



MEMORANDUM

Date: December 14, 2020

To: The Honorable Chairman and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator *CHH*

Re: **Review of Telework Program**

After the Governor's Stay at Home Order was lifted, I asked Assistant County Administrator Yves Khawam to provide a review of telework in Pima County. Attached is Dr. Khawam's June 11, 2020 review. It is applicable to any increase in telework activities the County may undertake.

Please note the review occurred for non-elected departments where over 20 percent of the staff were teleworking during the pay periods of April 12 to May 9. The review also examined best practices and issues associated with teleworking, particularly for a public agency with statutory duties and public access requirements.

The major findings are as follows:

- Teleworking is not equitable for the employee base as it tends to allow only white collar, highly compensated employees to telework while direct service delivery or essential employees, largely blue collar, are required to work.
- In a separate analysis of the employees who were teleworking last pay period, teleworking has been predominately used by those in the legal and trial related job classifications. Almost 47 percent of all those currently teleworking at least part of the time represent these groups.
- It is difficult to fully analyze the potential racial and ethnic disparity of teleworking amongst Pima County employees as our analysis have heretofore only reviewed those currently teleworking, or approximately 10 percent of the workforce. However, a review of the last pay period indicates that of those earning less than \$50,000 annually only 7.55 percent of those telework. Of those earning between \$50,000 and \$75,000 annually, 12.32 percent telework, while those earning between \$75,000 and \$100,000, 23.26 percent telework. A total of 11.62 percent of those earning over \$100,000 telework.

It is not unreasonable to assume that Pima County is tracking with what studies are reporting nationally.

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In March the Harvard Kennedy School's Shorenstein Center noted that the rise of COVID-19 cases will see a rise in organizations encouraging or mandating that employees telecommute. Federal agencies, big tech companies, and universities led the transition to remote work.

As the report notes, it's not hard for many office workers to do their jobs with a laptop at home but for those – 34 percent nationwide – who work in fields such as maintenance, production, construction, or direct client support - telework is simply not possible.

People who work mostly online are best able to telecommute. It is estimated that 12 percent of high school graduates over the age of 25 without any college worked from home on a typical day. Approximately 37 percent of those with at least a bachelor's degree work from home as do 42 percent of those workers with an advanced degree.

It is also important for those who telecommute to have internet access. The Pew Research Center estimates that 73 percent of Americans have broadband at home, which means that more than a quarter of homes do not. More than 90 percent of households making over \$75,000 have broadband at home, compared with just 56 percent of households making less than \$30,000 yearly.

As Pima County contemplates the expansion of telecommuting as an acceptable alternative to working on site, it is critical that to consider how these policies impact diversity and inclusion in the workplace. While telecommuting or working from home has increased significantly during the COVID-19 pandemic, the impact has been harder on some groups than others.

CHH/anc

Attachment

c: Jan Leshar, Chief Deputy County Administrator
Francisco García, MD, MPH, Deputy County Administrator & Chief Medical Officer,
Health and Community Services
Cathy Bohland, Director, Human Resources
Terry Cullen, MD, MS, Public Health Director, Pima County Health Department



Pima County Government Telework Review

Context

June 11, 2020

As part of the COVID-19 pandemic response and associated March 30, 2020 Governor Order, Pima County Government began to offer a telework option to qualifying staff. However, the emergency nature of the deployment provided for no planning regarding telework infrastructure needs, staff training and productivity measures. The purpose of this review is to outline the County telework response in terms of equity and costs incurred, and highlight best telework practices and steps needed to implement a future functioning telework option, should it be deemed desirable from a policy and productivity perspective.

Pima County Telework Initial Deployment

Summary of PC current telework status vs best practices

The County telework implementation stemmed from a health emergency and not from one of maximizing benefit to the organization and staff. As a result, observations indicate that organizational efficiency declined and productivity may have dropped across the spectrum of best practices categories since space and technology needs, productivity measures, organization of remote meetings and general telework training could not be established within deployment timeframes and so were only implemented to varied degrees. This is equally true for departments functioning with and without electronic processes. The efficiency and productivity effects these factors are further explored in the below section on best telework practices.

