

Inside This IssueFrom UCSUR Director
Richard Schulz. 7**Living Alone after 55: Does the Neighborhood Environment Impact Feelings of Depression?**■ *by Sarah Stahl*

Living alone poses serious challenges for older adults. Older adults who live alone are more likely to report feelings of depression than those who live with a spouse or family member. They are also at high risk for early mortality.

There are several reasons why living alone is associated with depression. First, living alone increases the risk for social isolation, especially among those who have no children or live far away from them. Individuals who are socially isolated receive significantly less emotional and instrumental support than those who are not socially isolated, which in turn increases the risk for depression.

Older men who live alone are at higher risk for social isolation because they have a harder time than older women maintaining social relationships during late life.

Second, adults who live alone are more likely to be poor and economically vulnerable, which also increases the risk of depression.

A question that remains unexplored in this area of research is whether the effect of living alone on depression varies according to particular neighborhood characteristics.

The purpose of this study was to examine how the effect of living alone on depression may depend on older adults' perceptions of their neighborhood's physical and social environment.

There is a growing body of literature that demonstrates strong links between neighborhood characteristics and mental health and well-being in older adults. For example,

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Pennsylvania's Local Governments and the New Digital Divide■ *by Sabina Deitrick*

Dynamic changes in digital technologies are shifting the ways local governments operate and deliver public services.

Digital governance—the use of digital technologies to improve service provision in the public sector—is a critical shift for local governments. Digital technologies are transforming public services based on older models of collecting forms, fees, taxes, and information to innovative new digital systems.

Although digital technologies are transforming governance in Pennsylvania's municipalities, it's an uneven path across Commonwealth communities. While in-person government services and transactions are important features of local governments' boots-on-the-ground interactions with residents, more and more, residents prefer a digital presence—or at least digital options—from their local government.

Many municipalities are embracing digital technologies as a means to improve service provision in local government, along with the expected cost savings. Others, however, lack the means, expertise, or knowledge in transitioning to greater digital governance. The difference between these municipalities is what we call the New Digital Divide.

Students at the University of Pittsburgh have been working on projects to improve digital governance in our local communities, helping area local governments move from paper to digital productivity. This spring, a group of Capstone students at the Graduate School of Public and International Affairs conducted a survey of Pennsylvania municipalities to assess the state of digital governance among Commonwealth communities and learn what can help local governments breach the digital divide.

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Living Alone after 55: Does the Neighborhood Environment Impact Feelings of Depression?

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accessibility of resources in one's neighborhood, perceived neighborhood safety, socioeconomic composition, and the built environment are all associated with good mental health. In addition to the physical aspect of one's neighborhood, feelings of neighborhood belonging and social cohesion are also associated with good mental health.

Understanding the link between neighborhood characteristics and depression for older adults who live alone is important, given the desire for adults to age in place – that is, to remain in their own home and community for as long as possible.

Neighborhood effects on depression may be especially strong among adults who live alone. For example, older adults who live alone may spend more time in their immediate residential neighborhood and therefore may be more dependent on their neighborhood for services, amenities, and social interactions than older adults who live with a spouse or family member.

Older adults who live alone may be especially sensitive to the health damaging (poor pavement conditions, heavy traffic) or health promoting (green spaces, accessible health care) aspects of their neighborhood's physical quality. Neighborhood social cohesion, or a sense of belongingness with one's neighbors, is also associated with good physical and mental well-being, and may be especially important to older adults who live alone.

Our study had two main objectives. First, we examined the effect of one's residential status (living alone vs. living with a family member) on depressive symptoms. Second, we tested the extent to which the effect of residential status on depression may vary according to older adults' perceptions of their neighborhoods' physical environment, such as accessible parks or green space,

and the social environment, including close-knit neighbors; controlling for individual characteristics known to be associated with depression. We expected to find that a good physical neighborhood and good social quality of the neighborhood each provide an environment that buffers the effect of living alone on depression.

Methods

We examined data from UCSUR's State of Aging in Allegheny County Report (see *PEQ* September 2014). The survey asked about a broad range of topics related to quality of life for adults aged 55 years and older in the region. Data were collected in UCSUR's computer-assisted telephone interviewing lab by trained interviewers in early 2014. Interviews took approximately 60 minutes to complete. The overall response rate was 15.6% of eligible households.

