Division of Labor Standards Enforcement wage claims adjudication unit data from 2008-2011.

48. Ibid.

49. For our Data Dashboard elements, we benchmark annual changes in the City of Los Angeles against two similar regions. Our analysis of similarity between the City of Los Angeles and other geographic areas in the state revealed the city's strongest association with the balance of Los Angeles County and the state of California.

50. California Board of Equalization. 1999-2012. Taxable Sales in California (Sales & Use Tax). Data for large cities are broken out into the following types of retail and food services:

    - Home Furnishings and Appliance Stores
    - Bldg. Material and Garden Equip. and Supplies
    - Food and Beverage Stores
    - Motor Vehicle and Parts Dealers
    - Gasoline Stations
    - Clothing and Clothing Accessories Stores
    - General Merchandise Stores
    - Food Services and Drinking Places
    - Other Retail Group
    - All Other Outlets

Literature Review

Below is a synopsis of our literature review on unintended consequences of raising the minimum wage (see *Table 1: Studies of Unintended Consequences in Raising the Minimum Wage*). Our focus was on the adjustment channels firms undertake to pay increased labor costs, therefore, the following criteria was applied for inclusion:

- Study of enacted minimum wage increases, not projected estimates;
- Measure of adjustment channels, including employment and hours, prices, profits, nonwage benefits, human resource practices, and productivity;
- U.S.-based, but two studies looking at effects outside of the U.S. were included because they addressed changes to firm profits (Draca, Machin, and Van Reenen 2011 and Pacheco and Naiker 2006).

We found common methodological practices woven through the 18 studies. All used a change in minimum wage as the experimental group, whether federal or state in scale. A control group was based on either geography, such as an analogous county across a state border with different wage standards, or the time before the raise in income.

Table 1: Studies of Unintended Consequences in Raising the Minimum Wage

Study	Minimum Wage Change	Data set	Target Group	Period	Effect
Aaronson, French, and Sorkin (2013)	17% increase in CA (2001-2002), 26% in IL (2004-2005), 39% in NJ (2005-2006)	Quarterly Census of Employment and Wages (QCEW), Statistics of U.S. Businesses	Fast food restaurants		▪ Increase in firm closures by 4-7% in first two years. ▪ No effect on employment. ▪ Firm closures increase by 4-7% points, but offset by firm startups.
Allegretto, Dube, and Reich (2011)	States with MW increases	Current Population Survey (CPS)		1990-2009	▪ Small effect on employment, earnings, and hours. ▪ No hiring preference for older, more experienced teens. ▪ Positive significant effect on earnings for Black and Latino teens, insignificant effect on employment and hours.
Allegretto, Dube, Reich, and Zipperer (2013)	U.S. MW increase in three steps (2007-2009)	CPS (1990-2012), American Community Survey (2005-2011), Quarterly Workforce Indicators (QWI, 2000-2011), QCEW (1990-2010)	Teens, Restaurants	Varies by data set	▪ Insignificant negative effect on teen employment. ▪ Significant positive effect on teen earnings. ▪ Small negative effect on restaurant employment. ▪ Significant positive effect on restaurant earnings. ▪ Significant negative effects on turnover for teens and restaurant workers.
Card and Krueger (1995)	New Jersey increased MW from $4.25 to $5.05 per hour in 1992	Survey of restaurant owners or managers	Fast food restaurants	1992	▪ NJ restaurants increased employment relative to PA by 13%. ▪ NJ average starting wages increased by 10%. No significant change in raises for NJ workers. ▪ No significant reduction in free or reduced-price meals to NJ workers. ▪ Food prices in NJ rose 3% faster than PA. ▪ NJ restaurant openings slightly positive linked to MW increase.

Study	Minimum Wage Change	Data set	Target Group	Period	Effect
Draca, Machin, and Van Reenen (2011)	MW increase in UK (1999)	Bureau Van Dijk's Financial Analysis Made Easy database, Labor Force Survey (comparable to CPS), British Workplace Employment Relations Survey	Private firms	1999-2002	▪ Significant decrease in firm profits. ▪ No effect on employment or productivity. ▪ 22.7% decrease in profits in low wage firms.
Dube, Kaplan, Reich, and Su (2006)		National Retail Federation, County Business Patterns (CBP)	Retail	2001-2004	▪ Retail stores increased in SF. ▪ Retail employment related to business cycles, not MW increase.
Dube, Lester, and Reich (2010)	Contiguous county with MW increase	QCEW, CBP, CPS	Restaurants	1990-2006	▪ No reduction in employment. ▪ Spillover effects in earnings and employment are insignificant. ▪ Slight negative impact to employment, statistically insignificant. ▪ Positive significant effect on earnings, positive insignificant effect on employment.
Dube, Naidu, and Reich (2007)	26% increase in San Francisco (2004)	QCEW, Survey of restaurant owners or managers	Restaurants		▪ Small 2.5% increase in restaurant employment. ▪ Small 2.8% decrease in restaurant closures. ▪ Small 2.8% increase in restaurant prices. ▪ Significant 6.2% increase in fast food prices.
Giuliano (2013)	U.S. MW increase in 1996 and state MW variation	Retail firm's personnel data	Teens	1996-1998	▪ Significant increase in teen employment, especially younger and more affluent teens.
Hirsch, Kaufman, and Zelenska (2011)	U.S. MW increase in three steps: $5.15 to $5.85, to $6.55, to $7.25	Store-level payroll records, Survey of and interviews with restaurant managers	Quick-service franchise restaurants	2007-2009	▪ Only 23% of managers planned to reduce workforce. ▪ 60% of managers planned to reduce work hours. ▪ Price of combo meal increased by 10.9%. ▪ Profit slowed after MW increase. ▪ Few managers planned to reduce training. ▪ Separation rates fell from 10% to 5%. ▪ Payroll increases by 2% on average over 3 years. ▪ Managers estimated 23% of savings through operational efficiencies ▪ Increased wage compression. ▪ 90% of managers planned to impose higher performance standards. ▪ More interest expressed by managers in hiring more experienced and older workers.
Meer and West (2013)	States with MW increases	Business Dynamics Statistics (BDS, 1977-2011), QWI (1975-2012), QCEW (varies-2012)		Varies by data set	▪ 10% MW increase, 1.7% decrease in employment.

Study	Minimum Wage Change	Data set	Target Group	Period	Effect
Neumark and Wascher (2011)	U.S. increase EITC from 10% to 40% (1996), state variation in EITC, and 29 state MW increases	DOL's Monthly Labor Review, reports by Center for Budget and Policy Prorities, CPS	Single mothers, low skill individuals	1997-2006	▪ Significant increase in employment and earnings for single women with children. ▪ Decrease in employment and earnings for less-skilled men of color and childless women.
Orazem and Mattila (2002)	Iowa increased MW to $3.85 (1990), to $4.25 (1991), to $4.65 (1992)	Iowa Department of Revenue and Finance, QCEW, Survey of retail and service firms	Retail and service	1990-1992	▪ Firm numbers decrease by 2.5% with every 10% increase in MW. ▪ Small 1.7% decrease in firms in one quarter, 2.5% over four quarters ▪ Increase in firm size. ▪ 10% MW increase, 6% decrease in employment in urban firms and 13-15% decrease in hours.
Pacheco and Naiker (2006)	Youth MW increased from 60% to 70% of adults, adult MW eligibility age lowered from 20 to 18 years (2001)	Household Labour Force Survey, Income Survey	Teens	1997-2004	▪ No effect on profit expectations for low wage employers by investors.
Potter (2006)	65% living wage increase in Santa Fe (2003)	QCEW	Metro-area businesses	2002-2005	▪ Small 0.8% increase in employment. ▪ Small 1.1% increase in business closures.
Rohlin (2013)	Border areas within 10 states with MW increases in 2003 and 2006	Dun and Bradstreet Marketplace data		2003-2007 (varies by state)	▪ Small effect on existing firms. ▪ Small 2% decrease in firm startups with $1 MW increase for low-skill industries. ▪ No effect on existing firms. ▪ No evidence of business leakage of existing firms.
Sabia, Burkhauser, and Hansen (2012)	New York MW increase from $5.15 to $6.75 (2004-2006)	CPS	Young adults	2004, 2006	▪ Significant decrease in employment of less-skilled workers, aged 16-24.
Simon and Kaestner (2004)	U.S. MW increase in 1980-1981, state and federal MW increases 1989-1991 and 1996-1998	CPS, National Longitudinal Survey of Youth			▪ No significant effect on fringe benefits.

Elasticity in Hours of Employment

Elasticity is a measure of how responsive one indicator is to change in another. An elastic variable is one which responds proportionally to a change in the other. An inelastic variable does not change or is less responsive to other factors. The value is calculated as a ratio of the percent change in one indicator to the percent change in the second. Therefore, an elastic variable has a value greater than one and inelastic is less than one.

Researchers calculate the elasticity of hours of employment and prices of consumer goods when the minimum wage is increased. Below are 18 studies, curated by Belman and Wolfson, with the authors' calculations for the elasticity of hours of employment when the minimum wage increased (see *Table 2: Elasticity in Hours of Employment*). (We included the articles that pertained to the U.S. only.) Over three-quarters of the studies, 14 in number, concluded that an increase in the wage was linked to a decrease in hours of employment.

Five articles found no effects on work hours. Two of the studies looked at restaurants (Dube, Naidu and Reich 2007, Even and Macpherson 2014) and did not uncover significant changes to hours of employment. The remaining three looked at Illinois fast

food restaurants and found no effects (Perksy and Baiman 2010, Powers 2009, Mastracci and Persky 2008).

Neumark and Nizalova (2007) calculated the most serious consequence in the hour reduction for young adults. The elasticity for young adults ranged up to -1.2, which meant that every 10 percent increase in minimum wage was associated with a 12 percent decrease in hours.

Table 2: Elasticity in Hours of Employment

Study	Effect: elasticity	Target group	Sample period
Allegretto, Dube, and Reich (2009)	-0.03	Teens	1990, 2000, 2005, 2006
Allegretto, Dube, and Reich (2011)	-0.03	Teens	1990-2009
Belman and Wolfson (2010)	-0.01	Low wage industries	1972-2003
Couch and Wittenburg (2001)	-0.44 to -0.77	Teens	1979-1992
Dube, Naidu, and Reich (2007)	None	San Francisco restaurants	2003-2004
Even and Macpherson (2014)	None	Full-service restaurants	1990-2011
Mastracci and Persky (2008)	None	Low wage workers	2003-2005
Neumark and Nizalova (2007)	-0.09, -1.2	Young adults	1979-2001
Neumark, Schweitzer, and Wascher (2004)	Negative		1979-1997
Orazem and Mattila (2002)	-1.1	Retail, service	1989-2012
Orrenius and Zavodny (2008)	-0.11 -0.31	Immigrants Teen girls	1994-2005
Persky and Baiman (2010)	None	Illinois fast food	2003-2005
Powers (2009)	None	Illinois fast food	2003-2005
Sabia (2008)	-0.92, -1.18	Single mothers without high school degree	1991-2004
Sabia (2009a)	-0.51, -0.37, -0.29	Teen girls	1979-2004
Sabia (2009b)	-0.42 -0.1	Teens in retail Retail	1979-2004
Vedder and Gallaway (2002)	Negative		1959-1999
Zavodny (2000)	0.24, -0.11	Teens	1979-1993

Source: Belman & Wolfson. (2014). Table 3.1 Youth (U.S. Data), Table 3.2 Other Groups (U.S. Data), and Table 3.3 Studies of Industries (U.S. Data). In What Does the Minimum Wage Do.

Price Elasticity

Price elasticity is calculated as the percent change in price for a good or service in relationship to the percent change in consumer demand. This measure indicates how much employers can pass on increased labor costs by adjusting prices. Similar to calculations of the elasticity of hours, most studies of prices also look at the food industry. Below is a summary of the measurements of five studies of price effects in restaurants and fast food (*see Table 3: Elasticity in Prices*). Only one, MaCurdy and McIntyre (2001) looked at minimum wage workers.

Table 3: Elasticity in Prices

Study	Effect: elasticity	Target group	Sample period
Aaronson (2001)	0.07	Restaurants	1978-1995
Dube, Naidu, and Reich (2007)	0.07	San Francisco restaurants	2003-2004
Lee, Schluter, and O'Roark (2000)	0.08-0.12	Restaurants	1992, 1997
MacDonald and Aaronson (2006)	0.07 0.16 0.3	Restaurants Fast food Full-service restaurants	1995-1997
MaCurdy and McIntyre (2001)	0.12	Minimum wage workers	1996

Source: Belman & Wolfson. (2014). Table 10.1 Prices. In What Does the Minimum Wage Do.

Three of the five articles found restaurant prices would increase by 0.7 percent for every 10 percent increase in the minimum wage (Aaronson 2001, MacDonald and Aaronson 2006, and Dube, Naidu, and Reich 2007). The highest price increases were found among fast food restaurants, 16 percent increase (MacDonald and Aaronson 2006).

We estimate price elasticity for basic consumer goods and services in the Los Angeles region. See the Data Appendix.

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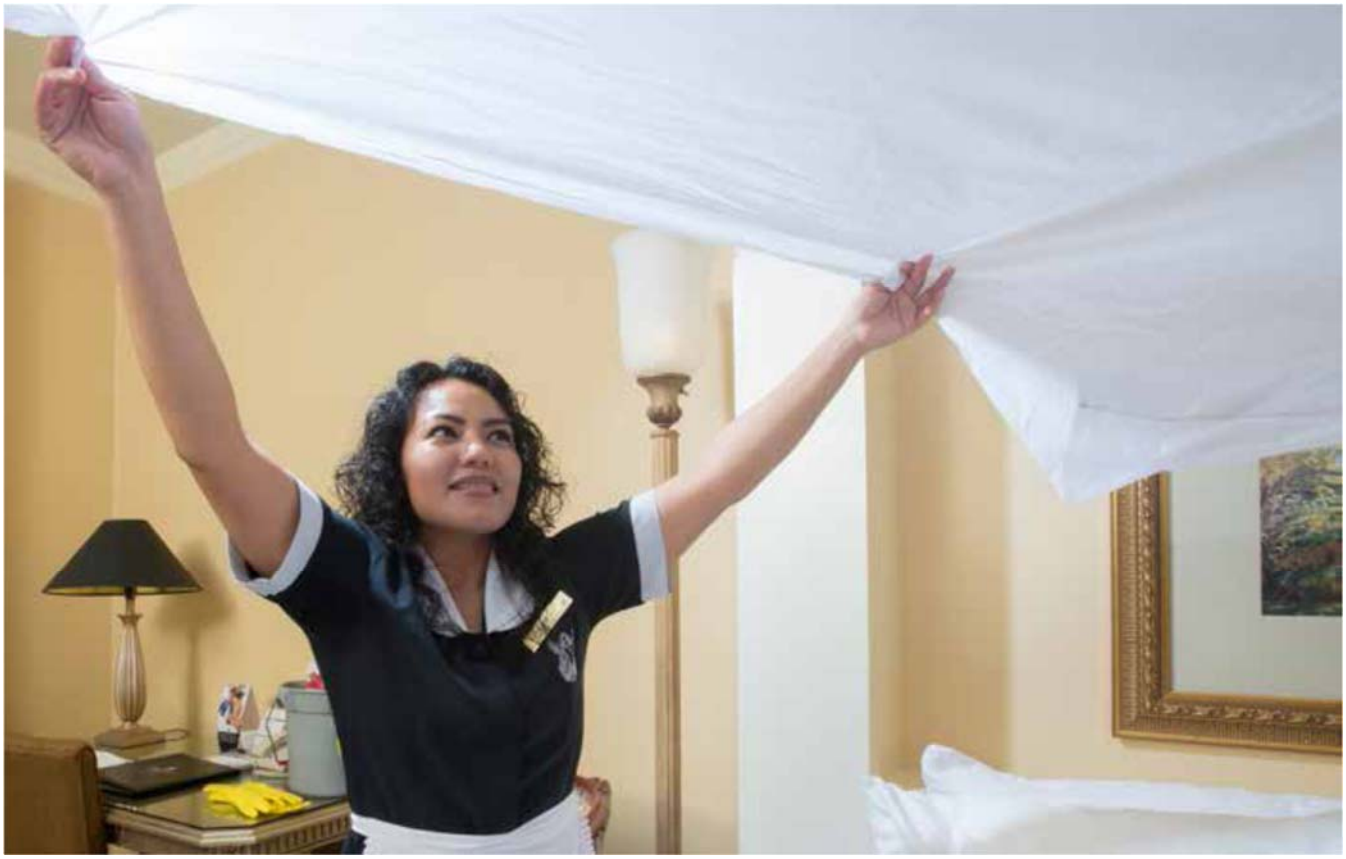

Data Appendix

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Chapter II: Methodology for Using the American Community Survey 2009-2013 Public Use Microdata Sample

The American Community Survey (ACS) Public Use Microdata Sample (PUMS) provides detailed information about workers based on place of residence. The 2009 to 2013 data set provides a five percent sample of the population, with 189,908 weighted records for residents of the City of Los Angeles. These records include demographic details and information about hours and weeks worked, class of worker, occupation, industry, and earnings. This provides the most detailed information available estimating the hourly wages of workers and for understanding the attributes of low-wage workers.

