Innovative Parking Programs Across the U.S.

San Francisco

The SF*park* pilot project provides real-time information on parking availability and cost; reduces double parking, circling, and congestion; and improves parking ease and convenience. A high-caliber data management tool allows the San Francisco County Transportation Authority to make rate-change recommendations, supply real-time data, maintain optimum operational and contractual control, and rigorously evaluate the pilot's various components. One of the project's bravest steps was requiring city and government employees to pay for parking. The move was designed to bolster the program's credibility before asking voters to consider sweeping changes in parking management.

New York

The country's biggest city has 86,000 networked parking spaces supported by a 100 percent pay-and-display meter plan that accepts credit cards, NYC Parking Cards, and cash. The New York City Department of Transportation has instituted ParkSmart to manage peak pricing, and a graduated-rate Commercial Metered Parking program to manage Midtown Manhattan's curb access during business hours and serve passenger parking needs in the evenings. A Bus Metered Parking program controls bus curb access to Lower Manhattan attractions. Curb regulation signs have been updated to make them easier to read. To encourage bike usage, the city is repurposing 12,000 former single-meter poles to become bike racks (Cityracks). Numerous technology programs also are underway, including dynamic parking occupancy forecasting; development of a regional parking management service (ITS' ATMS-R17); Smart Collection and Maintenance routing; a pay-by-cell program; license plate recognition (LPR) parking survey vehicles; and time lapse, video, and magnetometer occupancy data collection and mapping.

Seattle

Seattle Department of Transportation's (SDOT) Performance-Based Parking Program uses a data-driven process to adjust on-street parking rates for 12,500 spaces so that visitors can reliably find parking in downtown and neighborhood business districts. SDOT calculates peak parking conditions to adjust hourly rates and/or time limits, ensuring balanced occupancy and space availability on each city block. Its "After 5" program extends the normal two-hour maximum by one hour from 5 to 8 p.m., giving people time to enjoy dinner and a show. The "Best Value" program encourages parking outside the congested core to areas with longer time limits and/or lower rates. e-Park, an innovative electronic parking guidance system, uses dynamic real-time message signs and web information to direct people to available off-street parking at numerous downtown garages.

Los Angeles

Despite the tough economy and limited funding, the City of Los Angeles Department of Transportation's (LADOT) parking operations have transformed a former eyesore into a model of improved efficiency, customer service, and revenue. Since 2008, the city has updated parking rates and hours, overhauled parking lots and garages, and deployed state-of-the-art technology, growing annual revenue from \$37 million to \$67 million. An award-winning public-private partnership has allowed LADOT to upgrade half of its meters at no cost to the city, with the revenue going toward new equipment. Wireless technology allows technicians to quickly respond to problems, increasing service reliability to nearly 100 percent. The city's 38,000 metered spaces accept debit and credit cards, resulting in more than one million monthly plastic transactions. Boasting the world's largest number of solar-powered parking meters, Los Angeles has eliminated the environmental issue of battery disposal. Approximately 7,000 wireless parking sensors direct customers to street

spaces, help enforcement officers locate violations, and provide operations staff with information on parking-demand patterns. These are implemented throughout downtown for the federally funded LA Express ParkTM program, which is using demand-based pricing to improve L.A.'s infamous congestion and pollution.



Washington, D.C. transitioned its 18,000 metered parking spaces to a pay-by-cell system after a 2011 study that assessed various configurations and technologies, including pay-by-license-plate and space-sensing technology. In less than a year of trial use, the pay-by-cell system had 30,000 customers and accounted for more than 100,000 transactions, making it a clear winner in the study. Carefully integrating the new system with

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existing enforcement and revenue collection systems, the city then embarked on an aggressive marketing and public outreach campaign to educate users about pay-by-cell. Two years after full city-wide implementation, the system had 600,000 customers and accounted for almost 45 percent of the city's total parking revenue. In a survey, 95 percent of customers said they would use the pay-by-cell system again; 86 percent said they would recommend it to others; and a vast majority said their experience parking using the system was positive.¹

Portland, Ore.

The City of Portland has integrated innovative parking strategies, programs, and pricing to improve livability, economic development, and transportation demand management (TDM). On-street management strategies include varied-rate meters in the downtown area and expansion of the Area Parking Permit Program, which effectively discourages long-term parking in neighborhoods by those not visiting area residents or businesses. The city also increased stadium-area parking rates and extended time limits during Portland Timbers pro soccer matches. Portland's strong focus on sustainability is reflected throughout its parking operations. Its SmartPark garages use energy-efficient lighting, electronic way-finding signs, and an automated pay-on-foot system, along with live customer-service representatives. To promote the visibility of car share, Portland created an auction for on-street car-share space rentals within meter districts, which also ensured fair pricing of the right-of-way. Together, these measures promote sustainability while improving customer service and enhancing revenue.

