

A high-angle, vertical photograph of a brick courtyard. The courtyard is flanked by multi-story brick buildings with several windows and air conditioning units. In the center, there are trees with vibrant autumn foliage in shades of red, orange, and yellow. A silver hatchback car is parked in the upper part of the courtyard, a dark blue sedan is parked in the lower part, and a dark-colored SUV is parked in the bottom right. The overall scene is brightly lit, suggesting a sunny day.

SHIFTING GEARS

**Why Communities Are Eliminating
Off-Street Parking Requirements—
and What Comes Next**

By *Catie Gould*

COLUMBUS, OHIO, INVENTED THE FIRST KNOWN off-street parking requirement for an apartment building in 1923. After nearly a hundred years, the results are in, and they're not good.

Last year, an assessment of the local zoning code—commissioned by the city as part of a comprehensive code revision process—concluded that off-street parking requirements were “not effective” and “often poorly matched to true parking demand.”

That mismatch has gotten worse over time. Today's parking requirements in Columbus are far higher than their cousins from the city's midcentury zoning code. In 1954, an apartment building with 100 one-bedroom units was required to have 100 parking spaces; today it has to have 150. For a 2,500-square-foot restaurant, nine required parking spaces became 34, in the 90 percent of the city not covered by special overlay districts. These ratios are out of step with the local market, leading builders to request parking reductions more than any other type of zoning variance. City and regional plans have recommended reducing parking requirements and making them more consistent (LWC 2021).

Columbus is not alone. Across the United States, decades of similar parking requirements have led to a glut: researchers estimate that for every car in the country, there are at least three parking spaces—and some have suggested the number is closer to eight spaces.

This oversupply has created a host of problems: parking requirements can inflate housing costs, block buildings from being adapted to new uses, and contribute to sprawl, making additional driving (and parking) necessary. They create an administrative burden. And the impervious surfaces of parking lots increase the risk of flooding and contribute to the urban heat island effect.

But there is good news: of all the harms traditional zoning has inflicted on communities, parking requirements are the easiest to fix, said Sara Bronin, former chair of the Hartford, Connecticut, Planning and Zoning Commission. Bronin was at the helm in 2017, when Hartford became one of the first cities in the United States to eliminate residential and commercial parking mandates. The year before, city leaders had tested the waters by eliminating requirements in the downtown area, a move that yielded new development projects and new proposals for reuse. “Every community should be eliminating their parking requirements,” Bronin said.

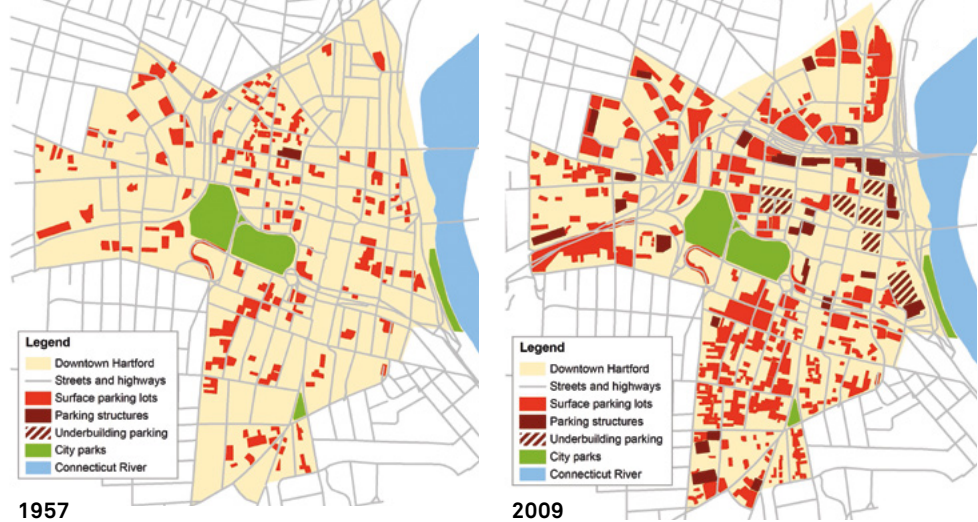
Each year, more cities are eliminating or reducing such mandates. In 2021, cities from Minneapolis to Jackson, Tennessee, eliminated minimum parking requirements from their zoning codes. In the week that this article was drafted alone, cities from Spokane to Chicago to Burlington, Vermont, rolled back parking mandates.