The critical limitation of this data is that it is based on where workers live, not where they work. This is a major limitation since more than half of the workers with jobs in the city do not live in the city. The overall data strategy for this report was to:

- Use ACS PUMS data to understand the attributes of workers.
- Use the Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) to identify the size, place of residence and broad characteristics of the labor force employed in the City of Los Angeles (methodology for building this data set is described later).
- Use common data variables in ACS PUMS and LODES data to extrapolate detailed worker attributes shown in ACS PUMS records onto the labor force shown in LODES data.

Filtering that was applied to ACS PUMS data to narrow the records as closely as possible to workers who both live and work in the city, and thus are most representative of the city's labor force was as follows:

- Public Use Microdata Area (PUMA) place of residence within the City of Los Angeles.
- Place of Work PUMA limited as closely as possible to the City of Los Angeles. Place of Work PUMAs encompass much larger geographic areas than place of residence PUMAs, but with 2009 to 2011 survey records it was possible to exclude many non-city areas of the County of Los Angeles as well as all areas outside of Los Angeles County. For 2012 to 2013 survey records there is a single place of work PUMA that encompasses all of Los Angeles County, making it possible only to exclude workers employed outside of the county. This combination of place of residence and place of work PUMA filters provides the best sample possible of workers employed in the city.
- Age – no filters. There are only a small number of workers younger than 18 in the labor force but many workers over 65 years of age. Older workers have above-average earnings, so age filters have the effect of skewing earnings downwards.
- Weeks and hours worked – no filters. There are both low- and high-hours outliers, but excluding outliers has the effect of skewing earnings downwards.
- Hourly wage – no filters. There are both low- and high-wage outliers, but excluding outliers has the effect of skewing earnings downwards.
- Class of worker – the sample was limited to workers with wage and salary earnings. Roughly five percent of workers have both wage and self-employment earnings. Hours worked were reduced to reflect the ratio of wage and salary earnings to self-employment earnings.
- Amount of earnings – workers with less than $500 in wage and salary earnings in the year were excluded in order to exclude workers with extremely marginal labor force connections who were likely to skew earnings data downwards.

Chapter III: Data and Methods Appendix

In this appendix, we document our methodology to estimate the number of workers affected by the proposed minimum wage law, as well as the estimated increase in earnings. The appendix includes sections on data sources, comparison of the two main data sources used and the process for estimating the number of workers affected and the increase in earnings—section IIIA of the report. The appendix also describes the demographic and job characteristics covered in section IIIB of the report as well as the estimation of reduction in public spending—section IIID of the report.

Data Sources and Sample Definition

We use two main data sources provided by Census Bureau in our study. These are the Longitudinal Employment-Household Dynamics (LEHD) Origin- Destination Employment Statistics (LODES) and the American Community survey (ACS) 5-year estimates. Two files are complementary data products that can be used to conduct economic, demographic and geographical analysis. [1] A detailed description of PUMS, the main data product of ACS is presented elsewhere in this Appendix.

In Section III, we use the 2009-2013 PUMS data with different coverages in different analysis as noted below. In addition to PUMS, we also use ACS 2011 (5-year estimates) B20005 detailed tables which provide cross-tabs of earnings in the past 12 months for each ethnicity level we used—Asian, Black, Latino, Other and White by sex and work experience at the census tract level. Work experience refers to worked full-time, year round and other, where other represents the part-time workers. Earnings are available in 20 brackets starting with $1 to $2,499. We use the bottom 13 brackets which correspond to low and mid earning levels of the LODES data as elaborated below.

The LODES data provides three data files that we used. The main one is the Origin-Destination (OD) data that provides detailed counts of where workers live, where workers work, and the origins and destinations trips to work at the census tract and block level. These counts are derived from a variety of both public and confidential data sources, including unemployment insurance records. To protect confidentiality, noise infusion is applied to workplace totals, and synthetic data methods are applied to residential locations. As a result of the fuzziness built into the data, its reliability is limited for very small geographies, like the census block, the lowest unit for which the data is available. However, when aggregated to larger areas, like census tracts, the aggregated counts become more accurate by reducing the variance of small-area counts. We use tract-level counts throughout the analysis. These data provide three earnings breakdowns that we use as follows: *Low earning jobs*—jobs with earnings $1,250 per month or less; *mid-earning jobs*—jobs with earnings $1251 to $3333 per month, and *high-earning jobs*—jobs with earnings greater than $3333 per month.

OD data sets do not include more detailed information on workers. We get the labor flow between census tracts and the number of workers by three earning levels as noted. In order to derive the gender, ethnicity and industry information, we use the Residence Area Characteristics (RAC) data which provides jobs by home census tract. RAC data provides separate data files for each earning level showing the number of jobs by gender, ethnicity and two digit NAICS industry sector.

[1] For a comparison of ACS and LODES data products, see Graham, Matthew R., Kutzbach, Mark j., McKenzie, Brian. 2014. Design Comparison of LODES and ACS Commuting Data Products. Census Bureau.

The most recent available LODES data products include 2011 counts of jobs. It is important to emphasize that the LODES data provides counts of "jobs" rather than individuals or households.

The main advantage of LODES data relative to the ACS data is the sample definition. ACS does not allow us to identify workers by work location at the city level. The smallest geographic area is the county (place of work PUMA). As noted in Section III, more than half of those who work in the city commute from other municipalities. This would not pose much of a problem if the earnings and composition of workers living outside are similar to the city resident workers. In Section III, Table 3.2 comparing the earnings distributions of the lower-paid two groups we note a startling discrepancy: while resident workers possess more than half of the city's low earning jobs, workers from other areas occupy more than 60 percent of the high-earning jobs in the city. In other words, while city resident workers are employed in lower wage jobs, workers are coming from other localities for higher paid jobs. Moreover, as illustrated in Table 1, the compositions of the worker populations in the PUMS and LODES data are different because the former includes workers in the informal economy.

We show in Table III-1 that, the composition of workers in the PUMS data is significantly different than the demographics of workers in the LODES Workplace Area Characteristic (WAC) data. The difference is most evident for low paid workers. PUMS data includes workers working in the informal economy and consequently it represents higher number of younger and Latino workers than shown by LODES.

Table III-1. Demographic Composition of Workers in LODES and PUMS Data Sets.

Demographics	All Workers		Low Paid workers		Mid Paid Workers	
	PUMS	LODES-WAC	PUMS	LODES-WAC	PUMS	LODES-WAC
Age						
18-29	29%	21%	48%	32%	29%	27%
30-54	57%	59%	40%	48%	58%	55%
55 and Over	14%	20%	12%	20%	13%	18%
Gender						
Male	54%	50%	48%	46%	56%	54%
Female	46%	50%	52%	54%	44%	46%
Ethnicity						
Asian	13%	16%	10%	13%	11%	15%
Black	8%	11%	8%	12%	8%	11%
Latino	45%	35%	56%	35%	56%	47%
Other	2%	2%	2%	3%	2%	2%
White	32%	36%	24%	43%	23%	25%

These differences confirm that PUMS is not a good candidate to be the primary data source in assessing the impact of the minimum wage increases. On the one hand, we cannot make the assumption that the wage distribution and demographic composition of those who work in the city (not all of whom live in the city) is the same as the wage distribution of those who work in the county—which is provided by PUMS. On the other hand, we study the impact of the minimum wage increases in the formal economy and PUMS workers include who work in the informal economy which would require non-trivial adjustments.

Because of these limitations, we use LODES data as the primary data source and PUMS data to complement it in certain areas as described below. Using LODES data at the census tract level not only provides accurate results relying on work of place job counts at the tract level, it also provides us to present a more accurate spatial representation of the data as shown in Chapter 5.

The Methodology of Estimating the Number of Affected workers and Size of Earnings Increases

First we estimate the number of workers working in the city in each home census tract and then simulate the tract level wage distribution right before the proposed minimum wage law would go into effect, and finally estimate the number of workers affected by the increase and their additional earnings.

We start our method by processing the 2011 LODES California OD data for all employment. We identify all home census tracts in the city and county with resident workers working in Los Angeles City. For other counties, for simplicity, we use county level data rather than census tract level. Numbers of smaller counties are aggregated into a residual category. We only use the job counts for low and mid earning jobs. The final data show approximately 1.7 million workers working in the city as tabulated in Section III, Table 3.2. The data is comprised of 16 other county counts and 2,333 census tracts counts in the Los Angeles County.

The next step is to allocate these workers in identified counties and census tracts to earning brackets to estimate the number of workers affected by minimum wage increases. We prepare the LODES data in 10 different classes for the two earning classes—low and mid earning jobs. These classes are 2gender and 5 ethnicity categories. Then, each census tract count is divided into 20 cells making it very granular. Since LODES does not provide the cross-tabulation of gender and ethnicity, we assume that gender distribution is even among 5 ethnic groups.

We allocate job counts by these 20 strata to the ACS B-20005 detail table data which is described above. ACS tables provide the wage distribution of all workers working in a given census tract by the same strata. However, we face two caveats in this process. First, ACS data also provides the data by work status—full-time and part-time while LODES data does not. Second, ACS data includes self-employed which need to be removed.

We used PUMS data to make the self-employment adjustment. This step is necessary, self-employed persons earn lower wages and would introduce a bias to the wage distribution if included. LODES data only includes workers with wages and salaries. We use PUMS data to derive the percent self-employed by gender, ethnicity, work status and 13 earning brackets. We estimate the self-employment proportions at the PUMA level for all workers with the exception of other counties where count level rates are estimated. Then, we apply these proportions to ACS data to remove the self-employed from each census tract. We also use PUMS data to derive the proportions of workers employed full-time and part-time by gender and ethnicity and earnings bracket at the PUMA level.

Next, using the estimated work status proportions, we allocate the jobs derived from the LODES data by gender and ethnicity. We distribute the low earning jobs to the bottom 7 brackets and mid earning jobs to the next 6 brackets of the ACS data in each census tract. This process gives us job counts of workers working in the city by 20 strata--2 gender, 2 work status and 5 ethnicity categories for 13 earning brackets.

After simulating the wage distribution in each census tract by the 20 strata, our final step is to estimate how many workers in these tracts will be affected by the minimum wage increases for each yearly phase-in step. This process requires the knowledge of hourly

wage and ACS data only provides the earning ranges of these workers. We use PUMS data to accomplish this final task.

We include all workers who earned more than $500, live in the city and work in the county. Then, we derive the same 13 earning brackets ACS provides. Hourly wage variable is not readily available in the PUMS data and need to be estimated as described elsewhere in this Appendix. It is computed by dividing annual earnings by the product of weeks worked last year and hours worked per week. This computation is subject to measurement error as recognized by researchers. We observe many workers with hourly wages below the statutory minimum wage level. We assume that these are low-wage workers and the measurement error is attributed to reporting of weeks and hours worked.

After computing the hourly wage variable, wages are adjusted by inflation rate to derive real minimum wage levels for each year between 2015 and 2019. The base period is 2009 with the minimum wage level of $9. This process is also described elsewhere in this Appendix. After deriving these thresholds, the next step is to estimate what percent of workers in a given earnings bracket will be affected by the minimum wage increase. In other words, what percent of the workers earn less than the minimum age in a given year? This step is necessary because we observe workers in low earning brackets with wage levels above minimum wage for working part-time. We also observe workers in higher brackets with wages around minimum wage because of working long hours. Moreover, in middle brackets, we may have workers earning below and above the next minimum wage threshold.

We present these percentages in Table 2. We observe that, among part-time workers the percent of workers to be affected tapers off after the bracket $12,500-$15,000 in 2015—the first phased-in year. The proportions of workers who will be impacted in lower brackets are in the 50-70 percent range. These numbers increase significantly in 2019—the last phase-in year. The tapering off point moves to around $20,000 and the range of proportions for lower brackets rises to 50-80 percent.

We observe a larger shift for full-time workers. While in 2015, we estimate that almost all workers below $20,000 annual earnings will be affected, this threshold increases to almost $30,000 in 2019. Table III-2 shows these proportions at the summary level. We estimate and use percent affected at the gender, ethnicity and work status levels separately for higher accuracy.

Table III-2. Percent of Workers to be affected by Minimum Wage Increases by Work Status in 2015 and 2019.

Work/ Year	$0- $2.5	$2.5- $5	$5- $7.5	$7.5- $10	$10- $12.5	$12.5- $15	$15- $17.5	$17.5- $20	$20- $22.5	$22.5 -$25	$25- $30	$30- $35	$35- $40
PT-2015	70%	56%	63%	61%	50%	45%	21%	6%	3%	2%	1%	0%	0%
FT-2015	50%	92%	96%	98%	99%	100%	99%	93%	39%	11%	6%	3%	1%
PT-2019	80%	72%	74%	77%	72%	71%	61%	50%	31%	19%	7%	3%	1%
FT-2019	62%	94%	97%	99%	99%	100%	100%	99%	99%	99%	81%	14%	7%

After estimating the percent affected by 20 strata we use, the final step is to estimate the number of workers to be affected in each census tract. We derive these numbers by applying these proportions to the number of workers identified in the earlier step by linking LODES jobs to ACS wage distribution. We make these derivations for each year of the implementation of the proposed minimum wage law between 2015 and 2019.

After estimating the number of workers that will be affected by the phase-in increases, we estimate the additional wages they would receive as a result of higher wage levels. We estimate additional earnings by using median annual working hours we derive from the PUMS data by gender, ethnicity and work status for each earnings bracket.

We do not apply any adjustment for wage growth other than the proposed increases in minimum wage levels. However, we apply a final adjustment to our estimates of the number of workers affected, to account for the employment growth in the city during this period. We make this adjustment, first for the period of 2012-2014 since LODES data is from 2011. Then we make projections from 2014 to 2019 for the implementation years.

We observe that, based on the ES 202 data between 2000 and 2011, the employment growth in the low-wage industries are higher than the overall employment growth. Rather than labeling industries as low wage and high-wage sectors and apply their growth rates to city workers, we use the growth rates of industries where low and mid wage city workers work.

We use LODES WAC data to derive the distribution of industries where city workers work in low and mid wage jobs—by 2 digit NAICS sector codes. We make one adjustment by splitting the manufacturing industry into durable and non-durable sectors and assuming that low and mid wage earners from LODES work primarily in non-durable manufacturing. After deriving the distribution of workers by industry, we get the weighted average of the growth rates of this distribution. This way the composite growth rate reflects the growth where these workers work. We estimate that, based on the ES-202 2001-2011 growth rates by industry, the employment growth in the city for low and mid wage earners was 8.8 percent between 2012 and 2014. Then, we project a uniform .065 percent annual growth for the next five years base on the historical trend of the weighted average we derived. For the total employment growth in the city, we use the average for all industries and estimated a 5.8 percent growth between 2012 and 2014 and .032 percent annual increase for the next five years.

We do not make any adjustments for potential positive or negative changes in employment due to the minimum wage increase.

Demographic and Job Characteristics of Workers Affected by the Minimum Wage Increase

We use both LODES and PUMS data to present the characteristics of workers affected by the proposed minimum wage law. Gender and ethnicity distributions are derived from the 2011 LODES data. We use PUMS data to get the age distribution as well as the work status—part-time vs. full-time work. We also used the PUMS data to show the industry distribution of workers to be affected.

Estimating the Reduction in Public Spending

We use PUMS data in Section IIID to estimate the reduction in public spending as a result of minimum wage increase. We assessed the impact on three public welfare programs. These programs are—Cal Fresh—formerly known as Food

Stamps; cash aid which covers CalWORKs (TANF) aid to families and General Relief aid to individuals; and Medi-Cal program providing medical assistance to Californians.

The value of Cal-Fresh benefits depends on the size of your eligible household and other eligibility factors. PUMS data only shows if a person received this benefit or not. It does not show the value of the aid. Hence, we use average Cal-Fresh benefits by household size available Los Angeles County Department of Social Services where the average benefit is $194 for one person and $511 for three persons. Since, Cal-Fresh payments are made to a family, not to individuals, we make an adjustment for two-worker families to remove duplicate payments.

Similarly, PUMS data merely shows a flag for Medi-Cal eligibility and does not provide the amount of benefits. We used average annual Medi-Cal spending amounts for 2011 available from the California Health Care Almanac.[2] The source shows that, in California the average annual spending is $2,174 for adults and $1,636 for children. We estimate medical assistance payments based on the number of adults and children in a household with a worker to be affected by the minimum wage increase.

Actual cash aid amounts are available from the PUMS data and we use these amounts to estimate the reduction in cash aid.

To estimate the impact of public spending, first we derive the participation rates for all three programs in 2014, before the implementation of the law. These rates give us a baseline rate of participation for workers earning minimum wage. Then, we derive the participation rates for those workers who make in the range of $14.25 to $15.25. We assume that, after five years, when the minimum wage increases to $15.25 the public program participation will resemble this group. These rates are our estimates for 2019 for all workers who will be affected by the minimum wage increase. Then we used the difference in participation rates as the rate of decline in program benefits and estimated the total value of reduction in public spending by multiplying the reduction by benefit values described above.