Our total sample (N=1,043) reflected the demographics of older adults living in Allegheny County, Pennsylvania: 44 percent were men and 11 percent were African American. We found that 30 percent of adults reported living alone. Adults who lived alone (compared to those who lived with a family member) were older, they were more likely to be women and African American participants, and they also reported significantly more depressive symptoms.

Our main outcome variable was the frequency of depressive symptoms over the last two weeks, measured by the Patient Health Questionnaire (PHQ-8). Our analyses controlled for variables known to be associated with depressive symptoms in older adults, including age, sex, race, education, and disability.

To determine residential status, participants were asked "What are your current living arrangements?" Possible answers were: (1) I live alone; (2) I live in a household with family or others.

Survey questions for neighborhood physical quality asked the respondent to consider the neighborhood and community in which he or she lived. Items asked about the built environment, including the

physical condition of surrounding buildings, the accessibility of grocery stores that sell healthy food, and the prevalence of green spaces/public parks. Additional questions on the built environment focused on whether their neighborhood was a good place to walk/be physically active and a good place for older adults to live.

Survey questions for the social quality of the neighborhood asked the respondent to think about his or her interactions with neighbors. Items asked about the number of neighbors respondents knew, how often respondents talked or visited with immediate neighbors, and whether the people in their neighborhood are willing to help each other, can be trusted, and are close-knit.

Results

We report three main findings. First, we observed a significant effect of one's living arrangement on depression, such that living alone, versus living with a family member, is associated with a greater frequency of depressive symptoms. This finding is consistent with many other studies.

Second, we found that the relation between living alone and depression varied according to the social quality of the neighborhood. Living alone was more highly associated with depression when the perceived social quality of the neighborhood was low (see Figure 1). In other words, good neighborhood social quality may decrease symptoms of depression that are commonly associated with living alone. Neighborhood social quality was not associated with depression among older adults who lived with a family member.

Finally, we did not find evidence that neighborhood physical quality was related to depression, as other work has suggested. It is possible that objective neighborhood assessments from secondary data, such as census tract data on neighborhood poverty/socioeconomic status are better predictors of depression than subjective assessments of the physical quality of one's neighborhood.

How might the social quality of the neighborhood decrease depressive symptoms

among adults who live alone? First, good neighborhood social quality may enhance support behaviors among neighbors, including help with household tasks and transportation. Receiving practical help from neighbors may alleviate the stress associated with living alone.

Good neighborhood social quality may also increase the availability of social activities. Participating in social activities allows elders who live alone the opportunity to meet new people and develop social networks which may decrease feelings of loneliness and depression.

Good neighborhood social quality may also make elders feel safer or more secure, which may decrease feelings of depression.

Finally, good neighborhood social quality may increase engagement in healthy behaviors associated with good mental health such as walking to visit with neighbors.

What promotes feelings of neighborhood social cohesion? Our findings suggest that it

is important for older adults who live alone to perceive the people in their neighborhood as close-knit and willing to help their neighbors. The physical environment can play a role in promoting feelings of social cohesion by affording contexts, such as senior centers or parks, for getting together and building a sense of belonging.

Residents may also perceive good social cohesion because their neighborhood has an infrastructure (routine member meetings, social events) that supports older adults' social engagement in their communities.

We also need a better understanding of how older individuals define their neighborhood.

Some adults may identify with an entire suburb, several neighboring blocks, or with the houses that immediately surround them on the same street. Those who define their neighborhood more broadly might benefit from greater involvement with community groups, while those who define their

