



The Economic Impact of Raising the Minimum Wage in Pico Rivera

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1. Executive Summary

Introduction

As the United States has emerged from the Great Recession, raising the minimum wage has become a major national policy issue. Cities and local governments have been especially active in leading the way, with both the City and County of Los Angeles adopting a \$15.00 minimum wage in 2015. These significant policy changes raise important questions for smaller cities in Southern California, and across the country, concerning the potential impact of adopting similar policies. There has also been a very active research and policy debate on the impact of the minimum wage. A wide range of new revisionist studies have stressed the potential benefits of raising the minimum wage, and have challenged classical theory, which held that raising the minimum wage negatively effects businesses and employment. These revisionist studies have been particularly effective at showing that minimum wage increases are unlikely to cause business relocation.

This study is designed to assess the proportional importance of a minimum wage increase in Pico Rivera, profile the stakeholders that are the most likely to be affected, and to draw the most relevant lessons from the recent policy and research debates. The UCLA NAID Center pursued these objectives by first profiling Pico Rivera's workforce and business landscapes. Following these profiles is analysis of a minimum wage increase's fiscal implications. Specifically, we examine the additional costs and revenue that would be generated by such a change in policy. Then we provide an extensive literature review, in which we outline the scholastic debate and highlight areas of total or near-consensus. We pay particular attention to the topics of debate that we believe are the most relevant to Pico Rivera. Finally, we prescribe a series of policy recommendations that we believe will lead to the best social and economic outcomes.

The top-level findings in this report are the following:

- Pico Rivera's workforce is heavily concentrated in industries in which most workers earn low wages.
- Raising the minimum wage will provide a large net benefit to the city's low-wage labor force. It is highly unlikely that increased wages will cause a significant number of these low-wage workers to lose their jobs.
- Increasing city employees' wages will raise the city government's payroll costs, but growth in sales tax revenue will offset some of these new expenditures.
- It is extremely unlikely that a significant number of businesses would either be forced to move out of Pico Rivera or to close in response to a minimum wage increase.

Workforce Profile

The UCLA NAID Centers' workforce profile first identifies the size and shape of the population that would be affected by a minimum wage increase. Then we project whether the effect on net wages would be positive or negative, and what the magnitude of that effect would be.

Our findings show that Pico Rivera's residents are concentrated in low-wage work, and that many of the city's low-wage workers are living in poverty. A considerable number of these low-wage workers are employed in the city, and would thus benefit from an increase in Pico Rivera's minimum wage.

On the other hand, many of the workers who are employed in Pico Rivera do not live in the city, so some of the benefits of a minimum wage increase would "leak" to areas outside of Pico Rivera. At the same time, a substantial number of Pico Rivera's residents are employed in the City of Los Angeles, where a minimum wage increase is currently being implemented. Those resident's increased wages would offset some of this potential wage "leakage".

The concentration of the city's workforce in low wage industries means that raising the minimum wage will have a large impact on net wages. Whether or not minimum wage increases cause disemployment is an unresolved question, but even if a significant amount of disemployment were to occur, increasing the minimum wage would still raise low-wage workers' net labor income.

If raising the minimum wage to fifteen dollars an hour has no impact on employment, the total annual labor income of the 9,958 workers who currently earning less than that wage would increase by \$73.4 million---an average of \$7,376 per worker. Obviously, if raising the minimum wage has a positive impact on employment then both labor income and average labor income would increase by an even greater amount.

If raising the minimum wage has an employment elasticity of -0.1---that is for every ten percent increase in wages there is a one percent decrease in low-wage employment---then raising the minimum wage to \$15 an hour would cause significant negative employment effects. Even with this disemployment, net labor income would increase by \$61.8 million. This would represent an average of labor income increase \$6,210 per worker, a figure which accounts for the workers who would have lost their jobs and who we assume would now have zero income. The concentration of Pico Rivera's workforce in low-wage employment is such that even if raising the minimum wage were to cause extreme disemployment, net labor income would still increase. If raising the minimum wage has an employment elasticity of -0.26, total labor income would still increase by \$43.2 million---an average of \$4,344 per worker.

The specific findings from our "Workforce Profile" are:

- There are 4,915 workers who are employed and live in Pico Rivera. Of these between 1,768 and 2,620 are currently earning less than \$15 an hour.
- There are 13,766 workers who are employed in Pico Rivera but do not live there. Between 4,953 and 7,338 of these employees are earning less than \$15 an hour.
- In total, there are 18,681 workers employed in Pico River and between 6,722 and 9,958 of them are earning less than \$15 an hour
- There are 21,459 workers who live in Pico Rivera but work elsewhere. Between 6,801 and 11,331 of them are earning less than \$15 an hour.
- Of these workers, 8,350---or nearly forty percent---work in what the census defines as a principle city, and of them between 2,646 and 4,409 earn less than \$15 an hour.
- This last category is significant because, while many workers who do not live in Pico Rivera would benefit from a minimum wage increase, a significant number of Pico Rivera residents work in the City of LA and will also be earning higher wages.
- Of the workers employed in Pico Rivera, 1,770 are living below the poverty line.
- Of the 4,915 Pico Rivera residents who are also employed in the city, 466 individuals---or 9.5%---are living in poverty
- We estimate that there are 2,194 employees living and working in Pico Rivera who earn less than \$15 an hour. The 466 workers living in poverty constitute 21% of this population.
- In 2014, we estimate that 1,039 workers who are employed and living in Pico Rivera earned between the old \$9.00 an hour minimum wage and the new \$10.00 one. Of these workers, 45% are living below the poverty line.
- If raising the minimum wage to \$15 an hour does not have a negative effect on employment, then total labor income will increase by \$73.4 million, and average labor income will increase by \$7,376 dollars per worker.
- If raising the minimum wage causes significant disemployment, total net labor income will still increase by \$61.8 million, and average labor income will increase by \$6,209.
- Even if raising the minimum wage causes extreme disemployment, total labor income will still increase. In this situation, we estimate a \$43.2 million increase in net labor income, with an average labor income increase of \$4,343 per low-wage worker.

Business Profile

Analyzing minimum wage policy requires examining such a policy's impact on businesses as well as workers. Increasing the minimum wage generally improves workers' pay, but since their employers are the ones paying those wages, special attention must be given to the potential risks that businesses face. This profile first maps Pico Rivera's business landscape before then identifying potential risks and analyzing whether those risks pose a credible threat.

The majority of the establishments in Pico Rivera have fewer than twenty employees, however the vast majority of the city's workers (72%-88%) are employed at establishments with twenty or more employees.

This trend is also evident in the city's "low-wage" industries: the majority of establishments in low-wage industries are small, while the majority of employees work at large establishments. In this context, low-wage industries are defined as those where employees have median earnings that are below the citywide median. Workers in all but one of these low-wage industries have median earnings that are significantly lower than the city median. Manufacturing in Pico Rivera is not considered a low-wage industry since median earnings for workers employed in the manufacturing industry are \$31,468, which is 111% of the city's overall median.

Employment in Pico Rivera is concentrated in low-wage industries. More than fifty percent of the city's workforce is employed in one of these industries. Thus a minimum wage increase would affect a large share of the companies operating in Pico Rivera, and poses potential risks for these firms.

The most significant potential risks are business relocation and closure, as well as low-wage disemployment stemming from labor substitution. Specifically, capital and high-wage labor being substituted for these jobs.

The threat of business relocation is one of the most common arguments against municipal minimum wage increases. However, there is significant evidence suggesting that such an outcome is very unlikely. In fact, this is an area where there is near consensus in the economic literature. A study co-authored by one of the most vocal critics of the minimum wage, the economist David Neumark, found that geographic wage differentials are rarely the primary motivation for firm relocation.

For businesses in Pico Rivera and in neighboring cities, the share of revenue that is allocated for payroll provides further evidence that a minimum wage increase is unlikely to cause firm relocation. Only ten percent of the revenue generated by establishments operating in Pico Rivera is spent on payroll, while this figure is only 8.2 percent in low-wage industries. This suggests that firms in the city would be able to absorb higher payroll costs, and would not resort to relocation.

In addition, payroll constitutes a higher share of revenue for the establishments operating in almost all of the cities that neighbor Pico Rivera. In some cases, payroll in neighboring cities' low-wage industries constitutes a much higher share of revenue. In the cities of Santa Fe Springs and Downey, over twenty percent of these establishments' revenue is spent on payroll. Even if geographic wage differentials did provide a significant incentive for business relocation, this data shows that the cities around Pico Rivera are not plausible destinations. In fact, the geographic wage differentials that do exist are favorable to Pico Rivera. Because of this, the city has a wage buffer that can help absorb rising payroll costs in the event of a minimum wage increase.

Such a minimum wage increase might have some challenging impacts on some small businesses, but the data suggests that most firms will be able to absorb the increased payroll costs and that significant firm closure is very unlikely. Some labor substitution may

occur, but the literature suggests that low-wage labor is just as likely to be replaced by less routinized low-wage labor, as it is to be replaced by capital or high-wage labor.

Our analysis of the economic literature related to potential business risks is discussed in more detail in the literature review. The specific statistical findings from our “Business Profile” are:

- Low-wage employment is clustered in four of Pico Rivera’s industries: 1) Retail trade 2) Educational services, health care and social assistance 3) Arts, entertainment, recreation, accommodation and food services 4) Other services (except public administration).
- Payroll costs absorb only 8.2 percent of the revenue generated by establishments in these industries. For all establishments in the city, only ten percent of revenue is spent on payroll.
- With a few exceptions, payroll constitutes a greater share of revenue for establishments in the cities surrounding Pico Rivera.
- Median earnings for workers in the retail trade industry are \$17,932---this is 63% of workers’ total median earnings in Pico Rivera.
- Workers’ in the arts, entertainment, recreation, accommodation and food services industry have median earnings of \$18,138---just less than 64% of workers’ total median earnings in the city.
- Employees in the other services (except public administration) industry have median earnings of \$20,727---73% of the citywide median.
- Workers in the educational services, health care and social assistance industry have median earnings of \$26,911---94% of citywide median.
- Manufacturing in Pico Rivera is not a low-wage industry. Median earnings for workers employed in the manufacturing industry are \$31,468, which is 111% of the city’s overall median.
- Workers in low-wage industries account for just over 50% of Pico Rivera’s total labor force.
- 3103 workers---17% of the city’s labor force---are employed in the educational services, health care and social assistance industry.
- 2,611 workers are employed in the retail trade, and this constitutes 14% of the labor force.
- 2,095 workers and 12% of the total labor force work in the arts, entertainment, recreation, accommodation and food services industry.
- 1,296 workers, 7% of the labor force, are employed in the other services (except public administration) industry.
- There are 2,498 workers employed in the manufacturing industry, which accounts for 14% of the city’s total labor force.
- It is impossible to establish the number of “mom and pop” businesses in Pico Rivera because employment data is only available at the establishment level. Firms can operate multiple establishments, so with this data it is impossible to distinguish between a “mom and pop” grocery with nine employees and a McDonalds location with nine employees.

- Most of the city's establishments are small, but a significant majority of the City's workforce is employed at large establishments.
- Establishments with fewer than twenty employees constitute eighty one percent of the establishments in Pico Rivera. However, only between twelve and twenty eight percent of the city's workforce is employed in establishments with fewer than twenty employees.
- The majority of establishments in each industry have fewer than twenty employees, while the majority of employees are employed at establishments with more than twenty workers.

Fiscal Analysis

After analyzing payroll figures provided by the City of Pico Rivera, the UCLA NAID Center has determined that raising the minimum wage to \$15 an hour would be, from a fiscal perspective, a net negative for the City of Pico Rivera. The city's payroll costs would grow, and additional expenditures would be required to cover these new costs. However, some of the payroll costs would be offset by growth in sales tax revenue.

The city has 126 employees who are earning less than \$15 an hour. If Pico Rivera raises the minimum wage to \$15 an hour, the city's payroll costs could grow by as much as \$643,399. This estimate assumes that all of the city's employees---or specifically those that are currently earning less than \$15 an hour---are working the maximum allowable hours a week, fifty-two weeks a year. In reality, these employees are almost certainly working less than that. Therefore the city's payroll costs would also grow by less than the maximum.

In addition, some of the growth in Pico Rivera's payroll costs would be offset by increased sales tax revenue. How much new revenue the city brings in will depend on how the minimum wage increase affects consumer spending and employment. If the minimum wage increase does not cause disemployment, and workers spend one-third of their new earnings in Pico Rivera, the city's sales tax revenue will increase by \$80,991. If there is no disemployment and workers spend one-half of their new earnings in Pico Rivera, the city's sales tax revenue will grow by \$122,714. Even in the unlikely scenario that raising the minimum wage leads to moderate or extreme disemployment, there would still be some growth in sales tax revenue.

The specific findings from our "Fiscal Analysis" are:

- There are 126 workers who are employed by the city of Pico Rivera and are earning less than \$15 an hour.
- Fifty-three percent of the city's workforce---67 employees---are earning between \$10 and \$11 an hour.
- Only twelve percent of the city's employees---16 employees---are earning between \$13 and \$15 an hour.
- The average employee would earn \$3.56 more per hour if the city raised the minimum wage to \$15 an hour.

- The total added cost to the city's payroll would be as much as \$643,399. That figure assumes all city employees' work the maximum allowable number of hours, fifty-two weeks a year. Actual added payroll costs would almost certainly be less.
- Sales tax revenue will increase by between \$80,991 and \$122,714, assuming that raising the minimum wage does not cause disemployment, and that affected workers spend between one third and one half of their new income in Pico Rivera.
- Sales tax revenue will increase by between \$68,030 and \$103,075, assuming that raising the minimum wage causes moderate disemployment, and that affected workers spend between one third and one half of their new income in Pico Rivera.
- Sales tax revenue will increase by between \$47,291 and \$71,653, assuming that raising the minimum wage causes extreme disemployment, and that affected workers spend between one third and one half of their new income in Pico Rivera.
- We expect the outcome of raising the minimum wage to be somewhere between the first two outcomes, that is we expect it will cause less than moderate disemployment, but more than none.

Literature Review

The recent policy and scholastic debates provide a range of lessons regarding the minimum wage. The literature displays many possible benefits as well as some cause for caution.

In terms of these potential benefits, there is very strong evidence that raising the minimum wage increases average wages and reduces income inequality, although the impact on net income is less strong. There is reasonably strong evidence that the minimum wage can reduce reliance on Government public assistance transfers and programs. While there is not strong evidence that minimum wage increases have brought significant numbers of families out of poverty, there is stronger evidence that minimum wage increases can reduce the number of working men and women living in poverty. There is some evidence that a minimum wage increase would produce long-term social benefits among the affected population.

There is no consensus about the net employment impact a minimum wage increase will have on the affected population, with estimates ranging from small positive impacts to larger negative impacts. If negative employment effects do occur, they are more likely to be caused by labor substitution and increased output prices depressing labor demand, rather than business relocation or closure. Again there is little evidence in the literature to suggest that a minimum wage increase will cause significant business relocation or closure. In addition, because of the way the data is labeled, many small establishments may actually be local outlets of large conglomerates, in which case the firm's economies of scale make them even more capable of absorbing a minimum wage increase, and thus even less likely to close or relocate.

While there is strong evidence that firms will experience an increase in payroll costs, there is no consensus about whether significant increases in payroll costs will lead to significant increases in total operating costs. On the other hand, a minimum wage increase in a low

wage dependent city like Pico Rivera should also produce a significant increase in local consumption and commerce.

The specific findings from our “Literature Review” are:

Potential Benefits

- There is strong evidence that minimum wage increases raise average wages.
- The evidence that these policies increase the net labor income of affected workers is less strong.
- There is strong evidence that minimum wage increases reduces income inequality
- There is reasonably strong evidence that the minimum wage can reduce reliance on Government public assistance transfers and programs.
- There is not strong evidence that minimum wage increases have brought significant numbers of families out of poverty.
- There is stronger evidence that minimum wage increases can reduce the number of working men and women living in poverty.
- There is debate about whether poverty is an appropriate metric to apply to minimum wage analyses. Since the 1960’s the poverty line has not been adjusted to reflect changes in consumption patterns. It may be too low of a cutoff to accurately reflect the number of workers whose earnings do not provide an acceptable standard of living and who would benefit from a minimum wage increase.
- There is some evidence that a minimum wage increase would produce long-term social benefits among the affected population.
- These include better physical and mental health outcomes, lower rates of arrest for parents, and better cognitive and behavioral outcomes for children in school.

Potential Costs

- Significant business relocation is a very unlikely outcome of increasing the minimum wage.
- There is little evidence that a minimum wage increase will lead to significant business closures
- There is strong evidence that firms will experience an increase in payroll costs.
- There is no consensus about whether significant increases in payroll costs will lead to significant increases in total operating costs.
- There is no consensus about what employment impact a minimum wage increase will have on affected workers.
- Estimates range from small positive impact to significant negative impact.
- If negative employment effects do occur, they are more likely to be caused by labor substitution and increased output prices depressing labor demand.

Policy Recommendations

The UCLA NAID Center's profiles of Pico Rivera's business and work force landscape, as well as a review of the economic literature, lead us to believe that a minimum wage increase would provide a net benefit to the city of Pico Rivera. However, the city's demographic and geographic characteristics make this a trailblazing policy initiative, and so we believe the city should pursue this policy with a measure of caution.

In light of this need for a measured approach, we present two separate potential policy tracks for the city to consider. We encourage the city's policy makers and stakeholders to consider both and determine which track is most closely aligned with their social, economic, and political priorities.

The first "cautious track" raises the minimum wage to \$13.00 an hour over a three-year period---a level just below the average municipal minimum wage increase of 34 percent. In addition, it includes a number of additional checks and safeguards. These allow for an implementation process that provides city policy makers with more flexibility in terms of long-term adjustment, and is also more accommodating of small-businesses. The safeguards include mechanisms for halting wage increases, and delayed compliance timeline for businesses with less than ten employees.

The second "bold track" raises the minimum wage to \$15.00 an hour over a five-year period---a level that matches the LA city initiative. This track calls for a broader application, with no size-based compliance timelines or halting mechanisms. In addition, this wage should be indexed to inflation.

The specific suggestions from our "Policy Recommendations" are:

- The UCLA NAID Center recommends two independent potential policy tracks: a "cautious track" and a "bold track."
- The "cautious track" raises the minimum wage to \$13.00 an hour in one-dollar a year increments over the course of three years.
- The "cautious track," also includes additional checks and safeguards that would provide city policy makers with more flexibility in terms of longer-term adjustments, and would ease the transition process for small businesses. The safeguards include mechanisms for halting wage increases and a delayed compliance timeline for businesses with less than ten employees.
- The "bold track" raises the minimum wage to \$15.00 an hour in one-dollar a year increments over the course of five years.
- After full implementation, the "bold track's" minimum wage would be indexed to inflation. It does not include "safeguards," and would be applied broadly without a delayed compliance timeline, but indexing it to inflation offers value to business in the form of predictable wage increases.
- The UCLA NAID Center also recommends implementing a monitoring system developed by the Economic Roundtable and the UCLA Labor Center. The system is

based on monitoring business sales, wages and employment during and after implementation.