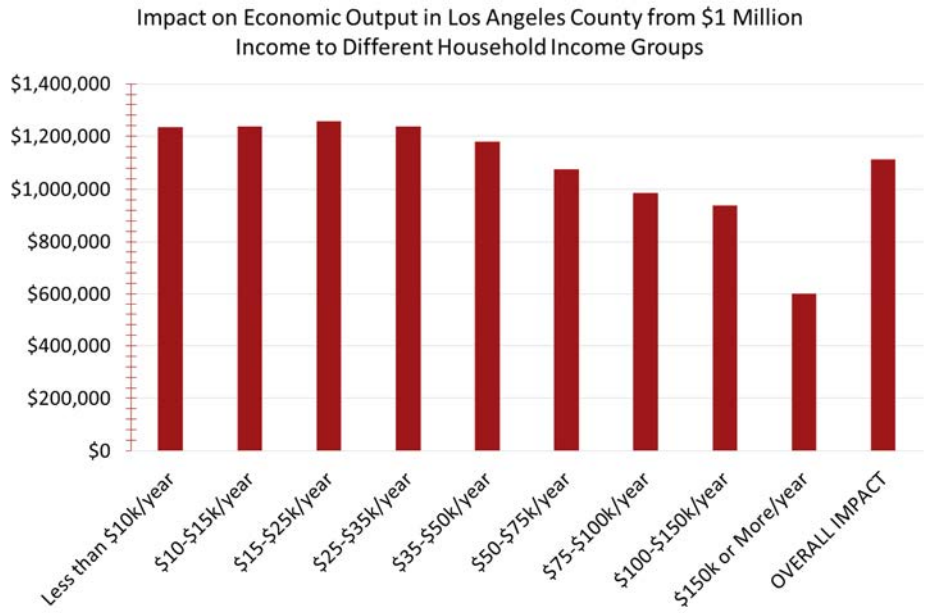
[2] California Health Care Almanac, May 2013, Health Care Foundation.

Chapter III: Economic Multiplier Effects from Dollars Received by Households at Different Income Levels

The economic model of Los Angeles County provided by IMPLAN software and data for 2013 was used to simulate the effect on economic output in the county when households at different income levels receive $1,000,000. Because households with incomes under $35,000 spend money quickly, there is twice as much stimulus to the local economy from each additional dollar they receive as there is from additional dollars received by households with incomes over $150,000. These simulation results are shown below in table and chart form.

Table III-3: Economic Output Generated by $1,000,000 in Household Income

Household Income Group	% of Workers Paid <$15.25 in Household Income Group	Impact on Economic Output in LA County of $1M Income
Less than $10k/year	2.96%	$1,235,670
$10-$15k/year	4.62%	$1,238,116
$15-$25k/year	14.44%	$1,257,142
$25-$35k/year	15.11%	$1,237,700
$35-$50k/year	18.38%	$1,178,911
$50-$75k/year	20.95%	$1,075,883
$75-$100k/year	10.69%	$984,801
$100-$150k/year	8.38%	$937,686
$150k or More/year	4.47%	$600,701
OVERALL IMPACT	11.51%	$1,115,111



Chapter IV: Establishment Size Distribution

The following table displays the number of establishments broken out by employment size group for the City of Los Angeles, 2011. Non-profits (NAICS codes 6241-6243, 813) are broken out extensively:

NAICS	Industry	<0.5	1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1,000+	Total
11	Nurseries/Greenhouses	s	61	12	8	11	s	s		s		97
21	Mining, Extraction	s	8	4	s		s	s	s	s		21
22	Utilities	s	13	5	s	s	5	5		s	s	38
23	Construction	289	2,408	798	472	269	75	22	7	s		4,341
312, 316, 322-326	Other Non-Durable Mfg.	17	324	147	94	92	29	32	8	4	s	748
311	Food Manufacturing	s	128	60	75	58	31	18	s	s		379
313-315	Textile & Apparel Mfg.	37	788	396	259	181	62	25	6	s	s	1,756
321, 327-399	Durable Manufacturing	61	779	358	358	256	102	57	20	s	4	1,998
332	*Fabricated Metal Mfg.*	*s*	*220*	*101*	*100*	*84*	*26*	*11*	*6*			*559*
333	*Machinery Mfg.*	*s*	*78*	*31*	*30*	*17*	*s*	*6*				*170*
334	*Computer & Electronic Mfg.*	*s*	*53*	*34*	*39*	*36*	*25*	*18*	*8*	*s*	*s*	*223*
336	*Transportation Equip. Mfg.*	*s*	*36*	*26*	*22*	*23*	*15*	*6*	*s*		*s*	*133*
337	*Furniture Mfg.*	*s*	*91*	*39*	*45*	*25*	*7*	*4*		*s*		*220*
42	Wholesale Trade	235	4,129	1,412	829	530	150	59	7	s		7,353
44-45	Retail Trade	217	5,005	2,281	1,357	772	352	187	34	6	s	10,212
48-49	Transportation & Ware.	44	692	314	227	224	108	68	20	15	8	1,720
51	Information	906	2,316	414	289	232	94	59	28	9	9	4,356
52, 53, 55	Finance, Ins., Real Est.	499	5,347	1,507	949	560	234	151	37	17	4	9,305
54	Professional Srv.	1,265	8,314	1,869	987	680	222	123	37	7	6	13,510
56	Temps, Guards, Janitors	207	2,073	708	430	384	170	108	33	18	7	4,138
5611	*Office Administrative Srv.*	*9*	*691*	*782*	*1,062*	*1,374*	*1,437*	*2,053*	*560*	*1,990*	*1,340*	*11,297*
5613	*Employment Services*	*11*	*444*	*485*	*719*	*2,615*	*4,470*	*5,373*	*4,319*	*3,344*	*2,899*	*24,679*
5614	*Business Support Srv.*	*6*	*637*	*593*	*918*	*1,548*	*529*	*956*	*1,003*		*1,029*	*7,219*
5615	*Travel Arrangement*	*4*	*446*	*366*	*349*	*907*	*535*	*676*				*3,284*
5616	*Investigation & Security*	*s*	*311*	*543*	*679*	*1,649*	*2,299*	*3,122*	*3,378*	*7,041*	*4,661*	*23,684*
5617	*Services to Buildings*	*9*	*1,037*	*1,502*	*1,685*	*2,679*	*1,742*	*2,660*	*1,021*	*553*		*12,889*
5619	*Other Support Srv*	*4*	*322*	*234*	*318*	*554*	*502*	*245*	*293*			*2,473*
61	Educational Services	62	887	441	413	586	415	210	28	14	6	3,062
6211-6215, 6219, 622	Hospitals, Physicians	405	4,244	1,416	546	288	85	63	24	16	23	7,110
6216	Home Health Care	s	113	61	72	85	15	13	s	s		368
623	Residential Nursing	s	188	147	95	77	76	83	7	s		682

NAICS	Industry	<0.5	1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1,000+	Total
6241-6243, 813	Nonprofits	41	1,030	413	327	299	104	57	17	s	s	2,292
6241	*Individual and Family Services*	*s*	*264*	*171*	*141*	*122*	*47*	*15*	*9*		*s*	*783*
6242	*Community Food and Housing, and Emergency and Other Relief Services*	*s*	*69*	*17*	*19*	*16*	*10*	*5*				*138*
6243	*Vocational Rehabilitation Services*	*s*	*19*	*10*	*16*	*16*	*8*	*5*	*s*	*s*		*78*
8131	*Religious Organizations*	*s*	*109*	*40*	*28*	*25*	*12*	*6*				*222*
8132	*Grantmaking and Giving Services*	*s*	*153*	*37*	*26*	*24*	*6*	*5*	*s*	*s*	*s*	*261*
8133	*Social Advocacy Organizations*	*s*	*80*	*33*	*36*	*17*	*4*	*s*	*s*			*176*
8134	*Civic and Social Organizations*	*s*	*146*	*41*	*13*	*22*	*5*	*8*	*s*			*244*
8139	*Business, Professional, Labor, Political, and Similar Organizations*	*s*	*190*	*64*	*48*	*57*	*12*	*11*	*s*			*390*
6244	Child Day Care	s	311	152	122	50	8	s		s		657
71	Entertainment	1,570	2,923	296	153	119	51	32	8	4	s	5,159
721	Hotels	s	145	63	74	42	29	27	10	6		401
722	Restaurants & Bars	61	2,052	1,247	1,529	1,220	346	85	10	s	s	6,555
811-812, 814 ex. 8141	Personal & Repair Srv.	123	2,947	911	406	236	33	21	s	s	s	4,683
92	Government	s	37	35	59	58	34	26	11	11	17	289
ALL INDUSTRIES (ex. Priv. Hshld.)		7,906	54,984	15,482	10,148	7,315	2,833	1,534	361	150	98	100,811
8141	Private Households	9,699	55,883	85	14	s	s					65,684

Table Notes: Data for 3 or fewer establishments or employees is suppressed and denoted by "s". Additional information is shown in italic for industries that make up: durable manufacturing; temps, guards, janitors; and nonprofits.

Chapter V: Tables of Geographic Distribution of Impacts by Los Angeles City Council Districts

Table V-1. Impacts and Initial Income-levels by City Council District

	District businesses	District residents		
District	Impacted consumer-oriented jobs as a percentage of total jobs	District residents receiving a raise	Aggregate earnings increase	Average household income relative to citywide average
1	27%	26,438	4.9%	60%
2	44%	33,259	3.1%	97%
3	39%	26,255	2.5%	110%
4	39%	29,319	1.5%	137%
5	33%	21,207	1.0%	158%
6	31%	31,698	4.8%	74%
7	33%	26,633	3.8%	88%
8	48%	22,331	4.7%	59%
9	21%	21,719	6.2%	49%
10	44%	29,110	4.1%	70%
11	32%	19,419	0.9%	169%
12	38%	25,321	2.0%	124%
13	32%	31,061	3.9%	66%
14	14%	20,216	3.1%	75%
15	31%	13,268	2.0%	80%

Sources: Author analysis of Longitudinal Employer-Household Dynamics origin-destination and residence area files (2011), ACS 5-year estimates (2011).

Table V-2. Share of Citywide Jobs, Initial Income, and Impacts by City Council District

	District businesses		District residents		
District	Jobs in all industries	Jobs in impacted consumer industries	Jobs receiving a raise	Aggregate earnings increase	Aggregate household income
1	6.7%	6.1%	7.0%	7.3%	3.8%
2	3.9%	5.6%	8.8%	8.6%	6.8%
3	6.8%	8.8%	7.0%	6.9%	7.4%
4	7.3%	9.4%	7.8%	7.6%	12.7%
5	12.2%	13.3%	5.6%	5.5%	13.5%
6	4.8%	4.9%	8.4%	8.6%	4.1%
7	3.3%	3.7%	7.1%	7.0%	4.5%
8	1.2%	1.9%	5.9%	5.9%	3.2%
9	4.2%	3.0%	5.8%	6.0%	2.2%
10	4.1%	6.1%	7.7%	8.0%	5.2%
11	9.5%	10.1%	5.1%	5.1%	14.7%
12	5.9%	7.6%	6.7%	6.5%	8.2%
13	6.0%	6.4%	8.2%	8.2%	4.9%
14	21.0%	9.9%	5.4%	5.4%	4.4%
15	3.2%	3.3%	3.5%	3.5%	4.5%

Sources: Author analysis of Longitudinal Employer-Household Dynamics origin-destination and residence area files (2011), ACS 5-year estimates (2013).

Chapter V: Methodology for Geographic Distribution of Impacts

Small-area data enables us to engage the dynamics of residential neighborhoods and agglomerations of businesses. We argue that these geographical dynamics will shape the distribution of both positive and negative effects of the minimum wage increase on the economy of Los Angeles. This is an important question. However, as we note in Chapter V, small-area data usually implies a trade-off. In most cases, higher degrees of geographical precision imply lower levels of reliability of estimates. Since we emphasize cartographic visualizations of the distribution of indicators of relevance to the minimum wage proposal and only directly report numbers at a higher scale of geographic aggregation than the census tract (e.g., the Community Plan Area), these inherent data limitations are acceptable provided that errors are consistent over space. Each of our primary sources for data illustrates and deals with these issues in different ways:

- **The Census Bureau's Longitudinal Employment-Household Dynamics (LEHD):** The LEHD provides detailed information on where workers live, where workers work, and where workers commute that is derived from a variety of both public and confidential data sources, including unemployment insurance records. The maps rely on the analysis of LODES and OD files described in detail in the Appendix for Chapter III.
- **ES-202 Unemployment Insurance data for covered businesses:** We use the ES-202 employment data reported at the establishment level to map specific industries. This data provides the basis for analyses contained in other sections of the report; for mapping purposes, we used this source to derive counts of employment for 2011 at the level of three-digit NAICS codes and summarized at the census tract-level to simplify cartographic representation and to protect the confidentiality of establishments.
- **The Census Bureau's American Community Survey 5-year estimates:** The Census Bureau's American Community Survey is an ongoing survey of individuals and households that focuses on a broad range of topics, including demographics, economic characteristics, and housing. Estimates are released every year, but census tract-level estimates are only available from the 5-year sample product, which combines responses from each of the five preceding years to reduce sample error. For example, the most recent 2013 product includes responses from the 2009 to 2013 calendar years. In most cases, we used the most recent data product, derived from surveys taken from 2009 to 2015. However, in analysis the combines ACS estimates with the most recent available LEHD counts from 2011, we used the 2011 product (surveys collected from 2007 to 2011).

To maintain consistency, all cartographic visualizations present data at the census tract level. Additional sources of publically available geospatial data provided layers used in the analysis and design of the maps: Census Tiger/line files, City of Los Angeles Department of City Planning, and the County of Los Angeles GIS data portal. All maps were produced using ESRI ArcGIS.

Additional explanation for each of the maps is described below.

- **Figure 5.1. Employment in Impacted Consumer-oriented Industries by Place of Work and Median Household Incomes by Quartile:** Employment counts were derived from Economic Roundtable's ES-202 database of establishments covered by unemployment insurance and geocoded to addresses. To protect confidentiality, Economic Roundtable summarized counts of employment for each 3-digit NAICS code at the census tract level, which were used to produce the maps. These 3-digit counts were then aggregated to match the industries flagged as particularly affected by the minimum wage proposal and defined in Chapter IV.

» **Figure 5.2. Employment in Impacted Consumer-oriented Industries by Place of Work and Median Household Incomes by Quartile:** Median household income data was derived from the 2013 ACS 5-year estimates (table S1903). Impacted consumer-oriented industries in these maps differ from the definitions used in Chapter 3, primarily because of limitations of the data. Affected consumption-oriented industries mapped here include the following: retail; temps, guards, and janitors; residential nursing; hotels; restaurants and bars; and personal and repair services (additional definition for each of these sectors, and their corresponding NAICS codes, are presented in Chapter IV). Two study industries identified as potentially prone to impacts were excluded from these maps: home health care services (6216) and child care day services (6244). These industries are identified at the four-digit level, but the ES-202 counts are only available at the three-digit level.

» **Figure 5.3. Comparison of Counts and Rates of Low-earnings Jobs by Place of Work, 2011:** These data were derived from the LEHD Workplace Area Characteristics (WAC) file. The rates show low-earnings jobs as a percentage of all jobs. The numerator is the tract-level count of low-earning jobs, which the LEHD data defines as jobs with earnings $1250 per month or less. The denominator is the count of all jobs. Because the counts are derived from "jobs" and not "primary jobs" individual workers may be counted twice.

» **Figure 5.4. Low-earnings Jobs in Selected Industries by Place of Residence, 2011:** These data were derived from the LEHD Residence Area Characteristics (RAC) file. The rates show low-earnings jobs as a percentage of all jobs. Again, because the counts are derived from "jobs" and not "primary jobs" individual workers may be counted twice. The numerator is the tract-level count of low-earning jobs, which the LEHD data defines as jobs with earnings $1250 per month or less. All industries are defined using 2-digit NAICS codes.

» **Figure 5.6. Estimates of Aggregate Tract-level Earnings Increases from the Minimum Wage Proposals:** This map depicts the estimated size of earnings increases from Chapter III for all residents of each census tract, and the methodology for generating these estimates is described above. To meaningfully depict the distribution of these increases, we normalized the estimated earnings increase by converting it into a percentage of baseline aggregate earnings levels. Tract-level earnings include the aggregate earnings of all workers who reside within the census tract. Using 2011 ACS 5-year estimates (table S2001), we multiplied the mean earnings by the population 16 year or older with earnings to determine aggregate earnings for each census tract. This total was then adjusted to 2014 dollars in the same manner used in Chapter III. The map thus depicts the total estimated earnings increase per tract as a percentage of initial earnings from 2011, adjusted to 2014 dollars.

Table 5.1 and Table 5.2 summarize the estimates, as well as other key indicators, for each of the 35 Community Plan Areas adopted by the Los Angeles Department of City Planning. Community Plan Areas are used to guide the physical development of neighborhoods by establishing the goals and policies for land use. Additional information about the definition and establishment of these geographic units may be found on the department's website.

