

Travel Reduction Program

FY 2022-23 Annual Report



Pima County Region



Pima Association of Governments

PAGregion.com

Travel Reduction Program

FY 2022-23 Annual Report

Pima County Region

Pima Association of Governments' Travel Reduction Program (TRP) Annual Report summarizes metrics, activities and related online TRP portal enhancements completed in fiscal year 2022-23. TRP survey data is collected and reported on a calendar year. Information provided in the report is pertinent to the Contract #ADEQ18-198215 Amendment 4 and includes initiatives implemented in fiscal year 2023.

- Section 1 – Participating TRP Employers
- Section 2 – Activity Inventory Report (AIR) and Employer Annual Plans
- Section 3 – Travel Behavior Changes Before, During, and After COVID-19
- Section 4 – A Year of Renovations - The New TRP 2.0
- Section 5 – TRP Employer Engagement & Commuter Education
- Section 6 – TRP and Sun Rideshare Services
- Section 7 – TRP and Sun Rideshare Marketing Summary
- Section 8 – TRP Employee Survey Results
- Section 9 – Task Force Compliance Activities
- Section 10 – Evaluation of Emission Benefits & ADEQ Requirements Table

Section 1 – Participating TRP Employers

Participation in the TRP is defined by the Pima County Travel Reduction Ordinance (TRO). All major employers with 100 full-time equivalent employees or greater are eligible and mandated to participate. Employers with less than 100 FTEs are not subject to the Pima County TRO. Employers may elect to participate as a volunteer TRP company.

The TRP responsibilities are assigned to a lead staff contact within an organization. Often the human resources department or compliance officer may be the point of contact. The PAG TRP staff is available and engaged to support the assigned transportation coordinators (TCs) for each employer site.

As of September 2023, the PAG TRP has 164 employer sites actively enrolled in the program. This number of employers has changed from the 243 reported in 2022. The 243 total number of employer locations in 2022 reflected multiple sites for individual employers. In 2023, a paradigm change was implemented, and multi-location employers were compressed to reflect one employer site with multiple locations. This shift in how employers are listed within the online platform afforded future expansion and greater reach to a larger number of employees in the region. Eighteen sites were selected to be merged as part of the compression project. The total number of employees participating in the TRP in FY 21-22 was reported as 135,131. In 2023, 150,846 employees were represented by 164 employers enrolled in the TRP. The

focused effort to recruit multi-site operations and include all employees within an organization contributed to the increased growth of TRP in 2023. The compression project also decreased the administrative burden for TCs and TRP staff to streamline TRP operations.

The composition of employer locations participating in the PAG region is diverse. The University of Arizona, Raytheon Missile Systems, Banner University Medical Campus, TUSD Morrow Education Center, Tucson Medical Center, U.S. Davis-Monthan Air Force Base, Pima County, City of Tucson, Walmart and Pima Community College are the 10 largest employers enrolled in the program.

Major employers in the area typically have less than 2,000 employees. The top 15 TRP employers account for 88,346 employees or 58.6% of all TRP employees at all TRP locations.

PAG TRP LARGEST 15 EMPLOYERS IN 2022-2023

TRP Employer Site Name	# Employees
University of Arizona Main Campus Staff	15,907
Raytheon Missiles and Defense (multi-address)	13,381
Banner - University Medical Center Tucson	7,651
TUSD Morrow Education Center	7,435
Tucson Medical Center	6,724
U.S. Davis-Monthan Air Force Base	6,000
Pima County (multi-address)	5,977
City of Tucson (multi-address)	4,624
Walmart Stores-Tucson (multi-address)	4,337
Pima Community College (multi-address)	3,311
U.S. Southern AZ Va Health Care System	3,065
Amazon Fulfillment Center	2,900
Carondelet Health Network	2,400
Fry's Food Stores-Tucson (multi-address)	2,345
Sunnyside Unified School District (multi-address)	2,289

Section 2 – Activity Inventory Report (AIR) and Employer Annual Plans

In 2023, 159 of the 164 TRP employers submitted the Activity Inventory Report (AIR). The AIR Survey was distributed in April 2023. PAG staff conducted a rigorous outreach effort in 2023 to achieve a high level of participation and to collect the updated data from all employer sites. Weekly automated email reminder messages were sent to all TCs who had not completed the AIR Survey. Incomplete sites were also contacted a minimum of three times during the AIR Survey period. Multiple employers required extensions to complete the annual process.

The annual AIR Survey process serves to meet the requirement for an annual plan for each employer as established by the ordinance.

A validation process is completed in the month prior to distributing the notice to complete the AIR Survey. The validation process serves to identify company contacts and confirm the contact roster is updated and accurate prior to sending initial notices to complete the program requirement.

The completed AIR Survey provides information about the location contacts, site facilities, TRP activities and trends for all TRP employers. The data and the responses to the questions in the AIR Survey establishes the annual travel plans for the employer locations. A full summary of statistics is included in the appendix.

2023 AIR Survey highlights for metrics compared for CY 2021 to CY 2022:

Options were added to the survey question that asks how rideshare information is communicated to employees. Traditional methods such as email and newsletter usage were significantly up, while staff meetings, intranet links, and social media were viable options for several employers:

- Email 28.9% (+18 percentage points over last year - LY)
 - Newsletter 18.2% (+8 percentage points over LY)
 - Link on Intranet 15.1% (new survey option)
 - Staff Meeting 11.9% (new survey option)
 - Social Media 3.8% (new survey option)
-
- 17.6% of surveyed employers offer electric vehicle (EV) charging stations – this was the first year this information was captured, and it is anticipated that this number will rise steadily as companies make infrastructure improvements to attract and retain employees who drive zero-emission vehicles.
 - Little change was observed in employers that offered telework options (45.9%, +.04 percentage points over LY). This was expected, as the number of U.S. workers that work remotely has also held steady for the last three years (between 26%-28%).
 - Similarly, the percentage of employers that offer adjusted work schedules (65.4%, +1 percentage point over LY) has remained stable from year to year. A common-sense interpretation here would be that many larger companies have now fully adjusted to the scheduling paradigms required to accommodate a post-pandemic workforce.

The AIR Survey process is automated and managed on a PAG server. Forms and information are available through an online platform entirely designed and implemented by PAG. The functionality of the online portal has automated the information submission process and allows TCs to access and submit data. PAG staff can send notices and reminders easily.

The AIR Survey interface also allows the validation process to be automated and accessible online. Reporting features are also accessed on the AIR page to identify companies with incomplete or outstanding status.

Pima Association of Governments is not an enforcement agency. The business-to-business outreach activities are intended to educate and engage employers about the benefits of supporting employees to explore alternative commute options. Non-compliant employers are informed of

their failure to comply, and all options of communication are exhausted before a written notice of compliance is provided to organizational leadership. A complete AIR Survey Summary is included in the appendices.

Letters of noncompliance were issued and mailed to six employers. Two of those responded and took the AIR Survey immediately, one responded but did not complete, and two never responded.

- The Forum at Tucson – responded but did not complete
- Raytheon – no response
- Xeridium – no response
- Human Learning Systems – responded and completed
- U.S. Southern AZ VA Health Care – responded and completed
- Dillard's Park Place – no response

Section 3 – Travel Behavior Changes Before, During, and After COVID-19 Restrictions Using 2019-2022 TRP Survey Data

PAG has been conducting TRP employee surveys to mitigate regional traffic congestion. Table 1 shows the collected samples from 2019 to 2022 for TRP employers with 100+ employees and for volunteer TRP employers. Annually, 50K employees, except for 2020, have been surveyed and average 200+ samples for 200 employers.

Table 1. TRP Employee Survey Samples for 2019-2022

	2019	2020	2021	2022
Sample Size	49,991	43,420	50,017	51,204
Number of Companies	190	204	207	238
Average No. of Samples per Employer	263	213	242	215

Figure 1 identifies the locations for the collected samples. Overall locations of samples are similar, but 2020, 2021 and 2022 highlight more samples collected along I-10 and I-19 around the Tucson International Airport and Rita Ranch area.

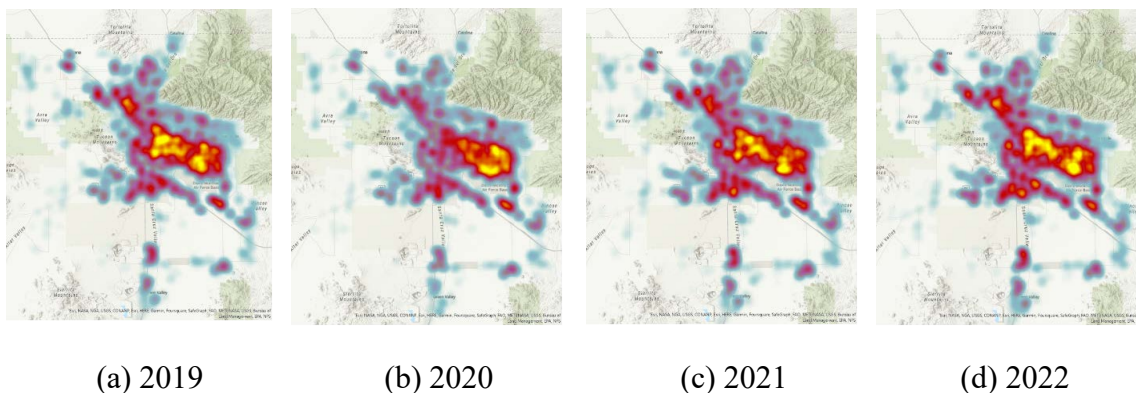
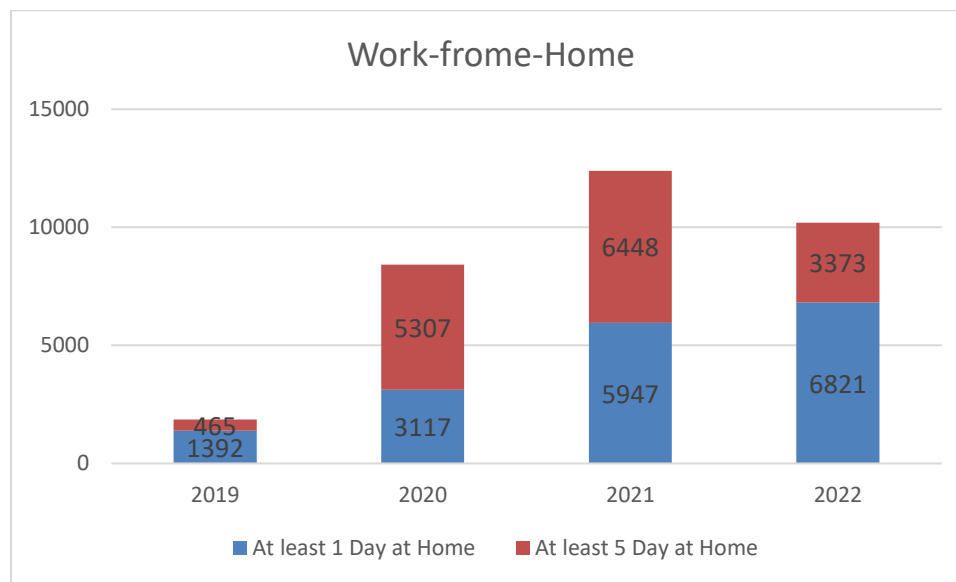


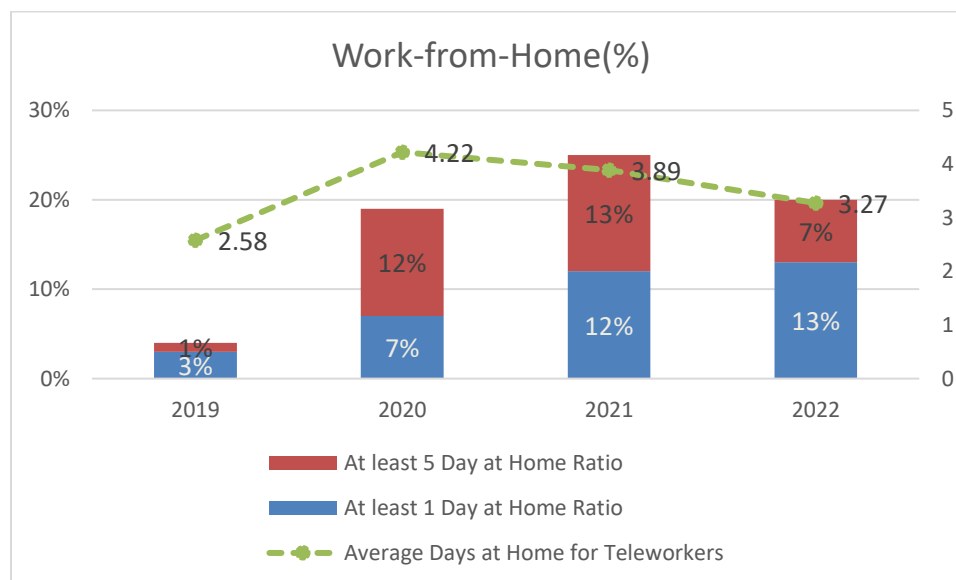
Figure 1. Heatmap for Sample Locations

1. Telecommute Patterns Before, During, and After COVID-19 Restrictions

March 2020 marked the beginning of long-term travel behavior changes, starting with a stay-at-home order from the Arizona Governor, followed by various types of protective restrictions issued by employers. One of the key changes from the survey data is that telecommuting has increased significantly during the pandemic period. In 2022, when most COVID-19 restrictions were lifted, we observed the new types of travel behavior that are different from those both before and during the restrictions. Figure 2 shows how regional work-from-home (WFH) has changed before, during, and after the restrictions period.



(a) Number of samples participated in work-from-home



(b) % and average days of work-from-home

Figure 2. Telecommute Trend Before, During, and After COVID-19 Restrictions

In 2019, around 4% of employees (1,857) worked from home at least part of the week. In 2020, that work-from-home (WFH) percentage reached 19%, and peaked at 25% in 2021. These increases are suspected to be related both to concerns of the transmission of COVID-19 and improvements to the online workplace technology. The increase in full-time WFH percentages was especially significant, growing from 1% to 12% in 2020. The average number of days per week worked from home in 2020 was 4.22, and that fell to 3.89 in 2021 due to hybrid schedules (some telework days, some in-office days) increasing by 5% in the same time period. In 2022, after most COVID-19 restrictions were lifted, total WFH participation decreased to 20%, with full-time-remote work dropping from 13% to 7%. Average days of telework continued to decrease to 3.27 despite the percentage of hybrid schedules rising slightly in 2022.

When examining WFH percentages by industry, using 2-digit NAICS codes, it is unsurprising to see sectors like Information (NAICS 51, e.g., IBM, Intuit), Administrative Services (NAICS 56, e.g., Afni), and Management Services (NAICS 56, e.g., Honeywell Aerospace) with higher telework percentages, since many of the jobs in these industries do not require a physical on-site presence. Conversely, it is expected, and the results show, that the lowest WFH participation rates are in industries such as retail trade (NAICS 44 & 45), food manufacturing (NAICS 31), and construction (NAICS 23). For this analysis and the corresponding chart below, we would like to note that the 2-digit NAICS classifications were assigned to each employer according to their primary mode of business rather than assigning NAICS codes to each job.

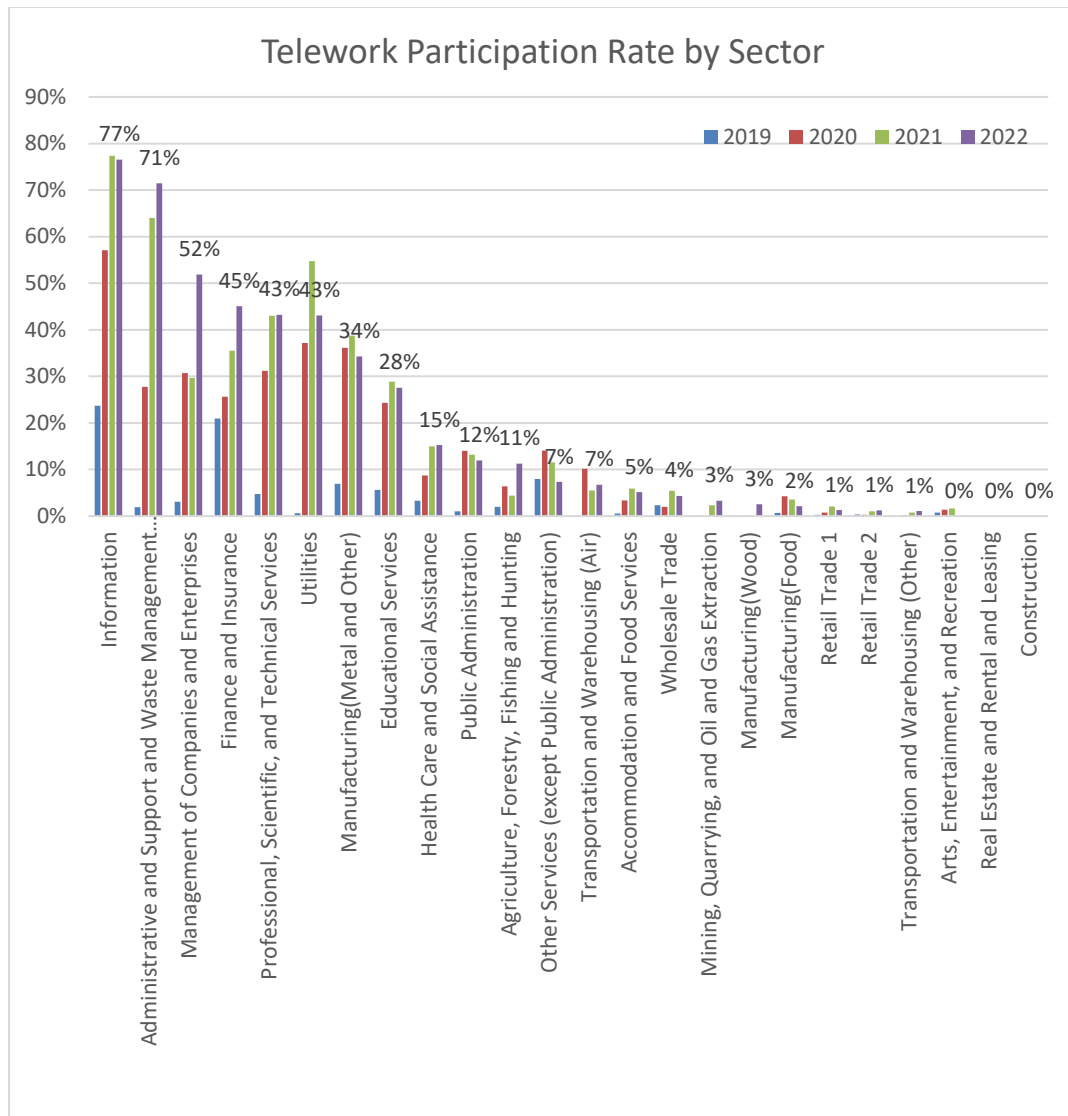


Figure 3. Telework Participation by Business (NAICS) Sector

2. Mode Share Change Before, During, and After COVID-19 Restrictions

When we look at the proportion of days of TRP samples spent on each mode, we see drive alone, carpool, and transit dropped 13.3%, 2.1%, and 0.2%, respectively, and a major portion was shifted to working at home from 2019 to 2021 with COVID restrictions. In 2022, when the restrictions were lifted, however, drive-alone, carpool, and transit mode share shifted back, +6.2%, +1%, and +0.5%, respectively, while the number of days working at home has decreased.

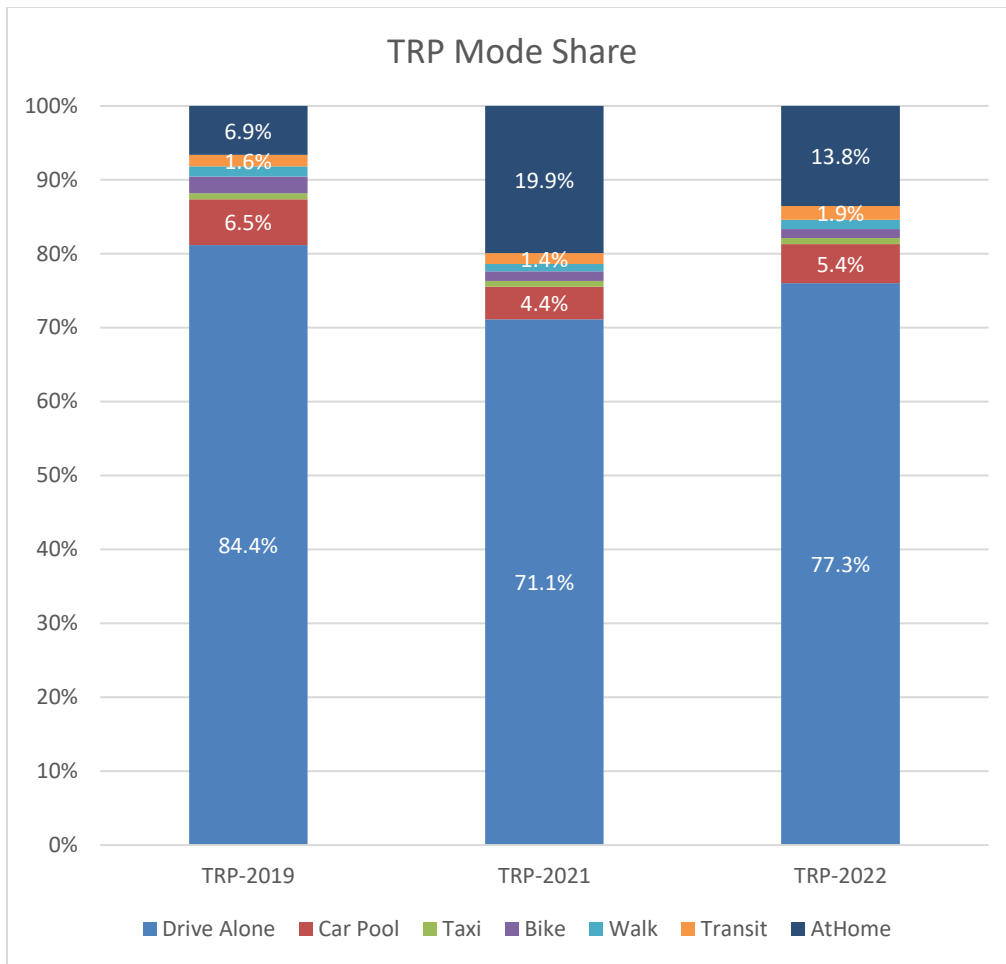


Figure 4. TRP Commute Mode Share Before, During, and After COVID-19 Restrictions

Section 4 – A Year of Renovations - The New TRP 2.0

PAG TRP made significant advancements in FY 2022-23 to adapt, modify and change to align with major regional employers. As an ordinance-driven program, the main goal is to stay the course for growth and regional impact. The data collected by the TRP annual survey efforts informs the modeling work conducted by PAG technical staff. The commute pattern metrics and alternative mode use trends are important factors in the ongoing efforts to improve emission reductions for better regional air quality. In the post-pandemic world, strategies and effective options were sought to continue the work of TRP to reach a greater number of employers and reach a wider and more diverse population of regional employees.

The world health crisis forced employers to transition their operations to function remotely. Industries that could offer remote work options realized individuals could work from home and maintain sufficient productivity. Employers in every industry now must consider the options for fully remote and hybrid models. Companies and individuals had over two years to navigate the issues around appropriate works spaces at home as compared to an office setting. Access to technology and equipment also plays a role in productivity. The choices and the outcomes were

not a one-size fits all outcome. Rather, industries figured it out based on the business needs and the nuances of their workforce.

Technology is the backbone to remote work options. Software built to enable employees to stay connected and easily communicate, such as Zoom, Google Meet and MS Teams, have firmly established their purposeful place in the post-pandemic workplace. If the product is a document, a presentation or a written approval, there are a variety of ways to share information, documents, and even your screen for a live discussion. For industries which require in-person services such as hospitality or healthcare, the options for remote work are limited but not out of reach. Healthcare has seen an increase in telemedicine, and the creative solutions designed for food service such as Door Dash and Uber Eats have changed how restaurants satisfy consumer demand.

A dynamic shift has occurred. The traditional, office/location-based methods for operating and managing employees are forever changed. Tools for effective communication, tutorials for how to manage remote employees and new options to encourage engagement are now woven into the proverbial post-pandemic human resources survival guide. Engagement can be choreographed and can be either virtual or in person. Corporate America is reexamining how to build, foster and sustain organizational culture to serve the purpose of the organization and support the mission. A report published by the American Public Transportation Association (APTA) addresses a myriad of factors including trends for public transit, employee preferences for hybrid work schedules, recruiting employees, housing, land use, and migration from urban areas that effect public transit and activities in urban centers: <https://www.apta.com/wp-content/uploads/APTA-On-The-Horizon-Nov2021.pdf>

RWE Launches in July 2022

PAG TRP staff listened to the feedback of the transportation coordinators (TCs) and formulated a new set of options for the diverse universe of regional employers. In 2022, the Remote Work Employer (RWE) confirmation process was launched for employers that have 40% or greater of their workforce working remotely. A minimum of 40% of the total staff count was established as the threshold to align with the goal defined in the Travel Reduction Ordinance for Pima County. TRO Pima County: https://codelibrary.amlegal.com/codes/pimacounty/latest/pimacounty_az/0-0-0-15070

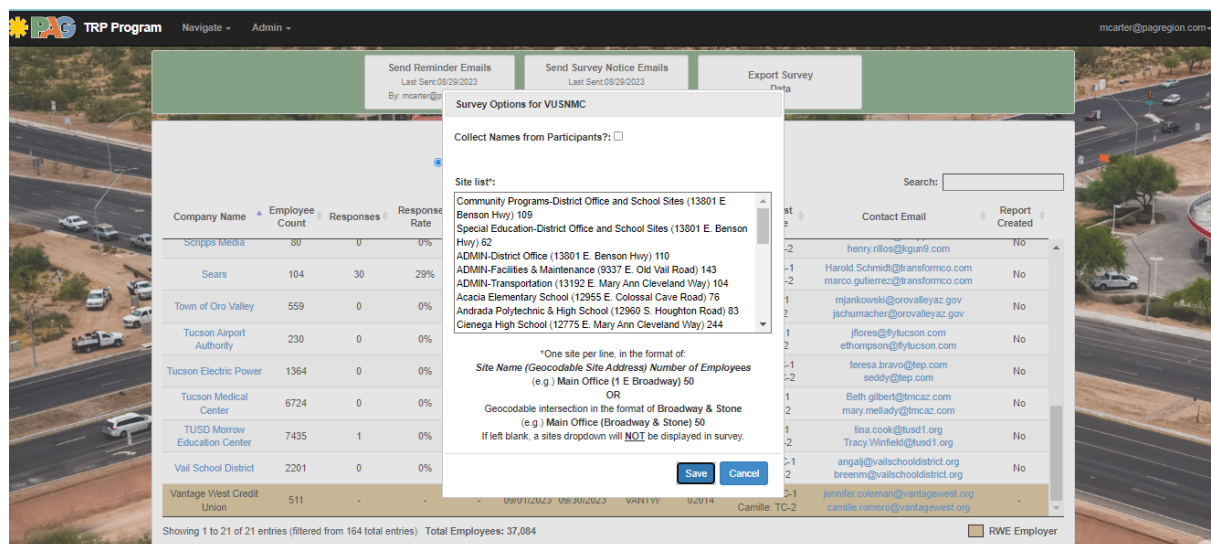
Multi-site Compression Project February 2023

Additional measures were implemented to capture a greater number of employees and engage employers with multiple locations without increasing the administrative burden. In February 2023, eighteen sites were compressed into single site listings with specific location options in the online portal. In 2022, eleven employers comprised of 5,240 employees transitioned to RWE status. The predicted total number of employers after a full year was 20 employers. As of July 2023, fifteen sites have converted to RWE representing 7,659 employees across the Tucson metropolitan region.

RWE Company Name	Employee Count
GEICO Direct	1,943
Citi	1,300
Afni Riverside Crossing	900
Afni Escalante	794
Vantage West Credit Union	511
Agero	350
Comcast Cable Oracle	334
AAA - Arizona	289
American Red Cross	254
Chamberlain Group Inc.	217
Simpleview	208
U.S. Census Bureau	166
Clinisys	159
OptumRx	146
Arizona Daily Star	88

The online portal image below illustrates how the multiple addresses are added within the survey portal. A dedicated PAG staff developer designed an easy-to-use functional information box where addresses are entered per a specific format. The specific addresses allow the TRP survey respondent to select their work location address and respond to the annual TRP employee survey. The increase in data accuracy and vehicle miles saved by employing the specific site option increases both the data integrity of TRP information and supports the work conducted on the Arizona Employment Viewer: <https://geo.azmag.gov/maps/azemployer/>.

The TRP developer, a member of PAG's technical staff, continually works to enhance the functionality of the online viewer and updates employer information. The implemented enhancement of the TRP online portal complements and improves the accuracy of data collected and reported for commute patterns and alternative mode choices in the region.



Section 5 – TRP Employer Engagement & Commuter Education

TRP Staff and TRP Online Interface

PAG Director of Partnerships and Development Mary Carter is the program lead assigned to manage and administer the program. In March 2023, a Management Analyst position was added to PAG staff. Adam Ledford joined PAG as a Management Analyst and is assigned to both TRP and Transit Operations. Mr. Ledford has been a game-changing addition to the TRP operation. Mr. Ledford brings his advanced data analytics knowledge skills and abilities to his role with TRP. In his initial months in the TRP role, he has learned the software used for tracking employers, improved the data analysis for TRP metrics, redesigned and modernized the ADEQ monthly report format and championed the AIR Survey distribution and outreach efforts. Mr. Ledford’s customer service experience is valuable when engaging TCs to complete required program deliverables. He effectively communicates and educates both veteran and new TCs on how air quality, reduced emissions, and less congestion is a community-wide responsibility.

The PAG Communications staff manages social media, online marketing, newsletter design and distribution, and special event promotions. PAG’s Finance department works collaboratively with Amanda Luecker, ADEQ program manager, on contracting, budget, and program management issues. PAG’s technical staff assists with the development and maintenance of the TRP online portal which affords functionality for the TRP Employee Survey, AIR Survey, TRP Task Force Viewer, GEO coding, and reporting tools.

The backend functionality of the PAG TRP system is integral for reporting monthly and annual data required for ADEQ submissions. Annually, the entire system is evaluated for improvements. Each process is considered for enhancements which are implemented in December of each contract year. A list is compiled of potential system improvements throughout the calendar year. The PAG TRP developer reviews the list in November, makes system program code changes in December, and implements the enhancements in January of the following calendar year. The ability to customize features and functionality of the system

allows the TRP to continually improve and expand within the financial constraints of the static program budget.

TRP Business Development

TRP growth and expansion in FY 2022-23 focused on the inclusion of additional sites of existing employers and in the promotion of the Remote Work Employer (RWE) option. Upon completion of the multi-site merger project in early 2023, TCs for the multi-address locations were contacted and encouraged to add all sites that are within the region. For retail, medical, banking, and educational organizations, this equated to growth and inclusion of employees within TRP. For employers who qualified for the RWE confirmation process, the option lessened the administrative burden of distributing the TRP survey and increased the total number of employees at the RWE who would contribute vehicle miles saved to the monthly and annual VMT calculations.

The 18 multi-address sites and 15 RWE sites required intense, one-on-one TC meetings and training to explain the processes for both new TRP concepts. TRP staff articulated the value of inclusion for all employees within an organization to be included and represented within TRP. Increasing the TCs understanding of how TRP participation is a component of compliance and that TRP metrics are aligned with sustainability reporting aids in TCs working to meet the deliverables of the program. Increasing the knowledge about how VMT saving translates into reported air quality calculations also helps to illustrate the value of TRP compliance and the WHY behind the requirements of the local ordinances.

TRP Recognition Program

The TRP Recognition Program was implemented in January 2014. Employers and Transportation Coordinators (TCs) may earn a gold, silver, or bronze award by achieving one or more of the following goals:

- Meeting or exceeding the Travel Reduction Ordinance (TRO) Alternative Mode Usage (AMU) goal
- Achieving an increase of 2 or more percentage points in AMU vs. the previous survey
- Meeting or exceeding a response rate of 60%

A certificate of recognition is awarded to the TC to demonstrate gratitude for the investment of time and to acknowledge the level of achievement resulting from their efforts. Each company's level of achievement is displayed on the Sun Rideshare webpage, mentioned in the Sun Rideshare newsletter and shared on Facebook. In FY 2022-23, the recognition certificates were printed and mailed to all employers to share appreciation for their ongoing efforts to support the program and comply with the ordinances. A summary of recognition levels is included in the appendices of this report.

Transportation Coordinator Training

Training and sharing information about the Travel Reduction Program is critical to both compliance and participation. All TC Training sessions were conducted virtually in FY 2022 and 2023. The first of two required training sessions was held March 21, 2023, and had 24 participants. The second training session was hosted April 26, 2023, and had 26 participants.

The newly launched Remote Work Employer (RWE) confirmation process was reviewed for those employers who may have 40% or greater of their workforce working remotely. TC Trainings have evolved and continue to be more efficient with the deployment of virtual sessions. Training sessions once required a multiple hour investment to attend. Now, TC training is delivered in one hour online, which has dramatically improved both attendance and exchange of information.

Employing technology allows for different methods of effectively sharing information when training the TCs. Formal training sessions deliver the fundamental concept of TCs being “the champion” for the organization’s TRP efforts. Offering information about air quality issues and communicating the costs of commuting and health benefits of using alternative commute options equips the TCs with the information they need to be effective. In the absence of group sessions, phone and email communications provide the needed information so TCs can incorporate the routines into their regular workday.

Newsletters and Program Collateral

PAG Communications staff collaborates with TRP staff to develop quarterly newsletters. PAG Communications also manages all social media posts and content for the TRP. Alignment with regional events, national days of celebration, and holidays are incorporated to spotlight no-drive days, bike-to-work days, and the ozone season. Content is developed to create user engagement and drive interest in the newsletter content while also bringing greater awareness to alternative modes. Messaging is intended to be brief and easily understood by the public. All newsletters and a summary of posts for Facebook and Twitter(X) are included in the appendix.

The TRP overview fact sheet is an important communication tool used regularly to communicate the deliverables of the program. The fact sheet helps to convey a basic program overview to new TCs and members of TRP employer leadership. The two-page document is updated regularly to reflect the total number of sites and employees represented in the region. An updated version of the document is included in the appendix.

One-on-One Meetings and Events with Employers

Employer engagement and training sessions are offered only by Zoom and MS Teams. Zoom calls, phone calls and email correspondence were the modes used to communicate with TCs and management about surveying processes and the value of the program. Each site has nuances based on industry and communication preferences. Not all employees are connected to a desktop during work hours, so using multiple modes of communication affords TCs the chance to respond to inquiries and receive information about the program in the manner that works for their site and their own established operation.

TRP Task Force Meetings

As required in the ADEQ Scope of Work, TRP Task Force meetings are held twice a year. The November and June task force meetings were hosted via Zoom. All TCs are invited to attend virtually or by phone. TRP Task Force elections were held in December 2021. Members of the task force are designated for two years, 2021-2022. A complete listing of the TRP Task Force representatives is included in the appendix.

Task force meetings are a forum for information sharing. Strategies to effectively work with employers, compliance issues, and air quality updates are discussed and refined at these meetings. Members of the TRP Task Force are provided an opportunity to provide information about initiatives and concerns.

PAG member jurisdiction representatives have standing seats on the task force to stay informed about the engagement efforts with businesses in their respective areas of the region. PAG is not an enforcement agency. All means to get employers into compliance are made before a notice of non-compliance is sent to a TRP employer. If an employer fails to demonstrate any effort to comply with the Travel Reduction Ordinance (TRO), the site is referred to the TC of the respective jurisdictions for any enforcement actions.

Task Force Meeting Dates 2022-2023
November 14, 2022
June 19, 2023

Task force members may view the performance metrics and levels of recognition achieved through a web-based platform. The online tool also has search and data export functions to view data from the current and prior month or year. Task force members register for an account and create a password to access the system.

Prior to task force meetings, the link to the Task Force Viewer is shared, and members are requested to review the information in advance of the meeting. The administrator view for the platform also allows PAG staff to view member activity, manage accounts, and grant access to the platform.

Section 6 – TRP and Sun Rideshare Services

Vanpool Program

At the end of the fiscal year, the vanpool program had 17 operating vanpools, an increase from 13 in 2022. PAG provides a federal subsidy, which allows commuters to have access to reliable, convenient and affordable transportation. The subsidy is determined based on monthly leased mileage.

PAG Vanpool Mileage Based Subsidy Schedule

Vanpool Monthly Mileage	Allocated Federal Subsidy
0-2,999 miles	\$300 monthly
3,000-4,000	\$400 monthly
4,001+	\$500 monthly

PAG submits a report to the National Transit Database (NTD) summarizing data to the Federal Transit Administration (FTA) by Oct. 30 each year. As a result of current reporting activity, additional funding returns to the region to support transit operations and maintenance.

The vanpool data submitted annually to NTD is estimated to bring an additional \$350,000 to the region.

PAG has a contract with Commute with Enterprise to manage vanpool operations and collect and report the NTD data from eligible vanpools. For a vanpool to be eligible to receive a federal subsidy from PAG, the vanpool passenger miles and expense data must be reported monthly.

PAG has a two-year Overall Work Program (OWP) approved by the Regional Council. Commute with Enterprise is charged with the marketing and promotion of vanpools traveling in and through Pima County. Increasing vanpool program participation increases data collection and increases the fiscal benefit to the region by increasing the NTD data reported to the FTA.

Sun Rideshare and RidePro - Online Matching System

PAG uses the RidePro software provided by TripSpark to report metrics, manage the employer profile data, and manage contact information and activity for the TRP. The online platform is linked to the RidePro database and is an integral part of the functionality of the online interface developed by PAG's in-house staff. The database is necessary and requires maintenance contracts to ensure ongoing operation of the software.

In FY 2023-24, PAG TRP staff will explore using the RidePro feature that allows for employer specific carpool matching. In a post-pandemic world, allowing employers to match their employees for carpooling to the worksite is predicted to be a more acceptable option, because employee information is kept by a centralized human resource department to both facilitate and identify potential matches for pairing of employees.

Section 7 – TRP and Sun Rideshare Marketing Summary

Advertising, Digital Marketing and Social Media

PAG Communications department manages the marketing plan to support the program. Messaging focuses on the goal of the program, which is to share information with employers to encourage commuters to help reduce air pollution, traffic congestion, and energy use by adopting alternative modes of transportation. Employers with 100 full-time employees or more are encouraged to provide information and education to employees about transportation options to improve job access, job satisfaction, and reduce turnover.

Target Audience

TRP employer leadership and/or HR directors/Transportation Coordinators – Primary

Specific targets: Medical campuses and hospitals; university and community college campuses; large employers with greater than 500 employees; social service agencies with greater than 250 employees.

TRP employees – Secondary

General public – Where applicable, we provide the same messaging we give TRP employers on rideshare, active transportation, and transit to the general public.

Messages

- Share the ride – for all the right reasons.
- Work from home. Save time and money.
- Drive less. Save more.
- Drive less. Breathe better. Live healthy.
- Drive less. Keep our air clean.
- Be healthy. Try active transportation. Promoting carpooling, vanpooling (federal subsidies), transit/streetcar, telework, bicycling, walking, and compressed work schedules.

Objective

To support TRP employer-to-employee outreach on the benefits of reducing motor vehicle travel in the greater Tucson area in FY 2023-24 by developing useful data-driven information and rideshare materials for PAG staff to share with employers or to be accessible to employers via PAG's multimedia channels.

Strategies & Tactics

Strategy – Develop marketing collateral that will convey why travel reduction is important to employers, employees, and the community, and the employers' required role to conduct outreach to employees.

Tactic: Communications will create and distribute a quarterly TRP e-newsletter targeted to transportation coordinators with tips to improve employee outreach and information on the benefits of using carpooling/vanpooling/alt modes and reducing idle time to reduce air pollution.

Tactic: TRP staff will share timely program news/announcements via special email notices.

Tactic: Design downloadable promotional fliers/posters for transportation coordinators to post onsite in employee areas to promote travel reduction options and/or onsite survey in-process status.

Tactic: TRP staff will present a TRP introductory PowerPoint to transportation coordinators. The presentation will be updated as needed.

Tactic: TRP staff will meet with business and/or HR leadership on a rotational basis based on annual target priorities to cultivate relationships and build program buy-in; provide commuter data reports to show employer commute patterns and reduction in vehicle miles traveled.

Strategy – Communications will assist with review and design of promotional or training materials for transportation coordinator training events.

Tactic: Create supporting materials, fact sheets, etc.

Tactic: Assist in designing/reviewing presentations/webinars.

Strategy – Continue the TRP Employer Recognition Program for employers with 100 FTEs.

Tactic: TRP staff invites TRP employers to meet semi-annual program goals for gold, silver or bronze award recognition (one of the goals is to complete the TRP Employer Survey).

Tactic: Recognize goal-achieving TRP employers on PAG website with a designed display of names of companies and announce employer/Transportation Coordinator recipients via social media.

Tactic: TRP staff provides Transportation Coordinators with award recognition certificates.

Strategy – Regularly update Sun Rideshare and TRP information on PAG website (accessible via desktop and mobile.)

Tactic: Post timely news.

Tactic: Remove outdated news and information/documents.

Tactic: Post existing or new downloadable TRP/Sun Rideshare marketing materials/informational video for employee distribution, use in staff meetings or TC training sessions.

Strategy – Build potential alt mode user engagement on PAG social media sites by providing engaging information regarding telework, carpooling, vanpooling, transit, bike/ped transportation options, and trends. (Note: Position messages to promote sharing and cross posting).

Tactic: Post TRP announcements including semi-annual employer awards, videos, etc.

Tactic: Schedule a minimum of four monthly Facebook posts/tweets on telework benefits, carpooling, vanpooling, transit/streetcar, idle reduction, compressed work schedules, bike/ped, etc.

Tactic: Schedule series of targeted travel reduction “campaign” messages up to four times a year:

- Activity: Aug.-Oct. – “Don’t be idle” – reduce engine idling when kids are heading back to school.

- Activity: Nov.-Dec. – Holiday themes, including “Avoid at least one rush” during the holidays, rideshare when you holiday shop, and preplan to combine trips.
- Activity: Jan.-March – “Get fit” – try an active commute to drop weight after the holidays/prepare for the spring and summer months.
- Activity: April-June – “Earth Day” – reduce travel to help the environment, air quality.

Strategy – Promote survey completion.

Tactic: Send weekly emails and complete follow up calls to promote timely TRP survey completion and achievement of the minimum 50% participation by each location’s workforce.

Timeline – FY 2023-234 Budget – Staff time

Evaluation – Communication Awareness Measurements

- 1) Level of awareness of Sun Rideshare program will be measured via the PDEQ Clean Air Campaign annual survey.
- 2) Monitor number of Sun Rideshare website visits compared to prior year and social media engagement (vs. posts).
- 3) Monitor quarterly newsletter opens/clicks.
- 4) Monitor any increase in employer outreach activity (via survey).

For reference, ADEQ TRP (program) measurements in scope of work:

- Increase survey response by 3%
- Increase telework by 5% (compared to pre-pandemic)
- Expand vanpool program by 5%
- Increase number of alternative vehicle miles traveled by program participants by 2% vs. FY 2022
- New number of Rideshare database registrants compared to FY 22
- Monitor overall improvement in alt mode usage.

As noted in the TRP Scope of Work, the documented source of public awareness for the TRP is the Pima County Department of Environmental Quality (PDEQ) Survey conducted by FMR Associates Inc. each year. As stated in the Executive Summary of the 2022 FMR published report, “the public awareness of the TRP awareness is reported to be 24%, down from the 28% reported last year. Central Tucson residents indicate increased awareness of the program.

Section 8 – TRP Employee Survey Results

The summary report for survey data covers the TRP Employee Survey Results for 2022. The launch of the online survey tool in 2019 improved the efficiency and report formatting for the end of month process. The statistics for 2018-2022 survey years are presented in the table below for year-to-year comparison.

A grand total of 243 employers representing 139,904 employees in the region were surveyed in FY 2022-23. The total number of employees is a combination of TRP and RWE employees. The total number of sites changed to 164 with 150,846 employees in February 2023 as a result of merging multi-location employers. The total number of employees is reported in a calendar year, January through December. The number of online TRP annual surveys submitted in CY 2022 was 51,314. RWE employers count 100% of their employees, and calculations are completed for 100% WFH and hybrid WFH staff. The response rate for TRP surveying sites was flat in year-to-year comparison.

TRP Survey Metrics Summary					
Category	2022	2021	2020	2019	2018
Alt Mode Participation	21.96	25.37	23.43	14.33	17.7
Avg VMT	50.12	50.4	50.1	56.5	60.6
VMT Change	.84	1.33	-11.3%	-2.22	0.1
Employees*	134,664	135,131	128,207	132,802	130,166
RWE Employees**	5,240	NA	NA	NA	NA
Respondents*	51,314	50,017	43,396	58,748	60,418
Response Rate %	50.13	50.4	47.7	55.29	46.4
One Way Miles	12.09	12.86	12.35	12.58	13.7
Avg Carpool # of People	2.4	2.4	4.52	2.44	2.5
Avg # of Alt Mode Days	3.28	3.32	3.38	3.12	2.9
Drive Alone %	78.04	74.63	74.15	85.19	82.3
Carpool %	5.14	4.1	4.51	5.99	6.8
Bus %	1.62	.94	1.36	1.88	2.1
Streetcar %	.384	.23	0.165	0.165	0.3
Bike %	1.03	.72	1.36	1.22	1.8
Walk %	1.66	1.10	1.26	1.23	1.2
Telework %	9.78	15.50	12.43	1.5	2.3
CWW	2.53	3.04	2.54	2.43	3.2
# Carpool	3829	3080	11.95	5,074	5,419
# Bus	862	699	620	1,528	1,607
# Streetcar	400	239	131	275	291
# Bike	989	1071	661	1,806	1,642
# Walk	949	754	617	1,101	1,030
# Telework	10,186	12,395	8,413	2,274	2,628
# CWW	11,694	10,764	9,481	10,124	9718

Section 9 – Task Force Compliance Activities

PAG staff is responsible for managing the Employee Survey and the AIR Survey and notifying TRP employers when they have not complied with the requirements of the travel reduction ordinance. Action is taken only after all options to make contact have been exhausted.

Extensions are offered to allow additional time to complete required activities. If the employer does not comply after multiple attempts to make contact, a notice is given to the highest ranked local official and the TC to encourage participation and resolve any barriers that prevent the employer from complying with the request. PAG takes a position that relationships with major employers are incredibly valuable, and it is important not to be adversarial. Most issues are resolved once a contact is identified, required TRP compliance deliverables are explained, and the TC is educated about the purpose of the program.

If the employer has still not complied with the requirement, a letter of notice is sent to the employer to inform them the jurisdiction where their operations are located will be notified of the non-compliance with the ordinance. It is at the discretion of the jurisdiction to decide on the next steps to take and if any enforcement actions will be issued.

PAG staff work from a principle that data collection is the priority for the Annual TRP Employee Survey process. All employers are provided with the information two weeks in advance of their survey month. As a result of consistent turnover and changes in operations, the assignment of a point of contact at a TRP employer is subject to change. In those instances, an employer converts to a status of non-compliance. PAG staff will make every effort to contact staff and management at the non-compliant site to identify a point of contact and generate activity. Once a contact is reached, a TC program orientation is scheduled to share the requirements and benefits of the TRP.

Disseminating Information to Employees

A deliverable of the TRO requires all participating employers to disseminate rideshare information to their employees. PAG staff emphasize this requirement in training and one-on-one meetings. When TCs are contacted to discuss the program and survey tactics recommended to reach compliance with the ordinance, communication and messaging are discussed to demonstrate the value of employees choosing alternative modes.

Since the beginning of the pandemic, public transportation has been fare free. Regular information about the routes and schedules available through www.suntran.com has been shared in emails and on social media.

Section 10 - Evaluation of Emission Reduction Benefits & ADEQ Requirements Table

Emission reduction benefits from the TRP are determined by calculating the miles saved as reported on the TRP Employee Survey. Since each respondent reports how they commute (mode used) to work and the mileage for their commute trip, the miles saved can then be calculated. The mileage is entered into the EPA MOVES3 model to determine the emission reductions produced by TRP participants. PAG staff updated the model and the input data used to calculate emission reductions in 2022. This changed the miles-per-pound of pollution saved

from **80.0** to **101.2** miles. A complete explanation on the updates to the emission calculation is provided in an Air Quality Memo in the Appendices.

Although an absolute correlation of these emission savings is directly attributable to TRP, the emission benefits of the program may be underreported using this methodology. The survey response rate was 50.13% in 2022. The response rate decreased .26 of a percentage point from the 2021 rate of 50.4%. The savings can be extrapolated to a 100% response rate to calculate for a 100% response estimate. Total pollution saved at a 100% response rate is estimated at 1,734,219 pounds.

The emission benefits for all the criteria pollutants monitored in Pima County, plus CO₂e, are provided in the table below. The emission factors used were the relevant rates for that year.

Updated metrics provided and explained in the Air Quality Memo, including the 2022 MOVES3 model results, addresses the influence of the TRP. On page three of the 2022 Air Quality memo, the regionwide miles driven are reported. The results of the 2022 survey data are also included.

The responses collected by the 2022 TRP Employee Survey process show VMT saved were 7.6% of the regional work-based miles driven. Regionwide 2022 Miles Driven (Commuter vehicles) - 7,291,293,900.

Regionwide 2022 commuter vehicle miles driven – 7,291,293,900

Regionwide 2022 work-based miles driven – 1,294,715,103

TRP Program 2022 miles not driven = 1.35% of regional commuter vehicle miles driven

TRP Program 2022 miles not driven = 7.6% of regional work-based miles driven

ADEQ Requirement Spreadsheet CY 2022

Annual Miles 2022		87,766,224									
Pollutant	Emission Factor (lbs/mile)	lbs saved									
CO	0.008515754	747,396									
VOC	0.00071963	63,159									
NOX	0.000560891	49,227									
PM10	0.000088182	7,739									
PM2.5	0.000022969	2,016									
TTI Criteria	0.009884457	869,537									
CO2e	0.829121572	72,768,870									
Avg. Response Rate		50.14%									
ADEQ Data Requirement Summary											
Passenger Cars and Passenger Trucks:	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Number of surveys submitted	16,434	57,918	57,005	61,118	61,365	60,418	58,748	43,396	50,017	51,182	
	Pounds Saved										
CO	180,915	833,331	797,696	639,424	635,348	593,400	568,676	746,598	1,012,532	747,396	
VOC	21,606	95,275	88,120	78,043	77,546	60,000	53,681	84,207	100,899	63,159	
PM10	1,244	5,734	5,570	5,153	5,120	5,000	4,822	6,640	7,471	7,739	
PM2.5	408	1,845	1,753	1,595	1,585	1,400	1,426	1,946	1,310	2,016	
NOx	23,565	101,781	91,285	82,245	81,720	59,800	51,871	64,256	87,927	49,227	
CO2e	11,009,927	49,890,168	47,782,376	46,648,206	46,350,865	47,175,400	45,394,646	58,530,548	79,803,335	72,768,870	
Total pollution saved TRP - no CO2e	227,738	1,037,965	984,423	806,460	801,319	719,600	680,486	903,647	1,210,139	869,537	
Pollution saved at 100% response rate	404,508	2,232,183	2,284,044	1,584,400	1,701,314	1,550,862	1,230,758	1,894,438	2,401,069	1,734,219	
Total mileage saved TRP	12,636,520	57,357,872	55,382,594	55,653,884	55,299,140	48,202,275	53,184,092	74,689,576	96,813,600	87,766,224	

APPENDICES

PAG Air Quality Memo 2021	P. 25
ADEQ Data Requirements Summary	P. 29
PAG Organizational Chart	P. 30
TRP Company Listing-RWE	P. 31
TRP Company Listing-TRP	P. 32
TRP Survey Recognition Levels & Awards Report	P. 36
AIR Survey & Results Summary	P. 41
PAG TRP Task Force Agendas	P. 42
PAG TRP Task Force Membership Roster 2022-2024	P. 46
Fundamentals TC Training Slide Deck	P. 48
PDEQ FMR Survey Report & Executive Summary	P. 62
PAG TRP Outreach Plan 2022-2023	P. 180
Sun Rideshare Newsletters	P. 186
Sun Rideshare Social Media Annual Metrics	P. 201
Sun Rideshare Social Media Posts	P. 202
PAG TRP Web Metrics & Summary Table	P. 242
TRP Program Overview Fact Sheet	P. 247

To: Mary Carter
From: Dustin Fitzpatrick
Subject: 2022 Travel Reduction Program (TRP) Air Pollutant Benefits and Method Summary
Date: August 23, 2023

Background:

Tracking the pollution reductions attributed to PAG's Transportation Reduction Program (TRP) is required by the federal requirements in the State Implementation Plan for the former Carbon Monoxide Limited Maintenance Plan and is specified in the Memorandum of Agreement between PAG and state and local government agencies.

To provide this information, PAG staff conducted air quality modeling using the current EPA model (MOVES3) and the most current vehicle, fuel, meteorology and transportation information. Below is a summary of the methods used to calculate the 2022 emissions data for the TRP and other programs. This summary can serve as a guide for future travel reduction benefit calculations.

Summary:

EPA Model:	MOVES3- run for the desired TRP year	Staff adopted EPA MOVES3 model
Vehicle Populations:	Motorcycles, passenger cars, passenger trucks (selected by TRP staff to represent commuter vehicles)	Based on the June 2022 ADOT vehicle registration data for Pima County
VMT:	2022- annual regional vehicle miles traveled (VMT)	Developed by PAG transportation modelers using Travel Demand Model (TDM) outputs
Time Span:	Time span is all 12 months, both day types, and all 24 hours of the day	All are selected to obtain emissions for entire year

Pollutants:	<i>Criteria pollutants:</i> Carbon monoxide (CO); volatile organic compounds (VOC); oxides of nitrogen (NOx); particulate matter (PM ₁₀ and PM _{2.5}) Carbon dioxide equivalents (CO ₂ e)	All emission processes and pollutant prerequisites
Fuel:	Gasoline –motorcycles, passenger cars and passenger trucks; diesel and E-85: passenger cars and passenger trucks	MOVES3 default fuels and properties for Pima County
Travel Characteristics:	Annual, monthly, daily, hourly travel patterns, road type distributions, ramp and speed fractions	Data developed by PAG transportation modelers each year based on TDM results and local roads' vehicle count data
Inspection/Maintenance program:	EPA/ADEQ mandated program for Pima County	Pima County MOVES3 model default with current County parameters
Meteorology:	NCDC data as recorded at the Tucson International Airport station	MOVES3 default meteorology data for Pima County

Procedures:

- The EPA MOVES model is run at the Pima County scale, inventory mode, hour aggregation level, all months, all days (weekend and weekday) and all hours for the desired year;
- The three commuter vehicle types and three fuel types are selected as well as the designated pollutants (CO, NOx, VOC, PM₁₀, PM_{2.5}, CO₂e)
- All road and all vehicle activity types are selected;
- Local and default data for vehicle travel characteristics, County vehicle number and age distribution, vehicle inspection program, fuel, road type distribution and meteorology were entered into the MOVES model;
- Output is for annual emissions by vehicle type to ensure that an emission factor (E.F.) can be determined for each of the three vehicle types for each pollutant;
- The annual VMT and emissions for each of the three vehicle types are obtained from the model output data (HeidiSQL) found in the 'movesactivityoutput' and 'movesoutput' tables, respectively;
- An E.F. for each pollutant/commuter vehicle type combination (pounds/mile traveled) is calculated using each pollutant total and VMT total;
- A "composite commuter" E.F. is calculated by weighting the relative amount of VMT driven by a vehicle type and the vehicle E.F.;

- Example: In 2022, County passenger cars' annual VMT was 48.0 percent of the total commuter vehicle VMT (motorcycles + passenger cars + passenger trucks); passenger cars' 2022 CO E.F. was 0.0075 pounds/mile. Therefore, 48.0 percent of the "composite CO E.F." is attributed to passenger cars; the remaining portions of the composite E.F. are attributed to motorcycles and passenger trucks weighted by relative commuter vehicle VMT (motorcycles: 0.4 percent of commuter vehicle VMT; passenger trucks: 51.6 percent of commuter vehicle VMT).