- The UCLA Center recommends that the City of Pico Rivera introduce worker training programs and small business support programs regardless of whether or not they raise the minimum wage.
- We believe that these programs would be most effective if implemented as part of policy package that includes a minimum wage increase. Implementing these policies together spreads any potential costs across all stakeholders in the city, and allows training programs to support the minimum wage increase and vice versa.

2. Workforce Profile

The moral engine that is driving the nationwide campaign to raise the minimum wage is these policies' ability to insure that individuals who work hard can provide their families with basic day-to-day necessities. Therefore, a profile of the workers that will be affected is a critical component of any minimum wage policy discussion. For our workforce profile we have divided these workers into three distinct categories, because each category of worker would be affected differently by a potential minimum wage increase, and the wages of the workers in each of these categories would have differing impacts on the city of Pico Rivera.

The first category includes workers who live in, and are employed in, the city of Pico Rivera. The second is comprised of workers who work in Pico Rivera but live elsewhere. We have also provided a profile of Pico Rivera's total workforce, which combines both of these first two categories. The third category is made up of workers who live in Pico Rivera, but work elsewhere. For this last category we have established a subcategory for workers who live in Pico Rivera, but work in a "principle city." We will describe principle cities in more detail when we discuss the significance of this subcategory.

The most important category for this discussion is the one comprised of workers who both live and are employed in the city of Pico Rivera. An increase in these workers' earnings would have the most positive and direct impact on the city, as their new earnings are more likely to be spent within the city limits.

Workers who work in Pico Rivera but live elsewhere are also an important group. A significant portion of this categories' new income would likely be spent outside of the city limits. This poses a problem because that added spending is an important counter-balance for any additional costs that local businesses would accrue. However, it should be noted that since these workers are spending a significant amount of time in Pico Rivera, some of their increased income would be spent there.

The third categories' income would not be affected by an increase in Pico Rivera's minimum wage, but where they work is important since minimum wage increases elsewhere in LA County may lead members of this group to increase their spending in Pico

Rivera. A profile of this category is significant then, because it illustrates the extent to which they can offset the lost spending from the second group.

Population and Earnings

In order to provide a useful workforce profile it is critical to first establish population counts for the relevant categories. These population counts provide the foundation for demographic analyses. The UCLA NAID center has calculated both the total number of workers in each of these categories as well as the number of workers who are earning less than \$15 an hour, and would thus be affected by a minimum wage increase.

Table 2.1

Workforce Profile

Workforce Category	Total Workers	Earning Less than \$15/hr
Work in Pico Rivera	18,681	6,722 to 9,958
Work and Live in Pico Rivera	4,915	1,768 to 2,620
Work in Pico Rivera but live elsewhere	13,766	4,953 to 7,338
Live in Pico Rivera but work elsewhere	21,459	6,801 to 11,331
Live in Pico Rivera but work in a principle city	8,350	2,646 to 4,409

Source: UCLA NAID Center Calculations based on US Census 2014 and 2013 5-year ACS, as well as 2010 EEO Tabulation (5-Year ACS Data)

There are 4,915 workers in our first category---workers who are employed and live in Pico Rivera but do not live there. Of these between 1,768 and 2,620 are currently earning less than \$15 an hour.¹ There are 13,766 workers in our second category---workers who are employed in Pico Rivera. Between 4,953 and 7,338 of these employees are earning less than \$15 an hour. In total, there are 18,681 workers employed in Pico Rivera and between 6,722 and 9,958 of them are earning less than \$15 an hour (see table 2.1).

Policy makers considering increasing the minimum wage should take note of the fact that the second category is much larger than the first. This provides some ground for concern, since a significant amount of the new earnings created by a minimum wage increase will leave Pico Rivera. However, there are mitigating factors in play here. These include the fact, as mentioned above, that workers who are employed in the city but don't live there will still spend a good deal of their earnings near their workplace. The other mitigating factors have to do with our third category: workers who live in Pico Rivera but work elsewhere.

¹ See "Appendix: Methodology" for a description of the methodology we used to reach the findings in this report. Specifically, the appendix has an explanation of why we estimate the number of workers earning less than \$15 an hour as a range.

There are 21,459 workers in our third category, and between 6,801 and 11,331 of them are earning less than \$15 an hour. Of these workers, 8,350---or nearly forty percent---work in what the census defines as a principle city, and of them, between 2,646 and 4,409 earn less than \$15 an hour (see table 2.1). Principle cities are the major employment centers in the Los Angeles Metropolitan Statistical Area. The City of Los Angeles is by far the largest of these principle cities. So, there will soon be a wage increase for the great majority---if not nearly all---of the Pico Rivera residents whose work in a principle city currently pays less than \$15 an hour.

These workers will be spending much of their new earnings in Pico Rivera and this should help offset what new earnings workers in the second category spend outside of Pico Rivera. In addition, if Pico Rivera does raise their minimum wage, it will incentivize Pico Rivera residents who currently work outside the city to seek new employment within it. This would not only further offset the new earnings that workers in the second category spend outside of Pico Rivera, it would also help create a more tightknit community. Less residents commuting out of their city will have a positive impact on community cohesion.

Poverty

The need for policy changes that address the situation facing the working poor---regardless of whether or not that policy is increasing the minimum wage or an alternative approach---is laid bare by the number of workers who are living in poverty. In order to understand why cities across the US are willing to accept some of the potential costs associated with a higher minimum wage,² one must look no further than the number of workers whose wage is not enough to lift them above the poverty line. Now that we have mapped the size and shape of Pico Rivera’s labor force, we have the context necessary to analyze the extent to which poverty affects the city’s low-wage workers.

Table 2.2

Workers in Poverty by Income Level

	Total	Earn less than \$15/hr †	Earn less than \$10/hr †
Employed and living Pico Rivera	4,915	2,194	1,039
Employees below poverty line	466	466	466
% in poverty	9.5%	21.2%	44.8%
Employed in Pico Rivera	18,681	8,340	3,951
Employees below poverty line	1,770	1,770	1,770

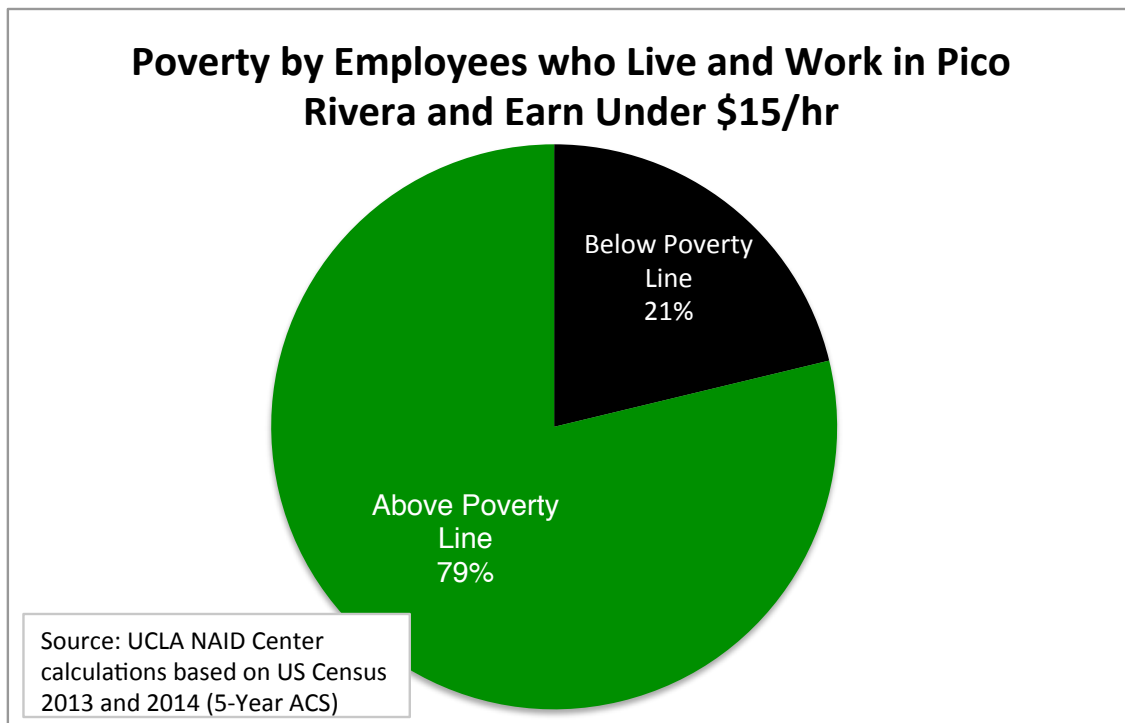
† We used the midpoint between our high and low income estimate ranges for clarity and readability. To that same end we also assume all workers living in poverty are making the current minimum wage

Source: UCLA NAID Center calculations based on US Census 2013 and 2014 (5-Year ACS)

² Economists disagree about both about whether there is a noticeable cost, and if there is, what its relative significance is. For a more detailed discussion of this debate, see this report’s “5. Literature Review.”

A considerable number of workers in Pico Rivera live in poverty. The US Census reports that of the 18,681 workers employed in Pico Rivera, 1,770 are living below the poverty line.³ Of the 4,915 Pico Rivera residents who are also employed in the city, 466 individuals--or 9.5%--are living in poverty (see table 2.2).⁴ This is cause for concern when one considers that nationwide, the majority of people who are living below the poverty line are either unemployed, unable to participate in the labor market, or are dependent upon someone who is employed but still living in poverty. The same is true in Pico Rivera where more than 8,150 individual residents are living in poverty.⁵ This is clear evidence that when a worker is unable to make a living wage, that worker is not the only one affected---the plight of the working poor is also the plight of the working family. However, this problem also highlights a potential force multiplier for the positive impacts of minimum wage increases. If increased earnings lift a low-wage worker out of poverty, those wages will also bring the members of his or her immediate family along. So higher wages may have a greater positive impact on alleviating poverty than the figures in table 2.2 suggest.

Figure 2.1



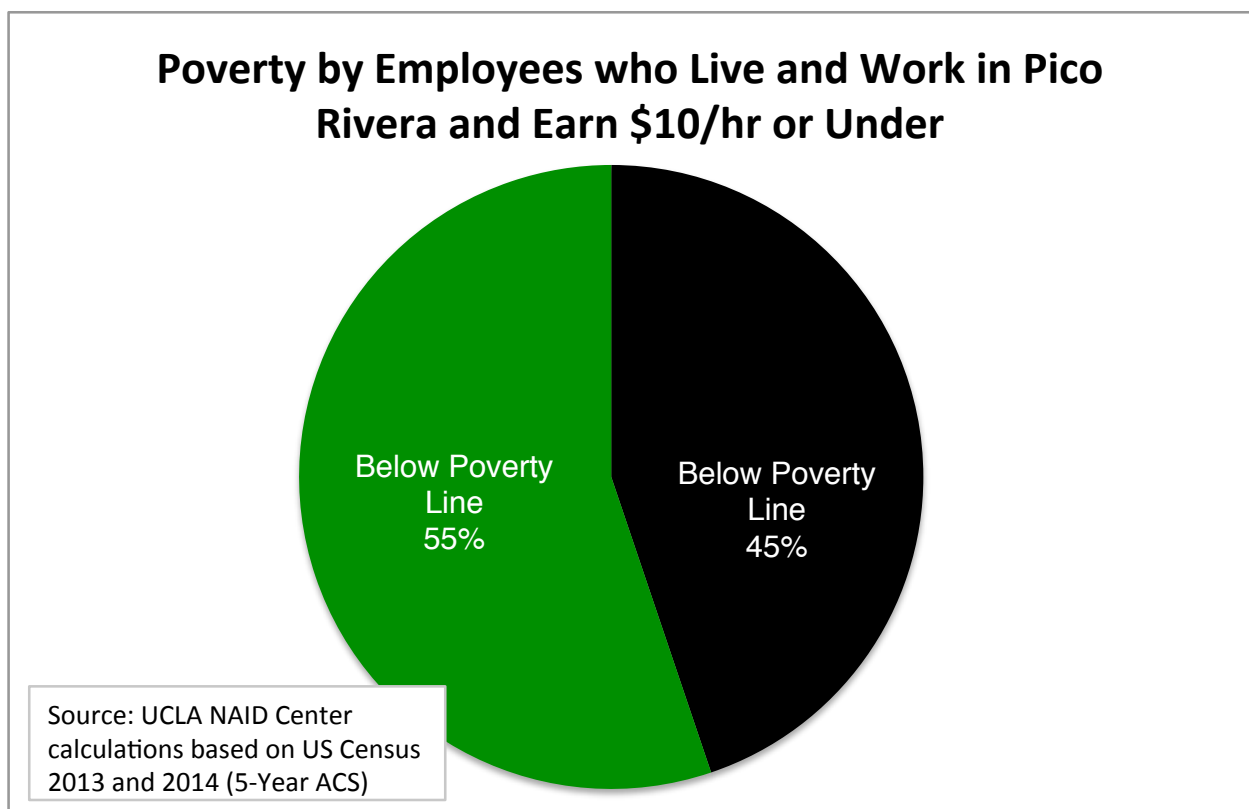
³ U.S. Census Bureau, American Community Survey, 2014, 5-Year Estimates

⁴ There is limited income data for the population who lives and works in the city, so we have used weighted averages to estimate the share of the population that is working in Pico Rivera and living in poverty and that is also likely to be living in the city. See Appendix for a more detailed description of how we calculated Pico Rivera's income distribution.

⁵ U.S. Census Bureau, American Community Survey, 2013, 5-Year Estimates, Table S0501.

The number of employees who are living and working in Pico Rivera, and are also in poverty, is significant. Unfortunately, the problem grows in severity when one considers it in terms of the share of low-wage earners who are living in poverty. We estimate that there are 2,194 employees living and working in Pico River who earn less than \$15 an hour (see table 2.2).⁶ The 466 workers living in poverty constitute 21% of this population (see figure 2.1). That one in five of the employees who live and work in Pico Rivera would be brought out of poverty by increasing the minimum wage to \$15 an hour---assuming no negative employment effects---crystalizes the need for a policy response.

Figure 2.2



The relative ineffectiveness of a modest statewide minimum wage increase further underlines the need for new policy initiatives geared towards fighting the poverty conditions experienced by low-income workers. The State of California passed a law, which, as of January 1st 2016, increased the state minimum wage to \$10.00 an hour. 1,039 workers who are employed and living in Pico Rivera earn between the old \$9.00 an hour

⁶ For this estimate we use the midpoint of our high and low band income ranges in order to make our poverty analyses more clear and readable.

minimum wage and the new \$10.00 one (see table 2.2).⁷ Of these workers, 45% are living below the poverty line. That nearly half of the workers earning within one dollar an hour of the current minimum wage could still be living in poverty suggests that further increasing the minimum wage could have a significant positive impact on the city's low-wage workforce. However, it is important to keep in mind that there are potential costs to raising the minimum wage, and that there may be policy alternatives that can have a greater impact. Nonetheless, we found poverty to be pervasive among Pico Rivera's low-wage labor force, and strongly recommend that Pico Rivera's policy makers continue to explore avenues through which to address the issue.

Impact of a Minimum Wage Increase on Net Labor Income

Raising the minimum wage will have a dramatic effect on the economic well being of low-wage workers in Pico Rivera. The concentration of Pico Rivera's labor force in low-wage work, and the number of workers living in poverty, have created an economic landscape in which changes in wage policy can have an outsized impact. Economists have not reached consensus as to whether or not raising the minimum wage leads to disemployment.⁸ But in Pico Rivera, because there are so many people working for less than \$15 an hour, even widespread disemployment would not prevent raising the minimum wage from having a significant net positive impact on labor income.

Before we describe these positive impacts in detail, we must first briefly describe how we arrived at these figures and state a couple of important caveats. Calculating the impact of a \$15 minimum wage on low-wage workers' labor income is difficult for a city like Pico Rivera. Because of the city's small size, data is somewhat limited, and the data that is available is not in an ideal format.⁹ The result is that the data understates workers' hourly wages at the very bottom of the income distribution (\$1 to \$9,999). However, it also overstates workers' wages at the top end of the low-wage income distribution---\$25,000 to \$34,999 for full-time workers and \$10,000 to \$14,999 for part-time workers. For the most part these distortions balance out, but because some of the very low wages may be earned in the informal economy, and because the conversion from an annual income to an hourly wage understates very low wages, the real impact of a minimum wage increase on annual labor income may be slightly lower than the projections described here.

⁷ It is likely that some of these workers are experiencing one of many forms of wage theft. However, in this section we are assuming---again for the sake of clarity---that wage theft is not occurring.

⁸ See Section 5, "Literature Review."

⁹ Data on low-wage workers' earnings are reported as intervals of annual income rather than specific hourly wages. Individualized data is not available for cities of Pico Rivera's size. For a detailed description of these methodological challenges and the sources used for these calculations see *Hourly Earnings* in "Appendix: Methodology."

Table 2.3

Impact of a \$15 per Hour Minimum Wage on Labor Income Assuming no Disemployment

<u>Current Income Bracket</u>	<u>Number of Workers Affected</u>	<u>Hourly Wage Increase</u>	<u>Total Annual Labor Income Increase</u>
Full-Time	6067	\$4.36	\$50,611,390
\$1 to \$9,999 or loss	287	\$12.39	\$6,805,975
\$10,000 to \$14,999	893	\$8.46	\$14,450,067
\$15,000 to \$24,999	2971	\$4.54	\$25,820,479
\$25,000 to \$34,999	1916	\$0.96	\$3,534,870
Part-Time	3891	\$6.36	\$21,573,065
\$1 to \$9,999 or loss	2571	\$9.29	\$20,812,364
\$10,000 to \$14,999	1320	\$0.66	\$760,700
Total	9958	\$5.14	\$72,184,455

Nonetheless, raising the minimum to \$15 an hour would have a significant impact on workers at all levels of the low-wage income distribution. Assuming that raising the minimum wage does not cause disemployment, 9,958 workers will experience income growth. 6,067 of those workers will be full-time workers and 3,891 will be part time. Calculating a weighted average for hourly wage increases reveals that low-wage workers will earn an extra \$5.14 an hour, with full-time workers earning an extra \$4.36 an hour and part-time workers earning an extra \$6.36. On average, full-time employees work 1,913 hours a year, while part-time employees work 872 hours. Multiplying the number of hours worked by the hourly wage increase reveals that, collectively, full-time workers will experience annual labor income growth of more than \$50.6 million, while part-time workers will experience annual labor income growth of more than \$21.5 million

Table 2.4

Impact of a \$15 Minimum Wage on Employment, Net Labor income and Average Labor Income

<u>Scenerio</u>	<u>Disemployment</u>	<u>Increase in Net Labor Income</u>	<u>Increase in Average Labor Income</u>
No employment loss	---	\$72,184,455	\$7,249
Moderate Disemployment	498	\$60,632,401	\$6,089
Extreme Disemployment	1295	\$42,149,114	\$4,233

Taken together, the growth of the part-time and full-time low-wage workforce's labor income would represent a substantial improvement of their economic wellbeing. In total, if there is no disemployment, Pico Rivera's low-wage labor force will experience a more than \$72.1 million increase in total labor income. For the average worker, that amounts to \$7,249 in new income.

