59

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UNITED STATES BANKRUPTCY COURT

EASTERN DISTRICT OF CALIFORNIA, SACRAMENTO DIVISION

In re: CITY OF STOCKTON, CALIFORNIA, Debtor.	Case No. 12-32118 D.C. No. OHS-1 Chapter 9 **DECLARATION OF DAVID NEUMARK IN SUPPORT OF NATIONAL PUBLIC FINANCE GUARANTEE CORPORATION'S AND ASSURED GUARANTY CORP. AND ASSURED GUARANTY MUNICIPAL CORP.'S SUPPLEMENTAL OBJECTION TO THE CITY OF STOCKTON'S QUALIFICATIONS UNDER SECTION 109(C) AND 921(C)** Date: February 26, 2013 (Status Conference)

Time: 1:30 P.M.
Dept: C, Courtroom 35
Judge: Hon. Christopher M. Klein

I, David Neumark, declare as follows:

1. I am the Chancellor's Professor of Economics at the University of California—Irvine, in Irvine, California, where I also serve as Director of the Center for Economics & Public Policy. I am a labor economist and have done extensive empirical research in this area, including research on public sector workers, job mobility, earnings over workers' careers, and urban labor market policy. In addition, I have published over 120 peer-reviewed research papers, mostly in labor economics – as well as books and book chapters – and am the editor of the Journal of Labor Policy and the co-editor of the Journal of Urban Economics. A true and correct copy of my current curriculum vitae is attached as Exhibit A. I make this declaration of my own personal knowledge and, if called upon to do so, I could and would testify to the facts set forth herein.

2. In connection with the chapter 9 bankruptcy filing by the City of Stockton (the "City"), I have been retained by Mintz Levin Cohn Ferris Glovsky and Popeo P.C., counsel to Wells Fargo Bank, National Association, as indenture trustee on behalf of the capital markets creditors, to evaluate the economic implications of the City's compensation practices, including the City's contention that it cannot reduce pension benefits as part of its restructuring in response to bankruptcy because such a reduction would lead to a "mass exodus" of police officers and create recruitment problems.

3. This Declaration is submitted in support of National's Supplemental Objection to the City of Stockton's Qualifications Under Section 109(c) and Section 921(c) as well as the Supplemental Objection of Assured Guaranty Corp. and Assured Guaranty Municipal Corp. to Debtor's Chapter 9 Petition and Statement of Qualifications and the supplemental objections of the other Capital Markets Creditors.

4. In my opinion as a labor economics expert, the City's claims are unfounded. I have prepared a report detailing my conclusion. A true and correct copy of that report is attached as Exhibit B (the "Report") and hereby incorporated by reference.

5. It is my understanding that the City alleges that in order to remain competitive in the public-sector labor market, it must pay wages and pension benefits comparable

to the pay and benefits in other cities deemed to be similar to Stockton. In particular, it is claimed that if Stockton were to reduce pensions it would face a "mass exodus" of experienced employees to other cities and face difficulties recruiting new employees. These concerns are expressed primarily with regard to the police force. In my opinion as a labor economics expert, the City's claims are unfounded for multiple reasons and one cannot conclude that the City would face a mass exodus of experienced employees or police officers in particular, or face problems associated with recruitment and retention of City employees or police officers in particular, as a result of any, or modest, cuts in pensions. This conclusion is based on the opinions set forth in the Report, which are summarized in the following paragraphs.

6. First, the City's claims are not based on any findings that stand up to recognized social science standards of evidence, and are not even supported by the City's own data. No convincing evidence has been presented by the City that any cut in pension benefits – or even a modest cut – would lead to a "mass exodus" of experienced police officers. The "evidence," such as it is, consists of unspecified and undocumented speculation about how police officers might respond to proposed cuts in pension benefits, rather than any direct evidence that pension cuts have in the past or will in the future cause such an exodus. Moreover, there are numerous reasons to believe this would *not* be the case.

7. Second, one cannot conclude that past police force departures are solely due to compensation changes, and that any additional pension modifications would cause a "mass exodus" of police officers or diminish the ability to recruit and retain City employees, or police officers in particular. Economic studies on economic migration indicate that factors such as compensation, both current and future, are not alone decisive in migration decisions. Non-economic factors including working spouses, friends, age, and local characteristics are also important in migration decisions. As a result, it cannot be concluded that changes in pension benefits will lead to a "mass exodus" of employees.

8. Even more important, there is no empirical evidence that remotely meets social science standards of evidence to suggest that proposed cuts in pension benefits would trigger a "mass exodus" of City workers or police officers, or create recruitment difficulties. No

evidence tying proposed cuts in pension benefits to voluntary departures is presented by the City, with respect to Stockton or any other jurisdiction, and the research literature does not establish such a relationship. Moreover, evidence from the departures that have occurred – if we are willing, hypothetically, to believe that similar departures would occur in response to proposed cuts in pension benefits – directly contradicts claims of a "mass exodus" of experienced workers. Data provided by the City show that the experience level of the police force is greater now than it was in 2008. Further, the City's unsubstantiated, claims about difficulties in recruiting are contradicted directly by continuing applications for police department jobs and the actual hiring of applicants that has occurred in the most recent two years.

9. Finally, even if we accept – hypothetically – that proposed cuts in pension benefits would prompt some small number of senior police officers to leave, precluding any pension cuts for all 1,400 City workers is a remarkably inefficient way to deter these hypothetical departures. It would be far less expensive to create explicit incentives to encourage longevity of the police force, by targeting a far smaller number of workers. This type of explicit, targeted policy is far preferable to maintaining high pensions for all City workers based on claims about the need to remain competitive with other cities, a process that has led to continued ratcheting up of compensation for public-sector workers.

I declare under penalty of perjury under the laws of the State of California and United States of America that the foregoing is true and correct.

Executed this 14th day of December 2012 at Irvine, California.

David Neumark

EXHIBIT A

David Neumark

CURRICULUM VITAE

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Work phone: 949-824-8496
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PERSONAL: Born July 7, 1959
United States Citizenship

EDUCATION:

Fields: Labor Economics, Econometrics

Thesis Topic: Male-Female Differentials in the Labor Force: Measurement, Causes and Probes.

Fellowships: National Science Foundation Graduate Fellowship
Fulbright Scholarship

Awards: National Longitudinal Surveys, Michael E. Borus Memorial Dissertation Award
National Institute on Aging, Special Emphasis Research Career Award
2000 Minnesota Award for "Age Discrimination Laws and Labor Market Efficiency"
Bren Fellow, Public Policy Institute of California, 2009-2010
Choice Outstanding Academic Title, 2009, for Minimum Wages (Cambridge: MIT Press, 2008)

Graduate: Harvard University, Awarded Master of Arts Degree in Economics in 1985, Ph.D. in Economics in 1987.

Undergraduate: University of Pennsylvania. Awarded Bachelor of Arts Degree in 1982. Graduated Phi Beta Kappa, Summa Cum Laude, with Honors. Shanbaum Award for the Outstanding Student in Economics.

RESEARCH AND PROFESSIONAL EXPERIENCE:

2005-present **University of California, Irvine, Department of Economics**—Professor of Economics

2011-present **University of California, Irvine, Center for Economics & Public Policy**—Founding Director

2011-present **Federal Reserve Bank of San Francisco**—Visiting Scholar

David Neumark

2012	**Renmin University, Hanqing Institute, Beijing, China**—Visiting Lecturer
2002-2011	**Public Policy Institute of California**—Bren Fellow/Senior Fellow, Economics
1994-2004	**Michigan State University, Department of Economics**—Professor of Economics
1989-1994	**University of Pennsylvania, Department of Economics**—Assistant Professor of Economics
1987-1989	**Board of Governors of the Federal Reserve System**—Economist, Division of Research and Statistics
1984-1985	**Abt Associates, Inc.**—Economic consultant
2009-present	**Charles River Associates**—Senior consultant
2006-present	**Stanford University Center for the Study of Poverty and Inequality**—Fellow
2004-present	**IZA, Institute for the Study of Labor**—Research Fellow
2000-2001	**Public Policy Institute of California**—Visiting Fellow
1999-2002	**Michigan State University, Department of Economics**—Director of Graduate Studies
1995-present	**National Bureau of Economic Research**—Research Associate
1989-1994	**National Bureau of Economic Research**—Faculty Research Fellow

EDITORIAL RESPONSIBILITIES:

2012-present	**IZA Journal of Labor Policy, Editor**
2012-present	**Journal of Urban Economics, Co-Editor**
2009-present	**Journal of Labor Research, Editorial Board**
2004-present	**Industrial Relations, Editorial Board**
2002-present	**Contemporary Economic Policy, Editorial Board**
2009-2012	**Journal of Urban Economics, Editorial Board**
2006-2012	**Review of Economics of the Household, Associate Editor**
2003-2010	**Economics of Education Review, Editorial Board**
2004-2006	**California Economic Policy, Editor**

David Neumark

PEER-REVIEWED JOURNAL PUBLICATIONS:

Neumark, David, Matthew Thompson, Francesco Brindisi, Leslie Koyle, and Clayton Reck, "Simulating the Economic Impacts of Living Wage Mandates Using New Public and Administrative Data: Evidence for New York City," forthcoming in Economic Development Quarterly.