Communities might reduce their parking requirements because they are trying to reinvent themselves by attracting new businesses and development, accommodate population growth with space-efficient infill, or focus more on transit and walkability. Regardless of the reason, parking reform advocates say this land use regulation could finally be on its way out.

“We're going to look back at this as just this weird, late-20th century aberration,” predicts Patrick Siegman, an economist and planner who has been studying parking since 1992, including as a partner at the national transportation planning firm Nelson Nygaard. “We created something wildly inefficient.”

Across the United States, decades of off-street parking requirements have led to a glut: researchers estimate that for every car in the country, there are at least three parking spaces.

Researchers have determined that the land dedicated to surface parking lots in downtown Hartford, Connecticut, tripled between 1960 and 2000. Credit: Christopher McCahill and Norman Garrick.



Hartford Leads the Way

Like many industrial cities in the United States, Hartford saw dramatic population decline during the second half of the 20th century. In 1960, half of the people working in Hartford lived there, many walking or taking transit to jobs downtown; by 1980, less than a quarter of its workforce called the city home. Many white residents had fled for the suburbs and the overall population was declining. The repercussions of this demographic and economic shift are visible in the city's bounty of parking lots: to accommodate the increase in car commuters, the city essentially paved over swaths of its downtown.

As historian Daniel Sterner put it, "Hartford is famous for having so much torn down" (Gosselin 2013). Not even the city's first skyscraper, built in 1912, survived the demolition boom. It was razed to make way for a taller office tower, but those plans were abandoned in 1990 as the country entered a recession. The prominent corner lot became, and remains, surface parking.

University of Connecticut Professor Norman Garrick and his team found that from 1960 to 2000, the amount of land dedicated to parking lots in the downtown business district tripled, nearly equaling the amount of land underneath all the adjacent buildings. "The increase in parking was part of the collapse of the city," Garrick said. "It's typical of a lot of American cities."

Even without the research, there was little debate that Hartford had an oversupply of parking. "I don't think every city needs a full-on parking history, or parking analysis," said Bronin. "Most people should be able to just look around and say, 'there's a lot of parking in this city.'"

The overabundance of parking came at a great cost, Garrick's team found. In a 2014 report, they estimated that the city was missing out on property tax revenue to the tune of \$1,200 per downtown parking space, or about \$50 million a year. That was a significant amount for a city whose downtown buildings were generating \$75 million in annual tax revenue (Blanc et al. 2014).

Attracting investment is critically important for Connecticut's capital city—and particularly challenging. More than half of the city's real estate is nontaxable, because the land is owned by the government or nonprofit institutions. The rest is subject to the highest property tax rate in the state. Eliminating parking requirements citywide is one way to create a more flexible, inviting environment for development.

"It's easy to say we have no parking minimums, as opposed to 'what zone?'," said Aaron Gill, current vice chair of Hartford's Planning and Zoning Commission. The biggest hurdle now is convincing developers they have new options, Gill said. He encourages developers to revisit parcels they might have discounted in the past, and to review how much parking is actually being used in previous developments.

The strategy seems to be working. The quasi-public Capital Region Development Authority (CRDA) has funded more than 2,800 new homes downtown since 2012, aiming to build a critical mass of residents to support retail and other services. Mike Freimuth, executive director of the CRDA, said the new zoning code has helped reduce costs and increased the use of existing parking garages.