Pima County Telework Extent

To illustrate the major areas of staff telework, non-elected managed departments with over 20 percent of staff teleworking during the two pay periods ending April 12 and May 9, 2020 are displayed in table below.

Department	Employees	Teleworking	Teleworking %
Public Defense Services	284	182	64.20%
Information Technology	182	92	50.69%
Behavioral Health	22	10	46.51%
Public Works Real Property Services & Project Management Offices	20	9	45.00%
Office of Sustainability and Conservation	16	7	43.75%
Wireless Integrated Network	12	5	41.67%
Development Services	51	21	41.18%
Grants Management & Innovation	43	15	34.88%
Community Development & Neighborhood Conservation	23	8	34.78%
County Administrator	19	6	31.58%
Regional Flood Control District	54	16	29.63%
Health	255	69	27.11%

Pima County Employee Telework Equity

Staff equity issues associated with approval to telework are evaluated below in terms of Fair Labor Standards Act status and salary categories. Staff was identified as teleworking if any time was logged as telework during this period. Of those non-elected departments with greater than 20 percent of teleworking staff, a far greater proportion of FLSA exempt staff teleworked than non-FLSA exempt staff. Average salary differences between individuals teleworking and on-site within these departments were however, mixed.

Countywide, 33 percent of FLSA exempt staff teleworked versus 10 percent of FLSA non-exempt staff. Telework staff average salary was 25 percent higher than that of on-site staff.

Telework Equity						
Department	FLSA Exempt		FLSA Non-Exempt		Average Salary	
	Telework	On-site	Telework	On-site	Telework	On-site
Public Defense Services	64%	36%	52%	48%	\$62,442	\$57,026
Information Technology	57%	43%	5%	95%	\$74,531	\$68,830
Behavioral Health	47%	53%	33%	67%	\$53,130	\$69,516
Real Property & Project Management Office	45%	55%	0%	0%	\$77,283	\$92,456
Sustainability and Conservation	56%	44%	0%	0%	\$74,168	\$70,144
Wireless Integrated Network	42%	58%	0%	0%	\$80,494	\$67,038
Development Services	52%	48%	25%	75%	\$67,457	\$63,434
Grants Management & Innovation	33%	67%	38%	63%	\$56,184	\$60,380
Community Development & Neighborhood Conservation	44%	56%	0%	0%	\$56,228	\$58,584
County Administration	60%	40%	0%	100%	\$106,071	\$91,650
Regional Flood Control District	37%	63%	8%	92%	\$69,389	\$66,535
Health	30%	70%	24%	76%	\$49,966	\$47,474
County-Wide	33%	67%	10%	90%	\$56,816	\$44,065

Pima County telework technology costs

Due to the context surrounding the rapid deployment of telework, the County identified no savings and incurred increased information technology costs through May 2020 of \$202,742 as summarized in the table and further detailed below.

Technology Costs	
Client Services Team	\$12,440
Data Center Applications Team	\$95,045
Security Team	\$37,970
Network Operations Center	\$16,307
Telecom Team	\$24,500
Relationship Management Team	\$16,480
Total	\$202,742
Potential future costs of telework deployment per person	\$2,125

Client Services Team: \$12,440

1. Pulling laptops out of the auction process and getting them re-imaged and set up to hand out to telework staff: \$6,250.
2. Pulling community domain/multiuser laptops and getting them set up for telework staff to use from home: \$5,940.
3. Setting up remote devices to receive all of their updates from Microsoft cloud servers instead of County SUS servers: \$250.

