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Photo by Eric Gay/AP

Rapid Population Booms are a Bust for Government Efficacy

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In late March of this year, John Harte and Paul Ehrlich wrote a compelling blog article titled, “If You Think Governments Are Too Large: Shrink Population.”ⁱ The entry went on to predict that the relationship between population size and government complexity is “highly nonlinear.” Harte and Ehrlich also noted that, to date, they have not been able to find “systematic work...that documents the relationship between population size and government complexity in recent times.”

Harte and Ehrlich ask readers to take the first step at examining the social and bureaucratic consequences of population growth, and I attempt to do so in this post. Small towns in Texas, Montana, North Dakota, and Pennsylvania, as well as other states, have grown astronomically in recent years due to the discovery of oil and natural gas. That population growth comes with increased government expenditures and increases in “social bads” like crime and traffic. Perhaps most worrying of all, the “boom and bust” cycle may soon leave these population centers of recent growth as skeletal ruins, with depleted resources and enormous government size. To study the relationship between population growth and government complexity, towns caught in natural resource booms provide telling case studies.

Since 2008, Carrizo Spring Texas has grown from 5,600 people to over 40,000 people.ⁱⁱ Largely driving this expansion, according to Molly Hennessy-Fiske of the *Los Angeles Times*, has been Texas oil companies’ tapping into the Eagle Ford Shale, which may soon produce 4 million barrels of oil per day.ⁱⁱⁱ However, the additional oil revenue comes at a cost as Carrizo Spring’s government must expand to handle the complexity:

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- The city's main highway is "cracked and pitted from the heavy traffic"
- Crime—sexual assaults, prostitution, thefts, crashes—are up dramatically
- The number of city hotels has tripled

Though it is unclear whether the Eagle Ford Shale formation will allow for 10 years of drilling, 20 years of drilling, or a different time period, the boom is indeed finite. Hydraulic fracturing (fracking) sites tend to have a shorter lifespan than traditional wells. And not all of the consequences are negative: the boom may lead to up to 128,000 jobs across the region and will increase tax revenues. The increases in social services that accompany such an expansion are far from linear, however, and the rapid growth may soon lead to a bust.

A recent study released by Professors Shannon Farrell and Larry Saunders at the National Agricultural and Rural Development Policy Center highlights a key factor that has accompanied growth in small towns found to have hydraulic fracturing resources: the sociological "Boomtown model." Farrell and Saunders state:

The central concept of the Boomtown model is small communities exposed to rapid, intense economic development in one sector may experience a number of economic benefits, but may also face increased needs for infrastructure, social services, workforce, housing and other community resources.^{iv}

Such increased needs are then met with the rapid creation of government bureaucracy and economic growth, only to be abandoned within a few years as natural resource levels move past their peak.

National Public Radio (NPR) recently produced a "Talk of the Nation" on gas and oil in boomtowns. The show's guest, Ann Chambers Noble, commented on the rapid expansion of Pinedale, Wyoming from a small town numbering just a few thousand people to a doubling and tripling of population size in recent years.^v Callers from around the country weighed in about their boomtowns: Scott from Fairbanks, Alaska, commented on his town's "vacant, rundown" downtown; John told the show about Williston, North Dakota, and the "row after row of apartment buildings that were abandoned" after the bust; and Teresa, a former resident of Pinedale, Wyoming called in to explain her perception of the boom:

It hurt. It just hurt. The nature - things - the degradation that I saw, there was a 13-to-one ratio of men to women with the man camps that came in. They're not just - they weren't, when I left, temporary structures. They're still up. There was a huge - we called it big brown cloud that just, as I think was mentioned, the pollution that just never went away. The intrinsic beauty of the place was to me being raped and pillaged. Every day I watched an oil rig, another one, go up in the mesa and the roads and the trucks. And it was endless and ceaseless. It never stopped.^{vi}

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The report underscored the truly national reach of the oil and gas industry's boom, and the dangerous effects growth can have on social and community fabric and on government complexity.

