# January 2021 MIAMI-DADE TPO TELECOMMUTE STUDY Executive Summary





**OVERVIEW** On July 23, 2020, the TPO Governing Board adopted Resolution #21-2020 approving a scope of services and budget to study the concept of telecommuting as an overall strategy to "flatten the congestion curve" in Miami-Dade County. This study addresses that resolution. A significant outcome of this study is the advancement of a pilot program to maximize telecommuting opportunities in South Florida.

The COVID-19 virus has presented a range of challenges, but it has also presented opportunities to showcase resilience. Telecommuting is one example of that resilience, reflected in a growing trend in many industries to comply with social distancing guidelines. The Miami-Dade Transportation Planning Organization (TPO) has embarked on an effort to understand telecommuting trends and the possibility that telecommuting can be used as a sustained traffic congestion mitigation strategy. As part of this effort, the Miami-Dade TPO, in coordination with the Florida Department of Transportation (FDOT), developed a survey investigating telecommuting experiences and relied on a project working group and feedback from an executive roundtable. The roundtable was held with the participation of the Greater Miami Chamber of Commerce, business and government leaders in Miami-Dade County. Their input helped frame some of the key questions that this study is designed to answer:



An assessment based on a literature review of national and international telecommuting trends; a telecommute survey providing insights into the telecommuting experience; and the collection of travelrelated data was used to develop viable policy recommendations that can be implemented to promote telecommuting in Miami-Dade County.

**Prevalence of Telecommuting** The survey conducted in support of this study indicates a telecommuting rate of up to 60% during the COVID-19 pandemic and an expected sustained rate of up to 50% after the pandemic. However, telecommuting is hardly a new concept. It has been part of the Travel Demand Management (TDM) toolbox for decades. According to the <u>American Community Survey</u>, the percentage of Americans working at home has increased over the past decade, from 4.5 percent in 2014 to 5.3 percent in 2018. This same source shows that working at home was more common than taking public transportation to work in 2017 and 2018.



**Benefits of Telecomputing** There is a consensus in the literature that increases in telecommuting are correlated with reductions in traffic congestion. Since commute trips often occur during peak hours, telecommuting can lessen peak hour congestion on the roadway network. Telecommuting also offers benefits for both employers and employees. For employees, telecommuting can boost morale through improving work-life balance, increasing job satisfaction, and promoting stronger individual wellbeing. For employeers, benefits include cost reductions, increased worker productivity, and company attractiveness for potential staff recruits. Additionally, employers have a wider pool of candidates to choose from, since they are not restricted to people who live nearby or are willing to move.

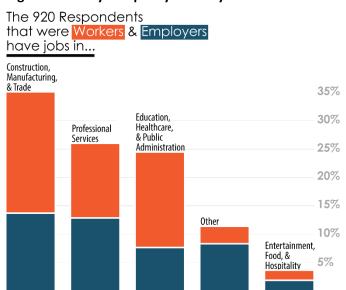
### TELECOMMUTING ASSESSMENT Analysis of the data collected reveals both

challenges and opportunities associated with a sustained telecommuting trend in Miami-Dade County and provides insights to inform potential telecommuting policy recommendations.

**Telecommuting Survey** To better understand telecommuting during the COVID-19 pandemic, Miami-Dade TPO partnered with FDOT and Florida International University (FIU) to conduct a statewide survey in August 2020. The survey collected 1,364 responses, 83 percent of which were by Florida residents. The survey questionnaire was stratified to ask general questions to all respondents and specific sub-group questions to employees, upper managers (employers), and students, respectively. A key purpose of isolating upper management respondents from employees is to gauge the anticipation of post-pandemic telecommuting from an employer policy perspective.

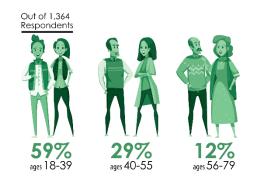
Of the 1,364 respondents to the survey, roughly 32 percent were students, 37 percent were employees, and 31 percent were upper managers, as depicted in Figure 1. The age breakdown of respondents was almost 60 percent under 40 years of age, about 30 percent between the ages of 40 and 55 and the remainder over 55 years of age. The gender breakdown of survey respondents was approximately 50 percent male and 50 percent female.

