

Equity and Sustainability Assessment
of
Tucson's Government Property Lease Excise Tax (GPLET) Program

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Executive Summary

This report examines the potential effects of the City of Tucson's Government Property Lease Excise Tax (GPLET) program on certain equity and sustainability issues, and how the program might do more for social and environmental progress. Topics covered include gentrification, displacement, affordable housing, employment equity, legacy and locally owned business, sustainable urban form and green building, the journey to work, equitable spending, abatements and real estate returns, real estate performance, and increasing equity and sustainability benefits from GPLET incentives.

The main findings are as follows:

1. The *Encyclopedia of Housing* defines *gentrification* as "...the process by which central urban neighborhoods that have undergone disinvestments and economic decline experience a reversal, reinvestment, and the in-migration of a relatively well-off middle and upper middle-class population." The GPLET program, which began in 2012, abates property taxes for qualified developments in the Central Business District (CBD) (see map, pg. 5). There has been gentrification in the CBD during the program's operation. The number of higher income households earning more than \$50,000 per year increased by 1,886 (48%) from 2012 to 2019. Meanwhile, the number of lower income households earning less than \$35,000 per year declined by 1,052 (9%). Decline in lower income households can be caused by *direct residential displacement* associated with gentrification, whereby residents are forced out by rent hikes, evictions, or other means. It can also be caused by *indirect displacement*, whereby units vacated by low-income households are no longer affordable to other low-income households. While gentrification related displacement has occurred, it can also be affected by job relocations, divorces, lifecycle stages, and other factors that influence the decision to move.
2. Gentrification, as indicated by gains in the number of households earning more than \$50,000 per year, occurred in 74% of the block groups in and around the CBD. The median gain was 50 households, or about 14% of all households (of all incomes) in the block group in 2012. The largest gain was 173 higher income households (or half the 2012 all income household count in the block group). Meanwhile, losses in the number of households earning less than \$35,000 per year, occurred in 53% of the block groups in and around the CBD. The median loss in those block groups was 91 households, or about 20% of the 2012 all income household count. The largest loss was 293 lower income households, or 37% of the 2012 all household count in the block group.
3. Losses in the number of lower income households occurred in about half the block groups that underwent gentrification. The best explanation found for why losses occurred in some places but not others, is the loss of lower income rental housing (costing less than \$800 per month).

Gentrification has been happening whether or not housing is preserved and developed. However, when gentrification occurs *with* affordable housing preservation or development for existing lower income households, and new housing development for higher income households, we see *gentrification without residential displacement*. When gentrification occurs *without* housing preservation and development, we see gentrification *with* displacement.

4. The number of higher income jobs in GPLET assisted projects, or from other job growth in the area, has been too small to significantly affect the amount of gentrification. Based on commuting data, only 39 higher income employees from GPLET projects can be expected to have moved into the CBD and nearby areas since 2012.
5. Cultural displacement can occur when the norms, behaviors and values of newcomers differ from and overwhelm those who were there before. One indicator of cultural change can be racial or ethnic change, however the share of Hispanic or Latinx population in and near the CBD fell by just 0.4% since 2012 to 57.3% in 2018. There are a few areas where the decline was more significant, including the downtown area and parts of Barrio Viejo, Santa Rosa, and Hollywood. Here again, however, the effect of the GPLET projects on these trends is not significant.
6. The GPLET program could help reduce gentrification and displacement by supporting rental housing in or near gentrifying neighborhoods that is affordable to households being displaced (\$650-\$800) or “close substitutes” for the housing currently being absorbed by higher income households (\$1,200-\$1,700). GPLET could also help mitigate displacement if tax revenues from GPLET related development was used by the city to increase funding for cultural preservation and low income housing vouchers, land trusts, or other programs.
7. While GPLET is not intended as a job creation tool, it has contributed to employment equity. The temporary and permanent jobs associated with GPLET assisted projects are in sectors that employ a higher share of women, African American, and Hispanic or Latinx workers, although the salaries may not be high enough to provide a living wage in all cases.
8. Legacy and other small and locally owned businesses contribute to Tucson's culture, history, and economic success. There is no standard definition for Legacy business, but one from Los Angeles is “long-standing community anchors where neighbors connect, memories are made, and our sense of community nourished.” Legacy, small, and locally owned business is not adequately tracked in Tucson, but evidence suggests they are doing more poorly in parts of the CBD than in other parts of the city or county. Evidence also suggests they are probably being harmed by the loss of customers being displaced by the loss of lower priced rental housing. This loss of housing, again, is not significantly driven by GPLET. GPLET projects do create commercial space that can be occupied by small and locally owned businesses. 50% of establishments in GPLET retail

spaces are locally owned. As with housing, GPLET could support these types of businesses by prioritizing them in the projects it assists, or through the city spending revenues from GPLET projects on programs that support legacy, small and local business. The Community Benefits Agreement between the owners and neighbors of the 6th and Union project could be a model for other GPLET projects if the city could play a more facilitative role.