Table 1. 2022 Pollution Benefits – TRP Program

Pollutant	U.S. Tons/year
Carbon monoxide (CO)	419.0
Volatile organic compounds (VOC)	35.4
Oxides of nitrogen (NOx)	27.6
Coarse Particulate Matter (PM ₁₀)	4.3
Fine particulate matter (PM _{2.5})	1.1
Carbon dioxide equivalents (CO ₂ e)	40,793.7
TOTAL*	41,280.0

* PM_{2.5} is a component of PM₁₀

TRP 2022 miles not driven (commuter vehicles: motorcycles, passenger cars & passenger trucks) – 98,402,259

Region-wide 2022 commuter vehicle miles driven – 7,291,293,900

Region-wide 2022 work-based miles driven – 1,294,715,103

TRP Program 2022 miles not driven = 1.35 % of regional commuter vehicle miles driven total

TRP Program 2022 miles not driven = 7.6 % of regional work-based miles driven total

Miles per Pound of Pollution:

- The composite E.F. for each pollutant (Table 2) are added together to determine the number of miles driven to produce one pound of criteria pollutants and the number of miles driven to produce one pound of CO₂e.
- For 2022 the results are:
 - 101.2 miles to produce one pound of criteria pollutants
 - 1.21miles to produce one pound of CO₂e

Table 2. 2022 VMT-Weighted Composite Emission Factors for Commuter Vehicles

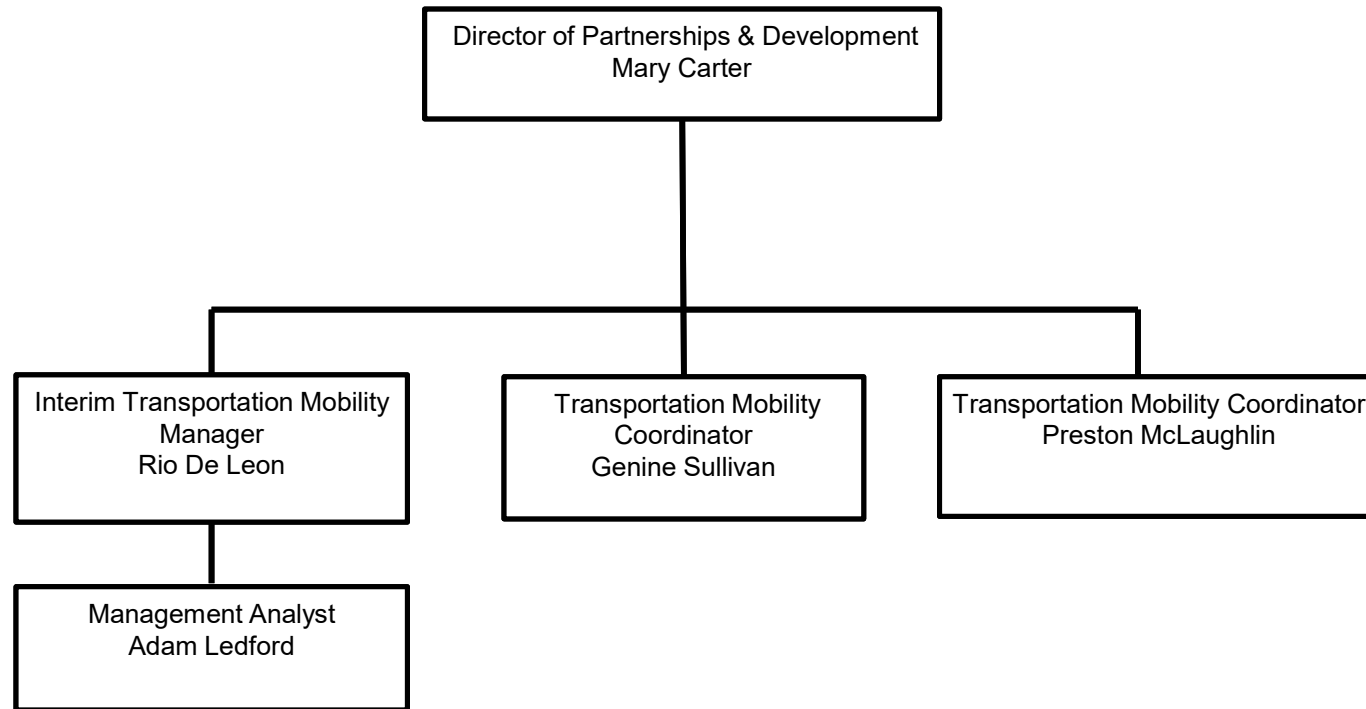
Pollutant	U.S. Pounds/mile
Carbon monoxide (CO)	0.008515754
Volatile organic compounds (VOC)	0.000719630
Oxides of nitrogen (NO _x)	0.000560891
Coarse Particulate Matter (PM ₁₀)	0.000088182
Fine particulate matter (PM _{2.5})	0.000022969
Total criteria pollutants*	0.009884457
Carbon dioxide equivalents (CO₂e)	0.829121572

* PM_{2.5} is a component of PM₁₀

cc: Jeanette DeRenne, Hyunsoo Noh

Annual Miles 2022		87,766,224									
Pollutant	Emission Factor (lbs/mile)	lbs saved									
CO	0.008515754	747,396									
VOC	0.00071963	63,159									
NOX	0.000560891	49,227									
PM10	0.000088182	7,739									
PM2.5	0.000022969	2,016									
TTI Criteria	0.009884457	869,537									
CO2e	0.829121572	72,768,870									
Avg. Response Rate		50.14%									
ADEQ Data Requirement Summary											
Passenger Cars and Passenger Trucks:	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Number of surveys submitted	16,434	57,918	57,005	61,118	61,365	60,418	58,748	43,396	50,017	51,182	
	Pounds Saved										
CO	180,915	833,331	797,696	639,424	635,348	593,400	568,676	746,598	1,012,532	747,396	
VOC	21,606	95,275	88,120	78,043	77,546	60,000	53,681	84,207	100,899	63,159	
PM10	1,244	5,734	5,570	5,153	5,120	5,000	4,822	6,640	7,471	7,739	
PM2.5	408	1,845	1,753	1,595	1,585	1,400	1,426	1,946	1,310	2,016	
NOx	23,565	101,781	91,285	82,245	81,720	59,800	51,871	64,256	87,927	49,227	
CO2e	11,009,927	49,890,168	47,782,376	46,648,206	46,350,865	47,175,400	45,394,646	58,530,548	79,803,335	72,768,870	
Total pollution saved TRP - no CO2e	227,738	1,037,965	984,423	806,460	801,319	719,600	680,486	903,647	1,210,139	869,537	
Pollution saved at 100% response rate	404,508	2,232,183	2,284,044	1,584,400	1,701,314	1,550,862	1,230,758	1,894,438	2,401,069	1,734,219	
Total mileage saved TRP	12,636,520	57,357,872	55,382,594	55,653,884	55,299,140	48,202,275	53,184,092	74,689,576	96,813,600	87,766,224	

PAG Organizational Chart



Company Listing-Remote Work Employer Sites

Company Code	Name	TMA Code	Business Type Code	# Employees	# FTE	Registered Commuters
AAAAZ	AAA - Arizona	RWE	DATA	289	112	1
AFNIES	Afni Escalante	RWE	TSALES	794	794	9
AFNINW	Afni Riverside Crossing	RWE	TSALES	900	850	7
AGERO	Agero	RWE	TSALES	350	350	2
AMRCRO	American Red Cross	RWE	SOCIAL	254	210	8
ARIZDS	Arizona Daily Star	RWE	MEDIA	88	88	0
CHAMB	Chamberlain Group Inc	RWE	MFG	217	217	3
CITI	Citi	RWE	BANK	1300	1300	14
COMCAO	Comcast Cable Oracle	RWE	MEDIA	334	334	0
GEICO	GEICO Direct	RWE	INSUR	1943	1943	3
OPTMRX	OptumRx	RWE	MEDI	146	146	7
SIMPLV	Simpleview	RWE	COMPTR	208	208	0
SUNQUI	Clinisys	RWE	MEDI	159	108	6
USCENB	US Census Bureau	RWE	GOVT	166	80	5
VANTW	Vantage West Credit Union	RWE	BANK	511	511	0

TRP Blue Book 100+ FTE Traditional Survey Sites

Company Code	Name	Business Type Code	# Employees	# FTE	Registered Commuters
ABRAMS	Abrams Airborne Mfg, Inc.	MFG	130	130	0
ADP	ADP	DATA	460	460	0
ALBNMC	Albertsons Tucson	RTAIL	543	346	0
ALONMC	Alorica Tucson East	TSALES	1614	552	15
AMAZT	Amazon Fulfillment Center	DISTRI	2900	143	5
AMDTU2	Amazon Logistics - DTU2	RTAIL	391	391	0
AMPNMC	Amphitheater Unified District	EDUC	1816	1698	0
ARIZCC	Faribault Foods	MFG	249	249	0
ARIZCH	Arizona's Children Association	SOCIAL	36	36	2
ARONIC	Howmet Fastening Systems	MFG	163	163	0
ASARCO	ASARCO	MI	510	510	0
AVSWHR	Sandstone of Tucson Nursing and Rehab	MEDI	139	126	0
AZMAIN	Arizona St Main Complex W Congress	GOVT	500	500	10
AZPRIS	Arizona St Prison Tucson Complex	GOVT	1169	1169	2
AZSDBL	Arizona St Schools For The Deaf & The Blind	EDUC	386	210	2
BEACG	Beacon Group SW, Inc.	SOCIAL	350	150	0
BOMBAB	Bombardier Aerospace Business	MFG	300	300	1
BSANCA	Brookdale Santa Catalina Villas	MEDI	117	90	0
BUMC	Banner - University Medical Center Tucson	HOSPTL	7651	7416	17
CAID	CAID Industries	MFG	215	214	0
CANYRR	Canyon Ranch Health Resort	TRVL	474	326	1
CAPRTC	Cal Portland-Rillito Cement	MFG	140	130	0
CARNMC	Carondelet Health Network	MEDI	2400	850	6
CATERP	Caterpillar Inc. - Tucson Proving Ground	MFG	180	180	0
CATERT	Caterpillar Inc. - Tucson Mining Ctr	MI	593	593	1
CATFDH	Catalina Foothills School District High School	EDUC	130	120	0
CELEST	Celestica		169	115	0
CENTP	Arizona Complete Health	MEDI	83	79	0
CHAPAT	Chapman Tucson	MOTOR	153	152	0
CHED	Cheddar's Scratch Kitchen	SRVC	88	43	1
COKE	Swire Coca Cola	DISTRI	150	70	0
COMCAS	Comcast	MEDIA	75	75	0
COMFB	Community Food Bank	SOCIAL	154	152	4
CORHOP	Cornerstone Hospital	HOSPTL	130	88	1
COST	South Tucson	GOVT	40	40	0
COSTG	Costco Wholesale Grant	RTAIL	374	211	0
COSTK	Costco Kino	RTAIL	334	200	0
COSTNW	Costco Wholesale Northwest	RTAIL	379	268	0
COTDT	City of Tucson	GOVT	4624	4624	31
COX	Cox Communications	MEDIA	253	253	0
CYRACO	CyraCom International	TSALES	407	323	3
DAVSEB	Davis Selected Advisers, L.P.	BANK	90	90	0
DCMART	DCMA Raytheon Tucson	GOVT	166	166	5

DEVON	Devon Gables Rehabilitation Center	MEDI	220	171	0
DILLPP	Dillard's Park Place	RTAIL	75	61	0
DOUTR	Doubletree Hotel Tucson At Reid Park	TRVL	107	72	0
ELRNMC	El Rio Health-Tucson	MEDI	1694	1566	9
FARIVC	FICO GREEN VALLEY PECAN CO	DISTRI	88	88	0
FEDEX	Federal Express	POSTAL	190	145	0
FLSKRE	FLSmith Inc. - Tucson Operations	MFG	315	315	0
FORUM	Forum at Tucson, The	MEDI	115	104	0
FOULAC	Fountains at La Cholla	SRVC	141	86	0
FREDA	Human Learning Systems	EDUC	109	109	0
FREMCM	Freeport-McMoRan Copper & Gold, Sierrita Operations	MI	1223	1223	1
FRYNMC	Fry's Food Stores-Tucson		2345	1854	3
HANDR	Handmaker Jewish Services Rosemont	MEDI	210	115	0
HEARH	Encompass Health Rehab Hospital of NW Tucson	MEDI	177	122	1
HEARI	Encompass Health Rehab Institute of Tucson	MEDI	191	191	0
HENSBC	Hensley Beverage Co.	DISTRI	150	145	1
HEXA	Hexagon Mining	MI	150	150	0
HILEC	El Conquistador Tucson, A Hilton Resort	TRVL	250	200	0
HOMDB	Home Depot - Broadway 410	RTAIL	239	170	1
HOMDM	Home Depot - Marana 478	RTAIL	200	115	0
HOMDOV	Home Depot - Oro Valley 481	RTAIL	165	87	0
HOMGDS	HomeGoods	RTAIL	1300	1284	0
HONOR	Honeywell Aerospace Tucson - Oracle	MFG	80	80	4
IBM	IBM	COMPTR	100	100	7
INTUIT	Intuit Inc.	COMPTR	351	350	8
JCNMC	Jim Click Automotive Team	RTAIL	761	738	0
JCPTM	JC Penney Company, Inc. - Tucson Mall	RTAIL	59	37	0
JWMARR	JW Marriott Starr Pass Resort And Spa	TRVL	575	520	2
KALIL	Kalil Bottling Company	DISTRI	220	220	0
LAFRON	La Frontera Center Inc	MEDI	574	504	0
LAPOSG	La Posada	MEDI	600	400	1
LEOEL	Leonardo Electronics US Inc.	MFG	190	180	0
LHCG	LHC Group/Casa de la Luz Hospice	MEDI	150	113	0
LHMD	Larry H Miller Dodge Ram Fiat Tucson	MOTOR	105	100	0
LIFEC	Life Care Center of Tucson	MEDI	118	89	0
LODGEV	The Lodge at Ventana Canyon Golf & Racquet Club	TRVL	237	150	0
LOEWS	Loews Ventana Canyon Resort	TRVL	300	200	0
LOWESP	Lowe's Home Improvement Speedway	RTAIL	193	105	0
M3ER	M3 Engineering & Technology Corporation	MFG	225	190	0
MHC	MHC Healthcare	MEDI	704	650	5
MHIRJ	MHIRJ	MFG	361	361	0
MIRAVA	Miraval Arizona	SRVC	473	326	0
MODUL	Modular Mining Systems, Inc	COMPTR	300	300	4
MUSNMC	Marana Unified School District	EDUC	1792	1618	2
NOAO	AURA, Inc.	EDUC	243	236	1
NORMC	Northwest Medical Center	HOSPTL	1436	1132	2

NOVAHB	NOVA Home Loans Broadway	BANK	231	231	0
OMNI	Omni Tucson National Golf Resort Spa	TRVL	250	200	0
ORCHEV	O'Rielly Chevrolet Inc	MOTOR	198	198	0
OVHOSP	Oro Valley Hospital	HOSP TL	686	493	1
PARKAV	Park Avenue Health & Rehabilitation Center	MEDI	173	152	0
PCCNMC	Pima Community College	EDUC	3311	1259	23
PEPSI	Pepsi-Cola Beverage Co.	DISTR I	150	145	0
PIMDO	Pima County	GOVT	5977	5680	132
PRESEQ	Precision Shooting Equipment	MFG	125	125	0
PRETOY	Precision Toyota of Tucson	MOTOR	215	215	0
RADIOL	Radiology Ltd	MEDI	519	485	0
RAYNMC	Raytheon Missiles and Defense	MFG	13381	13381	61
RINCON	Rincon Research Corporation	DATA	221	213	3
RITCDM	Ritz Carlton Dove Mountain	TRVL	285	225	0
ROYALB	Royal Automotive Group	MOTOR	409	401	0
RRPROD	R&R Products	MFG	280	280	1
SAFNMC	Safeway Food Stores-Tucson	RTAIL	1887	1174	1
SAHSD	Sahuarita School District #30	EDUC	806	692	0
SALCHS	Salpointe Catholic High School	EDUC	140	135	1
SAMCLU	Sam's Club 6692	RTAIL	187	60	0
SANROS	Santa Rosa Care Center	MEDI	114	64	0
SARGE	Sargent Controls & Aerospace	MFG	400	400	5
SCRIPM	Scripps Media	MEDIA	80	73	0
SEARSH	Sears	RTAIL	104	59	1
SECURA	Securaplane Technologies	MFG	127	127	0
SILBEL	Silver Bell Mining LLC	MI	180	180	1
SMLNMC	Sam Levitz Furniture	RTAIL	532	452	0
SONBHH	Sonora Behavioral Health	HOSP TL	285	244	1
SOUGAS	Southwest Gas Corp	UTIL	274	274	0
STTNMC	SunTran Transit Operations	TRANST	769	769	4
SUNNMC	Sunnyside Unified School District	EDUC	2289	2000	0
TARNMC	Target Stores-Tucson	RTAIL	2227	2227	3
TEPNMC	Tucson Electric Power	UTIL	1364	1364	10
TEXASI	Texas Instruments	MFG	370	340	4
TOM	Town of Marana	GOVT	420	400	3
TOS	Town of Sahuarita	GOVT	179	170	1
TOV	Town of Oro Valley	GOVT	559	449	1
TRICO	Trico Electric Cooperative	UTIL	135	131	0
TUCAA	Tucson Airport Authority	TRNSP	230	230	8
TUCJCC	Tucson Jewish Community Center	SRVC	279	165	4
TUCMAR	Atrium Hospitality	TRVL	110	76	0
TUCMEC	Tucson Medical Center	MEDI	6724	4093	7
TUCORT	Tucson Orthopaedic Institute	MEDI	165	155	0
TUSDME	TUSD Morrow Education Center	EDUC	7435	5502	1
UNIVER	Universal Avionics	MFG	177	177	1
UOAM	University of Arizona Main Campus Staff	EDUC	15907	11199	78
UPS	UPS	POSTAL	566	284	0
US162	US 162d WG, Arizona Air National Guard	GOVT	1500	900	2
USCOR	US Correctional Complex	GOVT	569	569	17

USDAFB	US Davis Monthan Air Force Base	GOVT	6000	6000	2
USDVA	US Department of Veterans Affairs SW CMOP 762	MEDI	400	200	0
USPS	US Postal Service Cherrybell	POSTAL	320	320	0
USVAMC	US Southern AZ Va Health Care System	MEDI	3065	3119	15
VENMS	Roche Tissue Diagnostics	MFG	1591	1253	14
VUSNMC	Vail School District	EDUC	2201	1857	0
WATSON	Watson Chevrolet Inc	MOTOR	204	198	0
WESTIN	Westin La Paloma	TRVL	344	200	0
WESWL	Westward Look Wyndham Grand Resort & Spa	TRVL	86	63	0
WMTNMC	Walmart Stores-Tucson	RTAIL	4337	3000	3
XEMED	Xeridien Medical Devices	MFG	112	112	0

2022 PAG TRP Employer Recognition Levels Awarded

Name	Employee Count	Current Year Award Level
*Amazon Logistics - DTU2	391	NEW Site
*Atrium Hospitality	110	No Survey in 2021
*Canyon Ranch Health Resort	474	No Survey in 2022
*Community Food Bank	154	No Survey in 2022
*JW Marriott Starr Pass Resort And Spa	575	No Survey in 2022
*Park Avenue Health & Rehabilitation Center	173	No Survey in 2022
Abrams Airborne Mfg Inc.	130	Bronze Award - RR
ADP	460	Bronze Award - Goal
Albertsons Tucson	543	Average
Alorica Tucson East	1614	Average
Amazon Fulfillment Center	2900	Silver Award - RR and Goal
Amphitheater Unified District	1816	Average
Arizona Complete Health	83	Gold Award
Arizona St Main Complex W Congress	500	Gold Award
Arizona St Prison Tucson Complex	1169	Average
Arizona St Schools For The Deaf & The Blind	386	Average
Arizona's Children Association	36	Bronze Award - RR
ASARCO	510	Average
AURA Inc.	243	No Survey in 2022
Banner - University Medical Center Tucson	7651	Poor
Beacon Group SW Inc.	350	Average
Bombardier Aerospace Business	300	Poor
Brookdale Santa Catalina Villas	117	Bronze Award - AMU
CAID Industries	215	Average
Cal Portland-Rillito Cement	140	Poor
Carondelet Health Network	2400	Average
Catalina Foothills School District High School	130	Average
Caterpillar Inc. - Tucson Mining Ctr	593	Bronze Award - Goal
Caterpillar Inc. - Tucson Proving Ground	180	Bronze Award - AMU
Celestica	169	Average
Chapman Tucson	153	Average
Cheddar's Scratch Kitchen	88	Average

2022 PAG TRP Employer Recognition Levels Awarded

City of Tucson	4624	Average
Comcast	75	Average
Cornerstone Hospital	130	Poor
Costco Kino	334	Average
Costco Wholesale Grant	374	Bronze Award - RR
Costco Wholesale Northwest	379	Average
Cox Communications	253	Gold Award
CyraCom International	407	Silver Award - Goal and AMU
Davis Selected Advisers L.P.	90	Silver Award - RR and AMU
Devon Gables Rehabilitation Center	220	Average
Dillard's Park Place	75	Poor
Doubletree Hotel Tucson At Reid Park	107	Silver Award - RR and AMU
El Conquistador Tucson A Hilton Resort	250	Bronze Award - AMU
El Rio Health-Tucson	1694	Average
Encompass Health Rehab Hospital of NW Tucson	177	Average
Encompass Health Rehab Institute of Tucson	191	Bronze Award - RR
Faribault Foods	249	Bronze Award - AMU
Federal Express	190	Poor
FICO GREEN VALLEY PECAN CO	88	Silver Award - RR and AMU
FLSmith Inc. - Tucson Operations	315	Average
Forum at Tucson The	115	Silver Award - RR and AMU
Fountains at La Cholla	141	Bronze Award - AMU
Freeport-McMoRan Copper & Gold Sierrita Operations	1223	Poor
Fry's Food Stores-Tucson	2345	Average
Handmaker Jewish Services Rosemont	210	Bronze Award - AMU
Hensley Beverage Co.	150	Silver Award - RR and AMU
Hexagon Mining	150	Silver Award - RR and Goal
Home Depot - Broadway 410	239	Bronze Award - AMU
Home Depot - Marana 478	200	Poor
Home Depot - Oro Valley 481	165	Bronze Award - AMU
HomeGoods	1300	Bronze Award - Goal
Honeywell Aerospace Tucson - Oracle	80	Average
Howmet Fastening Systems	163	Average
Human Learning Systems	109	Silver Award - RR and AMU

2022 PAG TRP Employer Recognition Levels Awarded

IBM	100	Silver Award - RR and Goal
Intuit Inc.	351	Bronze Award - Goal
JC Penney Company Inc. - Tucson Mall	59	Average
Jim Click Automotive Team	761	Average
Kalil Bottling Company	220	Average
La Frontera Center Inc	574	Bronze Award - RR
La Posada	600	Average
Larry H Miller Dodge Ram Fiat Tucson	105	Silver Award - RR and AMU
Leonardo Electronics US Inc.	190	Average
LHC Group/Casa de la Luz Hospice	150	Bronze Award - AMU
Life Care Center of Tucson	118	Poor
Loews Ventana Canyon Resort	300	Average
Lowe's Home Improvement Speedway	193	Average
M3 Engineering & Technology Corporation	225	Bronze Award - RR
Marana Unified School District	1792	Average
MHC Healthcare	704	Silver Award - RR and AMU
MHIRJ	361	Average
Miraval Arizona	473	Bronze Award - RR
Modular Mining Systems Inc	300	Silver Award - RR and Goal
Northwest Medical Center	1436	Average
NOVA Home Loans Broadway	231	Bronze Award - RR
Omni Tucson National Golf Resort Spa	250	Average
O'Rielly Chevrolet Inc	198	Poor
Oro Valley Hospital	686	Poor
Pepsi-Cola Beverage Co.	150	Silver Award - RR and Goal
Pima Community College	3311	Average
Pima County	5977	Average
Precision Shooting Equipment	125	Bronze Award - RR
Precision Toyota of Tucson	215	Bronze Award - AMU
R&R Products	280	Bronze Award - AMU
Radiology Ltd	519	Bronze Award - AMU
Raytheon Missiles and Defense	13381	Average
Rincon Research Corporation	221	Bronze Award - RR
Ritz Carlton Dove Mountain	285	Average
Roche Tissue Diagnostics	1591	Average
Royal Automotive Group	409	Average
Safeway Food Stores-Tucson	1887	Average

2022 PAG TRP Employer Recognition Levels Awarded

Sahuarita School District #30	806	Bronze Award - RR
Salpointe Catholic High School	140	Bronze Award - RR
Sam Levitz Furniture	532	Average
Sam's Club 6692	187	Poor
Sandstone of Tucson Nursing and Rehab	139	Poor
Santa Rosa Care Center	114	Average
Sargent Controls & Aerospace	400	Silver Award - RR and AMU
Scripps Media	80	Average
Sears	104	Bronze Award - RR
Securaplane Technologies	127	Bronze Award - RR
Silver Bell Mining LLC	180	Bronze Award - RR
Sonora Behavioral Health	285	Poor
South Tucson	40	Average
Southwest Gas Corp	274	Bronze Award - RR
Sunnyside Unified School District	2289	Average
SunTran Transit Operations	769	Average
Swire Coca Cola	150	Bronze Award - RR
Target Stores-Tucson	2227	Average
Texas Instruments	370	Average
The Lodge at Ventana Canyon Golf & Racquet Club	237	Average
Town of Marana	420	Bronze Award - RR
Town of Oro Valley	559	Average
Town of Sahuarita	179	Average
Trico Electric Cooperative	135	Silver Award - RR and AMU
Tucson Airport Authority	230	Bronze Award - AMU
Tucson Electric Power	1364	Average
Tucson Jewish Community Center	279	Silver Award - RR and AMU
Tucson Medical Center	6724	Poor
Tucson Orthopaedic Institute	165	Silver Award - RR and AMU
TUSD Morrow Education Center	7435	Average
Universal Avionics	177	Average
University of Arizona Main Campus Staff	15907	Average
UPS	566	Poor
US 162d WG Arizona Air National Guard	1500	Poor
US Correctional Complex	569	Average
US Davis Monthan Air Force Base	6000	Poor

2022 PAG TRP Employer Recognition Levels Awarded

US Department of Veterans Affairs SW CMOP 762	400	Average
US Postal Service Cherrybell	320	Poor
US Southern AZ Va Health Care System	3065	Poor
Vail School District	2201	Average
Walmart Stores-Tucson	4337	Average
Watson Chevrolet Inc	204	Average
Westin La Paloma	344	Poor
Westward Look Wyndham Grand Resort & Spa	86	Silver Award - RR and AMU
Xeridigm Medical Devices	112	

ACTIVITY INVENTORY SURVEY RESULTS															
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of employers	301	292	290	290	289	230	216	214	217	213	203	203	194	202	159
Number of employees	126070	131099	128690	132059	132124	126288	119649	123926	128093	130124	126539	128626	129336	128595	132166
Adjusted work schedule	72.0%	68.8%	66.9%	72.3%	70.6%	60.7%	60.5%	65.4%	59.9%	64.6%	71.9%	59.2%	66.4%	64.3%	65.4%
Flexible schedules	51.0%	54.5%	55.2%	54.9%	53.6%	44.8%	45.6%	50.5%	40.1%	46.7%	56.7%	54.7%	57.7%	53.4%	57.2%
Compressed work week	41.5%	43.2%	48.6%	43.9%	45.3%	40.9%	41.4%	41.6%	40.6%	44.3%	42.4%	31.0%	32.9%	37.6%	32.1%
Bike facilities	86.0%	85.3%	88.3%	88.6%	88.6%	89.1%	87.9%	89.3%	88.9%	89.2%	76.8%	71.4%	73.7%	87.6%	62.9%
Sell bus passes	22.0%	22.6%	24.1%	23.6%	22.8%	20.5%	18.1%	18.2%	15.2%	14.6%	12.3%	14.2%	11.9%	11.3%	6.3%
Provide GRH	54.0%	41.8%	65.5%	60.4%	59.9%	61.1%	63.3%	65.0%	56.2%	58.9%	16.7% NA	NA	NA	NA	
Communication of rideshare information	98.0%	90.1%	93.1%	95.8%	93.4%	96.9%	94.0%	97.2%	95.4%	94.3%	86.2%	80.3%	74.2%	69.8%	68.6%
Email alerts	31.0%	26.7%	36.6%	45.5%	39.1%	34.8%	42.8%	42.5%	47.5%	42.9%	16.3%	14.7%	13.9%	11.3%	28.9%
Newsletter	31.0%	31.2%	37.9%	27.4%	26.0%	27.0%	29.3%	37.9%	35.0%	25.9%	14.8%	9.8%	10.3%	9.9%	18.2%
New hire orientation	49.0%	40.1%	45.2%	53.8%	50.2%	47.4%	52.6%	59.8%	53.0%	52.8%	54.7%	45.8%	40.2%	34.1%	35.2%
New employee packet	38.5%	33.9%	27.9%	29.2%	33.9%	28.7%	29.8%	31.3%	33.6%	36.8% NA		22.3%	17.4%	0.0% NA	
Staff meeting															11.9%
Information center	68.0%	59.2%	66.9%	69.6%	61.6%	71.3%	61.9%	59.8%	55.8%	59.9%	50.2%	40.8%	55.1%	27.7%	30.8%
Link on intranet															15.1%
Social media (share/post)															3.8%
Carpool sign-up event	23.0%	8.6%	7.2%	6.6%	13.1%	5.7%	5.6%	3.7%	6.0%	1.4%	0.0%	0.0%	0.0%	4.9% NA	
Incentives for alternative mode usage	30.9%	17.1%	16.6%	24.7%	22.5%	22.7%	18.6%	17.8%	20.7%	17.5%	15.8%	16.3%	13.4%	11.8%	12.6%
Recognition for alternative mode usage	21.9%	12.0%	16.9%	22.6%	18.3%	17.0%	16.7%	14.5%	7.8%	7.5%	1.5%	0.8%	2.6%	1.1%	1.9%
Parking incentives	22.3%	19.2%	19.3%	18.8%	18.7%	16.2%	14.9%	14.5%	12.4%	13.2%	15.3%	12.3%	11.6%	13.8%	13.8%
Matching system available	40.2%	32.2%	43.4%	28.8%	33.6%	31.4%	29.8%	44.9%	35.0%	30.2%	8.9% NA		5.9%	4.5%	5.7%
Shuttle service	3.0%	3.1%	1.7%	2.4%	3.1%	2.6%	2.8%	1.9%	2.3%	4.0%	4.9%	4.9%	5.9%	12.3%	11.3%
Subsidies provided	14.3%	14.7%	16.9%	16.3%	13.5%	18.3%	14.4%	15.4%	15.2%	16.0%	12.3%	8.8%	11.6%	7.9%	5.0%
Pre-tax payment	2.7%	3.1%	2.1%	2.8%	3.1%	4.4%	3.7%	5.1%	4.6%	4.7%	5.9%	3.4%	5.2%	3.4% NA	
Telework program	20.9%	22.9%	29.0%	27.1%	29.4%	28.8%	27.0%	32.7%	29.0%	34.0%	30.0%	47.8%	51.1%	45.5%	45.9%
Employer pri Day care	4.0%	4.5%	6.2%	3.8%	3.1%	6.1%	5.6%	3.7%	4.6%	5.2% NA	NA	NA	NA	NA	
EV charging station															17.6%
Showers	38.5%	38.0%	41.0%	39.2%	37.7%	42.6%	44.2%	41.6%	47.5%	42.5%	46.3%	41.4%	39.6%	39.6%	42.1%
Lockers	64.5%	58.9%	64.8%	72.9%	66.8%	66.1%	67.4%	62.6%	63.6%	64.6% NA		71.8%	0.0%	67.8% NA	
Exercise room	17.3%	18.5%	20.3%	20.8%	19.7%	24.8%	25.1%	23.8%	27.6%	27.8%	31.0%	27.5%	67.5%	24.7% NA	
Teleconference facility	17.9%	17.5%	22.8%	17.0%	21.1%	27.4%	29.3%	33.2%	28.6%	30.7% NA	NA		0.0%	0.0% NA	
Cafeteria	31.2%	38.0%	39.0%	46.5%	41.9%	42.6%	43.7%	42.5%	45.2%	41.0%	48.8%	46.3%	4430.0%	43.0% NA	
Concierge	4.0%	2.7%	3.1%	3.1%	3.1%	3.9%	3.7%	4.2%	4.6%	5.7% NA	NA		0.0%	0.0% NA	
Close to a bus route	74.4%	74.3%	83.1%	83.7%	84.1%	80.8%	81.9%	83.6%	80.6%	82.5%	80.3%	80.7%	77.3%	80.1%	
Promote Sun Rideshare Rewards Program						90.0%	88.8%	86.9%	85.7% NA	NA	NA	NA	NA	NA	
Promote events						66.4%	67.0%	65.4%	57.1%	58.0%	58.6%	92.6%	89.1%	88.6%	96.9%
Earth Day						43.5%	50.2%	48.1%	41.9%	46.2%	37.4%	36.9%	41.7%	43.5%	45.3%
Car Free Day/Free Streetcar Day						28.7%	24.2%	24.3%	24.9%	18.9% NA		78.8%	47.4%	7.9%	19.5%
Bike Fest						40.9%	41.9%	37.9%	34.6%	24.1%	21.2%	15.8%	10.8%	12.8% NA	
Bike to Work						38.7%	39.1%	34.6%	38.2%	28.3%	21.7%	16.3%	11.8%	16.8%	20.1%
Dump the Pump						6.5%	11.2%	10.3%	11.5%	8.5% NA	NA		NA	NA	
Buffelgrass Day						7.8%	13.0%	14.0%	15.2%	10.8%	9.4% NA		0.0%	0.0% NA	
Cycloviva						20.4%	27.9%	36.4%	29.0%	23.6%	23.2%	14.7%	26.2%	12.3% NA	
Wellness Team									65.0%	69.6%	65.1%	58.6%	54.7%	58.2%	57.9%
Sustainability Team									30.4%	32.3%	34.4%	24.6%	20.7%	18.0%	22.0%

Travel Reduction Program Regional Task Force

At or after 10 a.m., Nov. 14, 2022

Public Access to Meeting Audio/Presentation:

YouTube: <https://youtu.be/YPwKAEE771Y>

Zoom: https://us06web.zoom.us/webinar/register/WN_mDz7n3JBQBmBXYfoAVjNiA

Notice is hereby given to the public and to the Committee members, that the Travel Reduction Program Regional Task Force of Pima Association of Governments will have a meeting at the above stated time and location. The following is an agenda of the matters to be considered, discussed and acted upon. The sequence of the agenda may be changed by the Chair. Action may be taken on any item.

SPECIAL NOTICE: In accordance with the social distancing guidelines recommended by the Centers for Disease Control and Prevention (CDC) and other authorities relating to the COVID-19 pandemic, members of the Committee will attend the meeting remotely or in-person. The meeting room will be closed to the public. However, members of the public are invited to attend the meeting via the public access link above. Committee members will be provided with a separate link to participate remotely as needed.

In accordance with the Attorney General's guidelines for conducting remote meetings, members of the public may submit written comments relating to this meeting, **in lieu of the call to the audience**, to info@PAGregion.com within one hour of the posted start time for the meeting. These comments will be filed with the meeting's records.

Alternatively, a virtual call-in option subject to technological availability may be available for comments under the Call to the Audience item on the PAG Regional Council meeting agenda. Interested members of the public should email info@PAGregion.com or call (520) 792-1093 at least 24 hours prior to the start of the meeting to confirm your interest in participating in the virtual Call to the Audience.

As the region's Air Quality Planning Agency, PAG is designated by the state as the responsible agency for the State Implementation Plan (SIP). The SIP identified PAG's Travel Reduction Program (TRP) as a strategy to meet the requirements of the federal Clean Air Act for the region. The TRP Task Force is responsible for working collaboratively to support TRP's mission in full compliance with PAG policies and procedures. This meeting is an informational meeting, and no action will be taken by the task force.

AGENDA

1. Call to Order and Introductions

2. In-kind Reporting

PAG staff will ask participants to confirm estimated in-kind time for this meeting.

3. Approval of the Meeting Summary

Action: Approval of meeting Summary of June 20, 2022

4. PAG staff will provide program updates

- a. ADEQ TRP Annual Report highlights and program accomplishments - **Mary Carter**

- b. AIR Survey refresh - updating annual required process - **Mary Carter**
- c. RTA role in regional transit - **Preston McLaughlin**

These items are for information only.

5. Adjournment

The Travel Reduction Program Regional Task Force meeting packet containing material related to the meeting is available at www.PAGregion.com for public review. In compliance with the Americans with Disabilities Act (ADA), those requiring special assistance, such as large typeface print, sign language or other reasonable accommodations, may request those through the administrative offices at: (520) 792-1093 at least two business days before the meeting.

PAG operates its programs without regard to race, color and national origin in compliance with [Title VI](#) of the Civil Rights Act. We invite you to complete our voluntary self-identification survey ([English/Spanish](#)).

If you need translation assistance, please call (520) 792-1093 and ask for Nathan Barrett. Si necesita ayuda con traducción, llame por favor al (520) 792-1093 y comuníquese con Nathan Barrett.

Travel Reduction Program Regional Task Force Meeting

On or after 10:00 a.m., Monday, June 19, 2023

Public Access to Meeting Audio/Presentation: <https://youtube.com/live/9aO--Bz4dwE>

Notice is hereby given to the public and to the Task Force members that the Travel Reduction Program Regional Task Force of Pima Association of Governments (PAG) will meet at the above stated time and date. The following is an agenda of the matters to be considered and discussed.

***SPECIAL NOTICE:** Members of the Travel Reduction Program Regional Task Force may attend the meeting remotely. The meeting room will be closed to the public since this is an electronic meeting. However, members of the public are invited to attend the meeting via the link above. Task Force members will be provided with a separate link to participate. Members of the public may submit written comments relating to this meeting to info@PAGregion.com within one hour of the meeting's posted start time. These comments will be filed with the committee's records.*

PAG is committed to maintaining high standards of conduct and prohibits harassment and retaliation against all employees pursuant to Pima Association of Governments' Policy Against Discrimination, Harassment and Retaliation. It is the responsibility of all committee members to comply with and to report violations or suspected violations of the Rules of Conduct, PAG/RTA policies, or state laws.

PAG's Rules of Conduct require committee members to observe high standards of conduct and personal ethics in the conduct of their duties and responsibilities. Committee members are prohibited from interfering with the administrative functions of the organization and must comply with the open meeting laws and all other applicable laws, regulations, and policies.

AGENDA

1. Call to Order

2. In-kind Notice

PAG staff will ask participants to confirm an estimated in-kind time for this meeting.

3. TRP Program Updates

PAG staff will provide program updates.

- TRP Online Platform Enhancements
- RWE Updates
- Multi-Address Employers
- AIR Survey Enhancements

This is an information item.

4. TRP Growth in Employees and sites-A paradigm shift

Expansion of program reach while condensing number of listed employers by increasing specific addresses to collect VMT.

This is an information item.

5. Adjournment

The Travel Reduction Program Regional Task Force meeting packet containing material related to the meeting is available at www.PAGregion.com for public review. In compliance with the Americans with Disabilities Act (ADA), those requiring special assistance, such as large typeface print, sign language or other reasonable accommodations, may request those through the administrative offices at: (520) 792-1093 at least two business days before the meeting.

PAG operates its programs without regard to race, color and national origin in compliance with [Title VI](#) of the Civil Rights Act. We invite you to complete our voluntary self-identification survey ([English](#)/[Spanish](#)).

If you need translation assistance, please call (520) 792-1093 and ask for Zonia Kelley. Si necesita ayuda con traducción, llame por favor al (520) 792-1093 y comuníquese con Zonia Kelley.

TRAVEL REDUCTION PROGRAM REGIONAL 2022-2024 TASK FORCE MEMBERSHIP

MAJOR EMPLOYERS (10)		ORGANIZATION	CATAGORY	TERM EXPIRES	EMAIL
1	Nick Trees	La Frontera Arizona	Non-profit Social Services	December 2024	nick.trees@lafrontera.org
2	Kathy Chavez	M3 Engineering	Business-Engineering	December 2024	kathy.chavez@m3eng.com
3	Teresa Bravo	Tucson Electric Power	Utility	December 2024	teresa.bravo@tep.com
4	Javier Montenegro	University of Arizona	Education-Secondary	December 2024	jamontenegro@arizona.edu
5	Rene Reichardt	Pima Community College	Education-Secondary	December 2024	rreichardt@pima.edu
6	Josephine Curylo	Bureau of Prisons	Prison-Business Services	December 2024	jcurylo@azadc.gov
7	Jim Seaney	Carondelet Health Network	Healthcare	December 2024	jseaney@carondelet.org
8	Kathryn Van Sice	Raytheon Missel Systems	Business-Defense	December 2024	katherine.van.sice@rtx.com
9	Laurie Rich	Beacon Group SW, Inc.	Non-Profit	December 2024	lrch@beaongroup.org
10	Sarah Lopez	Faribault Foods	Food distribution	December 2024	slopez@faribaultfoods.com

<u>JURISDICTIONAL REPRESENTATIVES (6)</u>	<u>ORGANIZATION</u>	<u>TERM EXPIRES</u>
1. Denise Valencia	City of South Tucson dvalencia@southtucson.org	ONGOING
2. Monica Landgrave-Serrano	City of Tucson monica.landgrave-serrano@tucsonaz.gov	ONGOING
3. Karen Wilhelmsen	Pima County karen.wilhelmsen@pima.gov	ONGOING
4. Maureen Flores	Town of Marana mflores@maranaaz.gov	ONGOING
5. Matt Jankowski	Town of Oro Valley mjankowski@orovalleyaz.gov	ONGOING

6. Liliana Soto

Town of Sahuarita
lsoto@sahuaritaaz.gov

ONGOING

PAG Staff Lead: Mary Carter

Director of Partnerships & Development

TRP PARTNERS : MEETING ATTENDEES

- Amanda Luecker ADEQ
luecker.amanda@azdeq.gov
- Sarah Fitzgerald ADEQ
fitzgerald.sarah@azdeq.gov
- Rick MacNeal EHI/COMMUTE
rick.macneal@ehi.com
- Becky Stull EHI/COMMUTE
becky.stull@ehi.com

The Benefits of Travel Reduction



**Drive less.
Save more.**

TRAVEL REDUCTION PROGRAM
SunRideshare.org

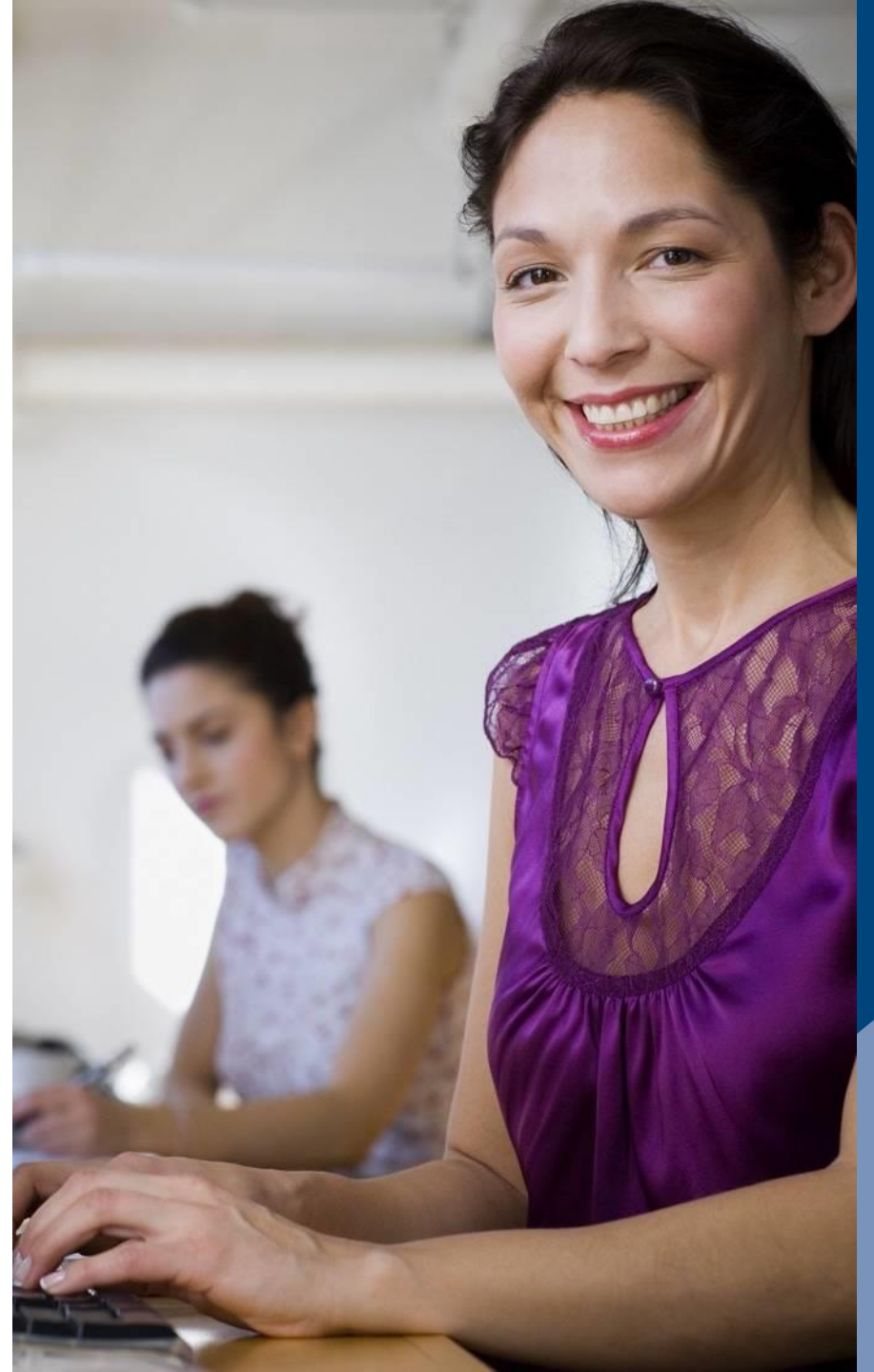
>> Air pollution is real

- Motor vehicle emissions are a major source of air pollution in Pima County.
- The Travel Reduction Program was enacted as a result of the Clean Air Act of 1970. Pima Association of Governments (PAG) is the designated lead agency per article 8 section 49-588 of the Federal Register.
- The TRP has been operating in Pima County since 2000. The region is in attainment for air quality standards.
- .80 pounds of pollution per mile driven



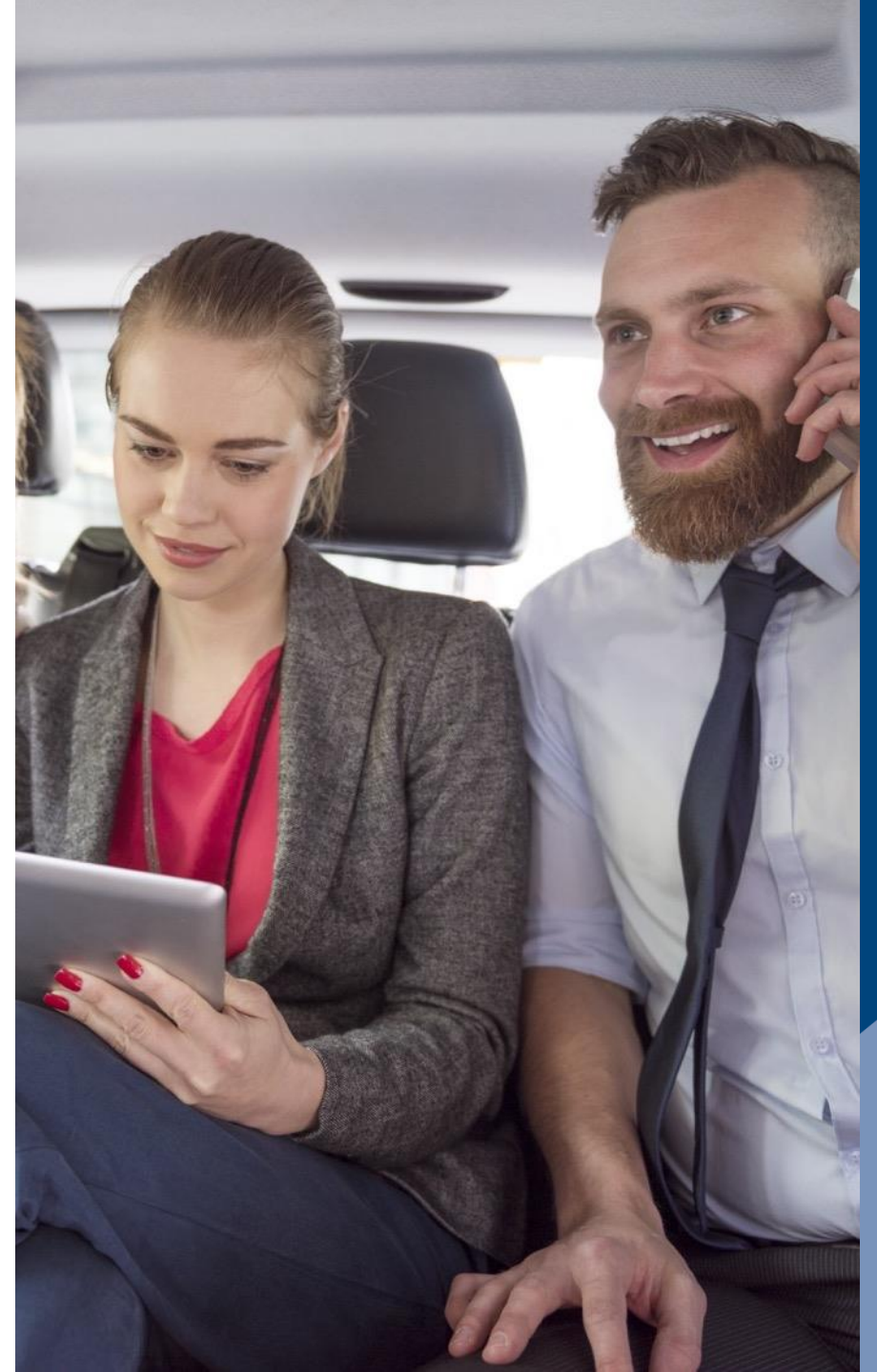
»» Your company's responsibility

- Employers with 100 FTEs are required to participate in PAG's Travel Reduction Program (TRP)
 1. Assign a transportation coordinator (TC)
 2. Complete a travel reduction Activity Inventory Report (AIR Survey) - Spring
 3. Administer an Annual TRP Employee Survey to workforce or RWE confirmation
 4. Share travel reduction information and materials with employees



»» Benefits of sharing the ride

- Save big on costs
- Reduce stress/improve health
- Gain more time
- Make new friends
- Enjoy a healthier environment
- Vanpools - share expense, receive a subsidy



» TRP requirement – Annual Employee Survey

TCs:


- Administer the survey annually ... mark your calendar!
- Promote survey - communicate and educate
- 50% percent or better response rate
- Each site has its own password

Welcome to Pima Association of Government's

Travel Reduction Program Employee Survey

Pima Association of Governments is your metropolitan planning organization working to improve the region's transportation safety, reliability and efficiency. Your input provides valuable transportation planning data that guides the region's efforts to reduce traffic congestion, energy consumption, the cost of transportation and air pollution, while improving job access, mobility options and your quality of life.

Learn about all your transportation options at our Sun Rideshare Interactive Web site. Enter your commuter profile in just a minute to get a carpool matchlist, bike buddy or transit trip plan.

Visit 

Take our online survey:

Please enter the password given to you by your company's Transportation Coordinator.

Password:

If you have any problems with this survey, please send an email to: TRPSurveys@pagregion.com

Usted puede tomar la encuesta en

Drive less. Save more.

SunRideshare.org

Copyright © Pima Association of Governments all rights reserved

1 E Broadway Blvd, Suite 401
Tucson, AZ 85701

Page 52

>> TRP Remote Work Confirmation Process

TCs:

- Contact TRP staff for review of status
- Confirm 40% or greater of workforce is working remotely
- Confirm contacts and employee count
- Receive specific link
- Complete online confirmation
- Receive confirmation email as record of completion

TRP EMPLOYER CONFIRMATION OF DEPLOYED REMOTE WORK MODEL FOR CALENDAR YEAR 2023

If you have any problems with this survey, please send an email to: TRPSurveys@pagregion.com

PLEASE PROVIDE ALL THE INFORMATION BELOW

* INDICATES A REQUIRED FIELD

Site/Company Name:
Afni Riverside Crossing

Worksite Street Address:
7810 E. Escalante Rd.

City, State, ZIP:
Tucson, AZ 85730

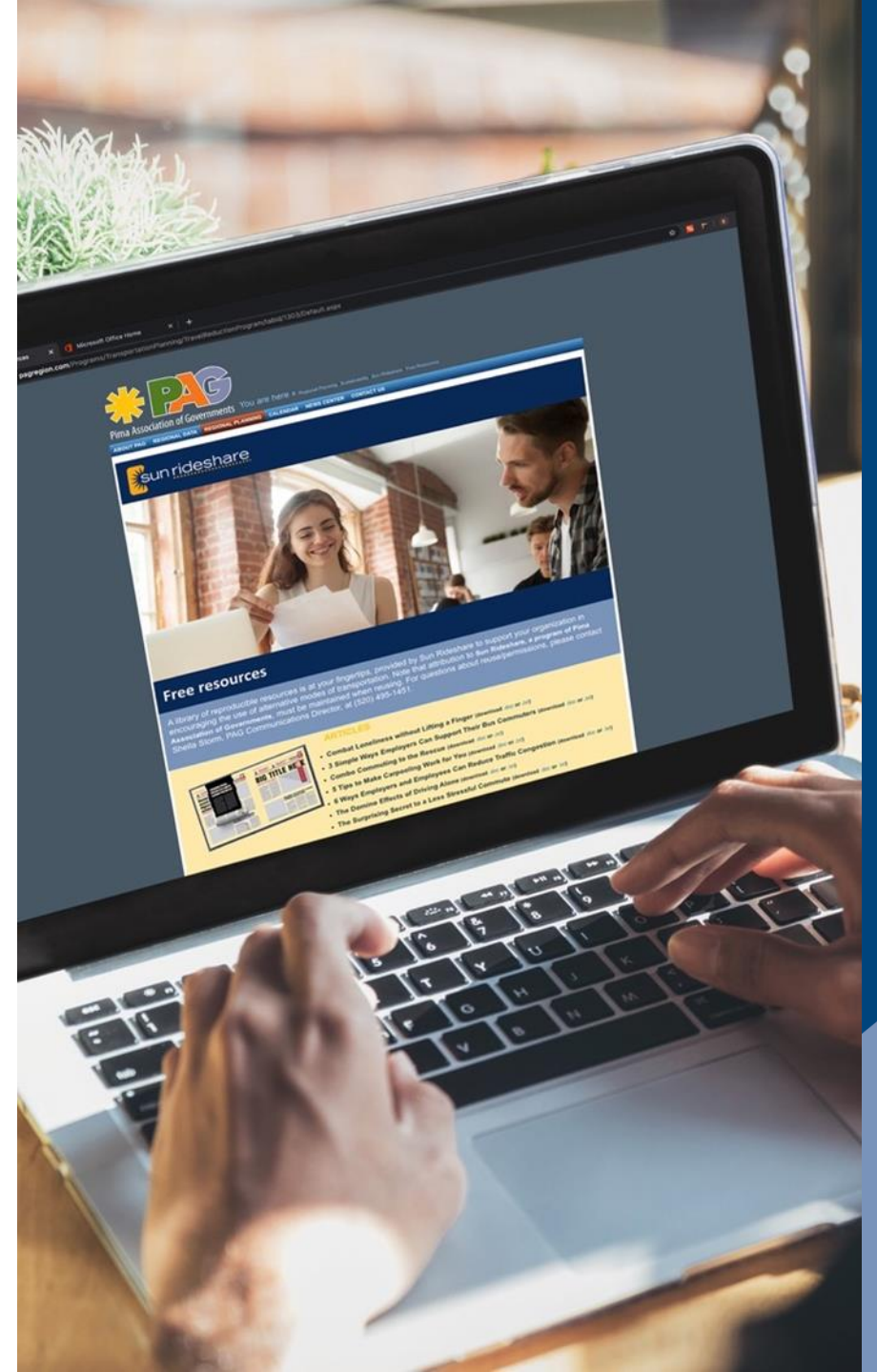
* Located in City of Tucson? ☒ Yes ☐ No

* Located in Pima County? ☒ Yes ☐ No

Transportation Coordinator Name:
Ashley Norzagaray


» New TRP Online Portal Enhancements in 2023

- Streamlined process for multi-site employers
- Easier updates to multiple addresses for employers
- Performance Tracking Page for employers - view real time data
- Administrative efficiency improved by 35% while increasing program reach



>> TRP Overview and QR Code Survey Tool

TRAVEL REDUCTION PROGRAM Program Overview



The Pima Association of Governments' Travel Reduction Program (TRP) team is available to provide you information on the benefits of why major employers in the greater Tucson area should participate in the annual TRP survey.