One of the CRDA projects, Teachers Village, involved converting an office building that had been vacant for 20 years into housing for area educators. Thirty percent of the apartments were designated as affordable. Prior to the code change, more than one parking space would have been required for each unit, but the renovated building has only 18 underground parking spaces for 60 households. The spaces are leased separately from the apartments, saving money for those who don't need a parking spot. According to estimates based on U.S. Census data, more than 30 percent of Hartford households don't even own a car (Maciag 2014).

Other redevelopment projects have cut deals with adjacent parking garages, which are also adapting to the new world of remote work, to provide an off-street parking option for residents for an additional fee. Two derelict commercial buildings on Pearl Street, which Freimuth used to joke were the largest pigeon

coops in the state, went that route when the buildings were renovated into 258 new homes. A few blocks away, a former Steiger's department store is being converted into 97 new apartments with commercial space below.

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The CRDA is also involved in an ambitious project known as Bushnell South, which aims to convert a 20-acre area dominated by surface parking into a vibrant, walkable, mixed-use neighborhood with up to 1,200 apartments and townhouses, restaurants and retail, green space, and cultural attractions. The city was reviewing proposals from developers this summer with the goal of moving forward this fall. Although some developers have expressed concern that the city is building more residential space than the market can support, Freimuth is eager to proceed. "This land has been laying fallow for 50 years," he told the *Hartford Courant* (Gosselin 2022). "Why do we have to keep on waiting?"

Planners hope to convert an area of downtown Hartford currently dominated by surface parking (left) into a mixed-use neighborhood known as Bushnell South (right). Credits (left to right): Mark Mirko/*Hartford Courant*, Goody Clancy/*Bushnell South Planning Consortium*.



The Benefits of a Citywide Shift

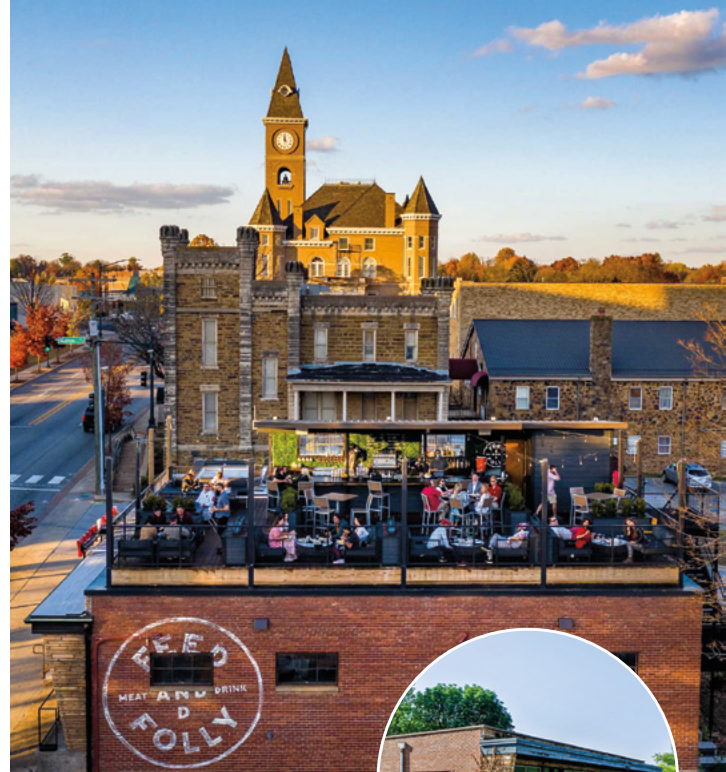
On the edge of downtown Fayetteville, Arkansas, a building that had stood vacant for nearly 40 years now houses a local restaurant with a rooftop patio. Down the road, a formerly abandoned gas station is back in use as retail space. The reuse of these once-forgotten properties was made possible several years ago, when Fayetteville's city council voted to remove commercial parking requirements citywide.