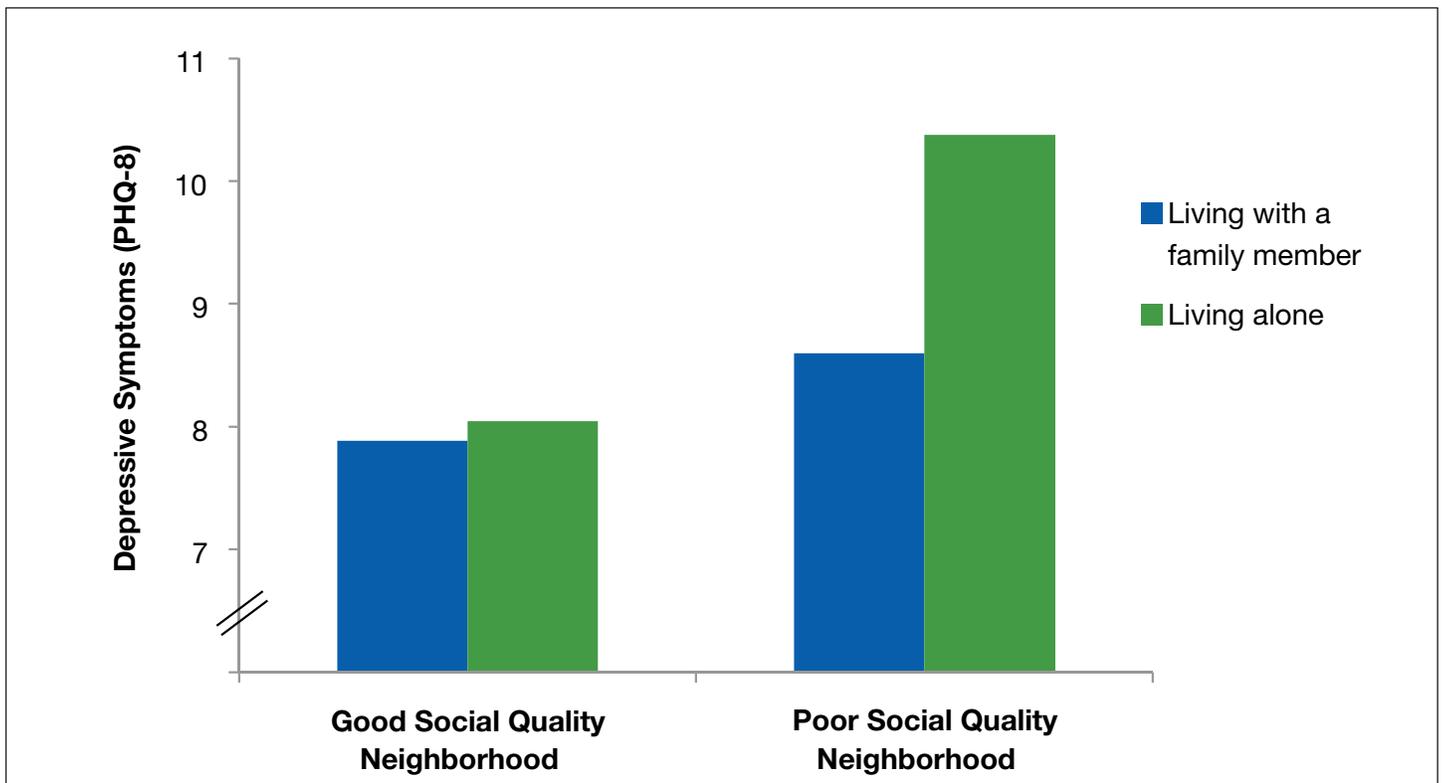
neighborhood as the houses that immediately surround them might benefit from strengthening relationships with neighbors.

In sum, by considering the environmental context in which older adults live, this study highlights the need to consider social interactions with neighbors among older adults who live alone.

Our data suggest that the effect of living alone on depressive symptoms depends on adults' perceived sense of the social quality of their neighborhood. More research is needed to determine if environmentally-driven interventions in the form of community development or social programs can significantly decrease depression by promoting feelings of neighborhood social cohesion.

*For the full research paper, please see: Stahl, S.T., Beach, S. R., Musa, D., and Schulz, R. (2016). Living alone and depression: The modifying role of the perceived neighborhood environment. *Aging & Mental Health* (in press).*

Figure 1: Effects of Residential Status and Neighborhood Social Quality on Depressive Symptomatology



Pennsylvania’s Local Governments and the New Digital Divide

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Two reports formed the base for the students’ survey design: Deloitte and *MIT Sloan Management Review’s* “2015 Digital Business Global Study” and Deloitte’s global government study. Digital technologies comprise: social (communications), mobile (connecting), analytic (data analysis to improve services), and cloud technologies (reducing hardware costs).

Local governments in Pennsylvania include first class townships (93), second class townships (1,454), boroughs (957), and cities (56). The survey was delivered via e-mail to the contact person for each municipality, as listed on the Pennsylvania Department of Community and Economic Development web page. A total of 349 surveys were completed, for a conservative estimate of a 15.6 percent response rate. Because many contacts were listed with personal e-mail addresses or out of date domain names, we cannot confirm the exact number of surveys delivered to an appropriate municipal contact.

