In 2013, the prestigious University of Wisconsin’s annual public health rankings, sponsored by the Robert Woods Johnson Foundation, found that Riverside (36th) and San Bernardino (46th) counties ranked in the lower half of California’s 58 counties on the status of their determinants of public health. Research underlying this report found that socio-economic conditions (e.g., income, education, poverty, unemployment) are by-far the most important causes of an area’s public health. In order, this was followed by a community’s health behaviors and access to medical care. Fourth and lowest was the status of environmental factors. Locally, the dominant importance of socio-economic factors to public health is echoed by professionals at Loma Linda University Medical Center and Riverside County’s Public Health Department as well as the San Bernardino Sheriff’s Office. Nationally, to quote Risa Lavizzo-Mourey, President and CEO of Robert Woods Johnson Foundation, and Mark Pinsky, President and CEO of Opportunity Finance Network, a national network of community development finance institutions:

“Economic growth and job creation provide more than income and the ability to afford health insurance and medical care. They also enable us to live in safer homes and neighborhoods, buy healthier food, have more leisure time for physical activity, and experience less health-harming stress. The research clearly shows that health starts in our homes and communities and not in the doctor’s office. In that way, economic policy is, in fact, health policy.”

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1 Different Perspectives For Assigning Weights To Determinates Of Health, University of Wisconsin, Public Health Institute, 2010

Stagnant Purchasing Power. Given the debate about the impact of California’s regulatory environment on job creation, the implications of these results for the Inland Empire’s quality of life and public policies are profound. Here, a key difficulty facing families is the stagnation in purchasing power over the past 23 years (Exhibit 1). Using Southern California price changes, the 1989 median household income was the equivalent of $56,785 (dotted line). Incomes in 1999, 2005 and 2009 were almost exactly at that level. Compared to 1989, the only major shifts were in the 2006-2008 housing boom when income reached $61,140 (7.7% higher) and the 2009-2011 Great Recession when it fell to $52,112 (-8.2% lower).

Poverty Level. Importantly, while household purchasing power has stagnated, the number and share of Inland Empire residents living in poverty has soared (Exhibit 2). In 1990, it was 306,417 or 11.8% of the population. By 2000, the number was 477,496 or 14.7% of residents. In 2011, it reached 774,874 or 18.0%. While the population grew 65.9% from 1990-2011, the share in poverty increased 152.9%, well over double that rate. It is thus no surprise that 23% of 2013 residents have no health insurance according to the University of Wisconsin.3

<table>
<thead>
<tr>
<th>Census Bureau Year</th>
<th>People In Poverty</th>
<th>Share of Population in Poverty</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>306,417</td>
<td>11.8%</td>
<td>2,588,793</td>
</tr>
<tr>
<td>2000</td>
<td>477,496</td>
<td>14.7%</td>
<td>3,255,526</td>
</tr>
<tr>
<td>2011</td>
<td>774,874</td>
<td>18.0%</td>
<td>4,293,892</td>
</tr>
</tbody>
</table>

Changes: +152.9% +6.2% +65.9%


Marginal Educational Levels. Another major socio-economic factor impacting public health is the very high shares of inland adults who have high school or less educations (Exhibit 3): San Bernardino County (48.5%) and Riverside County (46.4%). That was better than the Central Valley (49.2%-57.1%) and a little worse than Los Angeles County (44.5%). An important social justice consideration is the fact that over 65% of Hispanics in each county fall in this category.

3 http://www.countyhealthrankings.org/rankings/data/CA
Taken together, these facts argue strongly for an emphasis on economic and education policies designed to make areas like the Inland Empire healthier places to live. Yet in California, the overwhelming emphasis is on environmental regulation, despite its lower influence in determining public health. By contrast, there is a need for the state to give much more attention to job creation and educational advancement for our most vulnerable families. This need is echoed in a new Brookings Institute report: *Confronting Suburban Poverty in America*:

“As the nation struggles to find its footing in the emerging economic recovery, it has the opportunity (and the imperative) to avoid repeating the mistakes of the last boom-and-bust cycle that left so many Americans behind in the 2000s, eroding middle-wage jobs and fueling rising inequality. Making progress against poverty means crafting policies and programs that connect residents to the kinds of educational, job, and housing opportunities that can help them better their economic situations. In turn, metropolitan areas benefit in the long run when they forge those kinds of connections and help build a diverse, educated, and skilled workforce.”