9. GPLET related job development downtown has probably not reduced our climate footprint or improved accessibility by transit dependent lower income workers. The few percent increase in transit use by commuters who work where the GPLET projects have been located is offset by the longer than normal commutes (for Tucson) among the more than 75% of all workers who drive there alone. And fewer of the workers burdened by poverty, who are more dependent on buses, bikes, and walking, use these modes when their jobs are downtown than in other Tucson locations. A better option for sustainability and lower income worker accessibility would be to emphasize affordable and workforce housing in the CBD, and job development in transit, bike, and pedestrian oriented clusters along transit corridors outside the city center. GPLET could help in both cases in coordination with affordable housing entities and developers, and with the upcoming Transit Oriented Development corridor study.
10. It would be helpful if GPLET could be used to incentivize next generation green building innovations to demonstrate the feasibility of building innovations important to the region, such as net-zero or positive water and energy buildings and cutting edge heat island mitigation.
11. There is considerable opportunity for GPLET to indirectly support equity and sustainability by the manner in which the revenues produced by its projects are spent by city hall. Arizona's local governments have been reducing spending in equity related functions, so Tucson has an opportunity to lead the state in equity budgeting. This can be fostered by the use of equity budgeting tools increasingly common in local governments across the country. To achieve greater equality among higher and lower income groups in the present value of the future stream of benefits produced by city spending, a disproportionate share would need to be spent on projects and programs benefiting lower income individuals and neighborhoods. This is because, unlike higher income individuals, benefits received in the future by lower income individuals are far less valuable than benefits received more immediately. There is a large difference between higher and lower income people in their time value of money.
12. Additional equity and sustainability benefits, such as affordable housing or green innovations, could be included in projects in exchange for abatements if all the abatements were not needed to merely ensure investors of a competitive risk adjusted return. Evidence of whether full abatements are needed to ensure sufficient returns is very limited because financial data on past

Introduction

Since 2012, the City of Tucson has used the Government Property Lease Excise Tax (GPLET) program to give property tax abatements to residential, retail, office, hospitality, and industrial projects in the Central Business District. On September 22, 2020, the Tucson City Council approved a motion initiating an assessment of the program's impacts on racial and economic equity: who has been benefitted and burdened, whether it causes rent hikes and displacement, whether it moves Tucson toward a more just and sustainable future, and what lessons and recommendations might be suggested. This report summarizes the findings of an academic study commissioned to support the assessment.

Equity Planning has been part of urban planning and budgeting for more than 50 years. The overriding goal of the City of Cleveland, one of the early trail blazers, was "to provide a wider range of choices for those...residents who have few, if any..."¹

Nearly 30 years ago, William Lucy suggested three equity concepts that can still be used today to assess the GPLET program.²

- *Equality*: Does everyone and everyplace share equally in the benefits and burdens?
- *Need*: What is GPLET doing and could it do more to help the poor or others in need?
- *Demand*: Does GPLET help the general public get its priorities met by City Hall?

Equity is also an element of sustainability planning. Five types are commonly discussed.³ Intra-generational and geographic equity correspond with Lucy's concepts. Three others include:

- *Intergenerational*: Is GPLET doing enough for future generations, for example, by reducing our carbon footprint?
- *Interspecies*: Is GPLET doing enough for biodiversity, such as promoting water conservation to preserve the ecological health of rivers and streams?
- *Procedural*: Are program decisions on development agreements, leases, project requirements, and the use of future tax revenues occurring democratically, openly, and inclusively?

As these concepts suggest, there are many issues that could be raised in this assessment. They might all be grouped, however, under three deceptively simple headings, people, prosperity, and planet, which define

¹ Krumholz, N. (1982). A retrospective view of equity planning Cleveland 1969–1979. *Journal of the American Planning Association*, 48(2), 163-174.

² Lucy, W. (1981). Equity and planning for local services. *Journal of the American Planning Association*, 47(4), 447-457.

³ Haughton, G. (1999). Environmental justice and the sustainable city. *Journal of planning education and research*, 18(3), 233-243.

triple bottom line (TBL) accounting. First applied to running socially responsible businesses, including real estate development, TBL accounting has been used more recently in economic development.⁴ In addition to traditional metrics, such as jobs, investments, and tax revenues, economic development can also account for its effect on social, health, and environmental outcomes.⁵

A comprehensive TBL analysis of GPLET equities could involve studying dozens of factors. But that would take far longer than the short 2-month period budgeted for this report. A wide-ranging approach in that time frame would not have allowed for the fact-based approach that academic studies are expected to provide. For that reason, this report will focus on key selected issues, mostly requested by the sponsors, related to the GPLET program. No doubt, some stakeholders will find things missing. That is regrettably unavoidable, but hopefully all concerns can be addressed in ongoing discussions. This report is intended to help start, not end, those discussions.

For each issue addressed below, there is a review of background material, data on trends since GPLET began, and an examination of whether GPLET is or is not affecting the trends. This last part is especially important because trends can be driven by many things, such as demographic and development patterns, shifting public priorities, development standards, other incentive programs and more. It is important to determine whether GPLET is a major cause of any issue, a minor contributor, or just guilty by association. It is also important to remember that while GPLET may not cause an issue, it could become part of the solution. Finally, in the end, ideas for future reforms will be offered that might better align the GPLET program with public priorities across the triple bottom line.