Our team can offer you support to annually administer the survey to your employees to seek the greatest participation rates possible.


Program Summary

Over 165 Pima County employers, representing over 145K employees in Pima County, who have 100 full-time equivalents (FTEs) or more, are required by Pima County or City of Tucson ordinances to participate in the program. By encouraging employees to use alternative transportation modes to commute, their actions can help to reduce traffic congestion and vehicle emissions for cleaner air.

Travel Reduction Ordinances

Pima County: https://codebooks.amlegal.com/codes/pimacounty/latest/pimacounty_az/0-0-0-15070
City of Tucson: <https://www.tucsonaz.gov/tdot/TRQ>

TRP Employer Requirements



1. Assign a transportation coordinator (TC).
2. Share information with employees about alternative transportation modes for their commute.
3. Complete the TRP Activity Inventory Report (AIR survey) annually.
4. Administer the TRP Annual Employee Survey, or request to change operational status to Remote Work Employer (RWE) site.

The higher your survey response rate, the better the data you can receive to support your employees. PAG creates a heat map (see example on opposite side/page 2) with information from those who respond in order to allow your HR team to evaluate if vanpooling, carpooling or transit are good choices for your workforce. PAG also can subsidize vanpools with seven or more participants to lessen the cost of the commute for onsite employees.

TRP Outreach Contacts

Mary Carter, PAG Director of Partnerships and Development, MCarter@pagregion.com
Melissa Minerich, PAG Communications Production Specialist, MMinerich@pagregion.com

Resources


PAG Travel Reduction Program Webpage: <https://pagregion.com/sustainability/travel-reduction/>
Sun Rideshare Webpage: <https://pagregion.com/mobility/sun-rideshare/>

DATA is critical for all businesses, including yours and ours.

Your participation in Pima Association of Governments' Travel Reduction Program (TRP) Survey provides data that will help shape your future.


Los DATOS son fundamentales para todas las empresas, incluidas la tuya y la nuestra.

Tu participación en la Encuesta del Programa de Reducción de Viajes (TRP) de la Asociación de Gobiernos Pima proporciona datos que ayudarán a dar forma a tu futuro.



It's Survey Time!


¡Tiempo de cuestionario!



Company Name:
Nombre de empresa


Survey Password:
Contraseña de cuestionario

Deadline:
La fecha tope



The PAG Travel Reduction Program is a state-mandated air quality program designed to reduce emissions from passenger vehicles and protect the air quality in the Pima County region. Find out more at <https://pagregion.com/sustainability/travel-reduction/>

El Programa de Reducción de Viajes de PAG es un programa de calidad del aire exigido por el estado y diseñado para reducir las emisiones de los vehículos de pasajeros y proteger la calidad del aire en la región del Pima County. Obtenga más información en <https://pagregion.com/sustainability/travel-reduction/>



Pima Association of Governments

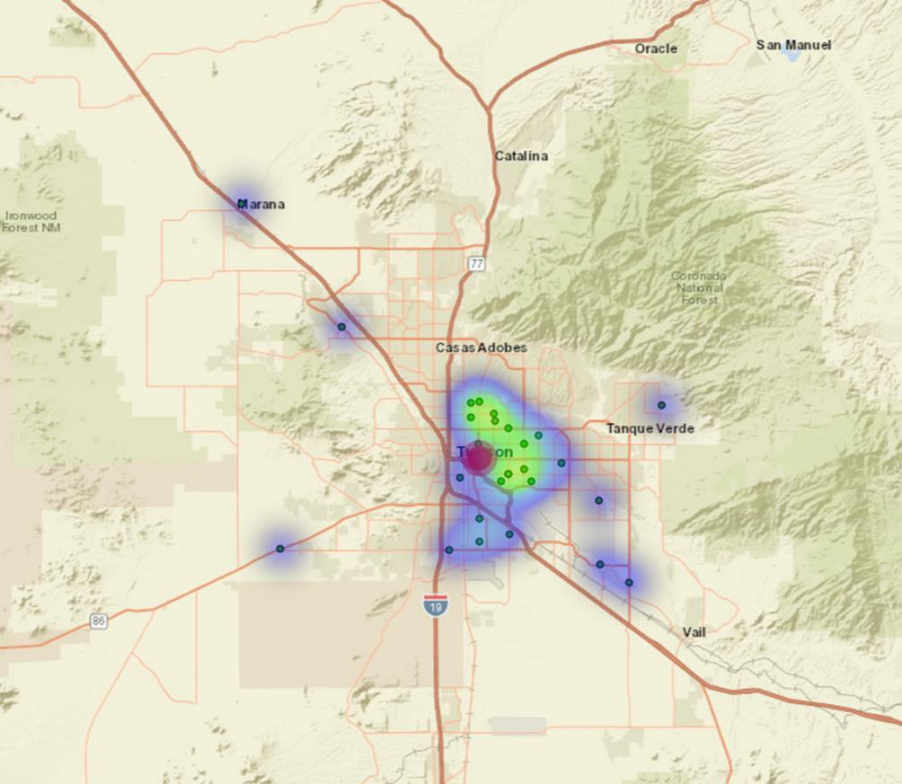


Safeway 1684 Broadway & Campbell
1940 E. Broadway Bl Tucson AZ, 85719
Survey Date - July 2022

Survey Year	2018	2019	2020	2021	2022
Alternative Mode Participation (based on trips)	21.5%	31.4%	12.3%	18.9%	15.0%
TRO Goal	39%	40%	40%	40%	40%
Average weekly VMT per employee (one-way miles)	48.9	24.8	30.7	39.2	41.4
VMT % change vs. last survey	21.3%	-49.3%	23.9%	27.6%	5.6%
Number of Employees at time of survey	130	124	124	140	140
Number of survey respondents	83	67	77	98	34
Survey response rate	63.8%	54.0%	62.1%	70.0%	24.3%
Average one-way miles per trip	11.5	6.6	6.2	8.4	8.6
Average number of people per carpool	2.7	2.6	2.4	2.3	4.0
Average number of days per week for Alt Mode usage	4.1	4.3	3.9	4.1	4.5
% Trips by Mode					
% Drive Alone	78.5%	68.6%	87.7%	81.1%	85.0%
% Carpool/Vanpool	7.9%	12.6%	2.9%	4.4%	2.8%
% Bus	7.7%	10.3%	4.1%	4.0%	6.7%
% Street Car	0.0%	0.0%	0.0%	0.0%	0.0%
% Bike	1.7%	3.2%	2.2%	2.4%	3.9%
% Walk	4.1%	5.0%	2.9%	7.0%	0.6%
% Work From Home	0.0%	0.0%	0.0%	0.0%	0.0%
% CWW	0.2%	0.3%	0.2%	1.0%	1.1%
Number of Employees by Mode*					
# Carpool/Vanpool	9	13	5	7	1
# Bus	9	10	3	5	3
# Street Car	0	0	0	0	0
# Bike	1	3	2	2	2
# Walk	5	5	3	9	1
# Work From Home	0	0	0	0	0
# CWW	1	1	1	5	1
TOTAL	24	31	13	23	7

*Employees may be double counted if they use multiple modes
Must use a mode at least once a week to be counted.
VMT = vehicle miles traveled
CWW = compressed work week

Final survey report provides historic data, summary of emissions offset and a heat map of employee responses.



>> Survey data helps employers/planners prepare for the future

Calculate/Evaluate:

- Emission reduction benefits – Air Quality
- Transportation mode usage
- Transit system usage
- Travel time data
- Commute patterns
- Bike/Loop use; annual bike counts



»» TRP Requirement – Activity Inventory Report

The final report:

- Identifies employee travel habits
- Shares information about employee travel reduction efforts
- Shares availability of employer subsidies and incentives
- Identifies access to transit, flexible schedules and bike facilities



>> Get recognized

- Achieve the minimum 50% response rate
- Meet the TRP ordinance goal
- Reach a 2 percentage point increase in alt mode use
- NOTE: Company sustainability measures being reported? TRP Counts!



Drive less. *LIVE HEALTHY.*

SunRideshare recognizes and thanks its Travel Reduction Program (TRP) employers for implementing successful programs at their workites to improve our air quality.

Pima Association of Governments congratulates the following employers that have exceeded annual program goals. The TRP Regional Task Force and PAG member jurisdictions appreciate the efforts of the following entities and transportation coordinators to help achieve a healthier environment in Pima County.



GOLD AWARD Achieving 3 TRP Goals



Celestica
Stacey Webb



IBM
Terri Kapp



Pathways of Arizona
Bea Reyna



Simpleview
Jacquelyn Jones



Trico Electric Cooperative
April Park



Tucson International Airport
Debbie Fisher



Tucson Jewish Community Center
Katie Spector



Tucson Marriott University Park
Ricardo Oregon



SILVER AWARD | Achieving 2 TRP Goals

AAA - Arizona
Michelle Faas

Alorica Research Loop
Dianna LeBlond

Alorica West
Asima Khan

AZ State Main Complex W Congress
Irma Lopez

Bombardier Aerospace Commercial
Cindi Jacobson

Brookdale Santa Catalina Villas
Kevin Grueter

Chamberlain Group Inc.
Angelica Robison

Davis Selected Advisers L.P. Britannial
Alicia Hacena-Elkins

Devon Gables Health Care
Barbara Balthazor

Faribault Foods
Darrell Griffiths

Farmers Investment Co.
Mary Ann Pinon

FLSmith Inc. - Tucson Operations
Heidi Miller

Hexagon Mining
Becky Egly

Honeywell Aerospace Tucson - Oracle
John Scheidt

La Frontera Center Inc.
Nick Trees

Modular Mining Systems
John Linder

O'Reilly Chevrolet Inc.
Maria Brown

PCC 29th Coalition Center
Rene Reichardt

PCC District Office
Rene Reichardt

PCC Maintenance & Security
Rene Reichardt

Pepsi-Cola Beverage Co.
Monica De Celaya

Precision Toyota of Tucson
Chris Moulton

R & R Products
Paige Watson

Royal Automotive Group
Nancy Wimer

Safeway 1684 Broadway/Campbell
Jody Wood

Sam Levitz Prince Clearance Store
Jan Klaus

Securaplane Technologies
Carroll Mager

Sunnyside District Office
Jenny Montiel

Texas Instruments
Lamont Martin

Town of Marana
Mayra Mora

Tucson Electric Power Downtown
Jennifer Cox

Tucson Electric Power Irvington
Jennifer Cox

Universal Avionics
Amy Parks



BRONZE AWARD | Achieving 1 TRP Goal

Ami Escalante
Tola Barker

American Red Cross
Thomas Pickett

Arconic Fastening Systems and Rings
Carol Fagan

AURA Inc.
Armando Razo

Cal Portland-Rillito Cement
Sam Ayun

Comcast Cable Marana
Victoria Rubio

Comcast Cable Oracle
Jacquie Moore

DCMA Raytheon Tucson
Corey Wiedner

Encompass Health Rehab Institute of Tucson
Mark Paigas

NOVA Home Loans Broadway
Lori Garcia

PCC - Downtown Campus Staff
Rene Reichardt

Raytheon Missile Systems - Palo Verde
Ron Gonzales

Raytheon Missile Systems - Rita Road
Ron Gonzales

Sahuarita School District
Nicole Herbst

Sargent Controls & Aerospace
Ashley Hames

Scripps Media
Dawn Elliott

Sears
Harold Schmidt

Target Irvington Rd
Alli Finn

Town of Oro Valley
Nancy Ellis

University of Arizona Main Campus Staff
Alexandra Chavez

>> Other ways you can help

- Keep us updated on current employee counts.
- Tell us about changes to the organization – closure, expansions, remodels.
- Share travel reduction information with employees - FREE Transit, Vanpools, benefits of biking etc.



Questions?

Travel Reduction Program/Sun Rideshare Contact
Mary Carter
PAG Director of Partnerships and Development

mcarter@region.com
(520) 495-1424
(520) 955-1002 (cell)



**Drive less.
Save more.**

TRAVEL REDUCTION PROGRAM
SunRideshare.org



**EVALUATION OF THE 2022-2023 PIMA COUNTY
CLEAN AIR PROGRAM CAMPAIGN
AND
CLEAN WATER PROGRAM CAMPAIGN SURVEY**

(May 2023)

Prepared for:

PIMA COUNTY DEPARTMENT OF
ENVIRONMENTAL QUALITY

Tucson, Arizona

Prepared by:

FMR ASSOCIATES, INC.

Tucson, Arizona

Copyright, FMR Associates, Inc., 2023

**EVALUATION OF THE 2022-2023 PIMA COUNTY CLEAN AIR PROGRAM CAMPAIGN
AND CLEAN WATER PROGRAM CAMPAIGN SURVEY**
(May 2023)

Digest of the Contents

<u>Introduction and Goals</u>	I-1
<u>Details of the Findings</u>	1
I. <u>Profile of Respondents</u>	1
<u>Table 1.</u> Language of Interview	1
<u>Table 2.</u> Method of Interview	2
<u>Table 3.</u> Ethnicity of Respondents	3
<u>Table 4.</u> Area of Residence	4
<u>Table 5.</u> Sex of Respondents	5
<u>Table 6.</u> Age of Respondents	5
<u>Table 7.</u> Length of Residence in Pima County	6
<u>Table 8.</u> Household Member With Breathing- Related Medical Condition	7
<u>Table 9.</u> Number of Motor Vehicles Owned or Leased	8
<u>Table 10.</u> Education Level of Respondents	9
<u>Table 11.</u> Household Income	10
<u>Display 1.</u> Demographic Profile of Respondents (Among the Total Sample)	11
II. <u>Awareness of Information About Air Quality/Pollution</u>	14
<u>Table 12.</u> Awareness of the Pima County “Clean Air” Program	14
<u>Table 13.</u> Awareness of Various Clean Air Events or Activities	16
<u>Table 13a.</u> Participation of Anyone in Household in a Clean Air Campaign Event (Among Those Aware of at Least One Event)	17
<u>Table 13b.</u> Incidence of Changing Routines/Behaviors to Improve Air Quality After Participating in Clean Air Events (Among Those With a Household Member Who Participated)	18
<u>Table 13c.</u> Opinion of Activities/Events to Encourage Use of Other Modes of Transportation (Among Those Aware of at Least One “Clean Air” Event)	19

EVALUATION OF THE 2022-2023 PIMA COUNTY CLEAN AIR PROGRAM CAMPAIGN AND CLEAN WATER PROGRAM CAMPAIGN SURVEY

(May 2023)

Digest of the Contents (Cont'd)

<u>Table 14.</u>	Steps Taken to Reduce Air Pollution.....	21
<u>Table 15.</u>	Presence of Children Ages 5-18 in Household.....	22
<u>Table 15a.</u>	Incidence of Children Ages 5-18 Receiving Information From School About Air Pollution (Among Households With Children Ages 5-18)	23
<u>Table 16.</u>	Use of Gasoline-Powered Lawn Mower to Care for Property.....	24
<u>Table 16a.</u>	Minutes Per Month Gasoline-Powered Lawn Mower Used	24
<u>Table 16b.</u>	Use of Other Gasoline-Powered Lawn and Garden Equipment to Care for Property	25
<u>Table 16a.</u>	Minutes Per Month Other Gasoline-Powered Lawn and Garden Equipment Used	25
<u>Table 17.</u>	Agreement with Various Statements Regarding PDEQ Programs and Air Pollution.....	28
<u>Table 18.</u>	Travel Behavior for Shopping	29
<u>Table 19.</u>	Travel Behavior for Leisure Purposes	30
<u>Table 20.</u>	Perceived Seriousness of Air Quality Problem in Tucson Area	31
<u>Display 20.</u>	Perceived Seriousness of Air Quality Problem in Tucson Area	32
<u>Display 20.</u>	Perceived Seriousness of Air Quality Problem in Tucson Area (Sum of “Moderate” and “Major” Responses)	33
III.	<u>Work Commuting Behavior.....</u>	34
<u>Table 21.</u>	Employment Status	35
<u>Table 22.</u>	Location of Place of Employment (Among Those Employed)	36
<u>Table 23.</u>	Incidence of Telecommuting (Among Those Who Work Outside the Home)	37
<u>Table 24.</u>	Frequency of Telecommuting (Among Those Who Telecommute)	38
<u>Table 25.</u>	Current Work Schedule (Among Those Employed Full-Time)	39

EVALUATION OF THE 2022-2023 PIMA COUNTY CLEAN AIR PROGRAM CAMPAIGN AND CLEAN WATER PROGRAM CAMPAIGN SURVEY

(May 2023)

Digest of the Contents (Cont'd)

<u>Table 26-S.</u>	Summary of Usage of Transportation Methods for Traveling To and From Work or School (Among Those Working Outside the Home or Going to School)	42
<u>Table 26-D.</u>	Detailed Daily Usage of Transportation Methods for Traveling To and From Work or School (Among Those Working Outside the Home or Going to School)	43
<u>Table 26-T.</u>	Estimated Number of Daily Commuter Miles Saved Through Alternative Modes	45
<u>Table 26-1.</u>	2023 Estimated Number of Daily Commuter Miles Saved Through Alternative Modes (Among Employed Persons and Students)	46
<u>Table 26a.</u>	Most Used Mode of Transportation for Work/ School Commute (Among Those Working Outside the Home or Going to School)	48
<u>Table 26b.</u>	Size of Work or School Commute Carpool (Among Those Who Carpool)	49
<u>Display 26b.</u>	Size of Work or School Commute Carpool (Among Those Who Carpool)	50
<u>Table 26c.</u>	Miles Traveled to Work or School (Among Those Working Outside the Home or Going to School).....	51
IV.	<u>Stormwater Perceptions and Practices</u>	52
<u>Table 27.</u>	Perception of Where Stormwater That Flows Into Tucson Storm Drains Ends Up	53
<u>Display 27.</u>	Perception of Where Stormwater That Flows Into Tucson Storm Drains Ends Up	54
<u>Table 28.</u>	Green Infrastructures Implemented/Installed at Home or Business	56
<u>Display 28.</u>	Green Infrastructures Implemented/Installed at Home or Business	57
<u>Table 28a.</u>	Awareness of the “Clean Water Starts With Me” or “Keep Our Water Clean” Campaign	58
<u>Table 29.</u>	Perceived Seriousness of Stormwater Pollution Problem in Tucson Area	59

EVALUATION OF THE 2022-2023 PIMA COUNTY CLEAN AIR PROGRAM CAMPAIGN AND CLEAN WATER PROGRAM CAMPAIGN SURVEY

(May 2023)

Digest of the Contents (Cont'd)

<u>Display 29.</u>	Perceived Seriousness of Stormwater Pollution Problem in Tucson Area	60
<u>Display 29.</u>	Perceived Seriousness of Stormwater Pollution Problem in Tucson Area (Sum of “Moderate” and “Major” Responses)	61
<u>Table 30.</u>	Methods Used to Dispose of Various Types of Household Hazardous Waste	63
<u>Display 30.</u>	Methods Used to Dispose of Various Types of Household Hazardous Waste	64
<u>Table 31.</u>	Rating of Various Contributors to Stormwater Pollution Problem in Tucson Area	67
<u>Display 31.</u>	Rating of Various Contributors to Stormwater Pollution Problem in Tucson Area	69
<u>Table 32.</u>	Government Entity to Call If Witness Someone Dumping Trash or Chemicals in a Storm Drain	71
<u>Display 32.</u>	Government Entity to Call If Witness Someone Dumping Trash or Chemicals in a Storm Drain	72
<u>Table 33.</u>	Typical Methods of Handling Pet and Animal Waste	73
<u>Display 33.</u>	Typical Methods of Handling Pet and Animal Waste	74
<u>Table 34.</u>	Likelihood of Taking Part in Various Activities to Help Keep Stormwater Clean	76
<u>Display 34.</u>	Likelihood of Taking Part in Various Activities to Help Keep Stormwater Clean	77

**EVALUATION OF THE 2022-2023 PIMA COUNTY CLEAN AIR PROGRAM CAMPAIGN
AND CLEAN WATER PROGRAM CAMPAIGN SURVEY**
(May 2023)

Digest of the Contents (Cont'd)

Appendix

Survey Methodology and Sample Selection A-1

Statistical Reliability..... A-3

Confidence Intervals for a Given %

Significance of Difference Between %

2023 Pima Clean Air/Clean Water Region Definitions..... A-5

2023 Pima Clean Air/Clean Water Region Definitions - Map..... A-6

**EVALUATION OF THE 2022-2023 PIMA COUNTY CLEAN AIR PROGRAM CAMPAIGN
AND CLEAN WATER PROGRAM CAMPAIGN SURVEY**
(May 2023)

Detailed Perceptual Tables

Explanation of Detailed Perceptual Table Format

<u>Table</u>	<u>Title</u>
1	Language of Interview
2	Method of Interview
3	Ethnicity of Respondents
4	Area of Residence
5	Sex of Respondents
6	Age of Respondents
7	Length of Residence in Pima County
8	Household Member With Breathing-Related Medical Condition
9	Number of Motor Vehicles Owned or Leased
10	Education Level of Respondents
11	Household Income
12	Awareness of the Pima County “Clean Air” Program
13	Awareness of Various Clean Air Events or Activities
13a	Participation of Anyone in Household in a Clean Air Campaign Event (Among Those Aware of at Least One Event)
13b	Incidence of Changing Routines/Behaviors to Improve Air Quality After Participating in Clean Air Events (Among Those With a Household Member Who Participated)
13c	Opinion of Activities/Events to Encourage Use of Other Modes of Transportation
14	Steps Taken To Reduce Air Pollution
15	Presence of Children Ages 5-18 in Household
15a	Incidence of Children Ages 5-18 Receiving Information From School About Air Pollution (Among Households With Children Ages 5-18)
16	Use of Gasoline-Powered Lawn Mower to Care for Property
16a	Minutes Per Month Gasoline-Powered Lawn Mower Used
16b	Use of Other Gasoline-Powered Lawn and Garden Equipment for Property
16c	Minutes Per Month Other Gasoline-Powered Lawn and Garden Equipment Used
17	Agreement with Various Statements Regarding PDEQ Programs and Air Pollution
18	Travel Behavior for Shopping
19	Travel Behavior for Leisure Purposes
20	Perceived Seriousness of Air Quality Problem in Tucson Area
21	Employment Status
22	Location of Place of Employment (Among Those Employed)
23	Incidence of Telecommuting (Among Those Who Work Outside the Home)
24	Frequency of Telecommuting (Among Those Who Telecommute)
25	Current Work Schedule (Among Those Employed Full-Time)
26	Daily Usage of Transportation Methods for Traveling To and From Work or School (Among Those Working Outside the Home or Going to School)

**EVALUATION OF THE 2022-2023 PIMA COUNTY CLEAN AIR PROGRAM CAMPAIGN
AND CLEAN WATER PROGRAM CAMPAIGN SURVEY**
(May 2023)

Detailed Perceptual Tables (Cont'd)

<u>Table</u>	<u>Title</u>
26a	Most Used Mode of Transportation for Work/School Commute (Among Those Working Outside the Home or Going to School)
26b	Size of Work or School Commute Carpool (Among Those Who Carpool)
26c	Miles Traveled to Work or School
27	Perception of Where Stormwater That Flows Into Tucson Storm Drains Ends Up
28	Green Infrastructures Implemented/Installed at Home or Business
29	Perceived Seriousness of Stormwater Pollution Problem in Tucson Area
30	Methods Used to Dispose of Various Types of Household Hazardous Waste
31	Rating of Various Contributors to Stormwater Pollution Problem in Tucson Area
32	Government Entity to Call If Witness Someone Dumping Trash or Chemicals in a Storm Drain
33	Typical Methods of Handling Pet and Animal Waste
34	Likelihood of Taking Part in Various Activities to Help Keep Stormwater Clean

**EVALUATION OF THE 2022-2023
PIMA COUNTY CLEAN AIR PROGRAM CAMPAIGN AND
CLEAN WATER PROGRAM CAMPAIGN SURVEY**
(May 2023)

**Introduction
and Goals**

This Campaign Effectiveness Study, conducted for the Pima County Department of Environmental Quality, was designed to evaluate the specific effectiveness of the 2022-2023 Clean Air and Clean Water Program Campaigns.

This study is a continuation of the Pima County Department of Environmental Quality's long-term effort to raise the level of public awareness regarding air quality problems in the Tucson metropolitan area and reduce air pollution by encouraging use of alternative modes of transportation and other options. The Clean Air Program Campaign is the 33rd annual installment of this long-term effort which began in January 1989.

In addition, the study measured and tracked key issues related to stormwater management and hazardous waste disposal for PDEQ's Clean Water Program. The Clean Water Program Campaign is the 11th annual installment of the effort to raise awareness to keep stormwater clean.

Areas of Investigation – The tracking survey was implemented and the results analyzed so as to determine the success of the Campaign in accomplishing its objectives, including:

1. Measuring current travel behavior (including commuting/telecommuting/compressed work weeks) in Pima County and assessing changes from previous studies.
2. Increasing long-range awareness that motor vehicles are the primary source of air pollution and that effective long-term solutions to air quality problems will include reducing single occupant motor vehicle trips.
3. Assessing the current and potential use of alternate transportation modes, with specific emphasis on carpooling and employer encouragement of alternative modes. Estimating the number of daily commuter miles saved through use of alternative modes.
4. Determining the awareness and perceptions of air quality problems in Tucson and what is known about air pollution. Learning whether children are talking about or bringing home materials from school about improving air quality.

Determining the actions, if any, taken to help reduce air pollution.

5. Assessing the awareness of the Clean Air Program in Pima County and various clean air special events or activities. Estimating usage of gasoline-powered lawn & garden equipment, including lawn mowers.
6. Measuring the awareness of the Clean Water Program in Pima County.
7. Tracking the perception or awareness of stormwater destinations, level of seriousness for local stormwater pollution and land use behaviors influencing stormwater quality.
9. Tracking actions impacting stormwater quality, including disposal methods of household products, reporting dumping to a government entity and willingness to take selected actions to improve stormwater quality. Determining methods pet owners utilize to dispose of pet and animal waste.
10. Assessing the demographics of people whose perceptions do not match the facts or have behaviors contributing to stormwater pollution.

Methodology Overview – To accomplish the goals of this study, a random sampling of 500 men and women, 16 years of age and older, in the Pima County area was interviewed by telephone (250) and online (250) during May 2023. The specific procedures used to select the sample are explained in detail in the Appendix of this report.

Details of the Findings

Profile of Respondents

Survey Language – Based on respondent preference, the survey (Telephone and Internet) was provided in Spanish and English. Consistent with prior years, 98% of 2023 surveys were conducted in English and 2% in Spanish. The nine Spanish-language surveys (5 Telephone and 4 Internet) were conducted among self-identified Hispanics who reside in the South, Central or Northwest zip code regions (see Table 4 for geographic region definitions).

Table 1 Language of Interview

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total	Sample	
									Telephone	Internet
English	98%	97%	98%	98%	97%	98%	98%	98%	98%	98%
Spanish	2%	3%	2%	2%	3%	2%	2%	2%	2%	2%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500	N=250	N=250

Question: Would you feel most comfortable if this interview is conducted in Spanish, English or does it make no difference?

Survey Method – Per the project specs, a total of 500 Telephone and Internet surveys (250 each) were conducted utilizing the same bilingual questionnaire and screening criteria.

Telephone survey fielding was coordinated by FMR Associates. Telephone respondents were randomly selected for participation (including additional randomization within the household by only conducting a survey “with the member of the household who is 16 or older and most recently celebrated a birthday”).

Internet surveys were conducted using a national online panel company. The online panel company sent an email invitation to randomly-selected panelists who reside in Pima County zip codes. Online panelists opt in to accept such invitations and receive an incentive to participate in those surveys for which they qualify and successfully complete.

Regardless of survey method, all study participants are Pima County residents, age 16 or older, who live in specific zip codes.

The sole difference in the Telephone-Internet questionnaire design methodology is how survey questions with unaided pre-coded responses are handled. For Telephone surveys, pre-coded response options for unaided questions are not read to respondents. However, Internet respondents are provided all pre-coded response options to select from. As we have included in prior studies, both Telephone and Internet respondents are provided an “other” category to capture responses not included on the pre-coded list.

Table 2 Method of Interview

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Telephone	50%	50%	50%	52%	49%	50%	50%	50%
Internet	50%	50%	50%	48%	51%	50%	50%	50%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

Self-Identified Ethnicity – Consistent with prior surveys, there were sampling quotas related to self-identified ethnicity. Survey quota targets are based on household distributions within Pima County. The 2023 sample is very consistent with these ethnicity quotas: 67% White, 26% Hispanic, 3% African-American, 2% Asian/Pacific Islander and 2% Native American. Distribution is very consistent regardless of survey method.

Table 3 Ethnicity of Respondents

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total	Sample	
									Telephone	Internet
White	71%	69%	69%	68%	66%	67%	67%	67%	67%	67%
Hispanic	22%	25%	25%	26%	26%	26%	26%	26%	26%	26%
African-American	3%	3%	3%	2%	3%	3%	3%	3%	2%	3%
Asian, Pacific Islander	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Native American	2%	1%	1%	2%	2%	2%	2%	2%	2%	2%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500	N=250	N=250

Question: This survey is intended to reflect the attitudes of all segments of the population. To which of the following ethnic groups do you belong?

Area of Residence – Once again, there were survey quotas with respect to area of residence. These sampling quotas are based on population density by zip code in Pima County. Each Pima County zip code is assigned to one of the four geographic regions defined below. All survey participants were asked to provide their home zip code and it was assigned to a specific region. The geographic composition of the 2023 sample is very representative of the geographic quotas: 33% South, 30% Northwest, 23% Central and 14% East.

Table 4 Area of Residence

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	5/20 Total	5/21 Total	5/22 Total	5/23 Total
<u>South</u> 85321 85614 85622 85629 85634 85641 85701 85706 85707 85708 85713 85714 85735 85736 85746 85756 85757 85341 85601 85633 85639 85645	27%	28%	28%	28%	32%	32%	32%	33%
<u>Northwest</u> 85653 85654 85658 85704 85705 85737 85739 85741 85742 85743 85745 85755	27%	27%	27%	27%	30%	30%	29%	30%
<u>Central</u> 85710 85711 85712 85716 85718 85719	31%	30%	30%	30%	23%	24%	25%	23%
<u>East</u> 85619 85715 85730 85747 85748 85749 85750	15%	15%	15%	15%	14%	14%	14%	14%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Air Quality Problem			Sample	
	Major	Moderate	Minor	Telephone	Internet
<u>South</u> 85321 85614 85622 85629 85634 85641 85701 85706 85707 85708 85713 85714 85735 85736 85746 85756 85757 85341 85601 85633 85639 85645	30%	36%	30%	30%	35%
<u>Northwest</u> 85653 85654 85658 85704 85705 85737 85739 85741 85742 85743 85745 85755	30%	30%	27%	30%	31%
<u>Central</u> 85710 85711 85712 85716 85718 85719	27%	22%	24%	25%	21%
<u>East</u> 85619 85715 85730 85747 85748 85749 85750	13%	12%	20%	15%	13%
	N=93	N=264	N=101	N=250	N=250

Sex and Age Category Distribution – In line with prior years, there were no sampling quotas with respect to sex or age. However, consistent with recent surveys, the 2023 sample is divided nearly equally between men (49%) and women (51%) (Table 5).

Nearly one-half of respondents (48%) are 26 to 55 (Table 6). Among the rest, more are older (56+) than younger (16 to 25) (37% versus 16%, respectively) – resulting in a median age of 46.1 years. Similar with past findings, the median age of Telephone respondents (47.6 years) is somewhat older than Internet participants (45.1 years).

Table 5 Sex of Respondents

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total	Sample	
									Telephone	Internet
Men	44%	46%	49%	49%	49%	49%	49%	49%	46%	52%
Women	56%	54%	51%	51%	51%	51%	51%	51%	54%	48%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500	N=250	N=250

Question: For this survey, we need to speak with the male or female in your household who is sixteen years old or older and most recently celebrated a birthday. Are you that person?

Table 6 Age of Respondents

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total	Sample	
									Telephone	Internet
16 to 25	14%	15%	15%	16%	16%	16%	16%	16%	14%	18%
26 to 35	17%	17%	19%	18%	18%	16%	16%	17%	18%	16%
36 to 45	16%	15%	16%	16%	16%	16%	17%	17%	16%	18%
46 to 55	15%	15%	15%	15%	14%	14%	14%	14%	12%	16%
56 to 65	18%	18%	18%	17%	17%	17%	17%	17%	18%	16%
66 to 75	14%	14%	11%	12%	12%	15%	16%	15%	17%	13%
76 or over	6%	6%	7%	7%	7%	7%	5%	5%	5%	4%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500	N=250	N=250

Question: Please stop me when I read the age category you belong to. Are you...

Length of Residence – As we have found in recent surveys, about six of ten (63%) report that they have lived in Pima County for 11 or more years. Among the rest, and basically unchanged since last year, 21% are newer (for five years or less) residents and 5% are part-year Pima County residents.

Table 7 Length of Residence in Pima County

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total	Sample	
									Telephone	Internet
Part year	4%	7%	7%	6%	7%	5%	6%	5%	4%	5%
Less than 2 years	7%	6%	6%	4%	4%	8%	8%	6%	4%	7%
2 to 5 years	9%	11%	10%	11%	14%	14%	15%	15%	17%	14%
6 to 10 years	14%	16%	10%	14%	15%	10%	11%	12%	13%	11%
11 or more years	67%	61%	68%	66%	60%	63%	60%	63%	62%	64%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500	N=250	N=250

Question: Do you live in Pima County all year or are you a part-year resident?

Question: How many years have you lived in Pima County?

Household Member With a Breathing-Related Medical Condition – Among all survey respondents, 46% report that they or someone in their household suffers from a breathing-related medical condition. This is consistent with 2021-2022 findings (44%-45%). Allowing for multiple responses, 25% indicate that they themselves are impacted a breathing-related medical condition (identical to last year). Others say that it is their children (12%, up from 10%) or some other family member (unchanged at 19%) who are affected. Impacted households are most likely to be found in the Central zips (49%).

Table 8 **Household Member With Breathing-Related Medical Condition**

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total	Sample	
									Telephone	Internet
Yes	40%	42%	43%	40%	36%	44%	45%	46%	46%	45%
Respondent	(21%)	(21%)	(21%)	(24%)	(18%)	(27%)	(25%)	(25%)	(26%)	(24%)
Children	(11%)	(10%)	(13%)	(11%)	(10%)	(8%)	(10%)	(12%)	(11%)	(14%)
Other family member	(17%)	(21%)	(21%)	(19%)	(16%)	(19%)	(19%)	(19%)	(17%)	(21%)
No	58%	57%	55%	57%	61%	51%	51%	50%	51%	49%
Don't know/ Not sure	2%	1%	2%	3%	3%	5%	4%	4%	3%	6%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500	N=250	N=250

Question: Do you, your children or any other family member suffer from a breathing-related medical condition – such as asthma, emphysema, lung disease, etc.? If yes, who?

Number of Motor Vehicles Owned or Leased – Overall, 36% report that they live in a single-vehicle household. This represents a progressive decrease from the 2022 (41%) and 2021 (45%) studies. Compared to last year, more are two (from 32% to 34%) or 3+ (from 18% to 20%) vehicle households. In line with the last two studies, one of ten indicate that no person in their household owns or leases a motor vehicle. Single-vehicle households are more apt to be found in the Central zip code region (48%). Multi-vehicle (3+) households are most common in the South zips (27%).

Table 9 Number of Motor Vehicles Owned or Leased

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total	Sample	
									Telephone	Internet
No working cars	6%	7%	8%	9%	8%	10%	9%	10%	10%	10%
One	41%	35%	37%	34%	38%	45%	41%	36%	34%	37%
Two	37%	42%	36%	39%	36%	29%	32%	34%	38%	31%
Three or more	16%	16%	19%	18%	18%	16%	18%	20%	18%	22%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500	N=250	N=250

Question: How many motor vehicles in working condition are owned or leased by members of your household?

Education Level – Highly consistent with recent surveys, two-thirds of respondents report that they have completed at least some college level coursework. Like last year, most (53%) have some college (27%) or are a college graduate (26%) – with another 13% who have completed some graduate work or hold an advance degree. The balance (32%) are high school graduates (24%) or have less than a high school diploma (8%). College graduates or better are more likely to live in the East zips, while respondents with some college (but no degree) tend to reside in the Northwest or Central regions.

Table 10 Education Level of Respondents

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total	Sample	
									Telephone	Internet
Less than high school	4%	5%	4%	6%	6%	5%	7%	8%	8%	8%
Completed high school/Trade school	19%	19%	20%	23%	21%	23%	24%	24%	27%	22%
Some college	33%	27%	25%	28%	27%	27%	28%	27%	24%	30%
College graduate	27%	36%	31%	25%	29%	31%	28%	26%	27%	25%
Some graduate work or graduate degree	15%	13%	19%	19%	17%	13%	12%	13%	13%	13%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500	N=250	N=250

Question: What was the last grade of school you completed?

Annual Household Income – For the 2023 survey, the median household income (excluding refusals) among respondents is \$45,140. This compares to \$46,016 in 2022. Once again, we find that the median household income is higher among Telephone respondents (\$49,023) as compared to Internet participants (\$41,221). In line with past years, households with incomes of at least \$60,000 are more likely to be found in the East zip codes.

Overall, 8% refused to provide their household income category (down slightly from 9% in 2022).

Table 11 Household Income

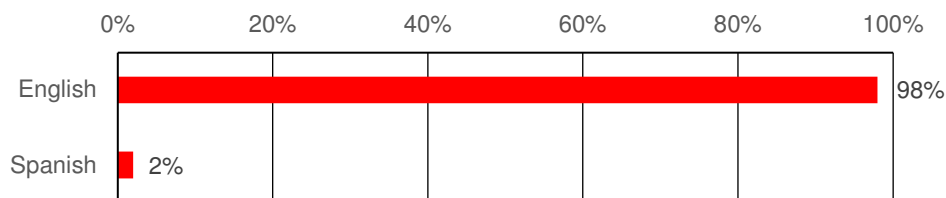
	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total	Sample	
									Telephone	Internet
Less than \$15,000	11%	12%	11%	12%	9%	10%	11%	10%	10%	11%
\$15,000 to \$24,999	13%	10%	10%	11%	10%	12%	11%	13%	10%	16%
\$25,000 to \$39,999	17%	17%	15%	15%	16%	17%	17%	18%	17%	18%
\$40,000 or more*	48%	50%	56%	48%	54%	53%	52%	51%	54%	47%
No answer/Refused	11%	11%	7%	13%	11%	8%	9%	8%	9%	8%
* \$40,000 to \$59,999	16%	16%	18%	16%	18%	21%	22%	20%	20%	20%
\$60,000 to \$79,999	12%	10%	16%	12%	16%	15%	14%	13%	14%	11%
\$80,000 or more	20%	24%	22%	20%	20%	17%	16%	19%	21%	16%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500	N=250	N=250

Question: As I read the following categories, please tell me into which group your total annual household income falls. We are not interested in your exact income, just your household income category...from all sources before taxes.

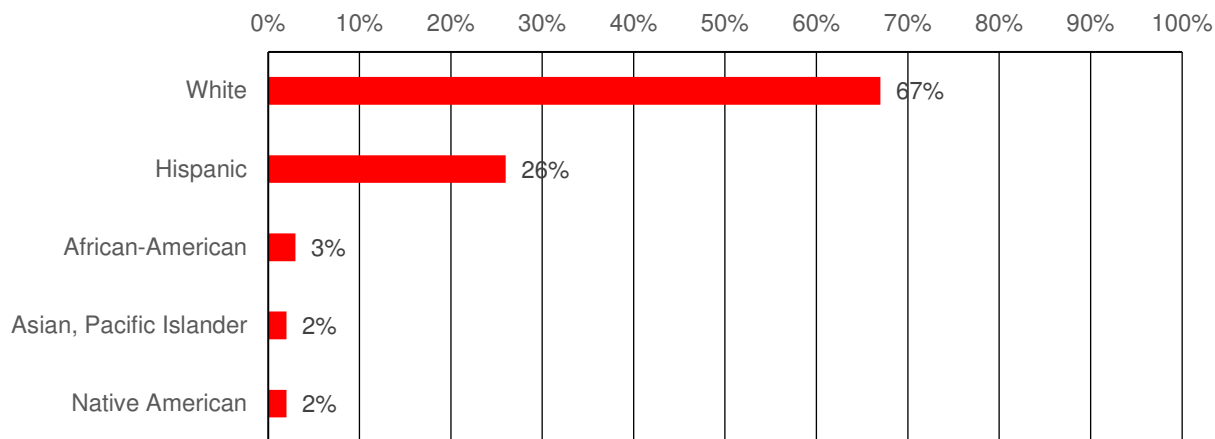
Display 1

Demographic Profile of Respondents (Among the Total Sample)

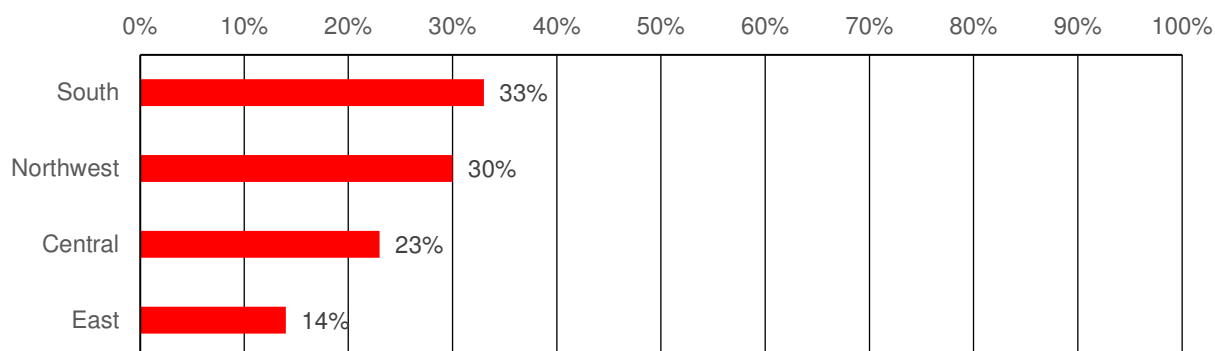
Language of Interview



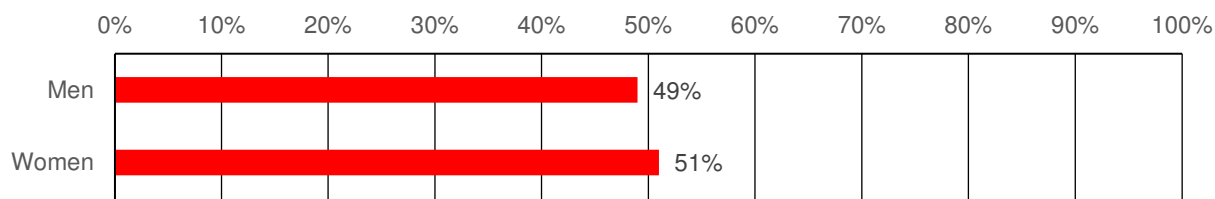
Ethnicity



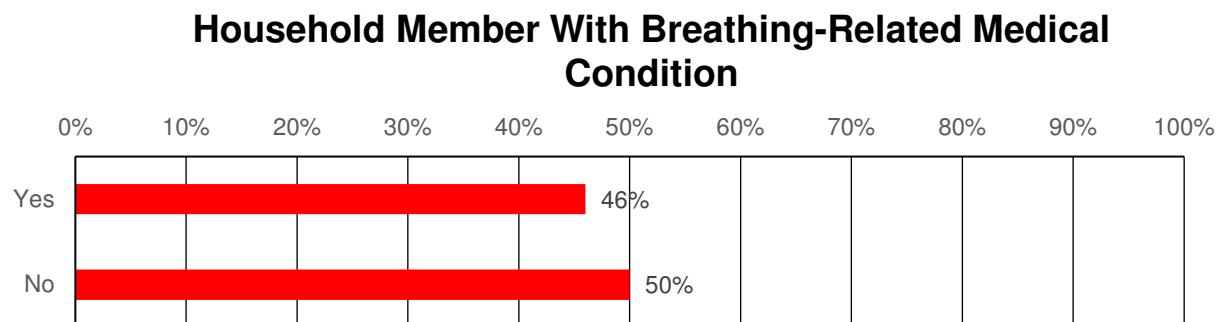
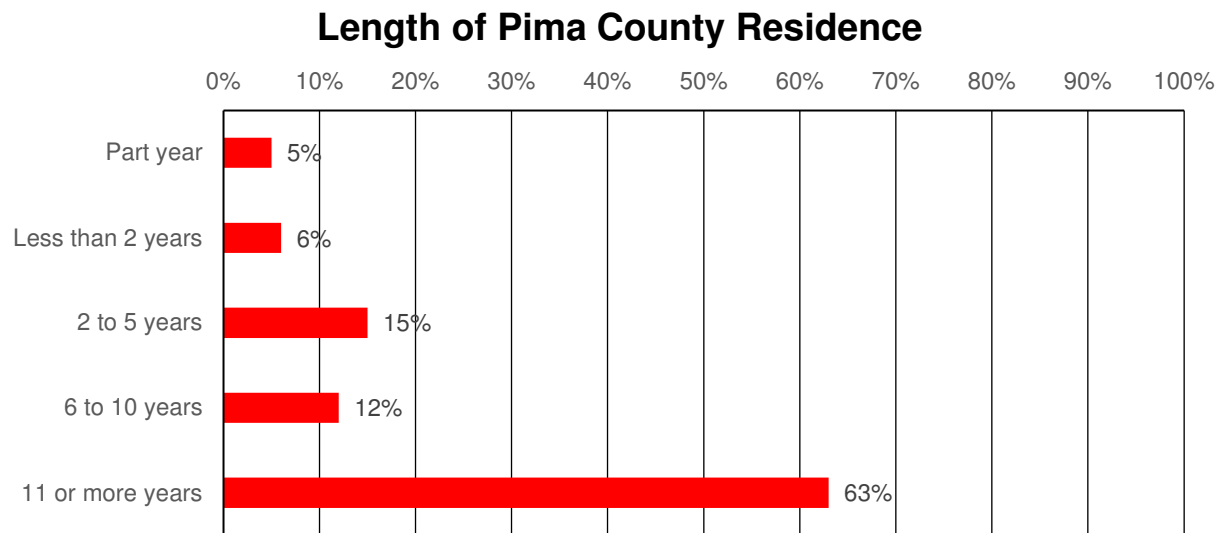
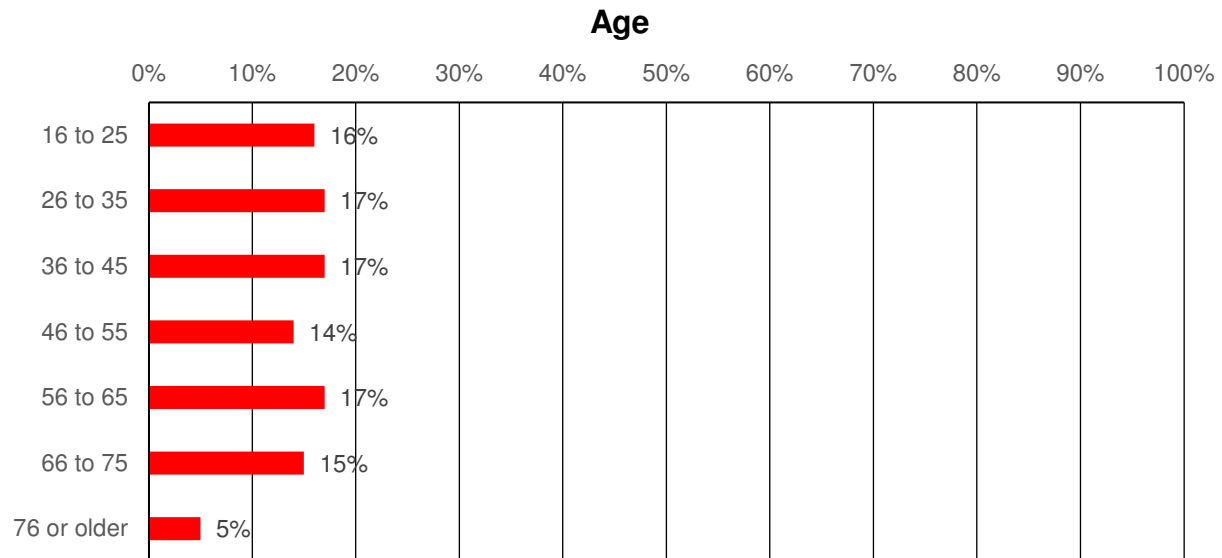
Area of Residence



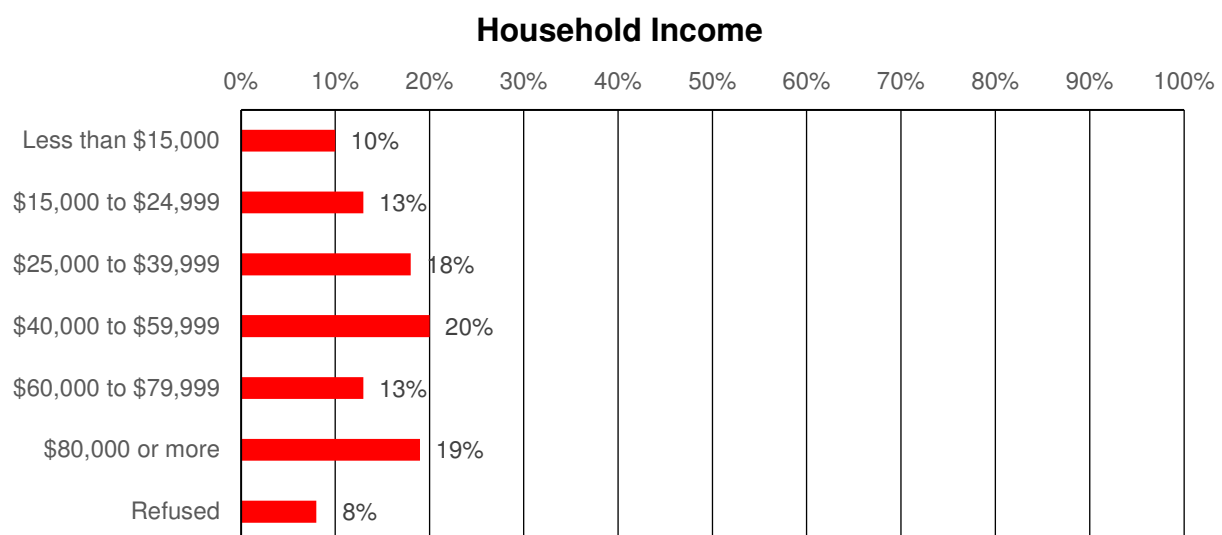
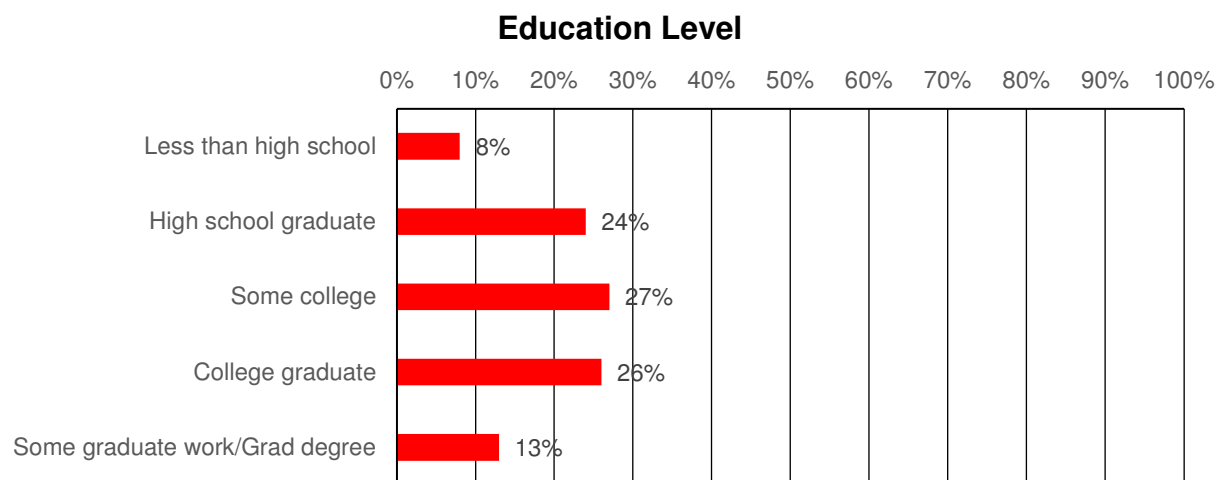
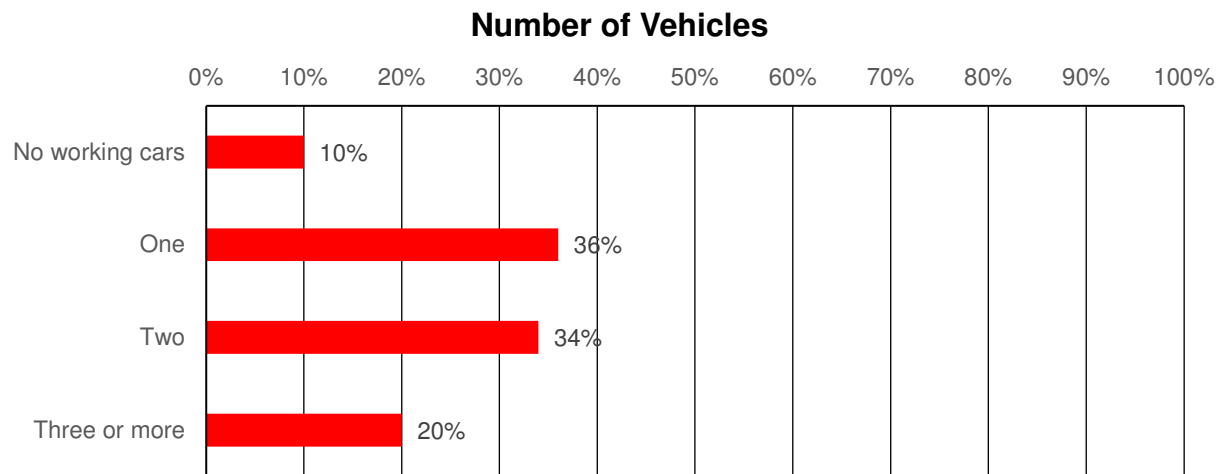
Sex



Display 1 (Cont'd) Demographic Profile of Respondents (Among the Total Sample)



Display 1 (Cont'd) Demographic Profile of Respondents (Among the Total Sample)



Awareness of Information About Air Quality/Pollution

Awareness of the Pima County “Clean Air” Program – Four of ten in the 2023 survey indicate awareness of the Pima County “Clean Air” Program. This compares to 41%-42% since 2020.