**Job Growth & Median Pay.** Southern California and the Central Valley are developing a long term underclass of poor families facing major public health issues. This process will continue unless policies are found that provide jobs with skill ladders allowing the marginally educated to approach middle class incomes. With one such worker in a household and a secondary wage earner in a lower paying job, a family would reach the middle class. Here, CA Employment Development Department data are revealing. Using the agency’s data on the share of occupations in each sector, the Inland Empire’s median pay levels for those occupations, and the local levels of job growth, the data show what sectors can power household incomes (*Exhibit 4*):

![Exhibit 4](image-url)

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4 *Confronting Suburban Poverty in America*, Chapter 1, Brookings Institute, Elizabeth Kneebone and Alan Berube, May 20, 2013


6 [http://www.labormarketinfo.edd.ca.gov/LMID/OES_Employment_and_Wages.html](http://www.labormarketinfo.edd.ca.gov/LMID/OES_Employment_and_Wages.html)

7 [http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1014](http://www.labormarketinfo.edd.ca.gov/Content.asp?pageid=1014)

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• **Health care** organizations have a wide array of well paying jobs with a 2013 median income of $57,443. The highest paying positions require advanced degrees, however many jobs can be accessed with short course technical training. Also, the sector is one of the inland region’s strongest, adding 59,900 jobs from 1990-2012, an annual average of 2,723.

• **Logistics** provides the best combination of median pay and job growth of the blue collar sectors. Its 2013 median pay is $43,593. It added 71,900 jobs from 1990-2012, an annual average of 3,268. In the first half to 2013 vs. the first half of 2012, 5,067 new jobs were created, 27.6% of total Inland Empire job growth in that period. Here, short course computer and robotics training is becoming increasingly important to advancing in the sector.

• **Construction and mining** has an abnormally high 2013 median income of $51,649 due to the low number of jobs at building sites. A more realistic figure was the $44,946 in 2007. Unfortunately, the group is unusually cyclical. It was up 68,400 jobs from 1990-2006, but lost -66,300 from 2006-2012. As most people can enter these fields without entry level qualifications, they will again be a source of upward mobility for marginally educated workers once the current housing crisis is over. One key for this field is training through union apprenticeship programs.

• **Manufacturing** has a median pay level of $49,515 in 2013. However, the sector’s costs have been dramatically raised by regulatory requirements (see Exhibit 6) at a time when international and domestic competition has increased. Though output has risen, it has occurred with increased efficiency and few new jobs. From 1990-2013, the sector added only 8,200 positions, an annual average of 373. That said, aging workers are starting to retire creating potential job openings for those completing technical training courses.

• **Finance, insurance and real estate** firms provide access to office jobs with a median pay level of $48,010. Real estate jobs largely require certification. However, many positions in finance, title, escrow and insurance allow workers to enter without pre-qualifications and benefit from company training. Unfortunately, the group has added only 5,700 jobs since 1990, an annual average of 259.

**Low paying sectors** have been the fastest growing in the Inland Empire from 1990-2011 adding 431,700 jobs, an annual average of 8,509. These jobs have few entry level requirements. Unfortunately, their 2013 median pay is just $28,385. Thus, while work is plentiful in sectors like retail, consumer services, dining, hospitality and agriculture, the jobs are only sufficient to allow a secondary wage earner to bring a family to the middle class in households where a primary worker is in one of the other sector groups.