Chapter VI: DAPA/DACA Methodology

To impute documentation status for each person in the California portion of the U.S. Census Bureau's *American Community Survey (ACS), 5-Year Public Use Microdata Sample 2009-2013*, we draw on the methods developed by the Center for Migration Studies of New York, as described in "*Democratizing Data about Unauthorized Residents in the United States: Estimates and Public Use Data, 2010 to 2013*".[3] This approach uses a series of 'logical edits' to identify as many legal residents as possible based on the responses in the ACS. As such, we took every non-citizen, non-Cuban, foreign-born respondent in the ACS sample and assigned to each of these respondents an initial documentation status based on the following 'logical edits':

- Year of entry on or before 1982;
- Served in the military;
- Worked in the public sector;
- Had an occupation that require legal status, such as a police officer, a firefighter, or a pilot;
- Received social security or disability payments;
- Received food stamps but did not have a child in the house (who could have been the legal source of the assistance);
- Immigrated as adults and were currently enrolled in higher education on the grounds that they were likely student visa holders;
- Received Medicare and were older than 65;
- Received Veterans Affair Care, or Indian Health Services;
- Married to a U.S. Citizen;
- Aged 60 years or greater at year of entry; and
- Immediate relatives of US citizens (mother, father, biological or adopted son).

Once we applied these logical edits to the data, we derived independent population controls by country of origin, using the estimates provided by Center for Migration Studies for the State of California. We calibrated our estimates to match the country of origin guidelines, using random sampling to minimize selection bias.

After we obtained state-level estimates of the undocumented population, we proceeded to tag undocumented individuals who are likely to benefit from the Deferred Action for Parents of Americans and Lawful Permanent Residents (DAPA). To do this, we tagged individual responses in the ACS who:

- Had a son or daughter who is a citizen or lawful permanent resident; and
- Entered the U.S. before 2010.

We followed a similar process to identify potential Deferred Action for Childhood Arrivals (DACA) recipients, tagging individual respondents who:

- Entered the U.S. before 2010;
- Entered before reaching the age of 16;

[3] Warren, R. 2014. "Democratizing Data about Unauthorized Residents in the United States: Estimates and Public-Use Data, 2010 to 2013." Journal on Migration and Human Security, 2(4), 305-328. doi: http://dx.doi.org/10.14240/jmhs.v2i4.38

» Were currently in school, or had graduated or obtained a certificate of completion from high school or a general education development (GED) certificate.

Finally, to account for undercounting for the undocumented population in census surveys,[4] we reweighted all the foreign-born observations by 10 percent.

Chapter VI: Proposition 47 Methodology

In order to understand the added earnings and related economic benefits of a reduced sentence under California Proposition 47, we used existing data on wage and employment penalties to estimate the lost earnings due to a felony conviction in Los Angeles.

We compiled the number of people with felony convictions for the past five years in California[5] and reduced the population using the following filters, corresponding to the columns in Table VI-1:

b. In their health impact assessment of Prop 47, Human Impact Partners estimates that the six crimes covered under Prop 47 account for 21 to 27 percent of the total felony convictions in California.[6] Therefore, we reduced the sample to 21 percent of the statewide population.

c. One quarter of the population affected by Prop 47 is in Los Angeles County,[7] so we reduced the statewide sample by 25 percent to represent the county.

d. We narrowed the sample to the City of Los Angeles proportion of Los Angeles County population —39 percent—based on the U.S. Census total population estimate.[8]

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[4] See Marcelli, E. A. and Ong P. "Estimating the Sources of the 2000 Census Undercount among Foreign-born Mexicans In Los Angeles County." Paper presented at the Annual Population Association of America meetings, Atlanta, Georgia, May 10, 2002.

[5] Kamala D. Harris. 2013. Crime in California, 2013. California Department of Justice.

[6] Kim Gilhuly, Holly Avey, Megan Gaydos, Jonathan Heller, Matthew Mellon. 2014. Rehabilitating Corrections in California: The Health Impacts of Proposition 47 Full Health Impact Assessment Report. Human Impact Partners. Retrieved from: http://www.humanimpact.org/projects/hia-case-stories/the-health-impacts-of-proposition-47/

[7] Mike Males and Lizzie Buchen. 2014. "Proposition 47: Estimating Local Savings and Jail Population Reductions." Center on Juvenile and Criminal Justice. Retrieved from: http://www.cjcj.org/uploads/cjcj/documents/proposition_47_county_estimates.pdf

[8] U.S. Census Bureau: State and County QuickFacts. 2013. Retrieved from: http://quickfacts.census.gov/qfd/states/00000.html (accessed on March 3, 2015).

Table VI-1: Estimates of the Numbers of People Convicted of Crimes Covered by Prop 47, in Los Angeles County and the City of Los Angeles, 2009-2013

Year	Total Felony Convictions in the State of California (a)	Persons Convicted of Six Crimes* Affected by Prop 47 (b) *(21% of Total Convictions)*	Persons in Los Angeles County (c) *(25% of the State)*	Persons in the City of Los Angeles (d) *(39% of LA County)*
2013	213,390	44,812	11,203	4,369
2012	202,413	42,507	10,627	4,144
2011	195,821	41,122	10,281	4,009
2010	201,820	42,382	10,596	4,132
2009	207,959	43,671	10,918	4,258
Total				20,913

Sources: (a) California Department of Justice 2013. (b) Human Impact Partners 2014 (c) Center on Juvenile and Criminal Justice 2014 (d) US Census Quickfacts 2013. *The six low-level crimes for which sentencing is affected by Prop 47 are: (1) Petty theft of money or property valued between $50 and $950 (2) Shoplifting of property valued at less than $950 (3) Receiving stolen property valued at less than $950 (4) Writing bad checks of less than $950 (5) Check forgery of less than $950 (6) Drug possession for personal use with no intent to distribute.

We used estimates of the types of sentences individuals received for the crimes covered under Prop 47[9] and split up the City of Los Angeles sample proportionately (TableVI-2).

Table VI-2: Sentences for Felony Convictions for Six Low-Level Crimes in California, Number and Percent, 2012

	Numbers and Sentences for Six Low Level Crimes - Felony Convictions	Middle point of ranges in first column	Percent Distribution
Probation only	16,300-17,300	16,800	36%
County Jail + Probation	16,400-23,600	20,000	43%
County Jail only	4,300-6,500	5,400	12%
State Prison	3,500-5,200	4,350	9%
Total	42,900-55,400		100%

Source: California Department of Corrections and Rehabilitation as provided by the Legislative Analyst's Office (2014), FY12/13 CDCR Admissions. Data By Principal Offenses; California Department of Justice, Hawkins Data Center as provided by the Legislative Analyst's Office (2014); Convicted Offenses- 2010 & 2012- Type of Disposition by Offense for Selected Offenses; as cited in Health Impact Partners (2014).

We used the percentage distribution in Table VI-2 to further reduce the population due to recidivism, based on whether individuals served time or had probation (Table VI-3):

- Of those that served time (64 percent), we cut the population by 62 percent.[10]

[9] Kim Gilhuly, Holly Avey, Megan Gaydos, Jonathan Heller, Matthew Mellon. 2014.

[10] ibid.

- Of those that only had probation (36 percent), we cut the population by 15 percent.[11]

Table VI-3: Sample Exclusions due to Recidivism

	Number of people that had some prison/jail time or probation only.	Number of People Excluded	Total/Revised Total
Estimates of individuals impacted by Prop 47 with felony convictions in City of Los Angeles within the past five years			20,913
64% of Individuals That went to prison or jail	13,384		
Of those the 64% went to jail or prison, reduce the excluded amount by 62% to account for recidivism (individuals going to jail 2+ times in the past five years)		-8,298	12,615
36% of Individuals sentenced to probation only	7,529		
Of the 36% on probation, exclude 15% for recidivism (individuals going to jail 2+ times in the past five years)		-1,129	11,486

Source: Top row figure calculated earlier in Table VI-1, with subsequent calculations by the authors.

We calculated the earnings and related economic benefits of a reduced sentence under Prop 47 using existing data on wage and employment penalties to estimate the lost earnings due to a felony conviction in Los Angeles. Because there is currently no administrative data available on wages of people with felony convictions, we estimated earnings based on the entry-level wages found in the Occupational Employment Statistics (OES).[12] Studies on wages found that formerly incarcerated individuals experience a wage penalty of 10 to 30 percent.[13] Because Prop 47 reduces convictions but does not eliminate them, we estimated that a reduced sentence will allow an individual to reduce only a portion of wage penalty. We applied a 5 percent wage penalty, as the amount a person with a reduced conviction may be able to recover annually. We then estimated the total earnings recovered for the city.

Table VI-4 shows how people with reduced convictions have the potential to recover wages that will be lost due to stigma and employment barriers. Affected individuals could

[11] Erinn J. Herberman and Thomas P. Bonczar. 2013. Probation and Parole in the United States, 2012. Bureau of Justice Statistics. Retrieved from: http://www.bjs.gov/content/pub/pdf/ppus13.pdf (accessed on March 3, 2015).

[12] U.S. Bureau of Labor Statistics. Occupational Employment Statistics. May 2013. Metropolitan and Nonmetropolitan Area Occupational Employment and Wage Estimates, adjusted to 2014 dollars.

[13] Western, B. 2002. The impact of incarceration on wage mobility and inequality. *American Sociological Review*, 526-546. Harry J. Holzer, Steven Raphael and Michael Stoll. 2003. Employment barriers facing ex-offenders. Center for the Study of Urban Poverty Working Paper Series. Harry J. Holzer, Steven Raphael and Michael Stoll. 2004. Douglas N. Evans. 2014. The Debt Penalty: Exposing the Financial Barriers to Offender Reintegration. John Jay College of Criminal Justice. Retrieved from: http://justicefellowship.org/sites/default/files/The%20Debt%20Penalty_John%20Jay_August%202014.pdf.

see an increase of almost $1,200 annually and a collective increase in earnings of almost $13.8 million as a result of Prop 47.

Table VI-4: Amount of Wages Recovered due to Reduce Sentencing, City of Los Angeles

Category	Amount
Estimates of individuals impacted by Prop 47 with felony convictions in LA City within the past five years	20,913
Exclude 62% of those that went to prison or jail for recidivism	12,615
Exclude 15% of those on probation for recidivism	11,486
Estimated hourly wage for individuals impacted by Prop 47 (entry level, 25th percentile used as proxy) 5% wage penalty on hourly wage	$11.53 ~ $.58
Estimated 5% wage penalty on annual wage, recoverable now under Prop 47	$1,199.12
Total Earnings Recovered by Prop 47 (11,486 persons x $1,199.12)	$13,772,545

Source: Top three rows' figures calculated earlier in Table VI-3, with subsequent calculations by the authors.

Chapter VII: Dashboard Appendix - Detecting Anomalous Behavior in Los Angeles' Economic Performance

If the City of Los Angeles' performance in sales, employment and wages are affected negatively and significantly after the minimum wage implementation, it is desirable to detect these unusual observations rapidly so that some review and fine-tuning adjustments can be made. Even though there are several powerful formal outlier detection methods—those typically depend on making distributional assumptions—real-world data may not follow specific distributions and these methods require sophisticated test statistics.

Hence, we recommend an informal test which is simpler but delivers a robust method to detect anomalous behavior in any of the economic indicators we recommend: taxable sales, employment and wages. Instead of hypothesis testing, informal tests generate objective criteria such as an interval or a cut-off level and any observations beyond the criterion are considered an outlier.

The most common way of finding an outlier is to label a data point that is more than two standard deviations from the mean as an outlier. Assuming a normal distribution of observed indicator data between the City of Los Angeles, the balance of the county and the state, this method would detect extreme values beyond 95 percent of all data points. However, the presence of outliers is likely to have a strong effect on the mean and standard deviation, making this method unreliable.

A better approach is to use the median absolute deviation (MAD) which is robust against the outliers and not affected by the sample size. It is the median of the absolute values of the differences between the median and each data point

$$MAD = c * MED\ (|\ x_i\ - MED(x_i)\ |)$$

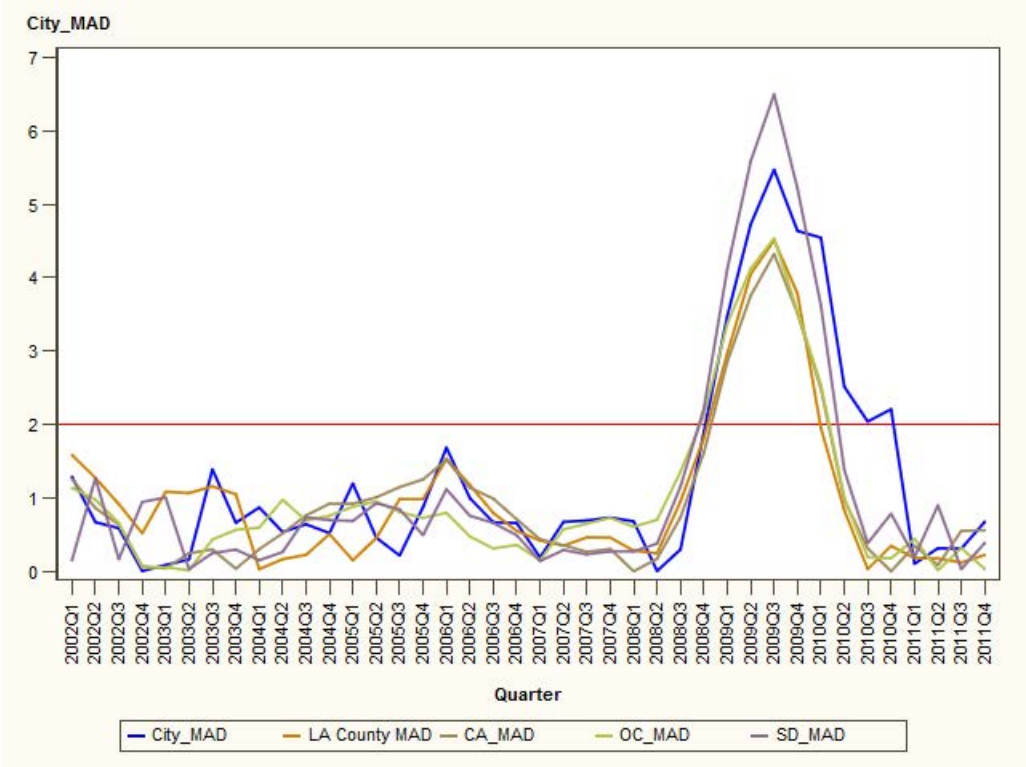
where xi refers to data points and MED refers to the median. "c" is a constant =1.4826 assuming a normal distribution. This constant can be modified if the data appears not

normal. If the underlying distribution is close to normal, then we may expect that approximately 95 percent of data points are less than 2 standard deviations from the center, so 2 is a good outlier cutoff that we adopt. If the adjusted MAD value of a data point (MAD * 1.4826) is greater than 2 then we label this point is an outlier.

In the following example section we use quarterly employment data series between 2001 and 2011 from California Employment Development Department, Quarterly Census of Employment and Wages to identify an anomalous behavior applying the MAD approach we described above. The data is presented in the data appendix for Los Angeles City and 4 comparison regions—rest of the county, the State excluding Los Angeles County and Orange and San Diego Counties. We use quarterly employment growth rates defined as percent growth between a quarter and the same quarter in the previous period. Hence the data covers 40 quarters—Q1 of 2002 through Q4 of 2011. The growth rates of these regions, along with our outlier analysis discussed in this appendix, are presented further below in tables.

We may observe three different scenarios in detecting anomalous behavior. First, the City of Los Angeles may have experienced an unusual behavior over a period of time while no unusual trends are observed in other areas. Second, a single comparison region may have gone through an unusual growth or recession while the city not. Third, all comparison regions may have experienced an unusual time like the 2008 recession.