As we found last year, Central zip residents and 56 to 65 year-olds indicate increased program awareness. There is also increased awareness among the most formally educated respondents (with at least some work towards an advanced degree). While there are few differences between men and women, awareness is marginally higher among Whites as compared to Hispanics (43% versus 36%, respectively). Once again, awareness of the “Clean Air” Program is directly related to the perception of a progressively more serious air quality problem and among those who live in households impacted by a breathing-related medical condition.

Table 12 **Awareness of the Pima County “Clean Air” Program**

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Yes	50%	44%	46%	43%	42%	41%	42%	40%
No	42%	47%	47%	49%	48%	44%	47%	46%
Don't know	7%	9%	8%	8%	10%	15%	11%	14%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Yes	37%	40%	47%	34%	62%	40%	31%
No	51%	43%	38%	53%	33%	46%	57%
Don't know	12%	17%	15%	13%	4%	14%	12%
	N=164	N=151	N=115	N=70	N=93	N=264	N=101

Question: Have you ever heard of or are you aware of the Pima County Department of Environmental Quality “Clean Air” Program?

Awareness of Various Clean Air Events or Activities – Consistent with the last two surveys, about three of four respondents (74%) indicate that they are familiar with at least one event or activity to promote clean air in the Tucson area. In addition, individual event awareness remains significantly higher among Pima County residents who are familiar with the “Clean Air” Program.

Once again, the most familiar event evaluated is the **Earth Day Festival** (60%, up incrementally from 51% in 2021 and 55% in 2022). Awareness is marginally lower only in the South zip (56% versus 61%-64% elsewhere) and elevated among 46 to 55 year-olds. There are few differences with respect to perceived ethnicity.

Awareness of two other “Clean Air” events has increased since last year, including:

- **Walk and Roll to School Week** (34% familiarity, up from 31% in 2022 [but still lower than 41%-46% in 2019-2021]. East region residents and 16 to 25 year-olds indicate increased awareness of this event.)
- **Cyclovia** (29% familiarity, up progressively from 2022 [25%] and 2021 [20%] levels. Awareness is higher in the Central or East regions, as well as among 46 to 65 year-olds and higher income households.)

Nearly three of ten are aware of **Car-Free Day** (28%, down slightly from 31% last year). These tend to be Central zip residents and lower income households.

Awareness of the remaining events is somewhat lower than we found last year:

- **Travel Reduction Program** (24%, down from 28% in 2022. Increased awareness among Central residents, non-Whites and those employed on a full-time basis.)
- **“This Is Clean Air” Challenge** (24%, down from 30% in 2022. Those more highly familiar tend to live in the Central region, be younger and non-White.)
- **“Healthy Air Is In Our Hands Drive-Less Pledge”** (20%, down from 26% in 2022. Awareness is lower only in the South zip [17% versus 21%-24% elsewhere]. It is elevated among 16 to 25 year-olds and lower income households.)
- **“Cut Down Pollution” lawn & garden program** (20%, down just slightly from 2022 [the first year this event was tested]. Awareness is consistent regardless of geography and higher among Hispanics.)

Table 13 Awareness of Various Clean Air Events or Activities

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
"Earth Day Festival" ⁽¹⁾	55%	62%	58%	57%	58%	51%	55%	60%
"Walk and Roll to School Week" ⁽²⁾	32%	31%	31%	46%	42%	41%	31%	34%
"Cyclovia"	24%	23%	25%	29%	28%	20%	25%	29%
"Car-Free Day"	—	—	—	—	—	—	31%	28%
"Travel Reduction Program"	—	—	—	21%	28%	21%	28%	24%
"This Is Clean Air" Challenge	—	—	—	—	—	27%	30%	24%
"Healthy Air Is In Our Hands Drive-Less Pledge"	—	—	—	—	—	20%	26%	20%
"Cut Down Pollution" lawn & garden program	—	—	—	—	—	—	21%	20%
None of these	17%	14%	16%	19%	18%	25%	24%	26%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
"Earth Day Festival" ⁽¹⁾	56%	61%	64%	63%	64%	62%	57%
"Walk and Roll to School Week" ⁽²⁾	34%	34%	33%	40%	41%	37%	28%
"Cyclovia"	27%	24%	34%	34%	27%	31%	28%
"Car-Free Day"	27%	28%	30%	26%	40%	28%	20%
"Travel Reduction Program"	24%	24%	28%	20%	36%	23%	23%
"This Is Clean Air" Challenge	21%	24%	31%	21%	39%	24%	15%
"Healthy Air Is In Our Hands Drive-Less Pledge"	17%	21%	22%	24%	34%	20%	11%
"Cut Down Pollution" lawn & garden program	21%	20%	19%	20%	29%	21%	11%
None of these	29%	26%	23%	21%	22%	22%	31%
	N=164	N=151	N=115	N=70	N=93	N=264	N=100

(1) Was "Earth Day Festival and Parade" (5/15-5/19).

(2) Was "Walk and Roll to School Day" (5/15-4/18) and "Walk and Bike to School Day" (5/19-5/20).

Question: I am now going to read you some events or activities that are used to promote clean air in the Tucson area. As I read each, simply tell me if you have seen or heard of the event.

Household Participation in a “Clean Air” Campaign Event – Among the 74% of respondents familiar with at least one “Clean Air” campaign event, 15% report that they (or someone in their household) participated in at least one such activity. This is identical to last year (but higher than the 12% we found in 2021).

The event participation rate is higher in the Central and Northwest regions and among 16 to 45 year-olds, Hispanics and residents who think Tucson has a “major” air quality problem. Similar to past surveys, event participation is much higher among those aware of the “Clean Air” Program (22% versus 8% unaware).

Table 13a Participation of Anyone in Household in a Clean Air Campaign Event
(Among Those Aware of at Least One Event)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Yes	12%	18%	18%	15%	20%	12%	15%	15%
No	85%	77%	79%	80%	73%	83%	75%	77%
Don't know	3%	5%	3%	5%	7%	6%	10%	9%
	N=417	N=432	N=418	N=406	N=410	N=374	N=378	N=372

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Yes	13%	16%	17%	13%	26%	13%	11%
No	77%	80%	72%	78%	73%	78%	77%
Don't know	10%	4%	11%	9%	1%	9%	11%
	N=116	N=112	N=89	N=55	N=73	N=206	N=70

Question: Did you or anyone in your household attend or participate in any of the clean air events in the past year?

Incidence of Changing Routines/Behaviors to Improve Air Quality After Participating in “Clean Air” Events – Among the 15% of respondents who indicate past participation in a “Clean Air” event or activity, eight of ten indicate they have changed (or are considering changing) their daily routine or behaviors to help improve air quality. This is highly consistent with last year (82%).

Among the total N=500 survey sample, this means that 9% overall indicate a change in their behavior after participating in a “Clean Air” Program event. This is identical to the 2022 study.

Table 13b **Incidence of Changing Routines/Behaviors to Improve Air Quality After Participating in Clean Air Events**
(Among Those With a Household Member Who Participated)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Yes	80%	74%	64%	75%	59%	86%	82%	80%
No	8%	25%	34%	25%	34%	7%	10%	13%
Don't know	12%	1%	1%	0%	7%	7%	7%	7%
	N=49	N=77	N=76	N=61	N=83	N=43	N=57	N=55

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Yes	80%	83%	93%	43%	90%	92%	25%
No	20%	6%	0%	43%	10%	4%	50%
Don't know	0%	11%	7%	14%	0%	4%	25%
	N=15	N=18	N=15	N=7	N=19	N=26	N=8

Question: After participating in a clean air event, did you or someone in your household take or consider any actions to change your daily routines or behaviors to help improve air quality?

Opinion of Activities/Events to Encourage Use of Other Modes of Transportation –

Eight of ten (81%) familiar with at least one “Clean Air” event indicate a favorable opinion towards “events and activities that encourage people to use other modes of transportation or work from home instead of driving alone.” This is up slightly from 2022 (78%). However, the percentage “very favorable” in the last three surveys (37%-40%) remains much lower than we found between 2017 and 2020 (47%-52%). Still, just 11% are negative to any degree (including just 3% “not at all favorable”). The balance (9%) have no strong opinion.

Survey respondents with a “very favorable” opinion of such activities and events are more apt to be East zip code residents, college graduates and those who perceive a progressively more severe air quality problem.

Once again, the few residents with a negative opinion tend to be those who think that Tucson has a “minor” air quality problem.

Table 13c Opinion of Activities/Events to Encourage Use of Other Modes of Transportation
(Among Those Aware of at Least One “Clean Air” Event)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Very favorable	45%	52%	49%	47%	47%	40%	38%	37%
Somewhat favorable	43%	38%	38%	39%	41%	46%	40%	44%
Not very favorable	4%	5%	5%	7%	5%	6%	10%	8%
Not at all favorable	4%	2%	4%	1%	2%	1%	2%	3%
Don't know/No answer	4%	4%	4%	5%	4%	7%	11%	9%
	N=417	N=432	N=418	N=406	N=410	N=374	N=378	N=372

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Very favorable	36%	31%	39%	44%	55%	36%	21%
Somewhat favorable	44%	46%	43%	42%	36%	47%	50%
Not very favorable	8%	7%	9%	7%	1%	8%	11%
Not at all favorable	5%	2%	1%	4%	3%	1%	10%
Don't know/No answer	6%	14%	8%	4%	5%	9%	7%
	N=116	N=112	N=89	N=55	N=73	N=206	N=70

Question: Overall, what is your opinion of these events and activities that encourage people to use other modes of transportation or work from home instead of driving alone? Is your opinion of the various Clean Air Campaign events and activities very favorable, somewhat favorable, not very favorable or not at all favorable?

Steps Taken to Reduce Air Pollution – As we have found since 2020, 47% of respondents indicate they have **generally reduced driving** to help reduce air pollution in the Tucson area. Importantly, the incidence of driving less to reduce air pollution in the current survey is (once again) relatively consistent regardless of geography (slightly lower only in the South zip). Women, non-Hispanics and those 56+ are more apt to be reducing driving.

Other steps taken to help reduce air pollution include:

- **Keep tires properly inflated** (24%, down incrementally from 29% in 2021. Lower only in the Central zip [16% versus 26%-28% elsewhere]. Men, the oldest residents and Whites are more likely to say they keep tires properly inflated.)
- **Carpool/Less driving alone** (22%, nearly unchanged from 23% last year. These tend to be 16 to 25 year-olds and non-Hispanic minorities – with relatively few differences based on geography.)
- **Keep car tuned** (22%, down incrementally from 28% in 2021. South zip residents, men and non-Hispanic minorities are more apt to have taken this action.)
- **Avoid excessive idling** (15%, rebounding to 2021 levels. Higher in the South or Central zip codes, as well as among men and non-Hispanics.)
- **Walked instead of drove/Walk more** (12%, representing incremental improvement from 2021 [4%] and 2022 [7%]. Lower only in the South region [7% versus 14%-15% elsewhere]. Higher among 16 to 25 year-olds and non-Hispanics.)
- **Planted trees** (12%, consistent with the last two years [12%-13%]. These tend to be Northwest residents and 46 to 55 year-olds – with few differences with respect to ethnicity.)
- **Bought and used bicycles** (9%, consistent with 2021 [8%] and 2022 [10%] levels. Usage is higher in the Northwest region and among men and 36 to 55 year-olds.)
- **Bought more fuel-efficient car** (9%, unchanged since last year.)

Overall, 7% say they have **chosen once a week not to drive** – down incrementally from 17% back in 2020. Among the rest, others are **using their BBQ grill less** (7%, unchanged from last year), **living (or moved) closer to work** (unchanged at 6%), **using their fireplace/wood stove less** (4%, down from 5%), **purchased battery-powered lawn mower/lawn & garden equipment** (4%, down from 5%) and/or **used public transportation** (4%).

Up slightly from the last two surveys (15% each), 16% say they are doing **nothing** to reduce air pollution.

Table 14

Steps Taken to Reduce Air Pollution

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Generally reduced driving/Driven less	38%	38%	37%	35%	47%	46%	47%	47%
Keep tires properly inflated	35%	31%	34%	40%	42%	29%	26%	24%
Carpool/Less driving alone	33%	38%	35%	43%	35%	20%	23%	22%
Keep car tuned	39%	38%	34%	41%	41%	28%	25%	22%
Avoid excessive idling	12%	16%	16%	23%	22%	15%	13%	15%
Walked instead of drove/Walk more	2%	2%	1%	2%	1%	4%	7%	12%
Planted trees	21%	23%	17%	20%	25%	13%	12%	12%
Bought and used bicycles	12%	15%	15%	14%	17%	8%	10%	9%
Bought more fuel efficient car	13%	20%	13%	17%	21%	12%	9%	9%
Chosen once a week not to drive	12%	16%	13%	12%	17%	11%	9%	7%
Using BBQ grill less	9%	8%	7%	10%	11%	9%	7%	7%
Moved closer to work/Work closer to home	9%	8%	6%	6%	10%	6%	6%	6%
Using fireplace/Wood stove less	8%	8%	8%	7%	8%	5%	5%	4%
Purchased battery-powered lawn mower/lawn & garden equipment	--	--	--	--	4%	1%	5%	4%
Use public transportation	--	--	--	--	--	--	--	4%
Bought an electric car	--	--	--	--	--	--	--	3%
Encouraged friends/Co-workers to change	2%	6%	4%	2%	3%	1%	3%	3%
Advocated alternative to cars	2%	4%	3%	4%	5%	3%	3%	1%
Other	4%	5%	7%	3%	3%	10%	7%	3%
Nothing	16%	12%	11%	15%	11%	15%	15%	16%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Generally reduced driving/Driven less	44%	49%	46%	50%	50%	50%	43%
Keep tires properly inflated	26%	28%	16%	26%	29%	24%	24%
Carpool/Less driving alone	24%	20%	24%	23%	27%	26%	14%
Keep car tuned	26%	20%	18%	21%	31%	20%	23%
Avoid excessive idling	16%	13%	17%	10%	20%	14%	14%
Walked instead of drove/Walk more	7%	15%	15%	14%	16%	14%	6%
Planted trees	11%	15%	12%	7%	17%	10%	14%
Bought and used bicycles	8%	12%	7%	6%	9%	8%	9%
Bought more fuel efficient car	12%	7%	7%	7%	15%	7%	9%
Chosen once a week not to drive	11%	5%	7%	3%	12%	7%	4%
Using BBQ grill less	7%	9%	6%	3%	13%	7%	4%
Moved closer to work/Work closer to home	7%	4%	5%	7%	6%	5%	3%
Using fireplace/Wood stove less	6%	5%	4%	1%	6%	4%	3%
Purchased battery-powered lawn mower/lawn & garden equipment	2%	5%	4%	7%	3%	3%	9%
Use public transportation	4%	2%	7%	4%	5%	4%	4%
Bought an electric car	3%	2%	5%	3%	5%	3%	1%
Encouraged friends/Co-workers to change	2%	3%	4%	3%	6%	2%	0%
Advocated alternative to cars	1%	2%	1%	0%	2%	1%	1%
Other	2%	4%	4%	3%	1%	5%	1%
Nothing	17%	15%	20%	9%	3%	11%	29%
	N=164	N=151	N=115	N=70	N=93	N=264	N=101

Question: What, if anything, have you been able to do to help reduce air pollution in the Tucson area?

Presence of Children Ages 5-18 in Household – As we have found in recent surveys (27%-32%), three of ten indicate that they have children between the ages of 5 and 18 living in their household. Households with school-aged children are more likely to be found in the South region and among 36 to 45 year-olds and non-Whites.

Table 15 **Presence of Children Ages 5-18 in Household**

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Yes	24%	28%	29%	30%	32%	27%	32%	30%
No	76%	72%	71%	70%	68%	73%	68%	70%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Yes	37%	28%	24%	29%	34%	30%	25%
No	63%	72%	76%	71%	66%	70%	75%
	N=164	N=151	N=115	N=70	N=93	N=264	N=101

Question: Do children 5 to 18 years of age live in your household?

Incidence of Children Ages 5-18 Receiving Air Pollution Information From School

– Among Pima County households with school-aged children ages 5 to 18 (30% of the total sample), 37% report that these young children “talked about or brought home materials from school about improving air quality.” This is up slightly from 35% in the last two surveys. As we have found in past years, residents aware of the “Clean Air” Program indicate much higher recall than those unfamiliar (53% versus 25%, respectively). School materials recall is elevated in the Northwest or Central zip.

Table 15a Incidence of Children Ages 5-18 Receiving
Information From School About Air Pollution
(Among Households With Children Ages 5-18)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Yes	48%	50%	53%	38%	40%	35%	35%	37%
No	48%	43%	42%	53%	49%	54%	52%	55%
Don't know	3%	8%	5%	9%	11%	11%	12%	9%
	N=120	N=141	N=144	N=150	N=160	N=133	N=161	N=150

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Yes	33%	43%	50%	15%	47%	38%	16%
No	55%	55%	36%	80%	50%	49%	76%
Don't know	12%	2%	14%	5%	3%	13%	8%
	N=60	N=42	N=28	N=20	N=32	N=79	N=25

Question: Have the children 5 to 18 years old in your home ever talked about or brought home materials from school about improving air quality – including school presentations or brochures?

Gasoline-Powered Lawn Mower Usage – One of ten respondents indicate that they or someone in their household use a **gasoline-powered lawn mower** to care for their home property (Table 16). This is up slightly from 8%-9% in recent years. Reported usage is lower only in the Central zip (6% versus 10%-13% elsewhere) and remains higher among Hispanics – as well as 26 to 45 year-olds. Average monthly usage of these gas-powered mowers is 43 minutes (Table 16a).

Table 16 Use of Gasoline-Powered Lawn Mower to Care for Property

	05/16 Total*	05/17 Total*	04/18 Total*	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Yes	8%	6%	6%	7%	8%	8%	9%	10%
No	90%	92%	93%	90%	89%	88%	88%	86%
Don't know	2%	2%	1%	3%	3%	4%	4%	3%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Yes	13%	11%	6%	10%	14%	9%	4%
No	84%	86%	89%	90%	84%	87%	88%
Don't know	4%	3%	5%	0%	2%	4%	1%
	N=164	N=151	N=115	N=70	N=93	N=264	N=101

* Calculated from combination of use of gasoline-powered lawn & garden equipment and specific use of a gasoline-powered lawn mower among those users (5/16-4/18).

Question: Do you or anyone in your household use a *gasoline-powered* lawn mower to care for your home property?

Table 16a Minutes Per Month Gasoline-Powered Lawn Mower Used

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
15 minutes or less	13%	57%	31%	14%	28%	54%	32%	33%
16-30 minutes	61%	21%	50%	46%	25%	28%	28%	23%
31 minutes-1 hour	18%	7%	12%	37%	35%	8%	30%	27%
More than 1 hour	8%	14%	6%	3%	12%	10%	9%	17%
	N=39	N=30	N=32	N=35	N=40	N=39	N=43	N=52

Question: In a typical month, how many minutes would you estimate that you use your gasoline-powered lawn mower?

Gasoline-Powered Lawn & Garden Equipment Usage – As indicated in Table 16b, 14% of respondents indicate they or someone in their household use **other gasoline-powered lawn & garden equipment** (such as a leaf blower, string trimmer, chainsaw, hedge trimmers, etc.) to care for their home property (Table 16b). This compares to 12% last year (the first time this question was asked). Similar to lawn mowers, lawn & garden equipment usage is lower only in the Central zip (10% versus 13%-17% elsewhere) and is higher among Hispanics. Average monthly usage of this other gas-powered lawn & garden equipment is 52 minutes (Table 16c).

Table 16b

Use of Gasoline-Powered Lawn & Garden Equipment to Care for Property

	05/22 Total	05/23 Total
Yes	12%	14%
No	82%	82%
Don't know	6%	4%
	N=500	N=500

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Yes	17%	14%	10%	13%	14%	16%	14%
No	79%	83%	84%	86%	83%	80%	86%
Don't know	4%	3%	6%	1%	3%	4%	0%
	N=164	N=151	N=115	N=70	N=93	N=264	N=101

Question: Do you or anyone in your household use other *gasoline-powered* lawn and garden equipment to care for your home property? This might include a gasoline-powered leaf blower, string trimmer, chainsaw, hedge trimmers, etc.

Table 16c

Minutes Per Month Other Gasoline-Powered Lawn & Garden Equipment Used

	05/22 Total	05/23 Total
15 minutes or less	27%	37%
16-30 minutes	23%	29%
31 minutes-1 hour	28%	17%
More than 1 hour	22%	17%
	N=60	N=70

Question: In a typical month, how many minutes would you estimate that you use your other gasoline-powered lawn & garden equipment?

Agreement With Various Statements Regarding PDEQ Programs and Air Pollution

– Similar to previous surveys, residents were asked to agree or disagree with a series of statements related to various PDEQ clean air programs and air pollution. Significantly, agreement with each statement evaluated is much higher among residents familiar with the “Clean Air” Program.

PDEQ and Sun Tran Awareness –

- **You are aware that Sun Tran buses and streetcar have been free for the last three years** (62% agreement, down from 67% last year [the first time this statement was evaluated]. Once again, agreement is highest in the Central zips – as well as among 46 to 65 year-olds and low income households.)
- **You are aware of the Pima County Department of Environmental Quality (PDEQ)** (After an increase last year [57%], awareness [52% in 2023] has returned nearer to 2021 levels [51%]. As we have found in the past, awareness is greater among those who perceive a progressively more severe air quality problem. Northwest or Central region residents, those 65 or older and non-Hispanics also indicate increased PDEQ awareness.)

PDEQ Program Awareness –

- **You have seen or heard information about the importance of keeping your tires properly inflated** (78% agreement, representing a slight uptick from 2022 [77%]. Once again, agreement is strong regardless of geography [highest in the Northwest zips] and elevated among residents 46 or older and non-Hispanics.)

Air Pollution Evaluations –

- **You are aware that the majority of our air pollution comes from motor vehicle use** (74% agreement, highly consistent with 2020-2022 findings [75%]. As we found last year, awareness is consistently strong across geography [highest once again in the Central zips] – as well as with respect to age [somewhat lower only among 36 to 45 year-olds]. More than seven of ten Hispanics [71%] and Whites [76%] agree.)
- **You have seen or heard information that vehicle engine idling causes air pollution** (72% agreement, very consistent with the last three surveys [71%-73%]. Northwest or Central residents, non-Hispanics and those who think that Tucson has a progressively more severe air quality problem are more likely to agree with this statement.)
- **You have seen or heard information on how to reduce your own air pollution emissions** (63% agreement, up from 61% last year [the first time this statement was tested]. Awareness is higher among non-Hispanics, more formally educated residents and those who reside in the Northwest or Central regions.)

- **You are aware of air pollution advisories in Pima County** (62% agreement, down from 69% last year. Recall is highest in the Northwest and Central zip codes and among households impacted by a breathing-related medical condition. Residents 46 or older also indicate increased awareness of air pollution advisories.)
- **You drive less because you want to reduce your own air pollution contribution** (One-half agree. This compares to 55% agreement last year with the statement tested between 2016-2022, “Because you want to reduce air pollution, you are generally driving less.” Agreement in the 2023 survey is greater among respondents who think that Tucson has a progressively more severe air quality problem. There are few differences in agreement based on sex, ethnicity or age [somewhat lower only among 36 to 45 year-olds].)
- **You are aware of how to access real-time air quality data** (38% agreement, up slightly from 37% last year [the first time this statement was included in the survey]. These tend to be Northwest residents, men and 36 to 55 year-olds – with few differences between Whites and Hispanics.)

Table 17

Agreement With Various Statements Regarding PDEQ Programs and Air Pollution

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
You have seen or heard information about the importance of keeping your tires properly inflated.	83%	86%	88%	82%	76%	81%	77%	78%
You are aware that the majority of our air pollution comes from motor vehicle use.	83%	81%	82%	77%	75%	75%	75%	74%
You have seen or heard information that vehicle engine idling causes air pollution.	–	90%	88%	75%	72%	71%	73%	72%
You have seen or heard information on how to reduce your own air pollution emissions.	–	–	–	–	–	–	61%	63%
You are aware of air pollution advisories in Pima County.	72%	66%	65%	–	–	–	69%	62%
You are aware that Sun Tran buses and streetcar have been free for the last 3 years.	–	–	–	–	–	–	67%	62%
You are aware of the Pima County Department of Environmental Quality (PDEQ).	68%	63%	66%	60%	59%	51%	57%	52%
You drive less because you want to reduce your own air pollution contribution.*	58%	58%	58%	52%	53%	54%	55%	50%
You are aware of how to access real-time air quality data.	–	–	–	–	–	–	37%	38%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Air Quality Problem			Awareness of "Clean Air" Program	
	South	North- west	Central	East	Major	Moderate	Minor	Yes	No
You have seen or heard information about the importance of keeping your tires properly inflated.	76%	85%	75%	76%	78%	81%	74%	86%	74%
You are aware that the majority of our air pollution comes from motor vehicle use.	71%	73%	79%	76%	85%	80%	56%	80%	73%
You have seen or heard information that vehicle engine idling causes air pollution.	69%	75%	76%	67%	81%	75%	71%	86%	66%
You have seen or heard information on how to reduce your own air pollution emissions.	58%	66%	68%	60%	69%	64%	61%	79%	51%
You are aware of air pollution advisories in Pima County.	55%	68%	66%	60%	70%	69%	48%	83%	45%
You are aware that Sun Tran buses and streetcar have been free for the last 3 years.	59%	58%	72%	59%	63%	64%	60%	78%	49%
You are aware of the Pima County Department of Environmental Quality (PDEQ).	49%	56%	54%	50%	61%	57%	38%	80%	30%
You drive less because you want to reduce your own air pollution contribution.*	47%	53%	56%	41%	66%	55%	32%	66%	38%
You are aware of how to access real-time air quality data.	37%	42%	39%	30%	54%	35%	36%	58%	22%
	N=164	N=151	N=115	N=70	N=93	N=264	N=101	N=200	N=230

* Was "Because you want to *reduce air pollution*, you are generally driving less" (2016-2022).

Question: As I read the following statements, simply tell me if you agree or disagree.

Travel Behavior for Shopping – Highly consistent with last year, 57% indicate that they usually **drive alone** to go shopping. Similarly, usage levels of alternative modes for shopping transportation remains generally unchanged from 2022: **carpool** (with 1 to 4 other adults) (24%), **bus/other public transit** (6%), **walking/mobility device** (4%), **ride service** (such as Uber or Lyft) (2%), **drive an electric vehicle** (2%), **bicycle/ebike/scooter** (2%) and **vanpool** (with 5 or more adults) (1%). None in the 2023 survey say that they drive a motorcycle for shopping purposes.

East zip code residents and progressively higher income households are more likely to indicate that they generally drive alone to go shopping. Carpooling is higher in the Central or South regions, as well as among 16 to 25 year-olds, Hispanics and lower income households. Central residents are more likely to take a bus or other public transit. Walking or use of a mobility device is lower only in the East zip codes and higher among 26 to 35 year-olds.

Table 18 Travel Behavior for Shopping

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Drive alone	60%	54%	56%	61%	57%	64%	56%	57%
Carpool with 1 to 4 other adults	27%	30%	30%	25%	29%	21%	25%	24%
Bus/Other public transit	5%	6%	8%	4%	4%	6%	8%	6%
Walk/Mobility device	4%	5%	3%	7%	1%	4%	6%	4%
Ride service such as Uber or Lyft	–	–	–	–	–	–	–	2%
Drive an electric vehicle	–	–	–	–	–	–	–	2%
Bicycle/Ebike/Scooter	1%	2%	2%	1%	3%	2%	2%	2%
Vanpool with 5 or more other adults	1%	1%	0%	0%	1%	1%	0%	1%
Motorcycle	–	1%	1%	1%	2%	0%	1%	0%
Other	2%	1%	1%	1%	1%	2%	2%	2%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

Question: What type of transportation do you generally use to go shopping?

Travel Behavior for Leisure Purposes – More in the 2023 survey indicate that they generally **drive alone** (42%) than **carpool** (with 1 to 4 other adults) (38%) for leisure purposes (“such as dining out, meeting with friends, going to the movies, going to the gym, etc.”). This pattern is more consistent with 2019-2021 findings. In 2022, a few more were leisure carpoolers (43%) than single-occupant drivers (38%). Usage of alternative leisure travel methods is about the same or slightly lower than last year: **bus/other public transit** (6%), **walk/mobility device** (3%), **ride service** (such as Uber or Lyft) (3%), **bicycle/ebike/scooter** (2%), **electric vehicle** (2%) and **vanpool** (1%). Similar to shopping behavior, none in the 2023 survey say that they drive a motorcycle for leisure purposes.

Single-occupant vehicle leisure travel is more common among Northwest or East region residents and 26 to 35 year-olds. East area residents, those 56 or older and households with incomes over \$40,000 are more apt to carpool. Central zip residents and lower income households are more likely to use the bus or other public transit for leisure purposes.

Table 19 **Travel Behavior for Leisure Purposes**

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Drive alone	45%	44%	42%	46%	48%	49%	38%	42%
Carpool with 1 to 4 other adults	44%	41%	43%	41%	38%	35%	43%	38%
Bus/Other public transit	3%	6%	5%	4%	4%	6%	9%	6%
Walk/Mobility device	3%	3%	2%	2%	2%	3%	5%	3%
Ride service such as Uber or Lyft	–	–	–	–	–	–	–	3%
Bicycle/Ebike/Scooter	2%	1%	2%	0%	3%	2%	2%	2%
Drive an electric vehicle	–	–	–	–	–	–	–	2%
Vanpool with 5 or more other adults	0%	1%	1%	1%	2%	1%	1%	1%
Motorcycle	0%	2%	3%	2%	2%	0%	0%	0%
Other	2%	2%	2%	3%	1%	2%	2%	2%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

Question: What type of transportation do you generally use for leisure purposes, such as dining out, meeting with friends, going to the movies, going to the gym, etc.?

Perceived Seriousness of Air Quality Problem in Tucson Area – Consistent with the last four surveys, two of ten perceive that the Tucson area has a “major” air quality problem. Most continue to rate the air quality problem as “moderate” (53%), while the balance (28%) think it is a “minor problem” (20%) or have no opinion (8%). This profile is highly consistent with the past two years.

The perception of a “major” air quality problem is generally consistent regardless of geography (slightly higher in the Central zip) and higher among 46 to 55 year-olds and the newest Pima County residents (for less than five years). There are few differences between Hispanics and Whites. Residents who perceive a progressively more severe stormwater pollution problem are (once again) more likely to think that Tucson has a “major” air quality problem. Similar to recent surveys, residents aware of the “Clean Air” Program are especially more likely to perceive a “major” air quality issue (29% versus 14% unfamiliar).

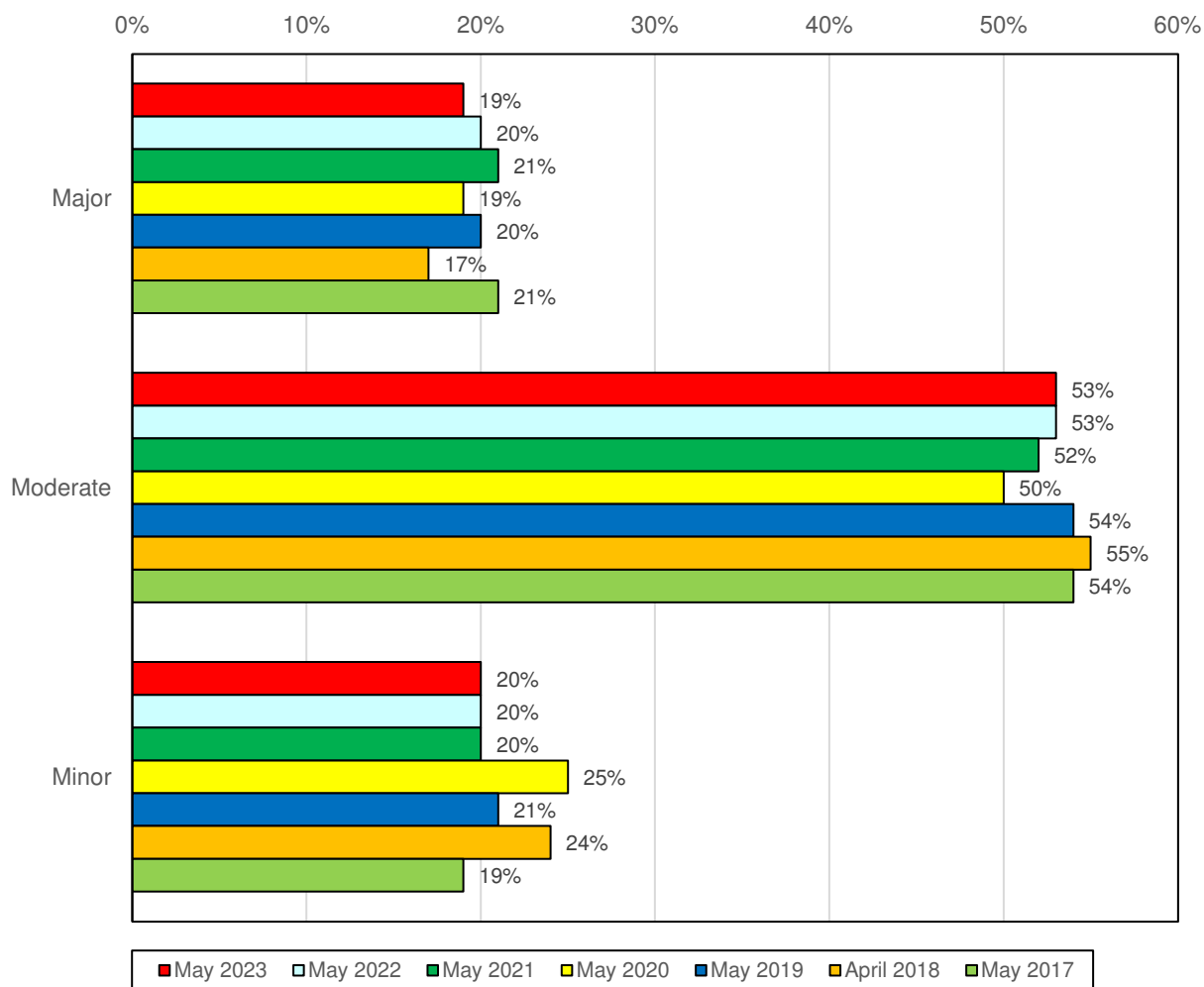
Once again, the perception of a “minor” air quality problem is higher in the East zip codes and among men.

Table 20 **Perceived Seriousness of Air Quality Problem in Tucson Area**

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Major problem	18%	21%	17%	20%	19%	21%	20%	19%
Moderate problem	55%	54%	55%	54%	50%	52%	53%	53%
Minor problem	21%	19%	24%	21%	25%	20%	20%	20%
Don't know	6%	6%	4%	5%	5%	7%	7%	8%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

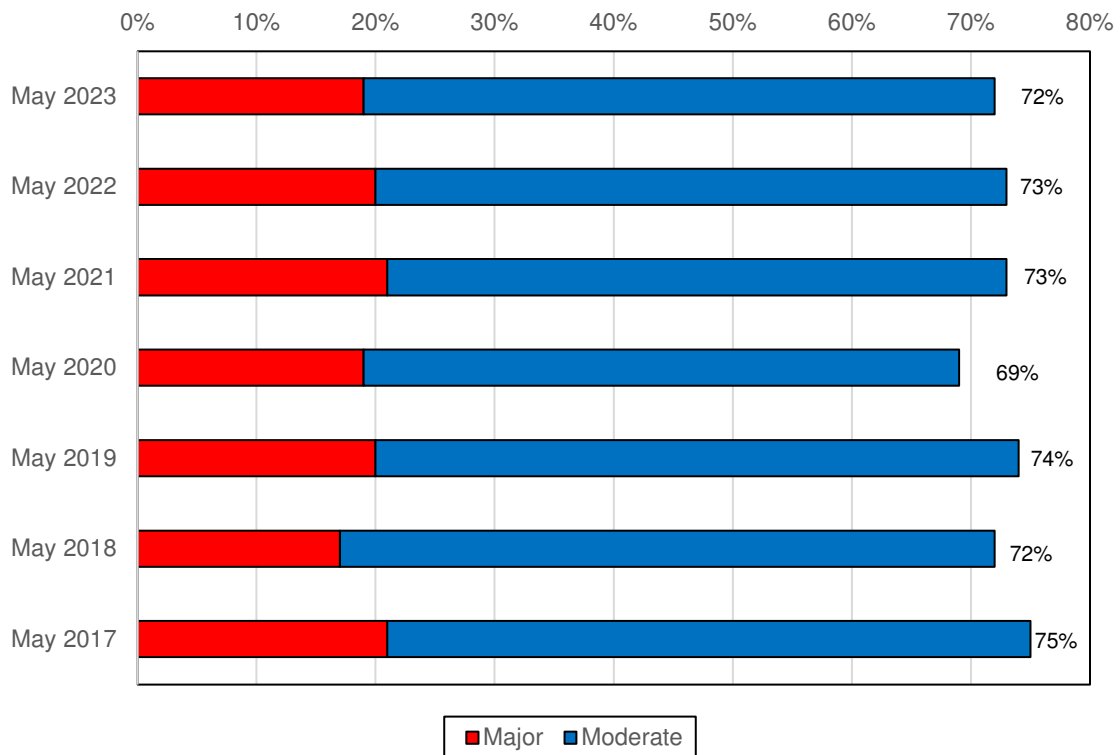
Question: How much of an air quality problem do you think exists in the Tucson area? Do you think this is a major problem, a moderate problem or a minor problem?

**Display 20 Perceived Seriousness of Air Quality Problem in Tucson Area
(Among the Total Sample)**



Display 20

Perceived Seriousness of Air Quality Problem in Tucson Area Among the Total Sample – Sum of “Moderate” and “Major” Responses



Work Commuting Behavior

Employment Status – When asked about their employment status, and allowing respondents to select more than one category of response, 33% say that they are employed full-time (30 hours or more each week), down just slightly from last year (34%). East area residents are more apt to be employed full-time (39% versus 30%-33% in other areas), as are 16 to 55 year-olds and non-Whites. Part-time employment is up slightly from last year (15%, up from 13%). Central or Northwest area residents and 16 to 25 or 56 to 65 year-olds are more apt to be employed part-time. Overall, 13% are unemployed, identical to last year (including those in 2022 who were furloughed due to COVID-19 at the time).

Similar to 2022 findings, 23% in the current survey indicate they are retired. About one of ten each are students (7%) or homemakers (12%).

Table 21

Employment Status
(Multiple Mentions Allowed)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Pre- COVID Total	05/20 COVID Total	05/21 Total	05/22 Total	05/23 Total
Employed full-time (30 hours or more each week)	29%	35%	38%	38%	42%	30%	34%	34%	33%
Employed part-time (Less than 30 hours each week)	12%	12%	11%	12%	12%	12%	8%	13%	15%
A student	8%	8%	8%	9%	10%	9%	10%	8%	7%
Retired	36%	27%	28%	27%	26%	27%	27%	23%	24%
A homemaker	12%	12%	7%	9%	8%	8%	8%	9%	12%
Currently unemployed	8%	8%	9%	9%	9%	19%*	16%*	13%*	13%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Employed full-time (30 hours or more each week)	33%	32%	30%	39%	32%	32%	39%
Employed part-time (Less than 30 hours each week)	12%	18%	17%	10%	18%	16%	12%
A student	7%	6%	10%	4%	11%	7%	4%
Retired	20%	27%	24%	26%	23%	24%	31%
A homemaker	14%	13%	10%	10%	4%	13%	12%
Currently unemployed	15%	9%	14%	13%	13%	12%	9%
	N=164	N=151	N=115	N=70	N=93	N=264	N=101

* Includes those furloughed due to COVID-19 (2020-2022).

Question: Are you **currently** one or more of the following...

Location of Place of Employment – Among those who work full-time or part-time (48% of the total sample), the percentage who work exclusively for a home-based business has decreased (from 18% last year to 13% now). Instead, more primarily work for another company exclusively (82%, up from 74%) rather than work for both another company and a home-based business (5%, down from 8%). Home-based businesses are less common only in the Northwest zip codes (9% versus 14%-18% in other areas).

Table 22 Location of Place of Employment
(Among Those Employed)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Pre- COVID Total	05/20 COVID Total	05/21 Total	05/22 Total	05/23 Total
Home-based business	15%	21%	13%	21%	19%	24%	17%	18%	13%
Another company	78%	71%	80%	73%	76%	73%	76%	74%	82%
Both	7%	8%	7%	6%	5%	3%	7%	8%	5%
	N=209	N=238	N=246	N=250	N=269	N=213	N=214	N=236	N=239

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Home-based business	14%	9%	14%	18%	17%	15%	8%
Another company	84%	84%	78%	79%	79%	80%	86%
Both	3%	7%	7%	3%	4%	5%	6%
	N=74	N=76	N=55	N=34	N=47	N=126	N=51

Question: Do you currently operate a home-based business or are you an employee of another company?

Incidence of Telecommuting – Among those who work outside the home, 40% indicate that they telecommute, bouncing back from a dip in 2022 (32%). Telework is higher among South or East region residents, as well as among women, 26 to 45 year-olds and those with progressively higher annual household incomes. There are few differences in telework based on ethnicity.

Table 23 Incidence of Telecommuting
(Among Those Who Work Outside the Home)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Pre- COVID Total	05/20 COVID Total	05/21 Total	05/22 Total	05/23 Total
Yes	26%	26%	19%	17%	20%	49%	37%	32%	40%
No/Employer does not offer telecommuting/ Don't know/Not sure	74%	74%	81%	83%	80%	51%	63%	68%	60%
	N=178	N=187	N=213	N=197	N=217	N=162	N=177	N=193	N=208

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Yes	45%	36%	36%	43%	44%	40%	47%
No/Employer does not offer telecommuting/ Don't know/Not sure	55%	64%	64%	57%	56%	60%	53%
	N=64	N=69	N=47	N=28	N=39	N=107	N=47

Question: Some employers offer the option of telecommuting or teleworking -- in other words, working remotely from your home as an alternative to going in to your office or business location during regular business hours. Do you personally ever telecommute or telework during regular business hours? This excludes working extra hours at home in your spare time – such as evenings or weekends.

Frequency of Telecommuting – Returning to 2021 levels, 70% of telecommuters say they work from home more than once a week (down from 83% last year). Compared to 2022 frequency patterns, 5+ day/week teleworking is steady (40%), while fewer are telecommuting two to four days per week (from 44% to 30%). Instead, more are telecommuting about once a week (22%, up from 13%).

Table 24 **Frequency of Telecommuting**
(Among Those Who Telecommute)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Pre- COVID Total	05/20 COVID Total	05/21 Total	05/22 Total	05/23 Total
More than once a week*	70%	51%	44%	58%	70%	90%	71%	83%	70%
About once a week	15%	24%	15%	12%	26%	5%	12%	13%	22%
2 to 3 times a month	11%	10%	17%	24%	2%	4%	11%	2%	6%
Once a month	2%	14%	15%	6%	2%	1%	6%	3%	2%
* 5 days a week or more	--	--	--	--	30%	48%	39%	39%	40%
2 to 4 days a week	--	--	--	--	40%	42%	32%	44%	30%
	N=47	N=49	N=41	N=33	N=43	N=80	N=66	N=62	N=83

Question: How often do you typically telecommute or telework (or work at home instead of driving to the office) – excluding working extra hours at home in your spare time?

Work Schedule – Among full-time employees in the 2023 survey, three of four work a “standard” schedule (8 hour days, five days a week) (75%) – up from 2022 (69%) and 2021 (72%). Overall, 8% say they work 10 hour days, 4 days a week (up slightly from 7% last year), while 4% continue to indicate they work a 12-hour day, 3 or 4 days a week. In line with the past few years, very few work 80 hours over 9 days with the 10th day off (1%). Down from last year (18%), 12% say their work week varies. Compressed workweeks in general tend to be more common in the Central and East regions.

Table 25 Work Schedule
(Among Those Employed Full-Time)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Pre- COVID Total	05/20 COVID Total	05/21 Total	05/22 Total	05/23 Total
8 hour day, 5 days a week	65%	61%	69%	75%	69%	61%	72%	69%	75%
10 hour day, 4 days a week	12%	12%	10%	6%	9%	11%	6%	7%	8%
12 hour day, 3 or 4 days a week	3%	4%	5%	5%	3%	4%	5%	4%	4%
80 hours over 9 days with the 10 th day off	3%	5%	4%	2%	2%	2%	3%	2%	1%
Varies/Other	17%	17%	12%	12%	17%	21%	14%	18%	12%
	N=130	N=134	N=169	N=156	N=169	N=119	N=145	N=144	N=150

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
8 hour day, 5 days a week	76%	80%	71%	65%	73%	79%	71%
10 hour day, 4 days a week	4%	6%	13%	13%	15%	9%	0%
12 hour day, 3 or 4 days a week	6%	2%	3%	4%	0%	4%	5%
80 hours over 9 days with the 10 th day off	0%	2%	0%	4%	0%	1%	3%
Varies/Other	14%	9%	13%	13%	12%	7%	21%
	N=50	N=46	N=31	N=23	N=26	N=75	N=38

Question: Which of the following most closely describes your current work schedule?

Daily Usage of Transportation Methods for Traveling To and From Work or School

– Survey respondents who work outside the home or go to school were provided with a list of different travel methods and asked to indicate the number of days they use each one to travel to and from work or school.

A few updates were made to travel response options in the 2023 survey: “take the bus” has changed to include other forms of public transit (“take the SunTran bus or other public transit such as Sun Shuttle, Sun Van or Sunlink Streetcar”); “ride a bike” now includes “ebike” and “scooter”; walk is now “walk or use a mobility device”; and a new category was added for “use a ride service company, such as Uber or Lyft.”

A summary of this question series (including tracking data) is included in Table 26-S, with detailed daily usage in Table 26-D.

Up slightly from last year (68%), but in line with pre-COVID 2020 (71%), 70% indicate that they utilize **single passenger commuting to work or school**. The average frequency of single passenger commuting is unchanged from the last two years at 4.2 days. More apt to drive alone at least one day per week are East and Northwest region residents (74% each versus 63% in Central and 70% in the South).

Alternative work/school commute travel methods tracked by this survey include:

- **Carpool/Vanpool** (31% say they are carpooling or vanpooling at least one day per week, up from last year [27%]. The average frequency of carpooling has also increased [3.3 days, up from 2.9]. East area residents continue to be somewhat more apt to carpool [39% versus 26%-34% elsewhere].)
- **Work at home instead of driving to work** (Nearly three of ten indicate they telework at least one day per week [29%, up from 26%], although average frequency of use has decreased slightly [from 3.5 days to 3.4]. Teleworking is lower only in the Central zips [24% versus 29%-32% in other areas].)
- **Take the SunTran bus or other public transit such as Sun Shuttle, Sun Van or Sunlink Streetcar to work or school** (The 2023 expanded public transit category total is higher than the 2022 “take the bus” description [18%, up from 15%], but is in line with combined bus/streetcar travel last year [19%]. Public transit ridership is greatest in the Central region [28%], and lowest in the Northwest [8%].)
- **Walk or use a mobility device to work or school** (With the modified definition, 15% now report walking or using a mobility device to get to work or school [up from 12% last year]. However, the average number of days has decreased somewhat [from 3.1 to 2.8 days]. Central region respondents remain more apt to walk or use a mobility device to get to work or school.)
- **Attend classes at home instead of going to school** (While the share who report attending classes at home instead of going to school has dipped slightly [from 8% to 7%], there has been an increase in the average number of days [from 2.9 to 3.4].)

- **Ride a bike to work or school** (Bike ridership [now including ebikes and scooters] to work or school has increased slightly from last year [from 8% to 9%], with an increase in frequency as well [from 1.6 to 1.9 days].)
- **Use a ride service company, such as Uber or Lyft, to work or school** (New to the survey this year, 13% indicate they utilize a rideshare service at least one day a week to go to work or school. Average frequency of usage is 1.5 days.)
- **Ride a motorcycle to work or school** (Up from last year [2%], 4% indicate they ride a motorcycle to work or school, although average frequency has dipped from 3.0 days to 2.0.)

Table 26-S

**Summary of Usage of Transportation Methods
for Traveling To and From Work or School
(Among Those Working Outside the Home or Going to School)**

Travel Method	2016 Usage* (N=203)	2016 Average Frequency	2017 Usage* (N=219)	2017 Average Frequency	2018 Usage* (N=240)	2018 Average Frequency
Drive alone	70%	4.4 days	76%	4.3 days	81%	4.2 days
Carpool/Vanpool	24%	3.5 days	28%	3.1 days	23%	2.6 days
Walk	24%	2.8 days	24%	3.0 days	21%	2.8 days
Work at home instead of driving to work						
Take the bus	24%	3.4 days	19%	3.4 days	19%	3.0 days
Ride a bike	13%	4.4 days	18%	3.6 days	14%	2.6 days
Take the streetcar	10%	2.4 days	10%	2.4 days	17%	2.9 days
Ride a motorcycle	4%	1.8 days	4%	2.0 days	11%	2.4 days
	2%	1.4 days	6%	2.8 days	5%	1.5 days

Travel Method	2019 Usage* (N=230)	2019 Average Frequency	2020 Pre- COVID Usage* (N=245)	2020 Pre- COVID Average Frequency	2020 COVID Usage* (N=191)	2020 COVID Average Frequency
Drive alone	80%	4.6 days	71%	4.5 days	61%	3.8 days
Carpool/Vanpool	19%	3.1 days	21%	3.2 days	18%	2.5 days
Walk	20%	2.4 days	23%	2.8 days	19%	2.6 days
Work at home instead of driving to work						
Attend class at home instead of going to school	20%	2.8 days	18%	3.0 days	41%	3.9 days
Take the bus	--	--	9%	3.5 days	16%	4.4 days
Ride a bike	12%	2.6 days	15%	3.2 days	9%	2.8 days
Take the streetcar	13%	2.5 days	11%	2.6 days	10%	2.4 days
Ride a motorcycle	4%	3.2 days	7%	1.7 days	4%	2.1 days
	4%	2.9 days	6%	2.8 days	3%	2.7 days

Travel Method	2021 Usage* (N=217)	2021 Average Frequency	2022 Usage* (N=224)	2022 Average Frequency	2023 Usage* (N=231)	2023 Average Frequency
Drive alone	64%	4.2 days	68%	4.2 days	70%	4.2 days
Carpool/Vanpool	22%	2.8 days	27%	2.9 days	31%	3.3 days
Walk/Mobility device	23%	2.5 days	12%	3.1 days	15%	2.8 days
Work at home instead of driving to work						
Attend class at home instead of going to school	25%	3.7 days	26%	3.5 days	29%	3.4 days
Take the bus/Other public transit	15%	3.7 days	8%	2.9 days	7%	3.4 days
Ride a bike/Ebike/Scooter	10%	3.3 days	15%	3.2 days	18%	2.9 days
Rideshare	11%	2.0 days	8%	1.6 days	9%	1.9 days
Ride a motorcycle	--	--	--	--	13%	1.5 days
Take the streetcar [#]	2%	1.0 days	2%	3.0 days	4%	2.0 days
	5%	1.9 days	4%	2.3 days	--	--

* Percentage who use each mode at least one day/week.

Included as part of "public transportation" in 2023.

Table 26-D

**Detailed Daily Usage and Tracking of Transportation
Methods for Traveling To and From Work or School**
(Among Those Working Outside the Home or Going to School)

	04/18 Total	05/19 Total	05/20 Pre- COVID Total	05/20 COVID Total	05/21 Total	05/22 Total	05/23 Total	Area				Awareness of "Clean Air" Program	
								South	North- west	Central	East	Yes	No
Take the bus/Other public transit													
Not at all	86%	88%	85%	91%	90%	85%	82%	80%	92%	72%	84%	78%	84%
1-4 days/week	11%	9%	10%	7%	7%	10%	13%	18%	4%	20%	10%	17%	10%
5 days/week	1%	3%	4%	2%	2%	4%	3%	0%	4%	4%	6%	4%	3%
6+ days/week	2%	0%	0%	0%	1%	1%	2%	3%	0%	4%	0%	1%	3%
Ride a motorcycle													
Not at all	95%	96%	94%	97%	98%	98%	96%	93%	94%	100%	97%	95%	97%
1-4 days/week	5%	3%	5%	2%	2%	1%	4%	7%	6%	0%	3%	5%	3%
5 days/week	0%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6+ days/week	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Ride a bike/ebike/scooter													
Not at all	83%	87%	89%	90%	89%	92%	91%	94%	88%	93%	87%	90%	92%
1-4 days/week	12%	11%	9%	9%	9%	8%	9%	6%	11%	7%	13%	10%	7%
5 days/week	3%	1%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%
6+ days/week	1%	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	1%
Walk/Mobility device													
Not at all	79%	80%	77%	81%	77%	88%	85%	90%	88%	78%	81%	84%	89%
1-4 days/week	16%	18%	18%	17%	20%	9%	12%	7%	11%	17%	16%	13%	9%
5 days/week	2%	1%	4%	1%	1%	0%	2%	3%	0%	4%	0%	2%	2%
6+ days/week	2%	1%	1%	2%	2%	2%	1%	0%	1%	2%	3%	1%	1%
Work at home instead of driving to work													
Not at all	81%	80%	82%	59%	75%	74%	71%	70%	71%	76%	68%	70%	71%
1-4 days/week	14%	15%	12%	21%	13%	16%	18%	20%	16%	15%	23%	18%	20%
5 days/week	2%	3%	4%	15%	9%	9%	7%	4%	10%	7%	10%	11%	5%
6+ days/week	3%	2%	2%	5%	3%	1%	3%	6%	3%	2%	0%	1%	4%
Attend classes at home instead of going to school													
Not at all	—	—	91%	84%	85%	92%	93%	93%	92%	91%	97%	91%	96%
1-4 days/week	—	—	5%	7%	7%	7%	5%	4%	6%	7%	3%	6%	3%
5 days/week	—	—	3%	5%	6%	1%	1%	0%	1%	2%	0%	1%	0%
6+ days/week	—	—	0%	3%	2%	0%	1%	3%	1%	0%	0%	2%	1%
Ride sharing service, such as Uber or Lyft													
Not at all	—	—	—	—	—	—	87%	90%	88%	89%	74%	87%	87%
1-4 days/week	—	—	—	—	—	—	13%	10%	12%	11%	26%	13%	13%
5 days/week	—	—	—	—	—	—	0%	0%	0%	0%	0%	0%	0%
6+ days/week	—	—	—	—	—	—	0%	0%	0%	0%	0%	0%	0%
	N=241	N=230	N=245	N=191	N=217	N=224	N=231	N=73	N=73	N=54	N=31	N=94	N=115

-Table 26-D continued on next page-

Table 26-D (Cont'd)

	04/18 Total	05/19 Total	05/20 Pre- COVID Total	05/20 COVID Total	05/21 Total	05/22 Total	05/23 Total	Area				Awareness of "Clean Air" Program	
								South	North- west	Central	East	Yes	No
Drive or ride with people age 16 or older in a carpool													
Not at all	77%	81%	79%	82%	78%	73%	69%	66%	71%	74%	61%	64%	73%
1 day/week	8%	4%	5%	6%	6%	7%	5%	4%	7%	4%	3%	7%	2%
2 days/week	5%	5%	4%	5%	7%	6%	9%	7%	8%	7%	19%	10%	10%
3 days/week	5%	1%	3%	3%	3%	6%	7%	11%	1%	9%	6%	10%	5%
4 days/week	1%	4%	1%	1%	3%	2%	3%	4%	0%	4%	6%	4%	3%
5 days/week	4%	4%	5%	3%	1%	4%	3%	4%	3%	0%	3%	3%	2%
6+ days/week	1%	1%	2%	1%	3%	2%	5%	4%	10%	2%	0%	2%	5%
Drive alone													
Not at all	19%	20%	29%	39%	36%	32%	30%	30%	26%	37%	26%	29%	30%
1 day/week	8%	5%	4%	9%	7%	8%	7%	8%	8%	6%	3%	13%	4%
2 days/week	9%	4%	3%	8%	6%	8%	8%	8%	7%	4%	16%	10%	6%
3 days/week	5%	10%	11%	8%	6%	8%	8%	6%	11%	11%	3%	7%	8%
4 days/week	12%	8%	8%	6%	10%	8%	12%	12%	10%	11%	19%	14%	12%
5 days/week	34%	38%	31%	19%	21%	19%	22%	19%	23%	22%	23%	20%	24%
6+days/week	13%	15%	13%	9%	13%	16%	14%	16%	15%	9%	10%	7%	17%
	N=241	N=230	N=245	N=191	N=217	N=224	N=231	N=73	N=73	N=54	N=31	N=94	N=115

Question: Now I'd like to ask you some questions about your current commuting behavior. How many days during an average week do you typically use each of the following travel methods to get to and from work or school?

