Sustainable consumption and the well-being dividend: Insights from the zero-waste movement in Chinese cities

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ABSTRACT
Achieving deep cuts in the carbon footprints of everyday consumption is an indispensable component of climate actions globally, not least in the wealthier nations. Can sustainable consumption—and especially reduced consumption—enhance human well-being as stipulated by theories of the "well-being dividend" as well as contribute to environmental improvements? This article presents an empirical study of the well-being dividend among communities of "zero waste" in Chinese cities. Using 45 in-depth interviews and virtual ethnography of zero-waste practitioners, I explore how sustainable consumption could satisfy multiple human needs and enhance individual and collective well-being. This research highlights the significance of lifestyle communities in processes of needs fulfillment and points to how contemporary societies could enable sustainable needs fulfillment by giving special protections to synergic need satisfiers—starting by allowing green communities to flourish and thrive. Further, through the concept of "teleoaffective regimes," this article brings to light how concerns over well-being give rise to shared ends, goals, and emotions within communities, hinting at the importance of engaging with people’s core pursuit of well-being in sustainability transformations. Finally, the vast majority of studies on sustainable well-being have focused on Western countries. By contrast, this work provides insights into this topic from China and raises critical questions about the dynamics between growth, consumption, and well-being in developing nations. It also calls for further exploration of more sustainable models of "development" that center on delivering well-being to all within planetary boundaries.

Introduction
Faced with the dual challenges of addressing the existential danger of the climate crisis and meeting fundamental human needs for the world’s growing population, scholars have provided various theoretical frameworks to guide profound political and institutional changes. These approaches include holistic agendas for degrowth (Hickel 2020; Kallis 2018), new macroeconomic frameworks that deliver prosperity within planetary boundaries (Jackson 2009; Raworth 2017), “recomposing of consumption” for sustainable and equitable well-being (Gough 2017a, 2017b), delineation of a “consumption corridor” that advocates the “good life” within limits (Fuchs et al. 2021; Di Giulio and Fuchs 2014).

These recipes for change involve active engagement with ordinary citizens in their everyday lives. Yet, discussions around lifestyle change for radical reduction in carbon footprints often evoke pronouncements about sacrifices and raise questions about individual liberty and well-being (Meyer and Maniates 2010). Such sentiments arise from popular ideas embedded in capitalistic societies that an individual’s success, value, and well-being are predicated upon having material affluence, as well as the liberty to spend it on products and services in the marketplace that offer unlimited options of choice (Gumbert and Bohn 2021). As Baudrillard (1998) and others have critiqued, people today have a moral imperative to consume as it is through consumption that one actualizes his or her potential. There is no denying that higher levels of consumption could improve human well-being. As a matter of fact, a large part of the global population living in developing countries should be provided with the necessary social conditions, resources, and capabilities to consume more to meet their fundamental human needs. It is therefore critical to reflect upon how well-being for all can be secured, taking into consideration both the overconsumption of...
some and the underconsumption of others in the context of stringent resource constraints and accelerated rates of environmental degradation. In other words, the challenge is to create a “fair consumption space” for all, within which individuals and societies are secured an equitable distribution of resources and opportunities to fulfill their needs and to achieve well-being (Akenji et al. 2021).

In developed economies, demand-side climate change-mitigation measures, which include avoiding excess consumption in various domains, have been shown to be largely beneficial for the improvement of human well-being, in addition to creating great potential for lower greenhouse-gas (GHG) emissions (Creutzig et al. 2022). Some researchers have furthermore argued that voluntary reductions in consumption might actually enhance well-being and this phenomenon is known as the “well-being dividend” (also referred to as the “double dividend”) (Guillen-Royo 2010; Jackson 2005, 2008). On one hand, overconsumption has long been documented to have a negative return to well-being (Jackson 2005; Jackson and Marks 1999; Kasser 2002). On the other hand, empirical studies have confirmed that individuals who voluntarily reduce their consumption of non-essential goods and services could experience higher levels of life satisfaction due to reduced stress, haste, and congestion in life, as seen in communities that practice “downshifting” (Schor 1998), “thrifting” (Kasser 2011), “voluntary simplicity” (Alexander 2011; Elgin 2010) and “lifestyle minimalism” (Meissner 2019).

Most empirical studies to date on this topic have been grounded in Western countries. But with the fast-growing “new middle-classes” in emerging countries such as China and India, many of whom seek to emulate the carbon-intensive Western lifestyle (Lange and Meier 2009), it is pivotal to examine how sustainable consumption, and especially voluntary reduction in consumption, relates to individual and collective well-being in these contexts. This study therefore asks the following questions: to what extent is the debate on the well-being dividend relevant in non-Western contexts, at least among more affluent urban populations; and how can we imagine grassroots changes toward more sustainable societies in emerging countries?

To address these questions, I study the lifestyle communities of “zero waste” (thereafter ZW) in Chinese cities to understand how living sustainably, through everyday practices of sustainable consumption, relates to individual and collective well-being. The next section introduces the ZW movement and its development in China. I then outline the conceptual framework which draws on theories of social practice and different notions of well-being, and describe the research site and the methodology for this project. The results highlight in detail how and in what ways sustainable consumption practices could be related to needs satisfaction. The discussion and conclusion critically reflect upon the limits of sustainable lifestyles in achieving well-being for all and propose ways to reorganize society to address needs satisfaction more adequately.

**Background**

China’s transition from a centrally planned to a market-led economy within the last four decades has brought dramatic changes to every aspect of the country’s social and economic life. Yet, unprecedented economic growth has not always been an effective way to enhance subjective well-being for the Chinese people. Studies have found that levels of life satisfaction declined precipitously during the initial stages of rapid growth and only recovered slightly thereafter (Easterlin et al. 2012). Additionally, the steady rise in inequality has intensified overall anxiety and dissatisfaction with life (Wu and Li 2017). Further, exponential growth in the production and consumption of commodities has caused irreversible damage to the environment. Severe incidents of air, soil, and water pollution and their threats to public health, many of which are caused or exacerbated by mismanaged waste, have provoked widespread public outrage (see, for example, Lang and Xu 2013; Steinhardt and Wu 2016; Sun and Huang 2020). In response, many Chinese have been adopting “alternative” lifestyles that are allegedly better for the environment, and as I argue, could simultaneously enhance human well-being.

