

Maine research tackles ‘wicked problems’

BY LINDA SILKA
SPECIAL TO THE BDN

Scientific research plays a big role in our lives. We have come to rely on it in so many ways. It seems that every day we hear someone say, “well, research has shown ...”

But we are coming up against the limits of research as it traditionally has been done. The image of science — the one in popular culture of the lone lab-coated researcher hitting upon a brilliant idea — is fast becoming outdated.

Rather, efforts are now being made to find better ways of ensuring that research helps solve our increasingly tough societal challenges. And Maine is leading the way in developing some of these new forms of science.

Consider some of our problems: poverty, pollution, failing school systems, racism and discrimination, income inequality, elder abuse. Pick up the daily paper and one is beset with story after story about these seemingly overwhelming problems. Many such difficulties are now referred to as “wicked problems,” which won’t be solved with facts alone.

According to John Camillus, writing in Harvard Business Review, environmental degradation, terrorism and poverty are all classic examples of wicked problems. Wicked problems have innumerable causes, are interconnected with other problems, and rarely have single acceptable solutions. Hundreds of studies can be carried out and still the answer can be up in the air as to what should be done.

To solve wicked problems we need to approach science in new, more complex ways. Researchers with different kinds of expertise need to put their heads together. Scientists and decision makers

need to interact regularly and become more familiar with each other’s worlds. And citizens and laypeople need to be involved in the research.

Researchers in Maine are changing the ways they work in order to make inroads on society’s complex issues

This new kind of science goes under various names: citizen science, community-based participatory research, science democratization and participatory action research. But, in each case, science is being transformed in ways that all of us need to know about because we have important roles to play in making this new approach succeed.

At the heart of these new approaches is the need to move away from what David Cash, a world leader in science-policy analysis, points to as the all-too-common “loading dock” approach to science. This approach has been likened to scientists following the model of a factory where widgets are produced and then trundled out to the loading dock where someone eagerly waits to pick up the supposedly useful product. But the audience for the science product may not be there. We may be creating a product that people struggling with wicked problems like poverty or hunger, for example, can’t use because it is built on science that does not take into account the full set of complications out there in the real world.

We need stakeholder-engaged, solutions-focused, in-



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Frank Drummond, a researcher with the University of Maine, works with a team to conduct a study on bumblebees in Jonesboro in 2011. Stakeholders have created tools such as BeeMapper software to bring together solutions-focused information often treated independently. Researchers working with the University of Maine’s Senator George J. Mitchell Center for Sustainability Solutions are focusing on complex collaborative research.

terdisciplinary work if our scarce science resources are to be mobilized to help solve wicked problems.

The problems are interconnected. We know that there is hunger and food insecurity at the same time that we struggle to address ever-higher rates of obesity and ever-increasing amounts of food waste ending up in landfills. We know that while we try to address the state’s economic problems by encouraging young entrepreneurs to take up our traditional resource industries, the very resources their future will depend on — such as seafood and shellfish beds — are in decline or threatened by polluted runoff.

Traditional studies provide incomplete tools to un-

derstand wicked problems of these sorts. But Maine researchers are changing the ways they do research in order to make inroads on such issues.

Under the framework of sustainability, they tackle research on safe beaches and shellfish, for example, by bringing together stakeholders such as harvesters and policymakers with biologists, economists, engineers and even researchers who study how groups can more effectively solve problems together.

Or they take up declines in major resource industries such as Maine’s blueberries, which face the prospect of collapsing pollinator bee populations, and they work with stakeholders to create tools

such as the BeeMapper software to bring together solutions-focused information often treated independently. Researchers working with the University of Maine’s Senator George J. Mitchell Center for Sustainability Solutions are focusing on this style of complex collaborative research, which is leading to many payoffs.

Not all scientists think the democratization of science is a good thing. Some scientists claim anyone who lacks formal training as a scientist can’t do good research. Some insist that only their discipline does the science right. Some view any science built on citizen science or partnership approaches as second rate. To them it smacks of opinions

rather than science.

But we are not talking about going back to the era of matters being decided by opinion rather than scientific results. We are not talking about reverting to times when whoever argued loudest and longest won. Instead, as Roger Pielke teaches us in his highly regarded book, *The Honest Broker*, a big part of the job of scientists in this new era is to learn how to bring data to decisions and to understand that research is but one piece of an increasingly complex puzzle.