2023 Estimated Number of Daily Commuter Miles Saved Through Alternate Modes

– Tables 26-T and 26-1 summarize the combination of results related to modes of commuter travel and distances traveled with employment estimates (Source: Arizona Office of Economic Opportunity for April 2023) to provide an estimate of the number of vehicle miles saved daily through the use of alternative methods of transportation. The specific computations and data sources are described in the footnotes included with Table 26-1.

As reported in Table 26-1 (column “I” on the far right), **we estimate that the 2023 reduction of single-occupant vehicles commuting through the use of alternative methods of travel saves 4,985,781 vehicle miles per day – or 44% of total miles driven/not driven.** This percentage of miles saved is identical to last year. These continued positive miles saved findings are primarily related to strong participation and/or frequency of use of alternate modes, especially carpooling and telecommuting.

Table 26-T Tracking Summary of Estimated Number of Daily Commuter Miles Saved Through Alternate Modes

Year	Total Employed (Non-Home-Based)/ Students	% Who Single-Passenger Commute 1+ Days/Week	Average Single Occupant Auto Commute Distance	# of Commute Miles Driven/ Not Driven	# of Vehicle Miles Saved Daily	% of Miles Saved Through Alternate Mode Use
2023	467,577	70%	12.8	11,221,747	4,985,781	44%
2022	441,009	68%	11.6	9,725,156	4,263,223	44%
2021	430,301	64%	12.3	8,891,842	3,846,406	43%
2020 (COVID)	392,618	61%	12.1	8,493,334	4,632,871	55%
2020 (Pre-COVID)	441,354	71%	12.8	10,051,691	3,776,177	38%
2019	430,438	80%	12.5	9,691,879	2,877,389	30%
2018	455,682	81%	12.4	10,809,324	4,141,734	38%
2017	420,190	76%	14.5	10,276,836	3,569,409	35%
2016	441,320	70%	13.4	11,187,316	4,242,773	38%

Table 26-1 **2023 Estimated Number of Daily Commuter Miles Saved Through Alternative Modes**
(Among Employed Persons and Students)

	(A) # of Non- Home-Based Employed Persons/ Students	(B) # One-Way Commute Trips Per Week	(C) Estimated # of One- Way Trips Each Week	(D) Average Days/Week Commute Using Any Mode	(E) # of One-Way Commute Trips/Day	(F) Average Commute Distance	(G) Estimated # Commute Miles Driven/Not Driven	(H) Vehicle Miles Traveled Daily	(I) Vehicle Miles Saved Daily
Travel Mode									
Single Occupant (auto)	(70%) 327,304	4.20x2=8.40	2,749,354	6.8	404,317	12.8	5,175,258	5,175,258	-0-
Motorcycle	(4%) 18,703	2.00x2=4.00	74,812	6.8	11,002	22.3	245,345	245,345	-0-
Rideshare	(13%) 60,785	1.50x2=3.00	182,355	6.8	26,817	10.6	284,260	284,260	-0-
Alternative Modes:									
Carpool	(31%) 144,949	3.25x2=6.50	942,169	6.8	138,554	10.0	1,385,540	513,163	872,377
Bus/Other public transit	(18%) 84,164	2.85x2=5.70	479,735	6.8	70,549	8.9	627,886	17,940	609,946
Bike/Ebike/Scooter	(9%) 42,082	1.90x2=3.80	159,912	6.8	23,516	14.0	329,224	-0-	329,224
Walk/Mobile device	(15%) 70,137	2.76x2=5.52	387,156	6.8	56,935	3.6	204,966	-0-	204,966
Telecommute	(29%) 135,597	3.36x2=6.72	911,212	6.8	134,002	17.6	2,358,435	-0-	2,358,435
School from home	(7%) 32,730	3.35x2=6.70	219,291	6.8	32,249	13.8	445,036	-0-	445,036
Compressed workweek	(8%) 37,406	1.10x2=2.20	82,293	6.8	12,102	13.7	165,797	-0-	165,797
					910,043		11,221,747		4,985,781

(A) # employed persons in Pima County (est. @ 400,800 as of April, 2023 by Arizona Office of Economic Opportunity) x % non-home-based employees (87%) (Table 22)
+ # students 16+ (est. 118,881 in 2021 Census Bureau American Community Survey) x % of work/school commuters reported using each mode (Table 26).

(B) Average # of days/week mode used (Table 26) x 2 ways = estimate of average # of 1-way trips made each week per work/school commuter.

(C) (A) x (B)

(D) # of work/school commuters in survey x % using each mode x average # days/week mode used = Total days/week all modes ÷ # of work/school commuters in survey =
average # days/week work/school commuters use any mode.

(E) (C) ÷ (D)

(F) From Table 26c. Reported commute miles ranged from 1 to 120 miles.

(G) (E) x (F)

(H) Vehicle miles/day:

Driving alone: Estimated # miles commuted

Bus: # miles/day ÷ average # rides/bus (peak hours) - (estimated at 35)

Carpool: # miles/day ÷ average # persons (2.7) in each carpool (Table 26b)

Bike/Walk/Telecommute/Streetcar/Compressed: -0- (no polluting vehicles used)

(I) (G) - (H)

Most Used Mode of Transportation for Work/School Commute – Up slightly from the previous two years (49%-51%), but still lower than pre-COVID 2020 levels (59%), 54% indicate that **single-passenger vehicle commuting** is their **most-used** method of transportation. Primary use of single-passenger commuting is highest in the East region (61% versus 52%-55% in other areas).

Identical to the last two years, 16% primarily **telecommute**. Primary telecommuters in the current study are more apt to be 36 to 65 year-olds, Whites and those with household incomes over \$60,000 – with fewer differences based on area of residence. Another 3% in the current survey say they primarily **attend classes from home instead of going to school**, most often those 16 to 25.

Identical to last year, 12% are primarily **carpooling** for their commute. South area residents, men, 16 to 45 year-olds and Hispanics are more apt to say they carpool most often.

Similar to last year (8%), 7% say they most often **take the bus or other public transit**, with elevated mention among Central area residents and 16 to 25 year-olds.

Identical to last year, 5% primarily **walk or use a mobility device** to work or school. Central region residents and 16 to 25 year-olds are more apt to primarily walk to work or school.

Overall, 2% are **riding a bike/ebike/scooter** as their primary commute mode, up from 1% last year. Just one person in the current survey indicated primarily **riding a motorcycle**.

Table 26a Most Used Mode of Transportation for Work/School Commute
(Among Those Working Outside the Home or Going to School)

	5/16 Total	5/17 Total	4/18 Total	5/19 Total	5/20 Pre- COVID Total	5/20 COVID Total	5/21 Total	5/22 Total	5/23 Total
Drive alone	61%	62%	66%	68%	59%	42%	49%	51%	54%
Work at home instead of driving to work	11%	8%	7%	7%	7%	27%	16%	16%	16%
Drive or ride in a carpool	11%	10%	7%	7%	11%	6%	8%	12%	12%
Take the bus/Other public transit	9%	9%	4%	5%	8%	4%	6%	8%	7%
Walk/Mobility device	4%	6%	6%	5%	5%	6%	7%	5%	5%
Attend classes at home instead of going to school	–	–	–	–	2%	10%	10%	4%	3%
Ride a bike/Ebike/Scooter	3%	2%	7%	5%	4%	3%	4%	1%	2%
Ride a motorcycle	–	1%	–	1%	4%	1%	–	0%	0%
	N=203	N=219	N=241	N=229	N=245	N=188	N=214	N=224	N=230

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
Drive alone	55%	52%	53%	61%	46%	52%	66%
Work at home instead of driving to work	16%	16%	15%	13%	17%	17%	16%
Drive or ride in a carpool	15%	12%	8%	13%	10%	13%	12%
Take the bus/Other public transit	7%	7%	9%	6%	12%	7%	2%
Walk/Mobility device	4%	3%	9%	3%	4%	7%	2%
Attend classes at home instead of going to school	3%	3%	4%	3%	8%	2%	2%
Ride a bike/Ebike/Scooter	0%	6%	2%	0%	0%	3%	0%
Ride a motorcycle	0%	1%	0%	0%	2%	0%	0%
	N=73	N=73	N=53	N=31	N=48	N=116	N=50

Question: Now I'd like to ask you some questions about your current commuting behavior. How many days during an average week do you typically use each of the following travel methods to get to and from work or school?

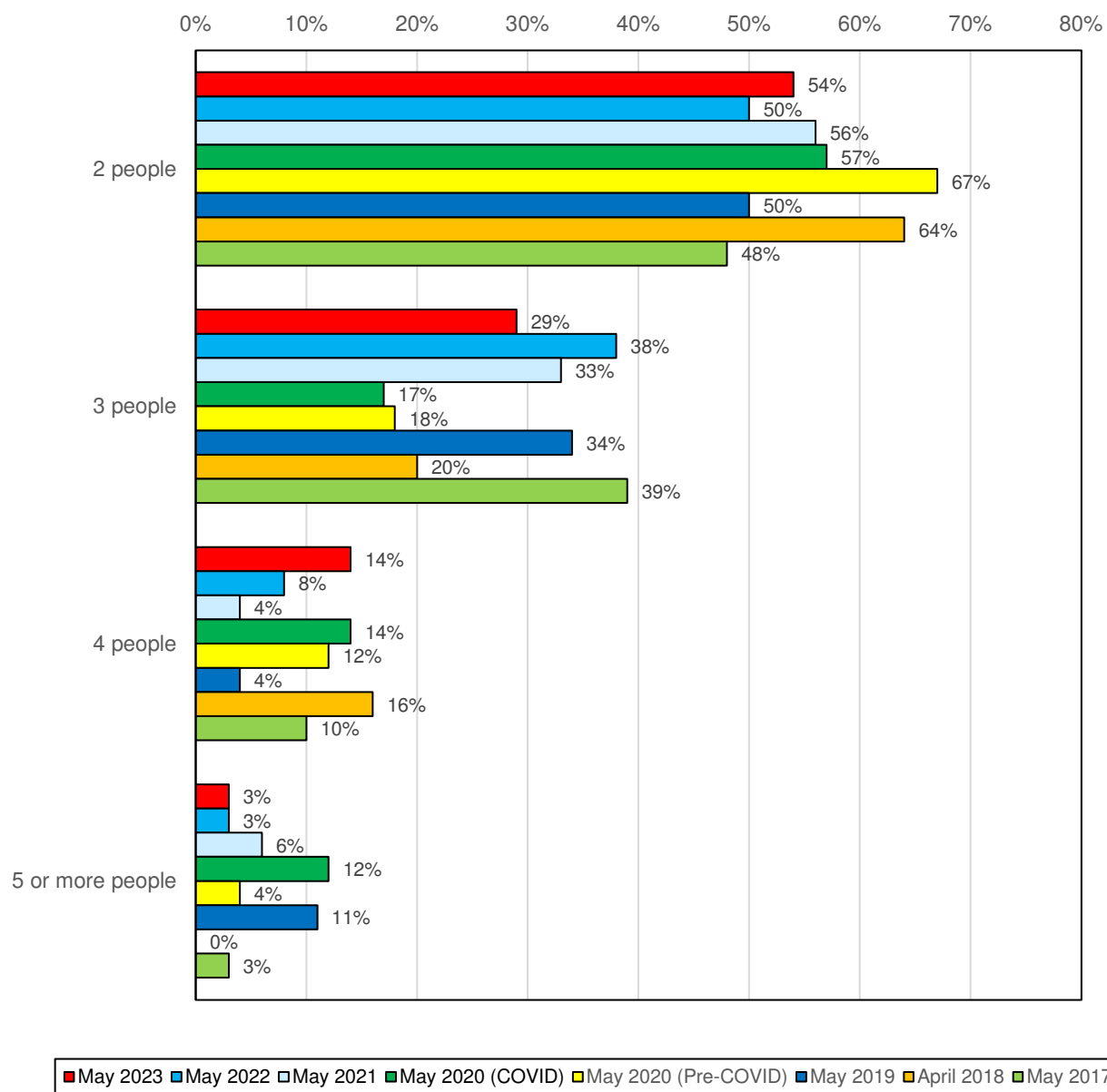
Size of Work or School Commute Carpool – A majority of carpoolers are traveling to work or school in a 2-person carpool (54%). This is up from last year (50%), but lower than we found in 2021 (56%). Compared to last year, fewer travel in 3-person carpools (from 38% to 29%). The balance (17%) commute in 4-person (from 8% to 14%) or 5+ person (unchanged at 3%) carpools. Overall, the average carpool size is unchanged from 2022 at 2.7 people.

Table 26b **Size of Work or School Commute Carpool**
(Among Those Who Carpool)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Pre- COVID Total	05/20 COVID Total	05/21 Total	05/22 Total	05/23 Total
2 people	69%	48%	64%	50%	67%	57%	56%	50%	54%
3 people	6%	39%	20%	34%	18%	17%	33%	38%	29%
4 people	12%	10%	16%	4%	12%	14%	4%	8%	14%
5 or more people	4%	3%	–	11%	4%	12%	6%	3%	3%
Varies	8%	–	–	–	–	–	–	–	–
	N=49	N=59	N=56	N=44	N=51	N=35	N=48	N=60	N=72

Question: Including yourself, how many people are typically in your carpool?

Display 26b Size of Work or School Commute Carpool (Among Those Who Carpool)



Miles Traveled to Work or School – Down from last year (41%), but still higher than we found in 2021 (31%), 36% indicate they have a school or work commute of 5 miles or less. Identical to last year, another 24% say they travel between 6 and 10 miles to work or school – while 7% (down slightly from 8%) have a commute between 11 and 14 miles. Up from last year (27%), the remaining one-third travel 15 miles or more. Those in the South region are most likely to commute 15+ miles (45%). A similar share of ten East area residents say they travel 5 miles or less (45%).

Table 26c Miles Traveled to Work or School
(Among Those Working Outside the Home or Going to School)

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Pre- COVID Total	05/20 COVID Total	05/21 Total	05/22 Total	05/23 Total
5 miles or less	35%	36%	29%	30%	26%	26%	31%	41%	36%
6 to 10 miles	29%	29%	30%	23%	33%	37%	30%	24%	24%
11 to 14 miles	8%	8%	8%	17%	11%	10%	9%	8%	7%
15 or more miles	27%	26%	30%	29%	30%	27%	29%	27%	33%
Don't know/Not sure	2%	1%	2%	1%	–	–	–	–	–
	N=203	N=216	N=241	N=229	N=245	N=188	N=214	N=224	N=230

	Area				Air Quality Problem		
	South	Northwest	Central	East	Major	Moderate	Minor
5 miles or less	33%	36%	38%	45%	40%	37%	36%
6 to 10 miles	16%	19%	38%	26%	17%	27%	16%
11 to 14 miles	6%	12%	4%	6%	8%	6%	8%
15 or more miles	45%	33%	21%	23%	35%	30%	40%
	N=73	N=73	N=53	N=31	N=48	N=116	N=50

Question: Approximately how many miles do you **currently** travel one-way from your home to the place where you work or go to school?

Stormwater Perceptions and Practices

Perception of Where Stormwater That Flows Into Tucson Storm Drains Ends Up –

Similar to past surveys, respondents were told that “some streets in the Tucson area are equipped with storm drains.” Survey participants were then asked to identify where (to the best of their knowledge) water that flows into these storm drains ends up. Allowing for multiple responses, ranked perceptions include:

- **River or wash** (40%, down from 45%-46% in the last two surveys and the lowest total recorded to-date. These tend to be East region residents, men, 56 to 65 year-olds and 11+ year Pima County denizens.)
- **Water treatment plants** (15%, up incrementally from 13% in 2021. This perception is stronger in the Central region – as well as among 36 to 45 year-olds and the newest Pima County residents [for less than two years].)
- **Groundwater** (13%, nearly unchanged since last year [12%]. This perception is somewhat higher in the East zip codes and among those 46 or older, non-Hispanics and residents with a college degree or better.)
- **Sewage plants/Drainage system** (10%, down slightly from 11% in the last two surveys. These are more apt to be Central region residents, 16 to 35 year-olds and non-Whites.)
- **Canals** (5%, down from 7% last year. Few differences in perceptions based on geography.)

More than one-third (35%) say that they **do not know** where water that flows into storm drains ends up. This is the highest total recorded to-date (up from 28% last year). Women and those 66+ are more likely to say they do not know where stormwater that flows in into Tucson storm drains ends up. There are few differences based on ethnicity or geography (somewhat lower only in the East zips).

Table 27

**Perception of Where Stormwater That
Flows Into Tucson Storm Drains Ends Up**

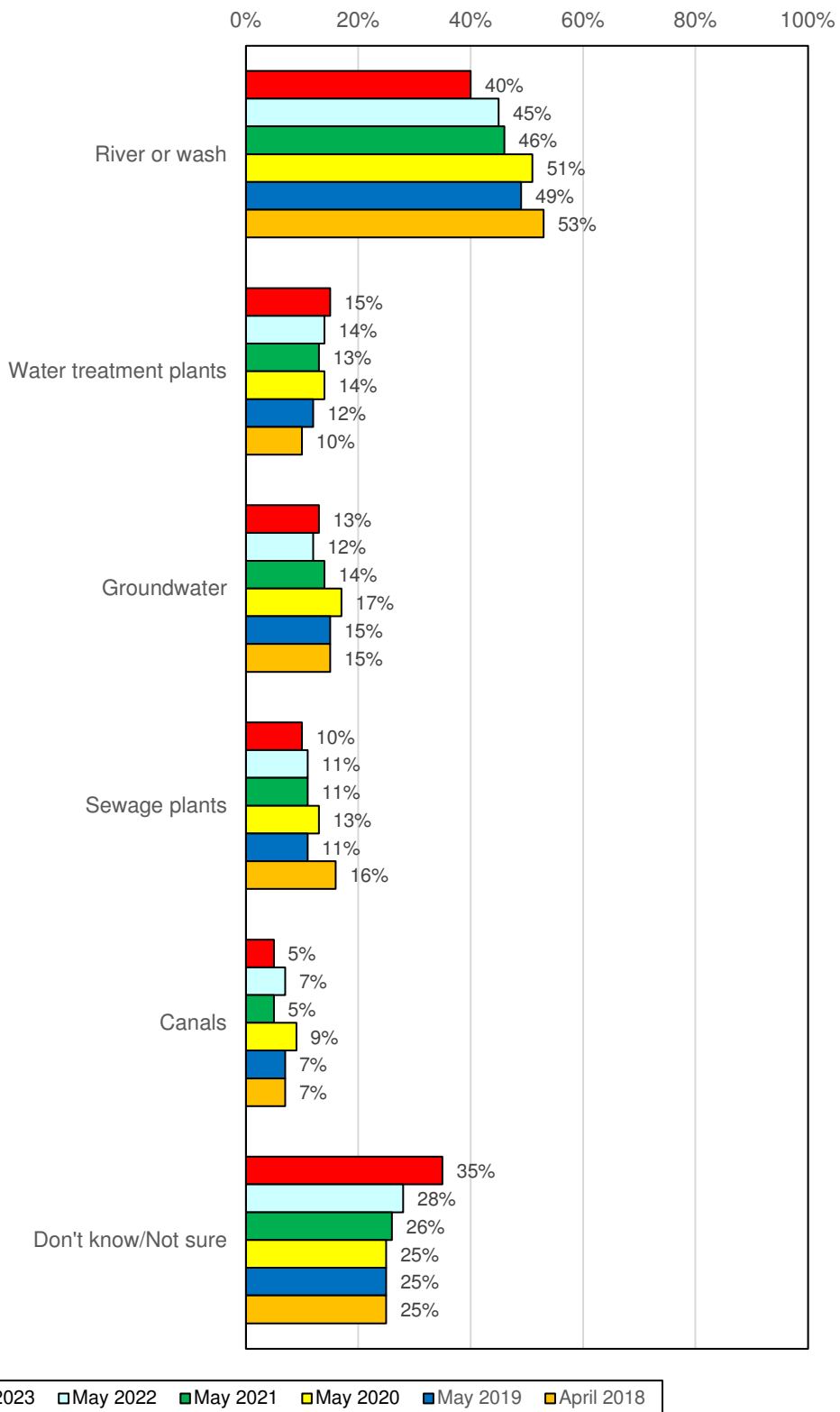
	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
River or wash	46%	45%	53%	49%	51%	46%	45%	40%
Water treatment plants	7%	13%	10%	12%	14%	13%	14%	15%
Groundwater	20%	18%	15%	15%	17%	14%	12%	13%
Sewage plants/Drainage system	11%	17%	16%	11%	13%	11%	11%	10%
Canals	7%	12%	7%	7%	9%	5%	7%	5%
Don't know/Not sure	29%	29%	25%	25%	25%	26%	28%	35%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Stormwater Pollution Problem		
	South	Northwest	Central	East	Serious Problem	Moderate Problem	Not a Problem
River or wash	41%	38%	36%	50%	34%	42%	41%
Water treatment plants	13%	14%	20%	13%	11%	15%	19%
Groundwater	10%	13%	14%	17%	13%	14%	6%
Sewage plants/Drainage system	9%	9%	12%	7%	11%	10%	5%
Canals	5%	5%	4%	6%	4%	5%	4%
Don't know/Not sure	34%	38%	37%	29%	40%	34%	34%
	N=164	N=151	N=115	N=70	N=107	N=313	N=80

Question: Some streets in the Tucson area are equipped with storm drains. To the best of your knowledge, where does the stormwater that flows into these drains end up?

Display 27

Perception of Where Stormwater That Flows Into Tucson Storm Drains Ends Up



Green Infrastructures Implemented/Installed at Home or Business – Consistent with past years, survey respondents were provided a list of seven different types of Green Infrastructures and asked if each one has been implemented or installed at their home or business.

As we have found in the last three surveys, 51% report that their home or business has **landscaping with native plants**. This is true regardless of geographic region. Implementation is highest among those 56 or older, Whites and the highest income households.

Regardless of geography, two of ten have installed **porous pavements or bricks** at the home or business (21%, up slightly from 20% last year). Men and the most formally educated residents are more likely to have installed porous pavements or bricks.

Other Green Infrastructure installed at home or business include:

- **Connecting runoff from a roof or paved surface to a basin to water plants** (18%, generally consistent with the last two surveys [17%-19%]. Users tend to be South or East region residents, 16 to 25 year-olds and higher income households.)
- **Landscaped depressions that collect stormwater** (15%, consistent with the last two surveys [14%-15%]. Implementation is greatest in the East zips – as well as among 46 to 55 year-olds and college graduates.)
- **Natural areas protected from clearing and grading** (14%, unchanged since last year. Implementation is marginally higher in the East zips codes and higher among men, those 66+, Whites and high income households.)
- **Water harvesting using rain barrels or cisterns** (14%, down from last year [19%] but consistent with 2021 usage [13%]. Usage is lower only in the Central zips and higher among low income households.)
- **A trench that is filled with gravel to collect stormwater** (12%, consistent with the last two surveys [11%-12%]. These tend to be East region residents and high income households.)

Table 28

Green Infrastructures
Implemented/Installed at Home or Business

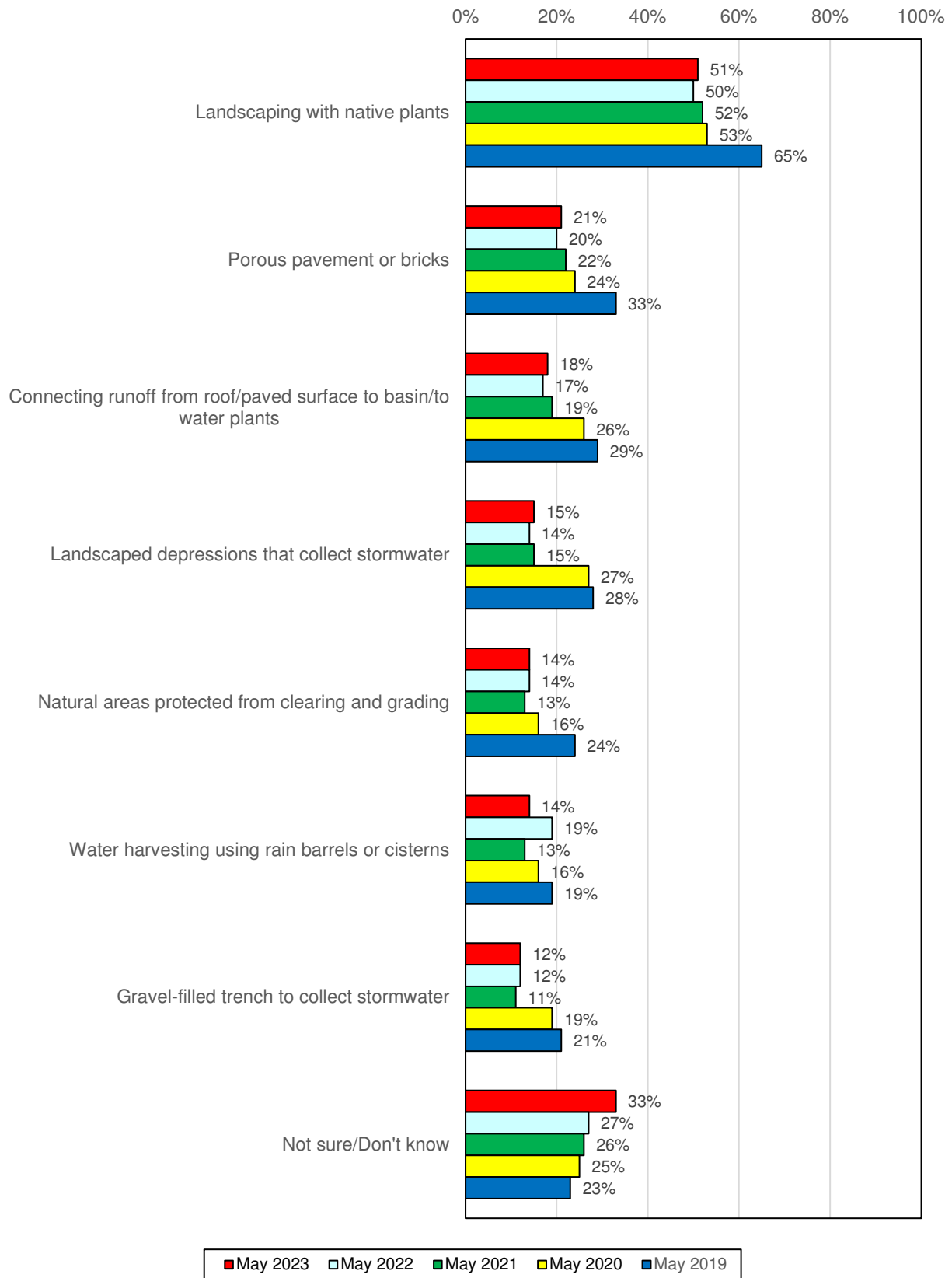
	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Landscaping with native plants	52%	53%	55%	65%	53%	52%	50%	51%
Porous pavements or bricks	15%	21%	24%	33%	24%	22%	20%	21%
Connecting runoff from a roof or paved surface to a basin or to water plants	22%	25%	24%	29%	26%	19%	17%	18%
Landscaped depressions that collect stormwater	24%	28%	29%	28%	27%	15%	14%	15%
Natural areas protected from clearing and grading	15%	18%	20%	24%	16%	13%	14%	14%
Water harvesting using rain barrels or cisterns	19%	21%	22%	19%	16%	13%	19%	14%
A trench that is filled with gravel to collect stormwater	16%	19%	18%	21%	19%	11%	12%	12%
Not sure/Don't know	29%	24%	24%	23%	25%	26%	27%	33%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Stormwater Pollution Problem		
	South	Northwest	Central	East	Serious Problem	Moderate Problem	Not a Problem
Landscaping with native plants	51%	54%	50%	50%	50%	53%	46%
Porous pavements or bricks	20%	22%	22%	20%	20%	21%	22%
Connecting runoff from a roof or paved surface to a basin or to water plants	21%	15%	16%	23%	17%	19%	16%
Landscaped depressions that collect stormwater	12%	15%	10%	29%	16%	14%	16%
Natural areas protected from clearing and grading	15%	16%	10%	19%	12%	14%	18%
Water harvesting using rain barrels or cisterns	15%	15%	10%	17%	13%	15%	12%
A trench that is filled with gravel to collect stormwater	10%	9%	12%	20%	8%	13%	10%
Not sure/Don't know	30%	36%	36%	27%	36%	31%	39%
	N=164	N=151	N=115	N=70	N=107	N=313	N=80

Question: I am now going to read you a list of different types of Green Infrastructures. After each, simply tell me if this practice has been implemented or installed at your home or business.

Display 28

Green Infrastructures Implemented/Installed at Home or Business



Awareness of the “Clean Water Starts With Me” or “Keep Our Water Clean” Campaign – Survey respondents were asked to agree or disagree with the statement, “You are aware of the ‘Clean Water Starts With Me’ or ‘Keep Our Water Clean’ campaigns.” In past years, this statement included only the “Clean Water Starts With Me” campaign.

Overall, 43% indicate they are familiar with the dual campaign statement (virtually unchanged from 42% last year for the solo “Clean Air Starts With Me” campaign). Dual campaign awareness is lower only in the East region (33% versus 42%-46% elsewhere) and elevated among residents who perceive a progressively more serious stormwater pollution problem.

Table 28a **Awareness of the “Clean Water Starts With Me” or “Keep Our Water Clean” Campaign**

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
You are aware of the “Clean Water Starts With Me” or “Keep Our Water Clean” campaigns.	57%	55%	50%	41%	40%	40%	42%	43%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Stormwater Pollution Problem		
	South	Northwest	Central	East	Serious Problem	Moderate Problem	Not a Problem
You are aware of the “Clean Water Starts With Me” or “Keep Our Water Clean” campaigns.	42%	46%	44%	33%	59%	41%	26%
	N=164	N=151	N=115	N=70	N=107	N=313	N=80

Question: As I read the following statements, simply tell me if you agree or disagree.

Perceived Seriousness of Stormwater Pollution Problem in the Tucson Area – In line with recent years, the vast majority (84% in the current survey and identical to last year) perceive that there is at least a “moderate problem” in the Tucson area “with polluting materials entering storm drains.” However, the percentage who think stormwater pollution is a “serious problem” has significantly decreased over the past four surveys – from a record high of 44% in 2019 to just 21% now. Consistent with the last two surveys, about six of ten think stormwater pollution is a “moderate problem” (63%). Still, as we have found in the past, relatively few (16%) believe it is “not a problem.” This yields a 5.2 average score on the “1-to-5” scale (basically unchanged from 5.1 last year).

South or Central residents, women, 46 to 55 year-olds or those 66+ and respondents with a college degree or better are more likely (on average) to think that the Tucson area has a more “serious” stormwater pollution problem. There are few differences based on ethnicity.

Consistent with prior surveys, those residents who perceive a progressively more severe air quality problem are also more apt to think there is a seriously more progressive stormwater pollution problem.

Table 29 Perceived Seriousness of Stormwater Pollution Problem in Tucson Area

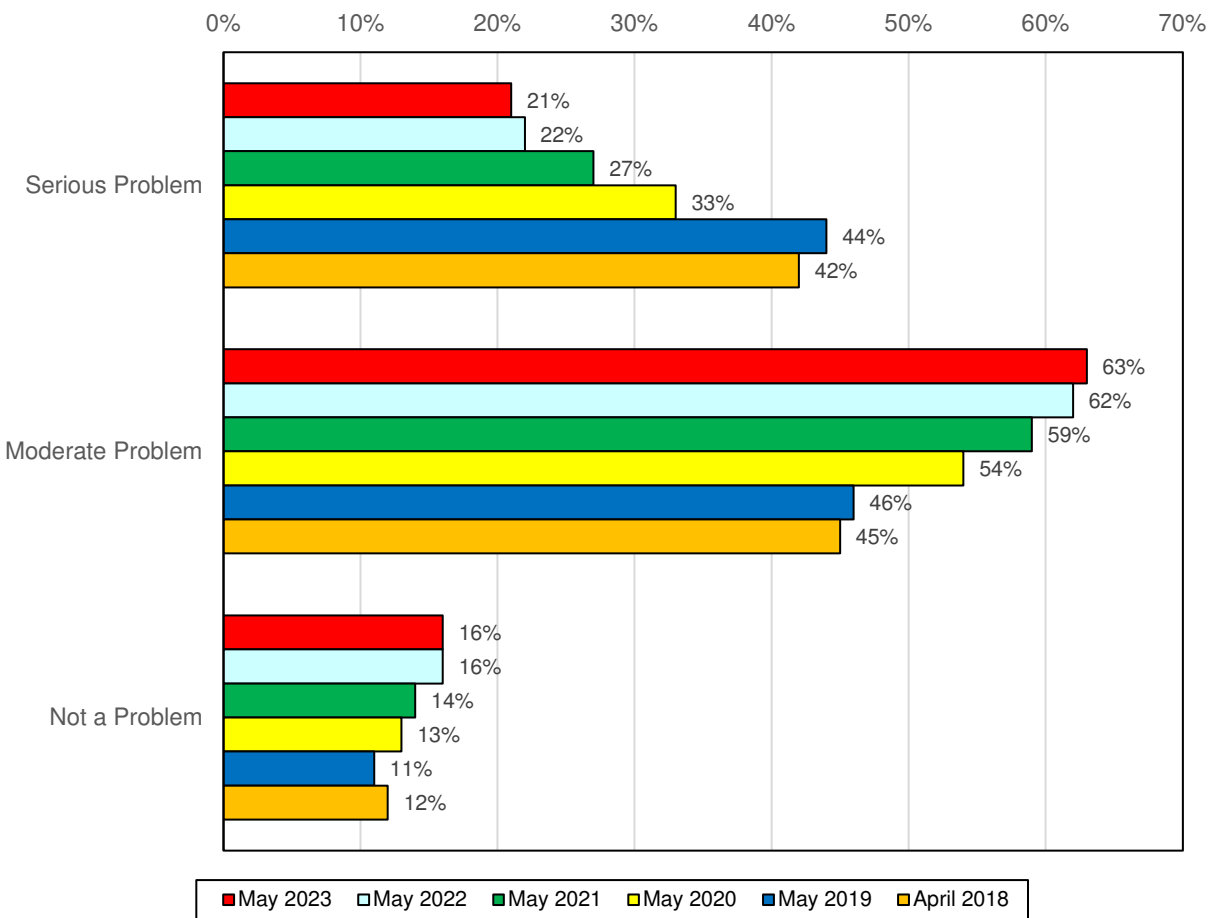
	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Serious problem (7-9)	40%	41%	42%	44%	33%	27%	22%	21%
Moderate problem (4-6)	49%	45%	45%	46%	54%	59%	62%	63%
Not a problem (1-3)	11%	14%	12%	11%	13%	14%	16%	16%
Average score on 1-9 scale	5.8	5.8	5.9	6.0	5.7	5.4	5.1	5.2
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area			
	South	North-west	Central	East
Serious problem (7-9)	24%	19%	27%	13%
Moderate problem (4-6)	60%	66%	60%	67%
Not a problem (1-3)	16%	16%	13%	20%
Average score on 1-9 scale	5.3	5.1	5.4	5.0
	N=164	N=151	N=115	N=70

Question: On a scale of “1-to-9” where “9” means “a serious problem” and “1” means “not a problem,” how much of a problem do you think there is in the Tucson area with polluting materials entering storm drains? You can give me any number between “1” and “9.”

Display 29

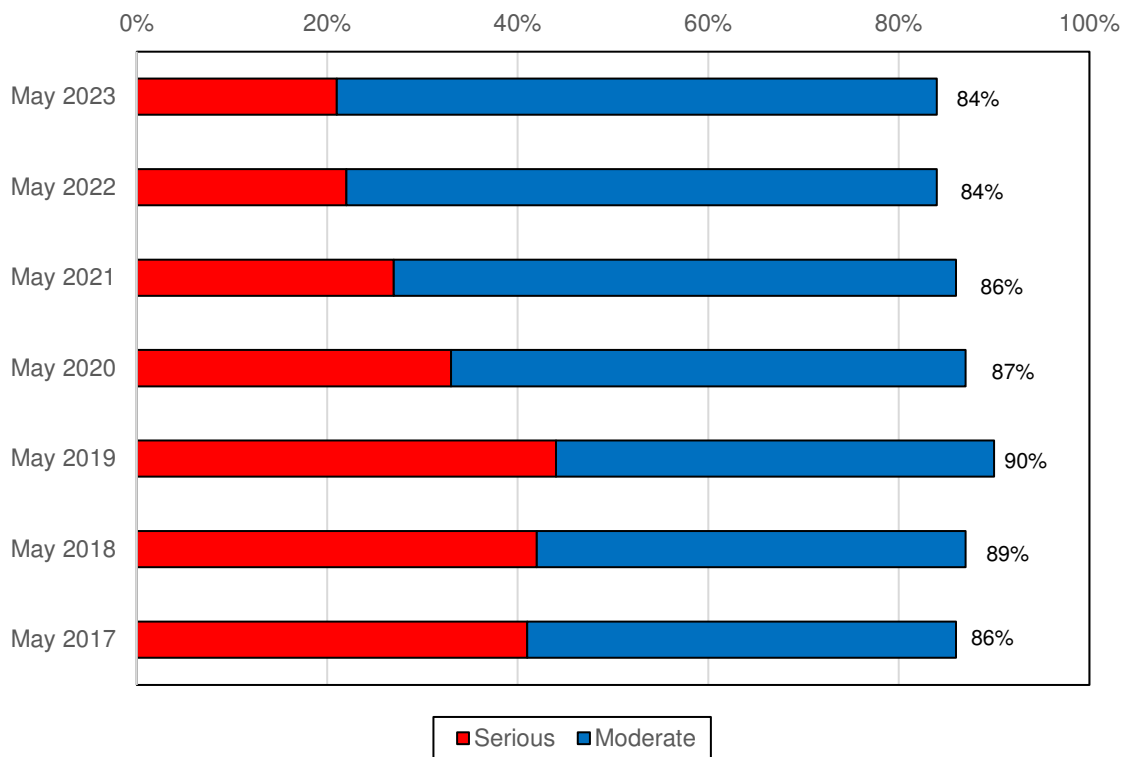
Perceived Seriousness of Stormwater Pollution Problem in Tucson Area (Among the Total Sample)



Display 29

Perceived Seriousness of Stormwater Pollution Problem in Tucson Area

Among the Total Sample – Sum of “Moderate” and “Serious” Responses



Methods Used to Dispose of Various Types of Household Hazardous Wastes – With ordinal rankings very similar to recent surveys, the most used methods of disposing of household wastes such as “household chemicals, automotive fluids and lawn & garden chemicals” include:

- **Hazardous waste collection site** (While still the most utilized method of disposal, usage has trended progressively lower – from a high of 53% in 2018 to 37% now. Usage is relatively consistent across geographic region [marginally higher in the Northwest] and elevated among residents 66 or older and non-Hispanic.)
- **Auto parts store** (32%, consistent with the last two surveys [31% each]. These are more apt to be Northwest residents, men, 26 to 35 or 46 to 55 year-olds and non-Whites.)
- **Put it in the garbage** (26%, up slightly from last year [24%] but consistent with 2021 [27%]. More apt to say they place household hazardous wastes in the garbage are Central zip region residents, progressively younger respondents and non-Whites – with few differences based on stormwater pollution problem perception.)
- **Landfill** (18%, up from 12%-13% in the last two surveys. These tend to be South region residents and Hispanics – with few differences based on age.)
- **Service station** (15%, representing progressive and incremental decline from 26% in 2018. Usage is greater among East zip code residents, 26 to 35 year-olds, non-Whites and less formally educated respondents.)
- **Pour in the sink or down the drain** (12%, consistent with 2022 [14%] and 2021 [12%] levels. Central or East region residents, the youngest respondents [16 to 25 year-olds] and Hispanics are more likely to pour household hazardous waste in the sink or down the drain.)

Overall, 21% report that they **do not use** these types of hazardous household items (or finish them when they do so). This represents incremental improvement from just 9% in 2018. Up slightly from 8% in the last two surveys, 11% are not sure how their household disposes of its hazardous waste.

Table 30

Methods Used to Dispose of
Various Types of Household Hazardous Waste

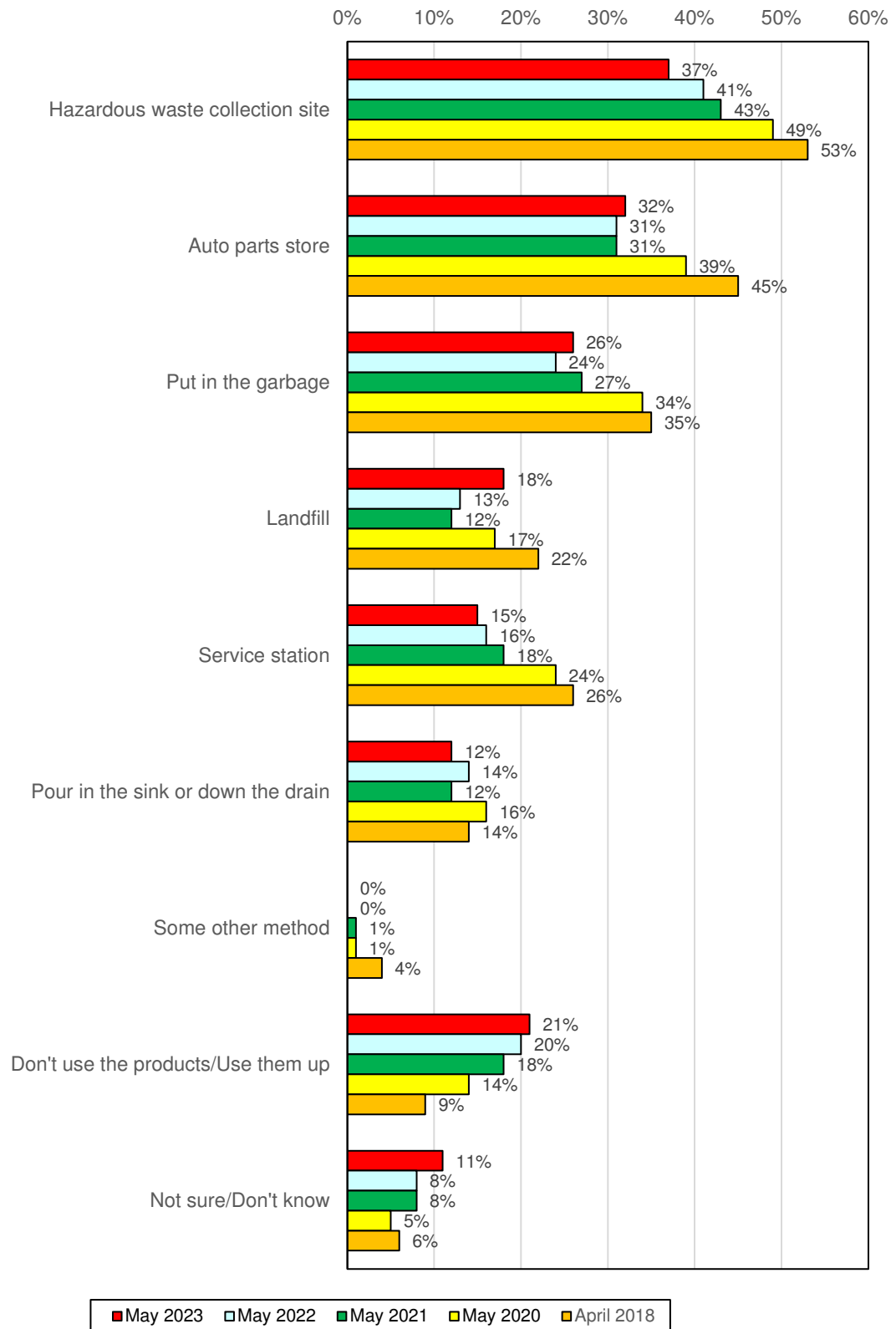
	05/16 Total	05/17 Total	04/18 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
Hazardous waste collection site	42%	52%	53%	49%	43%	41%	37%
Auto parts store	38%	42%	45%	39%	31%	31%	32%
Put in the garbage	29%	37%	35%	34%	27%	24%	26%
Landfill	18%	18%	22%	17%	12%	13%	18%
Service station	19%	26%	26%	24%	18%	16%	15%
Pour in the sink or down the drain	12%	18%	14%	16%	12%	14%	12%
Some other method	2%	3%	4%	1%	1%	--	--
Don't use these products/Use them up	16%	11%	9%	14%	18%	20%	21%
Not sure/Don't know	6%	8%	6%	5%	8%	8%	11%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500

	Area				Stormwater Pollution Problem		
	South	Northwest	Central	East	Serious Problem	Moderate Problem	Not a Problem
Hazardous waste collection site	35%	41%	37%	36%	36%	41%	25%
Auto parts store	30%	39%	26%	30%	31%	32%	34%
Put in the garbage	23%	22%	34%	27%	29%	25%	28%
Landfill	24%	15%	13%	17%	17%	18%	20%
Service station	15%	16%	10%	24%	17%	14%	20%
Pour in the sink or down the drain	9%	10%	16%	17%	12%	12%	12%
Don't use these products/Use them up	21%	22%	27%	13%	25%	21%	16%
Not sure/Don't know	8%	12%	11%	13%	6%	11%	15%
	N=164	N=151	N=115	N=70	N=107	N=313	N=80

Question: I am now going to read you a list of different methods that people use to dispose of items such as household chemicals, automotive fluids and lawn & garden chemicals. After each, simply tell me if you or someone in your household use this method to dispose of these items.

Display 30

Methods Used to Dispose of Various Types of Household Hazardous Waste



Rating of Various Contributors to Stormwater Pollution Problem in the Tucson Area

– As we have done in prior surveys, residents were asked to rate the perceived severity of eight contributors to the problem of stormwater pollution in the Tucson area. The same “1-to-9” rating scale was used, where “1” means “not a problem” and “9” means a “serious problem.”

While there is some variation this year in terms of average scores and ordinal rankings, there continues to be a direct relationship between the perceived severity of the stormwater pollution problem in Tucson and the degree to which each of these factors is thought to contribute to the problem.

Once again, the eight contributors evaluated include:

- **Chemicals and materials from industrial facilities** (75% perceived contributor to stormwater pollution [up slightly from 74% last year], 23% “serious” [up from 21%] – resulting in a 5.0 average score on the “1-to-9” scale [up from 4.8]. Increased scores among Central residents, those 66+, Whites and progressively more formally educated respondents.)
- **Automotive fluids such as oil, gasoline and brake fluid** (75% perceived contributor to stormwater pollution [up slightly from 74% last year], 21% “serious” [up from 19%] – resulting in a 4.9 average score [up from 4.8]. These tend to be women, Northwest denizens, residents 66+, Whites and the highest income households.)
- **Chemicals and materials from construction sites** (73% perceived contributor to stormwater pollution [down from 75% last year], 20% “serious” [down from 22%] – resulting in a 4.8 average score [down from 4.9]. Scores tend to be higher among Central residents, women, those 66+, Whites and most formally educated respondents.)
- **Pesticides, fertilizers and debris from lawns and gardens** (72% perceived contributor to stormwater pollution [down from 73% last year], 22% “serious” [up from 21%] – resulting in a 4.7 average score [unchanged since last year]. Scores are elevated among Central residents, those 66 or older, Whites and the most formally educated respondents.)
- **Household products such as cleaning fluids, detergents, paints, degreasers and bleaches** (69% perceived contributor to stormwater pollution [unchanged since last year], 17% “serious” [down from 19%] – resulting in a 4.6 average score [unchanged since last year]. There are relatively few differences based on geography [lower only in the South zip]. Instead, residents 66+, non-Hispanics and the most formally educated are likelier to perceive these items as a “serious” contributor to stormwater pollution.)

- **Household trash and bulky items like mattresses, sofas and tires** (66% perceived contributor to stormwater pollution [down from 69% last year], 15% “serious” [down from 19%] – resulting in a 4.4 average score [down from 4.6]. East region residents, women, the oldest respondents and Whites are more likely to indicate higher average scores.)
- **Copper from brake pads made with copper** (54% perceived contributor to stormwater pollution [down from 57% last year], 8% “serious” [down from 10%] – resulting in a 3.9 average score [down from 4.0 last year]. Nearly one-half [46%] indicate the copper brake pads are a non-contributor to stormwater pollution.)
- **Animal waste from household pets** (52% perceived contributor to stormwater pollution [down from 59% last year], 10% “serious” [unchanged] – resulting in a 3.8 average score [down from 4.0]. Up from 41% last year, 48% perceive that animal waste is “not a problem.”)

Table 31

Rating of Various Contributors to
Stormwater Pollution Problem in Tucson Area

(5/23 N=500) (5/22 N=500) (5/21 N=500)	(5/20 N=500) (5/19 N=500) (4/18 N=500)	(5/17 N=504) (5/16 N=500)	Serious Problem (7-9)	Moderate Problem (4-6)	Not a Problem (1-3)	Average Score on 1-9 Scale
Chemicals and materials from industrial facilities						
5/23			23%	52%	25%	5.0
5/22			21%	53%	26%	4.8
5/21			26%	51%	23%	5.1
5/20			38%	42%	21%	5.5
5/19			39%	37%	25%	5.5
4/18			46%	35%	19%	5.9
5/17			45%	38%	17%	5.9
5/16			43%	40%	17%	5.9
Automotive fluids such as oil, gasoline and brake fluid						
5/23			21%	54%	25%	4.9
5/22			19%	55%	26%	4.8
5/21			24%	52%	24%	5.0
5/20			36%	45%	19%	5.4
5/19			42%	37%	22%	5.7
4/18			45%	38%	17%	5.9
5/17			44%	41%	15%	5.9
5/16			42%	42%	16%	5.9
Chemicals and materials from construction sites						
5/23			20%	53%	26%	4.8
5/22			22%	53%	25%	4.9
5/21			25%	51%	24%	5.0
5/20			35%	45%	21%	5.4
5/19			40%	40%	20%	5.6
4/18			43%	39%	18%	5.8
5/17			46%	40%	14%	6.0
5/16			40%	46%	14%	5.9
Pesticides, fertilizers and debris from lawns and gardens						
5/23			22%	50%	28%	4.7
5/22			21%	52%	27%	4.7
5/21			26%	49%	25%	5.0
5/20			35%	44%	20%	5.4
5/19			42%	35%	23%	5.6
4/18			37%	44%	19%	5.6
5/17			43%	39%	18%	5.8
5/16			36%	45%	19%	5.6
Household products such as cleaning fluids, detergents, paints, degreasers and bleaches						
5/23			17%	52%	31%	4.6
5/22			19%	50%	30%	4.6
5/21			23%	48%	29%	4.9
5/20			34%	41%	26%	5.2
5/19			40%	36%	24%	5.5
4/18			43%	39%	18%	5.8
5/17			45%	37%	18%	5.9
5/16			37%	43%	20%	5.6

-Table 31 continued on next page-

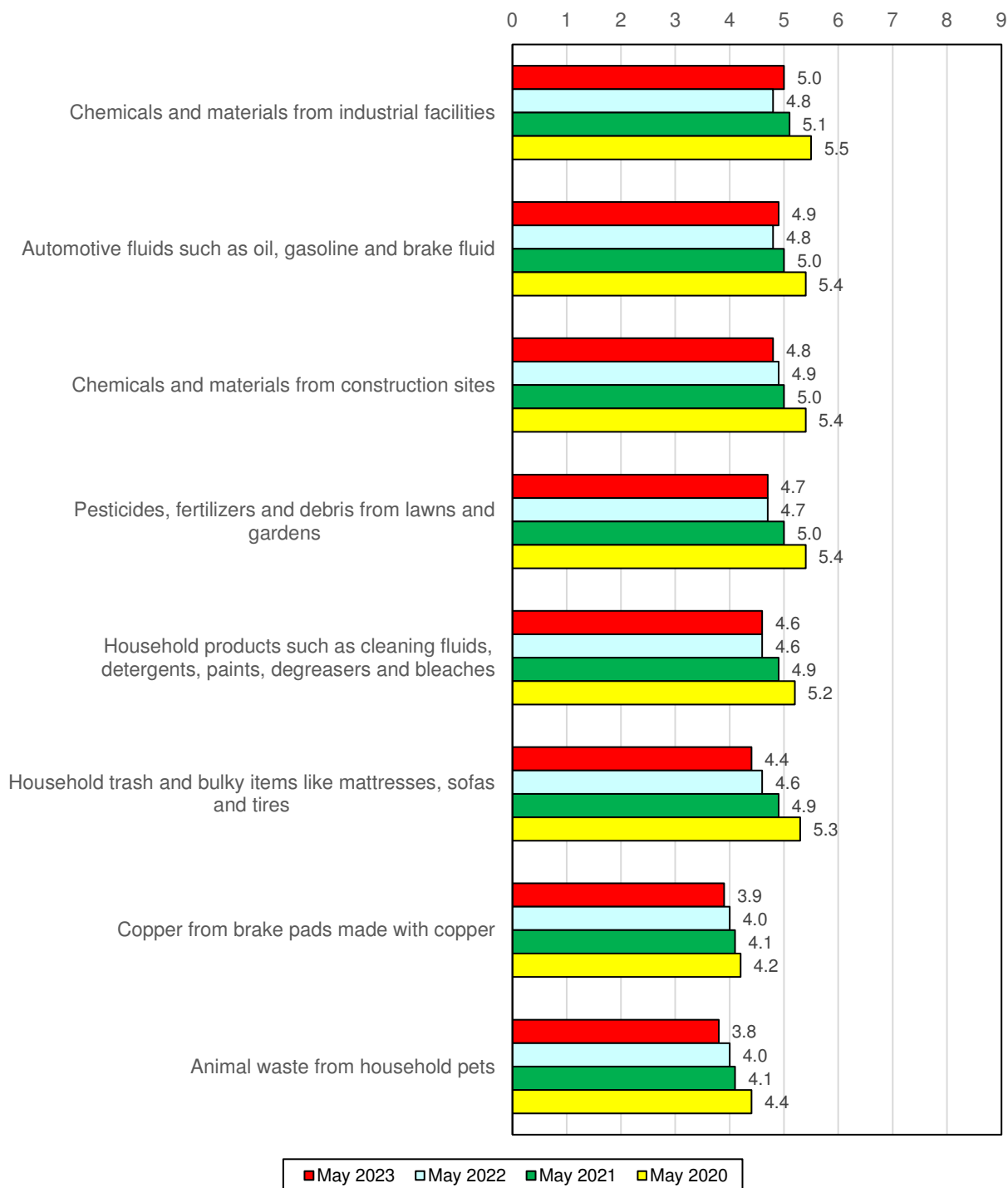
Table 31 (Cont'd)

(5/23 N=500) (5/22 N=500) (5/21 N=500)	(5/20 N=500) (5/19 N=500) (4/18 N=500)	(5/17 N=504) (5/16 N=500)	Serious Problem (7-9)	Moderate Problem (4-6)	Not a Problem (1-3)	Average Score on 1-9 Scale
Household trash and bulky items like mattresses, sofas and tires						
5/23			15%	51%	33%	4.4
5/22			19%	50%	31%	4.6
5/21			24%	50%	27%	4.9
5/20			36%	41%	23%	5.3
5/19			39%	37%	24%	5.6
4/18			42%	34%	23%	5.5
5/17			40%	37%	23%	5.5
5/16			37%	39%	23%	5.5
Copper from brake pads made with copper						
5/23			8%	46%	46%	3.9
5/22			10%	47%	42%	4.0
5/21			12%	47%	41%	4.1
5/20			18%	43%	39%	4.2
5/19			17%	41%	42%	4.2
4/18			22%	41%	38%	4.3
5/17			21%	42%	37%	4.5
Animal waste from household pets						
5/23			10%	42%	48%	3.8
5/22			10%	49%	41%	4.0
5/21			13%	48%	39%	4.1
5/20			22%	39%	39%	4.4
5/19			20%	39%	41%	4.3
4/18			26%	41%	33%	4.7
5/17			25%	41%	34%	4.7
5/16			26%	41%	33%	4.7

Question: Using the same “1-to-9” scale – where “9” means “a serious problem” and “1” means “not a problem” - how much do you think each of the following contributes to the problem of stormwater pollution in the Tucson area? You can give me any number between “1” and “9.”