Since its rise in the early 2010s, ZW has become a lifestyle choice for people in many parts of the world, including urban China. Defined narrowly, ZW is a series of sustainable consumption practices that puts waste minimization at the center, guided by the principles of refuse, reduce, reuse, recycle and rot (composting), known as the “5Rs.” More broadly, ZW is a holistic lifestyle that extends beyond green-purchasing practices to include the more immaterial aspects of everyday life, such as how we work, relax, entertain, and love. Like many other “simple living” initiatives, ZW renounces excessive consumption and materialistic lifestyles and proposes to reduce non-essential consumption to free up one’s resources—such as time, money, space, and energy—to focus on aspects of life where allegedly an “authentic, lasting” sense of fulfillment might arise. Accordingly, ZW represents a vision for a “post-consumerist life” (Hayden 2019) and details a “sufficiency” strategy at the individual level that
creates the possibility of “living well within limits” or having enough for a good life (Fuchs 2019).

While the actual environmental impact of a ZW lifestyle remains to be studied, the current article seeks to offer insight into rethinking consumption and its relation to individual and collective well-being under the current climate crisis. Projects of lifestyle change as the primary response to environmental and social challenges have also been convincingly criticized by many scholars for their tendency to individualize systemic issues (Kenis and Lievens 2014; Maniates 2001, 2019). Change must also involve concrete actions from industries and policy makers, which could be catalyzed by the collective efforts of citizen-consumers. While most people who claim to be practicing ZW are pursuing this lifestyle on their own and within the private confines of the home, a significant number of individuals across the globe are also engaging actively in their local communities. Previous studies have underscored the importance of shared action in promoting sustainable change. These activities can take the form of fostering collective learning, building a spirit of collaboration, and nurturing political identities (Yates 2015) as part of efforts to deepen personal commitment to citizenship (Kennedy 2011) and to establish alternative systems of material flows outside of the capitalistic market economy (Schlosberg and Craven 2019). In this article, I focus on the lifestyle communities of ZW in China and examine both the individual and communal forms of ZW in relation to well-being.

The growth of ZW in China corresponds with the nation’s plans to develop a circular economy (CE), toward the achievement of net carbon neutrality. Nevertheless, some commentators have criticized CE as a “new” sustainable development model for China because of its outsized emphasis on resource efficiency without attending to the need to establish an “optimal scale of production” which could lead to a potentially ever-expanding economy growing beyond a sustainable scale (Zhu et al. 2019; Zink and Geyer 2017). Furthermore, a CE could come at the expenses of cleaner production and sustainable consumption (McDowall et al. 2017; Zhu et al. 2019): indeed, resource efficiency in the country has improved, but overall resource consumption has risen fivefold during the last two decades (Mathews and Tan 2016). Per-capita carbon-dioxide (CO₂) emissions have also been steadily increasing, reaching a level comparable to that of many advanced economies (IEA 2021). While China’s CE strategy does not sufficiently tackle consumption and demand, wide-ranging efforts against food waste have taken off since 2020, marked by the nationwide “clean plate campaign” and the food-waste law that came into effect in the subsequent year. This recent development points to an opportune moment to re-evaluate the significance of sustainable (and reduced) consumption among urban populations with high-impact lifestyles within the context of the country’s roadmap toward a CE.

Conceptual framework

Following the approach developed by Sahakian and Anantharaman (2020), this research uses social practice theory to understand how everyday practices enable needs fulfillment and deliver well-being. This initiative further advances the approach by bringing in Schatzki’s notion of “teleo-affective regimes” to examine needs and well-being as an integral part of the ends, goals, and emotions that “subtend” different sets of practices within the ZW communities (Schatzki 2002; Welch 2020). In this section, I first conceptualize ZW from the perspective of practice theory, followed by a discussion of the need-based theories of well-being. I then explore in detail the multiples ways to study the links between practices and needs satisfaction.

Zero waste as practices of sustainable consumption

Practice theories have been widely applied in the sociology of consumption to examine consumption as a mundane phenomenon. Practices, understood as “routinized type of behaviors,” are the basic ontological units of social analysis (Reckwitz 2002). Everyday life is seen as being made up of routinized performances of a series of interconnected, socially and culturally shared practices. In this study, I utilize the theorization of Schatzki (2002) in which practices, performed by individuals and communities, are “nexus of doings and sayings” linked by the following “elements”: shared understandings (such as socially and culturally shared norms, specific knowledge, and skills needed to perform a practice appropriately); rules (such as explicit procedures, principles, precepts and instructions); and teleo-affective structures (such as the ends, goals, purposes, beliefs, and emotions contained in practices). Further, Schatzki (2002) argues that materials arrangements, such as the organisms, artifacts, infrastructures, and things of nature that are engaged in practices constitute, facilitate, and prefigure practices. Accordingly, “bundles” of linked practices and material arrangements make up sites of the social, and social life inherently transpires as part of such bundles (Schatzki 2002). I therefore understand ZW as a set of linked practice-arrangement bundles of sustainable practices: such as the elimination of
single-use plastics for everyday use, the upcycling of secondhand artifacts, and the composting of kitchen waste, to name but a few.

While more mainstream approaches to promote sustainable consumption rely on the economic notion of the rational consumer and concentrate on individual behavioral change, practice theory takes stock of the “distributed agency” among the various elements that constitute practices. Studies have shown that it is the co-evolution of the different elements of practices that reinvent old practices and diffuse new ones (Shove 2003; Shove and Pantzar 2005). Practice theory illuminates that the phenomenal growth of the ZW movement cannot be explained simply by the rising awareness among consumers of the detriments of plastics, but rather it involves change dynamics in a variety of elements: “newly” formed understandings and shared beliefs around consumption and sustainability; different materials to replace single-use plastics; reformed municipal solid-waste infrastructures; alternative marketplaces for fresh produce and other commodities; and novel competences, skills, and know-how, among others. The adoption of ZW symbolizes changes in the practices-arrangement bundles of everyday life: bundles that are deemed wasteful (and therefore undesirable) disintegrate while “new” bundles emerge. I will examine whether these new bundles associated with ZW are equally or more “effective” at delivering well-being, which leads us to the discussion in the next section.