Together, the balance of the sectors do not offer much prospect for helping marginally educated workers. **Professionals, scientific workers, utilities and managerial** firms had a 2013 median pay of $64,754 but require advanced degrees. Also, they only added 15,400 jobs from 1990-2012, an average of 700 per year. **Federal, state and local government plus higher education** had a 2013 median pay of $57,917 but again the high pay is due to the numerous positions requiring advanced degrees. From 1990-2012, they created 37,400 positions, an annual average of 1,700. **K-12 education** pays relatively well with a median of $41,557. However, most good paying positions require college degrees. The sector did add 44,100 jobs from 1990-2012, an
annual average of 2,005. Entry level workers may find jobs in these sectors, but they are likely to be lower paying.

**Economic Policy.** Given the extraordinary impact of socio-economic factors on public health, job creation in sectors offering marginally educated workers a path toward the middle class must become the most important policy priority for places like the Inland Empire. For the area, the data show that the blue collar and health care sectors offer the best possibilities for doing so:

- **Manufacturing.** Among blue collar sectors, California manufacturers have been the focus of intensive regulatory efforts for decades. It is thus no surprise that from January 2010 to June 2013, U.S. manufacturers added 509,000 jobs (up 4.4%), while California added 7,800, up 0.6% (*Exhibit 5*). From June 2010-2013, the Inland Empire lost -1,000 manufacturing jobs. For this sector, costs are a crucial concern. Two examples show the difficulty:
  - State energy policies have pushed industrial electrical costs to fifth highest in the 48 contiguous states as well as 50.3% to 167.8% above the 11 western states (*Exhibit 6*).
  - Constantly changing environmental regulations have often forced producers to invest in ever cleaner technologies before they have repaid loans to finance the previous round of such investments.

This regulatory focus has been based on the belief that environmental clean-up is Southern California’s number one public health issue. In the bygone era of third stage smog alerts, that may have been the case. However as independent researchers like the Robert Woods Johnson Foundation have found, socio-economic not environmental concerns should be driving today’s public health agenda.

![Exhibit 5.-Manufacturing Job Trends, Seasonally Adjusted U.S. & California, 2010-2013 (000)](image)

Without out the cost burden imposed by such regulatory measures, the Inland Empire’s manufacturing sector would be much more likely to expand, allowing more marginally educated workers to move toward the middle class. This is the case because of the region’s huge space cost advantage. Thus, Los Angeles County’s facilities cost an average of 84.2% more; Orange County’s buildings lease for 107% more. However, the costs and delays from
regulatory burdens have inhibited the sector because it cannot compete nationally. Lightening the regulatory burden should thus be a major public health goal for inland leaders.

- **Logistics.** Importantly, the regulatory burdens facing manufacturers are now beginning to be applied to the Inland Empire’s rapidly growing logistics sector. Recently, the South Coast Air Quality Management District (AQMD) pointedly stated its desire to blunt the rapid growth of the sector. Given that over 1 of 4 jobs (27.6%) created in the region during 2013 came from this sector, this represents a fundamental attack on the area’s economic health. It has grown rapidly in the region because modern supply chain companies need large undeveloped spaces for their facilities and the inland area has most of Southern California’s remaining industrial space and facilities lease for a fraction of the cost in coastal counties.

AQMD is proposing a rule that would stringently regulate the construction of the efficient high cube warehouses that the technology of the supply chain industry now requires. Currently, the inland vacancy rate for large industry buildings of over 500,000 square feet is down to one or two facilities. In January 2013, Jones LaSalle found 13 of the 17 companies looking for new space in the Inland Empire wanted facilities of 600,000 to 1,400,000 square feet. Of the 17 firms, 10 were conventional logistics operations and 7 were fulfillment centers like Amazon.com which represent the newest change in the retail economy.