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The delegate quirk that enables Donald Trump’s rise

BY FRANCIS BARRY
BLOOMBERG

Much has been made about Donald Trump winning primaries in different regions of the country. But after 23 states and Puerto Rico have held nominating contests, Trump has yet to win 50 percent in any of them. It’s rare for a candidate to go this deep into a primary season without having cleared that mark and still go on to be the nominee. His success highlights an important quirk in Republican Party rules: A candidate can clinch the nomination without persuading a majority of voters in any given state.

For some perspective: In 2012, Gov. Mitt Romney squeaked out a majority in the fifth state to vote, Nevada. In 2008, Sen. John McCain did not win a majority in the first eight states, but then won three majorities in the 21 Super Tuesday states. In 1996, Sen. Bob Dole ran through 10 states before winning majorities in three of

the next nine. On the Democratic side, nominees who emerged from crowded fields in 1976, 1988, 1992 and 2004 all won a statewide majority within the first dozen states.

Maybe Trump’s failure to clear the 50 percent mark (he came close in Massachusetts and Mississippi, where he received 49 and 47 percent, respectively) says more about the strength of the field than it does about him. And perhaps he will clear it soon. But a new poll shows Trump losing head-to-head matchups against both senators Ted Cruz and Marco Rubio.

The prospect of a candidate winning the nomination without being the choice of the majority is the nightmare scenario Republican leaders now face, and it will almost certainly prompt discussion about rule changes for future elections. What might those changes be?

One option is to adopt the Democratic Party’s approach: awarding delegates in a more proportional manner, while

also creating more superdelegates who could band together against an extremist candidate. An analysis by FiveThirtyEight’s Nate Silver shows that under Democratic Party rules, Trump would have about 20 percent fewer delegates. Of course, this approach does more to encourage candidates with little chance of winning to stay in the race, increasing the likelihood of prolonged campaigns and contested conventions. Until Trump, that was the outcome party leaders most wanted to avoid. Now it doesn’t look so bad.

Another option would be to give delegates at the convention the flexibility to switch horses on the first ballot if no candidate wins a majority in a certain number of states. That could lead to charges of backroom deals, but it might also save a party from self-destruction.

A more drastic change would be for states to hold runoff elections between the top two finishers when no

candidate receives a majority of votes. Runoffs are fairly common in local and statewide races, and they can be very useful.

When no runoff occurs, candidates who have low ceilings of support can win nominations and elections, frustrating the will of the majority. Sure, runoffs cost money. But if they’re worth it for local and state offices, why not the presidency?

But holding a second election two to four weeks after the first would complicate candidates’ campaign schedules, divert attention away from other states and force leading campaigns to continue spending money in runoff states, putting them at a disadvantage elsewhere.

States could eliminate these problems — and the added costs of a runoff — by adopting ranked-choice voting, also known as instant-runoff voting. Various U.S. cities, including San Francisco and Minneapolis, have adopted this system, as have

several states for overseas ballots. (It is not without its flaws.)

Party leaders could also consider splitting the primary calendar in half, allowing only the two leading candidates to advance to the second round. States could choose whether they wanted to play a role in picking the finalists or the winner. As it stands now, states that vote after March are usually left to rubber-stamp the winner. This would give them a more meaningful role in the nomination process.

Trump has exposed a central flaw in the nominating system — the possibility of selecting a nominee who lacks majority support — that will prompt leaders in both parties to consider ways to protect against it. Even if Trump fails to win the nomination, he may have a lasting impact on presidential politics.

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may not be meeting the particular requirements of the 158-page Maine Food Code, Gov. Paul LePage’s administration is working with him to find ways to ensure he can remain in business while complying with the law. And elected officials such as state Rep. Craig Hickman and others are trying to reduce the statutory burdens on our local food producers.

So, rather than pass legally invalid “food sovereignty” town ordinances, let’s spend our time demanding lawmakers release local farms from unnecessarily burdensome requirements. This is not a partisan issue.

After all, everyone’s gotta eat.

Michael Cianchette is former chief counsel to Gov. Paul LePage, a Navy reservist who served in Afghanistan and in-house counsel to a number of businesses in southern Maine.

Backing

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The party doesn’t decide

Political scientists have long considered the “invisible primary” — the largely behind-the-scenes competition among presidential candidates for the support of influential party leaders — a litmus test for a campaign’s viability.