Data Center Applications Team: \$95,045

1. Setting up the additional capacity on the AOVPN solution: \$420.
2. Setting up the additional capacity on the DirectAccess solution and support: \$2,850.
3. Setting up the RDGateway solution: \$4,200.
4. Implementing MS Teams and providing support: \$66,575.
5. Implementing the O365 tools to provide Multifactor Authentication and password reset options: \$1,400.
6. Implementing the Hybrid Exchange environment: \$1,400.
7. Office 365 training for Security, Compliance, Administration and Guidance: \$18,200.

Security Team: \$37,970

1. Implementing Umbrella for our laptop and tablet devices: \$37,970.

Network Operations Center \$16,307

1. Additional cost burden put on the NOC to field telecommuting phone calls (items that wouldn't have been normal calls for people in the office)
 - a. Additional calls to the NOC - Average monthly calls have been 1775 (past Year). For March and April our average per month rose to 2675 calls, which was a difference of 900 calls per month with the average call lasting 5.5 minutes. That comes out to a total of 165 hours for those two months: \$3,735.
 - b. Additional support tickets for the NOC - Average monthly new tickets have been 1949 over the past 10 months. For March and April our average per month rose to 2415 tickets, which was a difference of 467 tickets per month with the average resolution time per ticket of 8 minutes. That comes out to total of 124 hours for those two months: \$2,807.
 - c. Research, Documentation updates, creation of FAQ's, Surveys and items posted to the Intranet for telecommuting: \$3,565.
 - d. Web Training Development for Introduction to MS Teams, Introduction to Teams and Channels: \$2,387.
 - e. Training Sessions provided to staff on MS Teams: \$2,666.
 - f. Creation of training videos for Microsoft Teams, Outlook Teams, Chat and MS Teams meeting interface: \$1,147.

Telecom Team: \$24,500

1. Increased the license capacity for conference bridge calls: \$3,500.
2. March/April cellular overages for departments on fixed plans: \$21,000.

Relationship Management Team: \$16,480

1. Implementing the "user connectivity tracking" that was later scrapped: \$4,200.
2. Setting up the free version of WebEx and costs for retaining WebEx licensing for the next year: \$11,580.
3. Changing the Group Policies for mobile devices to allow them to work appropriately for telecommuting: \$700.

Potential future costs of telework deployment per person: \$2,125

1. Difference in price transitioning from a standard desktop computer to a standard laptop/tablet: \$300-\$800 per device, depending on the options chosen.
2. Dual monitor set up with a dock and cables, provided for home offices (24" monitors, speaker, camera, keyboard and mouse): \$725.
3. Smartphone and monthly service: Verizon=\$50.70/month & ATT/FirstNet \$44.99/month.

Telework Best Practices

This section focuses on best telework practices and provides a comparison to the County utilized telework approach (*italics*) during the pandemic emergency deployment.

A typical review of best practices starts with outlining the benefits of successful telework to include a reduction in commuting impacts such as transportation costs, travel time, crash avoidance and air pollution. In addition, a review of the literature indicates teleworking employees generally enjoy a better work-life balance and improved health, which can lead to fewer sick day use, enhanced job satisfaction and greater productivity. Finally, a telework program has the potential to lower organizational costs associated with facilities footprint and transportation fleet required for employees. However, a successful telework program also has specific requisites identified below.

Space needs at employee home

Best practices for successful telework require a dedicated quiet home office where the employee may isolate themselves from other household members to work and conference in a low risk, ergonomic environment. Concessions on space results in slower processing of work by the employee and colleagues with whom they interact, thereby creating frustration and lowering productivity. Liability waivers are also needed indicating that the employee assumes full responsibility for injuries when working from home.

County emergency deployment of telework resulted in no consideration for ideal space needs with employees participating in online meetings from their kitchens, dining and living rooms.

Technology needs at employee home

Best practice for successful Telework requires the employee to have a low-latency, high-speed internet connection and appropriate hardware, including correctly sized monitors to execute work. The minimum connection needed to support teleconferencing and remote work on enterprise systems and shared files is about 20Mbps up and down. To achieve these numbers, one typically requires a carrier broadband package of about 50Mbps as commercial carriers use these numbers to describe peak speeds in lieu of average ones.