While most cities start with reducing parking mandates in a central business district, like Hartford did, planners in Fayetteville were fielding requests about properties throughout the city, and opted against defining a smaller boundary. At 44 square miles, Fayetteville is nearly 2.5 times larger than Hartford, with 70 percent of the population.

"As a city planner, you receive phone calls about what's possible with this property," Fayetteville planner Quin Thompson explained. "What I began to see was the same properties over and over again. Some of those properties were downtown, but a lot weren't." None of the parcels had enough space to meet the parking requirements in place at the time.

The planning staff approached the city council with the idea of eliminating commercial parking requirements citywide. Some of these properties were so constrained, they explained, it was impossible to imagine how they could be redeveloped under the current rules. They also said investors taking on the financial risk of a project were best suited to determine their own parking needs, and would act as a backstop even when the city was no longer regulating off-street parking spaces. In October 2015, Fayetteville's city council agreed.

What happened next? "The buildings that I had identified as being perpetually and perhaps permanently unusable were very quickly purchased and redeveloped, and are in use right now," said Thompson. "I can't think of any that are still out there that I had used as case studies that haven't been redeveloped."



The elimination of commercial parking requirements in Fayetteville, Arkansas, made new projects possible, including the conversion of a long-vacant building (inset) into the busy Feed and Folly restaurant. Credits: Courtesy of Feed and Folly; Katie Mihalevich, Realtor® (inset).

Thompson and his colleagues were right that the distinction between parking needs in a central city versus outlying neighborhoods can be arbitrary. In the lead-up to the removal of parking requirements in Edmonton, Alberta, in 2020, a citywide study of 277 sites found no clear geographic trend that related to how full parking lots were, even after factoring in variables like population density, walkability as measured by Walk Score, or drive-alone rate. Of all the sites surveyed, only 7 percent neared capacity at the busiest times of day. It was far more common for parking lots to remain half empty, as was the case for 47 percent of observed sites (Nelson Nygaard 2019).

In Fayetteville and other cities, eliminating parking minimums citywide has had another benefit: reducing administrative work and freeing up city staff to work on other things. "One of the

things you find in American cities is that they've got all of these college-educated planners, many of whom actually have graduate degrees, and what they're doing is spending hour after hour processing parking variances," explained Siegman.

Kevin Robinson was one of those planners, until he was hired as director of Planning and Development Services for Albemarle, North Carolina. To his surprise, the city had almost no parking requirements, having eliminated virtually all of them two decades prior. "However you came about it," he recalls telling city officials, "I think you're on the right track."

Towns where he had worked previously had only reduced parking requirements in central business districts, not citywide. "From an administrative standpoint, it's a heck of a lot easier to deal with," said Robinson.

"Quite honestly, a lot of times [parking minimums] are very arbitrary numbers," Robinson said. Now that he no longer has to enforce them, he has more time to spend on other aspects of development—including a downtown parking plan. He has plenty of data to rebut complaints that there isn't enough parking. Even at peak hours, public parking never gets more than half full, his heatmaps indicate.

Robinson acknowledges that eliminating parking minimums wasn't a cure-all: "We are still seeing far more parking being built than is absolutely necessary." (See sidebar to learn how the shift has played out in other cities.)

Construction in Albemarle is picking up as people get priced out of nearby cities like Charlotte. In the last two years, this small city of 16,000 has approved permits for 3,000 new

housing units, with another 1,000 in the works, including middle housing like duplexes and townhouses.

Robinson is nervous that the parking requirements, which were discarded at a time when the city wasn't growing, might return as development accelerates. "I'm trying to keep them from going in that direction," he said. His concerns aren't unfounded, as the experience of another city shows.

Left to the Market, How Much Parking Gets Built?

In Buffalo, New York, which struck down parking requirements in April 2017, a review of 36 major developments showed that 53 percent of projects still opted to include at least as many parking spaces as the previous code had required. The developers who did propose building less parking averaged 60 fewer parking spaces than the old minimum required, avoiding over eight acres of unnecessary asphalt and saving up to \$30 million in construction costs.

