



National Center  
for Sustainable  
Transportation

# Changing Workforce Development Needs for Regional Transportation Planning Agencies in California

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## Issue

In California, Senate Bill 375 (SB 375, 2008) required each Metropolitan Planning Organization (MPO) to develop a Sustainable Communities Strategy (SCS). This mandate required MPOs to set targets and develop strategies to reduce transportation-related greenhouse gas emissions within their region. To deliver effectively on this policy, there has been an amplified need for a workforce with both technical and functional skills.

In the context of MPOs, technical (or technological) skills include the use of intelligent transportation systems, new engineering practices, and modeling (using mathematical formulas to represent and predict the impact of multiple actions by many people on transportation or air quality, etc.). Functional skills include public outreach, communications, stakeholder engagement, and leadership.

This policy transition was made more difficult by rising retirement rates within the public sector and the growth of intelligent technologies being used in the workplace. By 2020, 16.5% to 20% of the entire workforce in the United States will be 65 or older and, in the transportation sector, this percentage is even higher. Many of the important technical and functional skills for the modern planning workforce require a facility with information technology, modeling software, social media, and outreach that were not typically developed in the past.

In this research, MPOs were approached through surveys and in-depth interviews, with questions on changes in their processes and workforce needs due to various factors, including the requirements of SB 375.

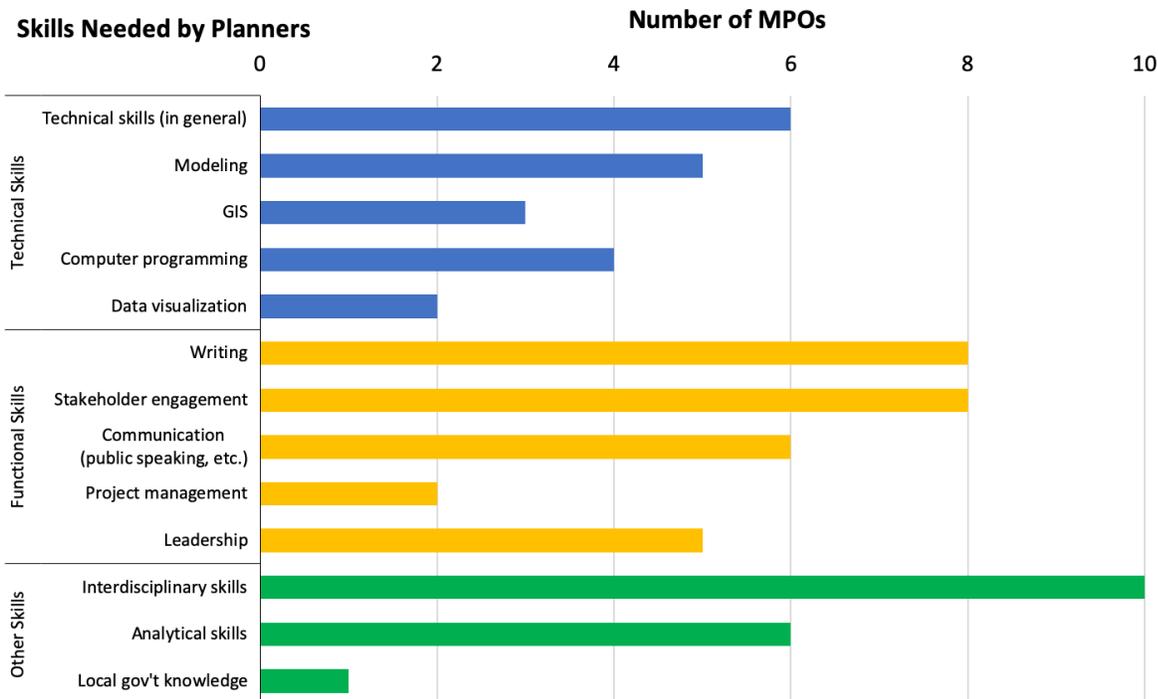


Figure 1. Skills required of planners, according to MPO interviews: Number of MPOs (out of 10 surveyed) where interviewed personnel indicated that planners needed the skills shown here.

POLICY BRIEF

## Key Research Findings

**SB 375 increased demand on resources in MPOs.** Representatives from MPOs interviewed for this research stated that the preparation of Regional Transportation Plans with SCSs had significantly increased the demand on their resources—both human and financial. Due to workforce capacity shortages, aspects of the plans were outsourced to consultants. In addition, SB 375 opened the door to litigation against MPOs based on SCS processes. This created an unanticipated need for planning staff to coordinate internally with legal counsel and take additional steps to avoid lawsuits.

**SB 375 increased the need for planners to have both technical and functional skills.** MPO representatives indicated that SB 375 generated the need for planners with technical skills who could perform modeling of air quality, greenhouse gas emissions, and land use with a good grasp of technology tools such as modeling software. In addition, SB 375 increased the need for public outreach and consultant management. Hence, functional skills such as stakeholder engagement, communication (digital, written, and oral), leadership, and project management were identified as vital for future transportation planners. **Figure 1** shows which skills are most important for planners to have according to the survey of MPOs.

**MPOs in California face workforce challenges unique to their location.** Factors such as cost of living, accessibility to services, and future workplace advancement all affect local and regional hiring practices.

**SB 375 increased MPOs' responsibility without a commensurate increase in resources.** State and regional policies that affect funding of MPOs and allocation of funds within MPOs may enable them to better meet the targets set in SB 375 and similar regulations.

## Further Reading

This policy brief is based on “Changing Workforce Development Needs for Regional Transportation Planning Agencies in California,” a report from the NCST, prepared by Dr. Thomas O’Brien, Dr. Tyler Reeb, and Sneha Jaishankar, of California State University, Long Beach. To download the report, visit: <https://ncst.ucdavis.edu/project/changing-workforce-development-needs-ca/>

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## Policy Implications

Policy implications affect educational institutions and MPOs.

**Educational Institutions:** Colleges and universities will need to update their transportation curricula to train students in the skills needed by MPOs and other planning entities. Specifically, the curricula should include modeling (transportation, air quality, land use) with up-to-date software; communications, including both traditional and social media; project management; stakeholder engagement; and leadership. Strategies in creating real-time, dynamic course content with effective input from practitioners in the public and private sector is the greatest challenge and opportunity for an educational institution. Policies surrounding effective integration of on-the-job-training, professional certification, and use of current technology in the classroom will pave the way for a competent workforce. Schools may also need to increase communications to students about planning careers, and their rewards and benefits.

**MPOs:** From a public sector standpoint, MPOs witness firsthand the challenges experienced by newly hired planners. Their contribution in providing work experience to young graduates as interns or part-time associates with real-time projects will enhance the effectiveness of the workforce.

MPOs internal policies could include:

1. Active collaboration with local colleges to provide MPO-specific mentoring opportunities;
2. Providing input into the curriculum development process; and
3. Sharing accurate job descriptions and job postings with universities to create a real-time picture of MPO-level job functions and their relationship to university planning coursework.