Figure 2 depicts a breakdown of the industries of the employees and employers (upper managers) who responded to the survey. Students did not respond to this question. As shown in Figure 2, the largest share of respondents (35 percent) work in the Construction, Manufacturing & Trade industry. Professional Services and Education/Healthcare/Public Administration were roughly equally represented: around 25 percent of respondents each. About 4 percent of responses represent the Entertainment and Hospitality industry, and the remaining 11 percent composed of other industries.



#### Figure 2. Survey Sample by Industry

## Figure 1. Survey Sample by Age and Employment

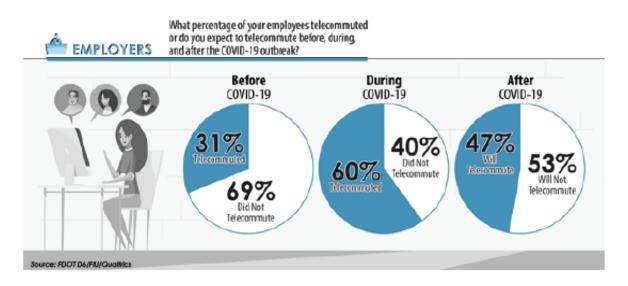




### Miami-Dade TPO Telecommute Study

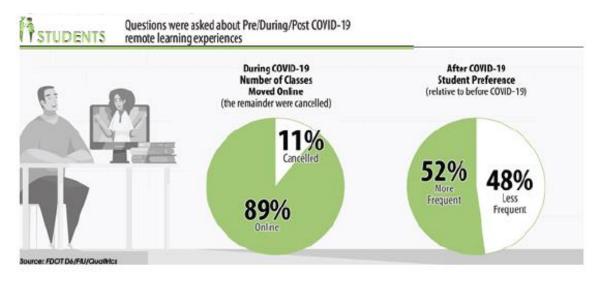
Figure 3 presents a summary of their responses, categorizing them by whether the employees telecommuted (or will telecommute) at least part-time or not at all. Employers reported a near doubling in telecommuting staff during the COVID-19 pandemic compared to before the pandemic (60 percent versus 31 percent). After COVID-19 is no longer a threat, employers expect a decrease in telecommuting compared to current conditions, although still significantly higher than before the COVID 19 pandemic. This will result in a sustained increase of 16 marginal percentage points, or 50 percent in terms of the number of people who will telecommute post-COVID, relative to pre-COVID levels.

#### Figure 3. Employers' Estimate of Telecommuting Trends



Similarly, students were asked how their frequency of remote learning had changed during the COVID-19 pandemic and how they expect it to change once COVID-19 is no longer a threat. As illustrated in Figure 4, student responses indicate that almost 90 percent of classes were moved on-line during the pandemic, with the remainder of classes cancelled. After the pandemic, more than half of students expect more frequent online classes, relative to the pre-pandemic condition.

### Figure 4. Students' Remote Learning Trends



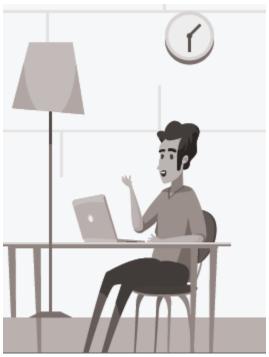
**Conclusions of Telecommuting Assessment** The telecommuting study was informed by a variety of public input, data analysis, and both public and private stakeholder insights. The range of input represented in the study provides a comprehensive accounting of the general public, student body, business, health care, and institutional viewpoints on the topic. A balanced assessment of the FDOT D6/FIU telecommuting survey, a comprehensive literature review, and an executive roundtable discussion, as well as traffic, transit ridership, telecommunications infrastructure, and employment data has illuminated the opportunities and challenges associated with promoting telecommuting in Miami-Dade County.

## The main advantages, in order of how frequently they were selected in the various surveys are presented here:

▶ Reduced commuting time. Unsurprisingly, the main benefit reported by telecommuters is the elimination or reduction of commuting time. According to the US Census, the average Miami metropolitan area worker spends one hour to commute to/from work every day. Survey and stakeholder feedback received as part of this study have emphasized the importance of even one additional hour of productive awake time.

► Additional flexibility. Telecommuting enables university students, employees, and employers to have a more flexible work schedule. Survey respondents indicated that this flexibility enhanced their work/life balance. The ability to work from home has been especially appreciated by employees who care for others, such as young children or elderly relatives.

► Cost savings. Employers responding to the FDOT D6/FIU survey cited cost savings as one of the top benefits of telecommuting. According to Global Workplace Analytics, organizations that promote telecommuting can save an average of \$11,000 per year for each employee that telecommutes.