2.0 Gentrification and Displacement

2.1 Background

A key question for the GPLET program is whether it is causing gentrification and displacement. A prominent definition of gentrification, from *The Encyclopedia of Housing*, is

“...the process by which central urban neighborhoods that have undergone disinvestments and economic decline experience a reversal, reinvestment, and the in-migration of a relatively well-off middle and upper middle-class population.”⁶

⁴ Hammer, J., & Pivo, G. (2017). The triple bottom line and sustainable economic development theory and practice. *Economic Development Quarterly*, 31(1), 25-36.

⁵ For a detailed listing of metrics useful for a TBL approach to economic development, go to [www.TBLtool.org](http://tbltool.org), especially pp. 14 et seq. in the Users Guide at http://tbltool.org/files/tbl_tool_users_guide.pdf.

⁶ Smith, N. (1998). Gentrification. In W. van Vliet (Ed.), *The encyclopedia of housing* (pp. 198–199). Thousand Oaks, CA: Sage.

This definition focuses on in-migration. The Brookings Institution, however, has defined gentrification as

*“a process by which higher income households displace low-income residents, changing the essential character of a neighborhood.”*⁷

This second definition focuses on displacement.

A good deal of the concern about gentrification centers on who reaps the benefits and bears the burdens, especially around residential and cultural displacement.⁸ *Direct residential displacement* occurs when residents are forced out by eviction, nonrenewal, tax hikes, or rent hikes. *Indirect or exclusionary residential displacement* occurs when units vacated by low-income households are no longer affordable to other low-income households who cannot afford to move into the neighborhood.

Cultural displacement occurs as social or physical aspects of a neighborhood change that have given long-time residents a sense of belonging and familiarity. As the economic, racial, or ethnic composition of a community changes, its shops, services, and social institutions may lose customers or members and be forced to close. Or they might shift their focus to serve new residents, leaving remaining long-time residents feeling dislocated.⁹ The result can be cultural inequities involving the loss of identity, values, beliefs and heritage. Cultural displacement can include “in-situ marginalization; a kind of symbolic or indirect displacement where residents experience a gradual change of their neighborhood and growing sense of exclusion that ultimately leads to their physical displacement. Robert Bedoya, the City of Oakland cultural affairs manager calls for the adoption of a conscious “belonging strategy” involving “creative place-keeping” in order to preserve the cultural history of a community and advance social justice.”¹⁰

Gentrification without displacement, whereby reinvestment might produce a healthier, more livable built environment, affordable housing for all, new economic and social choices for lower income residents, and positive social integration, is something of a holy grail in urban planning. But whether it's a real possibility or just a neoliberal fantasy to justify 21st century urban renewal is an unresolved, polarized,

⁷ Kennedy, M., and P. Leonard (2001). *Dealing with Neighborhood Change: A Primer on Gentrification and Policy Choices*. Washington DC: Brookings Institution.

⁸ Zuk, M., Bierbaum, A. H., Chapple, K., Gorska, K., & Loukaitou-Sideris, A. (2018). Gentrification, displacement, and the role of public investment. *Journal of Planning Literature*, 33(1), 31-44.

⁹ The Uprooted Project (2021), *Background: Gentrification and Displacement*, University of Texas Austin, Entrepreneurship and Community Development Clinic (School of Law) and the Community and Regional Planning Program (School of Architecture), [<https://sites.utexas.edu/gentrificationproject/gentrification-and-displacement-in-austin/>]

¹⁰Kredell, M., (2017), *Oakland Cultural Affairs Manager sheds light on creative placemaking, placekeeping*, USC Price [<https://priceschool.usc.edu/oakland-cultural-affairs-manager-sheds-light-on-creative-placemaking-placekeeping/>]

heated issue among scholars, urban planners and community stakeholders. Some argue for the possibility of “light” or “progressive” gentrification and point to evidence that displacement is not always caused by gentrification, that it is less harmful and less common than one might think, and can even be beneficial to those who leave or are left behind.¹¹ For others, the idea that gentrification can avoid displacement, or that displacement can be neutral or positive, conflicts with their lived experience and past abuses, which prove to them that displacement is unavoidable, costly, and destructive.¹²

This important debate over the nature or control of gentrification and displacement in Tucson, needs to be the subject of an open, fact-based, experience-based, participatory learning process. Without such a process, many with strong views on any side of the issue will dismiss academic studies that disagree with their position. This is certainly one of the most important topics for Tucson and all of urban studies. Unfortunately, the many truths about it cannot be reconciled here from a rapid 60-day study of the GPLET program. What follows instead is a modest contribution toward two related questions: *what can readily available datasets tell us about what is happening with gentrification and displacement in and around the CBD? And, what role might the GPLET programs have in making things better or worse?*

Income, Race, and Ethnicity in the Study Area

As shown in Table 1, in 2012, when the GPLET program began, nearly 45,000 people lived in the Study Area, or 8.6% of Tucson's total population. The *Study Area* includes the census tracts that overlap the CBD. Some extend beyond the CBD. A map of the Study Area can be viewed here:

<https://www.socialexplorer.com/46fd00f650/view>

Compared to Tucson, there were 16% fewer people who identified as non-Hispanic whites and 16% more who identified as Hispanic whites in the Study Area. Median household income was nearly 35% lower. And lower incomes were common across the non-Hispanic, Hispanic white, and non-white populations.