Neumark, David, Matthew Thompson, and Leslie Koyle, "The Effects of Living Wage Laws on Low-Wage Workers and Low-Income Families: What Do We Know Now?" forthcoming in IZA Journal of Labor Policy.

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Bradley, Cathy, David Neumark, and Meryl Motika, "The Effects of Health Shocks on Employment and Health Insurance: The Role of Employer-Provided Health Insurance," forthcoming in International Journal of Health Care Finance and Economics.

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Kolko, Jed, David Neumark, and Marisol Cuellar Mejia, "What Do Business Climate Indexes Teach Us About State Policy and Growth?" forthcoming in Journal of Regional Science.

Neumark, David, "Detecting Evidence of Discrimination in Audit and Correspondence Studies," 2012, Journal of Human Resource, pp. 1128-57.

Neumark, David, and Kenneth Troske, 2012, "Point/Counterpoint: 'Addressing the Employment Situation in the Aftermath of the Great Recession,' and 'Lessons from Other Countries, and Rethinking (Slightly) Unemployment Insurance as Social Insurance Against the Great Recession," Journal of Policy Analysis and Management, pp. 160-68, 188-91.

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Neumark, David, Brandon Wall, and Junfu Zhang, 2011, "Do Small Businesses Create More Jobs? New Evidence from the National Establishment Time Series," Review of Economics and Statistics, pp. 16-29.

Hellerstein, Judith K., Melissa McInerney, and David Neumark, 2010, "Spatial Mismatch, Immigrant Networks, and Hispanic Employment in the United States, Annales d'Economie et de Statistique, pp. 141-67.

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Finlay, Keith, and David Neumark, 2010, "Is Marriage Always Good for Children? Evidence from Families Affected by Incarceration," Journal of Human Resources, pp. 1046-88.

Neumark, David, and Jed Kolko, 2010, "Do Enterprise Zones Create Jobs? Evidence from California's Enterprise Zone Program," Journal of Urban Economics, pp. 1-19.

Kolko, Jed, and David Neumark, 2010, "Does Local Business Ownership Insulate Cities from Economic Shocks?" Journal of Urban Economics, pp. 103-15.

Kolko, Jed, and David Neumark, 2010, "Do *Some* Enterprise Zones Create Jobs?" Journal of Policy Analysis and Management, pp. 5-38.

Neumark, David, 2008, "The Age Discrimination in Employment Act and the Challenge of Population Aging," Research on Aging, pp. 41-68.

Kolko, Jed, and David Neumark, 2008, Changes in the Location of Employment and Ownership: Evidence from California," Journal of Regional Science, pp. 717-44.

Bradley, Cathy, David Neumark, Lisa Shickle, and Nicholas Farrell, 2008, "Differences in Breast Cancer Diagnosis and Treatment: Experiences of Insured and Uninsured Patients in a Safety Net Setting," Inquiry, pp. 323-39.

Hellerstein, Judith, David Neumark, and Melissa McInerney, 2008, "Spatial Mismatch vs. Racial Mismatch?" Journal of Urban Economics, pp. 464-79.

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Neumark, David, and William Wascher, 2008, "Minimum Wages and Low-Wage Workers: How Well Does Reality Match the Rhetoric?" Minnesota Law Review, pp. 1296-316.

Neumark, David, Junfu Zhang, and Steven Ciccarella, 2008, "The Effects of Wal-Mart Openings on Local Labor Markets," Journal of Urban Economics, pp. 405-30.

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Powers, Elizabeth T., and David Neumark, 2003, "The Interaction of Public Retirement Income Programs in the U.S.," American Economic Review Papers and Proceedings, pp. 261-265.

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David Neumark

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Holzer, Harry, and David Neumark, 1999, "Are Affirmative Action Hires Less Qualified? Evidence From Employer-Employee Data on New Hires," Journal of Labor Economics, pp. 534-69.

Hellerstein, Judith K. and David Neumark, 1999, "Sex, Wages, and Productivity: An Empirical Analysis of Israeli Firm-Level Data," International Economic Review, pp. 95-123.

Neumark, David, 1999, "Biases in Twin Estimates of the Return to Schooling," Economics of Education Review, pp. 143-8.

Neumark, David and Andrew Postlewaite, 1998, "Relative Income Concerns and the Rise in Married Women's Employment," Journal of Public Economics, pp. 157-83.

Neumark, David, and William Wascher, 1998, "Is the Time-Series Evidence on Minimum Wage Effects Contaminated by Publication Bias?" Economic Inquiry, pp. 458-70.

Neumark, David, and Elizabeth Powers, 1998, "The Effect of Means-Tested Income Support for the Elderly on Pre-Retirement Saving: Evidence from the SSI Program in the U.S.," Journal of Public Economics, pp. 181-206.

Hellerstein, Judith K., and David Neumark, 1998, "Sex Differences in Wages and Productivity Within Firms: Evidence from Israeli Panel Data," Industrial Relations, pp. 232-60.

Neumark, David, and Rosella Gardecki, 1998, "Women Helping Women? Role-Model and Mentoring Effects on Female Ph.D. Students in Economics," Journal of Human Resources, pp. 220-46.

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David Neumark

Johnson, Richard, and David Neumark, 1997, "Age Discrimination, Job Separations, and Employment Status of Older Workers: Evidence from Self-Reports," Journal of Human Resources, pp. 779-811.

Diebold, Francis X., David Neumark, and Daniel Polsky, 1997, "Job Stability in the United States," Journal of Labor Economics, pp. 206-33.

Neumark, David and William Wascher, 1996, "The Effects of Minimum Wages on Teenage Employment and Enrollment: Estimates from Matched CPS Data," Research in Labor Economics, pp. 25-64.

Johnson, Richard and David Neumark, 1996, "Wage Declines Among Older Men," Review of Economics and Statistics, pp. 740-48.

Constantine, Jill, and David Neumark, 1996, "Training and the Growth of Wage Inequality," Industrial Relations, pp. 491-510.

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Neumark, David and Michele McLennan, 1995, "Sex Discrimination and Women's Labor Market Outcomes," Journal of Human Resources, pp. 713-40.

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David Neumark

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University of Michigan Retirement Research Center – "Did Age Discrimination Protections Help Older Workers Weather the Great Recession?" current, 2012-2013, $75,000.

Employment Policies Institute – "An Assessment of Recent Studies of the Minimum Wage."

University of Michigan Retirement Research Center – "The Effects of Increases in the Normal Retirement Age when Age Discrimination Protections are Stronger: Evidence from the Hiring Side."

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David Neumark

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U.S. Department of Labor, Office of the Assistant Secretary for Policy – "Evaluating School-to-Work Programs Using the New NLSY."

National Science Foundation – "Wages, Productivity, and Worker Characteristics."

National Institute of Aging - Special Emphasis Research Career Award "Research on the Economics of Aging and Age Discrimination."

Russell Sage Foundation – "Changes in Job Stability and Job Security."

All University Research Initiation Grant – "Do Minimum Wages Redistribute Income Towards Low-Income Families?"

Office of Technology Assessment – "Careers of Youths and Young Adults in the Labor Market."

David Neumark

Maurice Falk Institute for Economic Research in Israel – "Estimating Marginal Productivity Differentials to Test Theories of Wage Differentials."

Boettner Institute of Financial Gerontology – "Age-Earnings Profiles and Age Discrimination."

National Institute of Aging Supplemental Grant – "Age-Earnings Profiles and Age Discrimination."

U.S. Department of Education – "Job Turnover in the U.S. Economy."

National Science Foundation – "Research on Age-Earnings Profiles and Age Discrimination."

University of Pennsylvania Research Foundation – "The Effects of State Minimum Wage Laws on Youth Employment and Unemployment."

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U.S. Department of Education – "Educational Quality of the Workforce."

Department of Health, Commonwealth of Pennsylvania – "Occupational Disease and Injury in the Commonwealth of Pennsylvania."

University of Pennsylvania Center for the Study of Aging – "The Impact of Corporate Takeovers on Older Workers."

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EXPERT WITNESS/TESTIMONY, LEGAL MATTERS:

Syverson, et al. v. IBM Corporation, 2006 WL 2506421 (9th Cir. Aug. 31, 2006)

Served as plaintiffs' expert rebuttal witness to address theoretical and statistical issues raised by defense experts in analyses of age discrimination. Deposed.

Clifford L. Whitaker, et al. v. 3M Company, No. 62-C4-0412239, Minn. Dist., Ramsey Co.

Served as plaintiffs' expert rebuttal witness to address theoretical and statistical issues raised by defense experts in analyses of age discrimination. Deposed, testified (April 2010).

POLICY-RELATED TESTIMONY:

Congressional testimony on minimum wages and poverty, U.S. House Committee on Education and the Workforce, 2000.

Congressional testimony on minimum wages and employment, U.S. House Committee on Government Reform and Oversight, 1996.

California State Senate testimony on job creation policy, 2011.

California State Senate testimony on enterprise zones, 2010.

David Neumark

California State Senate testimony on business relocation, 2006.

