IF YOU PAVE IT, THEY WILL PARK

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Driving and parking reinforce each other. The provision of parking at every destination encourages people to drive, and the more people drive, the more parking spaces property owners think they need to provide. Fortunately, New Jersey's older, mixed-use centers show that the pattern can also work in reverse.

EXECUTIVE SUMMARY

New Jersey's transportation system—and that of the entire United States—is oriented toward the private automobile (now including pickup trucks and sport-utility vehicles), and has been since the 1950s, when construction began on the Interstate Highway System, kicking off an era of massive federal spending on roads. For almost three-quarters of a century at this point, new development has been built under the default assumption that residents, customers, and employees would be arriving and departing by car, and roads have been designed with the primary goal of facilitating easy car travel among destinations.

Part of a car-oriented system is the space required to store all these vehicles when not in use—that is, parking. Driving and parking reinforce each other. The more people drive, the more developers and local planning officials think every new project needs to be surrounded by parking. And the more parking is available at every destination, the more people will tend to drive. Parking lots not only push individual buildings farther apart, but they make the experience of walking between buildings unpleasant and unsafe, further reinforcing the impulse to drive, even between destinations that are relatively close together.

But it wasn't always like this, nor does it need to remain this way. New Jersey is full of older, walkable, mixed-use centers—not just cities but plenty of pre-1950s suburban downtowns—that were built before the private automobile came to dominate the transportation landscape. Their development patterns are oriented more toward walking and public transportation than toward driving everywhere. As such, they offer a blueprint for how to build in a way that facilitates access by means other than driving, a practice that New Jersey needs to re-learn if it hopes to provide more of the kinds of live-work-play-shop environments that today's young adults are looking for.

An important part of the equation when designing development for access by means other than just cars is to not require so much parking. Cities around the country are beginning to experiment with dialing back their parking requirements, so that new developments are allowed to look more like the mixed-use, walkable centers that were the norm before governments started pouring money into expansion of the road network. New Jersey should embrace the reexamination of parking requirements, start reclaiming some of its land from vehicles, and put it to better use in improving the quality of life of its residents.

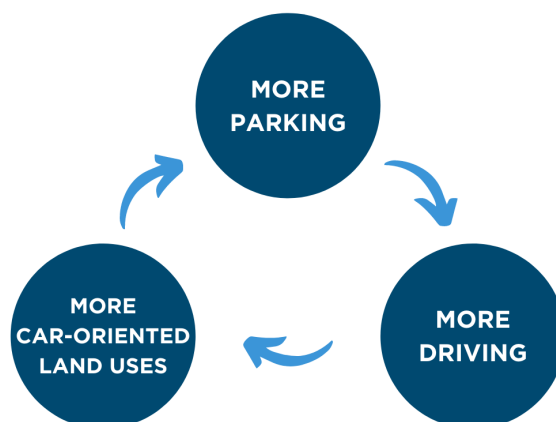## THE RISE OF THE DRIVABLE SUBURB

The automobile has been with us for well over a century. The Ford Motor Company began mass-producing the Model T in 1908, making cars affordable to America's growing middle class. But widespread car ownership and use didn't really kick into high gear until the 1950s, when construction began on the Interstate Highway System, marking the beginning of a massive program of federal spending on facilitating automobile travel.

The new highways spurred the birth of the first generation of car-oriented suburbs, luring residents out of central cities with the promise of a single-family home and a yard—and easy car access to their jobs back in the city. Many of New Jersey's (and the nation's) walkable, mixed-use cities—both large and small—began losing population in the 1950s or in the succeeding decades, as residential development relocated to the suburban fringe. Retail followed its customers to the suburbs in the 1960s and 70s, and employment began following suit in the 1980s and 90s, with the rise of the suburban office park, usually located near major highway interchanges.