Figure VII-1: The City of Los Angeles' median absolute deviation (MAD) of employment change, compared to the Balance of Los Angeles County, State, Orange and San Diego Counties

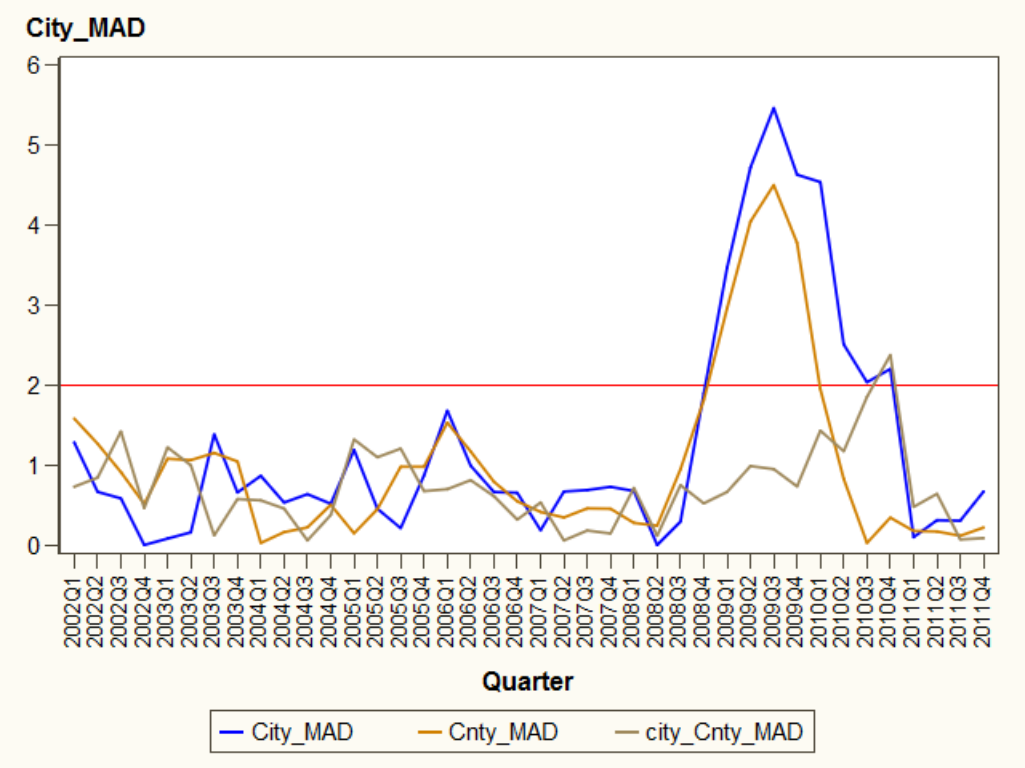


In Figure VII-1, we show the MAD series of the quarterly employment growth for all five regions. We observe that, all series follow a similar path historically. They stay below the cutoff level of 2 standard deviations from the mean (shown as the red horizontal line) until the last quarter of 2008. Then, all regions show significant change in their rates of employment growth due to the Great Recession, moving above the cut-off level for several quarters and then by the 2nd quarter of 2010 they once again go below the red line, with the exception of the city. The City of Los Angeles' recovered late and took

another 3 quarters to behave as other regions. Hence, we can conclude that since all series exceeded the cut-off level at the time of recession, there was no anomalous behavior attributable to any region.

We can see this employment trends picture clearer if we isolate our comparison between two regions. Figure VII-2 shows the MAD series for the City of Los Angeles (City_MAD) and the balance of the county (Cnty_MAD), as well as the difference of their growth rates (City_Cnty_MAD). Once again, we see that during the 2008 recession both series exceed the red line but note that their difference did not. This confirms that, the unusual recessionary period affected both geographic areas similarly—though with varying impact—so that the difference in growth rates (City_Cnty_MAD) did not show anomaly.

Figure VII-2: The City of Los Angeles' median absolute deviation (MAD) of employment change, compared to the Balance of Los Angeles County, and their Difference



Finally, in Figure VII-3, we add Santa Clara County to demonstrate how an anomaly behavior observed in only one region can be captured with this approach. Since Santa Clara County experienced the dot.com recession from 2001 to 2002, severely affecting the Bay Area but not Southern California, we observe that the Santa Clara MAD series (SC_MAD) was above the cut-off point during this time while the rest of the areas were not. This confirms that, the anomaly was only attributable to Santa Clara.

Figure VII-3: The City of Los Angeles' median absolute deviation (MAD) of employment change, compared to the Balance of Los Angeles County, State, Orange, San Diego and Santa Clara Counties

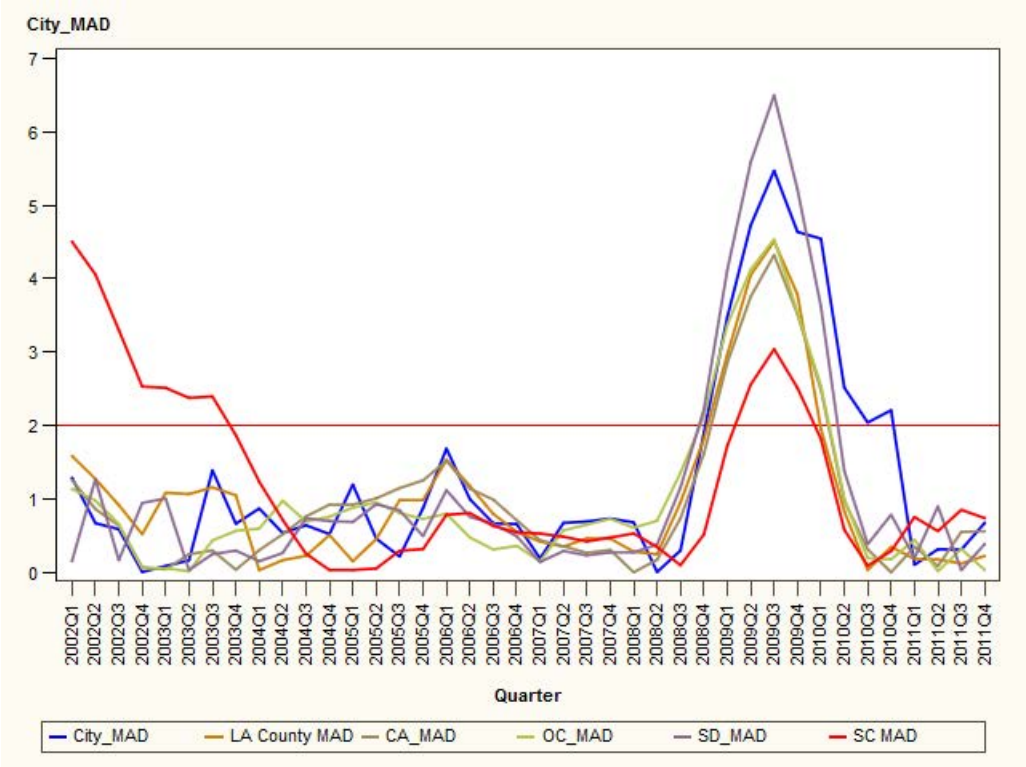


Table VII: Comparative Employment Trends Data Table

Quarter	LA City Emp	County Emp	CA Emp	OC Emp	SD Emp	LA City grw	LA Co grw	CA grw	OC grw	SD grw
2002Q1	1,572,902	2,466,005	10,254,072	1,388,558	1,215,856	-1.0%	-1.0%	-1.8%	-1.7%	0.7%
2002Q2	1,592,443	2,492,070	10,543,535	1,404,667	1,246,957	-0.3%	-0.3%	-1.2%	-1.3%	2.3%
2002Q3	1,592,367	2,445,994	10,484,598	1,399,244	1,231,007	1.2%	1.2%	-0.8%	-0.6%	1.0%
2002Q4	1,601,589	2,496,038	10,496,125	1,412,790	1,254,853	0.5%	0.5%	0.2%	0.6%	1.9%
2003Q1	1,582,103	2,423,732	10,277,987	1,400,484	1,240,217	0.6%	0.6%	0.2%	0.9%	2.0%
2003Q2	1,597,213	2,450,119	10,531,678	1,415,529	1,257,118	0.3%	0.3%	-0.1%	0.8%	0.8%
2003Q3	1,574,916	2,400,997	10,463,345	1,422,403	1,244,998	-1.1%	-1.1%	-0.2%	1.7%	1.1%
2003Q4	1,597,296	2,454,743	10,521,796	1,440,087	1,269,800	-0.3%	-0.3%	0.2%	1.9%	1.2%
2004Q1	1,605,487	2,426,507	10,362,474	1,428,432	1,252,933	1.5%	1.5%	0.8%	2.0%	1.0%
2004Q2	1,614,748	2,447,172	10,656,952	1,455,087	1,271,625	1.1%	1.1%	1.2%	2.8%	1.2%
2004Q3	1,594,086	2,414,479	10,630,977	1,453,680	1,266,084	1.2%	1.2%	1.6%	2.2%	1.7%
2004Q4	1,614,558	2,480,589	10,718,998	1,473,774	1,290,759	1.1%	1.1%	1.9%	2.3%	1.7%
2005Q1	1,591,447	2,437,032	10,556,899	1,465,527	1,273,463	-0.9%	-0.9%	1.9%	2.6%	1.6%
2005Q2	1,614,159	2,470,586	10,872,268	1,495,065	1,295,981	0.0%	0.0%	2.0%	2.7%	1.9%
2005Q3	1,605,784	2,459,855	10,871,133	1,489,170	1,289,091	0.7%	0.7%	2.3%	2.4%	1.8%
2005Q4	1,638,518	2,527,190	10,980,129	1,507,315	1,309,065	1.5%	1.5%	2.4%	2.3%	1.4%
2006Q1	1,629,732	2,506,111	10,861,834	1,501,013	1,300,614	2.4%	2.4%	2.9%	2.4%	2.1%
2006Q2	1,640,358	2,525,222	11,116,466	1,521,114	1,318,249	1.6%	1.6%	2.2%	1.7%	1.7%
2006Q3	1,625,815	2,498,050	11,087,757	1,510,033	1,309,815	1.2%	1.2%	2.0%	1.4%	1.6%
2006Q4	1,658,784	2,555,709	11,146,447	1,529,932	1,327,597	1.2%	1.2%	1.5%	1.5%	1.4%
2007Q1	1,641,206	2,528,606	10,975,980	1,507,268	1,309,578	0.7%	0.7%	1.1%	0.4%	0.7%
2007Q2	1,660,932	2,544,865	11,217,731	1,513,978	1,325,061	1.3%	1.3%	0.9%	-0.5%	0.5%
2007Q3	1,646,558	2,522,390	11,172,243	1,500,528	1,317,468	1.3%	1.3%	0.8%	-0.6%	0.6%
2007Q4	1,680,707	2,580,442	11,238,628	1,517,745	1,334,732	1.3%	1.3%	0.8%	-0.8%	0.5%
2008Q1	1,661,927	2,520,484	11,009,319	1,499,107	1,316,628	1.3%	1.3%	0.3%	-0.5%	0.5%
2008Q2	1,668,897	2,538,248	11,219,424	1,502,750	1,330,580	0.5%	0.5%	0.0%	-0.7%	0.4%
2008Q3	1,648,972	2,484,911	11,066,568	1,468,725	1,311,261	0.1%	0.1%	-0.9%	-2.1%	-0.5%
2008Q4	1,652,514	2,503,338	10,964,114	1,461,179	1,312,180	-1.7%	-1.7%	-2.4%	-3.7%	-1.7%
2009Q1	1,604,290	2,394,956	10,508,780	1,403,724	1,265,760	-3.5%	-3.5%	-4.5%	-6.4%	-3.9%
2009Q2	1,587,262	2,364,113	10,537,941	1,383,407	1,256,839	-4.9%	-4.9%	-6.1%	-7.9%	-5.5%
2009Q3	1,554,335	2,294,697	10,287,670	1,339,186	1,224,901	-5.7%	-5.7%	-7.0%	-8.8%	-6.6%
2009Q4	1,573,353	2,343,124	10,342,426	1,363,101	1,245,044	-4.8%	-4.8%	-5.7%	-6.7%	-5.1%
2010Q1	1,529,125	2,317,785	10,096,330	1,338,993	1,224,053	-4.7%	-4.7%	-3.9%	-4.6%	-3.3%
2010Q2	1,549,549	2,333,930	10,396,224	1,364,424	1,247,669	-2.4%	-2.4%	-1.3%	-1.4%	-0.7%
2010Q3	1,525,793	2,299,845	10,264,308	1,343,616	1,229,925	-1.8%	-1.8%	-0.2%	0.3%	0.4%
2010Q4	1,541,472	2,361,262	10,374,502	1,378,306	1,244,449	-2.0%	-2.0%	0.3%	1.1%	0.0%
2011Q1	1,534,752	2,329,014	10,187,345	1,361,425	1,231,684	0.4%	0.4%	0.9%	1.7%	0.6%
2011Q2	1,551,518	2,344,996	10,413,019	1,374,069	1,245,439	0.1%	0.1%	0.2%	0.7%	-0.2%
2011Q3	1,538,604	2,308,585	10,392,169	1,362,596	1,240,836	0.8%	0.8%	1.2%	1.4%	0.9%
2011Q4	1,560,817	2,374,460	10,505,454	1,389,485	1,260,565	1.3%	1.3%	1.3%	0.8%	1.3%

Table VII: Comparative Employment Trends Data Table (continued)

Quarter	County Diff	CA Diff	OC Diff	SD Diff	City_MAD	County MAD	CA_MAD	OC_MAD	SD_MAD
2002Q1	1.6%	0.8%	0.7%	-1.7%	128.8%	158.6%	125.5%	113.6%	15.5%
2002Q2	1.8%	0.9%	1.0%	-2.6%	67.0%	127.3%	86.3%	97.8%	127.1%
2002Q3	2.6%	1.9%	1.8%	0.1%	58.9%	91.7%	63.9%	65.7%	16.7%
2002Q4	1.2%	0.3%	-0.1%	-1.4%	0.6%	51.9%	6.9%	5.7%	94.5%
2003Q1	2.3%	0.4%	-0.3%	-1.4%	8.6%	108.5%	4.3%	5.6%	100.7%
2003Q2	2.0%	0.4%	-0.5%	-0.5%	16.4%	106.7%	24.7%	1.6%	3.2%
2003Q3	0.7%	-0.9%	-2.8%	-2.2%	139.0%	115.7%	30.0%	43.4%	24.9%
2003Q4	1.4%	-0.5%	-2.2%	-1.5%	66.3%	105.0%	3.7%	56.6%	29.7%
2004Q1	1.4%	0.7%	-0.5%	0.5%	87.1%	3.2%	30.3%	59.6%	15.2%
2004Q2	1.2%	-0.1%	-1.7%	-0.1%	53.7%	16.7%	51.9%	97.5%	26.5%
2004Q3	0.7%	-0.4%	-1.0%	-0.5%	64.2%	22.6%	76.2%	69.2%	73.6%
2004Q4	0.0%	-0.8%	-1.3%	-0.6%	52.2%	50.9%	92.2%	75.9%	69.8%
2005Q1	-1.3%	-2.8%	-3.5%	-2.5%	119.6%	15.2%	92.3%	88.1%	68.8%
2005Q2	-1.0%	-2.1%	-2.8%	-2.0%	46.0%	45.3%	100.8%	95.3%	93.0%
2005Q3	-1.1%	-1.5%	-1.7%	-1.1%	21.7%	98.5%	114.8%	80.7%	84.4%
2005Q4	-0.4%	-1.0%	-0.8%	0.1%	87.6%	98.4%	125.2%	72.9%	49.5%
2006Q1	-0.4%	-0.5%	0.0%	0.3%	168.6%	153.5%	151.9%	79.8%	111.9%
2006Q2	-0.6%	-0.6%	-0.1%	-0.1%	99.8%	117.6%	114.1%	47.6%	75.7%
2006Q3	-0.3%	-0.7%	-0.2%	-0.4%	66.8%	79.7%	99.2%	31.4%	66.1%
2006Q4	0.1%	-0.3%	-0.3%	-0.2%	65.9%	55.2%	71.0%	36.1%	49.3%
2007Q1	-0.2%	-0.3%	0.3%	0.0%	19.1%	41.9%	43.8%	15.3%	14.1%
2007Q2	0.5%	0.3%	1.7%	0.7%	67.4%	35.0%	35.5%	57.4%	29.2%
2007Q3	0.3%	0.5%	1.9%	0.7%	69.3%	46.4%	26.8%	65.0%	23.3%
2007Q4	0.4%	0.5%	2.1%	0.8%	73.3%	46.0%	30.6%	72.9%	27.4%
2008Q1	1.6%	1.0%	1.8%	0.7%	68.1%	28.3%	0.2%	60.8%	27.3%
2008Q2	0.7%	0.5%	1.2%	0.1%	0.6%	24.7%	17.2%	70.3%	37.9%
2008Q3	1.6%	1.1%	2.3%	0.6%	29.9%	95.3%	73.7%	135.7%	115.5%
2008Q4	1.3%	0.8%	2.0%	0.0%	190.1%	181.8%	161.7%	212.0%	221.9%
2009Q1	1.5%	1.1%	2.9%	0.4%	347.4%	296.6%	285.5%	337.1%	411.7%
2009Q2	2.0%	1.2%	3.1%	0.7%	472.4%	404.9%	375.4%	412.0%	558.3%
2009Q3	1.9%	1.3%	3.1%	0.8%	546.8%	450.6%	432.1%	453.7%	649.5%
2009Q4	1.6%	0.9%	1.9%	0.3%	463.5%	378.3%	351.6%	353.7%	521.2%
2010Q1	-1.5%	-0.8%	-0.1%	-1.4%	454.3%	195.3%	248.9%	254.0%	362.1%
2010Q2	-1.1%	-1.0%	-1.0%	-1.6%	251.4%	83.3%	97.2%	100.2%	138.0%
2010Q3	-2.1%	-1.6%	-2.2%	-2.2%	204.0%	3.2%	31.4%	19.4%	38.5%
2010Q4	-2.8%	-2.3%	-3.1%	-2.0%	220.7%	34.8%	0.2%	17.8%	78.5%
2011Q1	-0.1%	-0.5%	-1.3%	-0.3%	10.4%	18.1%	35.0%	44.4%	19.9%
2011Q2	-0.3%	0.0%	-0.6%	0.3%	31.6%	17.5%	8.6%	1.6%	89.9%
2011Q3	0.5%	-0.4%	-0.6%	0.0%	31.0%	12.1%	55.2%	31.9%	3.2%
2011Q4	0.7%	0.0%	0.4%	0.0%	67.5%	22.4%	56.2%	3.4%	38.8%