Seattle saw similar results after eliminating parking requirements near transit in 2012. A study of 868 residential developments permitted in the following five years found that 70 percent of new buildings in areas not subject to parking requirements still chose to have on-site parking. Collectively, the new buildings included 40 percent fewer parking spaces than would have previously been required, saving an estimated \$537 million in construction costs and freeing up 144 acres of land.

Sources: "What Happened When Buffalo Changed Its Parking Rules," Streetsblog (June 2021); "Seattle's Reduced Parking Minimums Cut 18,000 Stalls and Saved Over \$500 Million," State Smart Transportation Initiative (February 2021).

"The buildings that I had identified as being perpetually and perhaps permanently unusable were very quickly purchased and redeveloped, and are in use right now."

When Mandates Make a U-Turn

It took almost a decade for a new apartment building with no parking to arrive in Portland after the city waived requirements near transit in 2002. The political backlash came more swiftly. As Portland's rental market tightened, the city found itself with the second-lowest vacancy rate in the country in 2012. Apartment construction was booming, and buildings without off-street parking were becoming increasingly common.

Then controversy erupted. The epicenter was a 13-block section of Division Street, a car-oriented commercial corridor experiencing a building boom. By the time the issue made it to the front pages of *Willamette Week*, the local

weekly paper, 11 new multifamily buildings were under development, seven with no parking at all.

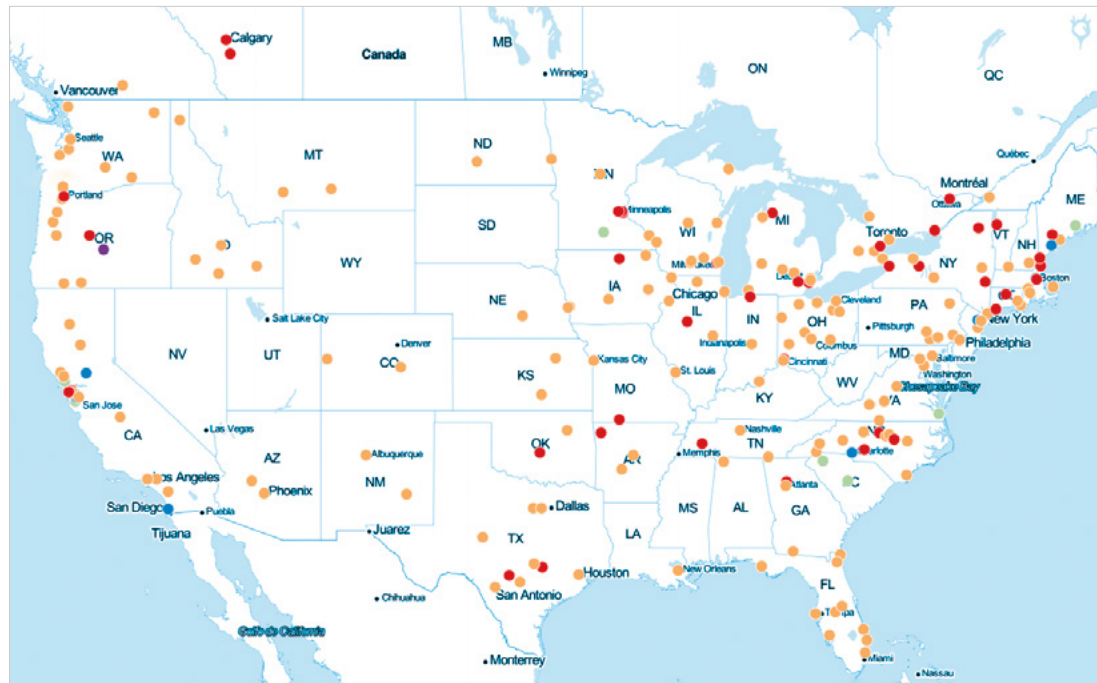
A city-commissioned survey of 115 residents of new apartment buildings would show that 72 percent of the respondents owned cars, with the majority parking on neighborhood streets (Mesh 2012a). Even though the same survey showed that the areas around the buildings had plenty of available parking, neighbors didn't perceive it that way. Mayor Charlie Hales, who had championed the removal of parking mandates as a council member in 2002, even floated the idea of instituting a building moratorium until the zoning code could be sorted out. Hales told *Willamette Week* that he had anticipated developers might build one parking spot instead