Most of the new development that happened in New Jersey (and the rest of the country) in the second half of the 20th century was designed with the private automobile in mind. This pattern of development was exemplified by shopping centers, malls, and office parks clustered along wide, multi-lane suburban arterial roads, each one surrounded by an ocean of parking. Unsurprisingly, car-oriented development patterns induced more car ownership. In 1950, there were a little more than 1.5 million cars, trucks, and buses registered in New Jersey, when the state's population was about 4.8 million; by 2000, after half a century of suburbanization, vehicle registrations had reached 6.4 million, compared to a state population of 8.4 million. Registered vehicles per 1,000 population thus climbed from 324 in 1950 to 759 in 2000.

PLANNING FOR CAR ACCESS BECOMES A SELF-FULFILLING PROPHECY

Development that is focused on enabling easy access by car tends to incentivize people to drive. And the more people drive, the more new development will assume that its residents, customers, or employees will be arriving by car. This tends to lead to an increasing share of our developed land being devoted to the movement and storage of vehicles, with more miles of multi-lane roads connecting destinations, and more acres of surface parking lots surrounding them.

The phenomenon of "induced demand" for driving, wherein the addition of new road capacity provides only temporary relief from congestion because of the tendency for more people to start taking car trips to take advantage of the new capacity, has been gaining currency in the transportation world, with many planners and transportation professionals now recognizing that we "can't build our way out of congestion." But it is only more recently that attention is turning to the space we devote to cars and trucks when they are not moving.

Similar to induced demand for road capacity, more parking creates an incentive for everyone to drive to every individual destination, instead of parking once and walking among multiple destinations that are close together, as is possible in most of the state's traditional downtowns. Surrounding each destination with parking forces the buildings themselves farther apart, making the distances among them less walkable. This can even be observed in the successive generations of suburban retail. The archetypal enclosed mall that dominated the retail landscape in the 1970s and 80s assumed that everyone would be arriving by car, but once inside the building, customers could at least easily walk from one store to another. Contrast that with the rise of the big-box center in the 1990s and 2000s, where a lack of internal connection means that shoppers routinely drive from one end of the parking lot to the other when accessing multiple destinations. It turns out that walking across a flat, featureless expanse of parking lot, where moving vehicles present a constant danger to your safety, is much more unpleasant than strolling through the mall and window-shopping along the way.

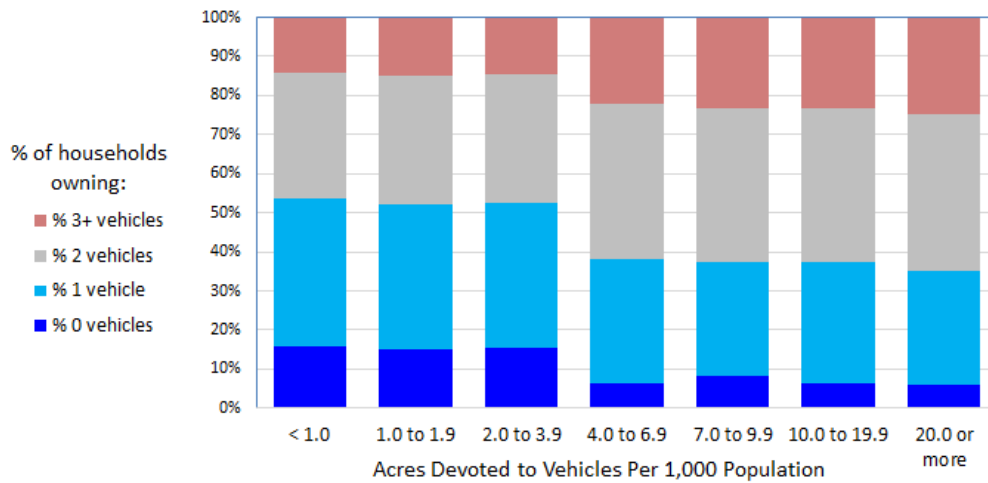## DEVOTING MORE LAND TO CARS RESULTS IN MORE CARS