Display 31

**Rating of Various Contributors to
Stormwater Pollution Problem in Tucson Area**
(By Average Score on 1-9 Scale)



Government Entity to Call If Witness Someone Dumping Trash or Chemicals in a Storm Drain – Progressively more continue to say they **don't know** who they would contact if they saw someone dumping trash or chemicals in a storm drain. In 2020, the “don't know” percentage was 24%. It is now 35% in the 2023 survey, representing incremental annual increases. There are few differences based on stormwater perception problem or geography in the current study (somewhat lower only in the Central zip). Hispanics and the oldest (66+) respondents are most likely to say they do not know who to contact.

Three of ten (29%) say they would call **911/the police department**. This is the lowest total recorded since 2017 (down from 34% in the last two surveys). These tend to be East region residents, 36 to 45 year-olds and non-Whites.

Other government-related departments or agencies that residents would contact to report storm drain dumping include:

- **City government** (13%, up from 11% last year. These tend to be Central residents and 46 to 55 year-olds.)
- **Water department** (11%, down from 13%. There are few differences based on area of residence [slightly higher in the South zip] – with some increased mentions among Whites and the most formally educated respondents.)
- **Health department** (9%, down from 11%. Northwest residents and those 45 or younger among those more likely to say they would call the health department.)
- **County government** (8%, down from 10% last year. These tend to be Central region residents and Whites.)
- **Sanitation department** (8%, down from 11%. These are more likely to be Northwest or Central region residents.)

A few others say they would call Environmental services/Environmental Quality/PDEQ (4%), a government agency (3%), the fire department (3%) and/or the Flood Control district (2%).

Consistent with past years, just a few (3%) indicate they would **not report** storm drain dumping.

Table 32

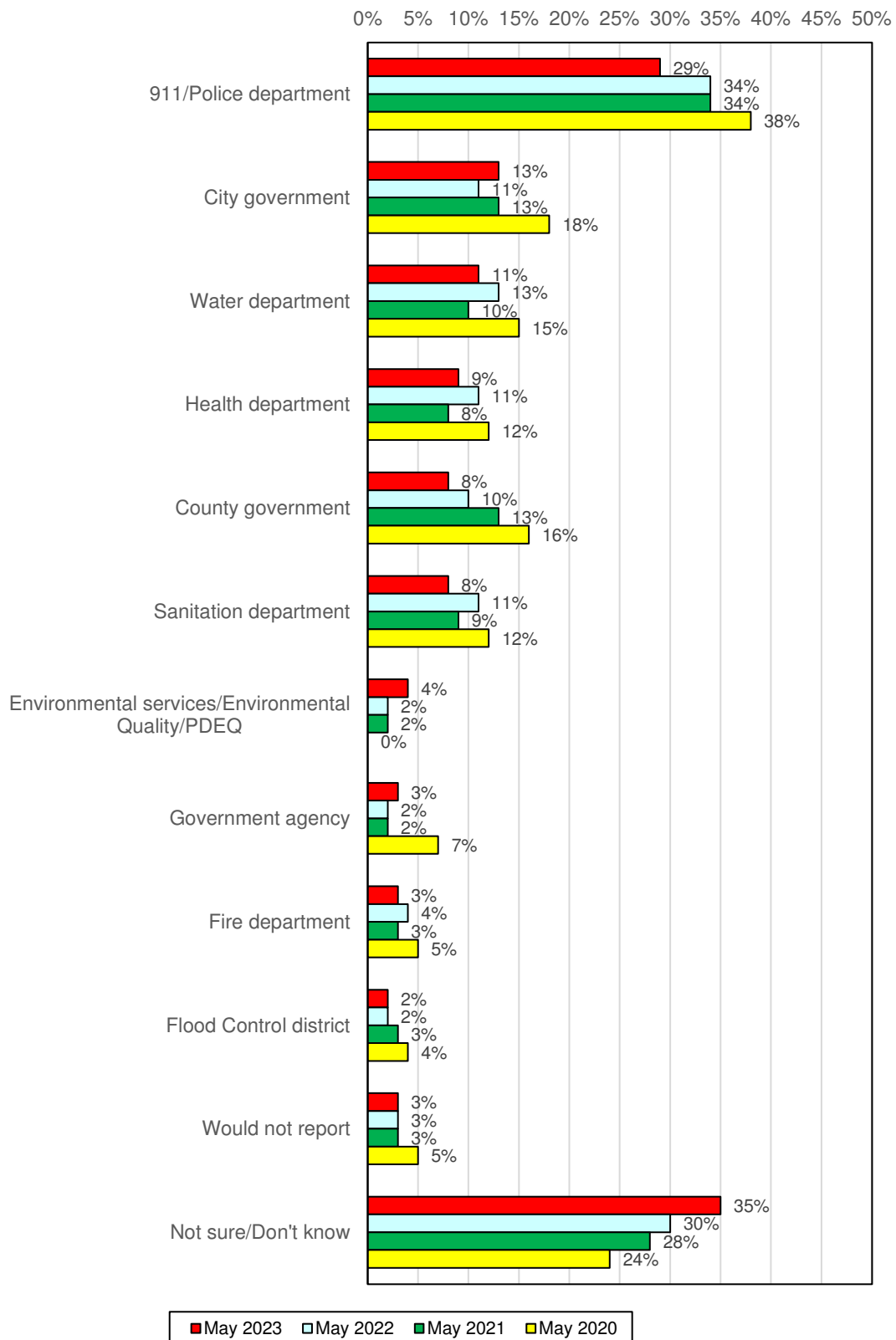
**Government Entity to Call If Witness Someone
Dumping Trash or Chemicals in a Storm Drain**

	05/16 Total	05/17 Total	04/18 Total	05/19 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total
911/Police department	31%	29%	31%	37%	38%	34%	34%	29%
City government	8%	12%	16%	15%	18%	13%	11%	13%
Water department	13%	14%	13%	11%	15%	10%	13%	11%
Health department	11%	13%	9%	8%	12%	8%	11%	9%
County government	10%	11%	14%	12%	16%	13%	10%	8%
Sanitation department	11%	13%	10%	9%	12%	9%	11%	8%
Environmental services/ Environmental Quality/PDEQ	–	–	–	–	0%	2%	2%	4%
Government agency	3%	9%	6%	5%	7%	2%	2%	3%
Fire department	2%	4%	2%	1%	5%	3%	4%	3%
Flood Control district	–	–	–	1%	4%	3%	2%	2%
Would not report	3%	5%	3%	2%	5%	3%	3%	3%
Not sure/Don't know	30%	30%	22%	28%	24%	28%	30%	35%
	N=500	N=504	N=500	N=500	N=500	N=500	N=500	N=500

	Area				Stormwater Pollution Problem		
	South	Northwest	Central	East	Serious Problem	Moderate Problem	Not a Problem
911/Police department	27%	30%	29%	33%	25%	31%	30%
City government	13%	11%	16%	11%	11%	13%	14%
Water department	13%	9%	10%	10%	11%	10%	15%
Health department	7%	13%	10%	6%	6%	11%	6%
County government	10%	6%	13%	0%	13%	6%	9%
Sanitation department	7%	11%	10%	1%	12%	7%	8%
Environmental services/ Environmental Quality/PDEQ	4%	4%	6%	1%	5%	4%	4%
Government agency	2%	3%	5%	0%	6%	2%	1%
Fire department	2%	5%	2%	0%	4%	3%	0%
Flood Control district	2%	2%	3%	1%	3%	2%	2%
Would not report	6%	1%	3%	1%	1%	3%	8%
Not sure/Don't know	37%	34%	31%	37%	32%	36%	35%
	N=164	N=151	N=115	N=70	N=107	N=313	N=80

Question: If you saw someone dumping trash or chemicals into a storm drain or a wash and wanted to report them, who would you call to report the incident?

Display 32 Government Entity to Call If Witness Someone Dumping Trash or Chemicals in a Storm Drain



Typical Methods of Handling Pet and Animal Waste – Pet and animal waste disposal methods have remained generally consistent for the last three surveys. Most (56%) continue to say that typically dispose of pet and animal waste by **placing it in the garbage for disposal**. Use of the garbage is lower only in the East region (43% versus 55%-62% elsewhere) – and elevated among women, 36 to 45 year-olds and high income households.

As we have found in the last two surveys (and allowing for one or more survey responses), one of ten use the following methods to get rid pet and animal waste:

- **Leave waste to decompose on grass or soil** (11% versus 10%-12% in 2021-2022. These are more apt to be 16 to 45 year-olds and non-Whites – with few differences based on geography.)
- **Flush down the toilet** (10% versus 9%-10% in 2021-2022. Incidence of usage is higher among South zip code residents, women and 36 to 45 year-olds.)

Once again, a few others indicate that they handle pet and animal waste by leaving it to decompose on paved surfaces (3%) and/or dumping in a ditch or storm drain (2%).

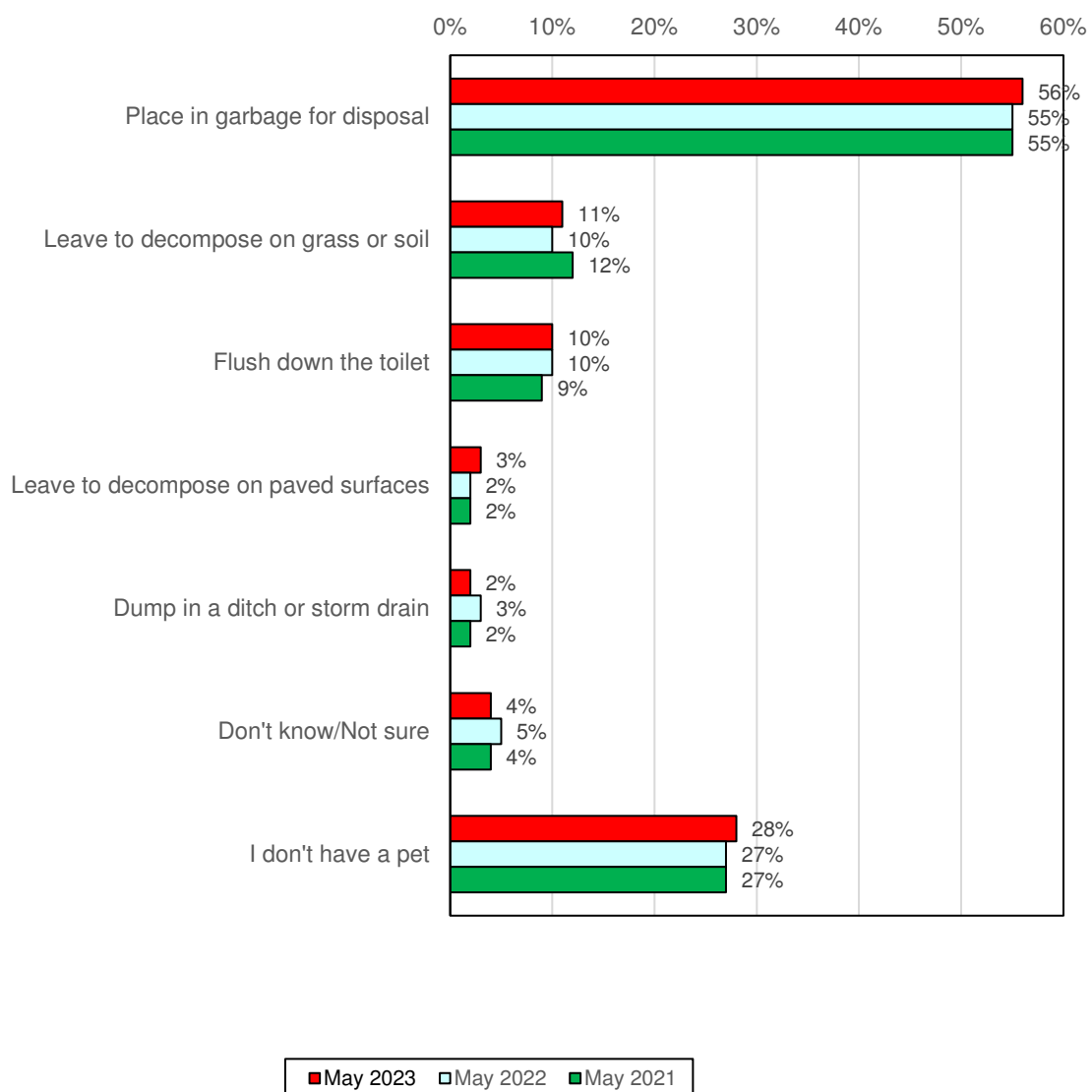
In line with the last two surveys, 28% say that they **do not own a pet**.

Table 33 Typical Methods of Handling Pet and Animal Waste

	05/21 Total	05/22 Total	05/23 Total	Area				Stormwater Pollution Problem		
				South	Northwest	Central	East	Serious	Moderate	Not
Place in garbage for disposal	55%	55%	56%	56%	62%	55%	43%	59%	56%	49%
Leave to decompose on grass or soil	12%	10%	11%	10%	11%	10%	11%	10%	11%	10%
Flush down the toilet	9%	10%	10%	14%	7%	11%	3%	9%	9%	14%
Leave to decompose on paved surfaces	2%	2%	3%	2%	2%	3%	4%	4%	3%	1%
Dump in a ditch or storm drain	2%	3%	2%	3%	1%	1%	0%	2%	1%	2%
Don't know/Not sure	4%	5%	4%	2%	4%	4%	7%	3%	4%	4%
I don't have a pet	27%	27%	28%	27%	26%	26%	37%	25%	27%	36%
	N=500	N=500	N=500	N=164	N=151	N=115	N=70	N=107	N=313	N=80

Question: If you have a pet, which of the following best describes how you typically handle pet and animal wastes?

Display 33 Typical Methods of Handling Pet and Animal Waste



Likelihood of Taking Part in Various Activities to Help Keep Stormwater Clean –
Compared to last year, more residents are “very likely” to take part in the following activities to help keep stormwater clean:

- **If you have a dog, using a doggie bag to clean up after them** (73% “very likely,” up from 65% in 2022 [and the highest total recorded since 2018]. These tend to be women, residents 46 or older, Whites and higher income households – with few differences based on geography [somewhat lower only in the East zip codes.]
- **Safely dispose of chemicals** (66% “very likely,” consistent with 2020-2022 findings [63%-67%]. Northwest residents, those 56 or older and Whites are even more apt to be highly likely to safely dispose of chemicals.)
- **Report a spill** (49% “very likely,” up from 47% last year. Somewhat lower only in the East region [44% versus 48%-52% elsewhere], and higher among residents 46 or older and Whites.)
- **Replace a toxic compound with a non-toxic compound** (47% “very likely,” up progressively and incrementally from 42% in 2021. These are more likely to be Northwest or South region residents and respondents 46 or older. Few differences with respect to ethnicity.)

Down just slightly from 44% in 2021, 41% indicate they are “very likely” to **gather stormwater to use for watering plants**. Northwest zip code residents, 36 to 55 year-olds and Hispanics are especially highly likely to take this action to help keep stormwater clean.

As we found last year, two-thirds are likely (to some extent) to **install Green Infrastructure**. This includes a progressive and incremental uptick in the percentage who are “very likely” (from 23% in 2021 to 27% now). Those highly likely to install Green Infrastructures tend to be South region residents, men, 26 to 35 or 46 to 55 year-olds and Hispanics.

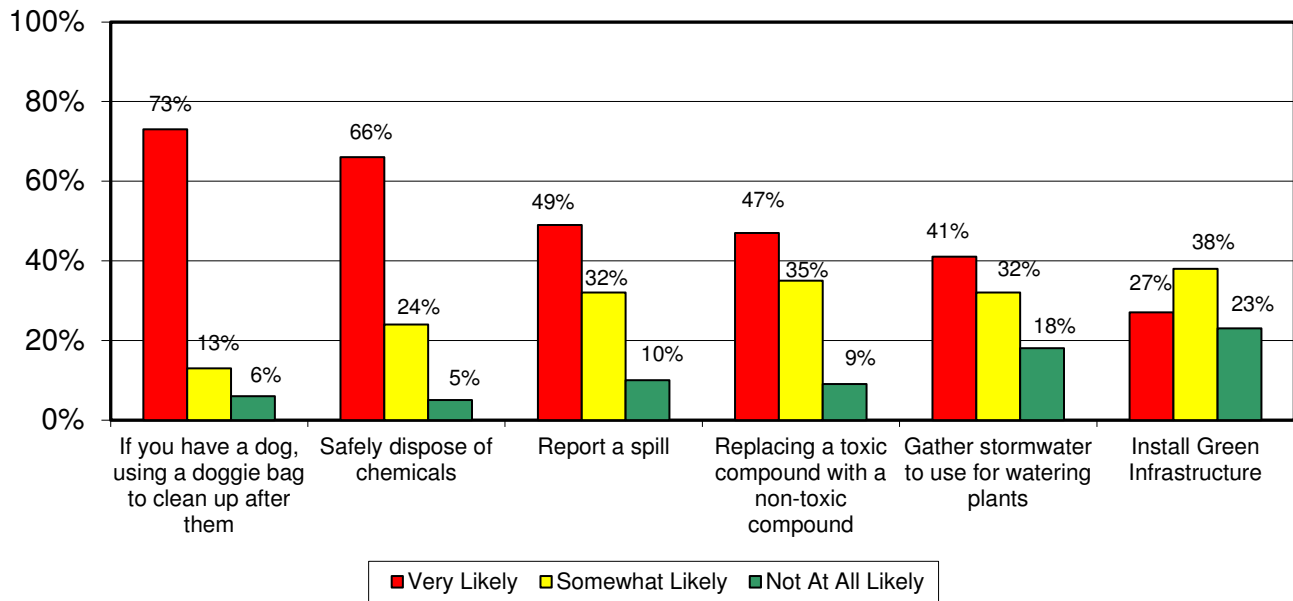
Table 34

Likelihood of Taking Part in Various Activities
To Help Keep Stormwater Clean

	05/17 Total	04/18 Total	05/20 Total	05/21 Total	05/22 Total	05/23 Total	Area			
							South	North- west	Central	East
If you have a dog, using a doggie bag to clean up after them										
Very likely	80%	77%	67%	69%	65%	73%	71%	74%	77%	66%
Somewhat likely	11%	12%	16%	14%	20%	13%	15%	11%	12%	13%
Not at all likely	4%	4%	8%	5%	7%	6%	6%	8%	4%	4%
Don't know/Not sure	4%	6%	9%	12%	8%	9%	7%	7%	7%	17%
Safely dispose of chemicals										
Very likely	75%	77%	67%	63%	65%	66%	67%	70%	64%	57%
Somewhat likely	19%	18%	23%	23%	22%	24%	23%	20%	24%	34%
Not at all likely	4%	4%	8%	5%	7%	5%	6%	5%	5%	3%
Don't know/Not sure	2%	1%	3%	8%	6%	6%	4%	6%	7%	6%
Report a spill										
Very likely	60%	62%	54%	48%	47%	49%	52%	50%	48%	44%
Somewhat likely	29%	28%	29%	31%	34%	32%	33%	33%	31%	26%
Not at all likely	9%	8%	10%	10%	10%	10%	9%	11%	10%	13%
Don't know/Not sure	3%	3%	6%	11%	9%	9%	6%	7%	11%	17%
Replacing a toxic compound with a non-toxic compound										
Very likely	62%	62%	52%	42%	44%	47%	49%	52%	40%	40%
Somewhat likely	22%	26%	28%	35%	36%	35%	33%	33%	41%	31%
Not at all likely	9%	7%	13%	9%	11%	9%	9%	8%	10%	11%
Don't know/Not sure	6%	5%	8%	15%	9%	9%	8%	7%	9%	17%
Gathering stormwater to use for watering plants										
Very likely	49%	50%	39%	37%	44%	41%	42%	46%	37%	37%
Somewhat likely	29%	30%	35%	31%	31%	32%	31%	30%	35%	34%
Not at all likely	19%	17%	20%	21%	19%	18%	20%	17%	17%	16%
Don't know/Not sure	3%	4%	6%	12%	6%	9%	7%	7%	10%	13%
Install Green Infrastructure										
Very likely	33%	37%	24%	23%	25%	27%	34%	25%	24%	20%
Somewhat likely	33%	35%	36%	37%	40%	38%	37%	43%	35%	33%
Not at all likely	21%	18%	26%	21%	20%	23%	20%	22%	24%	33%
Don't know/Not sure	13%	10%	15%	19%	14%	12%	10%	10%	17%	14%
	N=504	N=500	N=500	N=500	N=500	N=500	N=164	N=151	N=115	N=70

Question: I am now going to read you a list of activities that people can do to help keep stormwater clean. As I read each activity, simply tell me how likely you would be to take part – very likely, somewhat likely or not at all.

Display 34 Likelihood of Taking Part in Various Activities to Help Keep Stormwater Clean



**EVALUATION OF THE 2022-2023
PIMA COUNTY CLEAN AIR PROGRAM CAMPAIGN AND
CLEAN WATER PROGRAM CAMPAIGN SURVEY**

(May 2023)

Appendix

**Survey
Methodology
and Sample
Selection**

This survey consists of a 500-person, randomly-selected and statistically-projectable sample of the 16 years and older male and female residents in designated Pima County zip code areas. This study utilized a dual-methodology sampling plan, with Telephone (N=250) and Internet (N=250) interviews.

All Telephone and Internet interviews were conducted during May 2023. Regardless of the sample source, the survey instrument and screening criteria were identical. Neither the interviewer nor the interviewee had any knowledge of the study sponsor.

Telephone Interviews – The Telephone interviews were distributed on the basis of geographic population density in the market, with specific steps taken to ensure a proportionate number of interviews in each survey “region.” The sample distribution in each region was developed using recent population estimate projections. The final in-tab geographic proportions are reflective of these actual population estimates. A similar sampling plan (based on household distribution) was also developed to ensure the ethnic composition of the final sample was as close as possible to actual proportions in Pima County.

Telephone respondents included in this survey were selected through a random sampling procedure that allows equal probability of selection. This technique ensures that area residents who are not yet listed in a telephone directory (or choose not to be listed) are still eligible for selection. All interviews were conducted and validated by the FMR Field staff. Each Telephone interview lasted approximately 15 minutes.

Cell Phone Only Households – To address “cell phone only” households (households without a land line that utilize a cell phone exclusively), FMR interviewers manually dialed randomly-generated cell phone numbers (based on known cell phone exchanges) and attempted to interview these households for the Telephone portion of the survey. Potential respondents reached through manual dialing were given three options: to proceed with the interview using their cell phone provider’s calling plan minute allocations; allow for a call-back at a mutually arranged time on a land line; or to call the cell phone back when minutes are “free” (i.e., weekends, evenings, etc.).

Internet Interviews – Online surveys were conducted via the Internet utilizing a questionnaire administered by FMR Associates and hosted on an independent website partner of FMR Associates (with completed surveys downloaded directly to FMR for data processing and analysis). Respondents were contacted through a third party database Internet panel company that emailed invitations to their “opt in” panelists who reside in Pima County. Each Internet interview lasted approximately 13 minutes.

Spanish-Language Interviews – Where relevant, respondents were asked if they preferred their survey to be conducted in English or Spanish. A Spanish-language version of the survey was developed by FMR Associates, and made available to both Telephone and Internet respondents. A total of 165 non-White respondents were interviewed in the project, including 130 Hispanics. Overall, 9 respondents (2%) requested that their survey be conducted in Spanish by a bilingual interviewer. This is identical to the 2022 survey.

Statistical Reliability

The statistics in this report are subject to a degree of variation that is determined by sample (or sub-sample) size. All research data are subject to a certain amount of variation for this reason. This does not mean that the figures represented in the various tables are wrong. It means that each percentage represents a possible “range” of response. This is because the random sampling process, as well as human behavior itself, can never be perfect. For this sample, at N=500, the statistical variation is $\pm 4.5\%$ under the most extreme circumstances – with a 95% confidence level. That is, when the percentages shown in the tables are near 50% (the most conservative situation), the actual behavior or attitude may range from 45.5% to 54.5%. The 95% confidence level means that if the survey were repeated 100 times, in 95 cases the same range of response would result. Those percentages that occur at either extreme (for example, 10% or 90%) are subject to a smaller degree of statistical fluctuation (in this case, $\pm 2.7\%$).

Sub-samples, such as age groups or sex, have a higher degree of statistical fluctuation due to the smaller number of respondents in those groupings.

Confidence Intervals for a Given Percent
(at the 95% confidence level)

N (Base for %)	Reported Percentage				
	10 or 90%	20 or 80%	30 or 70%	40 or 60%	50%
500	2.7%	3.6%	4.1%	4.4%	4.5%
400	2.9%	3.9%	4.5%	4.8%	4.9%
300	3.3%	4.5%	5.1%	5.5%	5.7%
200	4.2%	5.5%	6.4%	6.8%	6.9%
100	5.9%	7.8%	9.0%	9.6%	9.8%
50	8.3%	11.1%	12.7%	13.6%	13.9%
25	11.8%	15.7%	18.0%	19.2%	19.6%

Example: If the table shows that 20% of all respondents (when N=500) have a positive or negative attitude about a question category, the chances are 95 out of 100 that the true value is 20% ± 3.6 percentage points; that is, the range of response would be 16.4% to 23.6%.

Significance of Difference Between Percentages
(at the 95% confidence level)

Average of the Bases of Percentages Being Compared	Reported Percentage				
	10 or 90%	20 or 80%	30 or 70%	40 or 60%	50%
400	4.4%	5.6%	6.5%	7.1%	7.2%
250	5.2%	7.1%	8.1%	8.6%	8.8%
200	5.9%	7.8%	8.9%	9.6%	9.8%
150	6.8%	9.1%	10.3%	11.0%	11.3%
100	8.3%	11.0%	12.7%	13.6%	13.9%
50	11.7%	15.7%	18.0%	19.2%	19.7%
25	16.7%	22.2%	25.5%	27.2%	27.7%

Example:
(Within Survey)

If a table indicates that 34% of Internet respondents have a positive attitude toward a category of response, and that 25% of Telephone respondents have the same attitude, the following procedure should be used to determine if this attitude is due to chance:

The average base is 250 for the reported percentages $(250+250)/2=250$. The average of the percentages is $30.0\% - 34+25)/2=29.5\%$. The difference between the percentages is 9%. Since 9% is greater than 8.1% (the figure in the table for this base and this percentage), the chances are 95 out of 100 that the attitude is significantly different between Internet and Telephone respondents.

2023 PIMA CLEAN AIR/CLEAN WATER REGION DEFINITIONS

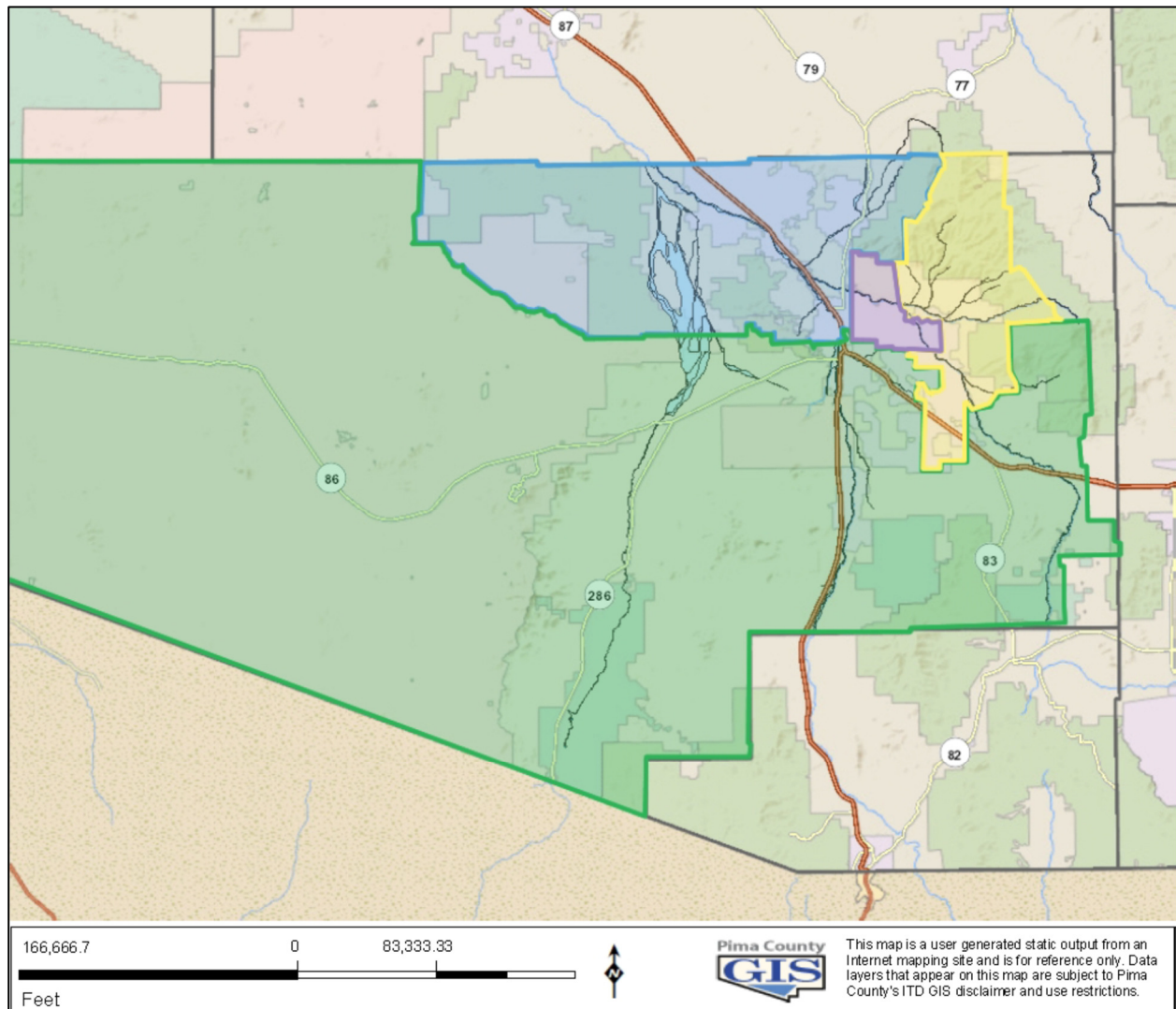
Northwest: 85653
85654
85658
85704
85705
85737
85739
85741
85742
85743
85745
85755

Central: 85710
85711
85712
85716
85718
85719

South: 85321
85614
85622
85629
85634
85641
85701
85706
85707
85708
85713
85714
85735
85736
85746
85756
85757
85341
85601
85633
85639
85645

East: 85619
85715
85730
85747
85748
85749
85750

2023 Pima Clean Air/Clean Water Region Definitions – Map



Blue = Northwest
Purple = Central
Yellow = East
Green = South



**EVALUATION OF THE 2022-2023 PIMA COUNTY
CLEAN AIR PROGRAM CAMPAIGN
AND
CLEAN WATER CAMPAIGN SURVEY**

(May 2023)

Executive Summary

Prepared for:

PIMA COUNTY DEPARTMENT OF
ENVIRONMENTAL QUALITY

Tucson, Arizona

Prepared by:

FMR ASSOCIATES, INC.

Tucson, Arizona

Copyright, FMR Associates, Inc., 2023

**EVALUATION OF THE 2022-2023 PIMA COUNTY
CLEAN AIR PROGRAM CAMPAIGN AND
CLEAN WATER CAMPAIGN SURVEY**
(May 2023)

Executive Summary

Methodology Overview and Tracking – This annual tracking study, conducted on behalf of the Pima County Department of Environmental Quality (PDEQ), is comprised of a 500-person, randomly-selected and statistically-projectable sample of adult (16 or older) residents of Pima County, Arizona. Once again, the study was conducted utilizing a dual-sample methodology, divided equally between Telephone interviews and Internet surveys (250 each).

This survey evaluated and tracked the overall effectiveness of the “Clean Air” Program after 33 campaign sessions. For the eleventh year, the study also measured and tracked key issues related to the management, perceptions, behaviors and actions impacting stormwater quality for PDEQ’s “Clean Water” Program.

The Telephone and Internet survey instruments and screening criteria for each methodology were identical. A Spanish-language version of the final questionnaire design was prepared and made available to both Telephone and Internet survey respondents. The survey was fielded during May 2023.

Telephone respondents were selected through a random sampling procedure that allows equal probability of selection. Telephone interview respondents were further randomized by interviewing only “the member of the household who is 16 or older and most recently celebrated a birthday.” There was only one Telephone interview conducted per household.

Internet surveys were hosted on an independent website. Potential online survey participations were contacted through a third-party database Internet panel sample company that emailed invitations to their “opt in” panelists who reside in Pima County zip codes.

Both Telephone and Internet surveys were distributed on the basis of geographic population density in Pima County, with specific steps taken to ensure a proportionate number of interviews (based on population estimates) in each of four zip code-defined survey “regions” (Northwest, Central, South and East). The composition of the 2023 sample is once again highly representative of these quotas: 33% South, 30% Northwest, 23% Central and 14% East.

Awareness of the Pima County “Clean Air” Program – Four of ten in the 2023 survey indicate awareness of the Pima County “Clean Air” Program. This compares to 41%-42% since 2020. As we found last year, Central zip residents and 56 to 65 year-olds indicate increased program awareness. There is also increased awareness among the most formally educated respondents (with at least some work towards an advanced degree). Awareness is marginally higher among Whites as compared to Hispanics (43% versus 36%, respectively). Once again, awareness of the “Clean Air” Program is directly related to the perception of a progressively more serious air quality problem and among those who live in households impacted by a breathing-related medical condition.

Awareness of Various Clean Air Events or Activities – Consistent with the last two surveys, about three of four respondents (74%) indicate that they are familiar with at least one event or activity to promote clean air in the Tucson area.

Once again, the most familiar event evaluated is the **Earth Day Festival** (60%, up incrementally from 51% in 2021 and 55% in 2022). Awareness is marginally lower only in the South zips (56% versus 61%-64% elsewhere).

Awareness of two other events has increased since last year, including:

- **Walk and Roll to School Week** (34% familiarity, up from 31% in 2022 [but still lower than 41%-46% in 2019-2021]. East region residents indicate increased awareness of this event.)
- **Cyclovia** (29% familiarity, up progressively from 2022 [25%] and 2021 [20%] levels. Awareness is higher in the Central or East regions.)

Nearly three of ten are aware of **Car-Free Day** (28%, down slightly from 31% last year). These tend to be Central zip residents.

Awareness of the remaining events is somewhat lower than we found last year:

- **Travel Reduction Program** (24%, down from 28% in 2022. Increased awareness among Central residents.)
- **“This Is Clean Air” Challenge** (24%, down from 30% in 2022. Those more highly familiar tend to live in the Central region.)
- **“Healthy Air Is In Our Hands Drive-Less Pledge”** (20%, down from 26% in 2022. Awareness is lower only in the South zips [17% versus 21%-24% elsewhere].)
- **“Cut Down Pollution” lawn & garden program** (20%, down just slightly from 2022 [the first year this event was tested]. Awareness is consistent regardless of geography.)

Clean Air Campaign Event Participation and Actions Taken – Among the 74% of respondents familiar with at least one “Clean Air” campaign event, 15% report that they (or someone in their household) participated in at least one such activity. This is identical to last year (but higher than the 12% we found in 2021). The event participation rate is higher in the Central and Northwest regions and among 16 to 45 year-olds, Hispanics and residents who think Tucson has a “major” air quality problem.

Among the 15% of respondents who indicate past participation in a “Clean Air” event or activity, eight of ten indicate they have changed (or are considering changing) their daily routine or behaviors to help improve air quality. This is highly consistent with last year (82%). Among the total N=500 survey sample, this means that 9% overall indicate a change in their behavior after participating in a “Clean Air” Program event. This is identical to the 2022 study.

Opinion of Activities/Events – Eight of ten (81%) familiar with at least one “Clean Air” event indicate a favorable opinion towards “events and activities that encourage people to use other modes of transportation or work from home instead of driving alone.” This is up slightly from 2022 (78%). However, the percentage “very favorable” in the last three surveys (37%-40%) remains much lower than we found between 2017 and 2020 (47%-52%). Still, just 11% are negative to any degree (including just 3% “not at all favorable”). The balance (9%) have no strong opinion. Survey respondents with a “very favorable” opinion of such activities and events are more apt to be East zip code residents. The few residents with a negative opinion (once again) tend to be those who think that Tucson has a “minor” air quality problem.

Steps Taken to Reduce Air Pollution – As we have found since 2020, 47% of respondents indicate they have **generally reduced driving** to help reduce air pollution in the Tucson area. Importantly, the incidence of driving less to reduce air pollution in the current survey is (once again) relatively consistent regardless of geography (slightly lower only in the South zips).

Other steps taken to help reduce air pollution include:

- **Keep tires properly inflated** (24%, down incrementally from 29% in 2021. Lower only in the Central zips [16% versus 26%-28% elsewhere].)
- **Carpool/Less driving alone** (22%, nearly unchanged from 23% last year. There are relatively few differences based on geography.)
- **Keep car tuned** (22%, down incrementally from 28% in 2021. South zip residents are more apt to have taken this action.)
- **Avoid excessive idling** (15%, rebounding to 2021 levels. Higher in the South or Central zip codes.)

- **Walked instead of drove/Walk more** (12%, representing incremental improvement from 2021 [4%] and 2022 [7%]. Lower only in the South region [7% versus 14%-15% elsewhere].)
- **Planted trees** (12%, consistent with the last two years [12%-13%]. These tend to be Northwest residents.)
- **Bought and used bicycles** (9%, consistent with 2021 [8%] and 2022 [10%] levels. Usage is higher in the Northwest region.)
- **Bought more fuel-efficient car** (9%, unchanged since last year.)

Overall, 7% say they have **chosen once a week not to drive** – down incrementally from 17% back in 2020. Among the rest, others are **using their BBQ grill less** (7%, unchanged from last year), **living (or moved) closer to work** (unchanged at 6%), **using their fireplace/wood stove less** (4%, down from 5%), **purchased battery-powered lawn mower/lawn & garden equipment** (4%, down from 5%) and/or **used public transportation** (4%).

Up slightly from the last two surveys (15% each), 16% say they are doing **nothing** to reduce air pollution.

School Materials Recall Among Children 5-18 – As we have found in recent surveys (27%-32%), three of ten indicate that they have children between the ages of 5 and 18 living in their household. Households with school-aged children are more likely to be found in the South region and among 36 to 45 year-olds and non-Whites.

Among Pima County households with school-aged children ages 5 to 18, 37% report that these young children “talked about or brought home materials from school about improving air quality.” This is up slightly from 35% in the last two surveys. School materials recall is elevated in the Northwest or Central zips.

Gasoline-Powered Lawn Mower Usage – One of ten respondents indicate that they or someone in their household use a gasoline-powered lawn mower to care for their home property. This is up slightly from 8%-9% in recent years. Reported usage is lower only in the Central zips (6% versus 10%-13% elsewhere). Average monthly usage of these gas-powered mowers is 43 minutes.

Gasoline-Powered Lawn & Garden Equipment Usage – Overall, 14% indicate they or someone in their household use other gasoline-powered lawn & garden equipment (such as a leaf blower, string trimmer, chainsaw, hedge trimmers, etc.) to care for their home property. This compares to 12% last year (the first time this question was asked). Similar to lawn mowers, lawn & garden equipment usage is lower only in the Central zips (10% versus 13%-17% elsewhere). Average monthly usage of other gas-powered lawn & garden equipment is 52 minutes.

Statement Evaluations – The following is a tracking summary of the percentage of agreement with a series of statements related to various PDEQ clean air programs and air pollution.

PDEQ and Sun Tran Awareness –

- **You are aware that Sun Tran buses and streetcar have been free for the last three years** (62% agreement, down from 67% last year [the first time this statement was evaluated]. Once again, agreement is highest in the Central zips.)
- **You are aware of the Pima County Department of Environmental Quality (PDEQ)** (After an increase last year [57%], awareness [52% in 2023] has returned nearer to 2021 levels [51%]. Northwest or Central region residents indicate increased PDEQ awareness.)

PDEQ Program Awareness –

- **You have seen or heard information about the importance of keeping your tires properly inflated** (78% agreement, representing a slight uptick from 2022 [77%]. Once again, agreement is strong regardless of geography [highest in the Northwest zips].)

Air Pollution Evaluations –

- **You are aware that the majority of our air pollution comes from motor vehicle use** (74% agreement, highly consistent with 2020-2022 findings [75%]. As we found last year, awareness is consistently strong across geography [highest once again in the Central zips].)
- **You have seen or heard information that vehicle engine idling causes air pollution** (72% agreement, very consistent with the last three surveys [71%-73%]. Northwest or Central residents are more likely to agree with this statement.)
- **You have seen or heard information on how to reduce your own air pollution emissions** (63% agreement, up from 61% last year [the first time this statement was tested]. Awareness is higher among residents in Northwest or Central regions.)
- **You are aware of air pollution advisories in Pima County** (62% agreement, down from 69% last year. Recall is highest in the Northwest and Central zip codes.)
- **You drive less because you want to reduce your own air pollution contribution** (One-half agree. This compares to 55% agreement last year with the statement tested between 2016-2022, “Because you want to reduce air pollution, you are generally driving less.”)

- **You are aware of how to access real-time air quality data** (38% agreement, up slightly from 37% last year [the first time this statement was included in the survey]. These tend to be Northwest residents.)

Travel Behavior for Shopping – Highly consistent with last year, 57% indicate that they usually **drive alone** to go shopping. Similarly, usage levels of alternative modes for shopping transportation remains generally unchanged from 2022: **carpool** (with 1 to 4 other adults) (24%), **bus/other public transit** (6%), **walking/mobility device** (4%), **ride service** (such as Uber or Lyft) (2%), **drive an electric vehicle** (2%), **bicycle/ebike/scooter** (2%) and **vanpool** (with 5 or more adults) (1%).

Travel Behavior for Leisure Purposes – More in the 2023 survey indicate that they generally **drive alone** (42%) than **carpool** (with 1 to 4 other adults) (38%) for leisure purposes (“such as dining out, meeting with friends, going to the movies, going to the gym, etc.”). This pattern is more consistent with 2019-2021 findings. In 2022, a few more were leisure carpoolers (43%) than single-occupant drivers (38%). Usage of alternative leisure travel methods is about the same or slightly lower than last year: **bus/other public transit** (6%), **walk/mobility device** (3%), **ride service** (such as Uber or Lyft) (3%), **bicycle/ebike/scooter** (2%), **electric vehicle** (2%) and **vanpool** (1%).

Perceived Seriousness of Air Quality Problem in Tucson Area – Consistent with the last four surveys, two of ten perceive that the Tucson area has a “major” air quality problem. Most continue to rate the air quality problem as “moderate” (53%), while the balance (28%) think it is a “minor problem” (20%) or have no opinion (8%). This profile is highly consistent with the past two years.

The perception of a “major” air quality problem is generally consistent regardless of geography (slightly higher in the Central zip) and higher among 46 to 55 year-olds and the newest Pima County residents (for less than five years). There are few differences between Hispanics and Whites. Residents who perceive a progressively more severe stormwater pollution problem are (once again) more likely to think that Tucson has a “major” air quality problem. The perception of a “minor” air quality problem is again higher in the East zip codes and among men.

Work and School Commuting Behavior – When asked about their employment status, and allowing respondents to select more than one category of response, 33% say that they are employed full-time (30 hours or more each week), down just slightly from last year (34%). East area residents are more apt to be employed full-time (39% versus 30%-33% in other areas). Part-time employment is up slightly from last year (15%, up from 13%). Central or Northwest area residents are more apt to be employed part-time. Overall, 13% are unemployed, identical to last year (including those in 2022 who were furloughed due to COVID-19 at the time). Similar to 2022 findings, 23% in the current survey indicate they are retired. About one of ten each are students (7%) or homemakers (12%).

Among the 48% who work full-time or part-time, the percentage who work exclusively for a home-based business has decreased (from 18% last year to 13% now). Instead, more primarily work for another company exclusively (82%, up from 74%) rather than work for both another company and a home-based business (5%, down from 8%). Home-based businesses are less common only in the Northwest zip codes (9% versus 14%-18% in other areas).

Among full-time employees in the 2023 survey (33% of the total sample), three of four work a “standard” schedule (8 hour days, five days a week) (75%) – up from 2022 (69%) and 2021 (72%). Overall, 8% say they work 10 hour days, 4 days a week (up slightly from 7% last year), while 4% continue to indicate they work a 12-hour day, 3 or 4 days a week. In line with the past few years, very few work 80 hours over 9 days with the 10th day off (1%). Down from last year (18%), 12% say their work week varies.

With respect to alternative travel modes, a few updates were made to travel response options in the 2023 survey: “take the bus” has changed to include other forms of public transit (“take the SunTran bus or other public transit such as Sun Shuttle, Sun Van or Sunlink Streetcar”); “ride a bike” now includes “ebike” and “scooter”; walk is now “walk or use a mobility device”; and a new category was added for “use a ride service company, such as Uber or Lyft.”

Up slightly from last year (68%), but in line with pre-COVID 2020 (71%), 70% indicate that they utilize **single passenger commuting to work or school**. The average frequency is unchanged from the last two years at 4.2 days.

Alternative work/school commute travel methods tracked by this survey include:

- **Carpool/Vanpool** (31% say they are carpooling or vanpooling at least one day per week, up from last year [27%]. The average frequency of carpooling has also increased [3.3 days, up from 2.9].)
- **Work at home instead of driving to work** (Nearly three of ten indicate they telework at least one day per week [29%, up from 26%], although average frequency of use has decreased slightly [from 3.5 days to 3.4].)
- **Take the SunTran bus or other public transit such as Sun Shuttle, Sun Van or Sunlink Streetcar to work or school** (The 2023 expanded public transit category total is higher than the 2022 “take the bus” description [18%, up from 15%], but is in line with combined bus/streetcar travel last year [19%]. Average usage is 2.9 days [down slightly from 3.2 days last year].)
- **Walk or use a mobility device to work or school** (With the modified definition, 15% now report walking or using a mobility device to get to work or school [up from 12% last year]. However, the average number of days has decreased somewhat [from 3.1 to 2.8 days].)

- **Attend classes at home instead of going to school** (While the share who report attending classes at home instead of going to school has dipped slightly [from 8% to 7%], there has been an increase in the average number of days [from 2.9 to 3.4].)
- **Ride a bike to work or school** (Bike ridership [now including ebikes and scooters] to work or school has increased slightly from last year [from 8% to 9%], with an increase in frequency as well [from 1.6 to 1.9 days].)
- **Use a ride service company, such as Uber or Lyft, to work or school** (New to the survey this year, 13% indicate they utilize a rideshare service at least one day a week to go to work or school. Average frequency of usage is 1.5 days.)
- **Ride a motorcycle to work or school** (Up from last year [2%], 4% indicate they ride a motorcycle to work or school, although average frequency has dipped from 3.0 days to 2.0.)

Most Used Mode of Transportation for Work/School – Up slightly from the previous two years (49%-51%), but still lower than pre-COVID 2020 levels (59%), 54% indicate that **single-passenger vehicle commuting** is their *most-used* method of transportation.

Identical to the last two years, 16% primarily **telecommute**. Another 3% in the current survey say they primarily **attend classes from home instead of going to school**. Identical to last year, 12% are primarily **carpooling** for their commute. As we found in 2022, 7% say they most often **take the bus or other public transit**. Identical to last year, 5% primarily **walk or use a mobility device** to work or school. Overall, 2% are **riding a bike/ebike/scooter** as their primary commute mode, up from 1% last year.

Miles Traveled to Work or School – Down from last year (41%), but still higher than we found in 2021 (31%), 36% indicate they have a school or work commute of 5 miles or less. Identical to last year, another 24% say they travel between 6 and 10 miles to work or school – while 7% (down slightly from 8%) have a commute between 11 and 14 miles. Up from last year (27%), the remaining one-third travel 15 miles or more. Those in the South region are most likely to commute 15+ miles (45%). A similar share of ten East area residents say they travel 5 miles or less (45%).

Telecommuting – Among those who work outside the home, 40% indicate that they telecommute, bouncing back from a dip in 2022 (32%). Telework is higher among South or East region residents. Returning to 2021 levels, 70% of telecommuters say they work from home more than once a week (down from 83% last year). Compared to 2022 frequency patterns, 5+ day/week teleworking is steady (40%), while fewer are telecommuting two to four days per week (from 44% to 30%). Instead, more are telecommuting about once a week (22%, up from 13%).

Daily Commuter Miles Saved Through Alternate Modes – Based on the combination of results related to the modes of commuter travel and distances traveled with April 2023 employment estimates (Source: Arizona Office of Economic Opportunity), **we estimate that the 2023 reduction of single-occupant vehicles commuting through the use of alternative methods of travel saves 4,985,781 vehicle miles per day – or 44% of total miles driven/not driven.** This percentage of miles saved is identical to last year. These continued positive miles saved findings are primarily related to strong participation and/or frequency of use of alternate modes, especially carpooling and telecommuting.

2023 Estimated Number of Work/School Miles Saved Through Alternative Modes

Mode	(A) % Take Mode	(B) # Daily Commuter Trips	(C) Average Commuter Miles	(D) Total Miles Traveled	(E) Miles Driven	(E) Miles Not Driven
Drive alone	70%	404,317	12.8	5,175,258	5,175,258	-0-
Motorcycle	4%	11,002	22.3	245,345	245,345	-0-
Rideshare	13%	26,817	10.6	284,260	284,260	-0-
Carpool	31%	138,554	10.0	1,385,540	513,163	872,377
Bus/Other public transit	18%	70,549	8.9	627,886	17,940	609,946
Bike/Ebike/Scooter	9%	23,516	14.0	329,224	-0-	329,224
Walk/Mobile device	15%	56,935	3.6	204,966	-0-	204,966
Telecommute	29%	134,002	17.6	2,358,435	-0-	2,358,435
School from home	7%	32,249	13.8	445,036	-0-	445,036
Compressed workweek	8%	12,102	13.7	165,797	-0-	165,797
TOTALS:	--	910,043	--	11,221,747	6,235,966	4,985,781

- (A) From Table 26.
- (B) Based on number of work/school commuters in survey, percentage using mode and number of days/week mode used.
- (C) From Table 26c.
- (D) $(D) = (B) \times (C)$.
- (E) Carpool: based on workers average carpool/vanpool of 2.7 (from Table 26b). Bus: based on average of 35 riders/bus. Walk/bicycle/streetcar/telecommute/compressed workweek: no polluting vehicles used.

Daily Shopping/Leisure Miles Saved Through Alternate Modes – Combining trip frequency/length estimates provided by Pima Association of Governments with the “most used” methods of transportation (Tables 18/19 in our report), we can further estimate daily vehicle miles saved through the use of alternative modes for shopping and leisure purposes. As summarized in the displays below, we estimate that the reduction of single-occupant vehicles commuting through the use of alternative methods for **shopping** saves 584,018 vehicle miles per day, or 30% of total miles driven/not driven (down slightly from 32% last year). The number of **leisure** travel miles saved daily is 3,300,248 – 38% of total miles driven/not driven (down from 44% in 2022). These compare to a savings of 4,985,781 vehicle miles per day in 2023 **travel to work or school** (or 44% of total miles driven/not driven).

2023 Estimated Number of Shopping Miles Saved Through Alternative Modes

Mode	(A) % Take Mode Most Often	(B) # Daily Shopping Trips	(C) Average Shopping Miles	(D) Total Miles Traveled	(E) Miles Driven	(E) Miles Not Driven
Drive alone	57.0%	398,487	5.00	1,135,688	1,135,688	0
Rideshare	2.0%	398,487	5.00	39,849	39,849	0
Carpool/Vanpool	24.6%	398,487	5.00	490,139	181,533	308,606
Bus/Other public transit	6.2%	398,487	5.00	123,531	3,529	120,002
Walk/Mobility device	4.2%	398,487	5.00	83,682	0	83,682
Drive an electric vehicle	2.0%	398,487	5.00	39,849	0	39,849
Bicycle/Ebike/Scooter	1.6%	398,487	5.00	31,879	0	31,879
TOTALS:	--	--	--	1,944,617	1,360,599	584,018

- (A) From Table 18.
 (B) Source: Pima Association of Governments.
 (C) Source: Pima Association of Governments.
 (D) $(D) = (A) \times (B) \times (C)$.
 (E) Carpool: based on workers average carpool/vanpool of 2.7 (from Table 32b). Bus: based on average of 35 riders/bus. Walk/mobility device/bicycle/e-bike/scooter/electric vehicle: no polluting vehicles used.

2023 Estimated Number of Leisure Miles Saved Through Alternative Modes

Mode	(A) % Take Mode Most Often	(B) # Daily Leisure Trips	(C) Average Leisure Miles	(D) Total Miles Traveled	(E) Miles Driven	(E) Miles Not Driven
Drive alone	42.4%	1,518,736	5.78	3,721,997	3,721,997	0
Rideshare	3.2%	1,518,736	5.78	280,905	280,905	0
Carpool/Vanpool	39.0%	1,518,736	5.78	3,423,535	1,267,976	2,155,559
Bus/Other public transit	5.6%	1,518,736	5.78	491,584	14,045	477,539
Walk/Mobility device	3.4%	1,518,736	5.78	298,462	0	298,462
Drive an electric vehicle	2.0%	1,518,736	5.78	175,566	0	175,566
Bicycle/Ebike/Scooter	2.2%	1,518,736	5.78	193,122	0	193,122
TOTALS:	--	--	--	8,585,171	5,284,923	3,300,248

- (A) From Table 19.
 (B) Source: Pima Association of Governments.
 (C) Source: Pima Association of Governments.
 (D) $(D) = (A) \times (B) \times (C)$.
 (E) Carpool: based on workers average carpool/vanpool of 2.7 (from Table 32b). Bus: based on average of 35 riders/bus. Walk/mobility device/bicycle/e-bike/scooter/electric vehicle: no polluting vehicles used.

Final Air Quality Campaign Observations

Four of ten in the 2023 survey indicate awareness of the Pima County “Clean Air” Program. This compares to 41%-42% since 2020. As we have found in past surveys, and as noted in the comparative displays below, there continues to be a significant difference in key attitudes and behaviors related to air quality among those aware of the “Clean Air” Program (40%) and those who are not (46%).