EXHIBIT B

Expert Report of

David Neumark

in the matter of

City of Stockton seeking relief under Chapter 9 of the United States Bankruptcy Code

December 14, 2012

I. Substantive Issues

The City of Stockton's central position on which this report focuses is that in order to remain competitive, Stockton must pay wages and pension benefits comparable to the pay and benefits paid by other cities deemed to be competitive with Stockton. In particular, it is claimed that if Stockton were to reduce pensions it would face a "mass exodus" of experienced employees to other cities. As Police Chief Eric Jones, referring to the police force, states in a memorandum to Bob Deis, City Manager: "If forced… to reject our CalPERS contract and reduce pensions for existing and/or future retirees, it is possible, perhaps even likely, that we may face an employee mass exodus…"[1] He states that the principal problem will be the loss of experienced police officers.[2] This is echoed by City Manager Deis, who in a letter to Governor Brown and others states that pension reductions in Stockton would potentially spark "a mass exodus of experienced police officers …"[3]

Moreover, the City claims that proposed cuts in pension benefits would pose severe recruiting difficulties as well. Human Resources Director Teresia Haase, in her deposition, states that "The police department is where we are having the most difficulty recruiting" (p. 86), and further reiterates that the police department was having difficulty in recruiting new police officers (p. 176).[4] Similarly, an August 15, 2012 letter from City Manager Deis to Governor Brown states: "[I]f the city chose to attempt to take money from pension obligations to pay other creditors, it suddenly will find itself playing on a tilted playing field, on which neighboring cities offering traditional CalPERS pensions will be able to out-compete the City in attracting and

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[1] Memorandum, August 14, 2012, Exhibit 109.
[2] The memorandum of August 14, 2012, Exhibit 109, repeatedly refers to problems of retaining or recruiting experienced, qualified police officers. For example: "… [W]e struggle to retain and recruit qualified employees …"; "We expect to lose another 20 to 40 police officers ...; these positions will have to be filled by additional trainees unless we can attract qualified experienced police officers"; and "The Police Department has had difficulty attracting interested experienced police officers from other agencies …"
[3] Letter from City Manager Bob Deis, August 15, 2012, Exhibit 109.
[4] Deposition of Human Resources Director Teresia Haase, November 14, 2012.

retaining qualified employees, especially police officers …" (pp. 2-3).[5] In his deposition, Mr. Deis goes even further with respect to problems of both retention and recruiting, asserting that, "[I]f Stockton suffered a change in the CalPERS benefit to the point that people leave, especially experienced officers, and we're unable to recruit in a very competitive labor market, we run the risk of creating municipal chaos" (p. 191).[6]

The City has not considered reductions in pension benefits for existing City workers. In his deposition, City Manager Deis is asked "Did you represent any commitment to make every effort not to seek an impairment of CalPERS either in AB506 or the Chapter 9 bankruptcy?" (p. 238). To which he responds, "I said that we will be aggressive in defending the City's interests and goals. And at this stage, we have no plans to impair the PERS contract" (p. 238).[7]

Thus, the City argues that it cannot reduce pension benefits as part of its restructuring in response to bankruptcy, to avoid a "mass exodus" of police officers, and to continue to be able to recruit workers to the city. My report considers whether the City has provided reliable, scientific evidence to establish that any pension cuts – even modest pension cuts – would lead to this "mass exodus" or create recruitment problems.

II. Background and Qualifications

I am David Neumark, Chancellor's Professor of Economics at the University of California – Irvine, where I also serve as Director of the Center for Economics & Public Policy. I am a labor economist who has done extensive empirical research in labor economics, including research on public sector workers, job mobility, earnings over workers' careers, and urban labor market policy. I have published over 120 peer-reviewed research papers, mostly in labor

[5] Letter from City Manager Bob Deis, August 15, 2012, Exhibit 109.
[6] Deposition of City Manager Bob Deis, November 28, 2012.
[7] Deis, deposition, November 28, 2012.

economics, as well as numerous books and book chapters. I am editor of the Journal of Labor Policy and co-editor of the Journal of Urban Economics.

I have previously held positions at the Federal Reserve Board, the University of Pennsylvania, Michigan State University, and the Public Policy Institute of California. I am a research associate of the National Bureau of Economic Research, a Visiting Scholar at the Federal Reserve Bank of San Francisco, and a research fellow at IZA (the Institute for the Study of Labor) in Germany.

I have been retained by counsel representing the Capital Markets Creditors in the matter pertaining to the City of Stockton seeking relief under Chapter 9 of the United States Bankruptcy Code. I have been asked to opine on labor economics issues that have arisen in the eligibility stage of this matter, based on materials I have reviewed as of this date. I reserve the right to modify or expand upon the opinions discussed in this report based on additional information or testimony that may become available at a later date. My work on this matter has been assisted by consultants at Charles River Associates. I am compensated at the rate of $575 per hour.

III. Materials Reviewed

I relied upon the following documents and information in preparing this report:

- Deposition of Bob Deis, City Manager, November 28, 2012.
- Deposition of Human Resources Director Teresia Haase, November 14, 2012.
- Deposition of Police Chief Eric Jones, November 7, 2012.
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IV. Unfounded Claims that Any Proposed Cut in Pension Benefits Would Generate a "Mass Exodus" from the Police Force

The claim that any reduction in pension benefits – even a modest reduction – would lead to a "mass exodus" of senior police officers is not based on any findings that stand up to social science standards of evidence. Indeed, it is not even supported by the casual data that has been presented.

IV. A. Unfounded Direct Claims about the Effects of Pension Cuts on Exits from the Police Force

First, the only "evidence" offered in support of this claim is Police Chief Jones' assertion that "We expect to lose another 20 to 40 police officers to other law enforcement agencies over the next year."[8] He and City Manager Deis characterize this as a "mass exodus" of experienced police officers that will ensue if pensions are reduced for existing and/or future retirees.[9] The source of this assertion is Chief Jones' testimony, referring to feedback from an "informal list" of people considering leaving the department, provided by his command staff: "We have a variety

[8] Memorandum, August 14, 2012, Exhibit 109; Letter from City Manager Bob Deis, August 15, 2012, Exhibit 109.
[9] Memorandum, August 14, 2012, Exhibit 109.

of captains who are asked to keep a pulse on the department, and that's employees who have told them that they are applying or in an application process or seriously considering leaving."[10]

This is the only "evidence" on which a prediction about the effects of pension cuts is based. This anecdotal information fails to meet standards of reliable social science evidence as it is not based on any kind of systematic data collection or interviewing, and cannot be used to study the potential impact of pension changes on retention or recruitment of police officers, or any other city employees.

IV. B. Unfounded Basis for Concluding that Past Compensation Cuts Generated Exodus from the Police Force

One cannot conclude that past police force departures are solely due to compensation changes, or that any proposed pension changes would cause a "mass exodus" of police officers or substantially inhibit the ability to recruit and retain city employees. Any claim that pension cuts would cause a "mass exodus" of experienced police officers is unfounded since the only data we have been provided pertains to *past* departures, and we do not know why these occurred.

Data provided by City indicates that since January 1, 2012, there were 27 departures of police officers to other law enforcement jobs, an increase from earlier years (Figure 1).[11] These moves did follow cuts in additional pays ("add-pays"), with a particular reduction in pay for more-senior police officers.[12] Some of these departures may have been a response to the compensation cuts, including the reductions in longevity bonuses. But simply because the departures occurred at the same time as substantial pay and benefit cuts does not establish a causal link. In social science research, any claim that a factor ("X") caused an outcome ("Y")

[10] Deposition of Police Chief Eric Jones, November 7, 2012, pp. 131-2.
[11] *Sworn Count.pdf* (file provided by City, "Stockton Police Department Employee Count").
[12] Declaration of Ann Goodrich in support of statement of qualifications under Section 109(C), Exhibit 32.

has to be bolstered by evidence that other factors ("Z") did not *in fact* cause Y. Observing social systems over time generates a continual stream of data on events that occur at the same time, or with one followed soon by another. For example, President Barack Obama won re-election days after Hurricane Sandy hit the East Coast. But this temporal pattern does not establish causality, and the standards for doing so are much higher.

What other factors could have been at play in the departures from Stockton's police force? First, of the 27 departures mentioned above, one was likely an upward career move (to the FBI) unrelated to pay or benefit cuts, two were to universities, and one was to Idaho. Second, of the destination cities of the lateral transfers, most are to cities that present a much higher quality of life than Stockton, including places like Oceanside, CA (10 moves); Newport Beach, CA; Napa, CA; Berkeley, CA; and Monterrey, CA. Many of the cities to which police officers transferred are cities with very appealing features, including in many cases coastal or beach locations. Figure 2 gives evidence on crime in many of these cities, as one example, and shows that Stockton has *much* higher rates of violent crime. The apparent availability of positions in other cities with a much higher quality of life could clearly have contributed to the lateral departures that occurred, for reasons having nothing to do with pay or pensions.

Third, there is evidence of other sources of discontent among Stockton police that surfaced around the same time. Multiple news stories describe unhappiness with the Police Chief who preceded Chief Jones, discontent with potential changes to the shift schedule, the termination of specialized police units and the return of officers to patrol duty, the lack of a contract with the City, and the police union's purchase of the house next to the City Manager to attempt to "intimidate" him.[13] It is possible that some of these other factors, or the uncertainty

[13] See See http://www.recordnet.com/apps/pbcs.dll/article?AID=/20120727/A_NEWS0803/207270316/-1/A_NEWS04 (viewed December 13, 2012); http://www.omaha.com/article/20120724/NEWS/707249920 (viewed

that they gave rise to, may have stemmed in part from the City's fiscal difficulties. But these stories make the point that many factors were at play that could have induced police officers to leave Stockton, aside from compensation cuts.