Our survey respondents reflected the diversity of staff size among local governments. Just under forty percent of respondents worked in a government with fewer than 10 staff members while just over a quarter of respondents worked in governments with 50 or more employees (see Table 1).

The Capstone survey focused on critical areas of digital governance and results were used to gauge the level of digital maturity of Pennsylvania municipalities.

The six main factors shaping a government’s digital transformation include strategy, leadership, workforce skills, digital culture, user-focus, and engagement. The students created a digital maturity index from a set of survey questions that focused on each of the six factors, with digital maturity reflecting how far digital technologies have been employed and embraced by local governments.

The first finding revealed a sharp divide in digital governance across local governments. While the most digitally advanced municipalities were maturing in digital governance and most communities fell into a middle grouping of developing in their digital maturity, a third set of local governments were rated as being in the early stage of digital maturity (see Figure 1). Across survey respondents, municipalities formed an almost perfect bell curve across the three stages of digital maturity—early (18%)—developing (67%)—maturing (15%).

Differences between local governments in the early stage of digital maturity compared to those in the maturing stage could not be starker. We might expect such differences in the use of technologies that involve financial resources and staff capacity, both often limited in many smaller boroughs and townships, but the survey results emphasized that the digital divide was much greater than funds and resources. There are critical differences in leadership, strategy, perceptions, and understanding of the use of digital technologies among local communities.

First, just having a digital strategy was nearly unanimous for maturing stage local governments, but uncommon for most other communities. Only 7 percent of early stage governments agreed that they had a strategy for using digital technologies, with developing stage governments split in half.

Lacking a digital strategy is a clear and consistent barrier to bringing digital technologies into use. A large majority of less digitally sophisticated local governments not only lacked a strategy for using digital technologies, but also didn’t have a good understanding of what improvements digital technologies could bring to their local government. Nearly 90 percent of these communities did not think their local government viewed digital technologies as an opportunity. Most of these communities also did not view digital technologies as a benefit to their residents’ interactions with local government.

In the most digitally mature local governments, 80 percent reported that their technology strategy was driven by residents’ expectations, thereby connecting digital governance as a means to improve services and link them to residents’ interests. For the least digitally mature communities, fewer than 10 percent understood a connection between having a digital strategy and resident expectations.

Leadership is critical for advancing a digital agenda. Nearly all (98%) digitally mature communities felt that their elected officials encouraged the use of digital technologies. Similar support was far less common in the less digitally advanced communities. For municipalities in the early stage of digital governance, only 11 percent reported positive encouragement from elected officials.

Table 1: Survey Respondents by Size of Local Government

Government size (staff)	Number of respondents	Percent
<5	51	14.6%
5-9	85	24.4%
10-19	69	19.8%
20-49	51	14.6%
50-99	35	10.0%
100+	58	16.6%
Total	349	100.0%

The culture of using digital technologies, such as social media and mobile devices, to improve staff effectiveness and productivity also reflected the digital divide. Digitally advanced governments reported that the use of digital technologies in the office transformed the way staff worked. These local governments were also far more likely to provide resources to help staff take advantage of digital technologies in the office space.

For the least digitally engaged communities, only one quarter felt that their staff had the skills to use digital technologies

sufficiently. This group also reported that resources were not provided to help staff take advantage of digital technologies.

There were a few areas where nearly all local governments agreed or strongly agreed, regardless of their level of digital maturity.

No matter how digitally advanced a municipality, there was nearly universal agreement that the application of digital technologies can help to improve both residents' experiences and transparency of local government. All were also in agreement that the application of digital technologies