The impact of raising the minimum wage to \$15 an hour would be substantial even if it were to cause disemployment. Whether or not such a policy would cause disemployment is

still an open question among labor economists. Studies on the relationship between minimum wage increases and employment have yielded a wide variety of potential outcomes. But in Pico Rivera, net labor income would increase even under some of the most pessimistic disemployment scenarios.

For our analyses of the relationship between net labor income and disemployment we have selected two disemployment scenarios. The first, which we have labeled “moderate disemployment,” features a minimum wage increase that has a low-wage employment elasticity of -0.1. That is for each 10 percent increase in the minimum wage, low-wage employment decreases by 1%. Minimum wage skeptic David Neumark, in a brief he wrote for the San Francisco Federal Reserve, used this elasticity to estimate what he believes to be the negative employment effects of all minimum wage increases implemented in 2007 and after.¹⁰ The second scenario, which we have labeled “extreme disemployment,” assumes that a minimum wage increase has an employment elasticity of -0.26 (i.e. each 10 percent increase in the minimum wage causes a 2.6% increase in unemployment). This scenario is a very unlikely outcome. Belman and Wolfson, in their review of the minimum wage literature and specifically the studies that account for the minimum wage’s impact on employment and hours, found it to be the estimate with the strongest negative impact by a significant margin.¹¹ However, because it is so extreme, and so unlikely, it illustrates the substantial positive net labor income effects of raising the minimum wage in Pico Rivera.

Low-wage workers’ net labor income would experience significant growth under both disemployment scenarios. If moderate disemployment were to occur, 498 low-wage workers would lose their jobs. Yet, even with those workers’ entire annual earnings subtracted from net labor income growth, and with fewer workers earning the new higher wages, net labor income would still increase by \$60.6 million. In addition, the average worker would still earn \$6,089 more than she would have before the wage increase. 1,295 low-wage workers would lose their jobs under the extreme disemployment scenario. Still, low-wage worker’s annual labor income would increase by \$42.1 million, and the average worker would earn an additional \$4,223.

3. Business Profile

Minimum wage increases raise low-wage workers’ incomes, but it is their employers who pay those wages. The UCLA NAID Center has produced a profile of the business landscape in Pico Rivera so that policy makers’ in the city can make an informed decision about whether those employers will be able to absorb increases in payroll costs. In addition, this profile will help policy makers target the businesses that may need support should the city move forward with increasing its minimum wage.

¹⁰ Neumark, David, 2015. “The Effects of Minimum Wages on Employment.” Federal Reserve Bank of San Francisco Economic Letter, December 21, 2015.

¹¹ Belman, Dale and Paul Wolfson. 2014. *What Does the Minimum Wage Do?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

We begin this section by identifying which industries in Pico Rivera are low-wage industries. These industries are the ones that will be the most affected by a minimum wage increase. We then establish the share of Pico Rivera's workforce that is employed in these industries. We will also present employment size distribution analyses for the low-wage and manufacturing industries, and for the city of Pico Rivera as a whole. Finally, we will analyze the potential risks that a minimum wage increase might pose to the city's industries, as well as to the individual firms within them.

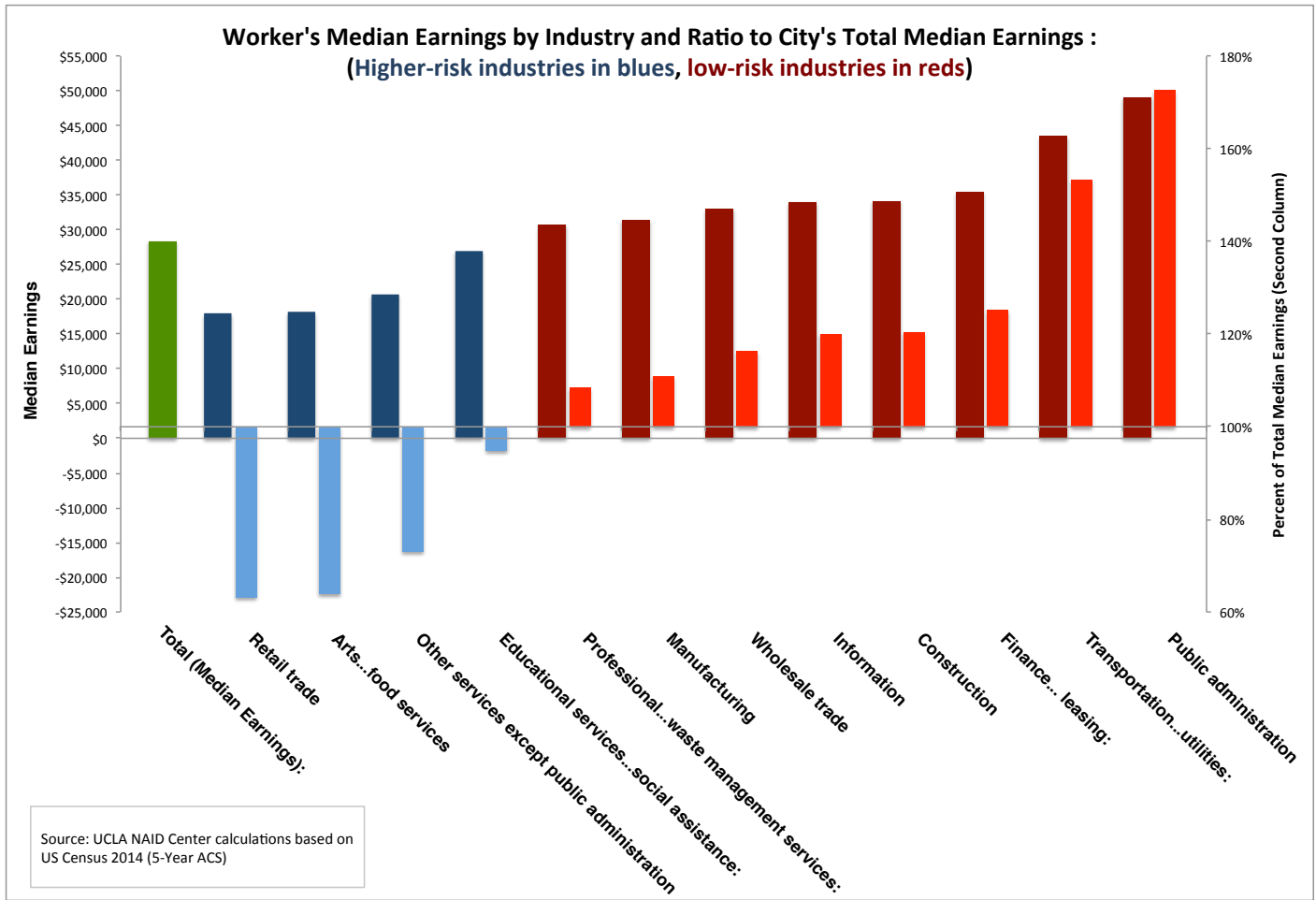
Employment in Low Wage Industries

Low-wage employment is clustered in a few of Pico Rivera's industries, and these industries are the most exposed to risk stemming from a minimum wage increase. These "higher-risk" industries are: 1) Retail trade 2) Educational services, health care and social assistance 3) Arts, entertainment, recreation, accommodation and food services 4) Other services (except public administration). We determined that the minimum wage increases' effects would be the most strongly felt in these industries because they are the only industries in Pico Rivera with median earnings below the city median.¹² In fact, with one exception---"educational services, health care and social assistance"---these industry's median earnings are significantly lower than the city median.¹³

¹² Unfortunately, there is no publicly available data on the distribution of wages at the firm level. This forced us to use median income as our selection criteria.

¹³ U.S. Census Bureau, American Community Survey, 2014, 5-Year Estimates, Table B24031.

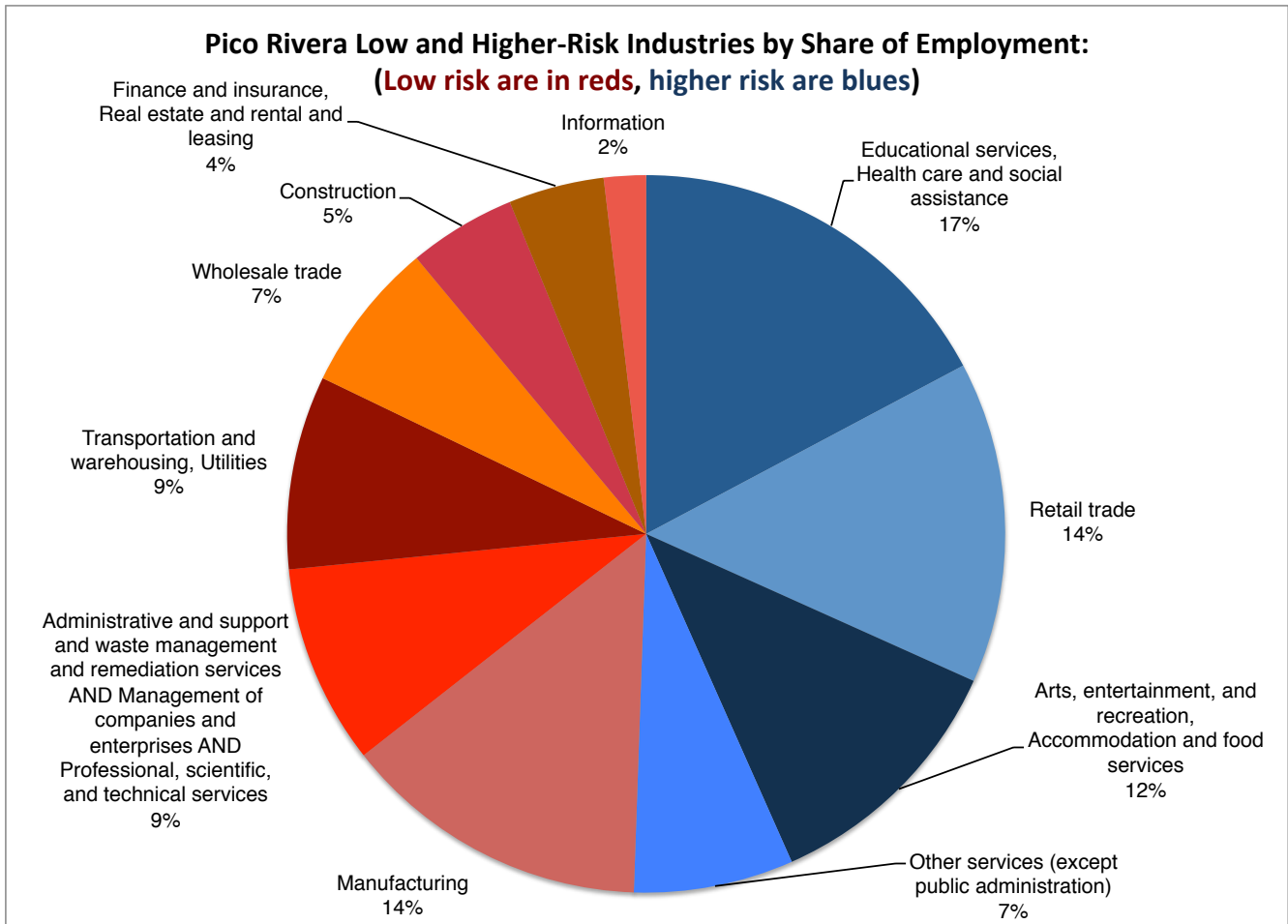
Figure 3.1



For each industry in figure 3.1 above, the column to the left shows median earnings for workers in that industry, while the column to the right shows the relationship between those median earnings and those of all employees in the city. Median earnings for workers in the retail trade industry are only \$17,932---this is 63% of workers' total median earnings in Pico Rivera. Workers' in the arts, entertainment, recreation, accommodation and food services industry have median earnings of \$18,138---this is just under 64% of workers' total median earnings in the city. Employees in the other services (except public administration) industry have median earnings of \$20,727---73% of the citywide median. Finally, workers in the educational services, health care and social assistance industry have median earnings of \$26,911---94% of citywide median earnings.¹⁴

¹⁴ U.S. Census Bureau, American Community Survey, 2014, 5-Year Estimates.

Figure 3.2



These low-wage industries are also the industries in which the most workers are employed, with some minor exceptions—there is a high concentration of workers in the manufacturing industry, and there are a number of higher-wage industries that have more workers than are employed in the “other services (except public administration)” industry. Exceptions aside, not only are these lower-wage industries more exposed to the impacts of a minimum wage increase, any adverse effects that they experience would have an outsized impact on the city economy.

In total, workers in these low-wage industries account for just over 50% of Pico Rivera’s total labor force (see figure 3.2). There are just over 18,000 workers employed in the city, and more than 9,100 of them work in these industries. Specifically, 3,103 workers---17% of the city’s labor force---are employed in the educational services, health care and social assistance industry. 2,611 workers are employed in the retail trade industry, and this constitutes 14% of the labor force. 2,095 workers and 12% of the total labor force work in the arts, entertainment, recreation, accommodation and food services industry. 1,296

workers, 7% of the labor force, are employed in the other services (except public administration) industry.¹⁵

All of the industries we have highlighted so far are in the service sector, but throughout this business profile we will also pay special attention to the manufacturing industry. Even though manufacturing's median earnings are slightly above the city median, we believe it is an industry that is worth including in our analyses because it is one that employs a significant share of the men and women who work in Pico Rivera. There are 2,498 workers employed in the manufacturing industry, and this accounts for 14% of the city's total labor force (see figure 3.2).¹⁶ Median earnings for workers employed in this industry are \$31,468, which is 111% of the city's overall median earnings (see figure 3.1).¹⁷

Employment Size Distribution

Whether or not a minimum wage increase poses a risk to individual firms in any of the lower-wage industries depends on a number of factors. We addressed a number of these factors in the literature review, and we will reiterate some of the most relevant arguments when we discuss potential risks in more detail below. First, however, it is important to establish the relationship between firm size and exposure to the effects of a minimum wage increase. Large corporations, whose many employees are spread across a broad geographical footprint, will be much more easily able to absorb a municipal minimum wage increase than will locally-based "mom and pop" firms. Therefore, it is important to establish the employment size distribution of employers in Pico Rivera's low wage industries.

Unfortunately, there is a dearth of data on firm size by metro area, and this is a methodological challenge that had been noted by prominent economists in the field.¹⁸ The data that does exist provides the number of employees per establishment in intervals for each industry in a metropolitan area. Put more simply, we are able to determine how many establishments in a given industry have between 1 and 4 employees, 5 to 9 employees, and so on. However, this data presents its own methodological challenges.

These challenges stem from the distinction between an establishment and a firm. An establishment is a, "business or industrial unit at *a single location*...[and] is not necessarily identical with a company or enterprise, which may consist of one or more establishments." Firms on the other hand may consist of one or more establishments that are under common ownership.¹⁹ This means that in the establishment data, a McDonalds location with 9 employees would be indistinguishable from a family run market with the same number of workers. This distinction is important because a McDonalds, or any other firm with many establishments, may have the economies of scale to absorb a larger wage

¹⁵ U.S. Census Bureau, County Business Patterns, 2013, Table 00CZ2.

¹⁶ U.S. Census Bureau, County Business Patterns, 2013, Table 00CZ2.

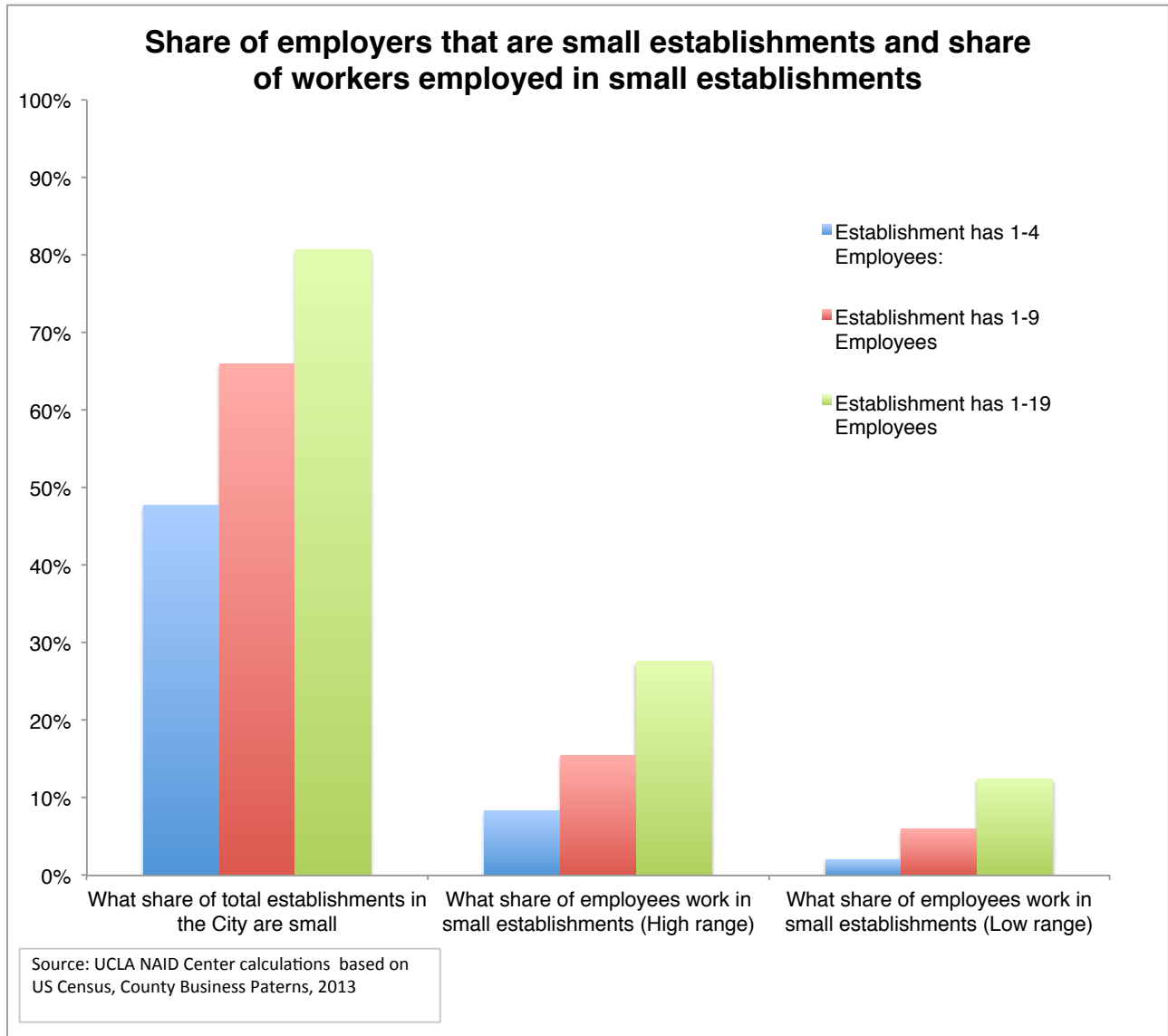
¹⁷ U.S. Census Bureau, American Community Survey, 2014, 5-Year Estimates, Table B24031.