IV. C. Literature on Economic Migration Does Not Support "A Mass Exodus" Conclusion

Economic studies on migration indicate that factors such as compensation, both current and future, are not decisive in migration decisions. Non-economic factors including working spouses, friends, age, and local characteristics are also important in migration decisions. As a result one cannot conclude with certainty that changes in pension benefits will lead to a "mass exodus" of employees.

A large body of research in economics studies the factors that influence economic migration – that is, moving locations to take another job. This literature establishes a few key points that undermine claims that pay (let alone pensions) is decisive. (The next sub-section discusses this research in more detail.) First, economic factors such as compensation differences are not alone decisive. Other factors such as leaving behind relatives or friends, and working spouses who do not want to change jobs, can weigh heavily on such decisions. Moreover, the economic influences may not even be in the expected direction. Second, the impact of economic factors diminishes with age, implying that economic factors are even less important for the more-experienced police officers about which the City is so concerned. Third, the group most responsive to economic conditions in other cities is those who are currently *unemployed*, not those who are currently *employed*. This central message from the research on migration – that

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December 13, 2012); *Stockton Police Officers' Association v. City of Stockton et al.* (filed July 14, 2010); http://www.recordnet.com/apps/pbcs.dll/article?AID=/20121122/A_NEWS/211220323 (viewed December 13, 2012); and http://www.news10.net/news/article/220180/2/Police-union-to-sell-house-next-door-to-Stockton-city-manager (viewed December 13, 2012).

non-economic factors are important – reinforces doubts about any inference that the lateral transfers out of Stockton's police force were driven by compensation cuts, and, more importantly, that a further "mass exodus" would be generated by any proposed cuts in pension benefits.

One powerful piece of evidence that migration responses to economic factors are very muted and sluggish, is the fact that variations in unemployment rates across cities and states are quite dramatic and persistent. For example, as of October, 2012, unemployment rates ranged from 3.1 percent in North Dakota to 11.5 percent in Nevada.[14] Even among Stockton and the comparison cities the City refers to based on the survey by R.G. Anderson,[15] there are sharp differences. Figure 3 shows the rates for 2011 for the counties in which these cities are located, which range from 8.7 percent to 16.8 percent. Moreover, this is not an artifact of the Great Recession. These unemployment differentials are quite persistent. The figure also shows the rates for 2006, and the correlation across the two years is 0.95. The existence of these large and persistent unemployment rate differences belies the notion that workers migrate quickly for better job opportunities.

IV. C. 1. The Existing Research on Economic Migration Supports the View that a Reduction in Pension Benefits Would Not Lead to a "Mass Exodus"

This sub-section discusses the research on the economics of migration that was summarized above. This research establishes that many factors besides economic gains influence migration and decisions about where to work. The research indicates that economic factors such as compensation differences are not decisive and do not even necessarily have the

[14] See http://www.bls.gov/web/laus/laumstrk.htm (viewed December 5, 2012).
[15] Exhibits 313-370.

predicted effect, and that small differences do not generate large migration responses. While the research on the economics of migration generally does not specifically quantify the effects of economic vs. other factors, it certainly demonstrates that non-economic factors play an important role.

The classic original study of economic migration is Sjaastad (1962). He documented that economic factors do matter, but their importance declines with age, as the period over which the economic gain from migrating can be recouped declines with age. (Bowles (1970) reaches similar conclusions.) Migration for economic reasons declines with age, for investment reasons. The finding that migration in response to economic factors declines with age is confirmed in research by Sandell (1977), Nakosteen and Zimmer (1980), and Borjas (2000). Obviously this finding is important in light of claims by the City that the most severe threat from pension cuts is the outflow of more-experienced Stockton police officers, who are of course older on average.

Research by O'Neill (1970) undermines the claim that declining pay in a worker's current location provides a major push for out-migration. Her work suggests that declines in income (we can substitute "compensation") in origin locations do not necessarily predict out-migration.

Moreover, DeVanzo (1976) finds that when local economic conditions (origin unemployment rates) *do* affect out-migration, this is predominantly for the unemployed, who might view themselves as having essentially no work opportunities where they currently reside, rather than just less remunerative work. In the present context, this suggests that for workers already employed – like Stockton's public-sector workforce – origin economic conditions are less significant.

Fabricant (1970), Greenwood (1969), and Nelson (1959) suggest that the psychic costs of leaving behind relatives and friends could pose a substantial barrier to migration. They also point out that there could be psychic benefits of moving to localities to which relatives and friends have previously migrated, but again that would be independent of compensation considerations. Reinforcing the point that economic factors decline in importance with age, Gallaway (1969) argues that job security and family ties are also likely to be more important for older persons than for younger ones, which will further discourage older persons from migrating.

Finally, research by DeVanzo (1976) and Mincer (1978) emphasizes the important role of spouses in economic migration decisions. DeVanzo reports that families that move tend to select destinations where both the husbands' *and wives'* earnings are highest, so that the relevant comparison is not just what an individual worker can earn in alternative locations. Mincer (1978) also studied how family ties affect migration. He showed that such ties result in negative personal externalities that are usually internalized by the family and that thus tend to discourage migration. Related to this, Graves and Linneman (1979) find that marriage deters migration. The implication of this work is that one cannot simply compare compensation for one person where he or she currently lives with compensation elsewhere, and assume that this person will move – even more so when a working spouse figures into the decision.

While some of this evidence is dated, two more recent surveys by Greenwood (1985, 1997) point to very similar conclusions. These latter surveys also emphasize evidence of other factors aside from earnings differences between regions that influence migration decisions. These include: the importance of individual and family characteristics aside from income differences, including life-cycle factors such as marriage, divorce, starting a career, age of children, etc.; housing markets; amenities (which can include climate, crime, etc.). For example,

Greenwood (1997) concludes that: "Migration frequently occurs in connection with a change in life-cycle circumstances, such as at the completion of one's college education, at the time of marriage, and soon after retirement" (p. 705).

In sum, the research on labor mobility all indicates that there exist numerous factors beyond compensation that affect the decision of an employee to migrate to another employer in a different location.

IV. D. Unfounded Basis for Inferring that Pension Cuts Would Generate "Mass Exodus" from the Police Force

Starting with the (unfounded) assumption that the past police officer voluntary departures were attributable to pay cuts, the City makes the further assumption that pension cuts would lead to more departures. When City Manager Bob Dies is asked, in his deposition, "[W]hat supports your belief that people will leave if there's a modification of their pension benefits?" (p. 191), he answers, "We have already seen a huge amount of employees leaving the Police Department" (p. 192).[16] However, even if we were to accept – hypothetically – that the past compensation cuts did generate the past lateral moves, there is no reason to conclude from this that any (or modest) cuts in pensions would trigger a "mass exodus" of experienced police.

IV. D. 1. Existing Research Literature

The existing research literature (summarized below) provides two reasons to doubt that pension cuts would produce this effect. First, the research finds that younger workers are the ones more likely to migrate for economic reasons, but that younger workers are less attuned to their pensions. Thus, the research indicates that the mobility response to pension cuts may be

[16] Deposition of City Manager Bob Deis, November 28, 2012.

quite muted both for older workers because they tend not to move for economic reasons, and for younger workers because they pay less attention to pensions. Second, the research literature does not establish any link between pension reductions and voluntary departures.

IV. D. 1. i. Research Literature Related to Pensions and Voluntary Departures

The role of age in reducing migration responses to economic factors may be particularly important in thinking about the potential effects of pension cuts. As discussed above, the migration literature implies that older workers are less likely to migrate for economic reasons, whereas younger workers are more attuned to these influences. On the other hand, existing research indicates that younger workers are less attuned to (or even to know about) the details of their pensions.

Gustmann and Steinmeier (2005) explored worker knowledge of pensions, using data on what type of pension (defined benefit vs. defined contribution) workers have, and, for defined benefit plans, the age at which the respondent expects to earn benefits and the level of benefits (in absolute terms or relative to final pay). These worker responses are compared to responses about actual plan details from employers. They find considerable evidence of lack of knowledge. When asked to estimate their pension benefits, 41 percent were unable to give a value, and only 15.9 percent were within 75 to 125 percent of the actual value. Gustmann and Steinmeier also examine individuals' knowledge about pensions based on various characteristics. They find that union members are a bit better informed, but still misinformed. For example, union members are 9 percentage points more likely to know the type of pension they have (on a base of 41 percent who do not know this), and have slightly better estimates of their pension value. Also, those with larger pensions have more accurate information about them. There is no

information on how age affects pension knowledge, but since age is positively correlated with pension value, it seems likely that older workers also have better information. Mitchell (1988) provides additional information on worker knowledge about pensions, using data from the Survey of Consumer Finances in 1983, which also allows comparison of worker reports to plan details. This paper finds that nonunion and less senior workers have less accurate knowledge about their pensions.

Second, existing research does not establish a link between pension reductions and voluntary departures. There is, though, a large body of work showing that the structure of pensions affects worker mobility – their incentive to stay with the firm, and to retire when they do (e.g., Ippolito, 1986; Kotlikoff and Wise, 1989). This work suggests that the City is misplaced in focusing only on the level of pension benefits, when in fact the issue is the incentives created to stay with the employer.