John McChesney, the former Director of the Stanford Bill Lane Center for the American West's Rural West Initiative, recently released a report on the enormous strain put on the healthcare industry during times of rapid growth.^{vii} McChesney's look at Mercy Hospital in Williston North Dakota revealed yearly hospital debts of \$7 million dollars, and Matt Grimshaw at Mercy Hospital explained to McChesney that there are large problems finding workers at affordable prices (jobs in the oil camps pay \$24 an hour; his hospital cannot afford those wages). With the rapid population expansion, the need for rural doctors is of even larger concern. Though there are both state and federal loan forgiveness programs for doctors who practice in these physician-deprived areas, the need for rural doctors remains pressing, especially when population doubles and triples in these small towns.^{viii}

Yet such "boomtowns" and subsequent strains on government and social services are not merely confined to America's West. The city of Towanda, Pennsylvania, for example, had been growing at unsustainable rates due to natural gas exploration. Traffic was worse than ever, and apartment rental went from \$300 per month in 2008 to over \$1,000 per month today. Yet the city of Towanda is now quiet. According to a recent NPR report, fracking elsewhere in Pennsylvania, Ohio, and other states has "driven the price of natural gas to record lows."^{ix} In the town of Towanda, which just recently reorganized and prepared itself for increased crime levels, traffic rates, and other effects of a boom, the bust is already here. As growth and the accompanying tax revenues dry up, the government and social consequences will be difficult for these small towns to swallow.

There is a great irony in the rapid expansion of boomtowns: they require vast increases in social services and government expenditures, which remain bloated and unused after the boomtown busts, sapping what diminished strengths and resources the towns now have left. Moreover, setting aside the astronomical environmental costs to such boom and bust economies, the social consequences are quite negative: small town fabrics are altered through unsustainable growth, and government services grow in response. The detriments of today's oil and gas booms go beyond the environmental realm: economic growth built on boom and bust cannot be sustainable, and will lead to the rapid growth, and subsequent decay, of efficacious government management.

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MAHB Blog: <http://mahb.stanford.edu/blog/population-boom-govt-bust/>

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ⁱ Harte, John and Paul R. Ehrlich. "If You Think Governments Are Too Large: Shrink Population." *Millennium Alliance for Humanity and the Biosphere*. 25 March 2014. <http://mahb.stanford.edu/blog/population-and-government/>

ⁱⁱ "Carrizo Springs, Texas." *Social Explorer Population Visualization data*. Accessed 27 April 2014. <http://www.socialexplorer.com/86447c709b/view>

ⁱⁱⁱ Hennessy-Fiske, Molly. "Fracking Brings Oil Boom to South Texas Town, for a Price." *The Los Angeles Times*. 15 February 2014. Accessed 27 April 2014. <http://articles.latimes.com/2014/feb/15/nation/la-na-texas-oil-boom-20140216>

^{iv} Ferrell, Shannon and Larry Sanders. "Natural Gas Extraction: Issues and Policy Options." *The National Agricultural and Rural Development Policy Center*. <http://expeng.anr.msu.edu/uploads/files/133/2%20NaturalGasExtractionWhitePaper.pdf>

^v Conan, Neal. "Gas, Oil Bring Complications to Small Towns." *National Public Radio: Talk of the Nation*. 11 February 2013. Accessed 25 April 2014. <http://www.npr.org/2013/02/11/171718769/gas-oil-booms-bring-complications-to-small-towns>.

^{vi} Conan, "Gas, Oil Bring Complications"

^{vii} McChesney, John. "Bakken Boom Fractures North Dakota Health Care." *The Bill Lane Center for the American West: The Rural West Initiative*. 1 October 2012. Accessed 26 April 2014. <http://www.stanford.edu/group/ruralwest/cgi-bin/drupal/content/bakken-boom-fractures-north-dakota-health-care>

^{viii} McChesney, "Bakken Boom Fractures"

^{ix} Detrow, Scott. "Five Years into Fracking Boom, One PA. Town as a Turning Point." *National Public Radio*. 14 January 2014. Accessed 27 April 2014. <http://www.npr.org/2013/01/14/169363299/five-years-into-fracking-boom-one-pa-town-at-a-turning-point>