¹⁸ Reich et al., "Minimum Wage Law for Los Angeles," 27.

¹⁹ U.S. Census Bureau, "Frequently Asked Questions." U.S. Census Bureau Website, <https://ask.census.gov/faq.php?id=5000&faqId=487>

increase than would a firm that has only one similar sized establishment.²⁰ On the ground research would be necessary to determine what share of small establishments are “mom and pop” firms and what share are large firms’ local outlets.²¹

Figure 3.3



²⁰ Reich, Michael, Ken Jacobs, Annette Bernhardt and Ian Perry. 2015. “The Proposed Minimum Wage Law for Los Angeles: Economic Impacts and Policy Options.” Policy Brief, Center for Wage and Employment Dynamics, Institute for Research on Labor and Employment, UC Berkeley. <http://www.irl.berkeley.edu/cwed/briefs/2015-01.pdf>, 27.

²¹ See this report’s “Policy Recommendations” for a description of the advantages that conducting further “on-the-ground” research would provide.

The UCLA NAID Center's employment size distribution revealed an interesting contrast between the share of Pico Rivera's establishments that are small, and the share of employees who work in small establishments. While most of the city's establishments are small, a significant majority of the City's workforce is employed at large establishments (see figure 3.3).

Forty-eight percent of establishments in the city have between one and four employees, while that number increases to sixty-six percent when considering establishments that have between one and nine employees. Establishments with fewer than twenty employees constitute eighty one percent of the establishments in Pico Rivera.²²

On the other hand, only between two and eight percent of Pico Rivera's workforce is employed at establishments that have fewer than five workers.²³ Despite comprising a majority of the establishments in the city, establishments with less than ten workers employ only between six and fifteen percent of Pico Rivera's labor force. Finally, even though four in five establishments in the city employ less than twenty workers, only between twelve and twenty eight percent of workers are employed at one of these firms (see figure 3.3).²⁴

Industry Level Employment Size Distribution

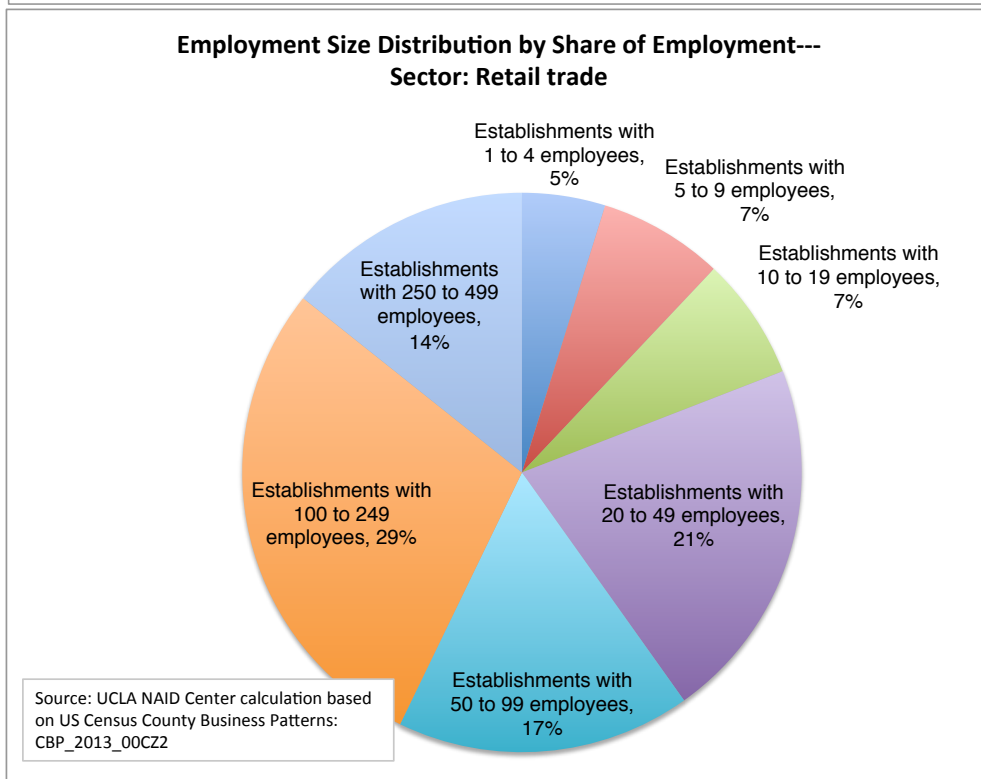
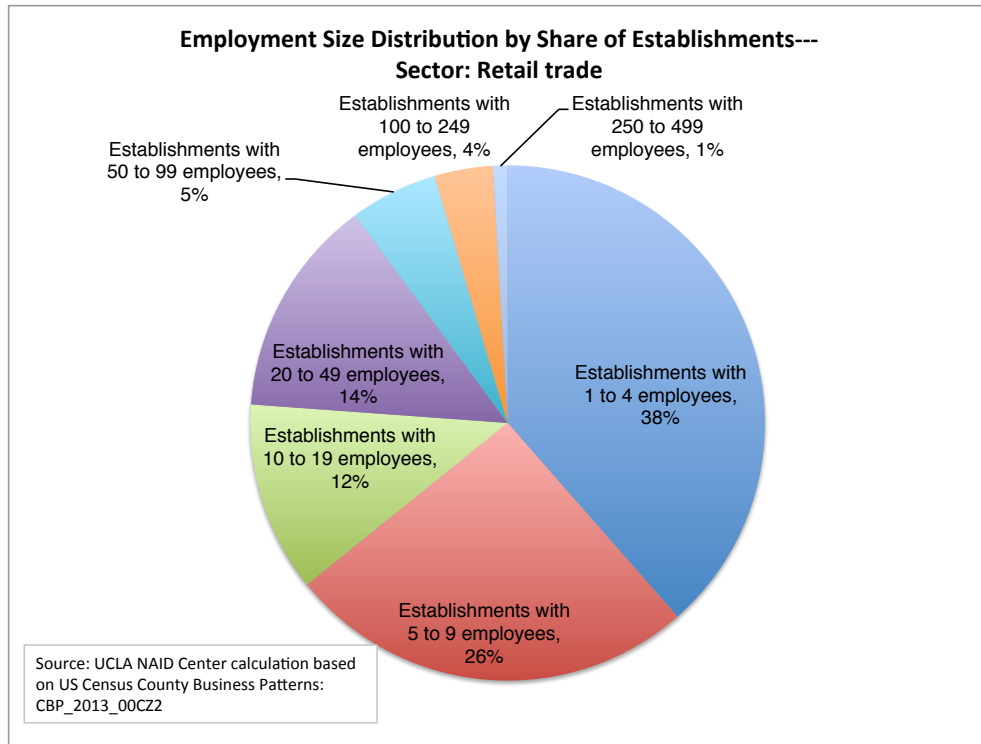
This trend is also evident at the industry level. In most industries, the majority of establishments have fewer than twenty employees, while the majority of employees are employed at establishments with more than twenty workers. This is true as well for almost all of the low-wage industries that we have been focusing on. Only in the other services (except public administration) industry do we see a majority of employees working at establishments that have twenty employees or fewer. Even then, it is the slightest of majorities.

²² U.S. Census Bureau, County Business Patterns, 2013, Table 00CZ2.

²³ For more information about why we present our estimates of the employment size distribution as ranges, see "Appendix: Methodology".

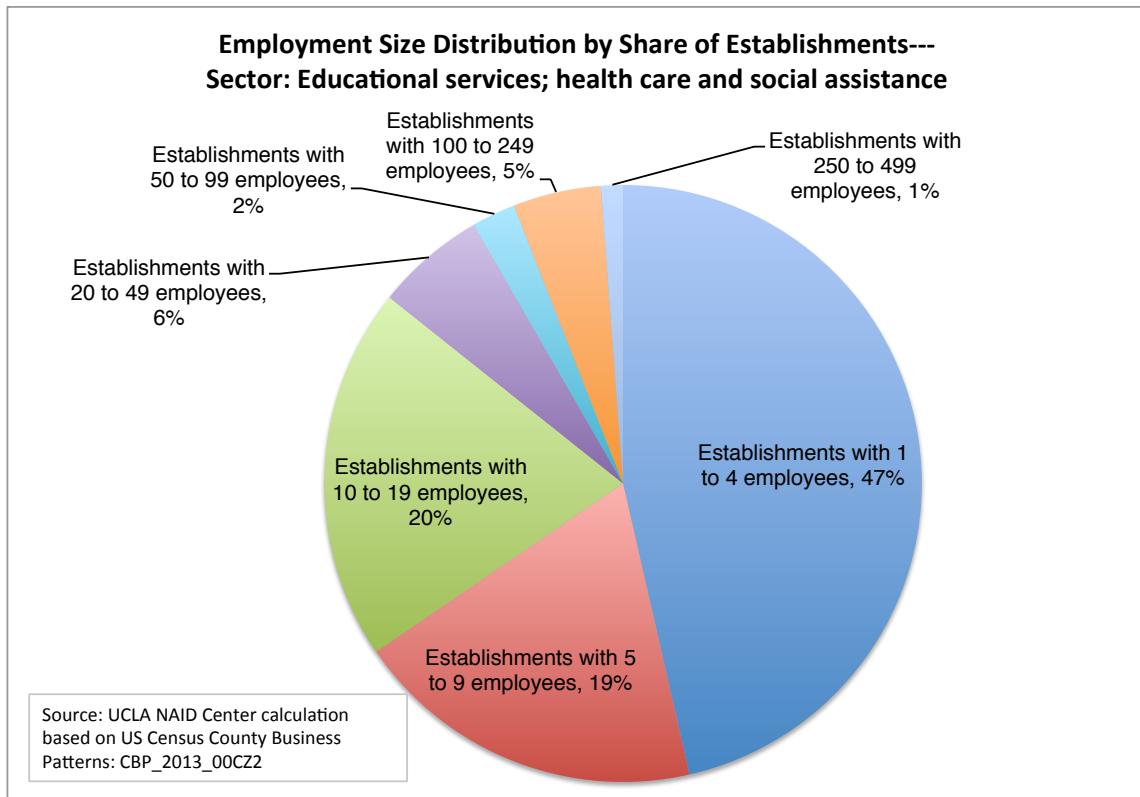
²⁴ UCLA NAID Center calculations based upon the census' County Business Patterns.

Figure 3.4



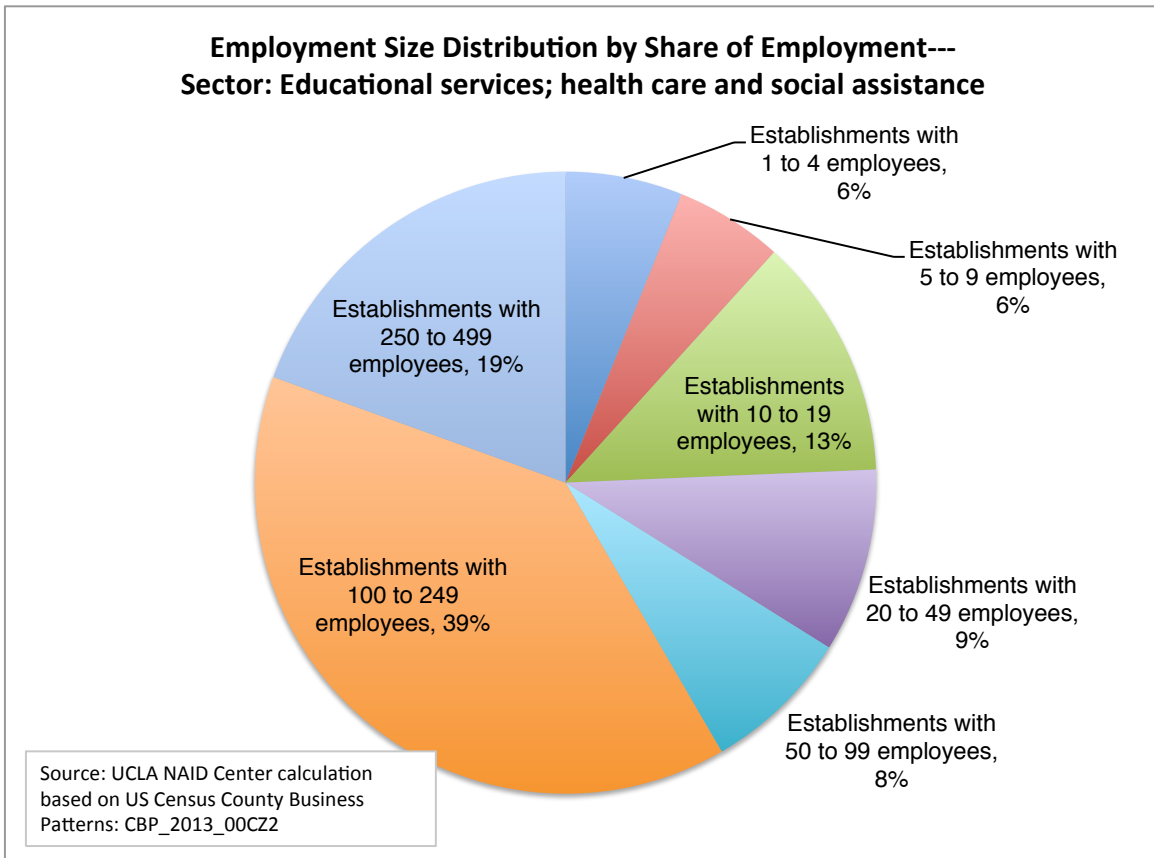
The retail trade industry is an industry in which we are likely to see many “mom and pop” firms, but this is the industry in which we see the smallest share of workers working at establishments that have between one and nineteen employees (see figure 3.4). There are 109 establishments in Pico Rivera’s retail trade industry. Eighty-three of these establishments---76% of the total--- have fewer than twenty employees. Meanwhile, there are 2,611 workers employed in the city’s retail trade establishments.²⁵ Of these workers, only nineteen percent are employed in establishments with fewer than twenty employees, and only six percent are employed at establishments that have fewer than five.²⁶

Figure 3.5



²⁵ U.S. Census Bureau, County Business Patterns, 2013, Table 00CZ2.

²⁶ UCLA NAID Center calculations based upon County Business Patterns. For more information about why we did not use ranges for the industry specific section of the employee size distribution, and how we selected which end of the range to use, see “Appendix: Methodology.”



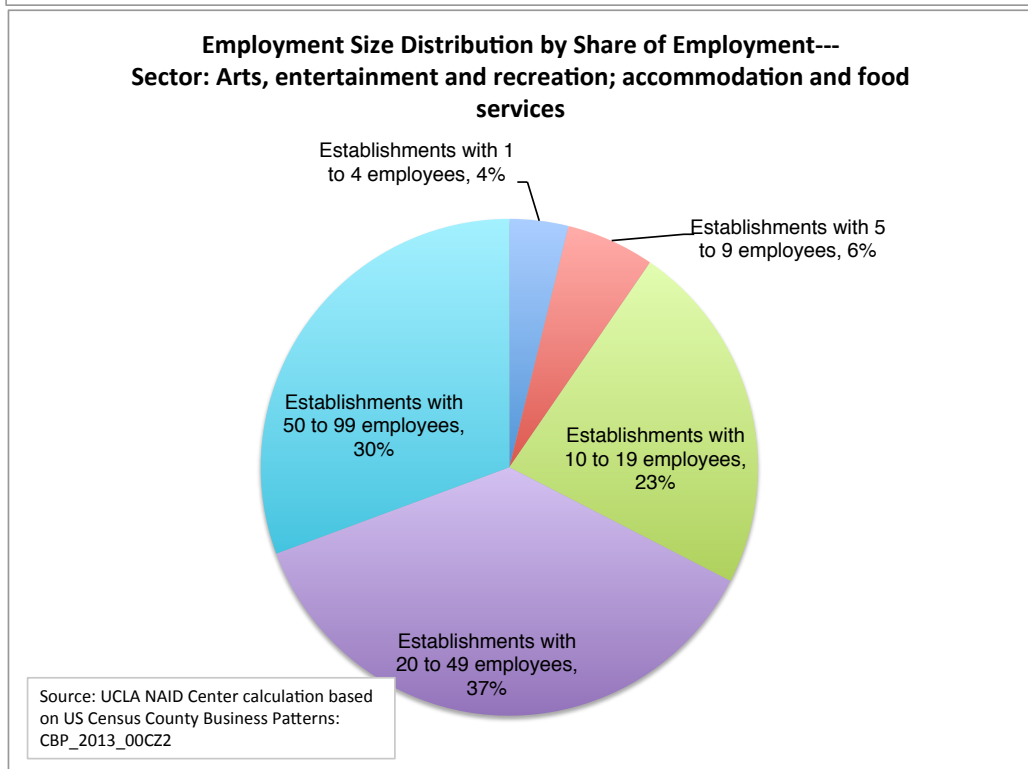
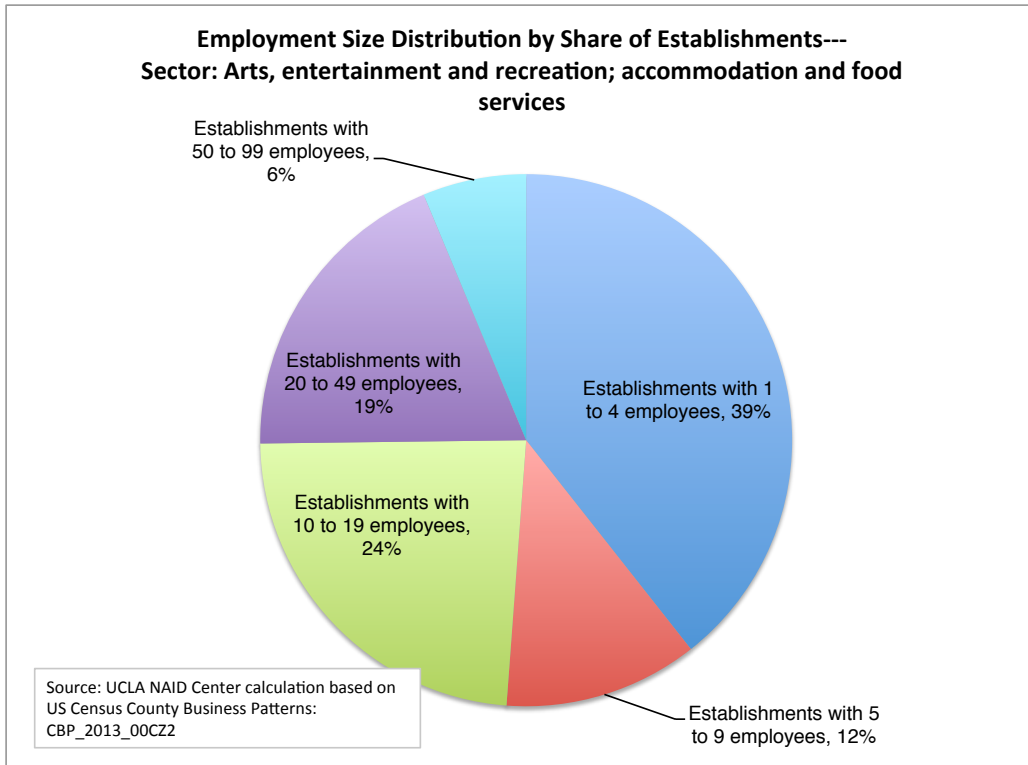
Compared to the retail trade industry, the educational services, health care and social assistance industry has a slightly greater share of workers employed at establishments that have fewer than twenty employees, but a significantly greater share of the latter industry's establishments have fewer than twenty employees. Nonetheless, the trend is the same. A significant majority of this industry's establishments have fewer than twenty employees, while a significant majority of workers in this industry are employed at establishments that have more than twenty employees (see 3.5).