¹¹ Brummet, Q., & Reed, D. (2019). Gentrification and the location and well-being of original neighborhood residents. Federal Reserve Bank of Philadelphia Working Paper.

¹² Slater, T. (2006) The eviction of critical perspectives from gentrification research. *International Journal of Urban and Regional Research* 30.4, 737– 57. Hamnett, C. (2009). The new Mikado? Tom Slater, gentrification and displacement. *City*, 13(4), 476-482. Slater, T. (2009). Missing Marcuse: On gentrification and displacement. *City*, 13(2-3), 292-311. Kleinhans, R., & Kearns, A. (2013). Neighbourhood restructuring and residential relocation: Towards a balanced perspective on relocation processes and outcomes. *Housing Studies*, 28(2), 163-176. Atkinson, R. (2015). Losing one's place: Narratives of neighbourhood change, market injustice and symbolic displacement. *Housing, Theory and Society*, 32(4), 373-388. Brummet, Q., & Reed, D. (2019). Gentrification and the location and well-being of original neighborhood residents. Federal Reserve Bank of Philadelphia Working Paper. Wang, Z. (2020). Beyond displacement—exploring the variegated social impacts of urban redevelopment. *Urban Geography*, 41(5), 703-712.

Table 1: Statistics, 2012	Tucson	CBD	CBD vs Tucson
Total Population	521,695	44,861	8.6%
Not Hispanic or Latinx:	58.2%	42.1%	-16.1%
White Alone	47.4%	31.6%	-15.8%
Black or African American Alone	4.5%	3.9%	-0.6%
American Indian and Alaska Native Alone	1.7%	3.5%	1.8%
Asian Alone	2.4%	1.8%	-0.6%
Native Hawaiian and Other Pacific Islander Alone	0.1%	0.0%	-0.1%
Some Other Race Alone	0.2%	0.2%	0.0%
Two or More Races	1.9%	1.1%	-0.8%
Hispanic or Latinx:	41.8%	57.9%	16.1%
White Alone	29.1%	44.6%	15.5%
Black or African American Alone	0.4%	0.3%	-0.1%
American Indian and Alaska Native Alone	0.9%	1.2%	0.3%
Asian Alone	0.1%	0.1%	0.0%
Native Hawaiian and Other Pacific Islander Alone	0.0%	0.0%	0.0%
Some Other Race Alone	9.8%	10.1%	0.3%
Two or More Races	1.4%	1.5%	0.1%
Household Income (2012 Inflation Adjusted \$\$)			
Less than \$10,000	11.6%	21.0%	9.4%
\$15,000 to \$19,999	7.1%	9.3%	2.2%
\$25,000 to \$29,999	7.0%	7.5%	0.5%
\$35,000 to \$39,999	5.9%	5.5%	-0.4%
\$45,000 to \$49,999	4.5%	3.6%	-0.9%
\$50,000 to \$59,999	7.9%	4.9%	-3.0%
\$60,000 to \$74,999	8.7%	5.6%	-3.1%
\$75,000 to \$99,999	9.9%	6.4%	-3.5%
\$100,000 to \$124,999	5.0%	2.4%	-2.6%
\$125,000 to \$149,999	2.7%	1.1%	-1.6%
\$150,000 to \$199,999	1.9%	0.7%	-1.2%
\$200,000 or More	1.2%	0.9%	-0.3%
Median Household Income (2012 Inflation Adjusted \$\$)	\$36,940	\$24,061	-34.9%
White Alone Householder	\$38,293	\$24,468	-36.1%
Black or African American Alone Householder	\$31,810	\$24,454	-23.1%
American Indian and Alaska Native Alone Householder	\$31,276	\$20,373	-34.9%
Asian Alone	\$38,017	\$14,584	-61.6%
Native Hawaiian and Other Pacific Islander Alone Householder	\$41,334		
Some Other Race Alone Householder	\$29,801	\$24,291	-18.5%
Two or More Races Householder	\$34,261	\$37,392	9.1%
Hispanic or Latinx Householder	\$31,784	\$24,358	-23.4%
White Alone Householder, Not Hispanic or Latinx	\$41,959	\$24,853	-40.8%
Source: Social Explorer Tables: ACS 2012 (5-Year Estimates), ACS 2012 (5-Year Estimates), Social Explorer; U.S. Census Bureau			

2.2 Gentrification and Residential Displacement in the Study Area

Simple changes in median incomes can easily hide effects on specific income groups. It is more transparent to measure gentrification and residential displacement in terms of changes in the number of higher and lower income households.¹³ As shown in Table 2, from 2012 to 2019, *the number of higher income households (earning more than \$50,000) grew by 1,886 (48%), while the number of lower income households (earning less than \$35,000) declined by 1,052 (9%)*. Some of this change could have been from income growth or decline among the resident population, but given that household mobility is unfortunately more common than economic mobility among lower income households, most of the change is likely evidence of *ongoing gentrification and residential displacement in the Study Area*. Also, while gentrification related displacement appears to have been a key factor in declining lower income households, it can also be driven by job losses or relocations, divorce, and other factors influencing the decision to move.