**Social practices, needs satisfaction, and well-being**

Well-being is a complex and multifaceted concept subject to diverse interpretations. Theories of human well-being are broadly categorized as hedonic and eudaimonic. Hedonic well-being sees the good life as a matter of balancing pleasure over pain and enjoying life. Focusing on emotional states of pleasure and contentment, hedonic well-being has gained influence in psychology as the basis for individual evaluations of well-being and life satisfaction (Diener et al. 1999; Lamb and Steinberger 2017). Eudaimonic well-being emphasizes the potential of individuals toward self-actualization, social participation, and the acquisition of meaning—“it is a matter of what one can do or be in one’s life” (O’Neill 2006). As a consequence, eudaimonic well-being is concerned with enabling people to develop “basic capabilities” (Nussbaum 2011; Sen 1999), to realize “positive functioning” (Ryff 1989), and to fulfill “fundamental human needs” (Deci and Ryan 2000; Doyal and Gough 1991; Max-Neef 1991). Building on extensive literature on human needs, Di Giulio and Defila (2019) operationalize eudaimonic well-being within the context of sustainability issues termed the “Protected Needs.” In this article, I use this framework as a heuristic device and relate individual accounts of well-being to the list of Protected Needs to understand how bundles of practices in the ZW communities satisfy needs.

The Protected Needs include nine finite, satiable, and non-substitutable needs grouped into three categories: those focusing upon tangible and material things, upon the person, and upon the community (see Appendix 1). Di Giulio and Defila (2019) argue that these needs “should receive special protection within and across societies” whereby “individuals and communities have an obligation to provide conditions under which all human beings can—now and in the future—satisfy these needs.” Protected Needs are allegedly universal, but how individuals and communities understand what they must be allowed to want, and what they should have the possibility to do to satisfy the needs, could vary based on different cultural contexts. Based on a reading of research on traditions and practices of well-being in China (Arthur and Mair 2017; Hsu, Zhang, and Kim 2017; Inoguchi and Estes 2017; Luo 2019; Yuan 2019), it is reasonable to maintain that the list of needs is relevant and salient in the socio-cultural context in China.

Means to satisfy the Protected Needs, known as “satisfiers,” are also context specific. Satisfiers include both material and non-material means that could be used to satisfy needs; they could be actions, products, structures, institutions, services, infrastructures, and so forth (Max-Neef 1991). The satisfaction of a given need often involves many different satisfiers; they are also varied across peoples, communities, and cultures. The inclusive and elastic conception of satisfiers promises several angles to make sense of the ways social practices connect with satisfiers. First, practice (as an entity) itself is a satisfier. Second, the elements that make up a practice such as the materials used; the objects handled; the norms at play; and the knowledge, understandings, and competencies enacted are satisfiers (Sahakian and Anantharaman 2020). Finally, practice as performance, that is, the carrying-out of the doings and sayings, is also a satisfier. While there are different ways to link up practices to satisfiers conceptually, in reality, it is always through the performances of multiple practices that practical elements are simultaneously deployed and activated so that needs are satisfied (see Figure 1).

Satisfiers used to fulfill needs are not always positive contributors to overall well-being. Max-Neef proposed a classification of satisfiers: singular, synergic, inhibiting, pseudo-satisfiers, and violators.
The first two concern satisfiers that positively contribute to the fulfillment of one singular need or several synergic needs. And the later three point to satisfiers that could be detrimental to the fulfillment of needs: inhibiting satisfiers fulfill one need but prevent the satisfaction of other needs, pseudo satisfiers generate a false sense of satisfaction of a given need, and violators destroy the possibility to needs satisfaction over time (Max-Neef 1991). Max-Neef (1991) adds that satisfiers can be “imposed, induced, ritualized or institutionalized,” which corresponds well with practice theory since practices are routinized types of behaviors conditioned by material arrangements and institutional, socio-economic, and cultural forces. For instance, marketing agencies and their clients in capitalist societies often shape consumer demand by inducing and normalizing certain negative satisfiers. Relying on excessive consumption of commodities for needs satisfaction can deplete nonrenewable resources, exacerbate climate change, and reinforce social injustice and this qualifies them as inhibiting satisfiers and violators of basic needs. Thus, it is essential to discover synergic satisfiers that support optimal needs fulfillment with minimal carbon and material footprints toward realizing “sustainable well-being” for all (Gough 2017b). This article explores the ways that sustainable practices are synergic satisfiers that “effectively” meet needs with lower carbon footprints.

**Social practices, teleoaffectivity regimes, and well-being**

The previous section provided the foundation for an analysis of sustainable consumption practices as satisfiers of needs. The discussion now moves on to consider well-being and needs as part of the ends, goals, and affects intrinsic to these practices (see Figure 1). After all, needs satisfaction has long been argued to be a source of human motivation underlying the pursuit of goals (Deci and Ryan 2000; Max-Neef 1991). I bring in Schatzki’s concept of “teleoaffectivity,” in which “telos” denotes ends and goals and “affective” encompasses emotions that practitioners should or may enjoy (Schatzki 2002). Together, they form a “teleoaffective structure,” that is, “a range of normativized and hierarchically ordered ends, projects, and tasks, to varying degrees allied with normativized emotions and even moods,” which is one of the elements that link up practices (Schatzki 2002). While teleoaffective structures are the property of individual practices, “teleoaffective regimes” are “articulations of teleology and affectivity that reign across sets of multiple practices and represent common ordering in the teleoaffective structures of those practices” (Welch 2020). Schatzki illustrates three different teleoaffective regimes that existed in the Shaker religious community that worked in the medicinal herb business in New York.

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**Figure 1.** Conceptual framework linking social practices to the meeting of human needs.
State in the nineteenth century. This practice was impelled by religious faith in salvation through Shaker existence; governing hierarchies that administered the Shaker life; and surety and camaraderie of shared property, communal life, and general harmony (Schatzki 2002). Teleoffective regimes are central in explaining how the Shakers established their sense of purpose and discipline as well as the rule of life that oriented the duties, goals, aspirations, and even emotions of individual devotees.