Turning to evidence on pensions and voluntary departures, Decressin et al. (2009) show that firms that offer pensions have lower turnover, and this is particularly true of defined benefit pension plans. However, they do not present evidence on how turnover changes in response to changes in offerings of defined benefit ("DB") plans. Hill (2006) studies the effects of conversions of defined benefit to defined contribution plans. Her main interest is effects on firm productivity, but some of the analysis focuses on voluntary departures. This research finds *no* effects of conversion from a DB to a defined contribution ("DC") plan on voluntary departures. There is reason to believe that conversions of pension plans reduce future payments by firms to workers. As Butrica et al. (2009) note, "When workers switch from DB to DC plans in midcareer, they lose the high-accrual years in their DB plans and have fewer years to accumulate DC wealth" (p. 19). Moreover, DB plans are clearly viewed in the theoretical literature as a

way to encourage retention. This is pertinent to the case at hand since if defined benefit plans do not have this effect, it is harder to argue that any cuts, or a modest reduction in benefits from DB plans, will spur major retention problems.

Additional evidence focused on the public sector comes from Bitler and Jepsen (2011), who study changes in pension programs in Michigan and Florida from DB to DC plans. Michigan closed its DB plan to new workers, who were offered instead a DC plan. Current employees were given a choice to remain in the old plan or not. Florida simply implemented choice for their workers. Unlike Hill's work, they cannot directly measure voluntary departures. But they do find that these pension changes had no effect on workforce composition in terms of age (and other variables), which is suggestive of no effects on turnover.

IV. D. 2. Additional Reasons that Pension Cuts Are Unlikely to Generate "Mass Exodus" from the Police Force

One very obvious reason why the claim that pension cuts would cause a "mass exodus" of experienced police officers is unfounded is that *no* data or evidence has been put forth linking cuts in pension payments to departures. That is, even if, hypothetically, we were to conclude that cuts in pay and non-pension benefits were responsible for past departures from the Stockton police force – and to reiterate, that conclusion is unfounded – such evidence would not address the claim that any, even modest, pension reductions would lead to similar departures. It may seem like stating the obvious, but the only type of evidence based on past behavior that could predict future responses to pension cuts would be past evidence on pension cuts.

However, even if we were to accept – hypothetically – that predictions about the effects of future pension cuts could be based on past evidence on cuts in pay or non-pension benefits,

and even if we were to accept – hypothetically – a causal link between the two, there are yet additional reasons that the City's claim that pension cuts would leave it with a less-experienced workforce is unfounded.

First, the document on lateral transfers described earlier shows that in 2011 and 2012 there were many lateral moves out of Stockton by relatively inexperienced police officers.

A more complete picture is provided by Figures 4A-4F. These figures show the distribution, by seniority (years of experience) of the entire police force, all departures, lateral departures out, and retirements. Looking year by year, and at all years combined, shows that the distribution of lateral transfers by seniority is similar to that of the police force as a whole. That is, there is no indication that more-senior police officers were particularly likely to transfer to other cities. To see this in a simple summary measure, according to data provided by the City the average experience of the Stockton police force in fact *increased* over the 2008-2012 period covered by these data, from 10.2 to 10.9 years of experience. This evidence clearly contradicts any claim that past compensation cuts have led to a "mass exodus" of experienced police officers.

Second, even if we were to accept – hypothetically – that predictions about the effects of future pension cuts could be based on past evidence on cuts in pay or non-pension benefits, and even if we were to accept – hypothetically – a causal link between the two, the City's claim is unconvincing. The police officers who may have been most sensitive to compensation differences between locations would have been the ones who already moved, whereas those less sensitive to compensation differences – and we know from the migration literature that many other factors matter – would be the ones who have remained. In other words, even if we were to accept – hypothetically – that the past departures were for economic reasons that would carry

over to pensions, there is good reason to believe that those police officers who have *stayed* in Stockton despite the compensation cuts that have *already* occurred would be unlikely to move in response to any further pension cuts.

This is a standard perspective in the social science research on the causal effects of individual responses to economic stimuli, including government programs. In the models used to estimate such effects, it is typically assumed that there are differences – or "heterogeneity" – across people in their response to policy (e.g., Heckman et al., 1999). For example, those with the greatest gain from participating in a government training program will be the ones who choose to participate, and those with smaller gains (or no gains) will not participate. Similarly, in the present context, those who would gain the most in terms of overall "utility" from moving to another city's police force would have already done so, whereas those with the least to gain – in this case, presumably, because economic factors are less important in their decision – would not.

The most obvious reason for this heterogeneity in responses is the interplay between economic and non-economic factors. Arguably, those who have not yet moved have other factors that mute the response to economic factors – such as working spouses, connections to family or friends in Stockton, etc.

Another potentially important factor arises from constraints on residential mobility stemming from current circumstances in housing markets, as underwater homeowners face severe constraints on selling their home and moving. In particular, many homeowners are underwater, which at a minimum inhibits moving to new jobs that are far enough from away that commuting from Stockton is not feasible and would require residential moves. This may also act, in the near-term, to make moves to the private sector in Stockton the more plausible

alternative, reinforcing the point above that comparisons to public-sector jobs in other cities may be less relevant. The City of Stockton's "Proposals for Modifications to Obligations Under AB 506 Process" reports that Stockton has had the worst foreclosure rate in the U.S., and the second highest share of home loans that were underwater.[17] In October, 2012, the only comparator city (based on the Anderson report)[18] with a higher foreclosure rate than Stockton was Modesto (Figure 5). This stems from Stockton having experienced the sharpest housing price declines in recent years. (See Figure 5.) Of course not everyone was a homeowner, and not all homeowners in Stockton were underwater. But it is plausible that those who are underwater are much less likely to move elsewhere for economic reasons, and to the extent that those police officers are the ones who still remain in Stockton, they are unlikely to respond to any cut in pensions by moving.

V. Unfounded Claims that Pension Cuts Would Make it Difficult to Recruit Police Officers

The claims about recruitment difficulties are directly contradicted by the evidence. The October 23, 2012, memorandum from Police Chief Jones notes that of 155 Stockton police officers assigned to the Patrol Division, 50 have less than one year of experience."[19] Moreover, data submitted by the City shows a high level of recruitment in 2011 and 2012, precisely the period when non-pension compensation cuts were occurring and fears about pension cuts may have surfaced. Specifically, a document provided by the City shows 1,002 applications to the City from a California POST-certified academy, 519 applications from recruits currently attending a California POST-certified academy, another 1,739 applications from entry-level trainees, and – most importantly with regards to concerns about experienced police officers –

[17] Exhibit 50, p. 7.
[18] Exhibits 313-370.
[19] Memorandum, Policy Chief Eric Jones, October 23, 2012, Exhibit 403.

164 applications for lateral transfers from those who serve or served as peace officers in California and possess a California POST Basic Certificate or higher.[20] Moreover, for all categories except trainees these application numbers are higher than in 2008. For lateral transfers *into* Stockton, the numbers for 2011 and 2012 are more than double the 2008 numbers.

This direct evidence that the City has been able to recruit is also supported by other evidence. The City's data show that 64 individuals were hired in 2012, as of November 20, 2012.[21] A memorandum from Vanessa Burke, CFO, to the Mayor and City Council, dated December 11, 2012, notes that "some progress is being made on filling office vacancies …the department has increased officer staffing from the approximately 320 level they were at as the fiscal year began, to 333. They are projecting they will reach 344 by the end of the calendar year … There are four recruits in academy that will graduate by December, nine more due to begin academy at about the same time, and a sizeable number of candidates undergoing background checks" (pp. 700-1).[22] These 13 additional hires in December, combined with the 64 hired through November, bring the total for the year to over 70. The City acknowledges that there is no recruitment problem with respect to police. Despite claims about difficulties of recruiting, Chief Jones in his deposition acknowledges that upwards of 70 new officers were hired over the past year (p. 163) and the department is at capacity with regard to training new officers (p. 178). Finally, as further evidence on the availability of recruits, a news report on December 12, 2012, reports on 1,300 people applying to become officers with the Stockton police force applicants,

[20] *Police Dept Hiring Stats 2008 – 2012 FINAL* (file provided by City, "Police Officer Hiring 2008 – 9/17/2012").
[21] *Sworn Count.pdf* (file provided by City, "Stockton Police Department Employee Count").
[22] *Stockton Dec 2012 Financial Update.pdf* (memorandum from Vanessa Burke, Chief Financial Officer, to Mayor and City Council, dated December 11, 2012).

concluding that "Police Chief Eric Jones … said that there was twice the number of applicants at this training session than a training session held earlier this year."[23]

The relative ease in recruiting is not surprising, given the extraordinarily weak labor market in Stockton. A RAND study (Wilson and Grammich, 2009) discusses findings from a national summit on police recruitment and retention in urban environments. It notes that, according to participants, since the downturn in the economy in late 2008 and early 2009, "many of those [departments] fortunate enough to be able to hire new officers have found a bounty of qualified applicants due to the lack of hiring elsewhere and the volume of those laid off from other industries" (p. iii, bracketed word added). Similarly, a RAND study of police recruitment in San Diego (Ridgeway et al., 2008) noted that "[T]he prospects for more effective local recruiting are encouraging … law enforcement in general, pays well relative to employment opportunities for young people without college degrees" (p. 113).