It took almost a decade for a new apartment building with no parking to arrive in Portland after the city waived requirements near transit in 2002. The political backlash came more swiftly.

Communities across the United States and Canada have modified or eliminated their off-street parking requirements. Credit: Parking Reform Network.

Scope of Reform

- Regional
- Citywide
- City Center/District
- Transit Oriented
- Main Street/Special



of two, but hadn't imagined banks would finance housing with no parking at all (Mesh 2012b).

In response to the outcry, Portland's city council reinstated a parking requirement for multifamily developments with more than 30 units. Those larger buildings would need to provide one parking space for every three or four units, depending on the building size. "That was the strategic retreat," Hales explained. "We decided to adjust our ideal slightly to a watered-down version in order to reduce the controversy."

Hales, who is no longer mayor, still believes strongly in eliminating parking requirements. "There's some things we really don't need to regulate," he said recently. "Minimum number of parking spaces is one of them." Given the political pressure of the time, he has a hard time imagining how things could have worked out differently.

While supporters of parking mandates prevailed in that case, the matter was far from settled. Several years after the brouhaha, regulated affordable housing near transit regained its exemption from parking requirements, after rising rents and economic displacement prompted Portland to declare a housing state of emergency and elect a tenant advocate to city council. Portland adopted an inclusionary zoning policy that same year, requiring multifamily buildings to set aside units for affordable housing—and waiving residential parking requirements for those buildings.

Looking back, Portland activist Tony Jordan, who went on to launch the national Parking Reform Network, thinks the city was foolish to derail the housing construction wave. "Why would you do anything" to make developers think twice about investing in larger buildings, he asked. The way the code was written, adding one more unit to a 30-unit building came with a penalty of six parking spaces, incentivizing builders to stay under the limit. "Even if we only lost 60 apartments," Jordan said, "that's a housing subsidy that we just threw away—and for what?"



Raleigh, North Carolina. Credit: Rose-Marie Murray via Alamy Stock Photo.

Communities with No Parking Minimums

According to the Parking Reform Network, the following communities do not have citywide minimum parking requirements (dates of implementation indicated when known). Learn more about these and other changes to U.S. parking mandates at www.parkingreform.org.

- **California:** Alameda (2021), San Francisco (2018), Emeryville (2019)
- **Connecticut:** Bridgeport (2022), Hartford (2017)
- **Georgia:** Dunwoody (2019)
- **Indiana:** South Bend (2021)
- **Michigan:** Ann Arbor (2022), Mancelona, Ecorse (2020), River Rouge (2021)
- **Minnesota:** Minneapolis (2021), St. Paul (2021)
- **Missouri:** Branson
- **New Hampshire:** Seabrook (2019), Dover (2015)
- **New York:** Buffalo (2017), Canandaigua, Hudson (2019), Saranac Lake (2016)
- **North Carolina:** Raleigh (2022)
- **Tennessee:** Jackson (2021)
- **Texas:** Bandera, Bastrop (2019)
- **Alberta:** Edmonton (2020), High River (2021)

Stopping Parking Spillover

When parking complaints bubbled up in Portland's Northwest neighborhood in 2016, the city was ready to try a different strategy: directly managing on-street parking. A local parking advisory committee had petitioned Portland's city council to apply the citywide parking requirements to the growing district, which had historically been exempted. But when a study showed that those regulations would have made 23 percent of newly constructed homes in the neighborhood illegal, the council opted to improve the district's fledgling parking permit program instead.