The identification of teleoffective regimes should be empirically grounded, based on close observation of various practices (and the material arrangements engaged in these practices) performed by a community of practitioners; they should not represent the normative point of view of the researcher. But the content of the regimes, as discovered by the researcher, may include shared judgements within the community of what’s good, moral, desirable, acceptable, and worth pursuing. Further, Welch (2020) rightly criticizes that it is difficult to conceptually distinguish teleoffective regimes from general understandings in Schatzki’s work.

Taking this into consideration in my efforts to uncover the regimes, I carefully trace articulations of emotions, ends, and goals in my empirical work based on the appreciation that general understandings, while potentially overlapping with ideas in the regimes, are not necessarily always charged with telos and affects. In this research, I uncover several key teleoffective regimes that prevail within the ZW communities, all of which emphasize the pursuit of both sustainability and well-being, encapsulated in the belief that sustainable modes of living could lead to a good life. I hypothesize that virtual communities that are neither religiously nor graphically bound like the Shakers could also share common teleoffective regimes.

These teleoffective regimes, in conjunction with other elements that link up the practices (the materials, understandings, and rules), help organize and guide individual and collective conduct within communities. Together, they orient the goals, aspirations, and emotions of the practitioners, such as to cut down individual carbon footprints, to contribute positively to environmental protection, and to be a valuable member of the community. Further, when individuals are outside of the “spaces” of ZW communities, there are other regimes “out there” that are potentially compatible or conflicting; for instance, teleoactivities that link well-being to higher material consumption are hegemonic in a wide range of sectors and populations, which might become a source of tension for ZW practitioners. Finally, it is important to point out that practitioners may incorporate ideas within the regimes into their minds/bodies at varying degrees. For some, sustainability and well-being may have become a conscious goal, while for others, goals around ZW may have been hidden from view or remained implicit. This approach is aligned with practice theory’s embrace of both reflexive and unreflective aspects of everyday practices. As Schatzki writes, “a person need not to be thematically aware—at any time—of the teleological end points that determine what makes sense to him or her to do” (Schatzki 2002).

To summarize, building the conceptual framework on theories of practice and eudaimonic well-being, I seek to uncover the teleoffective regimes that help orient everyday conduct in the ZW communities. With this as a starting point, I analyze how sustainable consumption practices satisfy Protected Needs individually and collectively toward achieving sustainable well-being.

Methods

This study involved 45 in-depth, semi-structured virtual interviews with self-proclaimed ZW practitioners and fieldnotes from virtual ethnography conducted between 2019 and 2021 on the lifestyle community called “GoZeroWaste” (linghuo shiyanshi, GZW thereafter). GZW emerged in 2016 in Beijing when a ZW activist started documenting her ZW practices on the popular Chinese social network site (SNS) WeChat. GZW has been steadily attracting “followers” across the country and as of 2022, had 21 city-chapters and more than 10,000 members. I recruited participants through different GZW WeChat groups and the interviews were conducted via Zoom or WeChat in Chinese and lasted between 60 and 180 minutes with an average length of 90 minutes. All interviews were recorded with the participants’ consent and fully transcribed; select citations have been translated into English and anonymized. An overview of the sociodemographic characteristics of research participants is provided in Appendix 2. Generally, participants ranged from 18 to 48 years of age, lived in different cities in China, worked in very diverse occupations, and represented different income groups. However, participants were much more educated than the general population in China, and underprivileged groups were not represented in the sample. Another feature of the sample is that all but five respondents were female. Almost 90% of GZW members are female based on a survey conducted by its founder in 2019 and conveyed to me via personal communication). Consequently, the sample could be seen as typical of these communities. The absolute preponderance of female participation in China could be partially explained by the
gendered division of labor that is still attributed to household provisioning—where a great number of ZW practices take place—as a woman’s responsibility. Whether ZW empowers women’s public participation or perpetuates gender stereotypes merits a critical in-depth analysis, but it is outside the scope of inquiry of this article.

In the interviews, I asked the respondents how they came to practice ZW and we discussed in detail how their habits and routines have evolved over time. I paid special attention to the different elements of practices that came to the fore in their description—the artifacts and materials used (and refused), the knowledge and skills learned (and unlearned), and the understandings and beliefs upheld (and rejected), as well as the emotions and goals engaged. Apart from private practices at home, I looked into their participation in GZW and wider public spaces. Further, respondents were asked to reflect upon the influences that ZW have brought to their lives; additional questions were posed to understand the meanings people assigned to their practices. Based on an analysis of the data, respondents expressed subjective feelings of needs satisfaction which I then interpreted in relation to the list of Protected Needs.5

Another part of the data came from virtual observations. While recognizing the limits of an online investigation, I concur with Hine (2000) in considering culture and community as not bound by geophysical spaces, but it is also present in a diversity of virtual spaces. In the plurality of spaces of ZW activities, I narrowed my observation to two specific “localities” spread across a network of interconnected sites, following a “multi-field ethnography” approach (Burrell 2009). First, I observed four closed GZW group chats (average 470 persons per group) for three months. Second, I followed my respondents in the different virtual spaces in which they were active. For example, I participated virtually in ZW events and activities together with the participants, and read the news and articles that they shared. Through virtual observation, I was able to experience the “privately-public, publicly-private” online lives of research participants (Baker 2013), which would be otherwise hidden from researchers’ gaze.

Results

The teleaffective regimes of sustainability and well-being

The empirical work allowed me to observe the constellations of interlinked discursive and bodily practices of sustainable consumption which led to identification of the teleaffective regimes enmeshed in ZW communities. In this part, I detail three teleaffective regimes which I term: the “grievances of waste,” the “discontents of consumerism,” and the “beauty of simplicity.” These regimes give insights into the motivations, goals, and emotions that are key to orienting everyday practices in the ZW communities.