Hardware is also important to productivity, such as computer processing speed and memory. Equally important are monitors needed to visualize the applications executing work. Working on a small laptop screen alternating between documents and applications causes large productivity losses and increases risks of errors. The home office therefore needs at least the same size and number of displays used in the office context to support best practices.

Security and device management is another major concern of remote work to ensure system and public records integrity.

Finally, a voice service device is needed. If the organization provides Voice over IP (VoIP) services, all "phone" conversations could be transferred over the work computer, using the device or a docked microphone and

speaker. If VoIP is not available, and to keep work phone calls separate from personal ones, a work mobile phone is required for this purpose.

County emergency deployment of telework resulted in many employees using 4G-LTE cellphone hotspots or MiFis, inadequate in speed and latency to support most work functions. Information Technology Department is looking to institute new VPN and Mitel solutions to assist with this context. In addition, many are working on inadequate older laptops with inadequate display surfaces. Typically, laptop computers purchased by Pima County prior to FY 2020 have less than 16MB of RAM, which coupled with VPN and other security and device management software, cannot adequately run multiple applications such as Microsoft Teams without significant productivity losses.

Security and device access management may be the only technology best practice facet which is achieved by Pima County due to established policies requiring that only County-protected equipment access the County network, through a secure Virtual Private Network (VPN) or a firewalled remote connection link.

Distribution of Telework Resources

Organizations differ as to resource allocation for telework but in general; employees are responsible for securing a private home office space for which they assume full risk, internet connection meeting minimum specifications and requisite multi-monitor docking station. The employer typically provides a mobile phone, laptop, software and secure VPN to access the work network.

County emergency deployment of telework occurred with no clear demarcations of which resources are the responsibility of the employee to secure. The County would incur additional costs in transitioning from desktops to updated performant mobile devices for telework staff.

Electronic work processes/classifications conducive to telework

Identifying work conducive for telework seems simple when viewed at a high level but becomes complicated when viewed through a lens of efficiency. For example, there is no question that pothole repair, sewer maintenance and providing vaccination services require personnel to be physically present at the work location. However, even when work can be conducted remotely, it can only be done so efficiently if the organization has transitioned to electronic processes to include documentation and tools. For example, contract management is not a candidate for telecommuting if a paper copy of the contract needs to be tracked with wet signatures. Neither is a work process where paper or other products are physically delivered to the employee for processing or storage. However, all paper processes are candidates to transition to electronic format with electronic signatures as permissible by law. Additional opportunities for telework are those processes where staff visit off-site locations for meetings or inspections, which could be otherwise conducted via a remote platform.

A prerequisite to efficient telework is that entire work processes are analyzed, streamlined and formatted such that tasks may be conducted remotely with at least equivalent efficiency as that conducted within the organizational work space. Once business processes are qualified for telework, work classifications operating within qualified processes may be identified for potential telework.

County emergency deployment of telework resulted in many employees struggling to negotiate paper and in-person processes within an electronic environment, resulting in productivity losses and greater reliance and tasking of remaining staff in the workplace.

Statutory obligations

Adherence to applicable statutory requirements is a best practice for implementing telework in a public-sector agency. In identifying candidate telework functions, it is important to consider that Pima County Government

has certain statutory mandates for delivering services within defined parameters and a fiduciary obligation to be a good steward of public funds. A review of statutory obligations identified in the County Budget's department program summaries would provide the necessary guidance to determine extent of telework scope.

County emergency deployment of telework resulted in some functions closing and many reducing public availability without full analysis of statutory obligations.

Productivity measures to evaluate work

Ability to track and measure productivity is a best practice of teleworking. Effective remote work is no different from effective on premise work in that staff productivity should be measured through outcomes and deliverables. Productivity extends to not only how many work products are completed but also to delivery timeframes and product quality. This is true whether the product is a final electronic record, system or customer service interaction.