Table VII: Comparative Employment Trends Data Table (continued)

Quarter	Cnty Diff MAD	CA_diff _MAD	OC_diff _MAD	SD_diff _MAD	SC Emp	SC grw	SC Diff	SC MAD	SC Diff MAD
2002Q1	73.5%	86.8%	43.2%	174.1%	917,436	-2.6%	11.2%	450.2%	645.1%
2002Q2	84.8%	90.2%	62.8%	276.8%	914,544	-2.0%	10.7%	405.6%	613.5%
2002Q3	142.6%	190.4%	102.9%	21.1%	896,160	-1.4%	9.9%	330.0%	573.2%
2002Q4	46.7%	35.0%	0.8%	150.6%	893,815	-0.7%	7.0%	253.0%	416.9%
2003Q1	122.6%	39.5%	7.1%	148.2%	857,877	-1.7%	7.1%	251.3%	419.2%
2003Q2	100.3%	45.2%	17.7%	48.5%	858,785	-1.7%	6.4%	237.5%	382.3%
2003Q3	12.6%	79.1%	138.4%	238.1%	841,003	-1.8%	5.1%	239.6%	309.7%
2003Q4	58.0%	42.8%	109.2%	152.7%	852,383	-1.7%	4.4%	186.8%	272.2%
2004Q1	56.4%	68.5%	20.0%	58.4%	833,733	0.1%	4.3%	123.5%	268.1%
2004Q2	46.1%	2.7%	82.5%	2.2%	847,449	-0.1%	2.4%	71.6%	166.4%
2004Q3	6.3%	30.7%	44.6%	44.2%	841,092	0.6%	1.2%	25.4%	100.7%
2004Q4	38.1%	69.6%	59.3%	54.5%	857,883	1.1%	0.4%	3.4%	58.9%
2005Q1	132.6%	256.0%	176.6%	269.1%	840,725	0.4%	-1.7%	3.4%	57.7%
2005Q2	110.3%	189.9%	140.1%	207.1%	852,412	1.0%	-0.6%	5.4%	1.5%
2005Q3	121.1%	139.3%	83.1%	111.2%	854,481	1.9%	-0.9%	29.5%	11.3%
2005Q4	68.0%	84.7%	34.6%	15.7%	872,089	1.9%	-0.2%	31.7%	25.9%
2006Q1	70.4%	40.0%	6.6%	38.6%	865,964	2.8%	-0.6%	78.5%	2.9%
2006Q2	81.7%	53.3%	1.1%	2.1%	878,544	2.2%	-1.4%	80.7%	43.0%
2006Q3	61.6%	65.0%	0.7%	31.4%	876,388	1.6%	-1.3%	63.3%	36.1%
2006Q4	32.4%	20.5%	6.6%	11.4%	892,246	1.1%	-1.1%	54.5%	23.0%
2007Q1	53.7%	27.0%	22.7%	10.0%	885,573	0.9%	-1.6%	52.9%	49.4%
2007Q2	6.3%	38.7%	98.8%	89.8%	897,350	0.8%	-0.9%	48.6%	12.8%
2007Q3	18.7%	54.9%	108.4%	84.7%	893,530	1.0%	-0.7%	42.2%	1.6%
2007Q4	15.0%	53.1%	119.7%	95.0%	911,065	1.0%	-0.8%	47.5%	7.5%
2008Q1	72.0%	97.3%	103.0%	88.3%	905,649	-0.3%	-1.0%	53.0%	19.2%
2008Q2	12.3%	50.2%	72.1%	15.4%	912,982	-0.3%	-1.3%	34.7%	33.2%
2008Q3	75.5%	110.0%	127.5%	76.6%	902,676	-1.5%	-0.9%	9.8%	12.3%
2008Q4	52.7%	78.9%	116.0%	9.7%	904,263	-3.0%	-0.9%	51.7%	15.2%
2009Q1	67.0%	108.7%	160.8%	52.1%	867,459	-5.0%	0.7%	172.2%	75.9%
2009Q2	99.3%	118.6%	169.1%	80.2%	852,579	-6.9%	1.7%	255.6%	128.8%
2009Q3	95.5%	129.7%	170.7%	101.9%	830,384	-7.7%	2.3%	303.9%	158.4%
2009Q4	73.8%	89.8%	109.3%	44.4%	845,590	-6.4%	1.7%	251.1%	127.4%
2010Q1	143.6%	66.4%	3.5%	145.1%	828,487	-3.2%	-0.2%	181.8%	24.8%
2010Q2	117.8%	92.2%	45.8%	173.4%	844,674	-1.3%	-1.4%	58.0%	43.3%
2010Q3	185.8%	147.3%	107.4%	239.6%	838,748	0.2%	-2.8%	9.2%	119.0%
2010Q4	238.2%	216.5%	159.1%	210.1%	858,934	0.8%	-3.6%	29.0%	160.3%
2011Q1	48.3%	44.8%	61.9%	19.8%	852,604	0.5%	-2.5%	75.3%	102.7%
2011Q2	64.6%	2.7%	23.3%	42.2%	864,618	0.5%	-2.2%	56.2%	85.9%
2011Q3	7.5%	32.7%	22.9%	3.1%	865,537	0.4%	-2.4%	85.2%	92.5%
2011Q4	9.2%	5.3%	31.0%	4.0%	883,577	0.6%	-1.6%	73.9%	52.3%

Variable names appearing in the table above:

- Quarter: Year and quarter of the data. These employment data are recorded monthly, so the quarterly figure is typically the average of the three months in each quarter.
- LA City Emp: Total employment of the City of Los Angeles

- County Emp: Total employment of the balance of Los Angeles County, excluding the City of Los Angeles
- CA Emp: Total employment of the State of California
- OC Emp: Total employment of Orange County
- SD Emp: Total employment of San Diego County
- LA City grw: Employment growth rate of the City of Los Angeles, compared to the same quarter one year prior
- LA Co grw: Employment growth rate of the balance of Los Angeles County, excluding the City of Los Angeles, compared to the same quarter one year prior
- CA grw: Employment growth rate of the State of California, compared to the same quarter one year prior
- OC grw: Employment growth rate of Orange County, compared to the same quarter one year prior
- SD grw: Employment growth rate of San Diego County, compared to the same quarter one year prior
- County Diff: Difference in the Percentage Employment Growth Rate between the City of Los Angeles and the balance of Los Angeles County
- CA Diff: Difference in the Percentage Employment Growth Rate between the City of Los Angeles and the State of California
- OC Diff: Difference in the Percentage Employment Growth Rate between the City of Los Angeles and Orange County
- SD Diff : Difference in the Percentage Employment Growth Rate between the City of Los Angeles and San Diego County
- City_MAD: City of Los Angeles median absolute deviation (MAD), the median of the absolute values of the differences between the median and each data point
- County MAD: Balance of Los Angeles County median absolute deviation (MAD)
- CA_MAD: State of California median absolute deviation (MAD)
- OC_MAD: Orange County median absolute deviation (MAD)
- SD_MAD: San Diego County median absolute deviation (MAD)
- Cnty Diff MAD: Median absolute deviation (MAD) of the Difference in the Percentage Employment Growth Rate between the City of Los Angeles and the balance of Los Angeles County
- CA_diff_MAD: Median absolute deviation (MAD) of the Difference in the Percentage Employment Growth Rate between the City of Los Angeles and the State of California
- OC_diff_MAD: Median absolute deviation (MAD) of the Difference in the Percentage Employment Growth Rate between the City of Los Angeles and Orange County
- SD_diff_MAD: Median absolute deviation (MAD) of the Difference in the Percentage Employment Growth Rate between the City of Los Angeles and San Diego County
- SC Emp: Total employment of Santa Clara County
- SC grw: Employment growth rate of Santa Clara County, compared to the same quarter one year prior
- SC Diff: Difference in the Percentage Employment Growth Rate between the City of Los Angeles and Santa Clara County
- SC MAD: Santa Clara County median absolute deviation (MAD)
- SC Diff MAD: Median absolute deviation (MAD) of the Difference in the Percentage Employment Growth Rate between the City of Los Angeles and Santa Clara County

Chapter VII: Detailed Local Minimum Wage Increase Schedules

Municipality	Year	Base Year	Year 1	% Increase	$ Increase	Year 2	% Increase 2	$ Increase 3	Year 3	% Increase 4	$ Increase 5	Year 4	% Increase 6	$ Increase 7	Year 5	% Increase 8	$ Increase 9	Indexed to CPI
Albuqurque	2012	$7.50	$8.60	14.67%	$1.10													Yes
Berkeley	2014	$9.00	$10.00	11.11%	$1.00	$11.00	10.00%	$1.00	$12.53	13.91%	$1.53							No
Bernalillo County	2013	$7.50	$8.00	6.67%	$0.50	$8.50	6.25%	$0.50										Yes
Chicago	2014	$8.25	$10.00	21.21%	$1.75				$11.00	10.00%	$1.00				$13	18%	$2.00	Yes
Las Cruces	2014	$7.50	$8.40	12.00%	$0.90				$9.20	9.52%	$0.80				$10.10	10%	$0.90	Yes
Louisville	2014	$7.25	$9.00	24.14%	$1.75													Yes
Montgomery	2013	$7.25	$8.40	15.86%	$1.15							$11.50	36.90%	$3.10				No
Mountain View	2014	$9.00	$10.30	14.44%	$1.30													Yes
NYC (proposed)	2015	$9.00	$13.00	44.44%	$4.00							$15.00	15.38%	$2.00				Yes
Oakland	2014	$9.00	$12.25	36.11%	$3.25													Yes
Prince George	2013	$7.25	$8.40	15.86%	$1.15							$11.50	36.90%	$3.10				No
Richmond	2014	$9.00	$9.60	6.67%	$0.60	$11.52	20.00%	$1.92	$12.30	6.77%	$0.78							Yes
San Diego	2014	$9.00	$9.75	8.33%	$0.75	$10.50	7.69%	$0.75	$11.50	9.52%	$1.00							Yes
San Francisco	2014	$10.74	$11.05	2.89%	$0.31	$12.25	10.86%	$1.20	$13.00	6.12%	$0.75	$14.00	7.69%	$1.00	$15.00	7%	$1.00	Yes
San Jose	2012	$8.00	$10.00	25.00%	$2.00													Yes
Santa Fe	2003	$5.15	$8.50	65.05%	$3.35													Yes
Seattle	2014	$9.47	$11.00	16.16%	$1.53	$13.00	18.18%	$2.00	$15.00	15.38%	$2.00							No
Sunnyvale	2014	$9.00	$10.30	14.44%	$1.30													Yes
Washington DC	2014	$8.25	$9.50	15.15%	$1.25	$10.50	10.53%	$1.00	$11.50	9.52%	$1.00							Yes
Average		**$8.27**	**$9.79**	**18.42%**	**$1.52**	**$11.04**	**12.73%**	**$1.20**	**$12.00**	**8.74%**	**110.75%**	**$13.00**	**8.30%**	**$2.30**	**$12.70**	**12%**	**$1.30**	
Total phased % increase average		**11.98%**																

Chapter VII: Application and Exemptions in Local Minimum Wage Increases

City	Employer Defined	Employer Exemptions	Employee Exemptions
Albuquerque, NM	"Any person, partnership, association, corporation, business trust, legal representative, or any other entity, or group of persons or entities, including corporate officers or executives, who is required to have a business license or business registration from the City of Albuquerque and who directly or indirectly or through an agent or any other person including, but not limited to, through a subsidiary or through the services of a temporary services agency, a staffing agency, a building services contractor, or any similar entity, employs or exercises control over the wages, hours or working conditions of any employee." Includes the City of Albuquerque. Albuquerque, N.M., Mun. Code Art. 12, § 13-12-2 (2015).	None.	Persons working for covered employer fewer than 2 hours per week within the city; interns working for academic credit; work-study students; employees exempted under state statute. Id.
Berkeley, CA	"Any person, including corporate officers or executives, as defined in § 18 of the California Labor Code, who directly or indirectly through another person, including through the services of a temporary employment agency, staffing agency, subcontractor or similar entity, employs or exercises control over the wages, hours, or working conditions of any Employee, or any person receiving or holding a business license through Title 9 of the Berkeley Municipal Code." Berkeley, Cal., Ord. No. 7,352-N.S. § 13.99.030(D) (July 1, 2014).	Nonprofit corporations have one additional year to comply with minimum wage requirements. Id. § 13.99.040(B). Employers who have entered collective bargaining agreements with clear and unambiguous waiver. Id. § 13.99.050.	Persons working for covered employer fewer than 2 hours per week within the city; work-study students; persons exempted from minimum wage under state statute. Id. § 13.99.030(C). On-call employees as defined under Fair Labor Standards Act while on-call; job training program participants under 25 years old in job training programs operated by nonprofits or governmental agencies. Id. § 13.99.130.
Bernalillo County	"Any person, who is required to have a business registration from the county and who directly or indirectly or through an agent or any other person including, but not limited to, through a subsidiary or through the services of a temporary services agency, a staffing agency, a building services contractor, or any similar entity, employs or exercises control over the wages, hours or working conditions of any employee. 'Employer' shall include the county." Bernalillo County, N.M., Mun. Code Div. 6, § 2-219 (2015).	None.	Persons working for covered employer fewer than 2 hours per week within the unincorporated areas of the county; interns working for academic credit; work-study students; employees exempted under state statute. Id. Sec 2-219. Persons employed by a parent, spouse, or sibling of employers; babysitters working in employer's home; persons under age 16. Id. § 2-220.
Chicago, IL	Any individual, partnership, association, corporation, limited liability company, business trust, or any person or group of persons that gainfully employs at least one Covered Employee. To qualify as an Employer, such individual, group, or entity must (1) maintain a business facility within the geographic boundaries of the City and/or (2) be subject to one or more of the license reguirements in Title 4 of this Code. Chi., Ill., Ord. No. 02014-9680 § 1-24-010 (Dec. 2, 2014).	Employers without a businesses facility within the City of Chicago. Id.	Persons working for covered employer fewer than 2 hours in two weeks within the city (although compensated time spent within the City includes but is not limited to travel, calls, deliveries, etc.); domestic workers; persons under age 24 working in a publicly subsidized summer or other temporary employment program operated by a non-profit or government agency; persons working in a publicly subsidized transitional employment program for hard-to-employ populations administered by a non-profit or government agency; newspaper delivery persons; state, local, county, school district, park district, transit authority, city colleges, housing authority, and building commission employees; workers exempted under state statute. Id. § § 1-24-010. -050.
Las Cruces, NM	Any individual, partnership, association, corporation, business trust, legal representative or any organized group of persons employing one or more employees at any one time, acting directly or indirectly in the interests of an employer in relation to an employee and shall include the City, businesses having contracts with the City in excess of $30,000 which provide services to or on behalf of the City, and businesses which are required to have a City issued business license. Las Cruces, N.M., "Minimum Wage Ordinance," Mun. Code Art. III, § 14-61 (2015).	U.S. government, state government, and other local government employers. Id.	Individuals employed in a bona fide executive, administrative or professional capacity and forepersons, superintendents and supervisors; volunteers; students enrolled in primary or secondary school working after hours or on vacation; registered apprentices or learners otherwise provided by law; persons 18 years or under; G.I. bill trainees while under training. Id. § 14-61(A)-(G).