The first teleaffective regime—the “grievances of waste”—captures the ways in which research participants engaged with waste emotionally: they expressed feelings of guilt and shame when they or people around them produced waste that could in principle be avoided, showed anger and frustration with the environmental and social problems caused by waste and waste management in their city, and shared worries and distress over the worldwide crisis of plastic pollution. Along with these emotional engagements, people expressed a strong sense of responsibility and duty. One respondent spoke of her accidental encounter with the local landfill site, hidden away in the hills near the city where she was trekking with her friends with hopes to appreciate “nature”: “I was appalled by the mud, the dark liquid, the stench… how could we let this happen? I knew I had to do something” (LZ, female, 24, Deyang). She then described discovering ZW and starting to organize community-based recycling projects. Another respondent described the enormous amount of packaging waste from food delivery in her office building every day as an “eyesore.” In response, she convinced her colleagues to join a one-month ZW challenge during which everyone pledged to refuse takeout, delivery, and online shopping and organized ZW communal lunches together.

I now turn to the second teleaffective regime—the “discontents of consumerism.” First, participants spoke of consumerism and materialism in overwhelmingly negative terms. Many respondents shared experiences of being “manipulated” and “hijacked” by consumerism and its “accomplices”—the retailers, producers, e-commerce platforms, and commercial advertising—into what they deemed to be excessive and unsustainable consumption. WP (34, female, Shenzhen) observed that “the whole environment surrounding each one of us is so materialistic, businesses and media are tirelessly brainwashing us into buying so we ended up with more and more things that we never needed in the first place.” First, respondents identified patterns of unsustainable consumption, such as those motivated by the newest fashion or beauty trend, by promotion and sales, and by peer pressure; they stressed the imperative to reflect upon one’s consumption patterns. Second, they distinguished between needs and desires, and further, between what they...
considered to be authentic and “manufactured” needs. One respondent proudly proclaimed that she would not "be fooled again by commercial tricks that are constantly inventing new needs" and will only buy things "when there is an authentic need from within" (SA, 36, female, Shenzhen). Moreover, respondents believed that consumption is often used to convey social status and distinction—which points to understandings of consumption developed by sociologists such as Veblen (1899) and Bourdieu (2007). They believed that consumption as such could never “fill the inner emptiness” or enhance individual well-being in the long run. Or worse, it increases risks of financial stress and time deficiency. Many conceded that going shopping was the “go-to kill-time option” which prevented them from enjoying nature, reading books, or spending quality time with families and friends. In other words, ZW practitioners qualified consumerism and materialism as pseudo and inhibiting satisfiers to needs.

The third regime—the “beauty of simplicity”—demonstrates the belief held by participants that living a simple life, characterized by having low material desires, consuming less non-essential goods and services, and having time affluence could lead to a more fulfilling and enriching life. One respondent disclosed that she used to believe working harder and making more money would give her “freedom,” that is, financial freedom and freedom to consume. She now realized that “true freedom is freedom from excessive desires” and that “one doesn’t need a lot of money to love oneself and live well” (LJ, female, 40, Beijing). During her transformation, she had quit her previous job and started a small business specializing in artisanal crafts, to which she has quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she had quit her previous job and started a small business specializing in artisanal crafts, to which she has drastically reduced her spending on fashion, skincare, and cosmetics and has since felt more content with her life “even without earning big bucks.” Several respondents also related how ZW has made their home a more comfortable and inviting place thanks to the donation of existing items; the reduction in consumption; and the adoption of better reusing, recycling, and composting practices at home. As one respondent explained,

My families and I live in a very small rental apartment in the city. We used to buy lots of things, and increasingly we find that it is things, not us, that occupy most space in our home. Every day when I return home from a day’s work, I didn’t feel that it is a place of comfort, it felt so crowded. After I started to practice ZW, I gave away most things I don’t need through different platforms and stopped adding more things. Now I feel lighter, and the apartment is bigger, cleaner; it gives us a lot of comfort. (QJ, 32, female, Shenzhen)

For many practitioners, ZW was a gateway toward a holistic lifestyle that they found to be both sustainable and healthy. In order to reduce single-use plastics, most interviewees avoided as much as possible fast food, packaged meals, and food deliveries and made efforts to buy fresh produce and to cook at home. SY, a young entrepreneur in Beijing,
shared that she had been “too busy to eat properly”; but people in ZW made her realize the importance of “slowing down…to eat well, relax and take care of ourselves.” Similarly, LL (23, female, Beijing) described how the simple practice of eating a proper homemade breakfast gave her more energy and confidence—“it felt like I can better manage my day.” Other interviewees described how they discovered their local farmers’ market and community-supported agriculture (CSA) initiatives which provided seasonal food that are (perceived as) healthier for both humans and the planet. ZW communities played a significant role with respect to these initiatives, for example, by organizing swapping events with volunteers of local chapters, promoting CSA initiatives and farmer’s markets, and repurposing online chatrooms as places to facilitate same-city donations and exchanges. No monetary transactions could take place within these spaces so that “exchanges are kept pure, based on trust and human connection” (interview with a GZW volunteer). ZW communities established an alternative system of material flow outside of the mainstream capitalist marketplace which enabled “alternative” forms of consumption such as “unconsumption,” exchange, and reuse. These community activities facilitated needs satisfaction and, at the same time, acted as a force of resistance to the pervasive saturation of economic logic in everyday life.

**Needs focusing upon the person**

ZW is particularly “effective” at satisfying the Protected Needs that focus on people’s ability to develop as a person (Need 4), to make their own life choices (Need 5), and to perform activities valuable to them (Need 6). Furthermore, the communities were vital in creating conditions for the fulfillment of the aforementioned needs. To start with, all respondents endeavored to acquire new knowledge, competences, and skills: they participated in learning activities organized by the communities such as book clubs, film screenings, guest lectures, and peer-sharing events—all of which continued uninterruptedly online during the pandemic. Most interviewees agreed that practicing ZW as a member of the GZW community had changed their views on a host of different issues, encouraged them to explore fields of knowledge previously foreign to them, and propelled them to keep learning about environmental issues. SY (25, female, Shenzhen) shared that ZW “opened her eyes to the injustice of our consumption which she rarely questioned before.” For some respondents, active participation in the community helped to develop of stronger sense of self-worth. CY shared that she has been a homemaker for many years and felt somewhat unfulfilled without a professional career. Her transition from a beginner of ZW to the leader of a local chapter over the years made her “feel more appreciated and accepted by society.” She asserted, “I believe I have enhanced my professional abilities and proved my personal value.”