New Jersey's diverse array of municipalities illustrates the relationship between how much space is devoted to cars and how many vehicles people feel compelled to own and operate. We looked at municipal-level data on household vehicle ownership[1] and on the per-capita acreage devoted to the movement and storage of cars and trucks[2] and found that a greater per-capita acreage of developed land devoted to vehicles is associated with greater vehicle ownership (see Figure 1). Note that the percentage of households that are either car-free (owning zero vehicles) or "car-light" (owning one vehicle for use by the entire household) exceeds 50% for municipalities that devote relatively little of

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[1]   From the 2020 five-year American Community Survey

[2]   Land use/land cover data are from Rowan University's NJ MAP project and date to 2015, the most recent set of land development data available at the municipal level. The detailed data contain several land-use categories pertaining to transportation, and we included those most clearly related to cars and trucks (Major Roadway, Bridge Over Water, and Mixed Transportation Corridor Overlap Areas) while excluding rail and air transportation facilities. We also included the "Transportation Not Elsewhere Classified" category, since this will include all other roads as well as surface parking. This last category also includes lands associated with maritime transportation, which is not broken out as a separate category. This resulted in the exclusion of Newark from the analysis, because its extensive port-related land uses (not just cargo unloading areas but port-adjacent warehousing parking lots, truck parking, and other paved staging areas) inflated its transportation-related acreage out of proportion to the generally compact and walkable development found in the residential and commercial parts of the city, causing a confounding effect on the overall results thanks to Newark's large population. Similar effects were detectable in other port-adjacent municipalities like Kearny, Elizabeth, and Carlstadt, but the effects on the results were not as dramatic, thanks to smaller populations and/or smaller amounts of land dedicated to port-related goods transportation, so these other municipalities were kept in the analysis.
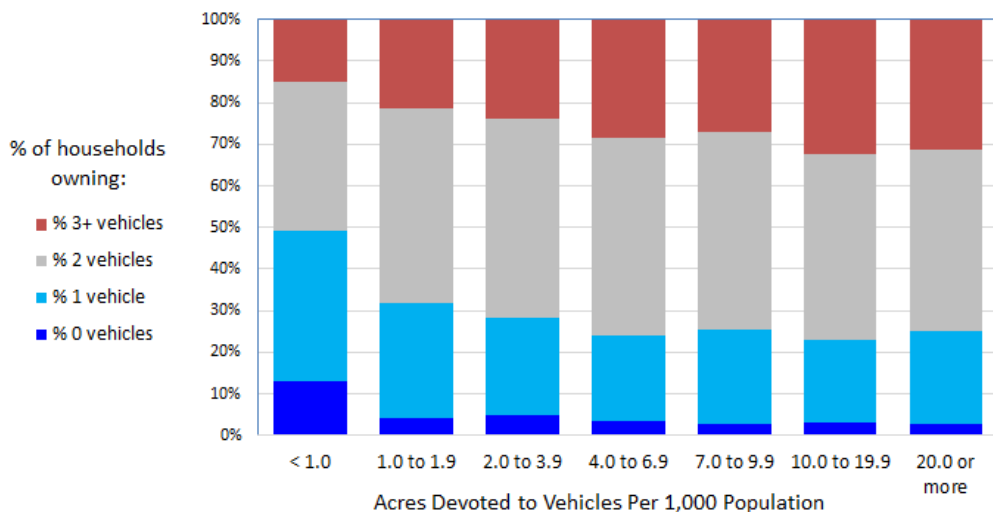
their developed land to roads and parking but drops below 40% in more car-dependent landscapes where getting around without a car gets more difficult, in which case the ownership of multiple vehicles becomes the norm.