VI. Preserving Full Pensions for All City Worker is a Costly and Inefficient Way to Address Potential Departures of Experienced Police Officers

Even if we accept – hypothetically – that pension cuts would prompt senior police to leave, precluding any pension cuts for all city workers is a remarkably inefficient way to deter these departures. It would be far more efficient to create explicit incentives to encourage longevity of the police force, which would target a far smaller number of workers. This type of explicit policy is preferable to continuing to appeal to claims of the need to remain competitive with other cities, a process that has likely led to continued ratcheting up of public-sector compensation, and contributed to the City's financial difficulties in the first place. Rather, the

[23] See http://www.kcra.com/news/1-300-apply-to-become-Stockton-police-officers/-/11797728/17756560/-/odrhem/-/index.html (viewed December 13, 2012).

City should focus its resources more efficiently on solving particular personnel problems that arise in managing its workforce.

There are approximately 340 police officers in Stockton out of a workforce of approximately 1,400,[24] and only a subset of those police officers is experienced. I am not aware of evidence the City has introduced that it is facing retention difficulties for other categories of city workers. Given that, a decision to retain current pension benefits for all city workers would end up spending a great deal of money that plays no role in avoiding the one problem the City has emphasized – the potential departure of experienced police officers.

Fortunately, in the present context of an alleged prospective exodus of some 20 to 40 experienced police officers from Stockton, there is a far more efficient and less costly solution than preserving full pensions for all 1,400 city workers. Specifically, the police department can use targeted incentives to encourage longevity of services, such as the longevity "add-pays" it has used in the past. These can be structured so as to create incentives for police officers to remain in Stockton, as they would be lost if an officer left the City. And they can also be structured to provide higher pay or bonuses for multiple levels of service, hence making them much more salient for less experienced police officers that the department would like to retain, but for whom the value of pensions may have little influence.

[24] Exhibit 50.

Figure 1: Lateral Departures from Stockton Police Force, by Year, 2008-2012

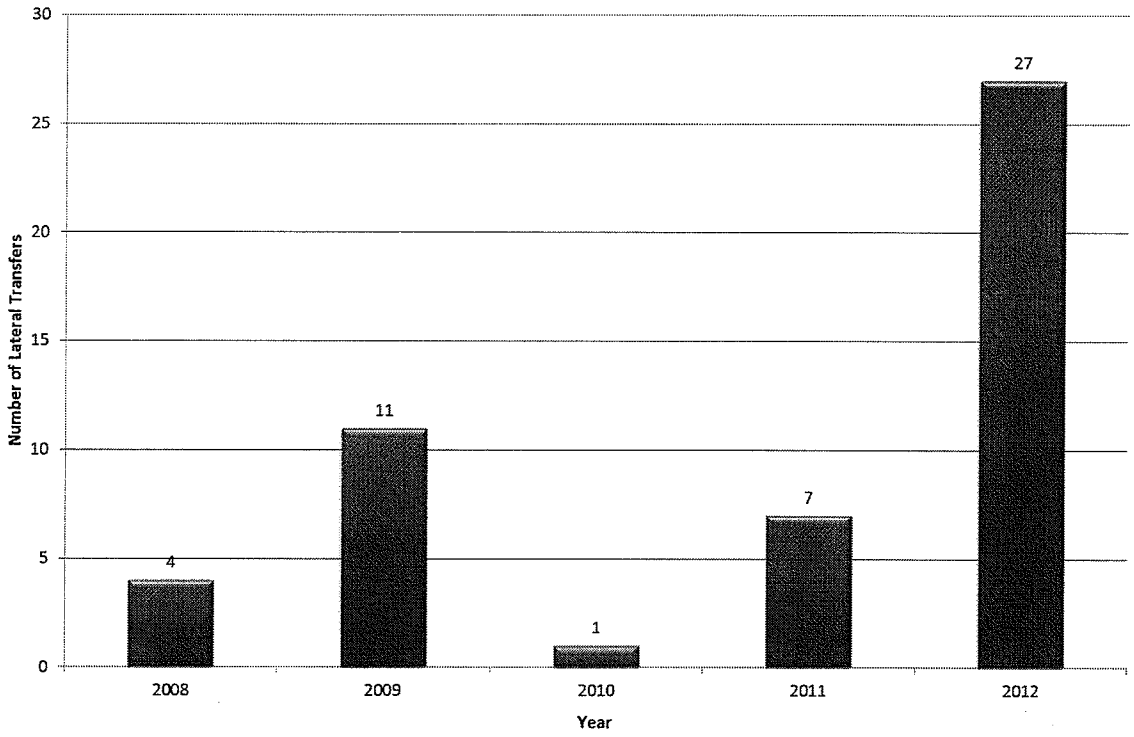
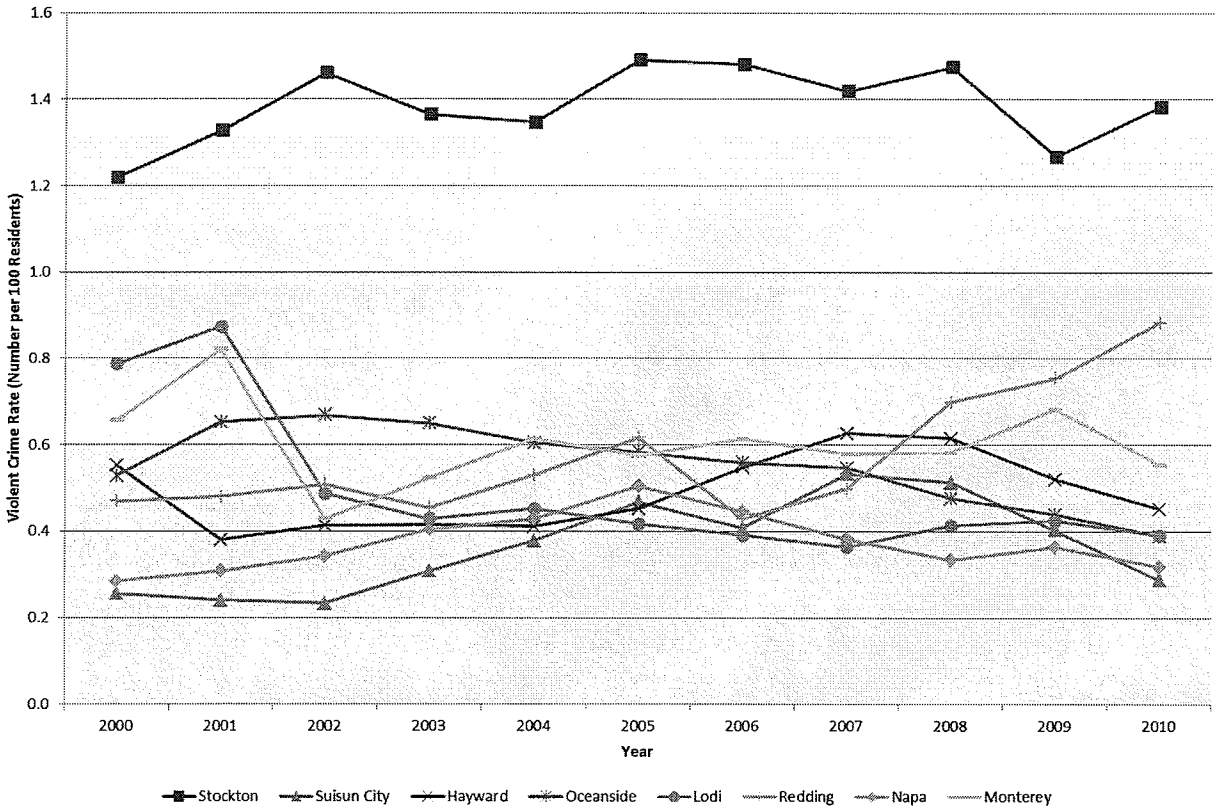


Figure 2: Violent Crime in Stockton and Destination Cities of Lateral Movers



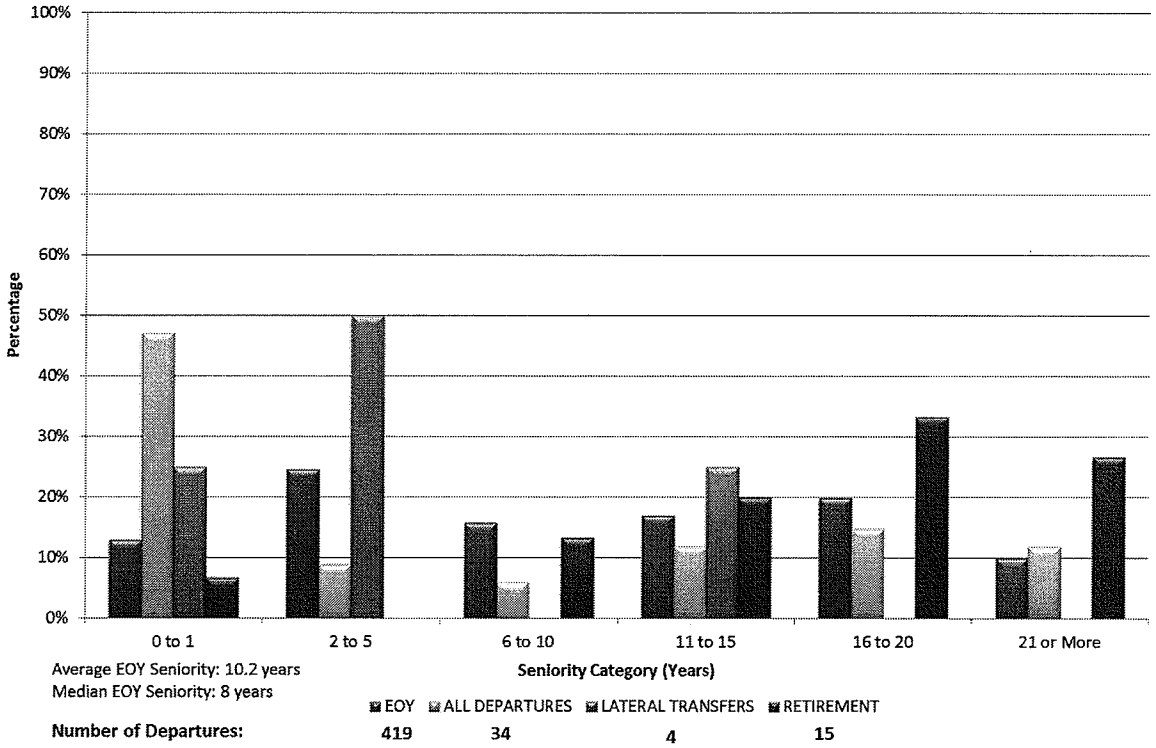
Notes: The other cities shown are the destination cities based on data provided by the City on lateral transfers from Stockton. Any city that a Stockton police officer moved to since 1/1/2008 was included in the full list of "comparator" cities. The chart only shows those cities to which *more than one* Stockton police officer moved to during the time period. The information for other cities not shown reveals the same pattern.