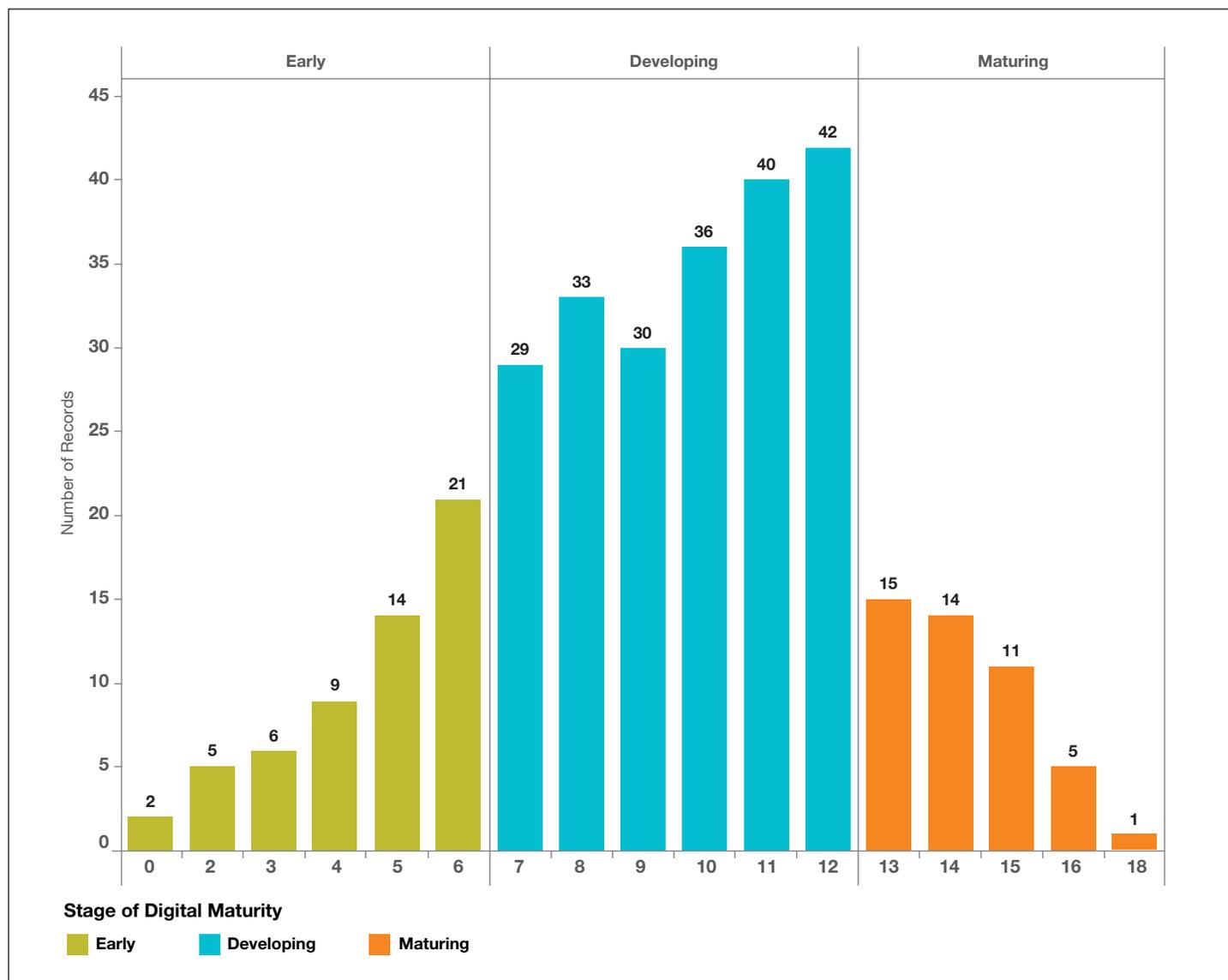
can help local government become more cost-effective.

The survey results underscored the barriers many municipalities face in attempting to forge digital governance solutions. Budget constraints and capacity issues were cited as limiting a local government's ability to take advantage of digital technologies, particularly for smaller-sized governments.

The Capstone class performed statistical analysis of the digital maturity index to reveal that the larger the government,

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Figure 1: Digital Maturity Index, by Number of Pennsylvania Local Governments



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as measured by number of employees, the higher the maturity index score.

An interesting finding was simply in the domain name used for the municipal contact. Maturing stage governments were much more likely to have their own unique domain name (71.7%), while early stage digital maturing governments were more likely to use a third party provider name (84.2%).

The Capstone students developed a logit model to test their findings. They found that the domain name alone is a strong indicator of the level of digital maturity of local governments in Pennsylvania.

Students also profiled local governments that were advanced in digital governance. The lessons from these successful townships can be extended across the Commonwealth.

Many communities embrace digital governance when barriers are reduced. The Commonwealth can provide assistance, information, and strategic implementation through a number of means, including the Pennsylvania Department of Community and Economic Development, which provides a one-stop shop for government officials through Local Government Services.