FIGURE 1. HOUSEHOLD VEHICLE OWNERSHIP BY ACREAGE DEVOTED TO VEHICLES

It is true that vehicle ownership is also correlated with income, and that the state's older centers that were built before the age of the automobile and are hence more walkable also tend to be home to disproportionate shares of lower-income households that may not be able to afford cars. But the relationship persists even after correcting for income. If we look only at the 119 municipalities with median household incomes[3] greater than $127,868 (1.5 times the statewide median of $85,245), the percentage of households owning zero or one vehicle, while generally lower than in the previous chart, exhibits the same decline as more land is devoted to roads and parking (see Figure 2). In fact, even among higher-income places, the percent of households that are able to go at least car-light nearly cracks 50% in the places where the land use patterns are least car-oriented, whereas it drops to about 25% for places where vehicles command a greater share of the land.
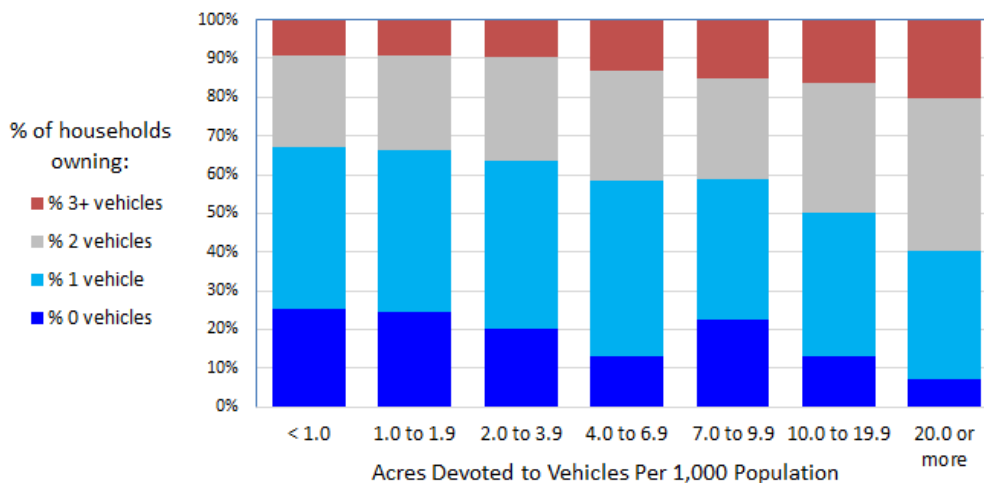
FIGURE 2. HOUSEHOLD VEHICLE OWNERSHIP BY ACREAGE DEVOTED TO VEHICLES: HIGH-INCOME MUNICIPALITIES

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[3]   Median household income data are again from the 2020 five-year American Community Survey
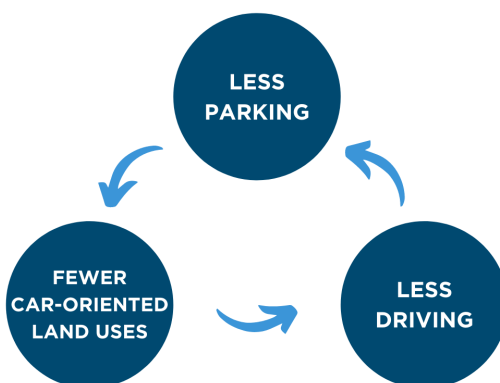
Among lower-income municipalities,[4] too, the pattern repeats itself (see Figure 3), with car-oriented development patterns making vehicle ownership a necessity even for households that may struggle to afford a car. The proportion of car-free or car-light households drops from two in three when fewer than 2.0 acres per 1,000 population are devoted to vehicles to only about two in five in the most car-dependent category. Building in a way that makes car travel the default mode of getting around forces lower-income households to spend money on vehicle ownership that might be better spent elsewhere.