ZW is also frequently linked to feelings of “elevations” which denote a sense of heightened awareness and clarity over life. LN (Female, 32, Shanghai) described ZW as “a channel connecting to the inner world,” used to explore herself and her values. Another interviewee expressed that “ZW of the materials and ZW of the mind are closely connected, waste on the outside are reflections of excessive desires from within” (WW, male, 31, Shanghai). For most respondents, ZW was a mental exercise as much as a material one: attempts at cutting down waste, reducing consumption, and simplifying life were processes of understating what one values and needs, and what makes one truly content with one’s life. This introspection has been described as an “inspiration” and “awakening” which allegedly enabled and empowered people to make their own life choices, instead of those “manipulated” by the culture industry. Further, the “emancipation” from consumerism also freed up resources for more fulfilling activities in life. Most directly, as explained by XS (male, 48, Beijing), ZW saved time—time spent debating about whether to buy things or not, time spent browsing and shopping—so he “could focus on more meaningful things in life.” Some respondents went a step further and saw lifestyle minimalism as a pathway toward an escape from the “rat race” of modern work.

Since I am not hijacked by material desires anymore, I no longer need to work 9–9–6, to earn more money with more hours crunched, and to use the money to buy more things, and repeating this endless vicious cycle. I don’t need to tie myself to a job that I do not like out of financial pressure, and I can work on things that I truly enjoy.” (HS, 25, female, Shenzhen)

**Needs focusing upon community**

To be part of a community (Need 7) was a need frequently expressed by the research participants, and without doubt, taking part in GZW served to satisfy that need. Many respondents disclosed that they regarded their practices as a deviation from the mainstream, a “pointless obsession,” and a “nuisance”—which had caused moments of tensions and negative emotions within their households. During these periods, the ZW communities become a source of support and solidarity for many. YL (female, 33, Shenzhen) explained that “within the community, we discuss thoughts that our own families might not even understand, we share our
personal stories and our most intimate feelings, I feel heard, understood and supported.” For others, ZW helped them to build joyful and meaningful connections with like-minded people. CL, a university student in Shanghai, shared that her frugal lifestyle made her feel somewhat alienated from her peers who were “into the latest fashion and beauty trends.” And through ZW, she met her best friend. “We could not stop talking about consumer society, climate change, and veganism; I am so happy to have found friends that share the same values,” she added.

During virtual observation, I witnessed how people went to great lengths to help fellow community members in need. When ZW practitioners went to a bulk store for soaps and detergents on the outskirts of Shanghai, some offered to take more for others in the community and then met them inside the city for the handover. This way, people who lacked the time or resources to make the trip could get package-free local products at no additional costs. A university student in the group shared that she was able to obtain all the things she needed for the new semester for free from community members. People were also eager to help out new parents—they gifted secondhand baby clothes, toys, books and offered advice on ZW childcare. As some respondents expressed, this community never fails to “warm my heart.” A community not only offers belongingness and support, it also, to a certain degree, gives rise to a sense of empowerment and collective agency.

After participating in the activities of the community, you find that many people share the same ideas as you, do the same things as you… you feel empowered, and you have more confidence to continue your efforts. (TY, female, 43, Tianjin)

Some respondents talked about feeling more “emboldened” after joining the community: they were much more likely to express and promote their pro-environmental ideas to people around them, and many of them took the initiative to start ZW projects at work or in school. Furthermore, being part of the community and witnessing the collective progress helped to stoke a sense of hope when facing tremendous and sometimes overwhelming environmental challenges.

**Discussion**

While sustainable consumption practices within ZW communities have proven their potential of realizing the well-being dividend, they come with significant limits and pitfalls. First, the communities remain privileged urban groupings that favor “bonding” over “bridging.”10 Most members of the community, despite having disparate income levels, possess considerable cultural capital. Sustainable and alternative consumption mark a “new” social distinction, performed by those in the community to differentiate and distance themselves from “others” in society. For instance, during my observations I witnessed little to no acknowledgement or concern over people working in the waste industry (formal or informal) whose work laid the very foundation for efforts toward reducing waste. Sustainable consumption as a distinction recognized by the group also tended to exclude people who consume sustainably out of necessity, and people who aspire to consume more, even when such aspirations were held by lower-income populations whose carbon footprints lag far behind many self-proclaimed practitioners of ZW.

Issues of justice and equity seem to have been overlooked by the community, while sustainable well-being implies ethical obligations for individuals and societies to ensure that current resource use does not compromise the ability for others to meet their basic needs (Gough 2017b). Respondents rarely related ZW to the fulfillment of the last two Protected Needs—the need to have a say in the shaping of society (Need 8) and the need to be granted protection by society (Need 9). While they found consolation in the recent development of environmental policies in China, such as those aimed at reforming municipal waste-management schemes, preventing food waste and food loss, and achieving carbon neutrality, many ZW enthusiasts expressed great frustration over that fact that the government had done “too little, too late” to address the country’s grave environmental issues. Further, most of the participants found it difficult to fathom policy measures and business innovations in the near future that would reject continuous growth and rising consumption, which was seen as the main culprit behind the crisis of waste. Participants in the ZW communities were eager to “have a say in the shaping of the society,” but they had not yet found meaningful ways to engage in decision-making processes governing sustainability issues in China. They asserted that they were willing to participate in boycotts against brands and businesses, and to join public petitions and campaigns against waste, if these activities were endorsed, supported and/or organized by trusted environmental organizations. Nevertheless, the tightening control over civil society in China renders the possibility of community mobilizations toward direct actions slim. Further, the majority of the skills and competences learned through ZW are worlds away from those associated with engaged citizenship (Maniates 2019). This critique, however, does not discredit the auspicious efforts of participants, volunteers, and leaders of the ZW movement who are innovating ways to build a
Conclusion

In this article, I investigated the relevance of the well-being dividend in a non-Western context, and specifically considered the relatively more affluent urban populations in China that practice ZW in their everyday life. I have attempted to demonstrate that living sustainably, through practices of sustainable consumption, and particularly reduced consumption, could satisfy multiple human needs and enhance well-being both individually and collectively. Using practice theory, this article pays special attention to the “practical elements” that are enacted as synergic satisfiers. In the Chinese ZW movement, I highlighted the role of lifestyle communities in facilitating needs fulfillment, manifested in their efforts to build alternative systems of material flows, creating spaces for collective learning, establishing rules and norms around sustainable consumption, and amplifying novel understandings around well-being, among others. By centering well-being in relation to more communal practices of sustainable consumption, I tried to establish ZW as less based on individual projects of behavioral change and more as community initiatives aimed toward both well-being and greater sustainability. This approach also points to considerations over how our societies could be better organized to enable needs satisfaction in a more sustainable and effective way, by giving special protections to synergic need satisfiers, starting by allowing sustainable communities to flourish and thrive.