Figure 3: County Unemployment Rates, 2011

	County unemployment, 2006	County unemployment, 2011
Anaheim (Orange County)	3.4	8.7
Bakersfield (Kern County)	7.5	14.9
Chula Vista (San Diego County)	4	10
Fremont (Alameda County)	4.4	10.4
Fresno (Fresno County)	8	16.5
Glendale (Los Angeles County)	4.8	12.3
Irvine (Orange County)	3.4	8.7
Livermore (Alameda County)	4.4	10.4
Modesto (Stanislaus County)	8	16.8
Oakland (Alameda County)	4.4	10.4
Ontario (San Bernardino County)	4.8	13.2
Pomona (Los Angeles County)	4.8	12.3
Riverside (Riverside County)	5	13.6
Sacramento (Sacramento County)	4.8	12.1
San Bernardino (San Bernardino County)	4.8	13.2
San Joaquin County	7.4	16.8
Santa Ana (Orange County)	3.4	8.7
Stockton (San Joaquin County)	7.4	16.8

Source: U.S. Bureau of Labor Statistics.

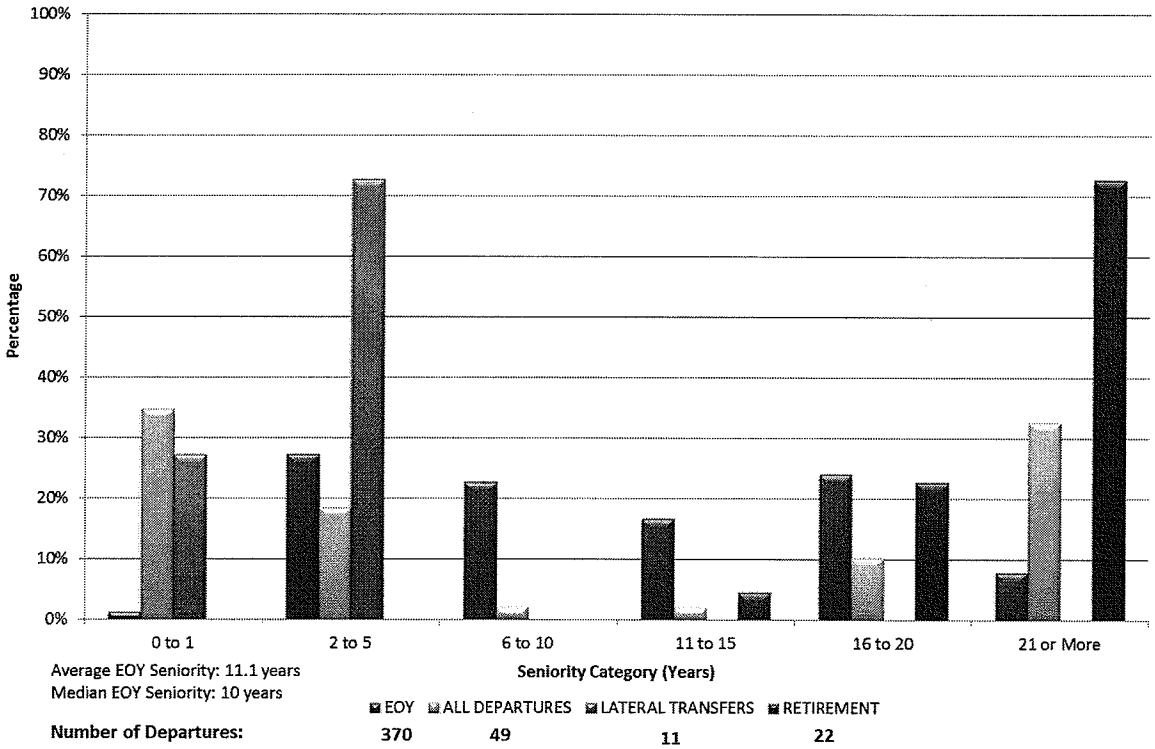
Figure 4A: Distribution of Workforce and Termination Type by Seniority, 2008