County emergency deployment of telework resulted in challenges identifying productivity and tracking measures for remote staff. However, it is likely this general deficiency currently exists across most County departments, regardless of whether staff is teleworking or on premise.

Training needs of staff and supervisors on effective telework practices

Training staff and supervisors to work in effective telework practices is an important best practice. No telework can be effective without proper training of staff to operate within remote processes, technology and the self-discipline needed for working at home. Supervisors also require training in shifting supervision to output-based deliverables focusing on productivity along with interactive activities to keep employees engaged with their work teams. Training tenets should therefore extend from efficient technology use, to work and supervision activities management to meet all organizational goals. Successful training programs engage the entire telework teams to vet together the best way to maintain team integrity in meeting organizational goals.

County emergency deployment of telework resulted in employees scrambling to learn how to interact with colleagues and clients through communication platforms such as Skype for Business first, then Microsoft Teams, adjusting processes and generating alternate measures to track work.

The Future of Pima County Telework Opportunities

With lifting of the Governor's Stay at Home Order on May 12, 2020, it is timely for Pima County to review and institute parameters for a more robust telework program for deployment in future emergencies or by as a non-emergency practice for targeted functions, provided it can be implemented in a manner that increases productivity and lowers organizational costs.

Telework Human Resources

The Human Resources Department (HR) is the organization to manage a successful telework implementation to maximize organizational performance and enhance future recruitments to match opportunities provided by the private sector. Pima County HR has proactively started to tackle framework elements including initiating creation of online training programs for employees and supervisors.

In order to provide services supporting a complete telework framework, additional HR staffing resources specializing in process improvement and measurable deliverables to assist departments with optimizing business processes and development of employee performance metrics is needed.

Parameters to be included in creating a telework program include:

- Home space needs, responsibilities and liability waivers
- Assisting Appointing Authorities with identification of candidate telework statutorily qualified processes with assistance of the County Attorney's Office
- Assisting Appointing Authorities with telework process improvement and productivity measurement opportunities and transitioning candidate non-electronic processes to electronic environments with assistance of the Information Technology Department
- Evaluating the benefit-cost of telework versus on premises work
- Updating identified telework candidate position classifications to indicate whether classification may be eligible for telework contingent on assignment
- Development of personnel and supervisor telework productivity evaluation instruments, attestations and forms
- Training programs for staff and supervisors to qualify teleworkers prior to deployment
- Evaluating market potential for quality of life reduced telework new-hire salary based on employee commuting time and cost savings
- Addressing telework program options ranging from full-time to rotating and ad hoc single-day needs

Telework Information Technology

To ensure a successful telework program, technology standards and system optimization is needed along with deployment of high functioning devices. Technology parameters to be included in a successful telework program include:

- Standards for qualifying home internet connection parameters
- Standards and costs for purchasing and providing adequate employee telework hardware
- Optimization required to VPN and VoIP systems
- Optimization to updating and maintaining remote hardware
- Deployment of application and system packages better supporting telework environments

Facilities, Fleet and Transportation Planning

A robust telework program should also look to opportunities to reduce our facilities and vehicular fleet footprint. A good example of a functional teleworking facility is the Deloitte Headquarters in Amsterdam where only about 50 percent of staff are in the office at any given time. Workspaces are automatically assigned ranging from café tables to large conference rooms based on staff daily calendared needs. Transitioning inspection and meetings to remote environments as appropriate also has the potential to reduce our vehicular fleet needs. Finally, deployment of telework opportunities by organizations will reduce peak load impact on the transportation network. All of these opportunities have the potential to significantly reduce County operational and capital costs by transitioning to smart facilities and infrastructure usage.

Recommended Deployment Framework

If a functioning telework option is desirable from a policy and productivity perspective, it is recommended that a core group begin the development of policies, instruments and needs for a telework framework. Such a group could consist of County Administration staff, the Human Resources Director, the Information Technology Director, and other ad hoc individuals including Appointing Authorities as needed. Upon development of an initial framework, input could be solicited from employees through surveys, focus groups and other means.