If AQMD successfully slows down or stops the logistics sector’s growth, it will not just hurt the Inland Empire’s recovery, it will also dramatically reduce the opportunities that this sector is opening up for marginally educated inland workers. Oddly, this is occurring when CA Air Resource Board data show dramatic declines in PM 2.5 emissions at every inland testing station due to more advanced truck and rail equipment (*Exhibit 7*). These facts starkly underscore the need for local leaders to understand that it is socio-economics, not environmental factors, that should be driving the Inland Empire’s public health agenda.
Construction. Given its depressed nature, the construction sector offers perhaps the best opportunity for long term growth. Two issues are impacting it. One is the lingering difficulties from the mortgage crisis. The other is the use of lawsuits under the CA Environmental Quality Act (CEQA) as a tactic to stop projects or delay them and raise their costs. Increasingly, these are from NIMBYs or other activists wanting to simply prevent growth, attorneys using lawsuits as a cash cow, firms trying to stop projects aiding their competitors or unions trying to force developers to use their members. For example, a NIMBY lawsuit had recently killed the Perris Line extension of Metrolink until an expensive cash settlement was negotiated. There is a serious effort underway to change the CEQA process back to a focus on environmental quality. To date, it has been frustrated by the array of opponents. For leaders of marginally educated areas like the Inland Empire, Central Valley or Los Angeles County, overcoming such difficulties must be a public health priority.

Health Care. For the health care sector to accelerate its growth of mid-level jobs leading to the middle class, a key problem is the 23% of residents lacking medical insurance. This has inhibited the demand for medical service. Here, the pending start of the Affordable Healthcare Act is cited by health care providers as a potential solution. If area leaders succeed in encouraging the uninsured to sign up for health insurance, there would be a surge in demand for service and thus health care workers. A second issue is the fact that San Bernardino County ranks 40th of the 58 California counties with an abnormally high 1,868 people per physician. Riverside County ranks 47th with 2,514 people per doctor. With the number of physicians restrained, fewer local workers have the chance to work as support personnel in upwardly mobile health care occupations. Hopefully, the state decision to fund the UCR Medical School will help address this problem.

Education Policy. A second important key to raising the level of public health in the Inland Empire is the very large share of the adult population with relatively low levels of education. Importantly, the correlation between health and education is one that has been heavily researched:

### Exhibit 7.-Decline in Days PM 2.5 Emissions Over the National Standard

<table>
<thead>
<tr>
<th>Monitoring Sites</th>
<th>Mira Loma-Van Buren</th>
<th>Riverside-Magnolia</th>
<th>Riverside-Rubidoux</th>
<th>Fontana-Arrow Highway</th>
<th>Ontario-1408 Francis Street</th>
<th>San Bernardino-4th Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td></td>
<td>120.2</td>
<td>58.2</td>
<td>79.5</td>
<td>80.8</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td>88.4</td>
<td>92.6</td>
<td>73.7</td>
<td>67.4</td>
<td>88.9</td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td>69.7</td>
<td>78.1</td>
<td>54.3</td>
<td>62.2</td>
<td>55.2</td>
</tr>
<tr>
<td>2004</td>
<td>*</td>
<td>47.8</td>
<td>57.3</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>*</td>
<td>*</td>
<td>39.7</td>
<td>22.9</td>
<td>25.3</td>
<td>9.3</td>
</tr>
<tr>
<td>2006</td>
<td>46.2</td>
<td>31.3</td>
<td>*</td>
<td>27.2</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>43.4</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>*</td>
<td>12.4</td>
<td>15.0</td>
<td>19.3</td>
<td>19.4</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>19.0</td>
<td>6.0</td>
<td>15.1</td>
<td>6.2</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>8.0</td>
<td>6.3</td>
<td>4.0</td>
<td>6.6</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>13.0</td>
<td>7.1</td>
<td>5.0</td>
<td>7.1</td>
<td>6.8</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>7.0</td>
<td>*</td>
<td>7.0</td>
<td>10.6</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Percent Decline: -84.8% -92.0% -94.2% -85.6% -100.0% -100.0%

“There is a well-established yet striking correlation between health and education. Across sexes, races and time, more-educated people enjoy better health than less-educated people. Even at lower levels of education, these correlations are strong.”

“Among men, death rates from all causes decreased for each educational attainment category, with the annual percentage decrease ranging from 0.4% for men with ≤12 years of education to 3.0% for men with ≥16 years of education ... death rates increased by 0.9% for women with ≤12 years of education, decreased by 2.2% per year for women with ≥16 years of education, and remained unchanged for women with 13–15 years of education.”