FIGURE 3. HOUSEHOLD VEHICLE OWNERSHIP BY ACREAGE DEVOTED TO VEHICLES: LOWER-INCOME MUNICIPALITIES

% of households owning:
- % 3+ vehicles
- % 2 vehicles
- % 1 vehicle
- % 0 vehicles

Acres Devoted to Vehicles Per 1,000 Population: < 1.0, 1.0 to 1.9, 2.0 to 3.9, 4.0 to 6.9, 7.0 to 9.9, 10.0 to 19.9, 20.0 or more

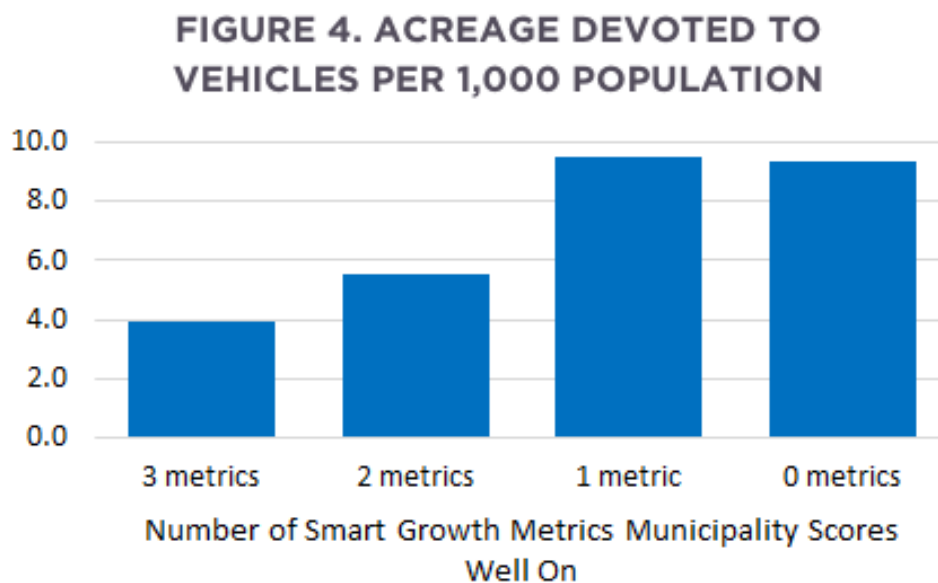## REDISCOVERING WALKABILITY: NEW JERSEY'S OLDER CENTERS SHOW THE WAY

Fortunately, the vicious cycle between the provision of parking and the incentive to drive can be reversed. The state's older cities and suburban downtowns that were built before the automobile became dominant are the blueprint for how to achieve this. These places were built before most households owned a vehicle, so their development patterns are oriented more toward walking and public transportation than toward driving everywhere. To reduce how much driving people need to do—and how many vehicles they need to own—we need to re-learn how to build new development that resembles what was already in place in New Jersey before the automobile rose to prominence, development that facilitates access by means other than driving.

LESS PARKING

FEWER CAR-ORIENTED LAND USES

LESS DRIVING

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[4]   These are the municipalities in the lowest quintile, with median household incomes of $71,411 or less.

In older, mixed-use centers, people who already live in town can often walk to local destinations. And people arriving from out of town will not need to drive among multiple destinations. Older downtowns are often walkable enough that, even for people arriving by car, a "park once" approach is sufficient—that is, visitors can park in a central facility (a municipal parking deck or a surface lot situated off the main street, behind stores and restaurants, so as not to interfere with pedestrian activity) and then easily walk from one place to another. (Incidentally, this is basically the same advantage that enclosed shopping malls have over their newer competitors, the big-box centers.) This reduces the amount of parking that is needed overall, since not every destination needs its own parking lot when parking can effectively be shared among multiple destinations that are within walking distance of each other.

Figure 4 illustrates this relationship, with municipalities categorized by how many of New Jersey Future's three metrics of compactness and walkability[5]—net activity density (people plus jobs per developed land area), presence of a mixed-use center, and connectivity of the street network (as measured by median block size)—they score well on. The 124 municipalities that score well on all three metrics average just under four acres dedicated to vehicles per 1,000 population, while those scoring well on none or only one average more than double that amount. A compact, mixed-use development pattern that puts destinations within easy walking distance translates to less land needed to store vehicles at the end of every trip.