City	Employer Defined	Employer Exemptions	Employee Exemptions
Louisville, KY	Any person, either individual, corporation, partnership, agency, or firm who employs an employee and includes any person, either individual, corporation, partnership, agency, or firm acting directly or indirectly in the interest of an employer in relation to an employee. Louisville, Ky., Ord. No. 216 § 112.10(A)(2) (2014), incorporating Ky. Rev. Stat. § 337.010(1)(d) (2015).	Employers exempt under state statute. Id.	Persons exempt under state statute. Id.
Montgomery County, MD	Employer means any person, individual, proprietorship, partnership, joint venture, corporation, limited liability company, trust, association, or other entity operating and doing business in the County that employs 2 or more persons in the County. Employer includes the County government. Montgomery County, Md., Mun. Code art. XI, Ch. 27, § 27-67(b) (2015).	U.S., state, or any other local government. Id.	Persons exempt under federal or state statute; persons under age 19 who are employed no more than 20 hours per week. Id. § 27-68(b).
Mountain View, CA	Any person, including corporate officers or executives, as defined in § 18 of the California Labor Code, who directly or indirectly through any other person, including through the services of a temporary employment agency, staffing agency, or similar entity, employs or exercises control over the wages, hours, or working conditions of any employee and who is either subject to the city' s business license requirements or maintains a business facility in the city. Mountain View, Cal., Ord. No. 17.14 § 42.3(c) (Oct. 28, 2014).	State, federal, county, and school district employers, for work that is related to their government function (non-related work includes but is not limited to booster or gift shops, non-K-12 cafeterias, on-site concessions, and similar operations); organizations claiming "auxilliary organization" status under California Education Code § 89901 or 72670(c); employers who have entered collective bargaining agreements with clear and unambiguous waiver. Id. § 52.5.	Persons working for covered employer fewer than 2 hours per week within the city. Id § 42.3(b), 42.4(a).
Oakland, CA	Any person who directly or indirectly (including through the services of a temporary services or staffing agency or similar entity) employs or exercises control over the wages, hours or working conditions of any employee. Oakland, Cal., Minimum Wage Measure, Mun. Code Ch. 5.92.010 (2015).	None.	Persons working fewer than 2 hours per week within the city; persons exempted under state statute. Id.
Prince George's County, MD	The term “employer” includes a person who acts directly or indirectly in the interest of another employer with an employee and includes a governmental unit. Prince George's County, Md., Labor Code subtit. 13A. § 13A-117(a) (2015).	None.	Persons under age 19 who work fewer than 20 hours per week; persons exempted under federal or state statute. Id. § 13A-117(e).
Richmond, CA	Any person, as defined in § 18 of the California Labor Code, who directly or indirectly through any other person, including through the services of a temporary employment agency or similar entity, employs or exercises control over the wages, hours or working conditions of any employee. Richmond, Cal., Ord. No. 11-14 N.S., § 7.108.030(D) (June 17, 2014).	Employers that pay for less than 800 hours during a given two-week period of employee labor at all business locations, whether inside or outside the City of Richmond. Such employers shall be deemed to be a covered employer for the entirety of that two-week period and the remainder of that calendar year quarter. In determining how many hours of employee labor an employer pays for, all labor performed by businesses with substantial overlapping ownership or control shall be aggregated. Id. § 7.108.03(d). Employers who have entered collective bargaining agreements with clear and unambiguous waiver. Id. § 7.108.050.	Persons working for covered employer fewer than 2 hours per week within the city; persons exempt under state statute; persons employed through the city's YouthWORKS Youth Summer Employment Program; persons who receive more than 50% or more of income from government grants , reimbursement programs, or vouchers. Id. § 7.108.030(C).

City	Employer Defined	Employer Exemptions	Employee Exemptions
San Diego, CA	Employer means any person or persons, as defined in California Labor Code § 18, who exercises control over the wages, hours, or working conditions of any employee, or suffers or permits the employee to work, or engages the employee. San Diego, Cal., Ord. No. 20390, § 39.0104 (Aug. 18, 2014).	Persons receiving services under the California In-Home Supportive Services program pursuant to Welfare and Institutions Code § 12300. Id.	Persons working for covered employer fewer than 2 hours per week within the city; persons exempted under state statute, including Labor Code 1191 and 1191.5 which exempt specific mentally or physically handicapped persons; participants in Welfare-to-Work Programs; youth working on a publicly subsidized short-term youth employment program; student employees; camp counselors or program coordinators of camps defined in Labor Code § 1182.4. Id. § 39.0104(c).
San Francisco, CA	Any person, as defined in § 18 of the California Labor Code, including corporate officers or executives, who directly or indirectly through any other person, including through the services of a temporary employment agency or similar entity, employs or exercises control over the wages, hours or working conditions of any employee. Includes the city and IHSS Public Authority. S.F., Cal., Ord. No. 140687, Amending S.F. Mun. Code § 12R.3 (July 17, 2014).	Employers who have entered collective bargaining agreements with clear and unambiguous waiver. Id. § 12.R.8.	Persons working for covered employer fewer than 2 hours per week within the city; persons exempted under state statute. Id. § 12.R.3. Persons designated as "Government Employees" will be paid $12.25 in May, 2015, thereafter increased by inflation. These include persons who are under age 18 and employed in a publicly subsidized after-school or summer employee training or apprenticeship program; persons in a publicly subsidized position, over age 55, at a non-profit organization that provides social welfare services as a core mission to persons over the age of 55. Id. § 12.R.3, 12.R.4(b).
San Jose, CA	Any person, including corporate officers or executives, as defined in § 18 of the California Labor Code, who directly or indirectly through any other person, including through the services of a temporary employment agency, staffing agency or similar entity, employs or exercises control over the wages, hours or working conditions of any employee and who is either subject to the Business License Tax Chapter 4.76 of the Municipal Code or maintains a facility in the City. San Jose, Cal, Min. Wage Ord., Ch. 4.100, § 4.100.030(B) (November 12, 2012).	Employers who have entered collective bargaining agreements with clear and unambiguous waiver. Id. § 4.100.050.	Persons working for covered employer fewer than 2 hours per week within the city; persons exempted under state statute. Id. § 4.100.030(B).
Santa Fe, NM	Businesses required to have a business license or registration from the city of Santa Fe. Santa Fe, N.M., Mun. Code § 28-1.5(A)(4) (2015).	Nonprofits organizations whose primary source of funds is from Medicaid waivers. Id. § 28-1.5(D).	Persons who are employed by Santa Fe businesses but not working in city of Santa Fe; persons related by blood or marriage to their employer; any person with possessory interest in business; interns working for academic credit; persons fulfilling court-ordered community service; apprentices with non-profits. Id.
Seattle, WA	Any individual, partnership, association, corporation, business trust, or any person or group of persons acting directly or indirectly in the interest of an employer in relation to an employee. Seattle, Wash., Mun. Code Ch. 14.19.010(H) (2015).	"Schedule 2 Employers" with fewer than 500 employees follow a slower wage increase schedule that provides until 2021 to pay $15 per hour. Id. § 14.19.010(U), 14.19.020.	Persons working less than 2 hours per week within the city. Id. § 14.19.020(A). Work-study students; hand harvest laborers paid on a piece rate basis; casual labor in or about a private home, unless performed in the course of the employer's trade, business, or profession; volunteers; newspaper delivery persons; any individual engaged in forest protection and fire prevention activities; any individual employed by any charitable institution for development of character or citizenship or promoting health or physical fitness or providing or sponsoring recreational opportunities or facilities for young people or members of the armed forces of the United States; on-call employees while on-call; any resident, inmate, or patient of a state, county, or municipal correctional, detention, treatment or rehabilitative institution; elected or appointed officials or employee of the state legislature; vessel operating crews of the Washington state ferries operated by the Washington State Department of Transportation or foreign vessel. Id. Sec 2.14.19.010(G), incorporating by reference Seattle Mun. Code Ch. 12.A.28.200.

City	Employer Defined	Employer Exemptions	Employee Exemptions
Sunnyvale, CA	Any person, including corporate officers or executives, as defined in § 18 of the California Labor Code, who directly or indirectly through any other person, including through the services of a temporary employment agency, staffing agency or similar entity, employs or exercises control over the wages, hours or working conditions of any Employee and who is either subject to the Business License Tax in Chapter 5.04 of the Sunnyvale Municipal Code or maintains a facility in the City. Sunnyvale, Cal., Mun. Code Ch. 3.80.030 (2015).	Federal, state, school district, and auxiliary organizations under Education Code §s 72670(c) and 89901. Id. § 30.80.030(d).	Persons working fewer than 2 hours per week within the city; persons exempted under state statute. Id. § 30.80.030(b).
Washington, DC	Any individual, partnership, association, corporation, business trust, or any person or group of persons acting directly or indirectly in the interest of an employer in relation to an employee. Wash. D.C. Code § 32-1002(3) (2015).	The United States and the District of Columbia. Id. § 32-1002(3)	Volunteers, casual babysitters; persons working less than 50% of their time in the District. Id. § 32-1002, 1003.

City	Enforcement Agency	Revoke Licenses/ Permits/ Contracts	Liens	Posting and Payroll Access	Fines and Penalties	Criminal Penalties	Private Right of Action	Retaliation Protection	Outreach and Education
Albuquerque, NM	The city shall have the authority to coordinate implementation and enforcement of this article and may promulgate appropriate guidelines or rules for such purposes. Albuquerque, N.M., Mun. Code Art. 12, § 13-12-25(A) (2015).	N/A	N/A	Notices in English and Spanish; payroll records for 3 years. Id. § 13-12-4.	N/A	N/A	Any employee receiving less than the wage to which the employee is entitled under this article may bring a civil action and recover attorney's fees. Id. at 13-12-5(B).	In any case where an employee has been discharged in retaliation for exercising rights under this article, the period of violation extends from the day of discharge until the day the employee is reinstated, the day the employee agrees to waive reinstatement or, in the case of an employee who may not be rehired, from the day of discharge until the day legal judgment is final. Id.	N/A
Berkeley, CA	The Department of Finance is authorized to enforce this minimum wage ordinance, including receiving, investigating, and adjudicating confidential claims for violations. Berkeley, Cal., Ord. No. 7,352-N.S. § 13.99.030(D) (July 1, 2014).	The city may revoke or suspend permits, certificates, permits, or licenses until violations are remedied. Id. § 13.99.090(D) (2014).	N/A	Notice in any language spoken by at least 5% of the employees at the workplace or job site, including employer's name, address, and telephone number in writing; retain payroll records for 4 years and allow the city access to such records. Failure to allow inspection or inadequate records triggers presumption that employee's account of how much he or she was paid shall be presumed to be accurate, absent clear and convincing evidence otherwise. Violation of this § requires public notice of failure to comply in a form determined by the city and $500 citation per violation. Id. § 13.99.060(C), 13.99.090(A)(1)(b).	Failure to pay minimum wage: $50 per employee per day of violation; additional $50 per employee per day for repeat offenders. Id. § 19.99.090(E). Retaliation: $1,000 per employee. Id. § 19.99.090(A)(1)(a). Violation of notice and payroll requirements: $500 per violation. Id. § 19.99.090(A)(1)(b).	N/A	Any person aggrieved by a violation of this Chapter or any entity a member of which is aggrieved by a violation of this Chapter, or any other person or entity acting on behalf of the public as provided for under applicable state law, may bring a civil action and recover attorneys' fees and costs. Id. § 13.99.090 (B).	Applies to employers and any other party who takes adverse action against employees who file a complaint, inform any person about alleged noncompliance, or inform of or assist any person's rights under this ordinance. Adverse action within 90 days raises rebuttable presumption of retaliation. Id. § 13.99.070.	
Bernalillo, NM	The county shall have the authority to coordinate implementation and enforcement of this division and may promulgate appropriate guidelines or rules for such purposes. Bernalillo County, N.M., Mun. Code Div. 6, § 2-222(a) (2015).	N/A	N/A	Notices in English and Spanish; retain payroll records for 3 years. Id. § 2-221.	N/A	N/A	Any employee receiving less than the wage to which the employee is entitled under this division may bring a civil action and recover attorney's fees. Id. § 2-222(B).	N/A	N/A

City	Enforcement Agency	Revoke Licenses/ Permits/ Contracts	Liens	Posting and Payroll Access	Fines and Penalties	Criminal Penalties	Private Right of Action	Retaliation Protection	Outreach and Education
Chicago, IL	The department of business affairs and consumer protection. Chi., Ill., Ord. No. O2014-9680 § 1-24-090 (Dec. 2, 2014).	Licenses shall be denied if applicant violated any federal or state wage and hour law in preceding 5 years prior to application, or Chicago minimum wage law in preceding 2 years prior to application. Id. § 4-4-320.	N/A	Post notice and provide notice with first paycheck. Id. § 1-24-070(b).	Each violation: $500 - $1,000 per day. Id. § 1-14-100.		Employee may recover in a civil action 3 times the amount of any underpayment, together with costs and attorney's fees. Id. § 1-24-110.	Protects employees who disclose, report, or testify about violations, among other acts, from adverse action, including termination, denial of promotion, negative evaluations, schedule changes, work assignments, and other acts. Id. § 1-24-080.	N/A
Houston, TX	Office of Inspector General receives, investigates, and adjudicates wage theft complaints. Houston, Tex., Code of Ordinances, Ch. 15, Art. IV, § 15-62 (2015). The finance director shall create and maintain on the city's website a publicly accessible database of all employers with contracts with the city of Houston that have violated state wage and hour laws in the previous 5 years. Id. § 15-63.	Employers with contracts with the city of Houston who violate this wage theft ordinance will be included in a wage theft database that will prevent them from obtaining occupational licenses. Id. § 15-65(B).	N/A	N/A	Employers found to have violated state wage and hour law within 5 years prior to application to contract with the City, will be included in a publicly available wage theft database and remain ineligible for any City contracts. Id. § 15-65(A).	N/A	N/A	Employers who retaliate against employees that file a wage theft complaint will be listed on the public database as violators and ineligible for city contracts for five years. Id. § 15-64(E).	N/A
Oakland, CA	City officials are authorized to inspect payroll, investigate complaints of noncompliance, and render decisions on the merits of such complaints. The City is authorized to award the same relief in its proceedings as a court may award. Oakland, Cal., Minimum Wage Measure, Mun. Code Ch. 5.92.050(E), (F) (2015).	The city is permitted to consider violations of this chapter when it awards city contracts and land use permits. Id.§ 5.92.050(F).	N/A	Notice in any language spoken by at least 10% of the employees; retain payroll records for 3 years and provide to each employee upon request; allow access to city representatives. § 5.92.050(C)	Civil penalties of $1,000 per violation available in court. Id. § 5.92.050(8). City officials may consider, to extent permitted by law, employer's violation when it awards city contracts, land use approvals, and other entitlements to expand or operate within the city. Id. § 5.92.050(F).	N/A	Any person claiming harm from a violation may bring an action against the employer in court and recover civil penalties of $1,000 per violation and attorney's fees. Id. § 5.92.050(8).	Protects employees who make a complaint, participate in any city proceedings, or use any remedies in this § from adverse action, including discharge, reduced compensation, or other discrimination. Discharge within the 120 days of any employee who submits a complaint must be proven unlawful by clear and convincing evidence. Likewise prohibits employers from funding minimum wage increase by reducing employee compensation or fringe benefits. Id. § 5.92.050 (A).	$178,000 in education and outreach to employers and employees. Office of the City Auditor. 2014. City Auditor's Impartial Financial Analysis of Measure FF.

City	Enforcement Agency	Revoke Licenses/ Permits/ Contracts	Liens	Posting and Payroll Access	Fines and Penalties	Criminal Penalties	Private Right of Action	Retaliation Protection	Outreach and Education
Las Cruces, NM	None specified.	N/A	N/A	Notices in English and Spanish; retain payroll records for 3 years This records must be retain for at least three years; allow access to city or its designees. Failure to allow access or inadequate records creates presumption of wage violation, unless employer can prove otherwise by clear and convincing evidence. Las Cruces, N.M., "Minimum Wage Ordinance," Mun. Code Art. III, § 14-63 (2015).	N/A	N/A	Any employees receiving less than the minimum wage has the right to bring a civil action in court, and recover attorney's fees. Id. § 14-64(B).	N/A	N/A
Louisville, KY	Louisville Metro Government shall issue a citation for failure to pay civil penalties owed to employees, and initiate civil action in court to collect the penalty. Louisville, Ky., Ord. No. 216, § VI(D)(2) (Dec. 18, 2014).	N/A	N/A	N/A	Civil penalty of $100 per employee per day of violation. Id..	N/A	Employee who is paid less than the minimum wage can bring a civil action against the employer for the full compensation of lost wages. Id. § IV(D)(1).	N/A	N/A
Miami, FL	Miami-Dade County appoints a hearing examiner to receive and adjudicate complaints of wage theft. Miami, Fla., Code of Ordinances, Ch. 22, § 22-3 (2015). Complaints can be filed at Miami-Dade County's Consumer Protection Mediation Center. See "Wage Theft Program," Miami-Dade government website, http://www.miamidade.gov/business/wage-theft.asp (last accessed Mar. 12, 2015).	N/A	N/A	N/A	Employers must reinstitute the lost wages three times the amount of the back wages and pay the Board of County Commissioners for all administrative costs. Miami Code of Ordinances Ch. 22, § 22-5 (1)(A)-(B).	N/A	N/A	N/A	N/A
Montgomery, MD	The Director of the Office of Human Rights receives, administers, and conciliates complaints. If conciliation is not forthcoming within 90 days, the Director forwards the complaint to the Human Relations Commission, which appoints a case review board to conduct a hearing and issue a final decision enforceable in court. Montgomery County Code, Ch. 7, Article XI § 27-70 et seq. (2015).	The Director may refer the decision to any state or county agency that issued a license or franchise to violators, or contracts with violators. Id. § 27-7(j).	N/A	N/A	N/A	N/A	N/A	Protects employees who lawfully oppose any violation, file a complaint, testify, assist, or participate in any enforcement proceeding. Id. § 27-68(d)(1).	N/A