Table 2: Study Area Household Income

	2012		2019		Change (2012-2019)	
Household Income (In 2012 Inflation Adjusted Dollars) - Cumulative (Less)						
Households:	18,056		19,239		1,183	6.6%
Less than \$20,000	7,740	42.9%	6,946	36.1%	-794	-10.3%
Less than \$35,000	11,743	65.0%	10,691	55.6%	-1,052	-9.0%
Household Income (In 2012 Inflation Adjusted Dollars) - Cumulative (More)						
Households:	18,056		19,239		1,183	6.6%
More than \$50,000	3,952	21.9%	5,838	30.3%	1,886	47.7%
More than \$75,000	2,066	11.4%	2,995	15.6%	929	45.0%

Source: Social Explorer; U.S. Census Bureau

A better look at how these changes are geographically distributed can be seen by looking at the data at the block group level, which approximates neighborhoods. Between 2012 and 2019, *74 percent of the 38 block groups wholly or partly within the Study Area experienced gentrification* (as measured by an increase in households earning more than \$50,000). *The median gain was 50 higher income households, or an average of about 14 percent of all the households (of all incomes) in the block group in 2012*. The largest gain was 173 households (50% of the 2012 all household count), in and around the Silverbell Terrace neighborhood, northwest of Grant and Silverbell Road. As for lower income households, earning less than \$35,000 per year, *more than half (53%) the block groups in the Study Area lost households*. The

¹³ Some studies measure this using median household income at the census tract level. That is an inaccurate approach, however, because rising median incomes don't necessarily mean an increase in higher income households. It could also mean a loss of lower income households along. Also, census tracts, especially in lower density cities like Tucson, can include more than one neighborhood or real estate sub-market, so measurement at the tract level can mask the possibility that some neighborhoods within the tract are gentrifying while others are not. This study avoids those problems by using counts on the number of households in different income groups at the finer census block group scale.

median loss was 91 lower income households, or about 20% of all the households (of all incomes) in the block group in 2012. The largest loss was 293 households (37% of the 2012 all household count), southwest of Oracle and Miracle Mile.

To see how much change occurred in different tracts and neighborhoods, go to Social Explorer using on these links:

Gentrification by census tract, 2012-18

<https://www.socialexplorer.com/bf9351f232/view>

Displacement by census tract, 2012-18

<https://www.socialexplorer.com/7b11492795/view>

Gentrification has clearly been occurring, but has it been associated with residential displacement?

Sometimes. In 16 of the 38 block groups there was gentrification *with* residential displacement while in 15 others there was gentrification *without* residential displacement (see Maps 1 and 2).

The difference between gentrification with and without residential displacement is best explained (so far) by changes in the supply of lower priced rental housing. Chart 1 compares changes in the supply of rental housing by cost from 2012 to 2019 for the block groups that underwent gentrification with and without residential displacement.¹⁴ *Gentrification with residential displacement occurred when there was a loss of rentals of less than \$800 per month (affordable to those earning under \$32,000 per year)*. Gentrification without residential displacement occurred when there was an increase in rentals of all prices, especially under \$1250 per month (affordable to households earning at least \$50,000 per year). This suggest that a program of housing preservation and affordable housing development, could allow for gentrification *without displacement*. Of course new housing and new people could exacerbate cultural displacement if the newcomers bring different cultures to the community and disrupt what's come before. How that could be addressed is discussed below under Cultural Displacement, and in the recommendations.

The loss of affordable units shown on the left-hand side of Chart 1 could be from rent hikes, demolitions, and conversions to owner occupancy. As it happens, where there were losses in lower cost rentals, there

¹⁴ Here again, gentrification was measured as an increase in the number of households earning more than \$50,000 per year since 2012 and displacement was measured as a reduction in the number of households earning less than \$35,000 per year. Please note that these changes are the net result of households of the giving income moving in and out of an area and so a count of higher income households who were newcomers to an area, or the number of households who feel they were, or would meet some definition of, displaced could have been different than the simple change in household counts used as a here proxy for gentrification and displacement.

were gains in owner occupied units, and losses in renter occupied units, *but little change in total units*. This suggests that *gentrification with residential displacement involves conversions to owner-occupancy*. If that came about from the renters becoming the owners, it would be good news. But it seems more likely the result of landlords selling to newcomers looking for affordable places to buy, and why we see less residential displacement where affordable rentals are protected and new housing units are developed. The provision of new “close substitutes” could relieve pressure on the existing rental stock (see Filtering, below). At the same time, the average gain in units renting for more than \$1,000 was about two-thirds as much as the average loss in units renting for less than \$1,000. This suggests that many lower cost rentals are changing into higher cost ones. The loss of lower cost rentals is associated with conversions to owner occupancy and rising rents, resulting in residential displacement, unless new lower income and workforce housing is added to the area.

However, as indicated by Chart 2, the change in the number of lower priced housing units, whether from rent hikes, demolitions, or conversions to owner-occupancy, explains only 40% of the change in the number of lower income households. In other words, the loss of lower cost rentals does not fully explain all residential displacement. This finding indicates that there are other causes of residential displacement, that might better be called relocation, unrelated to gentrification and the loss of affordable housing, such as job loss, retirements, or changes in marital or family status. But clearly, *the loss of affordable housing linked to gentrification is a major cause of residential dislocation among lower income households*.