<u>Some key differences:</u>	<u>Difference</u>	<u>“Clean Air” Program</u> <u>Aware</u> (40%)	<u>Unaware</u> (46%)
<i>Air Quality Event Awareness</i>			
• <u>“Healthy Air Is in Our Hands Drive-Less Pledge”</u>			
2023	+443%	38%	7%
2022	+340%	44%	10%
• <u>“This Is Clean Air” Challenge</u>			
2023	+400%	45%	9%
2022	+317%	50%	12%
• <u>Car-Free Day</u>			
2023	+380%	48%	10%
2022	+257%	50%	14%
• <u>Travel Reduction Program</u>			
2023	+367%	42%	9%
2022	+207%	43%	14%
• <u>“Cut Down Pollution” lawn & garden program</u>			
2023	+191%	32%	11%
2022	+278%	34%	9%
• <u>Walk and Roll to School Week</u>			
2023	+148%	52%	21%
2022	+171%	46%	17%
• <u>Cyclovia</u>			
2023	+110%	44%	21%
2022	+100%	34%	17%
• <u>Earth Day Festival</u>			
2023	+57%	77%	49%
2021	+82%	73%	40%
• <u>Participation in a “Clean Air” event</u>			
2023	+175%	22%	8%
2022	+360%	23%	5%

- ✓ **On average, there is a 252% higher awareness and/or participation in “Clean Air” events or programs among those familiar with the “Clean Air” Program (compared to 235% in 2022).**

<u>Some key differences:</u>	<u>Difference</u>	<u>“Clean Air” Program</u>	
		<u>Aware</u> (40%)	<u>Unaware</u> (46%)

PDEQ and Sun Tran Awareness

- Aware of PDEQ

2023	+167%	80%	30%
2022	+174%	85%	31%
 - Aware of Sun Tran buses and streetcar being free for the last three years

2023	+59%	78%	49%
2022	+21%	74%	61%
- ✓ **On average, there is a 113% greater awareness of PDEQ/free transit services among those aware of the “Clean Air” Program (compared to 98% in 2022).**

PDEQ Activity Understanding

- Aware of how to access real-time air quality data

2023	+164%	58%	22%
2022	+160%	52%	20%
 - Aware of air pollution advisories in Pima County

2023	+84%	83%	45%
2022	+67%	87%	52%
 - Seen or heard information on how to reduce your own air pollution emissions

2023	+55%	79%	51%
2022	+91%	82%	43%
 - Seen or heard information that vehicle engine idling causes air pollution

2023	+30%	86%	66%
2022	+43%	86%	60%
 - Seen or heard information about the importance of keeping tires properly inflated

2023	+16%	86%	74%
2022	+18%	84%	71%
 - Aware that majority of air pollution comes from motor vehicle use

2023	+10%	80%	73%
2022	+13%	80%	71%
- ✓ **On average, there is a 60% higher understanding of PDEQ activities among those aware of the “Clean Air” Program (compared to 65% in 2022).**

Once again, based on our analysis of these findings, we conclude that the Pima County “Clean Air” Program increases awareness, belief and actions related to improving air quality. Consequently, targeting those *unaware* of the program continues to be a key recommendation of this survey.

Those unfamiliar with (or unsure of) the “Clean Air” Program tend to be East zip code zone residents, 16 to 25 year-olds and non-Whites.

With respect to key messages to communicate, given continued high fuel prices, we suggest programs or educational messages that promote air quality and result in saving gas (such as tire inflation education, increased carpooling, “free” bus ridership, etc.). Social media remains a cost-effective method of promoting these messages (particularly among younger residents), accompanied (as funds allow) with targeted traditional media (such as television, print and/or radio).

Tire Inflation Education Campaign – As we found last year, 78% of residents indicate that they “have seen or heard information about the importance of keeping your tires properly inflated.” About one of four report that they are keeping their tires properly inflated to help reduce air pollution in the Tucson (24%, down slightly from 26% in 2022).

What is the direct impact of this action taken to keep tires properly inflated? In Pima County, there are an estimated 736,055 working vehicles (automobiles, vans and trucks of one-ton capacity or less for household use) (source: 2021 American Community Survey 5-Year Estimate). According to PDEQ, a vehicle will save 144 gallons of gasoline per year with properly inflated tires.

If 24% of Pima County residents are keeping their tires properly inflated, this yields an annual reduction of 25,438,061 gallons of gasoline not purchased (along with the pollutants this gasoline would release).

Stormwater Perceptions and Practices

Perception of Where Stormwater That Flows Into Tucson Storm Drains Ends Up – Similar to past surveys, respondents were told that “some streets in the Tucson area are equipped with storm drains.” Survey participants were then asked to identify where (to the best of their knowledge) water that flows into these storm drains ends up. Allowing for multiple responses, ranked perceptions include:

- **River or wash** (40%, down from 45%-46% in the last two surveys and the lowest total recorded to-date. These tend to be East region residents.)
- **Water treatment plants** (15%, up incrementally from 13% in 2021. This perception is stronger in the Central region.)
- **Groundwater** (13%, nearly unchanged since last year [12%]. This perception is somewhat higher in the East zip codes.)
- **Sewage plants/Drainage system** (10%, down slightly from 11% in the last two surveys. These are more apt to be Central region residents.)
- **Canals** (5%, down from 7% last year. Few differences in perceptions based on geography.)

More than one-third (35%) say that they **do not know** where water that flows into storm drains ends up. This is the highest total recorded to-date (up from 28% last year). There are few differences based on geography (somewhat lower only in the East zips).

Green Infrastructures Implemented/Installed at Home or Business – As we have found in the last three surveys, 51% report that their home or business has **landscaping with native plants**. This is true regardless of geographic region.

Regardless of geography, two of ten have installed **porous pavements or bricks** at the home or business (21%, up slightly from 20% last year).

Other Green Infrastructure installed at home or business include:

- **Connecting runoff from a roof or paved surface to a basin to water plants** (18%, generally consistent with the last two surveys [17%-19%]. Users tend to be South or East region residents.)
- **Landscaped depressions that collect stormwater** (15%, consistent with the last two surveys [14%-15%]. Implementation is greatest in the East zips.)
- **Natural areas protected from clearing and grading** (14%, unchanged since last year. Implementation is marginally higher in the East zip codes.)

- **Water harvesting using rain barrels or cisterns** (14%, down from last year [19%] but consistent with 2021 usage [13%]. Usage is lower only in the Central zip.)
- **A trench that is filled with gravel to collect stormwater** (12%, consistent with the last two surveys [11%-12%]. These tend to be East region residents.)

Awareness of Clean Water Campaigns – Survey respondents were asked to agree or disagree with the statement, “You are aware of the ‘Clean Water Starts With Me’ or ‘Keep Our Water Clean’ campaigns.” In past years, this statement included only the “Clean Water Starts With Me” campaign. Overall, 43% indicate they are familiar with the dual campaign statement (virtually unchanged from 42% last year for the solo “Clean Air Starts With Me” campaign). Dual campaign awareness is lower only in the East region (33% versus 42%-46% elsewhere) and elevated among residents who perceive a progressively more serious stormwater pollution problem.

Perceived Seriousness of Stormwater Pollution Problem in the Tucson Area – In line with recent years, the vast majority (84% in the current survey and identical to last year) perceive that there is at least a “moderate problem” in the Tucson area “with polluting materials entering storm drains.” However, the percentage who think stormwater pollution is a “serious problem” has significantly decreased over the past four surveys – from a record high of 44% in 2019 to just 21% now. Consistent with the last two surveys, about six of ten think stormwater pollution is a “moderate problem” (63%). Still, as we have found in the past, relatively few (16%) believe it is “not a problem.” This yields a 5.2 average score on the “1-to-5” scale (basically unchanged from 5.1 last year). South or Central residents are more likely (on average) to think that the Tucson area has a more “serious” stormwater pollution problem.

Methods Used to Dispose of Various Types of Household Hazardous Wastes – With ordinal rankings very similar to recent surveys, the most used methods of disposing of household wastes such as “household chemicals, automotive fluids and lawn & garden chemicals” include:

- **Hazardous waste collection site** (While still the most utilized method of disposal, usage has trended progressively lower – from a high of 53% in 2018 to 37% now. Usage is relatively consistent across geographic region [marginally higher in the Northwest].)
- **Auto parts store** (32%, consistent with the last two surveys [31% each]. These are more apt to be Northwest residents.)
- **Put it in the garbage** (26%, up slightly from last year [24%] but consistent with 2021 [27%]. More apt to say they place household hazardous wastes in the garbage are Central zip region residents.)
- **Landfill** (18%, up from 12%-13% in the last two surveys. These tend to be South region residents.)

- **Service station** (15%, representing progressive and incremental decline from 26% in 2018. Usage is greater among East zip code residents.)
- **Pour in the sink or down the drain** (12%, consistent with 2022 [14%] and 2021 [12%] levels. Central or East region residents are more likely to pour household hazardous waste in the sink or down the drain.)

Overall, 21% report that they **do not use** these types of hazardous household items (or finish them when they do so). This represents incremental improvement from just 9% in 2018. Up slightly from 8% in the last two surveys, 11% are not sure how their household disposes of its hazardous waste.

Rating of Various Contributors to Stormwater Pollution Problem – As we have done in prior surveys, residents were asked to rate the perceived severity of eight contributors to the problem of stormwater pollution in the Tucson area. The same “1-to-9” rating scale was used, where “1” means “not a problem” and “9” means a “serious problem.”

While there is some variation this year in terms of average scores and ordinal rankings, there continues to be a direct relationship between the perceived severity of the stormwater pollution problem in Tucson and the degree to which each of these factors is thought to contribute to the problem.

Once again, the eight contributors evaluated include:

- **Chemicals and materials from industrial facilities** (75% perceived contributor to stormwater pollution [up slightly from 74% last year], 23% “serious” [up from 21%] – resulting in a 5.0 average score on the “1-to-9” scale [up from 4.8]. Increased scores among Central residents.)
- **Automotive fluids such as oil, gasoline and brake fluid** (75% perceived contributor to stormwater pollution [up slightly from 74% last year], 21% “serious” [up from 19%] – resulting in a 4.9 average score [up from 4.8]. These tend to be Northwest residents.)
- **Chemicals and materials from construction sites** (73% perceived contributor to stormwater pollution [down from 75% last year], 20% “serious” [down from 22%] – resulting in a 4.8 average score [down from 4.9]. Scores tend to be higher among Central residents.)
- **Pesticides, fertilizers and debris from lawns and gardens** (72% perceived contributor to stormwater pollution [down from 73% last year], 22% “serious” [up from 21%] – resulting in a 4.7 average score [unchanged since last year]. Scores are elevated among Central residents.)
- **Household products such as cleaning fluids, detergents, paints, degreasers and bleaches** (69% perceived contributor to stormwater pollution [unchanged since last

year], 17% “serious” [down from 19%] – resulting in a 4.6 average score [unchanged since last year]. There are relatively few differences based on geography [lower only in the South zips].)

- **Household trash and bulky items like mattresses, sofas and tires** (66% perceived contributor to stormwater pollution [down from 69% last year], 15% “serious” [down from 19%] – resulting in a 4.4 average score [down from 4.6]. East region residents are more likely to indicate higher average scores.)
- **Copper from brake pads made with copper** (54% perceived contributor to stormwater pollution [down from 57% last year], 8% “serious” [down from 10%] – resulting in a 3.9 average score [down from 4.0 last year]. Nearly one-half [46%] indicate the copper brake pads are a non-contributor to stormwater pollution.)
- **Animal waste from household pets** (52% perceived contributor to stormwater pollution [down from 59% last year], 10% “serious” [unchanged] – resulting in a 3.8 average score [down from 4.0]. Up from 41% last year, 48% perceive that animal waste is “not a problem.”)

Government Entity to Call If Witness Someone Dumping Trash or Chemicals in a Storm Drain – Progressively more continue to say they **don’t know** who they would contact if they saw someone dumping trash or chemicals in a storm drain. In 2020, the “don’t know” percentage was 24%. It is now 35% in the 2023 survey, representing incremental annual increases. There are few differences based on stormwater perception problem or geography in the current study (somewhat lower only in the Central zips).

Three of ten (29%) say they would call **911/the police department**. This is the lowest total recorded since 2017 (down from 34% in the last two surveys). These tend to be East region residents.

Other government-related departments or agencies that residents would contact to report storm drain dumping include:

- **City government** (13%, up from 11% last year. These tend to be Central residents.)
- **Water department** (11%, down from 13%. There are few differences based on area of residence [slightly higher in the South zips].)
- **Health department** (9%, down from 11%. Northwest residents are among those more likely to say they would call the health department.)
- **County government** (8%, down from 10% last year. These tend to be Central region residents.)
- **Sanitation department** (8%, down from 11%. These are more likely to be Northwest or Central region residents.)

A few others say they would call Environmental services/Environmental Quality/PDEQ (4%), a government agency (3%), the fire department (3%) and/or the Flood Control district (2%).

Consistent with past years, just a few (3%) indicate they would **not report** storm drain dumping.

Typical Methods of Handling Pet and Animal Waste – Pet and animal waste disposal methods have remained generally consistent for the last three surveys. Most (56%) continue to say that typically dispose of pet and animal waste by **placing it in the garbage for disposal**. Use of the garbage is lower only in the East region (43% versus 55%-62% elsewhere).

As we have found in the last two surveys (and allowing for one or more survey responses), one of ten use the following methods to get rid pet and animal waste:

- **Leave waste to decompose on grass or soil** (11% versus 10%-12% in 2021-2022. These are more apt to be 16 to 45 year-olds and non-Whites – with few differences based on geography.)
- **Flush down the toilet** (10% versus 9%-10% in 2021-2022. Incidence of usage is higher among South zip code residents, women and 36 to 45 year-olds.)

Once again, a few others indicate that they handle pet and animal waste by leaving it to decompose on paved surfaces (3%) and/or dumping in a ditch or storm drain (2%).

Likelihood of Taking Part in Various Activities to Help Keep Stormwater Clean – Compared to last year, more residents are “very likely” to take part in the following activities to help keep stormwater clean:

- **If you have a dog, using a doggie bag to clean up after them** (73% “very likely,” up from 65% in 2022 [and the highest total recorded since 2018]. There are few differences based on geography [somewhat lower only in the East zip codes].)
- **Safely dispose of chemicals** (66% “very likely,” consistent with 2020-2022 findings [63%-67%]. Northwest residents are even more apt to be highly likely to safely dispose of chemicals.)
- **Report a spill** (49% “very likely,” up from 47% last year. Somewhat lower only in the East region [44% versus 48%-52% elsewhere].)
- **Replace a toxic compound with a non-toxic compound** (47% “very likely,” up progressively and incrementally from 42% in 2021. These are more likely to be Northwest or South region residents.)

Down just slightly from 44% in 2021, 41% indicate they are “very likely” to **gather stormwater to use for watering plants**. Northwest zip code residents are especially highly likely to take this action to help keep stormwater clean.

As we found last year, two-thirds are likely (to some extent) to **install Green Infrastructure**. This includes a progressive and incremental uptick in the percentage who are “very likely” (from 23% in 2021 to 27% now). Those highly likely to install Green Infrastructures tend to be South region residents.

Final Clean Water Program Campaign Observations

Awareness of Clean Water Campaigns – More than four of ten (43%) in the 2023 survey say they are aware of the “Clean Water Starts With Me” or “Keep Our Water Clean” campaigns (compared to 42% familiar with the lone “Clean Water Starts With Me” in 2022). Consistent with past surveys, there continues to be significant positive differences with respect to stormwater perceptions, attitudes and behaviors between those aware of the “Clean Water Starts With Me” or “Keep Our Water Clean” campaign (43%) and those who are not (57%).

Regardless of campaign awareness, a majority of respondents perceive that Tucson has a “moderate” stormwater pollution problem (63% overall). However, residents aware of “Clean Water Starts With Me” or “Clean Water Starts With Me” are twice as likely to think that Tucson has a “serious” pollution problem (30% versus 15% of those unfamiliar).

With respect to perceptions of where stormwater that flows into Tucson storm drains end up, there are relatively few differences (once again) in the ordinal ranking of resident responses. Once again, the highest percentage (regardless of campaign awareness) continue to say that stormwater flows in a river or wash (40% overall).

As indicated in following the displays, there continue to be key differences related to the perceived factors that contribute to the stormwater pollution problem, the implementation/ installation of Green Infrastructures at home or business and willingness to take specific actions to help keep stormwater clean.

<u>Some key differences:</u>	<u>Difference</u>	<u>Clean Water Campaigns</u>	
		<u>Aware</u> (43%)	<u>Unaware</u> (57%)
<i>“Serious” Contributors to Stormwater Pollution</i>			
<u>Copper from copper brake pads</u>			
2023	+67%	10%	6%
2022	+75%	14%	8%
<u>Industrial facility chemicals/materials</u>			
2023	+30%	26%	20%
2022	+21%	23%	19%
<u>Construction site chemicals/materials</u>			
2023	+28%	23%	18%
2022	+14%	24%	21%
<u>Automotive fluids such as oil, gasoline and brake fluid</u>			
2023	+26%	24%	19%
2022	+35%	23%	17%
<u>Household products such as cleaning fluids, detergents, paints, etc.</u>			
2023	+25%	20%	16%
2022	+29%	22%	17%

- ✓ **There is a 35% higher rating/awareness of “serious” contributors to the stormwater pollution problem in the Tucson area among those aware of the “Clean Water Starts With Me” or “Keep Our Water Clean” campaign (unchanged since 2022).** Regardless of campaign awareness, three other contributors again elicit about the same degree of “serious” perceived causation: pesticides, fertilizers and debris from lawns and gardens (22%), household trash and bulky items (like mattresses, sofas and tires) (15%) and animal waste from household pets (10%).

<u>Some key differences:</u>	<u>Difference</u>	<u>Clean Water Campaigns</u>	
		<u>Aware</u> (43%)	<u>Unaware</u> (57%)
<i>Green Infrastructures Implemented/ Installed at Home or Business</i>			
<u>Connecting runoff from a roof or paved surface to a basin</u>			
2023	+92%	25%	13%
2022	+64%	23%	14%
<u>Landscape depression that collect stormwater</u>			
2023	+82%	20%	11%
2022	+100%	20%	10%
<u>Trench filled with gravel to collect stormwater</u>			
2023	+67%	15%	9%
2022	+30%	13%	10%
<u>Porous pavement or bricks</u>			
2023	+44%	26%	18%
2022	+28%	23%	18%
<u>Water harvesting using rain barrels or cisterns</u>			
2023	+42%	17%	12%
2022	+79%	25%	14%
<u>Landscaping with native plants</u>			
2023	+33%	60%	45%
2022	+8%	52%	48%

- ✓ **There is a 60% higher incidence of Green Infrastructures implemented or installed at home of business among those aware of the “Clean Water Starts With Me” or “Keep Our Water Clean” campaign (compared to 52% in 2022).** Regardless of campaign awareness, 14% report that they have natural areas protected from clearing or grading at their home or business.

<u>Some key differences:</u>	<u>Difference</u>	<u>Clean Water Campaigns</u>	
		<u>Aware</u> (43%)	<u>Unaware</u> (57%)
<i>“Very Likely” to Take Actions to Help Keep Stormwater Clean</i>			
<u>Install Green Infrastructures</u>			
2023	+67%	35%	21%
2022	+48%	31%	21%
Gathering stormwater to use for <u>watering plants</u>			
2023	+53%	52%	34%
2022	+34%	51%	38%
Replacing a toxic compound with a non-toxic compound <u></u>			
2023	+29%	54%	42%
2022	+20%	49%	41%
<u>Safely dispose of chemicals</u>			
2023	+20%	73%	61%
2022	+10%	68%	62%
<u>Report a spill</u>			
2023	+17%	54%	46%
2022	+24%	52%	42%

- ✓ **There is a 37% higher strong likelihood of taking specific actions to help keep stormwater clean among those aware of the “Clean Water Starts With Me” or “Keep Our Water Clean” campaign (compared to 27% in 2022).** Consistent with recent years, and regardless of campaign awareness, the vast majority (73%) remain “very likely” to use a doggie bag to clean up after a pet. Among pet owners (and regardless of campaign awareness), most (56%) continue to say they dispose of animal waste by placing in the garbage.

As we have found in past surveys, these findings suggest that campaign awareness has a positive impact on the perceptions and willingness to act related to the stormwater pollution problem in Tucson. As a result, we again recommend targeting future stormwater outreach/education efforts towards Pima County residents who are less familiar with the “Clean Water Starts With Me” or “Keep Our Water Clean” campaign. These include East region residents and 16 to 25 or 36 to 55 year-olds.

A secondary audience for education and outreach continue to be those residents unsure who they would call to report someone dumping trash or chemicals into a storm drain or wash. These tend to be the oldest residents (65+) and Hispanics. Household hazardous waste disposal education efforts could be targeted toward Central region residents, non-Whites and 16 to 25 year-olds – who are more likely to indicate they dispose of such waste by pouring it in the sink or placing in the garbage.

TRAVEL REDUCTION PROGRAM

FY 2022-23 Outreach Plan



Pima Association of Governments

PAGregion.com

FY 2022-23 TRP/SUN RIDESHARE EMPLOYER OUTREACH PLAN SITUATION

Under a state implementation plan, Pima Association of Governments' Travel Reduction Program (TRP) is an air quality control measure for the Tucson carbon monoxide maintenance area. While the carbon monoxide maintenance plan ended July 10, 2020 – finalizing a 20-year required maintenance period to attain CO2 standards – PAG continues to assist TRP employers in educating employees on the benefits of travel reduction to improve air quality.

The work of the TRP is conducted through annual grant funding received by the Arizona Department of Environmental Quality. Under the grant's scope of work, PAG Communications provides program awareness information and downloadable materials PAG staff uses to inform TRP employers of the overall benefits of travel reduction, including carpooling and vanpooling, to encourage their employees to reduce motor vehicle travel for commute trips in the greater Tucson area. The outreach plan is updated to reflect requirements of a new grant approved for FY 2023-24.

BACKGROUND

Under its Overall Work Program, PAG is the designated agency to administer the TRP, which has been in place since 1989. Each PAG member jurisdiction has adopted a Travel Reduction Ordinance. Employers with 100 full-time equivalent employees at a single worksite are required to participate in the program under local ordinances. Currently, the TRP reach includes approximately 164 employers and approximately 150,000 employees.

TRP employers are required to appoint 1) an on-site transportation coordinator, 2) disseminate alternate transportation mode information, 3) conduct an annual employee survey, and 4) generate a travel reduction plan.

The purpose and goal of the TRP is to improve air quality and reduce traffic congestion in Pima County by reducing overall motor vehicle travel for commute trips, through the use of carpooling, vanpooling, transit/streetcar, bicycling/walking, teleworking and compressed work schedules. Under the FY 2023-24 contract, the TRP will establish a basis for a cooperative effort of the local jurisdictions to achieve a uniform program for reduction of work-related trips by TRP employees.

The TRP hosts a carpool matching database (Sun Rideshare) for commuters. Also, PAG works with a third-party vendor to offer a vanpool program (federal subsidies available via PAG). PAG TRP staff conducts training sessions and provides an informational toolkit to employer-assigned transportation coordinators to administer employer-established travel reduction programs.

Middle- and high-income users are choice carpoolers. Individual attitude factors, such as perceived social and environmental benefits, along with economic factors (cost-saving/tax benefits), play an important role in mode choice decisions. Interested carpoolers enjoy traveling with others.

<https://pdfs.semanticscholar.org/58f9/ef8ae2afe29d0589a3e5975588de05cd2226.pdf>

Other reasons people may choose to carpool are to reduce stress and access high-occupancy vehicle (HOV) lanes. Challenges include difficulty finding a carpool match for same destination/schedule or needing access to a vehicle during the day. (<https://drivesed.com/trending/how-and-why-peoplecarpool>)

Employers benefit through reduction in parking infrastructure demand and related costs and may receive tax benefits for rideshare subsidies they provide to employees. Carpooling can increase employee productivity, retention, and morale (less stress/convenience). Societal benefits include serving environmental justice communities by reducing the adverse impacts of air pollution and providing more accessibility/mobility to low income/minority households.

(<https://escholarship.org/content/qt7jx6z631/qt7jx6z631.pdf?t=ph07of>)

COMMUNICATION CHALLENGE/OPPORTUNITY

Providing transportation coordinators/company leadership with useful information/data they will need to see the overall value of travel reduction and to motivate them to take active measures to educate their employees on the benefits of reducing motor vehicle travel for commute trips.

COMMUNICATION GOAL

Travel Reduction Program employers will communicate motivational information and incentives to their employees to build awareness of the benefits of reducing motor vehicle travel for commute trips to help reduce congestion and improve air quality in the greater Tucson area.

TARGET AUDIENCE

TRP employer leadership and/or HR directors/Transportation Coordinators – Primary Specific targets: Medical campuses and hospitals; university and community college campuses; large employers with greater than 500 employees; social service agencies with greater than 250 employees.

TRP employees – Secondary

General public – Where applicable, we provide the same messaging we give TRP employers on rideshare, active transportation, and transit to the general public.

MESSAGES

Share the ride – for all the right reasons.

Work from home. Save time and money. Drive less. Save more.

Drive less. Breathe better. Live healthy. Drive less. Keep our air clean.

Be healthy. Try active transportation.

(Promoting carpooling, vanpooling [federal subsidies], transit/streetcar, telework, bicycling, walking, and Compressed work schedules.)

OBJECTIVE

To support TRP employer-to-employee outreach on the benefits of reducing motor vehicle travel in the greater Tucson area in FY 2023-24 by developing useful data-driven information and rideshare materials for PAG staff to share with employers or to be accessible to employers via PAG's multimedia channels.

STRATEGIES AND TACTICS

Strategy – Develop marketing collateral that will convey why travel reduction is important to employers, employees and the community and their required role to conduct outreach to employees.

Tactic: Communications will create and distribute a quarterly TRP e-newsletter targeted to transportation coordinators with tips to improve employee outreach and information on the benefits of using carpooling/vanpooling/alt modes and reducing idle time to reduce air pollution.

Tactic: TRP staff will share timely program news/announcements via special email notices.

Tactic: Design downloadable promotional fliers/posters for transportation coordinators to post onsite in employee areas to promote travel reduction options or to promote onsite survey status/"in process."

Tactic: TRP staff will present TRP introductory PowerPoint to transportation coordinators. Presentation will be updated as needed.

Tactic: TRP staff will meet with business and/or HR leadership on a rotation basis based on annual target priorities to cultivate relationships and build program buy-in; provide commuter data reports to show employer commute patterns and reduction in vehicle miles traveled.

Strategy – Communications will assist with review and design of promotional or training materials for transportation coordinator training events.

Tactic: Create supporting materials, fact sheets.

Tactic: Assist in designing/reviewing presentations/webinars.

Strategy – Continue the TRP Employer Recognition Program for employers with 100 FTEs. Recognition program was launched in 2014.

Tactic: TRP staff invites TRP employers to meet semi-annual program goals for gold, silver or bronze award recognition (one of the goals is to complete the TRP Employer Survey).

Tactic: Recognize goal achieving TRP employers on PAG website with a designed display of names of companies and announce employer/Transportation Coordinator recipients via social media.

Tactic: TRP staff provides Transportation Coordinators with award recognition certificates.

Strategy – Regularly update Sun Rideshare and TRP information on PAG website (accessible via desktop and mobile.)

Tactic: Post timely news.

Tactic: Remove outdated news and information/documents.

Tactic: Post existing or new downloadable TRP/Sun Rideshare marketing materials/informational video for employee distribution, use in staff meetings or TC training sessions.

Strategy – Build potential alt mode user engagement on PAG social media sites by providing engaging information regarding telework, carpooling, vanpooling, transit, bike/ped transportation options and trends. (Note: Position messages to promote sharing and cross posting).

Tactic: Post TRP program announcements including semi-annual employer awards, videos, etc.

Tactic: Schedule a minimum of four monthly Facebook posts/tweets on telework benefits, carpooling, vanpooling, transit/streetcar, idle reduction, compressed work schedules, bike/ped, etc.

Tactic: Schedule series of targeted travel reduction “campaign” messages up to four times a year:

- Activity: Aug.-Oct. – “Don’t be idle” reduce idling when kids are heading back to school.
 - Activity: Nov.-Dec. – Holiday themes including “Avoid at least one rush” during the holidays, rideshare when you holiday shop and preplanning in an effort to combine trips.
 - Activity: Jan.-March – “Get fit” – try an active commute to drop weight after the holidays/prepare for the spring and summer months.
 - Activity: April-June – “Earth Day” – reduce travel to help the environment, air quality.
-

Strategy – Promote survey completion

Tactic: Send weekly emails and complete follow up calls to promote timely TRP survey completion and achievement of the minimum 50% participation by each location’s workforce.

TIMELINE – FY 2023-234BUDGET – STAFF TIME

EVALUATION – Communication Awareness Measurements

1. Level of awareness of Sun Rideshare program will be measured via the PDEQ Clean Air Campaign annual survey.
2. Monitor number of Sun Rideshare website visits compared to prior year and social media engagement (vs. posts).

3. Monitor quarterly newsletter opens/clicks.
4. Monitor any increase in employer outreach activity (via survey)

For reference, ADEQ TRP (program) measurements in scope of work:

- Increase survey response by 3%
- Increase telework by 5% (compared to pre-pandemic)
- Expand vanpool program by 5%
- Increase number of alternative vehicle miles traveled by program participants by 2% vs. FY 22
- New number of Rideshare database registrants compared to FY 22
- Monitor overall improvement in alt mode usage.

2023 Newsletter Content





a program of Pima Association of Governments

Drive Less. Save More.

Sun Rideshare News - Fall 2022

Try these tactics to
get high survey
response rates

[READ MORE](#)



App makes commutes convenient

If you live and work in the Green Valley/Sahuarita or Marana/Avra Valley areas, the new Sun Shuttle Dial-a-Ride mobile app could make your commute even easier.

[Learn More>](#)



Go car free to reduce emissions

You can do your part to reduce the health hazards from ozone exposure in our community. Even one less day of driving can help. Consider giving your car a day off and going car free.

[Learn More>](#)

Start a successful carpool during Share A Ride Month

We all want to save money and help improve air quality, and since October is Share a Ride Month, it is a great time to start a carpool or vanpool. You might

be interested in ridesharing but may not know how to start a carpool or take the next steps once you find participants. We have some tips.



START A CARPOOL



Fill up at night

You don't have to be a creature of the night to fill your gas tank after the sun goes down. Fueling your vehicle after dark helps prevent the formation of ground-level ozone, which contributes to air pollution. [Learn more](#) about what you can do to improve air quality in the region.

Free transit fares continue

Are you a transit rider or thinking about using transit as part of your commute? Good news is here. All transit fares will remain free through the end of December 2022.



FREE FARES



Annual Bike Count

We need your help! Pima Association of Governments needs volunteers to conduct the 2022 Regional Bike Count to support regional planning efforts. The count helps to inform safety planning and identify trends. The 2021 count, for example, showed over 70% of riders counted that year were wearing helmets, up from about 45% in 2013. Volunteer today:

VOLUNTEER TODAY

Download the new TRP poster with a QR code for easy access to the survey

Getting responses to the TRP survey during your designated month can be a challenge, especially if employees don't have regular access to a computer. We've created a QR code poster to help employees take the survey from a cell phone. Download the Customizable Survey Time Poster and other TRP materials at the link below.



DOWNLOAD QR CODE

● Resources

- [View monthly TRP Employer Awards](#)
- [Benefits of Alternative Modes of Travel](#)
- [Download TRP Outreach Materials](#)

If you need translation assistance, please call (520) 792-1093 and ask for Zonia Kelley.

Si necesita ayuda con traducción, llame por favor al (520) 792-1093 y comuníquese con Zonia Kelley.



Working collaboratively, in leadership and planning, to enhance our livability by improving regional mobility, economic vitality and sustainability.

About PAG

Pima Association of Governments, the region's metropolitan planning organization and council of governments, works collaboratively in leadership and planning to enhance our livability by improving regional mobility, economic vitality and sustainability.

PAG manages the Regional Transportation Authority, which oversees implementation of the 20-year, voter-approved regional transportation plan. The plan is funded by a half-cent excise (sales) tax collected through the RTA's special taxing district within Pima County.

PAG operates its programs without regard to race, color and national origin in compliance with [Title VI](#) of the Civil Rights Act.

STAY CONNECTED



[PAGRegion.com](https://pagregion.com)

Pima Association of Governments | 1 E. Broadway Blvd., Suite 401, Tucson, AZ 85701

[Unsubscribe {recipient's email}](#)

[Update Profile](#) | [Our Privacy Policy](#) | [Constant Contact Data Notice](#)

Sent by info@pagregion.com



a program of Pima Association of Governments

Drive Less. Save More.

Sun Rideshare News - Summer 2022

How completing your travel survey helps the region

[READ MORE](#)



Using technology to hit survey target

How do you get 1,700 employees to take the travel reduction survey? The **Target Distribution Center** used the QR code on TV screens for success.

[Learn More>](#)



New shuttle service a good commute option

Commuters who live and work in the Marana and Avra Valley area may consider a new Sun Shuttle Dial-a-Ride service for their daily commute or other trips in the area.

[Learn More>](#)

Tips to stay cool when using public transportation

Using transit as part of your daily commute? It is important to keep cool in the hot temperatures. Here are some tips to stay cool during the dog days of summer.



KEEP COOL



Free transit fares continue

Are you a transit rider or thinking about using transit as part of your commute? Good news. All transit fares will remain free through the end of December 2022.

FREE FARES

Ozone season

We are in the midst of Ozone Season, which is the time of year in which ground-level ozone typically reaches its highest concentrations in the air we breathe. Among the main causes of ground-level ozone is emissions from motor vehicles. Your company's participation in the Travel Reduction Program is a benefit to the region's air quality, but Pima Association of Governments has other tips on how individuals can help air quality as they commute, at home and at work.



During hot summer months, ridesharing supports [cleaner air](#). Learn more about [transportation mode choices](#).

LEARN MORE

Download the new TRP poster with a QR code for easy access to the survey

Getting responses to the TRP survey during your designated month can be a challenge, especially if employees don't have regular access to a computer. We've created a QR code poster to help employees take the survey from a cell phone. Download the Customizable Survey Time Poster and other TRP materials at the link below.



DOWNLOAD QR CODE

● Resources

- [View monthly TRP Employer Awards](#)
- [Benefits of Alternative Modes of Travel](#)
- [Download TRP Outreach Materials](#)

If you need translation assistance, please call (520) 792-1093 and ask for Nathan Barrett.

Si necesita ayuda con traducción, llame por favor al (520) 792-1093 y comuníquese con Nathan Barrett.



Working collaboratively, in leadership and planning, to enhance our livability by improving regional mobility, economic vitality and sustainability.

About PAG

Pima Association of Governments, the region's metropolitan planning organization and council of governments, works collaboratively in leadership and planning to enhance our livability by improving regional mobility, economic vitality and sustainability.

PAG manages the Regional Transportation Authority, which oversees implementation of the 20-year, voter-approved regional transportation plan. The plan is funded by a half-cent excise (sales) tax collected through the RTA's special taxing district within Pima County.

PAG operates its programs without regard to race, color and national origin in compliance with [Title VI](#) of the Civil Rights Act.

STAY CONNECTED



[PAGRegion.com](https://pagregion.com)

Pima Association of Governments | 1 E. Broadway Blvd., Suite 401, Tucson, AZ 85701

[Unsubscribe {recipient's email}](#)

[Update Profile](#) | [Our Privacy Policy](#) | [Constant Contact Data Notice](#)

Sent by info@pagregion.com



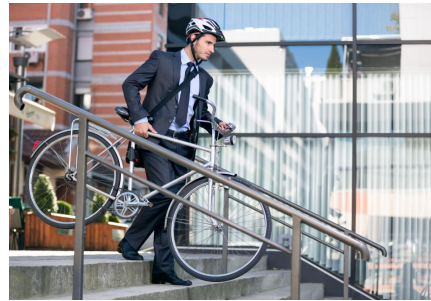
a program of Pima Association of Governments

Drive Less. Save More.

Sun Rideshare News - Spring 2023

Cycling advice for would-be commuters

[READ MORE](#)



Avoid distracted driving by letting others take the wheel

April is Distracted Driving Awareness Month. Accidents caused by drivers who are not fully focused on the road are becoming an epidemic. Carpools and transit can provide a solution to the distracted driver problem.

[Learn More>](#)



Lessons learned from 3-plus years of telework

Since the COVID-19 pandemic, many businesses have continued to let their employees telework. In recognition of Global Work from Home Day, it is a good time to reflect on the lessons we have learned about being effective teleworkers.

[Learn More>](#)

Carpools and transit can help with your financial goals



April is Financial Literacy Month, where everyone is encouraged to be smarter about their finances. One great way is to use your car less. Carpools, vanpools, transit and even active transportation are ways to cut down on vehicle usage on your commute. You can save real dollars when you reduce the number of days you drive, whether it is five days a week or

just one. Use PAG's Cost Calculator to give you an idea of how much money it costs to drive alone to work and how much you can expect to save by reducing trips.

COST CALCULATOR

Download the TRP poster with a QR code for easy access to the survey

Getting responses to the TRP survey during your designated month can be a challenge, especially if employees don't have regular access to a computer. We've created a QR code poster to help employees take the survey from a cell phone. Download the Customizable Survey Time Poster and other TRP materials at the link below.



DOWNLOAD QR CODE

● Resources

- [View monthly TRP Employer Awards](#)
- [Benefits of Alternative Modes of Travel](#)
- [Download TRP Outreach Materials](#)

If you need translation assistance, please call (520) 792-1093 and ask for Zonia Kelley.

Si necesita ayuda con traducción, llame por favor al (520) 792-1093 y comuníquese con Zonia Kelley.



Working collaboratively, in leadership and planning, to enhance our livability by improving regional mobility, economic vitality and sustainability.

About PAG

Pima Association of Governments, the region's metropolitan planning organization and council of governments, works collaboratively in leadership and planning to enhance our livability by improving regional mobility, economic vitality and sustainability.

PAG manages the Regional Transportation Authority, which oversees implementation of the 20-year, voter-approved regional transportation plan. The plan is funded by a half-cent excise (sales) tax collected through the RTA's special taxing district within Pima County.

PAG operates its programs without regard to race, color and national origin in compliance with [Title VI](#) of the Civil Rights Act.

STAY CONNECTED



[PAGRegion.com](https://pagregion.com)

Pima Association of Governments | 1 E. Broadway Blvd., Suite 401, Tucson, AZ 85701

[Unsubscribe {recipient's email}](#)

[Update Profile](#) | [Our Privacy Policy](#) | [Constant Contact Data Notice](#)

Sent by info@pagregion.com



a program of Pima Association of Governments

Drive Less. Save More.

Sun Rideshare News - Winter 2023

Accomplish your goals via your commute

[READ MORE](#)



Travel Reduction Program questions answered

Have questions about the Travel Reduction Program? These Frequently Asked Questions have the details to help you and others understand more about the program.

[Learn More>](#)



Fare-free transit to continue through June

Good news for those who use transit on their daily commute: Sun Tran buses will continue to run fare-free through June 30. This includes Sun Link and Sun Van services.

[Learn More>](#)

Turn training for El Tour into a part of your commute

A new year means new goals. What if you could take a few different goals and wrap them into one other goal, such as training to ride in El Tour de

Tucson? The local bike racing event is less than a year away. We have some tips on how you can use your daily commute to help train for the race.



TRAINING VIA COMMUTE



Download the TRP poster with a QR code for easy access to the survey

Getting responses to the TRP survey during your designated month can be a challenge, especially if employees don't have regular access to a computer. We've created a QR code poster to help employees take the survey from a cell phone. Download the Customizable Survey Time Poster and other TRP materials at the link below.

DOWNLOAD QR CODE

● Resources

- [View monthly TRP Employer Awards](#)
- [Benefits of Alternative Modes of Travel](#)
- [Download TRP Outreach Materials](#)

If you need translation assistance, please call (520) 792-1093 and ask for Zonia Kelley.

Si necesita ayuda con traducción, llame por favor al (520) 792-1093 y comuníquese con Zonia Kelley.



Working collaboratively, in leadership and planning, to enhance our livability by improving regional mobility, economic vitality and sustainability.

About PAG

Pima Association of Governments, the region's metropolitan planning organization and council of governments, works collaboratively in leadership and planning to enhance our livability by improving regional mobility, economic vitality and sustainability.

PAG manages the Regional Transportation Authority, which oversees implementation of the 20-year, voter-approved regional transportation plan. The plan is funded by a half-cent excise (sales) tax collected through the RTA's special taxing district within Pima County.

PAG operates its programs without regard to race, color and national origin in compliance with [Title VI](#) of the Civil Rights Act.

STAY CONNECTED



[PAGRegion.com](https://pagregion.com)

Pima Association of Governments | 1 E. Broadway Blvd., Suite 401, Tucson, AZ 85701

[Unsubscribe {recipient's email}](#)

[Update Profile](#) | [Our Privacy Policy](#) | [Constant Contact Data Notice](#)

Sent by info@pagregion.com

2023 Social Media



Pima Association of Governments-TRP Social Media Metrics

Facebook

Month	Views	Engagements	Posts
Jul-22	504	7	4
Aug-22	489	12	9
Sep-22	646	16	7
Oct-22	660	23	11
Nov-22	930	22	8
Dec-22	1029	22	11
Jan-23	318	9	7
Feb-23	605	45	12
Mar-23	569	25	9
Apr-23	1005	15	8
May-23	655	8	11
Jun-23	729	13	12
	8139	217	109

Twitter

Month	Views	Engagements	Posts
Jul-22	269	5	4
Aug-22	909	38	10
Sep-22	349	2	8
Oct-22	567	28	13
Nov-22	440	4	7
Dec-22	496	33	8
Jan-23	339	4	8
Feb-23	354	2	10
Mar-23	267	6	9
Apr-23	375	6	10
May-23	339	2	10
Jun-23	588	7	13
Totals	5292	137	110



Facebook

 Pima Association of Governments
Published by Buffer · July 8, 2022 · 

Today is Be a Kid Again Day! If you are out reliving your childhood, please make sure you stay safe. Take our transportation safety pledge and make sure you follow safety practices as a pedestrian, cyclist or any other mode of transportation.




PAGREGION.COM
Transportation Safety Pledge - Pima Association of Governments


 Pima Association of Governments
Published by Buffer · July 11, 2022 · 

Did you know you can save money while helping the environment? By joining a carpool or vanpool, you not only reduce your commute costs, you also reduce vehicle emissions that pollute the air. Learn more about the benefits of ridesharing or using an alternative mode of transportation. <https://buff.ly/3x1q300>



 Pima Association of Governments
Published by Buffer · July 14, 2022 · 

Find your best and safest bike route with our bikeways map: <https://buff.ly/3NZ5Duv> You can find major shared-use paths, such as The Loop and lesser-used streets, to get you where you want to go without as much traffic.



 Pima Association of Governments
Published by Buffer · July 26, 2022 · 

We all think of carpooling and vanpooling as great ridesharing options to the workplace but sharing a ride to school or practice is also a great way to help reduce traffic congestion, energy consumption and pollution. Educate yourself on ridesharing and other great travel reduction methods. <https://buff.ly/3KMKtPv>



Drive less. Save more.

Facebook

 **Pima Association of Governments**
Published by Buffer · August 1, 2022 ·

August is Traffic Awareness Month. Every day, pedestrians, cyclists and drivers or passengers, become victims of avoidable vehicle accidents. Take the transportation safety pledge and do your part to keep our roads safe.



PAGREGION.COM
Transportation Safety Pledge - Pima Association of Governments

 **Pima Association of Governments**
Published by Buffer · August 2, 2022 ·

The peak period for ground-level ozone air pollution in southern Arizona occurs during the hottest months of the year. Pima Association of Governments is encouraging people to adopt "no drive days" to help reduce the health hazards of ozone exposure in our community. This could mean using transit, riding a bike, walking, sharing a ride or teleworking. If you have a day off, spend it at home and skip the car rides.




 **Pima Association of Governments**
Published by Buffer · August 3, 2022 ·


Using transit as part of your daily commute? It is important to keep cool in the hot temperatures with these handy tips.



PAGREGION.COM
Tips to stay cool when using public transportation
Staying cool is important in the summer heat. Here are some tips t...

 **Pima Association of Governments**
Published by Buffer · August 5, 2022 ·

Saturday is Cycle to Work Day in England but why not celebrate here as well? Learn more about using active transportation as a part of your commute.



PAGREGION.COM
Bicycle and Walk – Be active and live healthy - Pima Association of...
Using active transportation, such as walking or bicycling, to get to work puts you on the path to a healthier lifestyle and helps to reduce the...

[See insights and ads](#) [Boost post](#)

 **Pima Association of Governments**
Published by Buffer · August 11, 2022 · Public

August 7-13 is Exercise with Your Child Week. Consider using active transportation, such as walking or cycling, to get to and from school.
<https://buff.ly/3xmAa0b>



Facebook

 **Pima Association of Governments**
Published by Buffer · August 12, 2022 · Public

August 14 is Financial Awareness Day. Travel reduction is a great way to help regional air quality and save money. Use the commute cost calculator to give you an idea of how much money it costs to drive alone to work and how much you can save by sharing a ride or even eliminating days in the car altogether. <https://buff.ly/3r0BQsB>



Drive less. Save more.


 **Pima Association of Governments**
Published by Buffer · August 15, 2022 ·

August 15 is World Relaxation Day, so why not also make it a "no drive day?" Pima Association of Governments is asking people to adopt "no drive days" to help reduce the health hazards of engine emissions that contribute to ozone exposure in our community.




PAGREGION.COM

Now is a great time to encourage "no drive days"
Encourage your employees to adopt "no drive days" to help reduce

 **Pima Association of Governments**
Published by Buffer · August 17, 2022 ·

Employers with 100 or more full-time equivalent employees are required to participate in the Travel Reduction Program, which includes an annual employee travel survey. Learn more about who uses this data and why.



PAGREGION.COM

Employee travel surveys help the regions planning efforts
Planners, modelers, employers and jurisdictions use the data derive...

 **Pima Association of Governments**
Published by Buffer · August 19, 2022 ·

There's an app for nearly everything now, and that includes scheduling your next Sun Shuttle Dial-a-Ride trip in Green Valley/Sahuarita or in our new Marana/Avra Valley service area.



RTAMOBILITY.COM

Try the Sun Shuttle Dial-a-Ride app for scheduling
Sun Shuttle Dial-a-Ride scheduling is now available on a mobile ap...

Facebook

Pima Association of Governments
Published by Buffer · August 30, 2022 ·

Commuters who live and work in the Marana and Avra Valley area may consider a new Sun Shuttle Dial-a-Ride service for their daily commute or other trips in the area.



PAGREGION.COM
Marana/Avra Valley Sun Shuttle service may be good commute option

Pima Association of Governments
Published by Buffer · September 1, 2022 · Public

Today is Pink Cadillac Day. Whether you have something fancy that would make Elvis proud, or a less flamboyant ride, why not carpool to celebrate? Learn more about ridesharing and how it can help save money and reduce vehicle emissions. <https://buff.ly/3e9MxW5>



Pima Association of Governments
Published by Buffer · September 7, 2022 ·

Today is the International Day of Clean Air, and clean air helps us breathe easier. We want to keep our beautiful blue skies clean for you, your family and people who visit the greater Tucson region. Did you know that Pima Association of Governments is the state-designated air quality planning organization? Learn more about how PAG develops and analyzes plans to ensure the region maintains healthy air.



PAGREGION.COM
Air Quality - Pima Association of Governments
As the region's federally designated transportation conformity and ...

Pima Association of Governments
Published by Buffer · September 9, 2022 · Public

Saturday is Drive Your Studebaker Day. Whether you drive a classic Studebaker or modern sedan, please be safe out on the road. Take our transportation safety pledge and learn more about being safe in your car, on your bike or walking around. <https://buff.ly/36mmK9u>



Facebook



Pima Association of Governments

Published by Buffer · September 12, 2022 ·

Using transit as part of your daily commute? It is important to keep cool in the hot temperatures with these handy tips.



PAGREGION.COM

Tips to stay cool when using public transportation

Staying cool is important in the summer heat. Here are some tips t...



Pima Association of Governments

Published by Buffer · September 22, 2022 ·

Today is Car Free Day and we think a great way to celebrate is to have a "no drive day." Adopting car free days helps reduce the health hazards of ozone exposure in our community. The risk of high ground-level ozone air pollution in southern Arizona occurs during the hottest months of the year. Learn more about the benefits of going even one day without your car:



PAGREGION.COM

Now is a great time to encourage "no drive days"

Encourage your employees to adopt "no drive days" to help reduce...



Pima Association of Governments

Published by Buffer · September 26, 2022 · Public

Saturday was National Family Health & Fitness Day. Keep the festivities going by choosing active transportation as part of your commute this week. Learn more about how to walk or bike to work or as way to use transit. <https://buff.ly/3GeA9ww>



Pima Association of Governments

Published by Buffer · October 3, 2022 ·

Sunday was National Name Your Car Day. Now that you have named your favorite vehicle, how about giving it the day off? Schedule a "no drive day" and help reduce vehicle emissions, a contributor to ozone and associated health hazards.



PAGREGION.COM

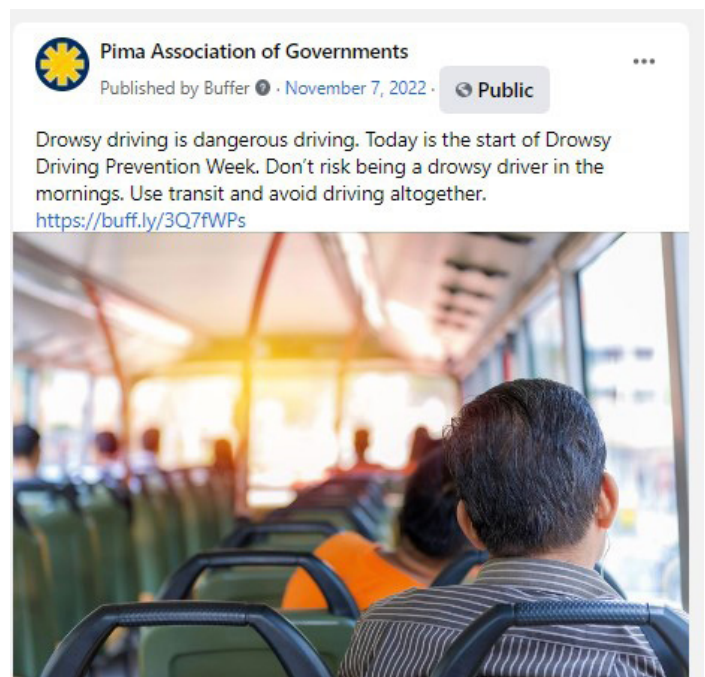
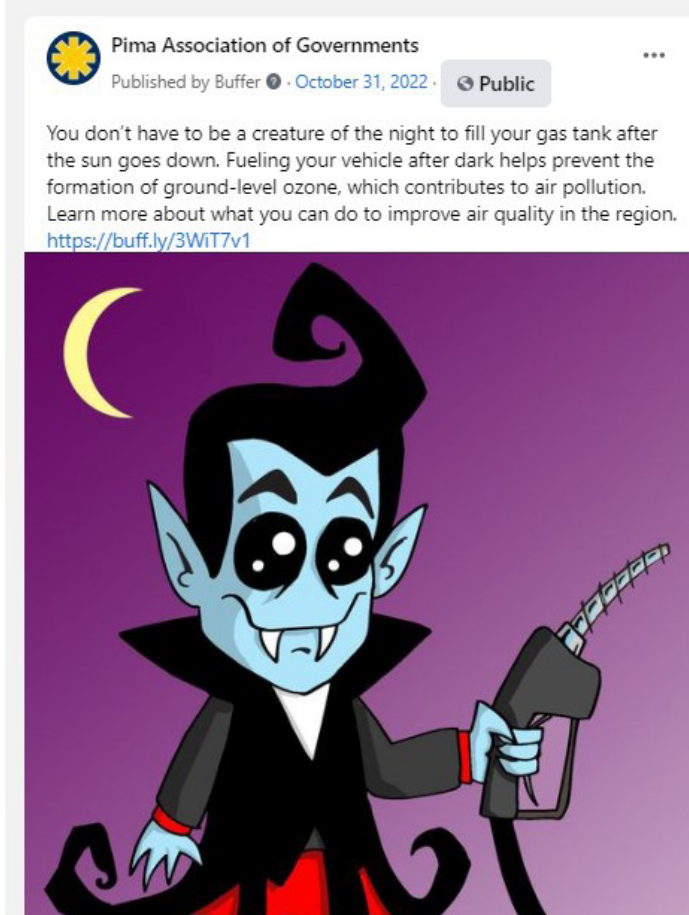
Now is a great time to encourage "no drive days"

Encourage your employees to adopt "no drive days" to help reduce...

Facebook



Facebook



Facebook



Facebook



Facebook



Facebook

 **Pima Association of Governments**
Published by Buffer · December 28, 2022 ·

Sun Tran buses will continue to run fare-free through the current fiscal year.

The Tucson City Council approved the extension of free Sun Tran, Sun Link, and Sun Van fares will remain free until June 30.

The Regional Transportation Authority plan allocates \$534 million to transit services – Sun Tran, Sun Link, Sun Van, and Sun Shuttle – over the life of the voter-approved 20-year plan.



RTAMOBILITY.COM

Fare-free transit to continue through June - Regional Transportation Authority

 **Pima Association of Governments**
Published by Buffer · December 30, 2022 · Public

Tomorrow is not only New Year's Eve but it is also National Unlucky Day. Don't tempt fate, make tomorrow a "no drive day" and stay home. Learn more: <https://buff.ly/3cRoLO1>



 **Pima Association of Governments**
Published by Buffer · January 3 · Public

Looking to keep your New Year's Resolution to get in better shape but not sure where to start? Consider using active transportation like walking and biking as part of your daily commute. Not only will it help your physical fitness, but it can help save money and less driving could lead to less dangerous emissions from your vehicle. <https://buff.ly/3GeA9ww>




 **Pima Association of Governments**
Published by Buffer · January 11 ·


Don't limit National Take the Stairs Day to just the stairs. Incorporate active transportation to your commute as well. Learn more about walking and biking to work: <https://buff.ly/3GeA9ww>



Facebook

 **Pima Association of Governments**
Published by Buffer · January 13 · 

January is Financial Wellness Month and ridesharing is a great way to save money. How much money? That depends, but use PAG's cost calculator to find out how much money you can save based upon your driving habits.

 [PAGREGION.COM](https://pagregion.com)
Commute Cost Calculator - Pima Association of Governments
How much does it cost to drive alone? The calculations shown below will give you an idea of how much money it costs to drive alone to work...

 **Pima Association of Governments**
Published by Buffer · January 17 · 

Did you know that those who use active transportation as part of their daily commute see improvements in their health? Celebrate National Healthy Weight Week by exploring pedestrian and bicycle mobility options in the region. <https://buff.ly/3uPNZ4N>



 **Pima Association of Governments**
Published by Buffer · January 19 · 

Do you want to celebrate Take a Walk Outdoors Day? Why not walk to work? Active transportation is a great way to reduce hazardous emissions from vehicles, get some exercise and save money on gas and parking costs. <https://buff.ly/3GeA9ww>



 **Pima Association of Governments**
Published by Buffer · February 4 · 

It is the end of National Solo Diners Eat Out Week. If you do choose to eat alone, don't drive alone. Share a ride with your friends even if you aren't going to share a dinner table. Sharing a ride not only saves money, but less cars on the road means less traffic congestion and vehicle emissions and, in turn, maintain or improve air quality. <https://buff.ly/3e9MxW5>



Facebook



Facebook

Pima Association of Governments
Published by Buffer · February 15 ·

January is over, but it is not too late to adopt a New Year's resolution. Incorporating active transportation into your commute can help you accomplish a few different personal goals this year.



PAGREGION.COM

Accomplish your goals via your commute - Pima Association of Governments

Pima Association of Governments
Published by Buffer · February 17 · Public

February is International Bike to Work Month observed in a number of different countries. Whether you are on your bike or in a car around cyclists, safety is key. Check out PAG's transportation safety tips to help keep the roads safer for all forms of transportation.
<https://buff.ly/3K7hhlz>



Pima Association of Governments
Published by Buffer · February 22 ·

Good news for those who use transit on their daily commute: Sun Tran buses will continue to run fare-free through June 30.



PAGREGION.COM

Fare-free transit to continue through June - Pima Association of Governments

Pima Association of Governments
Published by Buffer · February 24 ·

February is Love the Bus Month and transit is a great way to commute to work and cut down on driving. Learn more about the many benefits of transit from the clean air we breathe to the savings to our pocketbooks.



PAGREGION.COM

Transit – Help reduce congestion and pollution - Pima Association of...

Public transportation is a great alternative travel option that will help reduce traffic congestion, energy consumption and pollution. The greater...