There are eighty-four establishments in this industry in Pico Rivera and seventy-two of them have fewer than twenty employees.²⁷ However, of the 3,103 workers in this industry, only twenty-five percent are employed at establishments with fewer than twenty employees, and only four percent are employed at establishments with fewer than five.²⁸

²⁷ U.S. Census Bureau, County Business Patterns, 2013, Table 00CZ2.

²⁸ UCLA NAID Center calculations based upon the census' County Business Patterns.

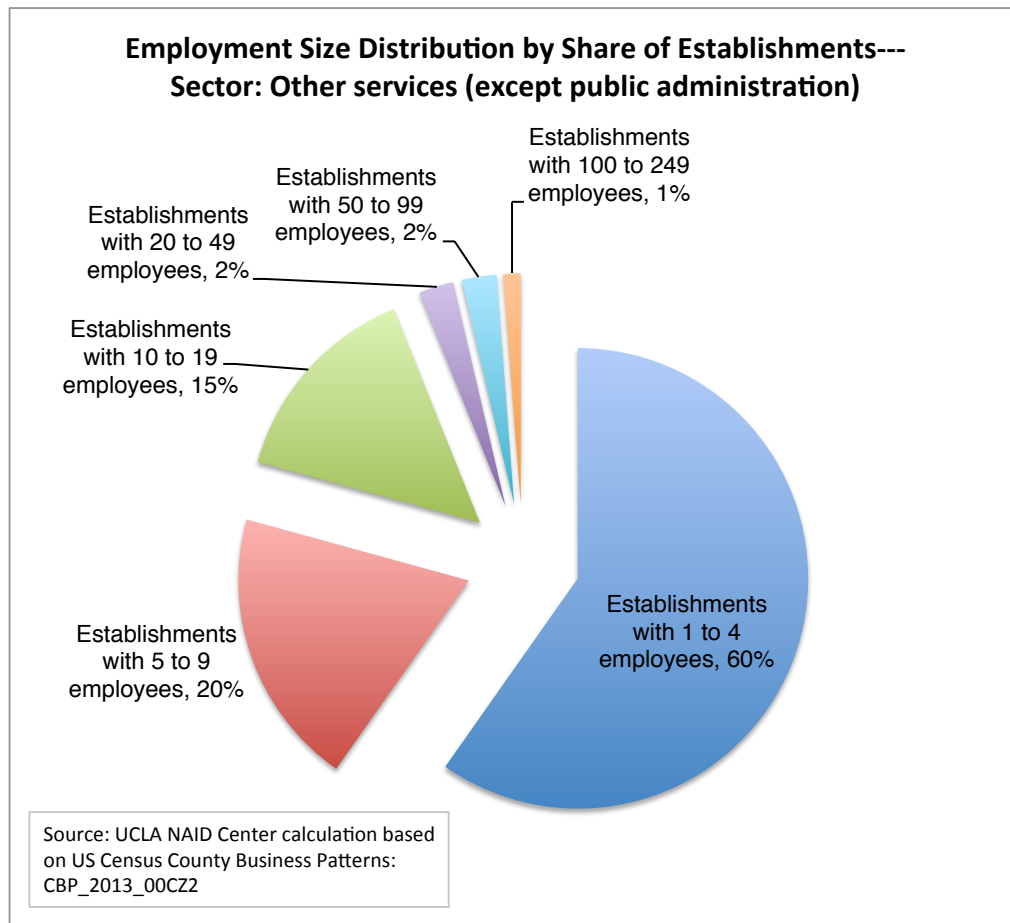
Figure 3.6



The trend we've seen in the city as a whole, and in the previous two industries, is less prevalent in the arts, entertainment and recreation, accommodation and food service industry. For simplicity we will be referring to this industry as the accommodation and food service industry from this point on. This simplification does, however, reflect the general composition of the industry in Pico Rivera. Of the 127 establishments in this industry, 122 are classified as accommodation and food service by the Census.²⁹

Semantics aside, of the 127 establishments, seventy-five percent---or ninety-five individual establishments---employ fewer than twenty workers.³⁰ While the accommodation and food services industry has a greater share of workers employed in establishments with fewer than twenty employees, the majority of workers are still employed at larger establishments. Of the 2,873 workers employed in this industry, only 33% work at establishments with fewer than twenty employees, and only four percent are employed at establishments with fewer than five (see figure 3.6).³¹

Figure 3.7

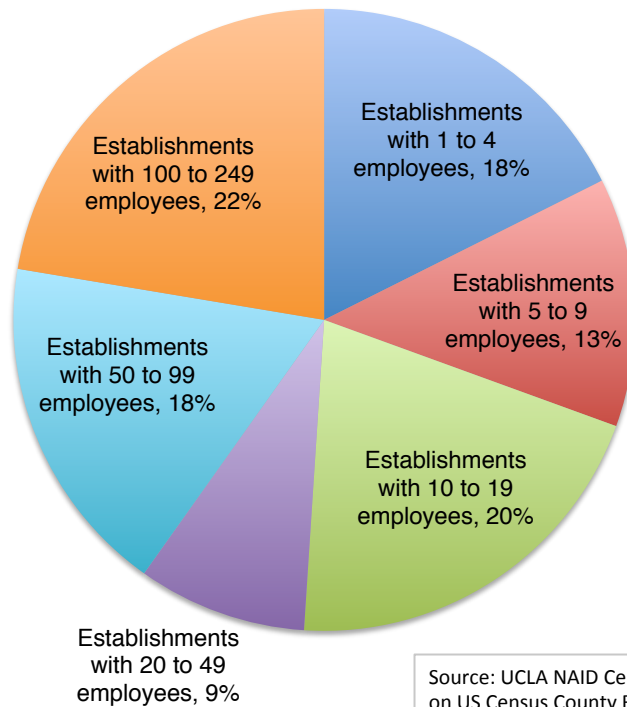


²⁹ U.S. Census Bureau, County Business Patterns, 2013, Table 00CZ2.

³⁰ U.S. Census Bureau, County Business Patterns, 2013, Table 00CZ2.

³¹ UCLA NAID Center calculations based upon the census' County Business Patterns.

**Employment Size Distribution by Share of Employment---
Sector: Other services (except public administration)**



Source: UCLA NAID Center calculation based on US Census County Business Patterns: CBP_2013_00CZ2

The trend does not hold in the other services (except public administration) industry. More than four in five establishments in this industry have fewer than twenty employees, but more than half of all employees in this industry work at an establishment that employs fewer than twenty workers (see figure 3.7). There are eighty-two establishments in this industry, and of those eighty-two, seventy-seven employ twenty workers or fewer.³² Of the 1,296 workers employed in this industry, fifty-one percent are employed at establishments with fewer than twenty workers, while eighteen percent are employed at establishments with fewer than five.³³

This suggests that firms in this industry should receive increased monitoring after any change in minimum wage policy. The unusual concentration of workers in small establishments means that firms in this industry may have trouble absorbing the minimum wage increase. In addition, it means that negative impacts could have an outsized impact on

³² U.S. Census Bureau, County Business Patterns, 2013, Table 00CZ2.

³³ UCLA NAID Center calculations based upon the census' County Business Patterns.

Pico Rivera's economy. The vagueness of the industry label also suggests that on the ground research will be needed in order to better understand this industry's composition.³⁴

Potential Risks

A minimum wage increase will have the largest effect on low-wage industries. These industries will experience the most dramatic increase in payroll costs, but this does not necessarily mean that overall operating expenses will increase, or that some number of firms will be forced to either exit the market or relocate. As noted in the literature review, there are a number of mitigating factors that offset some or all of the minimum wage-related cost increases. In this section, we will describe both the potential risks and these potential mitigating factors at the city level and, where research exists, at the industry level. This analysis is especially relevant for Pico Rivera, since a significant share of the city's workforce is employed in low-wage industries.

One major concern associated with local minimum wage increases is that higher operating costs will lead firms to exit the market, and that these higher costs will prohibit new firms from entering the market to replacing them. There are a number of mitigating factors that could offset the cost increases, however, some of these factors are more quantifiable than others.

Turnover reduction is one of the more quantifiable ones. Turnover imposes significant direct and indirect costs on firms. According to Reich et al., "[these include] direct costs for administrative activities associated with departure, recruitment, selection, orientation, and training of workers, and the indirect costs associated with lost sales and lower productivity as new workers learn on the job."³⁵ One recent study estimated that turnover reduction can offset twenty percent of the costs associated with a minimum wage increase.³⁶ A number of other studies support this claim and have found similar cost reductions.³⁷

³⁴ See section 6, "Policy Recommendations," for more detail on the need for "on the ground" research.

³⁵ Reich et al., "Minimum Wage Law for Los Angeles," 24.

³⁶ Pollin, Robert and Jeannette Wicks-Lim. 2015. "A \$15 U.S. Minimum Wage: How the Fast-Food Industry Could Adjust Without Shedding Jobs." Political Economy Research Institute, University of Massachusetts Amherst, Working Paper 373.

http://www.peri.umass.edu/fileadmin/pdf/working_papers/working_papers_351-400/WP373.pdf

³⁷ Fairris, David. 2005. "The Impact of Living Wages on Employers: A Control Group Analysis of the Los Angeles Ordinance." *Industrial Relations*, 44(1): 84-105.

AND

Jacobs, Ken and Dave Graham-Squire. 2010. "Labor Standards for School Cafeteria Workers, Turnover and Public Program Utilization." *Berkeley Journal of Employment and Labor Law*, 31(2): 447-459.

The positive impact of higher wages on employees' at-work behavior also offsets some of the additional costs that those higher wages impose. Research shows that increased earnings lead workers to have higher levels of performance, provide better customer service, and work harder during their shifts. In addition, morale improves as wages increase, while absenteeism and the number of filed grievances decreases.³⁸ It is hard to quantify the exact size of the costs that are offset by these changes in worker behavior, but in combination with reduced turnover costs, they suggest that a significant increase in a firm's payroll costs does not have to translate into a significant increase in overall operating expenses.³⁹ Even if firms do experience a moderate increase in their total operating costs, they may be able to pass these costs on to consumers in the form of higher prices without being forced to exit the market.

Whether or not firms can raise prices without being forced from the market is also relevant to the issue of firm relocation. A small city like Pico Rivera should be cautious about raising their minimum wage if a significant number of firms would relocate in response. However, there is good reason to believe that a change in wage policy is unlikely to cause even moderate levels of firm relocation. Research suggests that firms that raise prices in response to a wage increase would neither be forced to exit the market or to relocate. Reich et al., paraphrasing the work of Colbion et al. states that, "small price differences did not lead consumers to switch to lower-price stores."⁴⁰

Aside from the fact that the benefits of higher wages suggest that most firms will be able to absorb increases in payroll costs, regional wage differentials do not seem to motivate business relocation.⁴¹ The economist David Neumark, who is generally critical of minimum wage increases, found, in a report co-authored by Jed Kolko, that firms that do relocate, "are not moving primarily in search of...cheaper labor." Instead, they move to take advantage of cheaper real estate, productivity enhancing "business clusters," and to be closer to workers and customers.⁴² None of these motivations would suggest that firms located in Pico Rivera would move to a neighboring city, since there is likely little variance between cities in any of these categories.

³⁸ Hirsch, Barry T., Bruce Kaufman and Tetyana Zelenska. 2011. "Minimum Wage Channels of Adjustment." IZA Discussion Paper No. 6132. Institute for the Study of Labor.

http://www2.gsu.edu/~ecobth/IZA_HKZ_MinWageCoA_dp6132.pdf

³⁹ See section 5, "Literature Review" for more information on how a significant increase in payroll costs can lead to a negligible increase in operating expenses.

⁴⁰ Coibion, Olivier, Yuri Gorodnichenko and Gee Hong. 2015. "The Cyclicity of Sales, Regular and Effective Prices." *American Economic Review* 105(3): 993-1029.

⁴¹ There is not consensus on this question. For the opposing opinion see Beacon Economics' report, "Cost-Benefit Analysis: Los Angeles Minimum Wage Proposal" and our summary of their relevant arguments in this report's section 5, "Literature Review".

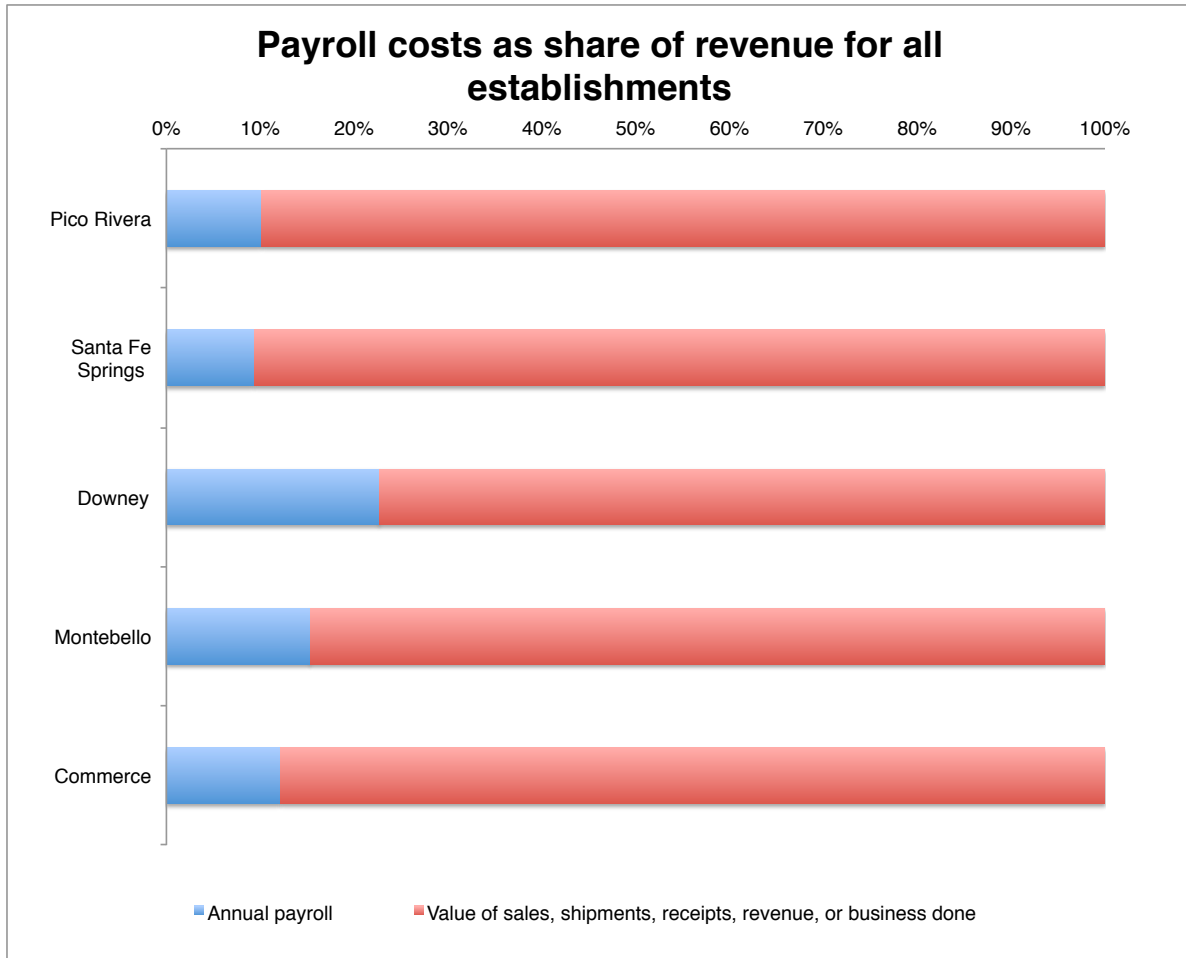
⁴² Kolko, Jed and David Neumark. 2007. "Business Location Decisions and Employment Dynamics in California." Public Policy Institute of California.
http://www.ppic.org/content/pubs/report/R_1107JKR.pdf

Payroll Compared to Revenue: Implications for Business Relocation

Interestingly, when comparing Pico Rivera to neighboring cities, we found considerable variance in the share of revenue that is absorbed by payroll costs.⁴³ In Pico Rivera, that share is relatively small, and much smaller than some of the city’s neighbors. This trend was also evident when we looked compared payroll to revenue at the industry level, and was especially evident within most low-wage industries.