Miami

The Miami Parking Authority (MPA) was one of the early parking-management organizations to implement pay-by-phone technology; was the first in the U.S. to partner with a European car-share program, and led Florida in piloting pay-by-plate technology. MPA has been an innovator in forging public-private partnerships for parking and creating a Vehicular Protection Program during natural disasters. The city offers a wide range of special-discount programs for residents and downtown visitors, including daytime and evening park and shop and quick-visit parking, and is preparing to integrate a bike-share program.

Houston

Can parking be an engine for economic development? The City of Houston has proved that it can with numerous measures, including 1,000 pay-and-display meters that communicate on a real-time network; a pay-by-phone program; data-analyzing tools to improve performance, efficiency, and customer service; and a Parking Benefit District that uses a portion of meter revenues to pay for parking improvements. The city has increased its Central Business District ADA on-street space inventory from 45 to 245 spaces while tightening up on abuse by supporting state legislation to increase ADA parking-violation penalties, enforcing time limit restrictions for ADA vehicles, holding monthly police department stings to confiscate fraudulent ADA placards, and training 400 volunteers to enforce proper ADA-space usage. Other programs include annual customer-service training for enforcement officers, community outreach, and a Master Parking Plan to assess and develop unique parking management plans.

Boston

The City of Boston's Department of Transportation has focused on increasing efficiency and customer service, making it easier for residents to obtain and renew parking permits online. Residents can simply attach scanned images and billing information to the online record and a staff member verifies the data and sends their sticker. Abandoned vehicles can be quickly reported in real time to the Mayor's Call Center, which creates an email notification of the record. Its Officer Management System uses sophisticated, customized tools to track parking ticket issuance, relaying police-officer duty status information to supervisors.

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Denver

Denver's innovative Strategic Parking Plan uses customized strategies to address parking challenges, while maximizing supply and balancing diverse user needs. It includes bike/car share, valet-stand administration, ordinance and zoning code coordination, curb-lane management, paid overnight parking, on-line customer services, and citywide electric-vehicle charging stations. Key aspects of the plan: collaboration with city agencies, neighborhood organizations, and stakeholders; utilization of new technologies such as single- and multi-space smart meters, self-release boots, and license plate recognition systems; and integrated enforcement practices and training.

Pittsburgh

After Pittsburgh become one of the first cities on the East Coast to install pay-on-foot machines, the Pittsburgh Parking Authority continued its forward progression by upgrading its garages with state-of-the-art revenue control equipment and leading the country in the installation of a cutting-edge meter system for both on- and off-street parking. The completed first phase of this upgrade includes 555 pay-by-plate meters, with 330 additional meters planned. Future options also will allow for license plate recognition and pay-by-phone, making Pittsburgh's approach to parking both innovative and successful.

Tampa

With efficiency and sustainability among its chief goals, the City of Tampa Department of Public Works Parking Division has made a number of positive changes in its parking operations. Among them are upgraded garage lighting system that has cut energy costs in half and the installation of 10 electric- vehicle charging stations in eight locations. The city's fully-automated parking operation features a universal parking access card for employees and vendors, multi-space meters and a metered space-reservation program for on-street parking, and a mobile payment platform. Its Permit Management System uses license plates as credentials and permits online payment. Tampa also has enhanced safety and security by installing web-based camera systems at key parking-facility entry points.

Baldwin Park, Calif.

When the city of Baldwin Park, Calif., prioritized the development of a vibrant, pedestrian-friendly urban center, planning for parking was a crucial component. Building a new parking structure directly across the street from an existing mass-transit stop and next to City Hall (funded by the city, Metro, and the Federal Transit Administration), transformed the stop into an efficient transit link. A new pedestrian bridge to the Metrolink Train Station served bus and train patrons, as well as City Hall visitors and employees. Employing a parking-management plan at the beginning of the process enabled developers to accurately forecast the number of parking spaces needed in the new facility. A network of attractive, clearly marked paths connecting residential, retail, and transit components with the structure have encouraged the use of transit and enhanced the area's walkability.²

Charlotte, N.C.

Charlotte, N.C.'s explosive growth nearly doubled its population in 20 years, putting a strain on its on-street parking system. Congestion had increased significantly with the number of residents and amenities, including restaurants, stadiums, and infrastructure. After the city embarked on a curb-lane-management study in 2011, it began piloting a new curb-lane-management system on a busy central street, which included new parking signage, meter-system restructuring, and a pole inventory to avoid the installation of more curb furniture. It also removed rush-hour restrictions and confusing signs along the mile-long street. As a result, complaints from

visitors and residents plummeted and congestion decreased drastically. This sparked similar projects throughout the city, including the conversion of some one-way streets to two-way systems. The project was so successful that it won an IPI Award of Excellence in 2013.³

2 The Parking Professional, April 2014

3 The Parking Professional, December 2013