2.3 The benefits of filtering

When new housing and commercial spaces are developed, the supply increases relative to demand, which can reduce prices or price increases in preexisting similar properties. This process is known as filtering and it helps maintain the affordability of pre-existing spaces for lower income businesses or households. *It is why higher priced housing downtown, when it is substitutable for housing that higher income households might otherwise absorb in nearby neighborhoods, could reduce pressure for gentrification and displacement.*

Chart 1: Change in housing units by monthly rent in block groups with and without displacement

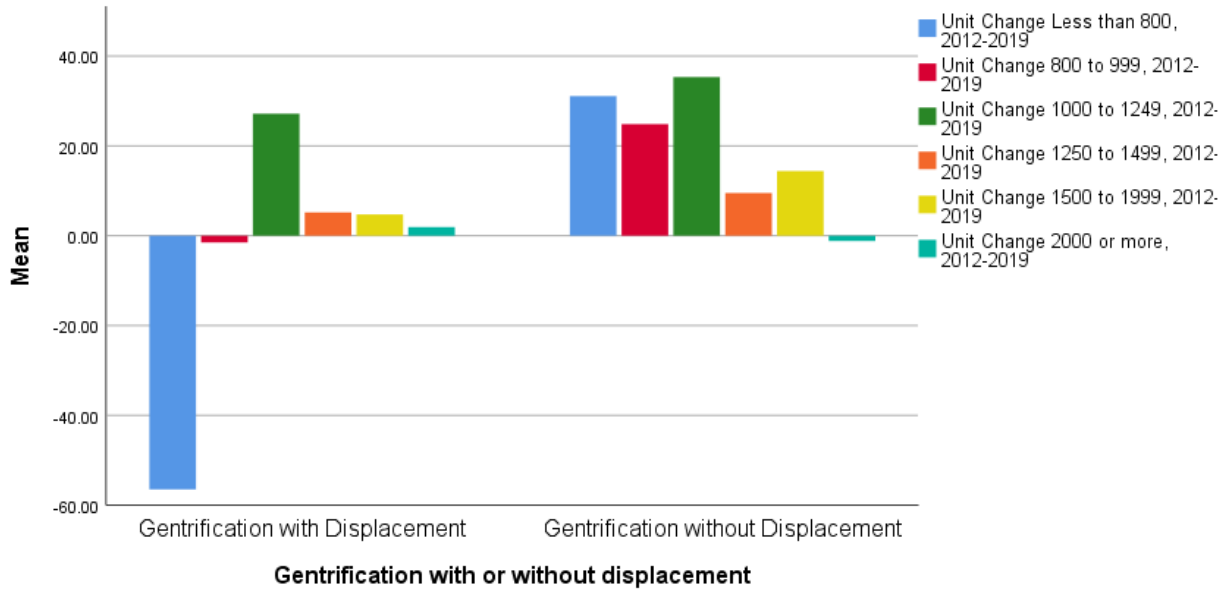
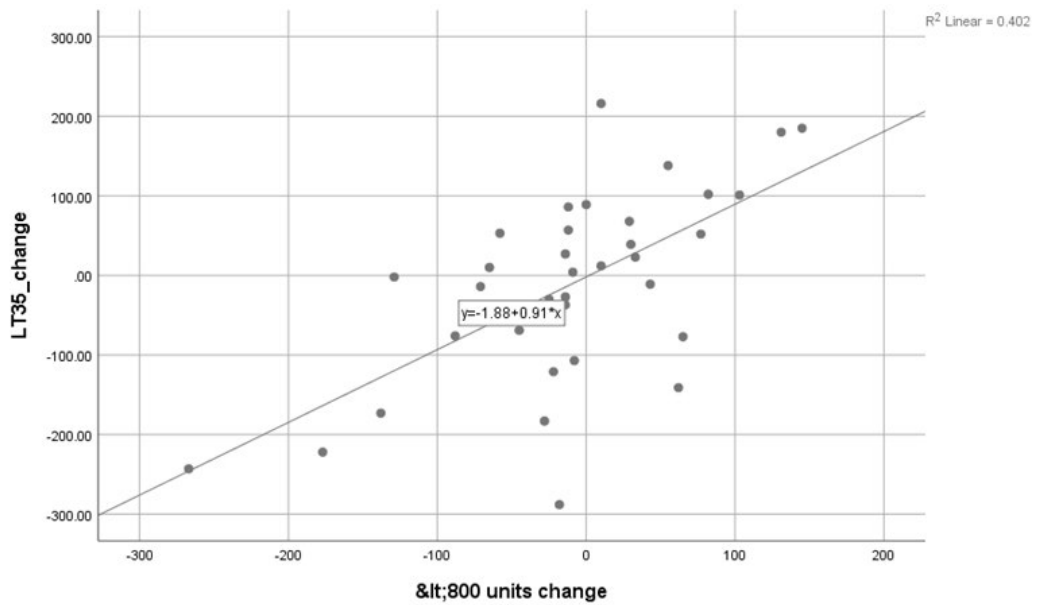
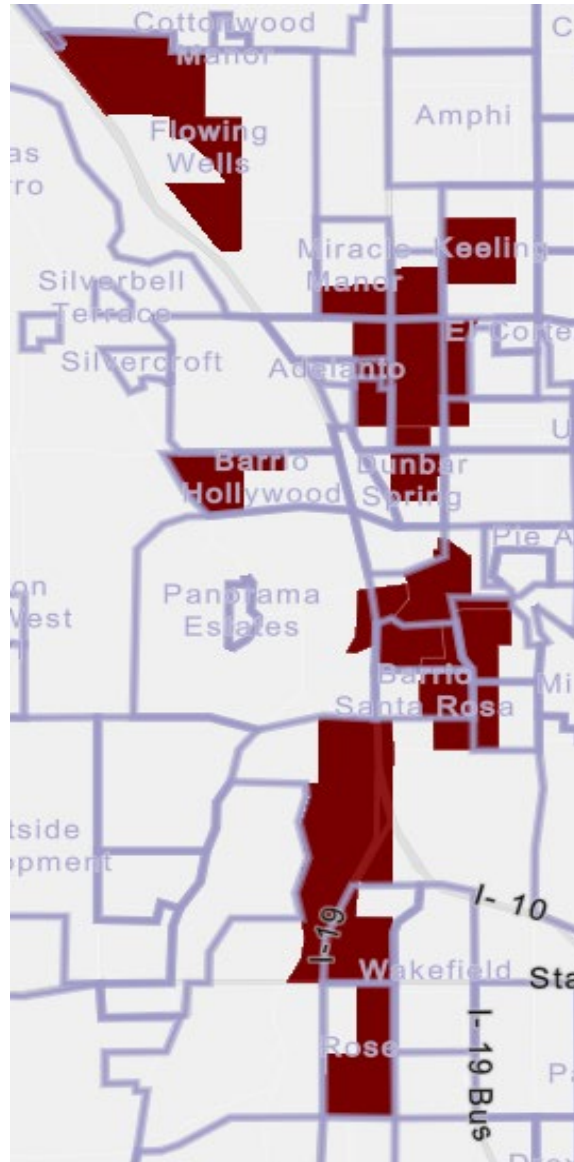