Taken together these trends suggest that low-wage industries in Pico Rivera have a “wage buffer.” Since payroll constitutes a higher share of revenue in most neighboring cities, Pico Rivera has extra room to raise wages before those wages create a geographic wage differential. Even though such geographic wage differentials are unlikely to motivate business relocation, we believe stakeholders will find our identification of these wage differentials informative and useful.

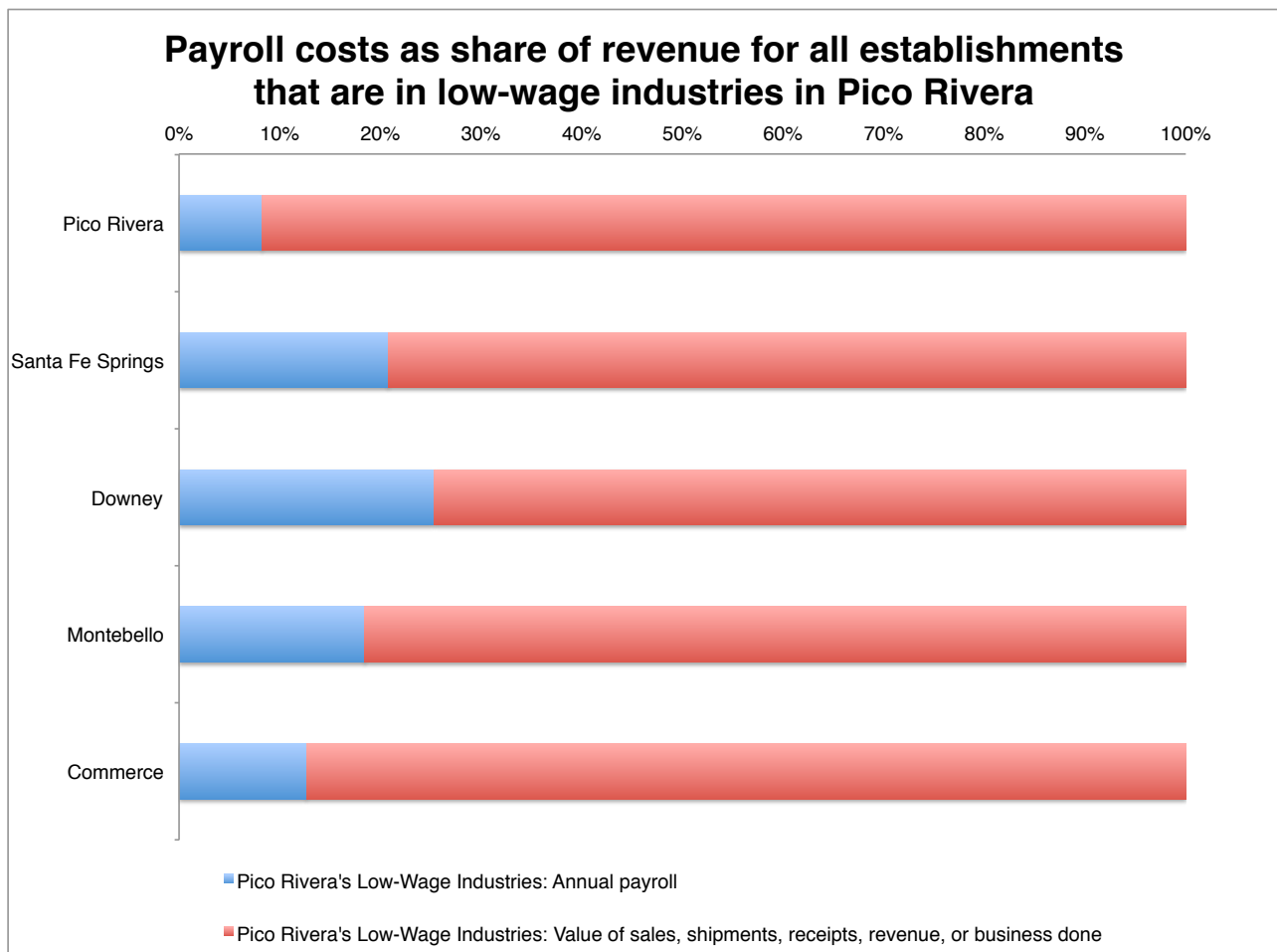
Figure 3.8



⁴³ The data accounted for 680 of the 737 establishments in Pico Rivera. Actual revenue might be slightly higher.

In Pico Rivera, annual payroll constitutes a relatively small share of what the census terms “value of sales, shipments, receipts, revenue or business done,” but which, going forward, we will describe simply as revenue.⁴⁴ According to the 2012 Economic Census, business establishments in Pico Rivera brought in roughly \$3.9 billion in revenue while spending just under \$399 million on payroll costs. In other words, 10.1 percent of revenue was spent on payroll costs. Meanwhile, establishments in Downey brought in well over \$4.5 billion in revenue, but more than one billion dollars of that went towards payroll—over 22 percent. In Montebello, business establishments generated \$3.6 billion in revenue, while spending just under \$600 million on payroll—15 percent. In Commerce, establishments earned \$11.9 billion in revenue, while spending just under \$1.5 billion on payroll—roughly 12 percent. In fact, Santa Fe Springs was the only one of Pico Rivera’s neighboring cities in which payroll constituted a relatively smaller share of revenue. Establishments in Santa Fe Springs brought in \$21 billion in revenue and spent only \$1.9 billion on payroll. However, as we will show, payroll constitutes a much larger share of revenue in Santa Fe Spring’s low-wage industries.

Figure 3.9



⁴⁴ U.S. Census Bureau, Economic Census of the United States, 2012, Table EC1200A1

As useful as it is to map the relationship between revenue and payroll in the city of Pico Rivera and in neighboring cities, for our purposes it is much more important to focus on this relationship as it relates to Pico Rivera's low-wage industries. This analysis revealed some interesting results. Namely, in these industries, there is much less variance in revenue between cities, and once again, payroll constitutes a small relative share of that revenue in Pico Rivera. In fact, when comparing Pico Rivera's low-wage industries to those industries in neighboring cities, payroll in the former constitutes an even smaller share of revenue than it does when all industries are considered.

Establishments in Pico Rivera's four low-wage industries---retail trade, health care and social assistance, accommodation and food services, and other services (except public administration)---generated \$1.7 billion in revenue. Of this revenue, annual payroll absorbed only \$145 million---or 8.2 percent. In Santa Fe Springs, on the other hand, the annual payroll of establishments in these industries absorbed over 20 percent of revenue. Those payroll costs were \$215 million, while revenue was only just over one billion dollars. In Downey, establishments in these industries generated more than \$2.7 billion in revenue, of which \$703 million, or 25 percent, was absorbed by payroll costs. In Montebello, establishments in these industries brought in \$1.3 billion in revenue, while spending \$244.8 million, or 18 percent, on payroll. Finally, in the city of Commerce, establishments in these industries brought in more than \$1.1 billion in revenue, while payroll costs absorbed \$147.6 million, or 12 percent.

Retail Vacancy

LA County's lack of retail vacancy is another factor suggesting that business relocation is an unlikely outcome should Pico Rivera choose to raise its minimum wage. Reich et al., in assessing the potential that firms would relocate in response to the City of Los Angeles' minimum wage increase, found that retail vacancy rates were particularly low in the city of LA---below six percent. Moreover, they found that vacancy rates were even lower in the San Gabriel Valley---4.7 percent.⁴⁵ While Pico Rivera is close to both of these areas, both are large and varied real-estate markets compared to Pico Rivera. A closer examination of retail vacancy rates in the areas adjacent to Pico Rivera is a potential avenue for further research as the city continues to explore the feasibility of increasing its minimum wage.

4. Fiscal Analyses

Costs

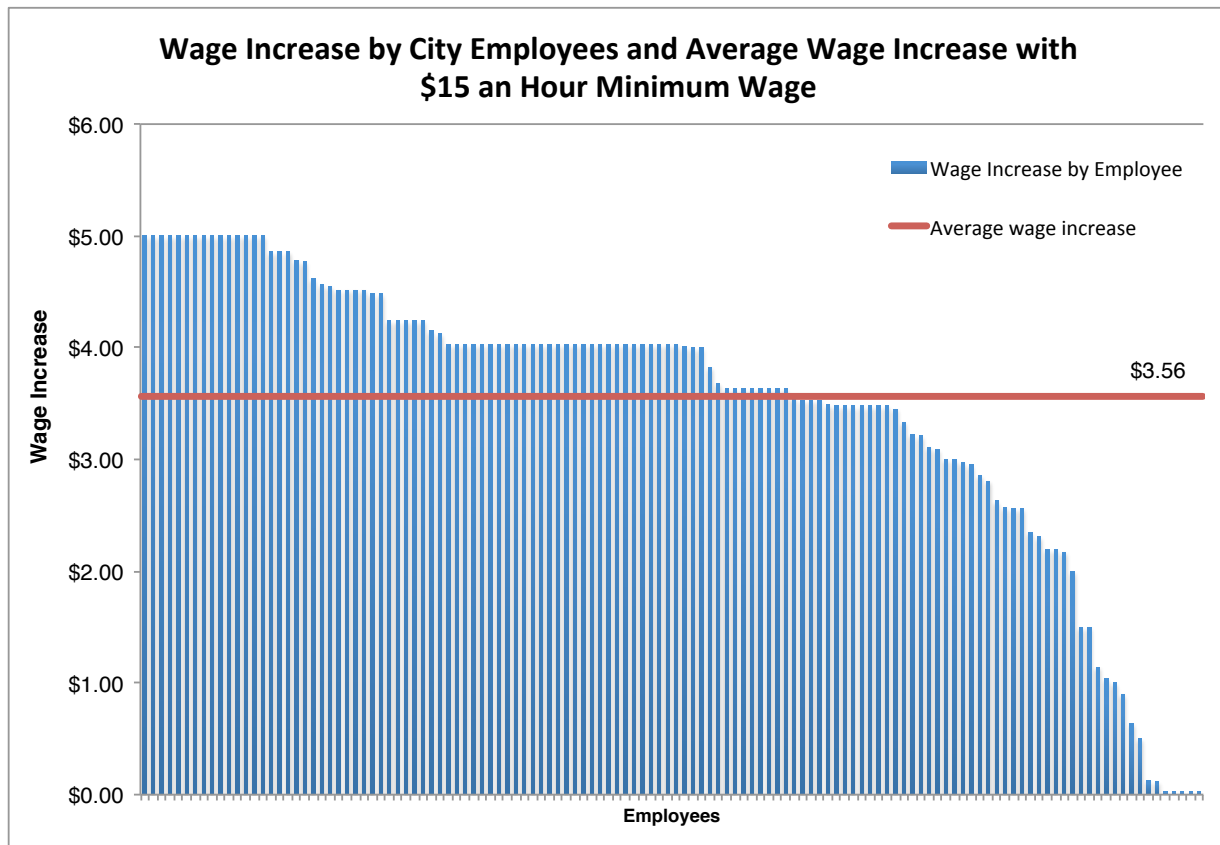
From a fiscal standpoint, raising the minimum wage in Pico Rivera will likely be a net negative. The city has 126 employees who are earning less than \$15 an hour.⁴⁶ Raising each of these workers' pay would require a substantial increase in the amount of city funds

⁴⁵ Reich et al., "Minimum Wage Law for Los Angeles."

⁴⁶ For the remainder of this discussion, when we refer to city employees, we are referring to non-salaried employees who earn less than \$15 an hour.

that go towards payroll. However, some of these new expenditures will be counterbalanced by an increase in local consumer spending and subsequent growth in sales tax revenue.

Figure 4.1



An overwhelming majority of the men and women employed by the city of Pico Rivera are earning far less than \$15 an hour. Fifty-three percent of the city’s workforce---67 employees---are earning between \$10 and \$11 an hour. Only sixteen of the city’s employees---12 percent---are earning between \$13 and \$15 and hour. If Pico Rivera were to raise the municipal minimum wage to \$15 an hour, the average city employee would experience a \$3.56 wage increase (see figure 4.1).

Because most of the city’s employees are paid close to the current minimum wage, raising that minimum wage to \$15 an hour would cause significant growth in payroll costs. We estimate that, after full implementation, the city’s payroll costs could grow by as much as \$643,399.

Our estimate assumes that all city employees are working, and will continue to work, the maximum allowable number of hours—28 hours per week, 52 weeks a year. The extent to which the city’s payroll costs would actually increase depends upon the number of hours that city employees actually work each year. Since it is likely that many of these workers

are not working the maximum allowable number of hours, growth in payroll costs is also likely to be less.

Cost Mitigators

Increased sales tax revenue will help mitigate whatever budgetary strain raising the minimum wage may cause. In order to determine how much additional sales tax revenue Pico Rivera will receive, we need to establish how much new income workers are earning, how much of that new income they are spending, and where they are spending that new income.

Table 4.1

Effects of a \$15 Minimum Wage on Tax Revenue, Net Labor Income and Consumer Spending

<u>Scenario</u>	<u>Increase in net labor income</u>	<u>Increase in consumer spending</u>	<u>New Sales Tax Revenue</u>
No employment loss	\$72,184,455	---	---
New consumption = 1/3 of new labor income	---	\$23,820,870	\$80,991
New consumption = 1/2 of new labor income	---	\$36,092,228	\$122,714
Moderate Disemployment	\$60,632,401	---	---
New consumption = 1/3 of new labor income	---	\$20,008,692	\$68,030
New consumption = 1/2 of new labor income	---	\$30,316,200	\$103,075
Extreme Disemployment	\$42,149,114	---	---
New consumption = 1/3 of new labor income	---	\$13,909,208	\$47,291
New consumption = 1/2 of new labor income	---	\$21,074,557	\$71,653

As we mentioned in this reports “Workforce Profile,” raising the minimum wage will substantially increase low-wage workers’ net labor income. This holds true even if moderate to extreme disemployment were to occur. To reiterate, if Pico Rivera raises the municipal minimum wage and there are no negative employment effects, total labor income will increase by \$72.1 million dollars. If there is moderate disemployment---an employment elasticity of -0.1---then net labor income will increase by \$60.6 million. Even on the off chance that this policy causes extreme disemployment---an employment elasticity of -0.26---net labor income will still increase by \$42.1 million (see table 4.1).

Based on the economic literature cited in this reports’ “Literature Review,” we expect the likely outcome of a minimum wage increase to be somewhere between the first two scenarios. In other words, if Pico Rivera raises its minimum wage to \$15 an hour, we expect the employment elasticity will be somewhere between 0 and -0.1.

This labor income increase will generate an increase in consumer spending and a great deal of that consumer spending is likely to occur within Pico Rivera. Research shows that when

the income of low-wage workers' grows, they tend to spend that new income on basic needs, and they tend to do it locally.⁴⁷

If there is no employment loss and one third of new labor income is spent in Pico Rivera, then we expect consumer spending in the city to increase by \$23.8 million. If one half of new labor income is spent in the city, we expect consumer spending to increase by \$36 million. If there is moderate disemployment and one third of new labor income is spent in Pico Rivera, then we expect consumer spending in the city to increase by \$20 million. If one half of this new labor income is spent in the city, we expect consumer spending to increase by \$30.3 million. If there is extreme disemployment and one third of new labor income is spent in Pico Rivera, then we expect consumer spending in the city to increase by \$13.9 million. If one half of this new labor income is spent in the city, we expect consumer spending to increase by \$21 million (see figure 4.1).

This increased consumer spending will translate into growth in Pico Rivera's sales tax revenue. If there is no employment loss and one third of new labor income is spent in Pico Rivera, then we expect the city's sales tax revenue will grow by more than \$80,991. If one half of this new labor income is spent in the city, we expect sales tax revenue to grow by more than \$122,714. If there is moderate disemployment and one third of new labor income is spent in Pico Rivera, then we expect the city's sales tax revenue will grow by more than \$68,030. If one half of this new labor income is spent in the city, we expect sales tax revenue to grow by more than \$103,075. If there is extreme disemployment and one third of new labor income is spent in Pico Rivera, then we expect the city's sales tax revenue will grow by more than \$47,291. If one half of this new labor income is spent in the city, we expect sales tax revenue to grow by more than \$71,653.

5. Literature Review

A. Introduction

Beginning in the early 1990's, there has been resurgence in research related to the minimum wage. This growth in scholarship revolves around a dramatic challenge to conventional economic wisdom. Among economists, there had been a longstanding and deeply entrenched belief that an increase in the minimum wage must necessarily have a negative and significant impact on employment. The economists David Card and Alan B. Krueger challenged this assumption in a landmark 1994 study.⁴⁸ Labor economists have been debating their findings and the theory that supports it ever since. That debate has

⁴⁷ Economic Policy Institute, 2015. "It's Time to Raise the Minimum Wage [Fact Sheet]." <http://www.epi.org/publication/its-time-to-raise-the-minimum-wage/>

⁴⁸ Card, David, and Alan B. Krueger. 1994. "Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania." *American Economic Review* 84(4): 772-793

established relatively little consensus, but it has demarcated the relevant questions that policy makers should address when considering an increase in the minimum wage.

Nearly all of the economists working on the minimum wage agree that increasing the minimum wage increases workers' pay at the bottom end of the income distribution while also impacting the number of businesses competing in the affected markets and the number of employed workers. However, researchers disagree about the nature, scope and scale of these impacts. Their findings range from those that show a dramatic net benefit for low-wage workers, coupled with a positive impact on businesses and employment, to those that show an insignificant net benefit for the working poor accompanied by rampant job loss and in some cases both business closure and relocation. For the remainder of this literature review we will refer to the latter group as "classicists," and the former group as "revisionists." This is somewhat of an oversimplification, but detailing the minutia of their scholastic debate is beyond the scope of this paper.

In order to present a range of likely outcomes, should the city of Pico Rivera raise their minimum wage, this literature review will untangle the radical variance of results that exist in the minimum wage research. In addition, it will establish which findings are the most credible and which are the most relevant in Pico Rivera's spatial, demographic, and economic landscape. We will do this by mapping the contours of the debate and by presenting a review of the relevant scholarship.

B. Framing the Debate

Increasing the minimum wage, like any other economic decision, is a matter of weighing the potential benefits against the potential costs. It is generally accepted that a higher minimum wage will raise the wages of low-income workers and reduce inequality. At the same time these benefits will be paid for by some reduction in economic growth and employment. The UCLA NAID Center believes that policy makers that are considering raising the minimum wage should do so if the benefits to low-wage workers and their families are great, and the costs to the business community are small or non-existent. On the other hand, policy makers should obviously be cautious if the costs are great and the benefits small.

