



## Studies in the News

California Research Bureau, California State Library

March 2, 2016

Contents this week:

### **CRIMINAL JUSTICE & LAW ENFORCEMENT**

CA probation cheaper than prison or jail, failure rate lower since 2010

### **CULTURE & DEMOGRAPHY**

Childhood disadvantage and gender gaps in adulthood

### **EDUCATION**

Classroom composition influences teacher performance

### **ENERGY & ENVIRONMENT**

Application of energy framework to water sector

GAO reviews small water utilities use of asset management

### **GENERAL GOVERNMENT**

Demystifying federal grants for state and local governments

### **HEALTH**

3D printer emissions can contain hazardous compounds

### **HUMAN SERVICES**

500K to 1M adults are at risk of losing SNAP benefits

Individuals subject to losing SNAP benefits are demographically diverse

### **TOOLS OF THE TRADE**

New tool traces drinking water sources

## **CRIMINAL JUSTICE & LAW ENFORCEMENT**

***Probation in California.*** By Ryken Grattet, et al. Public Policy Institute of California. Dec. 2015. 2 p.  
[http://www.ppic.org/main/publication\\_show.asp?i=1173](http://www.ppic.org/main/publication_show.asp?i=1173)

“Probation is one of four forms of correctional supervision—the other three are prison, jail, and parole. Judges can sentence convicted offenders to the supervision of probation officers as an alternative to jail or prison—the judge’s decision is informed by input from the district attorney, the public defender, and the probation department. California’s adult supervised probation population is more than twice the size of its prison population, almost four times larger than its jail population, and about six times larger than its parole population. Unlike parole (a state responsibility) ... probation is a county responsibility.” Probation is the most widely used and least costly form of correctional control: Annual costs per offender are: Probation (\$4,438); Prison (\$ 59,919); Parole (\$10,182); and Jail (\$38,650). Probation failures since 2010 have declined, from 20,000 in 2010 to 17,000 in 2014.

## CULTURE & DEMOGRAPHY

***Childhood Environment and Gender Gaps in Adulthood.*** By Raj Chetty, et al. National Bureau of Economic Research. NBER Working Paper no. 21936. Jan. 2016. 29 p.

[http://equality-of-opportunity.org/images/gender\\_paper.pdf](http://equality-of-opportunity.org/images/gender_paper.pdf)

“[D]ifferences in childhood environments play an important role in shaping gender gaps in adulthood.... [T]he traditional gender gap in employment rates is reversed for children growing up in poor families: boys in families in the bottom quintile of the income distribution are less likely to work than girls.... [T]hese gender gaps vary substantially across counties and commuting zones in which children grow up.... Low-income boys who grow up in high-poverty, high-minority areas work significantly less than girls.”

## EDUCATION

**“Classroom Composition and Measured Teacher Performance: What Do Teacher Observation Scores Really Measure?”** By Matthew P. Steinberg, et al. *Educational Evaluation and Policy Analysis*. Published ahead of print. Jan. 12, 2016. 25 p.

<http://epa.sagepub.com/content/early/2015/11/20/0162373715616249.full.pdf+html>

“Using data from the Measures of Effective Teaching study, we explore the extent to which classroom composition influences measured teacher performance based on classroom observation scores. The context in which teachers work—most notably, the incoming academic performance of their students—plays a critical role in determining teachers’ measured performance. Furthermore, the intentional sorting of teachers to students has a significant influence on measured performance. Implications for high-stakes teacher accountability policies are discussed.”

## ENERGY & ENVIRONMENT

***Tapping into Alternative Ways to Fund Innovative and Multi-Purpose Water Projects: A Financing Framework from the Energy Sector.*** By Kim Quesnel, et al. Water in the West, Stanford University. Feb. 2016. 44 p.

<https://woods.stanford.edu/sites/default/files/files/Funding%20Water%20Projects%20Whitepaper-FIN-WEB-02022016.pdf>

“The objective of this paper is to identify and explore innovative funding and governance mechanisms that can be used to support the integration of new distributed water infrastructure, practices, and technologies. To accomplish this, we looked outside of the water sector to explore financing tools and techniques that have been used by the electricity sector to implement distributed solutions. Distributed energy resources encompass a wide range of technologies and practices at various scales. Here, we investigate two: renewable generation and electricity DSM (demand-side management) practices.... We propose that this framework has four central elements critical for project financing: catalyzing change, establishing funding sources, using resource pathways, and creating innovative governance structures. We evaluated many mechanisms within each element. Those discussed in this report are most appropriate for the water sector.”

***Water Infrastructure: EPA and USDA Are Helping Small Water Utilities with Asset Management; Opportunities Exist to Better Track Results.*** By J. Alfredo Gómez, et al. United States Government Accountability Office. GAO-16-237. Jan. 2016. 63 p.

<http://gao.gov/assets/680/674816.pdf>

“GAO was asked to review water utilities’ use of asset management. This report examines (1) what is known about the use of asset management among the nation’s water utilities—particularly small water utilities—including benefits and challenges and (2) steps EPA and USDA are taking to help small water

utilities implement asset management. GAO selected a nongeneralizable sample of 25 water utilities in 10 states based on largest infrastructure needs and interviewed EPA, USDA, state, and water utility officials. GAO recommends that EPA consider collecting information about utilities' use of asset management through its needs assessment surveys, and that EPA and USDA compile the benefits of asset management into one document."