The 2008 book “The Party Decides” concluded that in elections between 1980 and 2004 when the political elite coalesced around a particular candidate, rank-and-file voters followed suit. “Early endorsements in the invisible primary are the most important cause of candidate success in the state primaries and caucuses,” the book’s authors wrote.

But with Republicans and Democrats coalescing around party insurgents and anti-establishment outsiders, the backing of the political elite has become practically toxic.

Just consider Florida Sen. Marco Rubio, who leads the Republican field in terms of endorsements

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from within the Beltway as well as several Republican governors, including Sam Brownback of Kansas, Asa Hutchinson of Arkansas and Nikki Haley of South Carolina, according to FiveThirtyEight’s 2016 endorsement tracker.

Rubio has been unable to leverage this institutional support into primary victories. He lost Kansas, Arkansas and South Carolina by 31 points, 8 points and 10 points, respectively.

On the other hand, Trump, who has the fewest endorsements of any standing Republican candidate, leads the nomination race by 99 delegates over Cruz, according to The New York Times. Of the 11 Republican governors who have so far made endorsements, just Greg Abbott of Texas backed the candidate (Cruz) who won his state’s primary. Cruz, of course, had the homefield advantage.

On the Democratic side, Clinton has scooped up doz-

ens of endorsements in Congress and statehouses across the country, and she enjoys a wide margin in the delegate race against Sanders. But endorsements from Democratic governors in New Hampshire, Vermont, Colorado and Minnesota did little to prevent her double-digit losses to Sanders in those states’ nominating contests. Only in Virginia did the Democratic governor (Terry McAuliffe) endorse the candidate (Clinton) who won his state’s primary.

“The Party Decides” thesis thus far appears to be failing the 2016 presidential election nominating season test,” Selinger, the political scientist at Bowdoin College, said.

Meanwhile, anti-endorsements from party insiders also have done little to influence nominating contest outcomes. Ahead of the Iowa caucus, Republican Gov. Terry Branstad urged Iowa voters not to support Cruz because of his hostile

stance toward ethanol subsidies; on caucus day, Iowa went to Cruz. In Massachusetts, Republican Gov. Charlie Baker took a firm stance against Trump, who nonetheless captured nearly 50 percent of that state’s GOP vote.

There’s another explanation for why these endorsements have failed to shift the political winds: Most endorsements from the political elite simply came too late to make a difference, according to Marty Cohen, a political scientist at James Madison University and one of the writers of “The Party Decides.”

Endorsements from governors can make a difference if they come months in advance of primaries because governors often wield effective political and fundraising machines. But when that endorsement comes a week in advance of when voters choose their parties’ nominees — as with LePage’s endorsement of Trump — it leaves little time to put that influence to work.

“The real failure this election season was the elite in the party not making a concerted effort early on to rally around a candidate,” Cohen said.

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It is the Sanders campaign’s ability to energize folks otherwise new to the process that leads me to see the Michigan win as especially significant.

One may be tempted to look at Sanders’ sweep here in Maine and his subsequent Michigan win and return to that old aphorism: “As Maine goes, so goes the nation.” But Clinton still took Mississippi, which some may attribute to a divide of support in white versus black communities, but Colin Woodard, writer of “American Nations,” also would point out that the political and social culture of Mississippi, a state he’d classify as “Deep South,” and Michigan, which he’d classify as “Yankeedom,” are themselves very different — the latter sharing a lot in common with Maine.

We should be cautious to make too much of Sanders’ Michigan victory beyond saying with relative confidence that the race isn’t not over.

Sanders is a flawed candidate, as is Clinton. Some

of his positions on race in particular are problematic, as with Clinton. He is very much a white guy with a long history of being embedded in a white state, and it shows. He’s got a lot of work to do to fill those gaps, as well as to speak comprehensively about foreign policy and other issues outside the realm of economic inequality. It isn’t to say he can’t be trusted to have his heart and brain in good places to assign the right people to advise on these issues. No one will be perfect.

But it appears clear Sanders appeals to people who otherwise are put off by politics, “the way things are supposed to be,” dynasties and other baggage carried by the darlings of the Democratic National Committee. While the so-called “delegate math” may not look great for Sanders, as our caucuses here began to indicate last Saturday, the fight’s not over.

Not yet, at least.

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