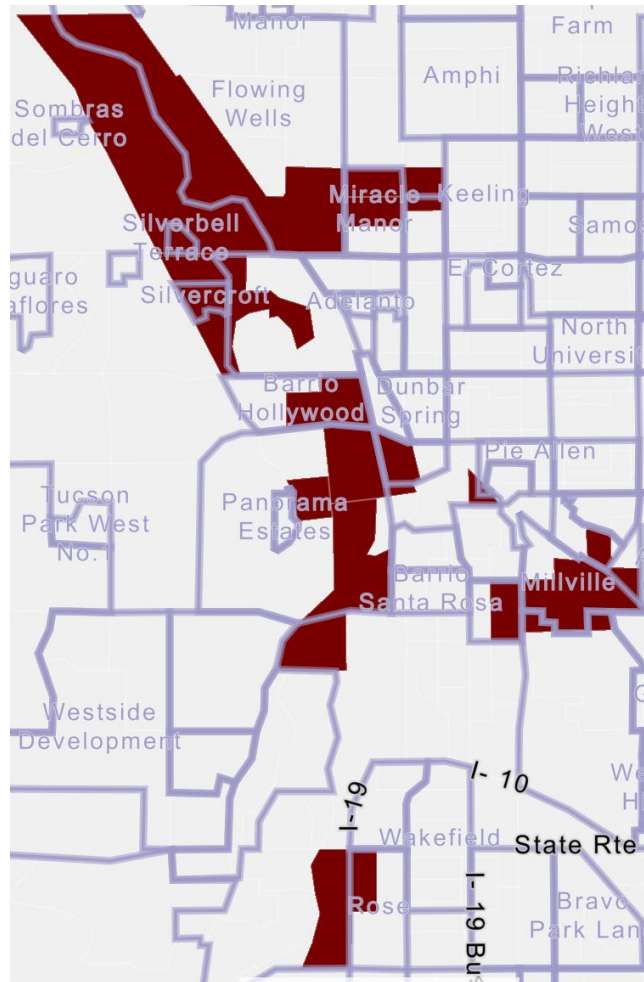
Chart 2: Relationship between displacement and change in the number of rental units less than \$800 per month



Map 1: Gentrification with Displacement, 2012-18
(*gain* in households earning more than \$50,000 per year and *loss* in households earning less than \$35,000 per year)



Map 2: Gentrification without Displacement, 2012-18
 (gains in households earning more than \$50,000 per year and *no loss* in households earning less than \$35,000 per year)



It is also possible that within neighborhood submarkets, the development of new higher priced homes or retail spaces that gets fully absorbed can reveal to property owners there are potential tenants willing to pay more for space in the area. That can lead to property rehabilitation, repositioning, and price inflation, from what is known as “upward” spillover effects. The key to avoiding that is to minimize the relative difference in value, size, and tenure between the new and existing units in a neighborhood submarket.¹⁵ In 2019, households renting in the Study Area earning less than \$35,000 per year paid an average of \$650 to \$800 per month, while those earning more than \$50,000 pay an average of \$1,100 to \$1,750, depending on location. Lower priced units that help prevent displacement could be added by using GPLET to