Average EOY Seniority: 10.2 years
Median EOY Seniority: 8 years

Number of Departures:	419	34	4	15

Figure 4B: Distribution of Workforce and Termination Type by Seniority, 2009



Average EOY Seniority: 11.1 years
Median EOY Seniority: 10 years

Number of Departures:	370	49	11	22

Figure 4C: Distribution of Workforce and Termination Type by Seniority, 2010

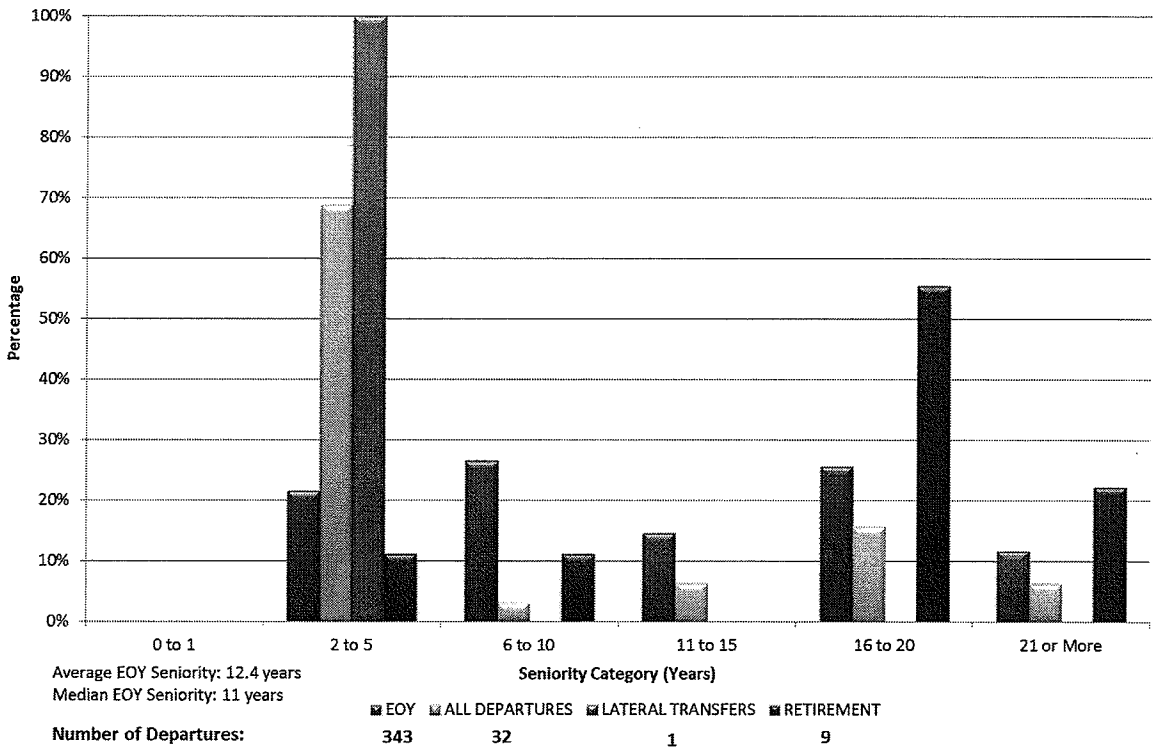


Figure 4D: Distribution of Workforce and Termination Type by Seniority, 2011

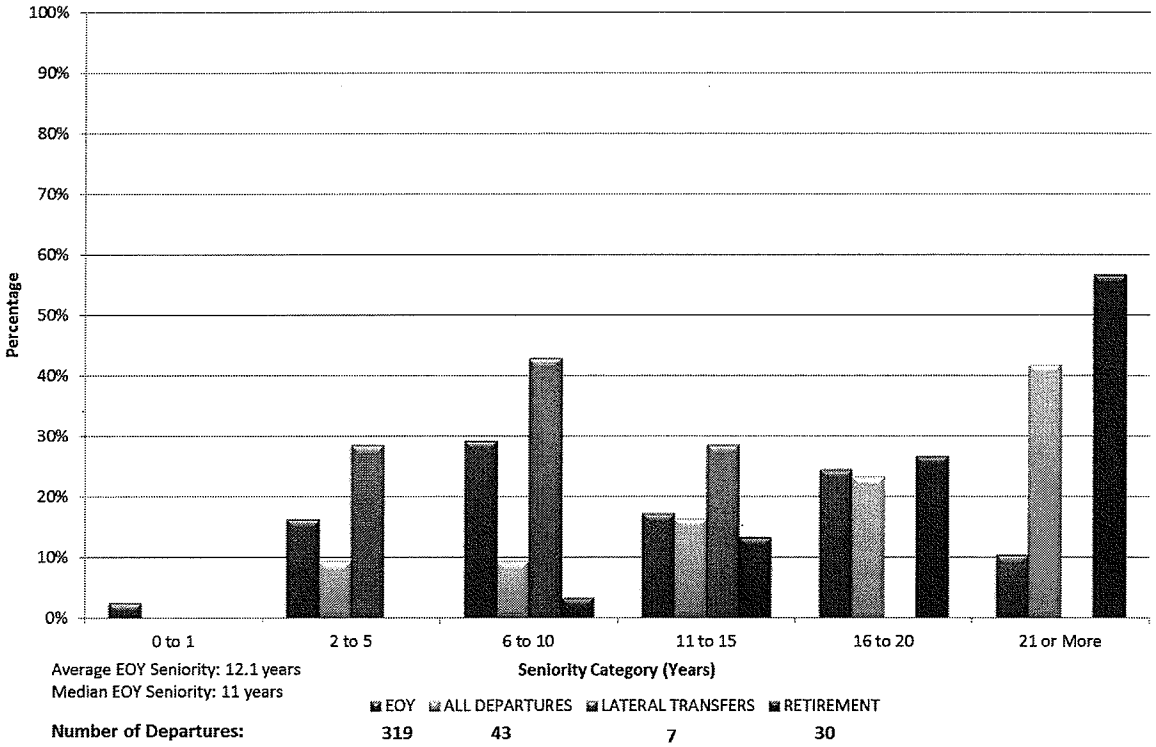


Figure 4E: Distribution of Workforce and Termination Type by Seniority, 2012

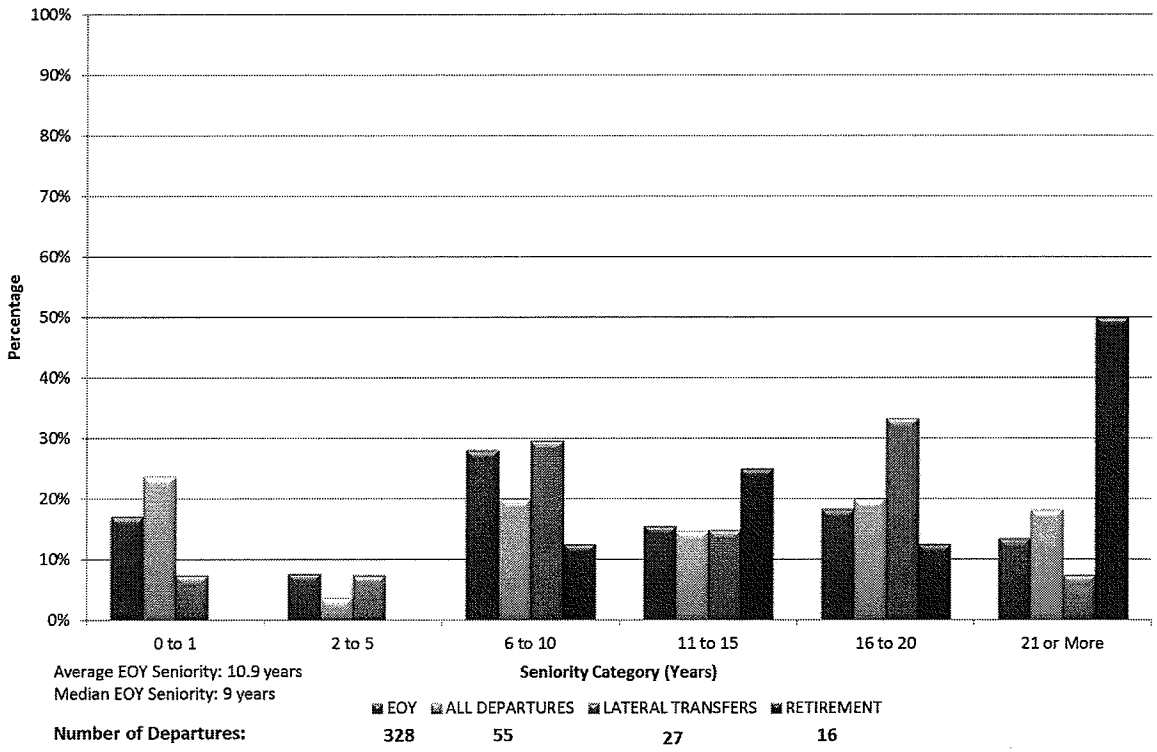


Figure 4F: Distribution of Workforce and Termination Type by Seniority, 2008 - 2012

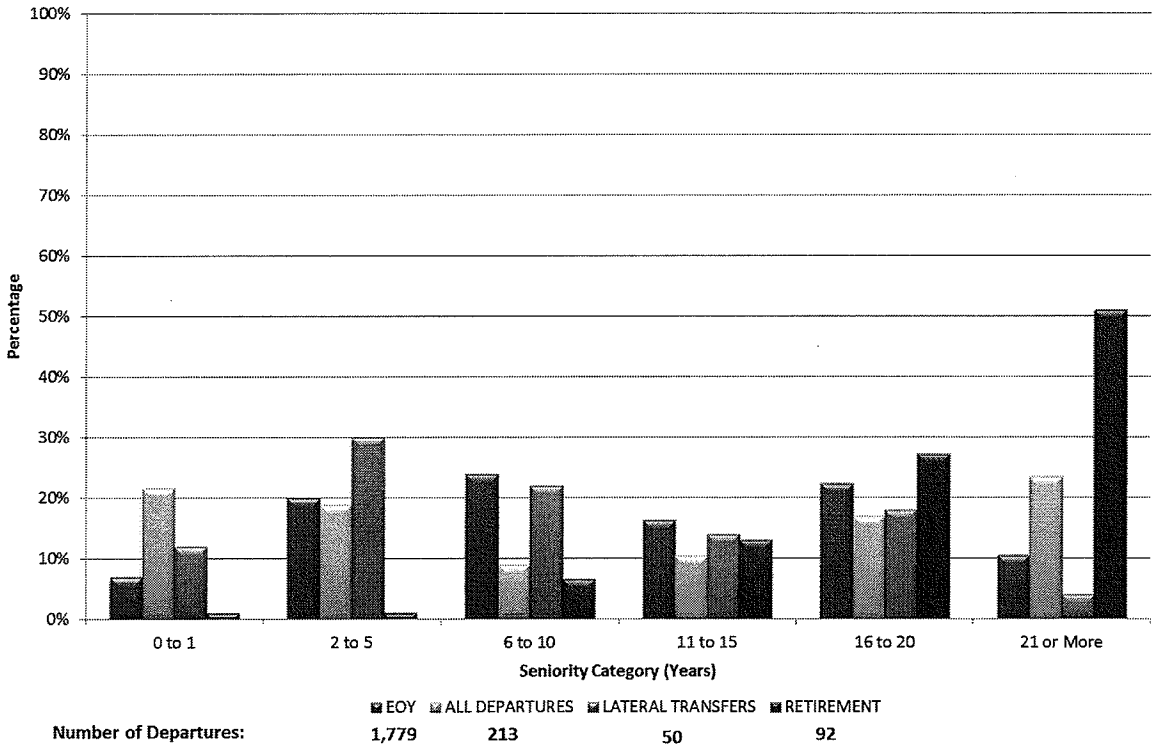


Figure 5: Foreclosure Rates and Declines in House Prices

	Housing Units Received a Foreclosure Filing in October 2012 (Rate)	Housing Units Received a Foreclosure Filing in October 2012 (Percent)	Percent Decline in Median Home Value, 2006-2011
Anaheim	1 in every 490	0.20%	35.38%
Bakersfield	1 in every 285	0.35%	46.43%
Chula Vista	1 in every 281	0.36%	39.83%
Fremont	1 in every 974	0.10%	11.85%
Fresno	1 in every 337	0.30%	40.24%
Glendale	1 in every 786	0.13%	14.27%
Irvine	1 in every 770	0.13%	11.11%
Livermore	1 in every 408	0.25%	31.63%
Modesto	1 in every 181	0.55%	55.08%
Oakland	1 in every 412	0.24%	29.05%
Ontario	1 in every 328	0.30%	45.00%
Pomona	1 in every 271	0.37%	39.21%
Riverside	1 in every 237	0.42%	46.97%
Sacramento	1 in every 284	0.35%	42.86%
San Bernardino	1 in every 210	0.48%	56.59%
San Joaquin County	1 in every 212	0.47%	53.91%
Santa Ana	1 in every 396	0.25%	39.93%
Stockton	1 in every 204	0.49%	59.11%

Source: American Community Survey.