"When city staff manage on-street parking properly, they can prevent that on-street parking from getting overcrowded with a 99 percent success rate," said Siegman, who has spent much of his career studying spillover parking concerns. The problem, he said, is that almost no one has training in how to manage street parking in a way that is both effective and politically popular. On-street parking management is not part of the core curriculum for planners or transportation engineers.

"What you're essentially doing with on-street parking spaces is taking a valuable resource that belongs to the public and setting up rights to determine who gets to use it," said Siegman. Any hotel manager knows that once the keys are gone, there is no vacancy. Yet cities often hand out multiple residential permits for every street space, and wait until the problem is so bad that neighbors have to petition for curbside management.

When a neighborhood has more drivers seeking permits than there are on-street spaces, there are a number of ways to ensure balance. Boundaries for a parking district could exclude new buildings or households with driveways, or restrict the number of permits to the street frontage of the lot—forcing developers and incoming residents to make a plan for storing cars off-site.



Officials in Vancouver addressed curb congestion by raising the price of on-street parking permits. Credit: Elena_Alex_Ferns via Alamy Stock Photo.

Siegman estimates the costs of setting up an effective parking permit program could be somewhere in the neighborhood of \$100,000—a bargain compared to the cost of building parking, which can run as much as \$50,000 per space. "There are all kinds of different feelings about what's fair," Siegman said, "but you can often come to a solution that has durable majority political support."

That's what officials in Vancouver, British Columbia, did in 2017 to resolve crowded curbs in the West End. Despite 94 percent of residents having access to an off-street parking space, many still preferred to park on the street. Over 6,000 drivers had opted for the \$6 a month permit for the chance to park in one of the 2,747 on-street spaces. When the city raised permit prices to \$30 per month—more in line with what private garages charged—and installed more parking meters, curb congestion cleared up. Before that change, only one out of five blocks met the city's standards of being less than 85 percent full at the busiest times of day. Within two years of the pricing adjustments, all of the blocks measured below that threshold, making it far easier to find a parking space.

The Next Wave of Parking Reform

More and more, champions of eliminating parking mandates are getting elected to offices and planning commissions, according to Jordan, of the Parking Reform Network. “One person can really get the idea and push it through,” he said. The growing number of cities that have taken this deregulatory action (see map and sidebar on pages 28–29) provides political cover for policy makers who have been hesitant to go first.

But parking reform advocates say change should and will happen beyond the local level. Since “the perceived benefits of instituting parking regulations [have been] almost entirely local,” Siegman said, he thinks almost all of the productive reform to get rid of minimum parking laws is going to come from the regional, state, or national level.

A wave of legislation against parking mandates has been gathering momentum on the West Coast. In 2020, Washington State quietly capped excessive parking requirements near transit for market-rate and affordable housing. California’s third attempt to limit local parking requirements near public transit succeeded in September with the signing of AB 2097. That came on the heels of another statewide rollback in Oregon, where a state land use commission struck down parking mandates for projects near transit, affordable housing, and small homes across the state’s eight largest metro regions, which house 60 percent of Oregon’s population.

By July 2023, nearly 50 cities in Oregon will need to choose between wholly eliminating minimum parking requirements or implementing a suite of other tools to manage parking and comply with the new administrative rule. They are sure to have lots of company, as municipalities

and states across the nation weigh the harm these regulations have caused against the 20th century dream of free and easy parking.

Aaron Gill, of the Hartford Planning and Zoning Commission, has some simple advice for jurisdictions considering removing parking minimums: “I would say just do it. Don’t waste time having a discussion as to if it’s going to work or not. The reality is we have way too much parking in this country.” □

Catie Gould is a transportation researcher with the Seattle-based nonprofit think tank Sightline Institute.

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Municipalities and states across the nation are weighing the harm these regulations have caused against the 20th century dream of free and easy parking.