FIGURE 4. ACREAGE DEVOTED TO VEHICLES PER 1,000 POPULATION

Number of Smart Growth Metrics Municipality Scores Well On

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[5]   The first two of these, along with a different measure of street network connectivity (route-miles of local roads per square mile), were originally described in New Jersey Future's report *Creating Places To Age in New Jersey* – see, in particular, the section on "Identifying good "places to age,'" beginning on page 8 of the pdf. In the intervening time, we have adopted a different metric of street network connectivity, median block size, with smaller blocks indicating better walkability.

RECLAIMING LAND FROM CARS

One approach that can help foster more pedestrian-oriented development is to simply not require new developments to provide so much parking in areas where destinations are already relatively close together, especially in areas where public transportation is available as an alternative. Reducing or eliminating parking requirements both frees up space for other uses that would otherwise be used for parking and reduces the incentive to drive everywhere. An increasing number of cities are experimenting with this tactic, including Fayetteville, AR (which beat the larger cities to the punch), Buffalo, NY and Berkeley, CA. In the latter case, the loosening of parking requirements pertains to residential development and is designed to encourage greater housing density and diversity, a notable evolution for a place that helped pioneer the concept of exclusionary zoning in the past. In general, reducing or eliminating parking minimums will encourage denser development, since builders will seek to use more of their land for productive uses and less for parking, which usually does not generate revenue and adds to land costs.

The Parking Reform Network maintains a map of states and cities that have instituted some type of parking reform. So far, only three New Jersey municipalities—Jersey City, Newark, and Metuchen—appear on the list. With its wealth of older, walkable centers, plenty of other places in New Jersey should consider relaxing parking requirements as a way to accommodate new development in neighborhoods that are already walkable. Making room for new residents in built-out older downtowns is important, because such neighborhoods are currently in high demand.

Another related tactic, one that can be used by places that are already oversupplied with parking, is to reclaim surface parking lots for other uses, essentially treating surface parking as a land bank. In some places, the best use might be to convert surface parking to urban green space, especially in lower-income neighborhoods that have historically been undersupplied with parkland. In other cases, infill development projects on surface parking lots can add much-needed housing diversity, new retail, and public spaces, creating room for new residents and businesses while simultaneously improving the pedestrian environment for people who already live there. This is essentially what Metuchen has done with the Woodmont Metro at Metuchen Station project, which created new transit-oriented retail and residential development and a new public plaza adjacent to the Metuchen train station, on land that had been surface parking lots, enabling the town to diversify a housing stock that had been dominated by single-family detached homes.

Reducing or eliminating minimum parking requirements (or instituting parking maximums) is just one component of a strategy to enable people to drive less, which is in turn an important—though sometimes overlooked—method of reducing greenhouse gas emissions from the transportation sector. But as is true with improving pedestrian safety, reducing the amount of land devoted to parking has a host of ancillary benefits beyond reducing carbon emissions. Building in a way that promotes walking—and "park once" driving trips—results in less taxpayer money spent on expanding roads and less developer money devoted to paving surface parking lots (an expense that gets passed through to residents or retail customers). It means people can spend less time behind the wheel and more time with family and friends, pursuing activities that improve their well-being. It means improving physical health as well by allowing people to walk or bike more. It can reduce

the need for vehicle ownership, an especially important consideration for households at the lower end of the income spectrum. And the land reclaimed from car storage can be used for any number of other, more beneficial purposes, whether it is an opportunity for a built-out town to add housing supply and diversity, the creation of new urban green spaces that [improve mental health](#) and [reduce the urban heat island effect](#), or making space to add new retail to a neighborhood in need of it.

Given the array of potential benefits of devoting less acreage to the storage of personal vehicles, the state's municipalities should follow the examples of Fayetteville, Buffalo, Berkeley, and Metuchen and take a fresh look at how much parking they really need, and how they might be able to put that land to better uses.