Given that fact, the low level of adult education is perhaps the most stubborn socio-economic difficulty holding back the Inland Empire’s public health. As shown, it means the economy must produce jobs with minimal educational barriers that give workers a chance to move up skill ladders to the middle class. However once workers enter a sector or even beforehand, their ability to advance often requires access to short course technical training to give them the required skills. Today, employers generally feel that the K-12 and community college systems are not organized to rapidly and successfully react to such needs. Private training institutions have largely been absent from policy discussions.

This situation impacts logistics workers as short course training in computer skills is vital to some hiring and most advancement. It hits manufacturing workers because baby boomer retirements are creating a need for people with skills like machining and welding. If the anticipated explosion in patients occurs, the health care sector will need training programs that can qualify workers for entry level positions like laboratory, x-ray, ultrasound and MRI technicians, inhalation therapists and some categories of nursing. Professional, financial and technical firms could also be a source of upwardly mobile jobs given their general need for support staff with differing levels of training.

To date, short course technical training of the kind required by employers has not been seriously funded or a major local educational priority. To the extent efforts are underway, they have aimed at getting public institutions to react faster through existing networks set up by community colleges, workforce investment boards and the two county educational superintendents. A stronger approach would be to ask the legislature to allocate education funds directly to workforce investment boards since they are not burdened by conflicting educational missions. They could expand their network of business contacts to identify demand occupations and use their bidding processes to allow public and private trainers to compete to provide the training. In a perfect world, a system of trade techs could be created with solely this training mission, but given the state of public finance, there is no chance of that occurring.

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An entirely different educational issue is that faced by the children of adults who themselves are poorly educated. Here, parents present two challenges. One is to convince them that success at academic or technical education is important and possible for their children. Another is to prove that this is within the financial capability of their families. For children, one challenge is to make education relevant to their limited world views. A second is to provide reinforcement that educational success is worth pursuing. For many students, language is a third barrier given that the Hispanic community is approaching majority status in both inland counties (Exhibit 7) and is home to 61.2% of local children under 15.

Considerable attention is being given to this issue with important successes being shown in some districts. One approach has been to convince business leaders that it is in their interest to help local schools provide experiences to teachers and students that show how classroom work is relevant to the working world. This has included executives making classroom presentations as well as firms allowing classes to visit worksites, letting students shadow workers and providing internships for older students and even teachers. The Coachella Valley’s Career Pathways program has been quite successful at this approach which has also been adopt by San Bernardino County’s Alliance for Education.

Another approach has been to identify students at a young age who will commit to succeeding in school. Districts using this approach have networked and provided tutoring to these students. They and their parents have been given organized visitations to community college and university campuses to show that this is not an alien universe. To alleviate the fear of a financial burden, those who successfully moved through such programs have been given guaranteed college placement and the potential of scholarship and grant aid. The Promised Scholars program in the Ontario Montclair School District is an example of such an effort.

Given the limited experiences to date, the next step for the Inland Empire is to see efforts like these scaled up and extended throughout the region. Long term financial commitments from the business community will be a necessity for the success of such undertakings.

Conclusion. In sum, unless today’s leaders of the Inland Empire are willing to have a permanent and growing underclass with the public health and social justice issues that this
creates, they must undertake a concerted effort to address the socio-economic issues emerging in the region. In the near term, local leaders must advocate for removing the barriers that are stopping the expansion of sectors that provide access to jobs leading to middle class incomes for marginally educated adults. It also means undertaking a serious effort to expand access to the short course technical and skill programs that workers need to navigate the skill ladders in those sectors. In the longer term, it means providing today’s students with educations that illustrate for them the relationship between their school work and the jobs they may one day wish to have. It also means showing students and their parents that academic and/or technical training can and should be part of their future and that it will be financially feasible for them to acquire it.

Certainly, those concerned about the Inland Empire’s quality of life and public health face formidable challenges. Changing the dynamics hurting this region will not be easy, particularly given California’s overwhelming emphasis on environmental regulation despite its lower importance in determining public health, and the state’s employment strategies which are aimed primarily at creating jobs for the well educated.