I also bring to light the teleoaffective regimes, containing shared ends, goals and emotions, formulated around well-being and sustainability that were central in guiding and orienting the everyday practices of ZW practitioners within the communities. Methodologically, this evidence demonstrates the value of engaging with the concept of teleoaffectivity in relation to well-being. In terms of practical effects, this work testifies to the imperative of approaching sustainability beyond the environmental: it has to do with individual and collective aspirations to live a good life. As argued by Brown and Vergragt (2016), cultural shift toward greater sustainability might not be driven “by moral imperatives or environmental movements, but by the core pursuit of human well-being.” I have shown that well-being, as understood by practitioners of ZW, is beyond hedonistic happiness. It is about empowerment, self-actualization, and participation. It centers the ability to make one’s own choices and to perform activities valuable to them, and emphasizes the possibility to participate in a community and contribute to the greater good. Further, engaging with the pursuit of good life through everyday material practices might be one of the avenues to address widespread denial about the urgency of the climate crisis, tied to the “disconnect between the abstract cognition of climate change and the experiential realities of personal and political life” (Meyer 2019).

Finally, the lifestyle experiment of “living well with less” of the ZW communities in China validates that the “well-being dividend” is indeed relevant in developing countries. It illustrates how well-being could be envisioned without rising consumption and how human needs could be fulfilled with practices of sustainable consumption. This experiment represents a potential force of cultural transformation to reframe the very concept of human well-being that challenges the deep-seated imaginary of modernity inextricably tied to consumerism, developmentalism, and extractivism. Yet, transitions toward more sustainable societies cannot rely solely on changes in individual attitudes, behaviors, and choices (Shove 2010). Such transitions also require resolute confrontations with current “systems of provisions” that lock individuals and households into patterns of unsustainable consumption and wasteful production with no viable alternatives (for a discussion, see Brand-Correa et al. 2020; Fanning, O’Neill, and Büchs 2020; Mattioli et al. 2020). A reorganization of contemporary provisioning systems based on human needs should embrace the idea of “sufficiency” and deliver well-being at a sustainable level of resource use so that individuals and communities could all flourish within planetary boundaries.

Notes

1. In this article, unless otherwise stated, well-being encompasses both hedonic and eudaimonic conceptions of well-being. A more detailed explanation of well-being is included in the conceptual framework.

2. The “5Rs” originated from the waste hierarchy which comprises a set of waste-management options intended for both municipal and industrial solid waste-management systems, preferentially ranked in terms of their perceived environmental benefits. Bea Johnson (2013), an acclaimed ZW lifestyle activist and author of the book Zero Waste Home, reframed the meaning of waste hierarchy for individual consumer-citizens. In this context, the “5Rs” involves refusing what we do not need, reducing what we actually need, reusing what we consume, recycling what we cannot refuse, reducing or reusing, and rotting (composting) the rest.

3. This law is formally known as the Law of the People’s Republic of China on Food Waste, promulgated by the Standing Committee of the Thirteenth National People’s Congress on April 29, 2021, effective immediately (Order No. 78 of the
President of the People’s Republic of China). This law assigns duties and responsibilities to individuals and communities, in addition to governmental agencies and businesses in preventing food waste and food loss.

4. Theories of social practice are heavily influenced by the work of Bourdieu (2007), Giddens (1984), Schatzki (1996, 2002), and Reckwitz (2002). Giddens (1984, 2) maintains that the core subject of the social sciences “is neither the experience of the individual actor, nor the existence of any form of social totality, but social practices ordered across space and time.” Practice theories, therefore, emerged to transcend the dualism of structure and agency and to place “practices” at the center of social analysis.

5. This list of Protected Needs was not a part of the initial research design but emerged as a heuristic device for assessing need satisfaction in the analysis of the data. It is important to note that each research participant could relate differently as to what needs are satisfied and how they are satisfied if they were specifically instructed to do so; what is presented in this article is my own attempt at relating the subjective accounts of well-being of ZW practitioners to needs satisfaction.

6. Comprehensive municipal recycling and composting programs are still lacking in most places in China. Community composting, as a decentralized management model for organic waste, has gathered great interest in the ZW communities. Some ZW practitioners have experimented with home composting, but technical and practical difficulties have been common (e.g., limited space in the apartment, lack of use for the compost soil, management of odor and leachate). Several community-composting pilots have been set up in select cities, but overall community composting has not yet been widely implemented in China.

7. Many psychological studies on well-being have discussed the feelings of elevation in relation to psychological needs satisfaction. Elevation often involves feelings of awe, wonder, and being deeply moved (i.e., experiencing life’s events on a deeper level) (Huta 2013). The review of research on eudaimonic well-being by Huta (2013, 2016) provides a more detailed discussion on the positive emotion of elevation.

8. “9–9–6” is a Chinese phrase used to describe a work regime adopted by some Chinese companies, especially those in the finance, technology, and manufacturing industries. It typically involves working 9 am to 9 pm, 6 days per week, often without extra pay. This practice violates Chinese labor laws but has been largely overlooked by regulators, leading to little support for workers suffering from this form of exploitation.

9. Interviewees discussed these tensions as temporary struggles on the “journey” toward ZW rather than structural issues that could threaten their overall well-being. In other words, ZW was not discussed as a negative satisfier. In addressing these negative emotions, they have come up with “tactics” to strategically communicate and implement ZW at home to gradually bring their families on board with ZW.