## GENERAL GOVERNMENT

***Grants 101: Intro to Federal Grants for State and Local Governments. Federal Funds Information for States. Oct. 30, 2015. 16 p.***

[http://www.ffis.org/sites/default/files/public/2015/primer\\_2015.pdf](http://www.ffis.org/sites/default/files/public/2015/primer_2015.pdf)

**(Available at the California State Library)**

"FFIS has been in the federal grant reporting business for a long time – about 30 years. The main thing ... learned ... is that this stuff is complicated, almost a language unto itself. For example, when a person refers to 'total federal grants,' that could mean any number of things – with different amounts associated with it. The charts, grants, and words in this report are meant to demystify the flow of federal funds to their many recipients. It begins with the big picture and slowly works its way down to a more nuanced description of federal grants and how they work. It even explains why different amounts are attached to grant totals on different pages of the report." State employees have direct access to FFIS; contact the California State Library for instructions.

## HEALTH

**"Emissions of Ultrafine Particles and Volatile Organic Compounds from Commercially Available Desktop Three-Dimensional Printers with Multiple Filaments." By Parham Azimi, et al.**

***Environmental Science & Technology*, vol. 50, no. 3 (Jan. 7, 2016) pp. 1260-1268.**

<http://pubs.acs.org/doi/full/10.1021/acs.est.5b04983>

"Previous research has shown that desktop 3D printers can emit large numbers of ultrafine particles (UFPs, particles less than 100 nanometers) and some hazardous volatile organic compounds (VOCs) during printing, although very few filament and 3D printer combinations have been tested to date." The authors examined five 3D printers in a test chamber. The results show typical 3D printers emit the types of particles and compounds that could cause cancer or other ailments. The authors state the results "suggest caution should be used when operating many of the printer and filament combinations in poorly ventilated spaces or without the aid of combined gas and particle filtration systems."

## HUMAN SERVICES

***More Than 500,000 Adults Will Lose SNAP Benefits in 2016 as Waivers Expire. By Ed Bolen, et al. Center on Budget and Policy Priorities. Jan. 21, 2016. 13 p.***

<http://www.cbpp.org/sites/default/files/atoms/files/1-5-15fa.pdf>

"More than 500,000 and as many as 1 million of the nation's poorest people will be cut off SNAP (formerly known as the Food Stamp Program) over the course of 2016, due to the return in many areas of a three-month limit on SNAP benefits for unemployed adults aged 18-49 who aren't disabled or raising minor children. These individuals will lose their food assistance benefits after three months regardless of how hard they are looking for work. The impact will be felt in the 23 states that must or are choosing to reimpose the time limit in 2016.... [California is] eligible for statewide waivers and will waive the entire state from the limit."

***Who Are the Low-Income Childless Adults Facing the Loss of SNAP in 2016?*** By Steven Carlson, et al. Center on Budget and Policy Priorities. Feb. 8, 2016. 17 p.  
<http://www.cbpp.org/sites/default/files/atoms/files/2-8-16fa.pdf>

“Low-income childless adults subject to the time limit are diverse; there is no single profile that dominates. About 45% are women and close to one-third are over age 40. Among those who report their race, about half are white, a third are African American, and a tenth are Hispanic. About a quarter have less than a high school education, and half have only a high school diploma or GED. They live in all areas of the country; among those for whom data on metropolitan status are available, about 40% live in urban areas, 40% in suburban areas, and 20% in rural areas. Nearly 80% live in single-person households. Some are veterans.”

## **TOOLS OF THE TRADE**

**Drinking Water Mapping Application to Protect Source Waters. U.S. Environmental Protection Agency. Feb. 2016.**  
<http://www.epa.gov/sourcewaterprotection/dwmaps>

“The Drinking Water Mapping Application to Protect Source Waters or DWMAPS is EPA’s online mapping tool to help you find information about drinking water in your community. This user-friendly tool provides answers to questions like: Who supplies my drinking water? Is the source of my drinking water polluted? Are there possible sources of pollution near my drinking water that might be affecting my community’s water supply? How can I get involved in protecting sources of drinking water in my community?” Users can identify contamination, find data for assessments, promote integration of drinking water activities among stakeholders and decision makers.

### **About *Studies in the News***

*Studies in the News* (SITN) is a service provided by the California Research Bureau (CRB), a division of the California State Library. CRB provides independent, nonpartisan research and analysis for the Governor, Legislature and State Constitutional Officers.

SITN lists of current studies related to public policy issues are e-mailed weekly. Archived issues are available at <http://www.library.ca.gov/sitn/crb/>.

To add or remove your name from the SITN distribution list, or to update your e-mail address, please contact us at [crb@library.ca.gov](mailto:crb@library.ca.gov), or (916) 319-2691.

SITN is available as an RSS feed at <http://www.library.ca.gov/sitn/crb/>.