City	Enforcement Agency	Revoke Licenses/ Permits/ Contracts	Liens	Posting and Payroll Access	Fines and Penalties	Criminal Penalties	Private Right of Action	Retaliation Protection	Outreach and Education
Mountain View, CA	City Manager shall be authorized to coordinate implementation and enforcement of this article, and may receive, investigate, adjudicate, and enforce confidential complaints through administrative citations and civil action. Mountain View, Cal., Ord. No. 17.14 § 42.9-.10 (Oct. 28, 2014).	The city can revoke and suspend any licenses, permits, or certificates until the employer has remedied all violations. Id. § 42.10(d).	N/A	Notice in any language spoken by at least 5% of the employees at the workplace or job site, including employer's name, address, and telephone number in writing; retain payroll records for 4 years and allow the city access to such records. Failure to allow inspection or inadequate records triggers presumption that employee's account of how much he or she was paid shall be presumed to be accurate, absent clear and convincing evidence otherwise. Id. § 42.7. The city may require the employer to post public notice of repeat violations in a form determined by the city. Id. § 42.10(f).	$50 civil and/or administrative penalty per employee per day of violation. Id. § 42.10(a).	N/A	Any person aggrieved by a violation of this Chapter or any entity a member of which is aggrieved by a violation of this Chapter, or any other person or entity acting on behalf of the public as provided for under applicable state law, may bring a civil action and recover attorneys' fees and costs. Id. § 42.10(b).	Applies to employers and any other party who takes adverse action against employees who file a complaint, inform any person about alleged noncompliance, or inform of or assist any person's rights under this ordinance. Adverse action within 90 days raises rebuttable presumption of retaliation. Id. § 42.8.	N/A
Richmond, CA	The Employment and Training Department shall be authorized to coordinate implementation and enforcement of this article, and may receive, investigate, adjudicate, and enforce confidential complaints through administrative citations and civil action. Richmond, Cal., Ord. No. 11-14 N.S., § 7.108.080-090 (June 17, 2014).	"The city can revoke and suspend any licenses, permits, or certificates until the employer has remedied all violations. Id. § 7.108.090(F).	N/A	Notice in any language spoken by at least 5% of the employees at the workplace or job site, including employer's name, address, and telephone number in writing; retain payroll records for 4 years and allow the city access to such records. Failure to allow inspection or inadequate records triggers presumption that employee's account of how much he or she was paid shall be presumed to be accurate, absent clear and convincing evidence otherwise. Id. § 7.108.060(C).	$50 civil and/or administrative penalty per employee per day of violation. Id. § 7.108.090 (C)-(D).	N/A	Any person aggrieved by a violation of this Chapter or any entity a member of which is aggrieved by a violation of this Chapter, or any other person or entity acting on behalf of the public as provided for under applicable state law, may bring a civil action and recover attorneys' fees and costs. Id. § 7.108.090(D).	Applies to employers and any other party who takes adverse action against employees who file a complaint, inform any person about alleged noncompliance, or inform of or assist any person's rights under this ordinance. Adverse action within 90 days raises rebuttable presumption of retaliation. Id. § 7.108.070.	N/A
San Diego, CA	City Council will designate an Enforcement Office authorized to receive, investigate, adjudicate, and enforce complaints through administrative and civil citations. San Diego, Cal., Ord. No. 20390, § 39.0112 (Aug. 18, 2014).	N/A	N/A	Notice in English, Spanish, and any other language spoken by at least 5% of the workforce at the workplace or job side, and any language for which the San Diego County Registrar of voters provides ballot materials pursuant to § 203 of the federal Voting Rights Act, including employer's name, address, and telephone number in writing; retain payroll records for 3 years and allow the city access to such records. Failure to allow inspection or inadequate records triggers presumption that employer has violated minimum wage laws Id. § 37.0108-.0109.	$1,000 per employee per day of violation, except failure to comply with notice and posting requirements is subject to civil penalty of $100 per employee per day in violation, up to $2,000. Id. § 39.0112(d).	Violations of this ordinance may not be prosecuted by misdemeanor or infraction. Id. § 39.0112(e).	The City or any person claiming harm from a violation may bring an action in court and recover attorney's fees. Id. § 39.0112(c).	Applies to employers and any other party who takes adverse action against employees who file a complaint, inform any person about alleged noncompliance, inform any person of his or her rights, or participate in any enforcement proceeding. Id. § 39.0111.	Reservation of funding to allow the enforcement agency to create contracts with community-based organizations for outreach and education of low-wage workers. San Diego Office of Independent Budget Analyst. July 10, 2014. Report No. 14-26, Estimated Cost of Enforcing Proposed New Minimum Wage and Earned Sick Leave Laws.

City	Enforcement Agency	Revoke Licenses/ Permits/ Contracts	Liens	Posting and Payroll Access	Fines and Penalties	Criminal Penalties	Private Right of Action	Retaliation Protection	Outreach and Education
San Francisco, CA	The Mayor and Board of Supervisors shall take steps to study and enact additional enforcement tools and collaboration among all city, state, and federal agencies and departments. The Office of Labor Standards Enforcement shall be authorized to coordinate implementation and enforcement of this article, and may receive, investigate, adjudicate, and enforce confidential complaints through administrative citations and civil action. S.F., Cal., Ord. No. 140687, Amending S.F. Mun. Code § 12R.07(a)-(b) (July 17, 2014).	The city can revoke or suspend licenses, permits, or certificates from a violating employer until the violation is remedied. Id. § 12R.7(c)(2).	The failure of any person to pay a penalty assessed by administrative citation within the time specified on the citation constitutes a debt to the City. The City may file a civil action, create and impose liens as set forth below, or pursue any other legal remedy to collect such money." Id. § 12R.17(c).	Notice in English, Spanish, and Chinese, and any other language spoken by at least 5% of the employees at the work-place or job site, including employer's name, address, and telephone number in writing; retain payroll records for 4 years and allow the city access to such records. Failure to allow inspection or inadequate records triggers presumption of violation, absent clear and convincing evidence otherwise. Id. § 12R.5. The city may require the employer to post public notice of repeat violations in a form determined by the city. Id. § 12R.7(f).	$50 administrative or civil penalty in court per employee per day of violation; an additional $50 per employee per day of violation in agency cost assessments; $500 fine for failure to post notice, provide to employees, post public notice of violation if so ordered, provide employer's name, address, and telephone number in writing, maintain payroll records for four years, or allow access; $1,000 fine for retaliation. Penalties increase by 50% for each subsequent violation, for a maximum of $5,000 or $10,000 if citation for retaliation is issued. Enforcement costs to not count toward maximum. Id. § 12.R.16(b).	N/A	The Agency, the City Attorney, any person aggrieved by a violation of this Chapter, any entity a member of which is aggrieved by a violation of this Chapter, or any other person or entity acting on behalf of the public as provided for under applicable state law, may bring a civil action in court and recover civil penalties of $50 per employee per day of violation and attorney's fees. Id. § 12R7(d) (2014).	Applies to employers and any other party who takes adverse action against employees who file a complaint, inform any person about alleged noncompliance, or inform of or assist any person's rights under this ordinance. Adverse action within 90 days raises rebuttable presumption of retaliation. Id. § 12R.16(b).	The Office of Labor Standards Enforcement shall establish a community-based outreach program to conduct education and outreach to employees. In partnership with organizations involved in the community-based outreach program, the Office of Labor Standards shall create outreach materials that are designed for workers in particular industries. Id. §12R.25.
San Jose, CA	The Office of Equality Assurance shall be authorized to coordinate implementation and enforcement of this article, and may receive, investigate, adjudicate, and enforce confidential complaints through administrative citations and civil action.. San Jose, Cal, Min. Wage Ord., Ch. 4.100, § 4.100.080-.090 (November 12, 2012).	"Except where prohibited by state or federal law, City agencies or departments may revoke or suspend any registration certificates, permits or licenses held or requested by the Employer until such time as the violation is remedied"Id. § 4.100.090(D).	N/A	Notice in any language spoken by at least 5% of the employees at the work-place or job site, including employer's name, address, and telephone number in writing; retain payroll records for 4 years and allow the city access to such records. Failure to allow inspection or inadequate records triggers presumption that employee's account of how much he or she was paid shall be presumed to be accurate, absent clear and convincing evidence otherwise. Id. § 4.100.060 (2012). The city may require the employer to post public notice of repeat violations in a form determined by the city. Id. § 4.100.090(F).	$50 civil and/or administrative penalty per employee per day of violation. Id. § 4.100.090(B).	N/A	Any person aggrieved by a violation of this Chapter, any entity a member of which is aggrieved by a violation of this Chapter, or any other person or entity acting on behalf of the public as provided for under applicable state law, may bring a civil action in court and recover a civil penalty of $50 per employee per day of violation and attorney's fees. Id. § 4.100.090(B).	Applies to employers and any other party who takes adverse action against employees who file a complaint, inform any person about alleged noncompliance, or inform of or assist any person's rights under this ordinance. Adverse action within 90 days raises rebuttable presumption of retaliation. Id. § 4.100.070 (2013).	N/A

City	Enforcement Agency	Revoke Licenses/ Permits/ Contracts	Liens	Posting and Payroll Access	Fines and Penalties	Criminal Penalties	Private Right of Action	Retaliation Protection	Outreach and Education
Santa Clara County, CA	It is the policy of the County of Santa Clara Board of Supervisors that all parties contracting with the County must comply with all applicable federal, state, and local wage and hour laws, including, but not limited to, the Federal Fair Labor Standards Act, the California Labor Code, and any Minimum Wage Ordinance enacted by the County or any city within the County of Santa Clara. County of Santa Clara Board of Supervisors Policy Manual Chapter 5, § 5.5.5.4 (2015).	County Board of Supervisors may disqualify or lower bidding score of potential contractor, or cancel current contract of employer who has been found in previous 5 years to have violated wage and hour laws, where determination was made by a court or by final administrative action of an investigatory government agency. Id.§5.5.4(1). Inaccurate or incomplete disclosures by bidders constitute a material breach of the Wage Theft Prevention Policy and may result in disqualification from all County solicitation and contracting processes. Id.§5.5.4(2)	N/A	N/A	Where Contractor or any subcontractor it employs to perform work under this agreement has been found in violation of any applicable wage and hour law by a final judgment, decision, or order of a court or government agency, the County reserves the right to withhold payment to Contractor until such judgment, decision, or order has been satisfied in full. Id. § 5.5.4(5)	N/A	N/A	N/A	N/A
Santa Fe, NM	The City Manager is authorized to receive, investigate, adjudicate complaints, and initiate administrative and civil enforcement. Santa Fe, N.M., Mun. Code § 28-1.8(A) (2015).	"The city manager also has the power to order termination of any and all economic benefit derived by any offending party from the city and has the power to revoke the employer's business license or registration. Id.§28-1.8(A).	N/A	Notice in English and Spanish; failure to comply shall be considered grounds for suspension, revocation, or termination of the business license or registration." Id.§28-1.11	Employers may be subject to civil fines for each offense. Id.§288-1.8(B).	Employers failing to pay the minimum wage will be guilty of a misdemeanor and, upon conviction, for each offense may be subject to fines and imprisonment. Id. § 28-1.8(B).	The city, any individual aggrieved by a violation of this §, or any entity the members of which have been aggrieved by a violation of this §, may bring a civil action in court and recover attorney's fees. Id. § 28-1.8(C).	Applies to any employer or employer's agent or representative who takes adverse action against employees who communicate information regarding rights under this §. Taking adverse action against an individual within 60 days shall raise a rebuttable presumption of retaliation. Id. § 28-1.6(A)-(B).	N/A
Seattle, WA	The Department of Finance and Administrative Services shall be authorized to coordinate implementation and enforcement of this article, and may receive, investigate, adjudicate, and enforce confidential complaints through administrative citations and civil action. Seattle, Wash., Mun. Code Ch. 14.19.060 (2015).	N/A	N/A	Notice in English, Spanish, and any other languages commonly spoken by employees at the particular workplace or job site; retain payroll records for 3 years. Id.§14.90.060(C).	Notice and posting violations: $125 for the first violation and $250 for subsequent violations. Id. § 14.19.060(F)(1). Interfering with the investigation of the Director into wage theft claims: $1000 -$5000. Id. § 14.19.060(F)(2). Violation of minimum wage: warning and a fine of up to $500. The civil fine assessed for a second violation is up to $1,000 per employee or an amount equal to ten percent of the total amount of unpaid wages, whichever is greater, for first violation; a third violation brings a fine of up to $5000 by the above formula. The maximum civil penalty is $20,000 per employee. Id. §14.19.060(F)(3).	A person is guilty of misdemeanor theft if he or she knowingly secures the performance of services by agreeing to provide compensation and, after the services are render-ed, fails to make full and complete payment, with intent to avoid payment for services. Seattle, Wash., Wage Theft Ordinance, Mun. Code § 12A.08.060(4) (2015).	Each employee has the right to file a charge or bring a civil action if the minimum wage or minimum compensation is not paid. Id.§14.29.060(C)(1).	Applies to an employer who discharges, threatens, harasses, demotes, penalizes, or in any other manner discriminate or retaliate against an employee who files an oral or written complaint, informs his or her employer, union, or similar organization, cooperates with an investigation, opposes any violation of this Chapter, or informs others about rights. Id. § 14.19.060(B)(2).	Establishes worker and employer outreach and education programs through contracts with 501(c)3 community-based organizations and business associations. Id. § 1(10) (2014).

City	Enforcement Agency	Revoke Licenses/ Permits/ Contracts	Liens	Posting and Payroll Access	Fines and Penalties	Criminal Penalties	Private Right of Action	Retaliation Protection	Outreach and Education
Sunnyvale, CA	City officials are authorized to inspect payroll, receive, investigate, and adjudicate complaints, and initiate administrative and civil enforcement. The City of Sunnyvale Sunnyvale, Cal., Mun. Code Ordinance No. 3047-14 Ch. 3.80.080-.090 (2014).	Except where prohibited by state or federal law, City agencies or departments may revoke or suspend any registration certificates, permits or licenses held or requested by the Employer until such time as the violation is remedied. Id. § 3.8.80.090(d).	N/A	Notice In the City's top three languages, including employer's name, address, and telephone number in writing; retain payroll records for 4 years and allow the city access to such records. Failure to allow inspection or inadequate records triggers presumption that employee's account of how much he or she was paid shall be presumed to be accurate, absent clear and convincing evidence otherwise. Id. § 3.80.060.	$50 civil and/or administrative penalty per employee per day of violation. Id. § 3.80.090(a).	N/A	Any person aggrieved by a violation of this Chapter, any entity a member of which is aggrieved by a violation of this Chapter, or any other person or entity acting on behalf of the public as provided for under applicable state law, may bring a civil action in court and recover attorney's fees. Id. § 3.80.090(b).	Applies to employers and any other party who takes adverse action against employees who file a complaint, inform any person about alleged noncompliance, or inform of or assist any person's rights under this ordinance. Adverse action within 90 days raises rebuttable presumption of retaliation. Id.§3.08.070.	N/A
Washington, D.C.	The Mayor shall enforce and administer the provisions of this chapter and may hold hearings and otherwise investigate any violations of this chapter and institute actions for the payment of wages, liquidated damages, and penalties provided hereunder. Wash., D.C., Code § 32–1306 (2015).	The mayor will suspend business licenses of violators who refuse to pay orders for unpaid wages. Wash, D.C., Wage Theft Prevention Act 20-265, § 8(a)(i) (Jan. 15, 2014). An employer found to be in violation of this § more than twice in a 2-year period shall be subject to debarment in effect against any successor corporation or business entity that has one or more of the same principals or officers as the employer against whom the debarment was imposed is engaged in the same or equivalent trade or activity. Wash., D.C. Code § 32–1331.11.	If the employer refuses or fails to comply with the administrative order or conciliation agreement, the Mayor or the complainant may record a lien and may sue in the Superior Court of the District of Columbia for a remedy, enforcement, or assessment or collection of a civil penalty. Wage Theft Prevention Act, Id.§ 8(g)(1).	Notice to employees. Wash., D.C. Code § 32-1009(a).	Administrative penalties of $50 per employee per day of violation for first-time violators, or $100 per employee per day for subsequent violations of the minimum wage, living wage, or wage payment act. Retaliation: $1,000 - $10,000. Failure to maintain or allow access to payroll records: $500. Failure to provide itemized wage statements: $500. Failure to notice employees of investigation: $500. Failure to post notice of minimum wage: $100 for each day. Administrative fines and penalties will be deposited in special fund for wage and hour enforcement. Wage Theft Prevention Act, id. § 8(e)(3).	Any employer who, having the ability to pay, willfully fails to comply, shall for the 1st offense be punished by a fine of not more than $300, or by imprisonment of not more than 30 days, or in the discretion of the court, by both such fine and imprisonment; and for any subsequent offense shall be punished by a fine of not more than $1,000 or by imprisonment of not more than 90 days, or in the discretion of the court, by both such fine and imprisonment. Wash., D.C. Code § 32–1307.	Any employee acting on behalf of the employee and other employees who are similarly situated may bring action for damages in court, and recover attorney's fees. Id. § 32-1012(b)-(c).	Applies to employers who take adverse against employees who complain to employer, make a complaint to a government agency, or cooperate in an investigation. Punishable by up to $10,000 in civil or administrative penalties. Wage Theft Prevention Act, id. § 10(a)-(c).	N/A