10. Robert Putnam (2000) defines “bridging” social capital as open networks that are “outward looking and encompass people across diverse social cleavages,” while “bonding” entails “inward looking” which tends to reinforce exclusive identities and homogeneous groups.”

11. In future research, I intend to extend beyond relatively more educated groups and to encompass under-represented groups in China, to understand the relevance of the well-being dividend.

12. Since 2000, waste-sorting and recycling programs have been rolling out in selected cities in China, but poor implementation and lack of enforcement have led to few successes. Under such circumstances, the vast majority of municipal solid waste (MSW) has not been collected unsorted, with the remaining waste sorted by the informal sector (see for example, Xiao et al. 2017). This situation changed in the summer of 2019, when Shanghai became the first Chinese city to legally mandate waste separation at the source. The trailblazing efforts of the Shanghai municipality have kicked off a series of transformations of the MSW management schemes, with many cities following suit; but the COVID-19 pandemic has halted progress of these programs throughout China.

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Appendix 1. The nine protected needs (Di Giulio and Defila 2019)

This table and the following illustrative graph of the Protect Needs are taken directly from Di Giulio and Defila (2019). The left column shows the nine needs, and the right column specifies a given need, based on empirical research of the authors.

| Group 1, focusing upon tangibles, material things (Protected Needs 1–3) | Specified description: Individuals should have the possibility ... |
|---|---|
| **Need (what individuals must be allowed to want)** | **Specified description: Individuals should have the possibility ...** |
| (1) To be provided with the material necessities for life | ... to feed themselves sufficiently, with variety, and with food that is not detrimental to health.  
... to live in a suitably protected and equipped accommodation, offering privacy and sufficient space and allowing them to realise their idea of living.  
... to care for their bodies with dignity and dress suitably. |
| (2) To realize their own conception of daily life | ... to shape their daily life according to their own ideas.  
... to procure and use the material necessities for life from a diverse range of supply, and to have sufficient means to do so.  
... to move freely in public space. |
| (3) To live in a livable environment | ... to live in an environment (built and natural) that is not harmful to health and is aesthetically pleasing.  
... to develop a sensorial and emotional relationship with nature.  
... to have access to and be able to move about in diverse natural and cultural landscapes. |

| Group 2, focusing upon the person (Protected Needs 4–6) | Specified description: Individuals should have the possibility ... |
|---|---|
| **Need (what individuals must be allowed to want)** | **Specified description: Individuals should have the possibility ...** |
| (4) To develop as a person | ... to develop their potential (knowledge, skills, attitudes, feelings, etc.) and thus their individual identity.  
... to face the challenges of their choice.  
... to freely access reliable information and thus form their own opinion. |
| (5) To make their own life choices | ... to freely decide and act upon the value-orientations they choose to adopt or reject (spirituality, religiosity, ideology, etc.).  
... to set their own life goals and pursue them.  
... to determine how they want to lead their life in terms of intimate relationships, family planning, where to live, etc. |
| (6) To perform activities valuable to them | ... to carry out activities that they consider to be fulfilling (in work and leisure; paid and unpaid).  
... to carry out activities that match their personality and in which they can unfold their potential (in work and leisure; paid and unpaid).  
... to allocate their time for their different activities according to their own preferences and to have time for idleness. |

| Group 3, focusing upon community (Protected Needs 7–9) | Specified description: Individuals should have the possibility ... |
|---|---|
| **Need (what individuals must be allowed to want)** | **Specified description: Individuals should have the possibility ...** |
| (7) To be part of a community | ... to maintain social relationships with other people (private, professional, during training, etc.).  
... to take part in cultural activities and celebrations and to participate in associations.  
... to access the cultural and historical heritage of their community. |
| (8) To have a say in the shaping of society | ... to co-determine the affairs of the society in which they live.  
... to take an active stand for concerns and problems (local, national, international) they hold dear.  
... to voice their opinion, by themselves and with others. |
| (9) To be granted protection by society | ... to be protected from public and private violence, from infringements on physical and mental integrity, and from natural hazards.  
... to pursue their goals without discrimination and with equal opportunity, to live in legal certainty, and to be treated with dignity and respect.  
... to be supported in the event of physical or mental impairment, unemployment, poverty, and other impairing conditions. |
Appendix 2. Sociodemographic characteristics of the interviewees
Educational attainment refers to the highest level of education that a person has successfully completed.

|                          | N  | %    |
|--------------------------|----|------|
| Total                    | 45 | 100% |
| **Gender**               |    |      |
| Female                   | 40 | 89%  |
| Male                     |  5 | 11%  |
| **Age Group**            |    |      |
| 18-24                    |  9 | 20%  |
| 25-34                    | 23 | 51%  |
| 35-44                    | 11 | 24%  |
| 45-54                    |  2 |  4%  |
| **Marital Status**       |    |      |
| Married                  | 16 | 36%  |
| Unmarried                | 29 | 64%  |
| **Educational Attainment** |   |      |
| Bachelor's Degree        | 31 | 69%  |
| Graduate Degree          |  8 | 18%  |
| Some College or Associate Degree | 6 | 13%  |
| **Occupation Classification** | |      |
| Education                |  7 | 16%  |
| Students                 |  7 | 16%  |
| Community and Social Services |  6 | 13%  |
| Computer and Engineering |  5 | 11%  |
| Home-maker/Self-employed |  4 |  9%  |
| Sales and Retail         |  4 |  9%  |
| Arts, Design, Entertainment and Sports |  4 |  9%  |
| Business and Financial Operations |  3 |  7%  |
| Office and Administrative Support |  2 |  4%  |
| Media and Journalism     |  2 |  4%  |
| Personal Care and Service|  1 |  2%  |
| **Location: City**       |    |      |
| Tier 1: Shanghai         | 11 | 24%  |
| Tier 1: Shenzhen          | 11 | 24%  |
| Tier 1: Beijing          |  8 | 18%  |
| New Tier 1 City          |  7 | 16%  |
| Tier 2 City              |  4 |  9%  |
| Tier 3 City              |  1 |  2%  |
| Tier 4 City              |  3 |  7%  |

*Educational attainment refers to the highest level of education that a person has successfully completed.*