Pima Association of Governments
Published by Buffer · February 27 ·

February 27 marks the start of Telecommuter Appreciation Week. If you are already working part- or full-time from home, thanks for doing your part to reduce the number of cars on the road. If not, have you or your business considered the advantages of telecommuting?



PAGREGION.COM

Telework – Try a flexible work option - Pima Association of Governments

Telework, which allows employees the flexibility to work from home or other space, is becoming a standard work option for many employees. Sun...

Facebook



Facebook



Pima Association of Governments

Published by Buffer · March 14 · Public

Today is Dribble to Work Day, where fans of college basketball celebrate their love of the hardwood by dribbling a basketball to work. While that may be a little too time consuming for most commuters, consider using active transportation as part of your commute to work. Even without the ball, you can try to walk or bike to work this week. <https://buff.ly/3GeA9ww>



Pima Association of Governments

Published by Buffer · March 17 · Public

Tomorrow is Transit Driver Appreciation Day. If you take the bus or any other form of transit, thank the driver. From now until June 30 you can use Sun Tran, Sun Link and Sun Van services for free. <https://buff.ly/3Zbso4d>



Pima Association of Governments

Published by Buffer · March 21 · Public

Good news for those who use transit on their daily commute: Sun Tran buses will continue to run fare-free through June 30.



PAGREGION.COM

Fare-free transit to continue through June - Pima Association of Governments



Pima Association of Governments

Published by Buffer · March 23 · Public

Have you thought of starting a carpool but don't want to put all the miles on your own vehicle? Consider starting a vanpool to share the ride and save big on commute costs. When several co-workers have similar schedules and travel to work in the same direction as you do, a vanpool can make a lot of sense.



PAGREGION.COM

Vanpool – More passengers, more savings - Pima Association of Governments

When several co-workers have similar schedules and travel to work in the same direction as you do, consider starting a vanpool to share the ride...

See insights and ads

Boost post



Pima Association of Governments

Published by Buffer · March 28 · Public

Do you have a car? A job? Coworkers you like? Then you have everything you need to start a carpool or vanpool. Sharing a ride to school or practice is also a great way to help reduce traffic congestion, energy consumption and pollution. Learn more <https://buff.ly/3KMKtPv>



Facebook

 **Pima Association of Governments**
Published by Buffer · April 4 · Public

April is Car Care Month, and one of the best ways to take care of your car is to not drive it. Using alternative transportation on your daily commute is a great way to reduce the wear and tear on your car and save money on upkeep and maintenance. <https://buff.ly/3KMKtPv>




 **Pima Association of Governments**
Published by Buffer · April 5 · Public


Today is National Walking Day. For those with short commutes of just a couple of miles, walking is a great way to save money, reduce congestion and get healthy. Learn more about using active transportation as part of your commute.



PAGREGION.COM
Bicycle and Walk – Be active and live healthy - Pima Association of...
Using active transportation, such as walking or bicycling, to get to work puts you on the path to a healthier lifestyle and helps to reduce the...

 **Pima Association of Governments**
Published by Buffer · April 7 · Public

It is Walk to Work Day, and that means it is a perfect day to use active transportation as part of your daily commute, whether you walk all the way to your job or walk to use transit the rest of the way. <https://buff.ly/3GeA9ww>



 **Pima Association of Governments**
Published by Buffer · April 10 · Public

April 10 is Global Work from Home Day. Telework not only benefits employees, but also employers and the community as a whole. Learn more about how telework can help everyone.



PAGREGION.COM
Telework – Try a flexible work option - Pima Association of Governments
Telework, which allows employees the flexibility to work from home or other space, is becoming a standard work option for many employees. Sun...

 **Pima Association of Governments**
Published by Buffer · April 13 · Public

April is Financial Literacy Month. A great way to be financially smart is to reduce the number of solo car trips. How much can you save? Use the commute cost calculator and find out how much you are spending and how much you can save by reducing trips. <https://buff.ly/3r0BQsB>



Drive less. Save more.

 **Pima Association of Governments**
Published by Buffer · April 27 · Public

April is Financial Literacy Month. Use PAG's Commute Cost Calculator to learn how much you can save by carpooling. <https://buff.ly/3W0EuLs>



Facebook



Pima Association of Governments

Published by Buffer · April 18 · Public

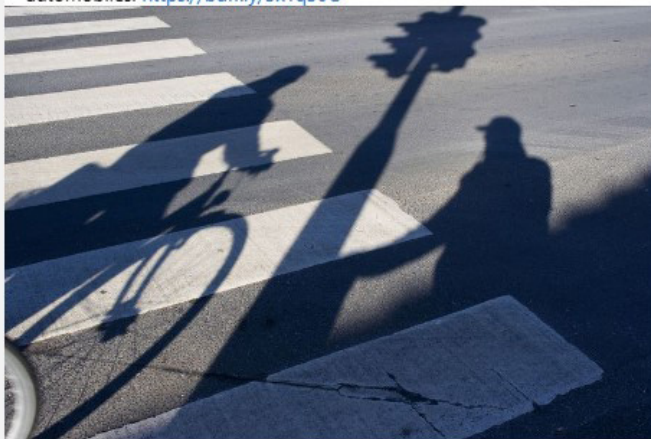
What better way to celebrate National Exercise Day than to use active transportation to commute to work? Walk, ride or run to work today and you'll not only get exercise, but you will reduce the number of vehicles on the road. <https://buff.ly/3GeA9ww>



Pima Association of Governments

Published by Buffer · April 25 · Public

April is Physical Wellness Month. Using active transportation for your daily commute, such as walking or cycling, is a great way to move more, save money and do your part to reduce emissions from automobiles. <https://buff.ly/3x1q300>



Pima Association of Governments

Published by Buffer · May 1 · Public

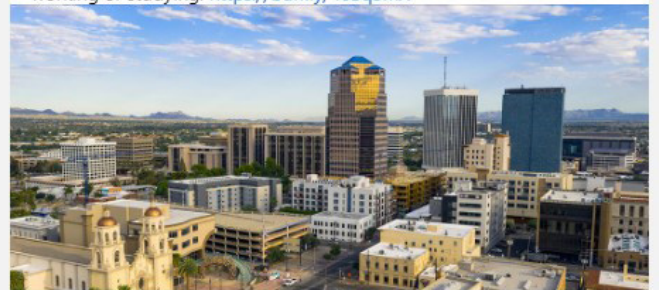
Did you know that today is Learn to Ride a Bike Day? Part of learning to ride a bike is learning how to be a safe rider. Any new rider should take PAG's transportation safety pledge and learn how to be safe on the road and the trails. <https://buff.ly/40VMwYq>



Pima Association of Governments

Published by Buffer · May 5 · Public

Celebrate Clean Air Month by doing your part. Pima Association of Governments has compiled tips to help take the first or second step toward cleaner air around you – at home, on the go, or while you are working or studying. <https://buff.ly/40Sq5mX>



Facebook

 **Pima Association of Governments**
Published by Buffer · May 16 ·

You can participate in National Bike Week as well as Bike to Work Week and PAG can help. The regional bicycle network consists of over 1,000 miles of bicycle lanes, routes, shared-use paths/trails and bicycle boulevards and PAG has an interactive map to help navigate those options. Learn more about the network and other bike resources.



PAGREGION.COM
Regional Bicycle Network and Map - Pima Association of Governments

 **Pima Association of Governments**
Published by Buffer · May 17 · Public


Today is Bike to School Day! Help keep those young riders safe by reviewing PAG's transportation safety tips which includes tips for cyclists, pedestrians and drivers. <https://buff.ly/3K7hhlz>



 **Pima Association of Governments**
Published by Buffer · May 17 · Public

Did you know today is National Employee Health and Fitness Day? Consider using active transportation to improve your employees' fitness level. <https://buff.ly/3GeA9ww>



 **Pima Association of Governments**
Published by Buffer · May 18 ·

Celebrate National Women's Health Week by using active transportation as part of your daily commute. Walking or biking are great ways to add a healthy activity to your commute, while also reducing traffic congestion and saving money. Learn more: <https://buff.ly/3GeA9ww>

 **Pima Association of Governments**
Published by Buffer · May 19 · Public

Want to participate in National Bike to Work Day but not sure how? Use PAG's interactive bikeways map to help plan a safe and efficient route. <https://buff.ly/3lzTHzx>



 **Pima Association of Governments**
Published by Buffer · May 19 ·

Are you or your kids participating in Walk Safely to School Day? If so, review PAG's pedestrian safety tips to help your little ones make smart choices on their trek to and from school. Take the PAG safety pledge to help be a safer walker, driver and cyclist.



PAGREGION.COM
Transportation Safety Pledge - Pima Association of Governments

Facebook



Facebook

 **Pima Association of Governments**
Published by Buffer · June 2 · 

Saturday is World Bicycle Day and what better way to celebrate than to bike to work? Not sure how to get started? This handy guide can help you start using active transportation for your daily commute.



PAGREGION.COM

How to start commuting in a bike-friendly community - Pima Association of Governments

 **Pima Association of Governments**
Published by Buffer · June 6 · 

This week our friends in Canada are participating in the National Commuter Challenge, when people are encouraged to leave their cars at home in favor of sustainable transportation options such as walking, cycling, carpooling and transit. Learn more about commuter benefits and join the challenge:



ive less. Save more.


PAGREGION.COM

Transportation Mode Choices - Pima Association of Governments

 **Pima Association of Governments**
Published by Buffer · June 6 · 

Tomorrow is Global Running Day. Whether you are on a run or meet a runner or pedestrian while driving, we've got some tips to get everyone home safely. <https://buff.ly/3K7hhiz>

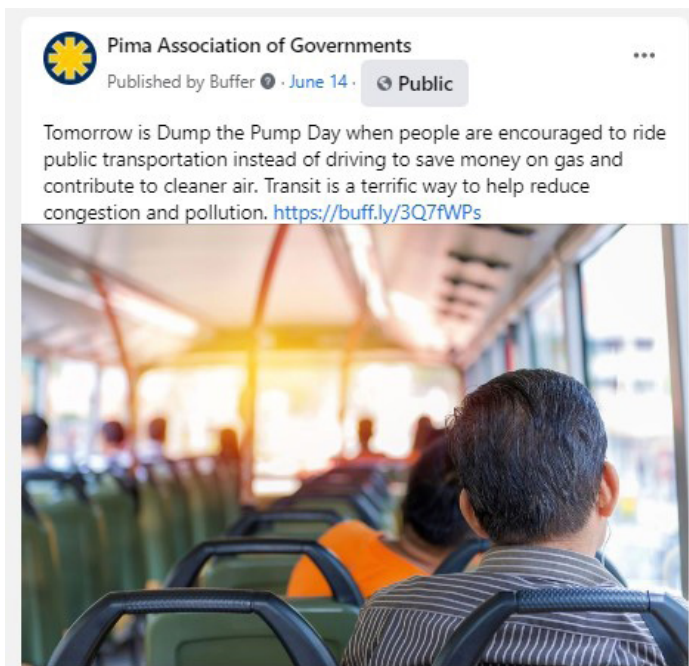


 **Pima Association of Governments**
Published by Buffer · June 7 · 

Celebrate Global Running Day by running (or walking) to work. Too far to run? Consider running to the bus stop and riding the rest of the way. You will save money, get exercise and cut down on hazardous vehicle emissions. <https://buff.ly/3xmAa0b>



Facebook



Facebook



Twitter

PAG @PAGregion · Jul 7 ...

We all think of carpooling and vanpooling as great ridesharing options to the workplace but sharing a ride to school or practice is also a great way to help reduce traffic congestion, energy consumption and pollution.
pagregion.com/mobility/commu...



Do your share. Drive less. Carpool.

1 1

PAG @PAGregion · Jul 8, 2022 ...

Today is Be a Kid Again Day! If you are out reliving your childhood, please make sure you stay safe. Take our transportation safety pledge and make sure you follow safety practices as a pedestrian, cyclist or any other mode of transportation.



pagregion.com
 Transportation Safety Pledge - Pima Association o...
 Take our transportation safety pledge and make a difference in our community whether you are a ...

1 1

PAG @PAGregion · Jul 14 ...

Did you know you can save money while helping the environment? By joining a carpool or vanpool, you not only reduce your commute costs, you also reduce vehicle emissions that pollute the air. Visit pagregion.com/sustainability... to learn more.



pagregion.com
 Travel Reduction - Pima Association of Governments
 Our Travel Reduction Program seeks to reduce traffic congestion on our roads to help maintain or improve the region's air quality. The program...

1 1

PAG @PAGregion · Jul 14, 2022 ...

Did you know you can save money while helping the environment? By joining a carpool or vanpool, you not only reduce your commute costs, you also reduce vehicle emissions that pollute the air. Visit pagregion.com/sustainability... to learn more.




pagregion.com
 Travel Reduction - Pima Association of Governme...
 Our Travel Reduction Program seeks to reduce traffic congestion on our roads to help maintain or ...

1 1

PAG @PAGregion · Jul 22, 2022 ...

Sunday is both National Day of Motoring and National Drive-Thru Day. If you are going to be out in your car, please be safe. Watch for pedestrians and cyclists and check out our traffic safety tips to make your drive-through run as safe as possible.



pagregion.com
 Bicycle and Pedestrian Safety - Pima Association ...
 Pima Association of Governments' planning efforts focus on providing a safe and reliable transportati...

1 1

PAG @PAGregion · Aug 1 ...

The peak period for ground-level ozone air pollution in southern Arizona occurs during the hottest months of the year. PAG is encouraging people to adopt "no drive days" to help reduce the health hazards of ozone exposure in our community.



pagregion.com
 Now is a great time to encourage "no drive days"
 Encourage your employees to adopt "no drive days" to help reduce the health hazards of ozone exposure in our community.

1 1

Twitter



PAG @PAGregion · Aug 3

Employers with 100 or more full-time equivalent employees are required to participate in the Travel Reduction Program, which includes an annual employee travel survey. Learn more about who uses this data and why.



pagregion.com

Employee travel surveys help the regions planning efforts
Planners, modelers, employers and jurisdictions use the data derived from the PAG employee travel surveys.

1 1



PAG @PAGregion · Aug 5

Saturday is Cycle to Work Day in England but why not celebrate here as well? Learn more about using active transportation as a part of your commute. pagregion.com/mobility/commu...



1



PAG @PAGregion · Aug 8, 2022

August 7-13 is Exercise with Your Child Week. Consider using active transportation, such as walking or cycling, to get to and from school. pagregion.com/mobility/commu...



4



PAG @PAGregion · Aug 11, 2022

This week is Stop on Red Week, and it is a good reminder to be aware of pedestrians. Signalized pedestrian HAWK crossings are effective ways to help with pedestrian safety. Learn more about HAWK crossings and how they keep walkers safe.



youtube.com

Walk Safe Drive Safe - HAWK Crossing

Check out the second Walk Safe Drive Safe PSA which focuses on Pedestrian HAWK Crossings. ...

1



PAG @PAGregion · Aug 12

August 14 is Financial Awareness Day. Travel reduction is a great way to help regional air quality and save money. Use the commute cost calculator to give you an idea of how much money it costs to drive alone and how much you can save. pagregion.com/mobility/commu...



1



PAG @PAGregion · Aug 15

August 15 is World Relaxation Day, so why not also make it a "no drive day?" Pima Association of Governments is asking people to adopt "no drive days" to help reduce the health hazards of ozone exposure in our community.




pagregion.com

Now is a great time to encourage "no drive days"

Encourage your employees to adopt "no drive days" to help reduce the health hazards of ozone exposure in our community.

2 3

Twitter

 **PAG @PAGregion** · Aug 30, 2022 ...
Using transit as part of your daily commute? It is important to keep cool in the hot temperatures. Keep cool during the dog days of summer with these handy tips.



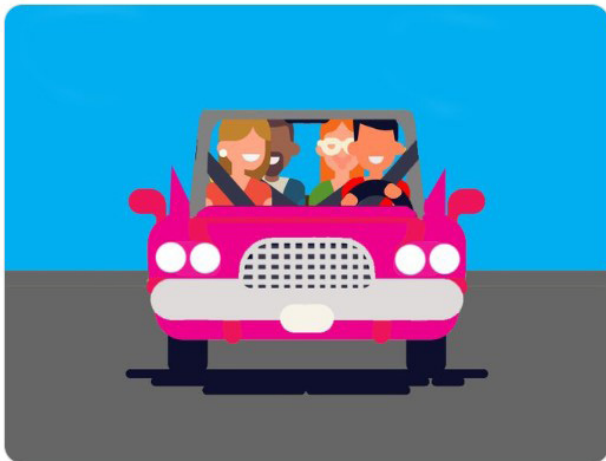
pagregion.com


Tips to stay cool when using public transportation

Staying cool is important in the summer heat. Here are some tips to stay cool this summer when using public transportation.




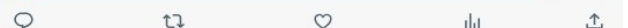
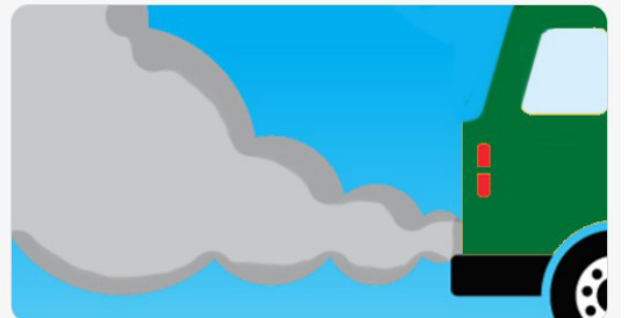
 **PAG @PAGregion** · Sep 1, 2022 ...
Today is Pink Cadillac Day. Whether you have a fancy Cadillac that would make Elvis proud or something more modern, why not carpool to celebrate? Learn more about ridesharing and how it can help save money and reduce vehicle emissions. pagregion.com/mobility/commu...




 **PAG @PAGregion** · Sep 9, 2022 ...
Saturday is Drive Your Studebaker Day. Whether you drive a classic Studebaker or modern SUV, please be safe out on the road. Take our transportation safety pledge and learn more about being safe in your car, on your bike or walking. pagregion.com/mobility/bicyc...



 **PAG @PAGregion** · Sep 12, 2022 ...
Pollution from cars is especially hazardous to school-age children. A great way to reduce dangerous emissions is to limit idling. When picking up your children at school, simply turn the key if you'll be stopped for 10 seconds or more. azdeq.gov/IdleReduction



 **PAG @PAGregion** · Sep 15, 2022 ...
Using transit as part of your daily commute? It is important to keep cool in the hot temperatures. Keep cool during the dog days of summer with these handy tips.



pagregion.com

Tips to stay cool when using public transportation

Staying cool is important in the summer heat. Here are some tips to stay cool this summer when using public transportation.



Twitter

PAG @PAGregion · Oct 3, 2022
Volunteers are needed for the 2022 Regional Bike Count. With your help counting cyclists and pedestrians, we can better identify locations for bicycle and pedestrian safety improvements. Sign up: maps.pagregion.com/PAGBikePed/Bik...



🗨️ 🔄 ❤️ 📊 ⬆️

PAG @PAGregion · Oct 3, 2022
Sunday was National Name Your Car Day. Now that you have named your favorite vehicle, how about giving it the day off? Schedule a “no drive day” and help reduce vehicle emissions, a contributor to ozone and associated the health hazards.



pagregion.com
Now is a great time to encourage “no drive days”
Encourage your employees to adopt “no drive days” to help reduce the health hazards of ozone exposure in our community.

PAG @PAGregion · Oct 5, 2022
It is International Walk to School Day. Whether you’re walking, or av those heavy pedestrian zones, PAG’s School Search Map can help y a safe route. maps.pagregion.com/SchoolSearch/M...

🗨️ 🔄 ❤️ 📊

PAG @PAGregion · Oct 6, 2022
Yesterday was International Walk to School Day. If you or your child participated and enjoyed the experience, consider using active transportation more often in your daily commute to school or work. pagregion.com/mobility/sun-r...



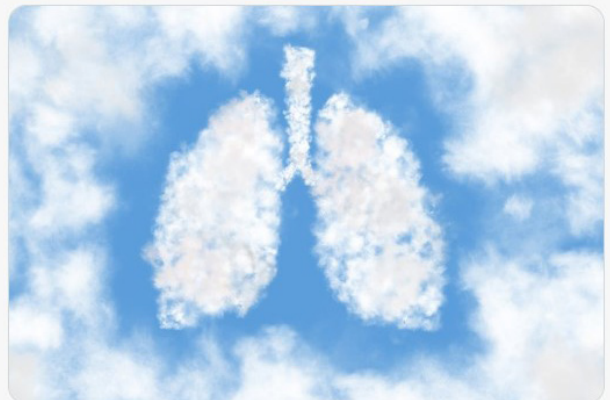
🗨️ 🔄 ❤️ 📊 ⬆️

PAG @PAGregion · Oct 10, 2022
Your help is needed to conduct the 2022 Regional Bike Count to help inform regional planning efforts. The data helps identify trends for safety planning efforts. Volunteer now: maps.pagregion.com/PAGBikePed/Bik...



🗨️ 🔄 ❤️ 📊 ⬆️

PAG @PAGregion · Oct 10, 2022
September is Healthy Lungs Month. Learn more about what Pima Association of Governments does to promote clean air in the region. pagregion.com/sustainability...



🗨️ 🔄 2 ❤️ 2 📊 ⬆️

Twitter

PAG @PAGregion · Oct 11, 2022 ...
Pollution from cars is especially hazardous to school-age children. A great way to reduce dangerous emissions is to limit vehicle idling. When picking up your children at school, simply turn the key to off if you'll be stopped for 10 seconds or more. azdeq.gov/IdleReduction



🗨️ 🔄 ❤️ 📊 ⬆️

PAG @PAGregion · Oct 14, 2022 ...
Saturday is National Motorcycle Ride Day. Make sure the roads are safe for those riding their motorcycles. Check out our transportation safety tips to keep the roads safe for cyclists, pedestrians and those driving cars and riding motorcycles. pagregion.com/mobility/bicyc...



🗨️ 🔄 ❤️ 📊 ⬆️

PAG @PAGregion · Oct 17, 2022 ...
Today is the first day of the 2022 Regional Bike Count and your help is still needed. We are looking for volunteers to help with the count and provide data that will inform regional planning efforts. It just takes just 2 hours (3 on weekends). Sign up: maps.pagregion.com/PAGBikePed/Bik...



🗨️ 🔄 ❤️ 📊 ⬆️

PAG @PAGregion · Oct 31, 2022 ...
You don't have to be a vampire to fill your gas tank after the sun goes down. Re-fueling your vehicle after dark helps prevent the formation of ground-level ozone, which contributes to air pollution. Learn more about air quality in the region. pagregion.com/sustainability...



🗨️ 🔄 ❤️ 📊 ⬆️

PAG @PAGregion · Nov 3, 2022 ...
Celebrate Healthy Lifestyles Month by using active transportation as part of your commute. Cycling or walking can be a great way to get to work. Learn more on how to get fit and help air quality in the region. pagregion.com/mobility/commu...



🗨️ 🔄 ❤️ 📊 ⬆️

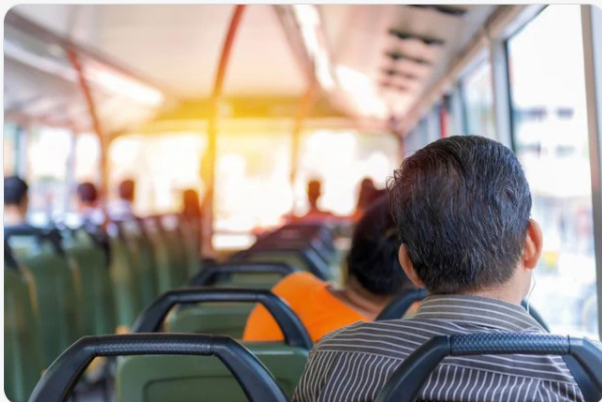
Twitter

 **PAG @PAGregion** · Nov 7, 2022 ...
Drowsy driving is dangerous driving. Drowsy Driving Prevention Week starts today. Join a carpool and cut down the amount of driving you have to do each morning. Learn more about carpools and vanpools: pagregion.com/mobility/commu...




 **PAG @PAGregion** · Nov 10, 2022 ...
Drowsy driving is dangerous driving. It is Drowsy Driving Prevention Week. Don't risk being a drowsy driver in the mornings, use transit and avoid driving altogether. pagregion.com/mobility/commu...




 **PAG @PAGregion** · Nov 11, 2022 ...
You can do your part to reduce the health hazards from ozone exposure in our community. Even one less day of driving can help. Consider giving your car a day off and going car free. pagregion.com/info-center/ne...




 **PAG @PAGregion** · Nov 25, 2022 ...
Want to go shopping on Black Friday but don't want to battle the crowded parking lots? Consider using transit or alternative transportation methods like ride sharing or active transportation. pagregion.com/mobility/commu...





 **PAG @PAGregion** · Nov 28, 2022 ...
Want to save money and help improve air quality? It could be a great time to start a carpool or vanpool. You might be interested in ridesharing but may not know how to start a carpool or take the next steps once you find participants. We have some tips. pagregion.com/info-center/ne...



  1   

 **PAG @PAGregion** · Dec 2, 2022 ...
Saturday is Global Fat Bike Day, and many enthusiasts are planning big rides over the weekend. Whether you ride a fat bike, or any type of bike, being safe is important. Learn about bicycle safety: pagregion.com/mobility/bicyc...




    

Twitter

 **PAG** @PAGregion · Dec 9, 2022 ...
The holidays can be stressful, and a big part of that stress can be all the extra driving for errands and special gatherings. A little extra planning can help you combine those trips and cut down on the stress.
pagregion.com/info-center/ne...




 **PAG** @PAGregion · Dec 13, 2022 ...
Regional pedestrian and bicycle improvement projects will receive \$8.2 million in federal grant funding from a federal transportation alternatives program that targets regional priorities through smaller scale projects. Which jurisdictions will benefit?




pagregion.com
Competitive federal grants awarded for regional bicycle and pedestria...
Five regional pedestrian and bicycle improvement projects will receive grant funding totaling \$8.2 million from a federal transportation ...

 **PAG** @PAGregion · Dec 19, 2022 ...
Doing some last-minute holiday shopping this week? Or find the prospect of parking during these busy shopping days daunting? Consider carpooling with friends or using transit to make the week less stressful.
pagregion.com/mobility/commu...



    31 

 **PAG** @PAGregion · Dec 20, 2022 ...
Stressed out from the holidays? Active transportation, like walking and biking, is not only an environmentally friendly way to commute or travel to other destinations, but it can reduce stress and make you healthier in the new year. pagregion.com/mobility/sun-r...



    47 

Twitter

 **PAG** @PAGregion · Dec 23, 2022

Celebrate National Christmas Movie Marathon Day by staying home and binge watching your favorite holiday movies. It is a perfect way to have a “drive free day” and do your part to lessen traffic congestion and hazardous emissions.



pagregion.com
Now is a great time to encourage “no drive days”
Encourage your employees to adopt “no drive days” to help reduce the health hazards of ozone exposure in our community.

 **PAG** @PAGregion · Dec 30, 2022

Tomorrow is not only New Year’s Eve, but it is also National Unlucky Day. Don’t tempt fate, make tomorrow a “no drive day” and stay home. Learn more: pagregion.com/info-center/new-year-eve



1 31

 **PAG** @PAGregion · Jan 3

Looking to keep your New Year’s Resolution to get in better shape? Consider using active transportation as part of your daily commute. Not only will it help your physical fitness, but it can lead to less dangerous emissions from your vehicle. pagregion.com/mobility/sun-r...



1 68

 **PAG** @PAGregion · Jan 6

Regional pedestrian and bicycle improvement projects will receive \$8.2 million in federal grant funding from a federal transportation alternatives program that targets regional priorities through smaller scale projects. Which jurisdictions will benefit?



pagregion.com
Competitive federal grants awarded for regional bicycle and pedestrian...
Five regional pedestrian and bicycle improvement projects will receive grant funding totaling \$8.2 million from a federal transportation ...

29

Twitter



PAG @PAGregion · Jan 10

Celebrate National Staying Healthy Month by using active transportation, such as walking or bicycling, to get to work. Active transportation puts you on the path to a healthier lifestyle and helps to reduce the number of vehicles on the road. Learn more: pagregion.com/mobility/sun-r...



PAG @PAGregion · Jan 17

January is Financial Wellness Month and ridesharing is a great way to save money. How much money? That depends but use PAG's cost calculator to find out how much money you can save based upon your driving habits. pagregion.com/sustainability...

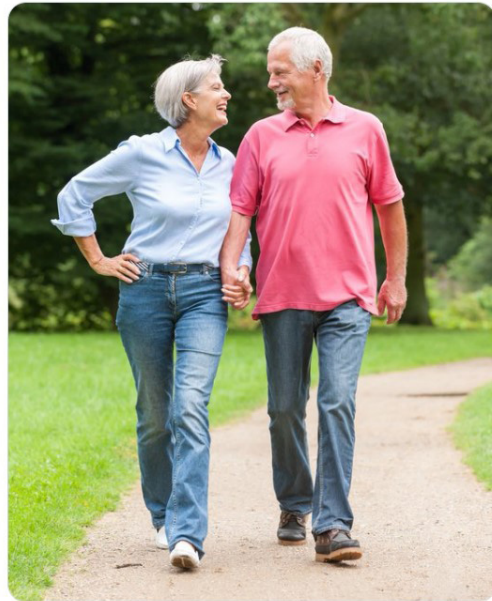


41



PAG @PAGregion · Jan 20

Do you want to celebrate Take a Walk Outdoors Day? Why not walk to work? Active transportation is a great way to reduce hazardous emissions from vehicles, get some exercise and save money on gas and parking costs. pagregion.com/mobility/sun-r...



PAG @PAGregion · Jan 23

Regional pedestrian and bicycle improvement projects will receive \$8.2 million in federal grant funding from a federal transportation alternatives program that targets regional priorities through smaller scale projects. Which jurisdictions will benefit?



pagregion.com

Competitive federal grants awarded for regional bicycle and pedestrian... Five regional pedestrian and bicycle improvement projects will receive grant funding totaling \$8.2 million from a federal transportation ...

Twitter

PAG @PAGregion · Jan 23 ...

Looking to keep your New Year's Resolution to get in better shape? Consider using active transportation as part of your daily commute. Not only will it help your physical fitness, but it can lead to less dangerous emissions from your vehicle. pagregion.com/mobility/sun-r...



PAG @PAGregion · Mar 7 ...

Welcome to National Scoot to School Week, where students in Ireland are encouraged to ride their scooters, ride their bikes, or walk to school. Why don't you follow their lead and use active transportation as part of your commute to work? pagregion.com/mobility/sun-r...



PAG @PAGregion · Mar 2 ...

Telecommuter Appreciation Week continues. Learn more about how telecommuting helps the community by reducing traffic congestion and the number of cars on the road. pagregion.com/mobility/commu...



🗨️ ↻️ ❤️ 📊 33 📤

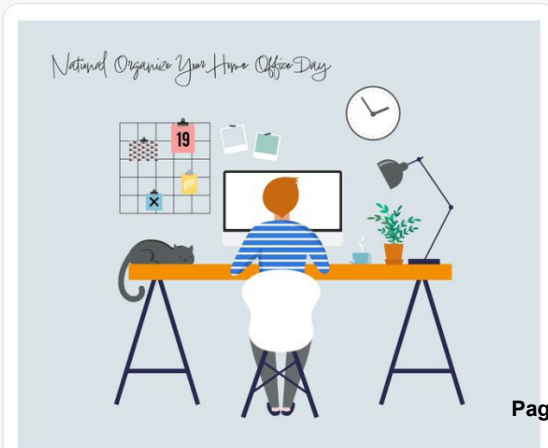
PAG @PAGregion · Mar 14 ...

Today is Dribble to Work Day, where fans of basketball celebrate their hoops love by dribbling a basketball to work. While that may be a little too time consuming for most commuters, consider using active transportation as part of your commute to work. pagregion.com/mobility/sun-r...



PAG @PAGregion · Mar 18 ...

March 14 is National Organize Your Home Office Day. Teleworking is a great way to reduce air pollution causing automobile congestion. Learn more about the benefits to employees and employers of telework. pagregion.com/mobility/commu...



Twitter



PAG @PAGregion · Mar 23

Do you have a car? A job? Coworkers you like? Then you have everything you need to start a carpool or vanpool. Sharing a ride to school or practice is also a great way to help reduce traffic congestion, energy consumption and pollution. Learn more pagregion.com/sustainability...



PAG @PAGregion · Mar 24

Good news for those who use transit on their daily commute: Sun Tran buses will continue to run fare-free through June 30. pagregion.com/info-center/ne...



PAG @PAGregion · Apr 4

April is Financial Literacy Month. A great way to be financially smart is to reduce the number of solo car trips. How much can you save? Use the commute cost calculator and find out how much you are spending and how much you can save by reducing trips. pagregion.com/mobility/commu...



PAG @PAGregion · Apr 5

Today is National Walking Day. For those with short commutes of just a couple of miles, walking is a great way to save money, reduce congestion and get healthy. Learn more about using active transportation as part of your commute. pagregion.com/mobility/sun-r...



PAG @PAGregion · Apr 6

April is National Distracted Driving Awareness Month, and this week is Drowsy Driver Awareness Week. There's no better time to review the driver safety tips (as well as bicycle and pedestrian tips) and take the transportation safety pledge. pagregion.com/mobility/bicyc...



Twitter



PAG @PAGregion · Apr 7

It is Walk to Work Day, and that means it is a perfect day to use active transportation as part of your daily commute, whether you walk all the way to your job, or walk to use transit the rest of the way.
pagregion.com/mobility/sun-r...



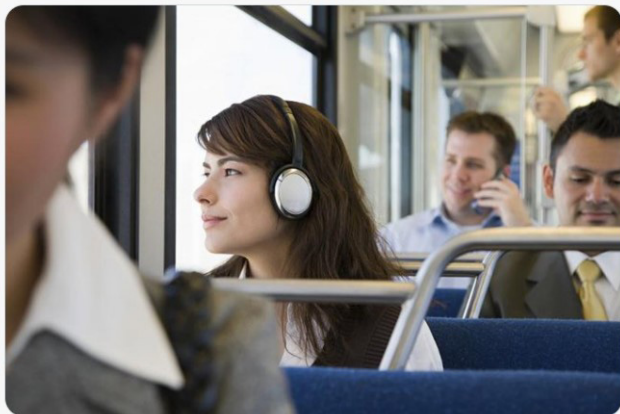
PAG @PAGregion · Apr 10

April 10 is Global Work from Home Day. Telework not only benefits employees, but also benefits employers and the community as a whole. Learn more about how telework can help everyone.
pagregion.com/mobility/commu...



PAG @PAGregion · Apr 13

April is Car Care Month, and one of the best ways to take care of your car is to not drive it. Using alternative transportation on your daily commute is a great way to reduce the wear and tear on your car and save money on upkeep and maintenance. pagregion.com/sustainability...



PAG @PAGregion · Apr 21

Saturday is Earth Day! Learn more about how PAG promotes sustainability, clean air and water, travel reduction, and solid waste management.
pagregion.com/sustainability/



PAG @PAGregion · Apr 25

April is Physical Wellness Month. Using active transportation for your daily commute, such as walking or cycling, is a great way to move more, save money and do your part to reduce emissions from automobiles.
pagregion.com/mobility/commu...



PAG @PAGregion · May 4

Don't let National Bicycle Safety Month slip by without reading PAG's bicycle safety tips. While you are at it, check out all the transportation safety tips to help keep our region's roads safer.
pagregion.com/mobility/bicyc...



Twitter



PAG @PAGregion · May 11

April was Distracted Driving Awareness Month. Accidents caused by drivers who are not fully focused on the road are becoming an epidemic. Carpools and transit can provide a solution to the distracted driver problem.



pagregion.com

Avoid distracted driving by letting others take the wheel - Pima Assoc... We hear a "ping" alerting us to a text, and we all know the feeling. We are tempted to look at our phones right away. At home, it's not a big ...



PAG @PAGregion · May 17

Today is Bike to School Day! Help keep those young riders safe by reviewing PAG's transportation safety tips which includes tips for cyclists, pedestrians and drivers. pagregion.com/mobility/bicyc...

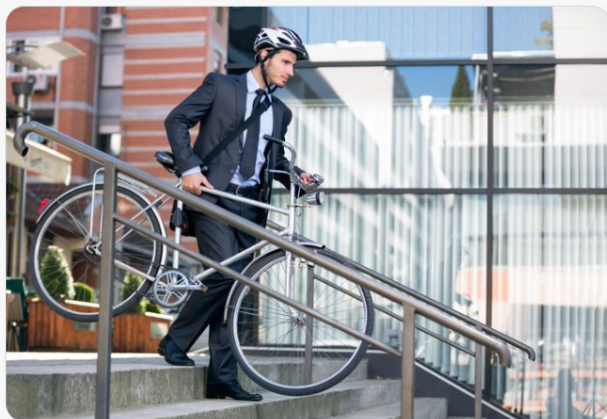


33



PAG @PAGregion · May 17

Did you know today is National Employee Health and Fitness Day? Consider using active transportation to improve your employees' fitness level. pagregion.com/mobility/sun-r...



PAG @PAGregion · May 18

Celebrate National Women's Health Week by using active transportation as part of your daily commute. Walking or biking are great ways to add a healthy activity to your commute, while also reducing traffic congestion and saving money. Learn more: pagregion.com/mobility/sun-r...



PAG @PAGregion · May 19

Want to participate in National Bike to Work Day but not sure how? Use PAG's interactive bikeways map to help plan a safe and efficient route. maps.pagregion.com/PAGBikePed/Bik...



PAG @PAGregion · May 19

Are you or your kids participating in Walk Safely to School Day? Review PAG's pedestrian safety tips to help your little ones make smart choices on their trek to and from school. Take the PAG safety pledge to help be a safer walker, driver and cyclist.



pagregion.com

Transportation Safety Pledge - Pima Association of Governments

Take our transportation safety pledge and make a difference in our community whether you are a pedestrian, bicyclist, driver, or all three....

Twitter



PAG @PAGregion · May 22

Saturday was National Be a Millionaire Day. Joining a carpool won't make you a millionaire but it can save you some significant money. Use PAG's commute calculator to learn how much you can save by skipping one or two days of driving each month. pagregion.com/sustainability...



PAG @PAGregion · May 27

Help your teens observe National Youth Traffic Safety Month by taking PAG's Transportation Safety Pledge. The pledge has tips for being safe as a pedestrian, cyclist or driver.



pagregion.com

Transportation Safety Pledge - Pima Association of Governments

Take our transportation safety pledge and make a difference in our community whether you are a pedestrian, bicyclist, driver, or all three....



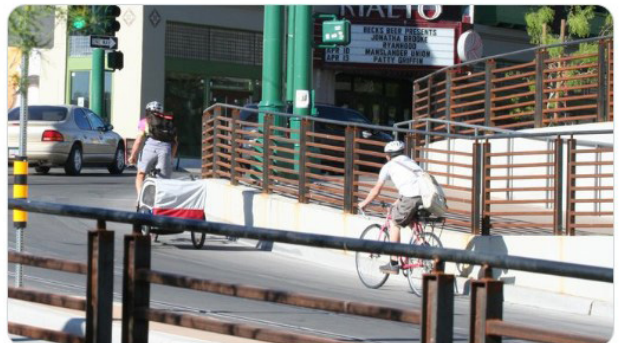
PAG @PAGregion · Jun 5

Today is World Environment Day and Pima Association of Governments has a number of programs that support the environment. From air and water quality to travel reduction, learn more about PAG's sustainability efforts. pagregion.com/sustainability/



PAG @PAGregion · Jun 6

This week our friends in Canada are participating in the National Commuter Challenge, when people are encouraged to choose sustainable transportation options such as walking, cycling, carpooling, and transit. Learn more about commuter benefits: pagregion.com/mobility/commu...



PAG @PAGregion · Jun 7

Celebrate Global Running Day by running (or walking) to work. Too far to run? Consider running to the bus stop and riding the bus the rest of the way. You will save money, get exercise and cut down on hazardous vehicle emissions. pagregion.com/mobility/commu...



Twitter



PAG @PAGregion · Jun 1

...

June 1 is National Dare Day, and we dare you to give active transportation a try. Instead of driving to work, try incorporating walking or bike riding into your commute. Too far to walk or ride? Mix active transportation with transit. pagregion.com/mobility/commu...



PAG @PAGregion · Jun 6

...

Tomorrow is Global Running Day. Whether you are on a run or meet a runner or pedestrian while driving, we've got some tips to get everyone home safely. pagregion.com/mobility/bicyc...



PAG @PAGregion · Jun 13

...

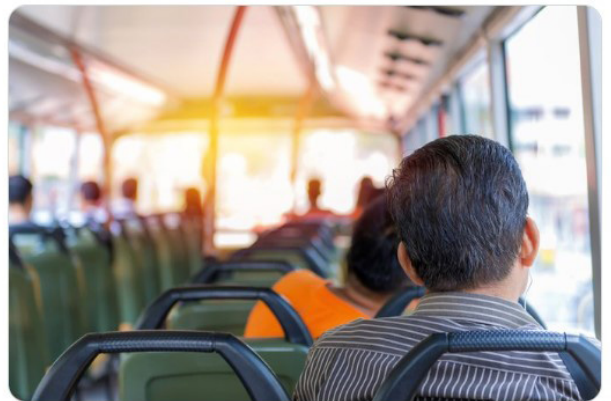
It is National Men's Health Week and active transportation is a healthy way to get to work for everyone. Learn more about walking and cycling as part of your commute. pagregion.com/mobility/commu...



PAG @PAGregion · Jun 14

...

Tomorrow is Dump the Pump Day when people are encouraged to ride public transportation instead of driving to save money and contribute to cleaner air. Transit is a terrific way to help reduce congestion and pollution. pagregion.com/mobility/commu...



PAG @PAGregion · Jun 15

...

Today is Dump the Pump Day when people are encouraged to ride public transportation instead of driving to save money and help improve air quality. Use the commute cost calculator to learn how much you can save by cutting even a few car trips a month. pagregion.com/mobility/commu...



Twitter



PAG @PAGregion · Jun 21

...

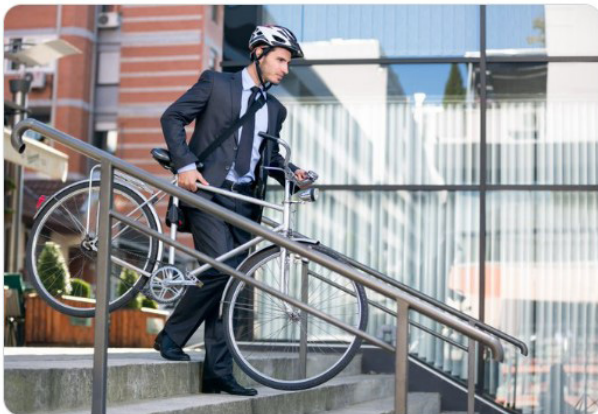
It is National Go Skateboard Day. If you can't skate to work, it's still a great day to use active transportation as part of your commute. It's a healthy option, plus you can save money and help reduce harmful emissions from automobiles. Learn more: pagregion.com/mobility/commu...



PAG @PAGregion · Jun 23

...

Want to start cycling to work but don't know where to start? Here is some advice from actual commuters. pagregion.com/info-center/ne...



PAG @PAGregion · Jun 29

...

It is national Work from Home Day. Does your company offer telework or hybrid schedules? Learn more about telework and whether it could benefit your organization. pagregion.com/mobility/commu...



2023 Website Metrics



WEB & ANALYTICS REPORT

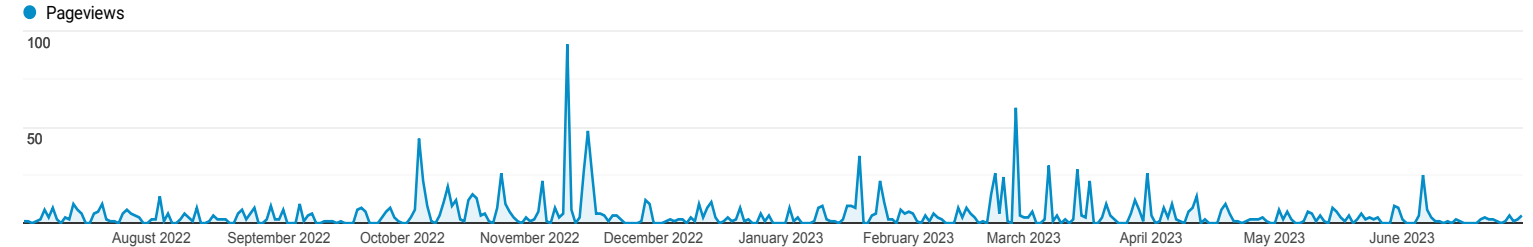
TRAVEL REDUCTION PROGRAM /
SUN RIDESHARE

Fiscal Year 2023

Travel Reduction Program

Pageviews

The TRP page had 1,675 views in FY2023

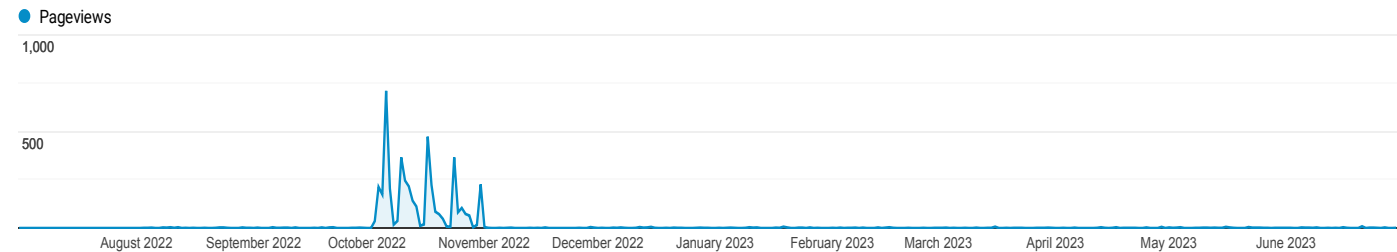


Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	1,675 % of Total: 1.85% (90,345)	1,481 % of Total: 1.91% (77,376)	00:01:14 Avg for View: 00:01:27 (-15.56%)	1,150 % of Total: 2.49% (46,130)	84.87% Avg for View: 67.02% (26.63%)	66.39% Avg for View: 51.06% (30.02%)	\$0.00 % of Total: 0.00% (\$0.00)
1. /sustainability/travel-reduction/	1,675 (100.00%)	1,481 (100.00%)	00:01:14	1,150 (100.00%)	84.87%	66.39%	\$0.00 (0.00%)

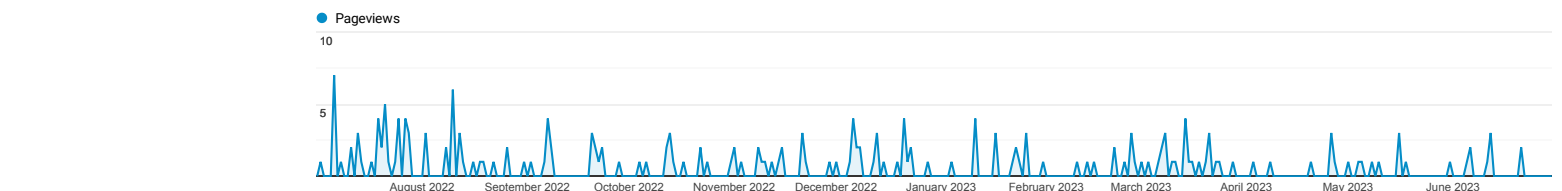
Sun Rideshare

Pageviews

The Sun Rideshare page had 4,887 views in FY2023.



Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	4,679 % of Total: 5.18% (90,345)	4,594 % of Total: 5.94% (77,376)	00:01:48 Avg for View: 00:01:27 (23.14%)	4,471 % of Total: 9.69% (46,130)	96.71% Avg for View: 67.02% (44.30%)	94.40% Avg for View: 51.06% (84.88%)	\$0.00 % of Total: 0.00% (\$0.00)
1. /mobility/sun-rideshare/	4,679 (100.00%)	4,594 (100.00%)	00:01:48	4,471 (100.00%)	96.71%	94.40%	\$0.00 (0.00%)



Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	208 % of Total: 0.23% (90,345)	172 % of Total: 0.22% (77,376)	00:01:34 Avg for View: 00:01:27 (7.18%)	127 % of Total: 0.28% (46,130)	60.63% Avg for View: 67.02% (-9.54%)	44.23% Avg for View: 51.06% (-13.37%)	\$0.00 % of Total: 0.00% (\$0.00)
1. /mobility/commuter-services-and-mode-choices/sun-rideshare/	208 (100.00%)	172 (100.00%)	00:01:34	127 (100.00%)	60.63%	44.23%	\$0.00 (0.00%)

PAG Travel Reduction Web Metrics July 1, 2022 - June 30, 2023		
Page/Post Title	Unique Pageviews	Avg. Session Duration
Sun Rideshare	4679	1:48
Travel Reduction	1675	1:14
Transportation Mode Choices	719	1:19
Competitive federal grants awarded for regional bicycle and pedestrian	318	1:54
Mobility	304	0:34
Bicycle and Pedestrian Safety	279	4:18
TRP Employer Award Program	266	1:45
Bicycle and Pedestrian Mobility	246	2:05
Vanpool	211	2:50
Sun Rideshare <i>Alternate Link</i>	208	1:34
How to start a successful carpool	193	2:15
Sustainability	183	0:32
TRP Employer Resources	178	3:05
Get better TRP survey participation	169	1:16
Alternate Modes of Transportation	128	3:18
Alt Modes - Carpool	128	3:18
Fare free transit to continue through June	98	1:20
TRP Employer Resources <i>Alternate Link</i>	96	2:04
Transit Planning and Services	89	1:16
Go car free to reduce emissions	77	0:45
Commute Cost Calculator	74	2:08
Commute Cost Calculator <i>Alternate Link</i>	70	2:43
Transportation Mode Choices - Transit	69	4:02
Local business uses technology to hit survey target	66	0:52
Now is a great time to encourage "no drive days"	65	2:06
Travel Reduction Program protects our air quality	64	1:35
Use app to make commutes convenient	63	0:34
Sun Rideshare Summer 2022 archives	47	0:48
Sun Rideshare Winter 2023 archives	44	0:02
Use alternative transportation to attract new employees	43	0:10
April holidays provide plenty of travel reduction opportunities	43	0:52
Transportation Mode Choices - Telework	41	3:07
With a number of options now is the time to try transit	40	2:40
Alt Modes - Bike and Walk	39	6:15
U of A address commuter challenges with unique solutions	37	0:32
Vanpool <i>Alternate Link</i>	34	0:44
Alt Modes - Carpool <i>Alternate Link</i>	31	1:14
Alt Modes - Bike and Walk <i>Alternative Link</i>	27	2:05
With a number of options now is the time to try transit <i>Alternate</i>	26	0:23
Your travel reduction program questions answered	26	0:47
Sun Rideshare Fall 2022 archives	26	1:15
Find out how much you could save by driving less	25	0:39
Turn training for El Tour de Tucson into a part of your commute	25	0:08
Avoid distracted driving by letting others take the wheel	24	2:24

Sun Rideshare Summer 2021 archives	19	0:15
Vanpool FAQ	19	1:04
Rideshare options: carpool, vanpool or ride express	16	2:15
Accomplish your goals via your commute	16	2:06
Find a safe route for your local travel no matter your mode or des	15	0:49
Holiday season safety awareness begins at Halloween	9	4:16
Sun Rideshare Spring 2023 archives	8	0:08
Pair New Years' health goals with new commute ideas even with a	8	1:55
Sun Rideshare Fall 2021 archives	5	1:01
Alt fuels planning can drive carbon emissions reduction	4	13:38
Sun Rideshare Newsletter	4	0:26
Any day can be car free day	4	0:11
Cycling advice for would be commuters	4	1:16
Search: Sun Rideshare	3	0:04
Search: rideshare	3	0:05
Sun Rideshare Spring 2022 archives	2	0:01
Sun Rideshare Newsletter <i>Alternate Link</i>	2	19:54
Despite challenges, employers earn TRP awards	2	2:09
Total	11,436	333:43:01
Average	184	1:45

2023 TRP Program Overview Fact Sheet



TRAVEL REDUCTION PROGRAM

Program Overview



The Pima Association of Governments' Travel Reduction Program (TRP) team is available to provide you information on the benefits of why major employers in the greater Tucson area should participate in the annual TRP survey.

Our team can offer you support to annually administer the survey to your employees to seek the greatest participation rates possible.

Program Summary

Over 164 Pima County employers, representing over 150K employees in Pima County, who have 100 full-time equivalents (FTEs) or more, are required by Pima County or City of Tucson ordinances to participate in the program. By encouraging employees to use alternative transportation modes to commute, their actions can help to reduce traffic congestion and vehicle emissions for cleaner air.

Travel Reduction Ordinances

Pima County: https://codelibrary.amlegal.com/codes/pimacounty/latest/pimacounty_az/0-0-0-15070

City of Tucson: <https://www.tucsonaz.gov/Departments/Transportation-Mobility/Transit-Services-Division/Travel-Reduction-Ordinance>

TRP Employer Requirements



1. Assign a transportation coordinator (TC).
2. Share information with employees about alternative transportation modes for their commute.
3. Complete the TRP Activity Inventory Report (AIR survey) annually.
4. Administer the TRP Annual Employee Survey, or request to change operational status to Remote Work Employer (RWE) site.

The higher your survey response rate, the better the data you can receive to support your employees. PAG creates a heat map (*see example on opposite side/page 2*) with information from those who respond in order to allow your HR team to evaluate if vanpooling, carpooling or transit are good choices for your workforce. PAG also can subsidize vanpools with seven or more participants to lessen the cost of the commute for onsite employees.

TRP Outreach Contacts

Mary Carter, PAG Director of Partnerships and Development, MCarter@pagregion.com

Adam Ledford, Management Analyst, ALedford@pagregion.com

Resources

PAG Travel Reduction Program Webpage: <https://pagregion.com/sustainability/travel-reduction/>

Sun Rideshare Webpage: <https://pagregion.com/mobility/sun-rideshare/>

Additional Travel Reduction Program Information

- Employers with 40% or more of their workforce operating remotely can request to have the status of a Remote Work Employer (RWE) by contacting TRP staff to be screened. Employers who have deployed a hybrid or 100% remote operations model can apply by emailing mcarter@pagregion.com and requesting to be evaluated. The RWE confirmation process is simple and can be completed by confirming a data set and completing an online confirmation process.
- The TRP annual employee survey is an online 10-question survey and takes less than 5 minutes to complete. We can set it up as a direct link so employees can use their smartphones if that is easier for your agency.
- The TRP annual employee survey is an online 10-question survey that collects data on commute patterns of your employees. All TRP Survey information is kept anonymous. A TRP QR Code allows employees to also use their smart phones and tablets to access the survey, making participation easy.
- The data we collect on travel patterns and commuting choices is incorporated into PAG's travel model that is linked to our transportation and community planning efforts.
- Response rates of 70%-80% in large organizations are often a sign of highly engaged employee groups. It's an easy effort when leadership supports the concept and recognizes the value of the program.
- The TRP program was enacted as a result of the Clean Air Act of 1970. PAG is the designated lead agency per article 8 section 49-588 of [The Federal Register](#)
- The TRP has been operating in Pima County since 2000. The region currently is in attainment for air quality standards. One of the ways we work to maintain our status of being in attainment is through TRP efforts. Ridesharing through transit, vanpooling and carpooling reduces congestion and emissions. Telework is another popular option that employers embraced during the recent pandemic. Alternate modes page link: <https://pagregion.com/mobility/commuter-services-and-mode-choices/transportation-mode-choices/>
- Information gleaned from the survey process empowers the TRP employers' HR Departments to look at commuting patterns within their workforce and then offer useful commute options for their employees.



Get Recognized

- 60% or greater response rate
- Increase alternative mode use by 2% or greater.
- Meet the site TRO Goal



Meet 3 goals for GOLD

Meet 2 goals for SILVER

Meet 1 goal for BRONZE



This is an example heat map for a TRP employer.