## The main disadvantages, in order of how frequently they were selected in the various surveys, are presented below:

► Lack of equipment and uncomfortable workspaces. Given the sudden nature of the COVID-19 pandemic and the resulting adoption of telecommuting policies, a lack of equipment and comfortable workspaces was to be expected. Many people were forced to bring their work into their living spaces with little notice.

**Difficulty in communications and lack of socializing.** Despite marked improvements in communications software over the past ten years, most employees, employers, and students feel that the virtual environment is not a full substitute for in-person interaction.

► Distractions at home. Some survey respondents noted that working at home involved more distractions than working at an office. Beyond the limitations in equipment and workspace discussed above, working at home could be subject to more distractions.

► Increased cybersecurity risks. During the executive roundtable, the challenge of increased cybersecurity risks was brought up as a disadvantage to telecommuting, especially for smaller businesses.

### POLICY RECOMMENDATIONS The findings of the telecommuting study indicate

that the shift to telecommuting associated with the COVID-19 pandemic lowered peak period traffic and reduced congestion. Those pandemic-induced shifts illustrated the potential effectiveness of telecommuting as a travel option. The unknown question is the extent to which travel patterns will shift back to pre-COVID conditions once the pandemic is over and the extent to which public and private partners can promote telecommuting as a viable commute option.

Recognizing the potential of telecommuting as a means to 'flatten the congestion curve,' as well as other benefits outlined in the study, a set of policy recommendations was developed to promote telecommuting in Miami-Dade County. Through this study, the TPO has already begun collaborating with partner agencies, including the development of a pilot program in coordination with the South Florida Commuter Services.

The following policy recommendations will guide the Miami-Dade TPO and partners, including South Florida Commuter Services, the Florida Department of Transportation, and Miami-Dade County, in recognizing telecommuting as a unique travel mode and in implementing programs and projects that can increase and/or sustain the number of telecommuters. The policy recommendations presented below are organized in terms of four broad policies, each with specific objectives.



#### EDUCATION AND OUTREACH POLICY - Roll out a regional telecommuting program via the South Florida Commuter Services to maximize telecommuting opportunities in South Florida.

**Objective 1**: Assign \$50,000 in funding allocated to the pilot in the first 12 months.

**Objective 2**: Assess the success of the pilot to determine the next steps.

**Objective 3**: Develop a comprehensive telecommuting program that provides training, transition support, marketing, and technical assistance services.

**Objective 4**: Establish a monitoring system for developing a telecommuting baseline and tracking success by using metrics such as:

- Benefits/Cost Analysis
- Before/After Evaluations
- Environmental Impacts



GENERAL TELECOMMUTING POLICY - Adopt telecommuting as long-term policy to 'flatten the congestion curve' in South Florida by planning for and investing in telecommuting programs and projects that:

**Objective 1**: Increase percentage of telecommuting to reduce peak hour traffic congestion. **Objective 2**: Promote economic development by optimizing telecommuting access to jobs.



# TELECOMMUTER MODE OF TRAVEL POLICY - Designate telecommuters as a recognized commuter group in TPO and Miami-Dade County transportation and land use plans and promote the designation in state and federal plans and policies.

**Objective 1**: Develop telecommuting elements in TPO and County systemwide plans.

**Objective 2**: Encourage Florida Department of Transportation (FDOT) and US Department of Transportation (USDOT) to recognize telecommuting as a travel mode and develop telecommuting elements in state and federal plans.

**Objective 3**: Identify and support the development of regional locations for telecommuting work centers, office sharing spaces and 'Smart Hubs'.



# INFRASTRUCTURE INVESTMENT POLICY - Plan for and advance broadband infrastructure, including hardware and software, that optimizes access to and the quality of telecommuting information available to the teleworker 'commuter group.'

**Objective 1**: Coordinate with broadband initiatives undertaken by Miami-Dade County, such as County resolution R-876-20 and others.

**Objective 2**: Inventory existing public and private telecommuting assets in Miami-Dade County.

**Objective 3**: Explore public funding options and partnerships with FDOT and USDOT to fund telecommunications infrastructure.

**Objective 4**: Plan for and fund broadband hardware and infrastructure to support telecommuting by utilizing existing and future transit and traffic operations infrastructure.

## MIAMI-DADE TPO TELECOMMUTE STUDY EXECUTIVE SUMMARY