As we introduce the potential benefits, we will rely on the work of economists who have suggests that these benefits are great and the costs are generally negligible or nonexistent. Inversely, as we introduce the potential costs, we will rely on economists whose work suggests that these costs outweigh the benefits. After we introduce each potential benefit and cost, we will discuss whether there is consensus or continuing debate about the topic in question. On issues where there are still unresolved questions we will briefly summarize each sides' argument.

For these summaries, we will extensively reference two exhaustive surveys of recent minimum wage research. When we reference revisionist arguments, we will lean heavily on Dale Belman and Paul J. Wolfson's 2014 book, *What Does the Minimum Wage Do?* When

we refer to the standard classicists position, we will often turn to David Neumark and William Wascher's 2007 article, "Minimum Wages and Employment: A Review of Evidence from the New Minimum Wage Research." When a local perspective is needed, we will look to a couple of reports that were presented to the Los Angeles City Council during their debate over raising the minimum wage. The first is a report by the Institute for Research on Labor and Employment at UC Berkeley and the other is a report by Beacon Economics. The Berkeley group's work has also informed many other areas of our analyses throughout this report.

C. Potential Benefits

A minimum wage increase's most fundamental potential benefit is its impact on the earnings of the working poor. This is an area where the research provides some semblance of consensus, and though the issue is not as straight forward as it may appear, there is strong evidence to support the idea that an increase in the minimum wage increases the average earnings of affected workers.⁴⁹

The other potential benefits flow from the impact of increased earnings on workers and their families. These benefits can be broken down into short and longer-term impacts. The potential short-term benefits include, among others, a decrease in income inequality, a reduction in the use of public assistance programs,⁵⁰ and a reduction in the number of households living in poverty. As significant as these immediate impacts would be for workers and their families, the longer-term effects of increased wages could be even more important.

Earnings

Again, there is a measure of consensus among economists that increasing the minimum wage raises the wages of affected workers who remain employed at the new wage. However, Neumark and Wascher, as well as a number of other classicists, are skeptical of whether increasing the minimum wage has a positive impact on the net labor income of affected workers. The classicists who argue that net labor income is negative base their argument on the idea that the minimum wage has significant negative employment effects. Revisionists dispute classicists' employment findings, but also argue that even when moderate disemployment occurs, the impact on average wages is still positive.

⁴⁹ Belman and Wolfson, *Minimum Wage Do?*

⁵⁰ While this last impact may be less relevant for city governments---like Pico Rivera---that do not administer public assistance programs, we believe it is worth noting since it may inform such cities' relationships with other municipalities and their governing bodies (e.g. neighboring contract cities, as well as the City and County of Los Angeles)

Classicists argue that because there are negative employment effects, fewer workers take home the higher wages, and therefore the net labor income for affected workers decreases.⁵¹ The revisionists Belman and Wolfson are skeptical of these negative employment impacts, but argue that the literature suggests that even when moderate disemployment does occur, “large majorities of bound workers...[retain] their positions and...[receive] higher wages because of the increase in the minimum wage.”⁵² Both camps believe that the minimum wage raises wages for workers that remain employed, so the impact on net labor income becomes an issue of employment effects, and this is an issue on which there is no consensus.⁵³

Inequality

In terms of reducing income inequality, an increase in the minimum wage is beneficial---assuming it does increase earnings on balance---because it causes the wage floor to rise by an amount that is greater than that of the median wage.⁵⁴

Public Assistance

Research suggests that increasing the minimum wage has the potential to reduce reliance on public assistance programs. This is because many workers have an income with which they are unable to provide for their household’s basic needs. Specifically, there is a growing body of evidence showing that a significant number of individuals receive public benefits while employed.⁵⁵ Some researchers have concluded that increasing the minimum wage would reduce the number of total individuals receiving federal public benefits in the form of food stamps⁵⁶ and Medicaid,⁵⁷ and that this is true even when accounting for some potential negative employment effects. Subsequently, federal expenditures on those benefits programs would be reduced, and those savings could be invested in other social

⁵¹ Neumark, David, and William Wascher. 2004. “Minimum Wages, Labor Market Institutions, and Youth Employment: A Cross-National Analysis.” *Industrial and Labor Relations Review*, Vol. 57, No. 2 (January), pp. 223-48.

⁵² Belman and Wolfson, *Minimum Wage Do?* 222.

⁵³ See section D of this Literature Review for more information on the employment effects of raising the minimum wage.

⁵⁴ Autor, David, Alan Manning and Christopher Smith. 2015. “The Contribution of the Minimum Wage to U.S. Wage Inequality over Three Decades: A Reassessment.” Unpublished Manuscript, MIT Department of Economics. Available at: <http://economics.mit.edu/files/3279>.

⁵⁵ Reich, Michael, Annette Bernhardt, Ian Perry and Ken Jacobs. 2015. “Estimated Impact of a Proposed Minimum Wage Law for Sacramento.” Center on Wage and Employment Dynamics, Institute for Research on Labor and Employment, UC Berkeley.

⁵⁶ West and Reich 2014 A “The Effects of Minimum Wages on SNAP Enrollments and Expenditures.” Center for American Progress.

⁵⁷ West and Reich 2014 B “A Win-Win for Working Families and State Budgets: Paying for Medicaid Expansion with a \$10.10 Minimum Wage.” Center for American Progress.

programs.⁵⁸ In addition, observers have noted that, in California, a state minimum wage increase would reduce reliance on state administered public assistance programs.⁵⁹

Poverty

Whether or not minimum wage policies are an effective tool for combatting poverty is a question that is still the subject of debate among economists. Much more research has been conducted on the relationship between minimum wage policy and employment than on the relationship between such policies and the number of families that are living in poverty.⁶⁰ Some of the research that has been conducted suggests that poverty reduction is not only a potential benefit of increasing the minimum wage, it is also potentially a very significant one. For example, in 2013, the economist Arindrajit Dube argued that increases in the minimum wage have reduced the number of families living below the poverty line and that these policy changes have been especially effective in reducing the number of families living in extreme poverty.⁶¹

For the most part, however, classicists and revisionists agree that raising the minimum wage is not an efficient tool for combating general poverty, but to some extent they disagree about why that is, and whether or not the raising the minimum wage is an effective method for bringing specifically workers out of poverty. Both camps believe that in general, poverty is difficult to address through the minimum wage, because families in poverty have a loose attachment to the labor force. In other words, a lack of employment rather than low wages is the root cause of persistent poverty.⁶²

Many classicists use this as evidence to support their opposition to minimum wage increases, but revisionists argue that the poverty line is a flawed metric and focusing on it obscures the real benefits that a higher minimum wage would confer upon low-wage workers and their families. The poverty line is based on consumption patterns in the 1960's. Since then, it has been updated to reflect inflation, but these updates do not reflect changes in spending patterns.⁶³ The result is that the poverty line is artificially low. Many families who are not currently classified as living in poverty would have been classified as such when the line was introduced. This leads Belman and Wolfson to conclude that, "While the poverty line may have reflected reality when first defined, it does not any

⁵⁸ Both studies by West and Reich found a decrease in program enrollment and thus lower expenditures.

⁵⁹ Allegretto, Sylvia, Michael Reich and Rachel West. 2014. "Ten Dollars or Thirteen Dollars? Comparing the Effects of State Minimum Wage Increases in California." Policy Brief, Institute for Research on Labor and Employment, UC Berkeley.

⁶⁰ Reich et al., "Sacramento," 14.

⁶¹ Dube, Arindrajit. 2013. "Minimum Wages and the Distribution of Family Incomes." Unpublished paper.

https://dl.dropboxusercontent.com/u/15038936/Dube_MinimumWagesFamilyIncomes.pdf

⁶² Neumark, "The Effects of Minimum Wages."

⁶³ Belman and Wolfson, *Minimum Wage Do?*, 309.

longer.”⁶⁴ This suggests that there are many workers whose income places them just above the poverty line, but are not included in studies that examine the impact of the minimum wage on poverty. An increase in the minimum wage may not bring these workers out of poverty, but increasing their wages would fulfill the spirit of the policy---insuring that men and women who work are able to earn an income that provides a modest standard of living for their families and themselves.

It is important to note here that the UCLA NAID Center was able to collect data showing the number of Pico Rivera workers living in poverty. So while a minimum wage increase may not bring a significant number of families out of poverty if those families have a loose attachment to the labor force, it will almost certainly help the vast majority of workers living in poverty. Therefore, in the Pico Rivera workforce profile, our poverty analyses are focused only on workers.

Long Term Social Benefits

Research both inside and outside the field of economics suggests that, in the long-term, increased earnings for low-income workers and their families can alleviate some of the adverse conditions associated with life at the bottom of the income distribution. Most notably, these hardships include poor physical and mental health, slow childhood development, and incarceration. In terms of health impacts, low-earnings have been associated with health risks, higher rates of disease, and shorter life expectancy.⁶⁵ Government subsidies for low-income families have also been associated with better overall mental health for mothers.⁶⁶ Meanwhile, research has shown that increased earnings have been associated with lower rates of arrest for parents.⁶⁷ Fewer parental arrests lead to better outcomes for young children. There is also a significant body of scholarship showing that increased parental income leads to better performance by children in school,⁶⁸ and better cognitive and behavioral outcomes.⁶⁹

⁶⁴ Belman and Wolfson, *Minimum Wage Do?*, 310

⁶⁵ Leigh J. Paul and Juan Du. 2012. “Are Low Wages Risk Factors for Hypertension?” *European Journal of Public Health*, 22(6): 854-859.

⁶⁶ Evans, William and Craig Garthwaite. 2010. “Giving Mom a Break: The Impact of Higher EITC Payments on Maternal Health.” NBER Working Paper 16296.

<http://www.nber.org/papers/w16296.pdf>

⁶⁷ Akee, Randall, William Copeland, Gordon Keeler, Adrian Angold and E. Jane Costello. 2010. “Parents’ Incomes and Children’s Outcomes: A Quasi-experiment Using Transfer Payments from Casino Profits.” *American Economic Journal: Applied Economics* 2(1):86–115.

⁶⁸ Morris, Pamela and Lisa Gennetian. 2003. “Identifying the Effects of Income on Children’s Development Using Experimental Data.” *Journal of Marriage & Family*, 65(3):716–29.

⁶⁹ Cooper, Kerris and Kitty Stewart. 2013. “Does Money Affect Children’s Outcomes? A Systematic Review.” Joseph Rowntree Foundation.

<http://www.jrf.org.uk/sites/files/jrf/money-children-outcomes-full.pdf>

Taken together, these findings suggest how, beyond the immediate material benefits of greater income, minimum wage increases have the potential to break the generational reproduction of poverty. They do this in part by providing children in low-income families with substantially improved opportunities. These long-term benefits are hard to quantify, but they suggest that so too is the full impact of increasing the minimum wage. If such an increase provides significantly better outcomes for even a fraction of the children born into low-income families, then such policies would yield exponential benefits for those families and the communities in which they live. As increased wages raise the income floor for workers, the opportunities those workers present to their children, and the successes those children experience, are reproduced generation after generation.

D. Potential Costs

The potential costs associated with increasing the minimum wage are usually expressed in terms of employment effects, but when municipal governments unilaterally raise wages, the potential for firm closure or relocation should also be considered. Both of these potential costs flow from the way that minimum wage increases affect firm's payroll expenses, and how these firms react if there are subsequent increases in their overall operating costs. There are also potential macroeconomic costs, but these are less relevant to minimum wage increases at the municipal level, especially in smaller cities like Pico Rivera.

Employment

Increasing the minimum wage can negatively impact employment in a number of ways. First, employers may substitute some other input for the now more expensive low-skilled labor. Second, employers may raise prices, and if they do these higher prices will reduce consumers' demand for their product and the firms' own demand for labor. Third, businesses may find they can no longer compete and either leave the market altogether or relocate to somewhere that allows for lower payroll costs. This final possibility is of heightened significance for municipalities that are deciding whether or not to raise their minimum wage, especially if they are in economic areas that do not have uniform wage floors---such as LA County. Because this is an issue that is especially relevant to Pico River, this literature review will discuss it in additional detail.

Operating Costs and Labor Substitution

An increase in the minimum wage leads to higher payroll costs for firm, which can lead to higher operating costs. Classicists argue that if firms' operating costs do increase, they will substitute away from the now more expensive lower-skilled labor, replacing it with some combination of higher-skilled labor and labor saving technology or other capital.⁷⁰ Substituting higher skilled labor for lower skilled labor might not necessarily affect overall employment; it does not benefit the workers that a minimum-wage increase is meant to

⁷⁰ Neumark, "The Effects of Minimum Wages."

support. Substituting capital for labor can also have negative long-term effects on low-skilled employment levels, since a minimum wage increase's full impact on job growth may take several years to manifest.⁷¹ For example, new firms that enter a market a couple years after a minimum wage increase can choose a business model that is heavily reliant on labor saving technology, whereas firms that are already in a market when a minimum wage increase is implemented may be less flexible.

Revisionists argue that increases in payroll costs have a relatively limited impact on overall operating costs and that labor substitution may not lead to disemployment for low-wage workers. On the first point, revisionists argue that while a minimum wage increase does raise payroll costs, it also reduces the costs associated with employee turnover. Workers receiving higher wages are less likely to leave their current position and that this reduces overall operating expenses.

Turnover imposes significant direct and indirect costs to employers. Employers have to pay to find and train new employees, which is a direct expense. At the same time new employees are less productive while they learn on the job, which indirectly reduces revenue. A recent study estimated that reduced turnover resulting from a minimum wage increase offsets twenty percent of the increased payroll costs.⁷² Higher wages also affect the behavior of employees. Revisionists argue that better paid workers perform their tasks at higher levels, provide better customer service, and work harder during their shifts. In addition, as wages increase, morale improves and absenteeism and the number of filed grievances decreases. This too reduces overall operating expenses.⁷³ A report by the UC Berkeley Institute for Research on Labor and Employment estimated that the if the City of Los Angeles raised its minimum wage to \$15.25 an hour by 2019, overall operating costs would only increase by 0.9 percent.⁷⁴

In terms of labor-substitution, revisionists argue that some workers being replaced by either capital or other types of labor does not necessarily result in a net reduction in low-skilled employment. They argue that even if some positions are displaced by this substitution, new positions take their place and that low-skill employees can often fill these positions. Essentially they refute the argument that labor substitution entails high-skilled labor replacing low-skilled labor. Instead, they suggest that less routinized labor replaces routinized labor---for example a restaurant firing a cashier but hiring an additional cook for food-prep. Revisionist research also suggests that this process results in no net change in employment.⁷⁵

⁷¹ Meer, Jonathan and Jeremy West. 2013. "Effects of the Minimum Wage on Employment Dynamics." NBER Working Paper 19262. <http://www.nber.org/papers/w19262>

⁷² Pollin and Wicks-Lim, "A \$15 U.S. Minimum Wage."

⁷³ Hirsch, Kaufman and Zelenska "Minimum Wage Channels."

⁷⁴ Reich, Michael, Ken Jacobs, Annette Bernhardt and Ian Perry. 2015. "The Proposed Minimum Wage Law for Los Angeles: Economic Impacts and Policy Options." Policy Brief, Center for Wage and Employment Dynamics, Institute for Research on Labor and Employment, UC Berkeley. <http://www.irlle.berkeley.edu/cwed/briefs/2015-01.pdf>

⁷⁵ Aaronson, Daniel and Brian Phelan. 2015. "Wage Shocks and Technological Substitution."

Prices

Classicists argue that increasing the minimum wage will increase the price that firms charge for their products, and that this will reduce employment. This assumption is based on the assumption that the labor market embodies a neoclassical competitive model. This model assumes that the labor market is a competitive market like any other, and that the minimum wage is a price floor that prevents the market from reaching its equilibrium. Wages are higher in the presence of such a binding price floor, but it creates a labor surplus and fewer workers are employed than would be in the absence of a minimum wage.⁷⁶ The economists who hold this view believe that, in part, this negative employment impact occurs by means of the prices businesses charge for their products. In this model, these businesses raise their prices to compensate for higher labor costs. The higher labor and product costs then reduce the demand for both, since fewer workers are needed for production when fewer products are being sold, albeit at higher prices.⁷⁷

Firm Exit and Relocation

If a minimum wage increase leads to firms' long-term costs outpacing their total revenue, those firms may choose to exit the market, or to move to a location where their costs would be lower. The first possibility is a general concern while the second is specific to regional minimum wage increases. We focus here on the latter concern because it is more closely related to the policy question at hand, and because the literature suggests that more efficient firms will replace the firms that choose to exit a market. The question of relocation was one that was raised repeatedly in the debate that preceded the City of Los Angeles' decision to increase the minimum wage. Beacon Economics, an economic consulting firm that conducted a cost-benefit analysis for the LA City Council, argued that, "businesses within the City will have limited ability to pass higher labor costs on to their consumers because they vie directly with businesses just outside city boundaries that are not facing similar increases in costs." They go on to argue that these businesses may be forced to move outside of Los Angeles city to avoid the new minimum wage.⁷⁸

There are two components to Beacon's argument, first that businesses will not be able to pass on higher costs to consumers if these firms are competing with businesses that do not have those higher costs, and second that these higher costs may be significant enough to

Working Paper.

https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbnxicmlhbm_pwaGVsYW58Z3g6NjllN2QxMTE1ODg5NTllYQ

⁷⁶ Belman and Wolfson, *Minimum Wage Do?*, 10

⁷⁷ D. Neumark and W.L. Wascher, "Minimum Wages and Employment." *Foundations and Trends in Microeconomics*, vol. 3, no. 1+2, pp 1-182, 2007.

⁷⁸ Beacon Economics. 2015." Cost-Benefit Analysis: Los Angeles Minimum Wage Proposal." <file://localhost/https://www.smgov.net/departments:council:agendas:2015:20150609:s2015060913-E-4.pdf>

force the firms to relocate. The economic literature does not strongly support either of these arguments, and there is little evidence that a minimum wage increase in Pico Rivera would cause either widespread business closure or relocation. There is much stronger evidence suggesting that if any negative employment effects do occur, the cause would be labor substitution and lowered demand for labor.