The many professional associations for elected officials and municipal staff, including councils of governments, state associations of townships supervisors and boroughs, are natural partners in communications and information sharing among the key drivers of digital governance in

local communities. Nonprofit organizations, such as Local Government Academy and the Pennsylvania Electronic Government Consortium, are already partnering with local officials through technical assistance and directed seminars.

Higher education institutions can also play a role. The work at the University of Pittsburgh demonstrates the important and productive links that occur when students employ their skills with local government partners in community-identified projects to move digital governance forward in smaller communities.

Residents of smaller and less-well-off communities shouldn’t be on the short end of what’s becoming commonplace in all other parts of their lives. It’s time to eliminate the digital divide across local governments in Pennsylvania.

Table 2: Characteristics of Digital Maturity Stages

	Early	Developing	Maturing
Strategy	Lack of Strategy—7% agree their local government has a strategy to use digital technologies.	Developing—50% agree or strongly agree their local government has a strategy to use digital technologies.	Completed—98% say their government provides resources to obtain digital technologies.
Leadership	Tepid interest—Only 11% say their elected officials encourage use of digital technologies.	Digitally aware—68% say their elected officials encourage use of digital technologies.	Digitally sophisticated—98% say their elected officials encourage use of digital technologies.
Workforce Development	Lack of resources—12% say their local government provides staff with the resources to take advantage of digital technology.	Investing—62% say their local governments provide staff with the resources to take advantage of digital technology.	Sufficient—96% say their local governments provide staff with the resources to take advantage of digital technology.
User-focus	Almost absent—9% say their technology strategy is driven by residents’ expectation.	Gaining traction—68% view their technology strategy is driven by residents’ expectation.	Primary factor—98% view their technology strategy is driven by residents’ expectation.
Digital Culture	No difference—5% say their local government’s use of digital technology has transformed the way their staff works.	Accommodating—56% say their local government’s use of digital technology has transformed the way their staff works.	Transformed—100% agree or strongly agree their local government’s use of digital technology has transformed the way their staff works.
Engagement	Traditional—Almost half have no digital communications with residents. 49% only interact with residents through traditional ways (walk-in, phone, fax, and postal mail); 30% use e-mails as most digital method; 16% use Web and texting; 5% use social media and mobile apps.	Digitalizing—35% use social media and mobile app; 45% use web and texting as most digital method; 12% use e-mails. 9% only use traditional methods.	Highly Digital—91% use social media and mobile apps; the remainder (9%) use Web and texting.

From UCSUR Director Richard Schulz

This year marks my 32nd with the University Center for Social and Urban Research and my 17th as Director of the Center. When I arrived on the Pitt campus in 1984, UCSUR was a small unit housed on the 16th floor of the Cathedral of Learning. My faculty appointment was in the Department of Psychiatry, but I was physically housed at UCSUR and given the title of director of gerontology.

My primary responsibility was to develop the University's nascent research program on aging. Both the Center and research on aging have flourished over the past three decades. The University of Pittsburgh is now recognized as one of the major research centers on aging in the world, and the Center has become a vital resource to social and behavioral science researchers throughout the University as well as the region. In any given year UCSUR carries out collaborative research projects with faculty from every school of the University and addresses research needs of most regional government agencies.

The Center has become the "go to" resource for data and analyses of economic, demographic, and quality of life data to inform regional public policy.

At the end of August, I will step down as director of the center and return full time to my role as aging researcher and director of gerontology at the University. Serving as director of the center has been a dream job, a clear case of being at the right place at the right time.

Throughout my tenure as director we have had the support of our faculty, the foundation community, local government agencies, and most importantly, stable and visionary University leadership at the highest levels. Much of what we achieved would not have been possible without the support and leadership of former Chancellor Mark Nordenberg, former Provost Jim Maher, and Provost Patty Beeson. I feel lucky and grateful to have been part of this era in the history of the University.

Scott Beach, associate director of the center, and director of the survey research program, will serve as the interim UCSUR director beginning in September of this year.





University of Pittsburgh

University Center for Social and Urban Research
3343 Forbes Avenue
Pittsburgh, PA 15260

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University of Pittsburgh
University Center for Social
and Urban Research
3343 Forbes Avenue
Pittsburgh, PA 15260

Phone: 412-624-5442
Fax: 412-624-4810
E-mail: ucsur@pitt.edu
Web site: ucsur.pitt.edu
Twitter: twitter.com/ucsur

Pittsburgh Economic Quarterly
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