Both classicists and revisionists have published articles suggesting that business relocation does not pose a serious threat to cities that raise their minimum wage. David Neumark, who as we've mentioned is one of the most prominent opponents of minimum wage increases, published a paper in which he and his coauthor argued that wage differentials are not a significant motivation for business relocation. They go on to state that firms are much more likely to relocate in order to take advantage of cheaper real estate, productivity enhancing "business clusters," and to be closer to workers and customers.⁷⁹

6. Policy Recommendations

Two Tracks

The UCLA NAID Center's profiles of Pico Rivera's business and work force landscape, as well as our interpretation of the economic literature, lead us to believe that a minimum wage increase would provide a net benefit to the city of Pico Rivera. However, the city's demographic and geographic characteristics make increasing the minimum wage a pioneering policy initiative, and so we believe the city should pursue implementation with a measure of caution. In light of this need for a measured approach, we present two separate potential policy tracks for the city to consider. We encourage the city's policy makers and stakeholders to consider both and determine which track is most closely aligned with their social, economic, and political priorities.

Pico Rivera is smaller than all of the other cities that have increased their minimum wage above either the state or federal mandate. Compared to these municipalities, Pico Rivera also has a unique economic relationship with its neighboring cities and the City of Los Angeles. This places Pico Rivera in territory that has been explored by neither research nor history. The city would be trailblazers should its policy makers choose to raise the minimum wage, but this also presents a unique set of challenges. For this reason the UCLA NAID Center's two proposed policy tracks include one that has a relatively conservative tact and one that is bolder. We also encourage the city to "mix and match" the two tracks' elements as they see fit.

The first "cautious track" raises the minimum wage to \$13.00 an hour over a three-year period---a level just below the average municipal minimum wage increase of 34 percent.⁸⁰ In addition, it includes a number of additional checks and safeguards. These allow for an implementation process that provides city policy makers with more flexibility in terms of

⁷⁹ Kolko and Neumark, "Business Location Decisions."

⁸⁰ Reich et al., "Minimum Wage Law for Sacramento."

long-term adjustment, and is also more accommodating of small-businesses. The safeguards include mechanisms for halting wage increases, and a delayed compliance timeline for businesses with less than ten employees.

The second “bold track” raises the minimum wage to \$15.00 an hour over a five-year period---a level that matches the LA city initiative. This track calls for a broader application, with no size-based compliance timelines or halting mechanisms. In addition, this wage should be indexed to inflation.

In order to facilitate an informed decision on each of these tracks’ constituent elements, we will describe them in detail and outline the trade-offs inherent in each. Then we will turn to further avenues for pre-implementation research and suggested post-implementation monitoring mechanisms. Finally, we will sketch a number of initiatives, which can be implemented in parallel or as alternatives, and that we believe will support the goal of improving Pico Rivera’s quality of life and the economic wellbeing of its residents.

Small Business Compliance and Exemption

The cities of Seattle and San Francisco, two common reference points in the current minimum wage discussion, both provided a delayed compliance timeline for small businesses. Seattle provided a two-year exemption for business with fewer than 500 employees. In 2003, San Francisco allowed business with ten or fewer employees an extra year to come into compliance, but did not include this provision in its 2014 wage increase.⁸¹ Other cities, including Richmond, California and Santa Fe exempted small businesses from the minimum wage increase altogether, though Santa Fe later amended its law to remove this provision.⁸²

Delaying compliance for small business presents a significant trade-off. On the one hand, it may encourage firms that could expand not to do so. On the other, it provides a smoother transition for the firms that may be the least able to absorb the initial spike in payroll costs. Small business exemptions are more clearly problematic, since they provide a “perverse incentive” not to expand in the long term.⁸³

Most cities that have increased their minimum wage have not included either a delayed compliance timeline or a small business exemption. However, the UCLA NAID Center believes that Pico Rivera’s unique circumstances make a delayed compliance timeline more appealing. It is important to note that this element of the policy, if it is implemented, should have a number of clear parameters. First, small businesses should be defined as those that have fewer than ten employees. Second, it should apply only to firms or franchises with

⁸¹ 2015. “Los Angeles Rising: A City that Works for Everyone.” Economic Roundtable, UCLA Labor Center, and UCLA Institute for Research on Labor and Employment. <http://www.irle.ucla.edu/publications/documents/LA-Rising-final1.pdf>

⁸² Economic Roundtable, “Los Angeles Rising.”

⁸³ Reich et al., “Minimum Wage Law for Los Angeles.”

fewer than ten employees, and not to individual establishments with similar employment levels. Finally, it should apply only to firms that are either locally or regionally headquartered. While it is unlikely that a firm based outside of the region would have both an establishment in Pico Rivera and fewer than ten employees, this provision disincentivizes creative business structuring that is aimed at evading compliance.

Indexing to Inflation and Halting Mechanisms

Indexing the minimum wage to inflation entails annual wage increases so that the wage's purchasing power remains static. The large majority of cities that have implemented, or plan to implement, a municipal minimum wage increase have indexed that wage to inflation.⁸⁴ They do this by pegging the minimum wage to the Consumer Price Index (CPI)--the standard and most accurate metric for describing inflation.⁸⁵

Indexing the wage to inflation yields significant benefits for both employers and employees. For minimum wage earners, the advantage is clear: their wages are guaranteed to maintain the intended purchasing power. At the same time, indexing the wage to inflation provides employers with valuable predictability.⁸⁶ Without such indexing, the value of the wage slowly drops until the municipal government again feels compelled to implement another sharp increase. These kinds of ad hoc and irregular increases saddle employers with cost shocks, while a minimum wage that is indexed to inflation can be planned for and around.

The drawback of having a minimum wage that is pegged to the CPI is that it limits policy makers' ability to react to unintended consequences. If a minimum wage increase causes unexpected and significant negative employment effects, or if it causes an unexpectedly high number of firm relocations, indexing would slow recovery by preventing the real minimum wage from naturally decreasing. In light of Pico Rivera's circumstances, policy makers should consider whether they want to retain more control over future minimum wage increases, and whether this increased control is worth the benefits that are left on the table with a non-indexed wage.

Aside from choosing a non-indexed wage, there are other "halting mechanisms" that Pico Rivera's policy makers may want to consider. The recent minimum wage increases in Bernalillo County, New Mexico and in Chicago both included such mechanisms. The Chicago mechanism has an automatic wage increase halt that is triggered if local unemployment tops 8.5%, while the Bernalillo ordinance has a mandatory review every five-years to confirm its continued efficacy.⁸⁷

In their report to the Los Angeles City Council, Reich et al provided an alternative design for the Council to consider, had they been interested in such a mechanism. Rather than requiring an arbitrary trigger and an across the board wage halt, Reich's mechanism would

⁸⁴ Economic Roundtable, "Los Angeles Rising."

⁸⁵ Economic Roundtable, "Los Angeles Rising."

⁸⁶ Reich et al., "Minimum Wage Law for Los Angeles."

⁸⁷ Reich et al., "Minimum Wage Law for Los Angeles."

empirically identify “which industries or employers are struggling and...[then] provide for a temporary waiver process, while allowing the planned minimum wage increases to go forward for the majority of employers.”⁸⁸ If Pico Rivera is interested in including a halting mechanism, the UCLA NAID Centers suggests a similar design.

Pre-Implementation Research and Post-Implementation Monitoring Tools

The UCLA NAID Center recommends that Pico Rivera’s policy makers do some additional “on-the-ground” research. This research will both further illuminate potential risks and support the mitigation of those risks in the event that a minimum wage increase is implemented. Specifically, this “on-the-ground” research will clarify potential distortions in the data that have been created by the lack of distinction between firms and establishments.⁸⁹ Because the data does not distinguish between establishments and firms, it is difficult to pin down the exact number of small “mom and pop” businesses in each industry. Engaging with small business owners in the city will help more accurately determine how many of these businesses are in operation, and will facilitate better and more efficient monitoring after implementation.

A well-planned, efficient and comprehensive monitoring system is crucial to gauging the efficacy of a minimum wage increase after it goes into effect, and for making any necessary policy adjustments. In their report to the LA City Council, the Economic Roundtable and the UCLA Labor Center laid out just such a system.⁹⁰ We will sketch the outline of their system here, and we recommend that Pico Rivera’s policy makers adopt it should they choose to raise the minimum wage.

The system centers on monitoring business sales, wages and employment in the city, and then comparing that data to data from other cities as well as from the region and the state. For each of these variables the Economic Roundtable/UCLA Labor Center report provided recommended methods for monitoring, as well as recommended data sources and comparison regions.⁹¹ This resource will provide Pico Rivera with an excellent and easily reproducible monitoring tool.

Monitoring is an area in which Pico Rivera’s size represents a significant advantage. Because the city is a small one, the city’s staff does not have to settle for monitoring solely through the use of aggregated data. Instead the city’s staff can engage directly with a significant share of local businesses. This direct engagement can be supported by pre-implementation on the ground research. If the city conducts that research, they will have established the foundation for communication with, and have compiled a list of, businesses that may require increased monitoring and support.

⁸⁸ Reich et al., “Minimum Wage Law for Los Angeles.”

⁸⁹ For more information on this methodological challenge, see the comparison of firms and establishments in this report’s “Business Profile: *Employment Size Distribution*.”

⁹⁰ Economic Roundtable, “Los Angeles Rising.”

⁹¹ Economic Roundtable, “Los Angeles Rising.”

Parallel or Alternative Programs

The UCLA NAID Center has identified a number of programs that we believe would, like a minimum wage increase, improve the economic wellbeing and quality of life of Pico Rivera's low-wage workforce. These programs can either be implemented alongside a minimum wage increase, or as alternatives.

Training programs are an excellent method for increasing the economic wellbeing of low-wage workers. Opponents of minimum wage increases often tout these programs as a superior alternative. Unlike the minimum wage, these programs do not suffer from any "targeting" issues that bestow some of the benefits of a minimum wage increase on an unintended population---for example, teens from relatively wealthy families.⁹² However, training programs require city funding, thus shifting the financial burden from the private sector onto taxpayers. This may be one reason that pro-business opponents of the minimum wage favor these programs. Although training programs could be instituted as an alternative to a minimum wage increase, the UCLA NAID Center recommends integrating the two and using the previous program to support the latter. Such integration would evenly distribute whatever financial burden is required to increase the city's quality of life and decrease inequality.

The UCLA NAID Center also recommends that---if feasible---training support, as well as technical assistance and loans, should be extended to small businesses. These steps should be taken whether or not the city increases the minimum wage, and regardless of whether any wage increase includes a delayed compliance timeline for small-businesses. If the city determines that a minimum wage increase would present too great a burden for small businesses, then we strongly recommend implementing these small business support programs as soon as possible. There is momentum behind increasing the minimum wage at the state level, and if small businesses in Pico Rivera cannot currently absorb a local minimum wage increase, then they need to become better prepared in the event of a state increase.

⁹² Beacon Economics, "Cost Cost-Benefit Analysis."

Appendix: Methodology

A. Workforce Profile

Employed Population

In our “Workforce Profile” we established population counts for a number of different categories. They are:

- Employed in Pico Rivera.
- Living and Employed in Pico Rivera.
- Living in Pico Rivera but employed elsewhere.
- Living in Pico Rivera and employed in one of LA County’s “principle cities.”

We based these population counts on a number of different US Census Bureau sources. For our count of the number of workers employed in Pico Rivera we used the “2013 American Community Survey 5-year Estimates”, table B08519. For our count of the number of workers living and employed in Pico Rivera we used the “EEO Tabulation 2006-2010.” For our count of the number of workers living in Pico Rivera but employed elsewhere we used the “2014 American Community Survey 5-year Estimates”, table B08119. For our count of the number of workers living in Pico Rivera and employed in one of LA County’s principle cities we used the “2013 American Community Survey 5-year Estimates”, table B08016.

Hourly Wages

Beginning in our “Workforce Profile,” and throughout the rest of our report, we reference the hourly wages earned by Pico Rivera’s workforce. The wages we describe are based on the UCLA NAID Center’s calculations. The US Census does not provide hourly wage data for workers in the city of Pico Rivera, instead they provide an annual income bracket variable (\$0-\$9,999, \$10,000-\$14,999, \$15,000-\$24,999, etc.) in the “2013 American Community Survey 5-year Estimates”, table B08519. This data provides population counts for the number of workers employed in Pico Rivera and the number of workers in each income bracket. In order to convert these annual income brackets into hourly wages, we had to determine the following:

- The number of workers in each annual income bracket that are fulltime workers, and the number that are part-time workers.
- The number of hours a week and weeks a year that full-time and part-time employees work.
- The hourly wage equivalent of each income bracket for full-time and part-time workers.

Determining the number of workers in each annual income bracket that are fulltime workers, and the number that are part-time workers, is important because a part-time worker earning \$15,000 a year will have a different hourly wage than will a full-time worker. However, determining how many workers in each income bracket are part-time and how many are full-time presents a methodological challenge. This is because the American Community Survey (ACS) does not provide this data for Pico Rivera’s workforce. Instead, the ACS provides this data only for

residents of Pico Rivera. That data is available in the “2014 American Community Survey 5-year Estimates,” table S2001.

This data source is not ideal, but does reflect the general ratio of part-time to full-time workers for each income bracket in the region and is thus a passable approximation. Using these ratios we were able to classify the workers in each income bracket as either part-time or full-time employees.

In order to convert the income brackets into hourly wages, we needed to determine how many hours a week, and weeks a year, full-time and part-time workers were working. This variable presented the same methodological challenge as the one describing part-time and full-time workers. Here again, we were forced to use Pico Rivera residents as an approximation of Pico Rivera’s workforce. We extracted this data from the “2014 American Community Survey 5-year Estimates,” table B23022. That table describes intervals for the number of weeks worked a year (50 to 52 weeks, 48, to 49 weeks, 40 to 47 weeks, etc.) for full-time workers---those employees who usually worked 35 hours per week or more---and for two categories of part-time workers---those that usually worked 15 to 34 hours per week, and those that usually worked 1 to 14 hours per week. Using this data we created a weighted average for the number of hours worked per year by full-time and part-time workers.

Having established the number of full-time and part-time workers in each income bracket, and the number of hours worked per year by each of these groups, we were able to calculate the hourly wage equivalent of each bracket. At this point we simply divided the high and low range of each annual income bracket by the average number of hours worked for the full and part-time workforce. Because the annual income was described in brackets, so too were our hourly wage calculations. Unfortunately, this made our wage calculations somewhat imprecise, especially for part-time workers. For example, we calculated that 2,571 part-time workers make between \$0 and hour and \$11.47 an hour, and that 1,320 part-time workers earn between \$11.47 and \$17.21 an hour. So for our estimates of how many workers in Pico Rivera earn less than \$15 an hour we provide a range, the low-band is an estimate assuming that each worker earns the lowest income in each annual income bracket, the high-band estimate assumes each workers earns the highest income in each annual income bracket.

Workers Living in Poverty

The ACS provides clear data about the number of workers in Pico Rivera who live in poverty. We gathered this data from the “2014 American Community Survey 5-year Estimates”, table B08522. We did have to estimate how many workers who live and are employed in Pico Rivera are also living in poverty. To do this we established a ratio between the number of workers employed in Pico Rivera and the number of workers who live and work in the city. We then used this ratio to scale down the number of workers living in poverty.

In order to calculate the percentage of low-wage workers in Pico Rivera who are living in poverty, we had to make a couple of assumptions. First, we assumed that all workers living in poverty are earning the current minimum wage or less. Second, for simplicity we used the midpoint between our high and low-band estimates of the number of workers earning the current minimum wage, as well as for the midpoint of our estimate of the number of workers earning below \$15 an hour. With these population counts established, we simply divided the number of workers living in poverty by the midpoint estimates of the number of workers earning the current minimum wage, as well as the number earning below \$15 an hour.

Net and Average Labor Income Increases

Calculating the impact of raising the minimum wage on net labor income and average labor income required accounting for potential changes in employment. We projected these impacts for three employment scenarios. The first assumed no change in employment, the second assumed moderate disemployment, while the third assumed extreme disemployment. For all three scenarios we used the same data sources described in the “Hourly Wages” section above.

Calculating changes in net labor income and average labor income was relatively straightforward under the first scenario. We first used the hourly wage population counts to determine how many workers would be affected. In all three scenarios we used the hourly wage midpoint for each wage bracket (i.e. if we knew X number of workers were earning between \$7.84 and \$13.07, we assumed they were all earning \$10.46). We then calculated full and part-time workers’ growth in labor income by subtracting the midpoint wage for each wage bracket from \$15. Next, we multiplied this increase by the number of workers in that bracket, before multiplying that product by the number of hours worked annually by the full and part-time workforce. Finally, we added these figures together and were left with the total labor income increase. To calculate average labor income increase, we divided total labor increase by the number of affected workers.

For the scenarios involving disemployment we took a number of additional steps. Since we were working with low-wage employment elasticities, we assumed all disemployment would occur within the affected population, and would affect each wage bracket equally. So for each disemployment scenario we first calculated the number jobs lost within each income bracket. We then calculated these workers’ annual income by multiplying their hourly wage and the average number of hours worked. We then subtracted this figure from the sum of all still employed workers’ labor income gains.

B. Business Profile

Low Wage Industries and Median Earnings by Industry

We established which industries in Pico Rivera are low-wage industries by comparing worker’s median income in industries operating in the city to the median income of the city

as a whole. We gathered this data from the “2014 American Community Survey 5-year Estimates,” table B24031.

Payroll as Share of Revenue in Pico Rivera and Neighboring Cities

Calculating the share of revenue that is absorbed by payroll in Pico Rivera and its neighbors was relatively straightforward. We used data extracted from the “2012 Economic Census of the United States,” table EC1200A1. We only analyzed industries for which the census had provided data for all variables. For industries with subcategories, we only analyzed the topline data listed under “all establishments.”

Number of Workers in Each Industry

Our description of the number of workers in each industry comes directly from the “2013 American Community Survey 5-year Estimates,” table B08526.

Employment Size Distribution

There were three components to our analyses of Pico Rivera’s employment size distribution. First, determining the size distribution of the establishments operating in Pico Rivera (i.e. what share of the total establishments have 1 to 4 employees, what share have 5 to 9 employees, etc.). Second, determining the distribution of the city’s workforce within those firm size intervals (i.e. how many workers are employed by establishments that have 1 to 4 employees, how many by establishments that have 5 to 9, etc.). Finally, we described both of these distributions at the industry level. The data for all three components comes from the US. Census Bureau’s “2013 ZIP Code Business Patterns (ZBP),” table CB1300CZ21.

The first component, the size distribution of the establishments operating in the city, is provided directly by the ZBP. For the second component, we produced estimates based on the high and low-bands of the establishment size intervals. That is, for each interval we multiplied the number of establishments by the least (low-band) and most (high-band) employees that the establishment could have. We are left with two separate distributions. We then determine which estimate is more accurate by separately summing all the low-band products and all the high-band products, and comparing the results to the total number of employees described by the ZBP. For the third component, we repeat this process at the industry level.

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