¹⁵ A housing submarket are dwellings that constitute close substitutes.

support small (e.g. 400 square foot) market rate units or by promoting duplex or triplex conversions. Higher priced units could also be added via projects that use GPLET to lower rents into the price range for workforce housing, affordable to households earning 80 to 120 percent of the area median income (AMI), or about \$40 to \$60,000 per year. More affordable housing could also be achieved by including in market rate projects a reasonable share (e.g., 10%) of units affordable to those earning less than 50 to 100 percent of the AMI, thru a voluntary agreement in exchange for tax abatements and/or upzoning. These and other tactics are further discussed under Recommendations.¹⁶

The upward spillover effects on existing units would be minimized so long as new units are “principally substitutable” for existing units being absorbed by higher income households.¹⁷ Also, if a percentage of the new space is set aside as affordable for lower income households and new projects replace a few affordable units with many new units including more than a few affordable ones as part of an incentivized inclusionary upzoning program, there can be more affordable units added than lost, resulting in development, investment, and gentrification without residential displacement. These dynamics that provide new affordable space, and allow older, decent, affordable property to filter into or remain in the hands of lower income households, nonprofits, and businesses, can contribute to greater equity by helping lower income people and organizations with financial need, who in turn can contribute to quality of life, diversity, and the preservation of diverse cultures in their neighborhoods and communities.

2.4 Gentrification and GPLET

We now come to the question of whether GPLET might play a significant role in gentrification with residential displacement (cultural displacement is discussed later). *That is unlikely because very few higher income employees working in GPLET projects can be expected to have moved to the Study Area.*

Applied Economics has estimated that the GPLET projects completed and approved could support up to 1,573 direct jobs.¹⁸ Nearly all the projects are in 3 block groups, hereafter referred to as the *Focus Area*. The Focus Area includes census block groups where most of the GPLET assisted projects have been developed, as shown here: <https://www.socialexplorer.com/5c72c1251c/view>.

In the Focus Area, 44% of the jobs pay more than \$40,000 per year *but just 5% of those job holders live in the Study Area.*¹⁹ If half the permanent jobs GPLET created since 2012 paid more than \$40,000 per

¹⁶ Nzau, B., & Trillo, C. (2019). Harnessing the real estate market for equitable affordable housing provision through land value capture: insights from San Francisco City, California. *Sustainability*, 11(13), 3649.

¹⁷ Koschinsky, J. (2009). Spatial heterogeneity in spillover effects of assisted and unassisted rental housing. *Journal of Urban Affairs*, 31(3), 319-347.

¹⁸ The growth in private jobs reported by the US Census in the Focus Area, where most GPLET projects are located, has been 1,960. Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics.

¹⁹ U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics.

year,²⁰ and 5% of those job holders moved into the Study Area, then *just 39 higher income employees and households in GPLET projects can be expected to have moved into the Study Area*. This is just 2% of the 1,886 higher income households who moved into the Study Area since 2012.

Commuting data also shows that about half the 39 GPLET-related households who can be expected to have moved into the Study Area would have settled in just 4 block groups including downtown and portions of Menlo Park, El Presidio, Barrio Hollywood, West University, Barrio Anita, El Presidio, and Iron Horse. That leaves only about 20 other households who would have moved into the other 34 block groups in the Study Area. And in the downtown and other 7 neighborhoods where half of them can be expected to have moved, the GPLET employee households would have comprised fewer than 8% of the higher income households who moved there since 2012.

This evidence supports a conclusion that while gentrification and displacement have been occurring, GPLET related employment is really not the cause.

2.5 Other explanations

If just 39 of the 1,886 higher income (\$50,000+) households who gentrified the Study Area were GPLET-related job holders, what else could be driving gentrification? One possibility is other job growth. Over and above the 1,928 permanent jobs that GPLET projects could support, there were 2,096 jobs that pay more than \$40,000 added to the CBD from 2012 to 2018.²¹ But as with the case of the GPLET-related jobs, only about 104 or 5% of those job holders can be expected to have settled in the Study Area. *So together, the GPLET and non-GPLET related job growth in the CBD explains only 143, or less than 8%, of the 1,886 higher income households who moved in.*

This means that 92% of the higher income households who moved into the Study Area either were retired or did not hold jobs that were new to the Study Area since 2012. Some may have had jobs in the Study Area before 2012 and decided to move closer to work, but most in-movers who were employed probably worked outside the Study Area.

Even though all the block groups that saw gentrification are near employment clusters, only two of those clusters saw significant job growth from 2012 to 2018 and neither were related to GPLET projects. About 2,500 jobs were added around St. Mary's Hospital and 1,700 around Spectrum. More of the gentrification near these locations may be related to job growth, but here again, because most people who work in these

²⁰ In fact, the average salary for jobs that could be supported by GPLET will be about \$30,000 per year according to the author's compilation of estimates in the projects' economic impact reports done by Applied Economics.

²¹ U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics.

areas don't live near their jobs, the gentrification is more likely driven by a search for affordability and urbanism than employment growth.

But might some of that attractive urbanism that seems to be driving gentrification, especially in the neighborhoods within walking distance of downtown and Fourth Avenue, have come from contributions to urban vitality made by GPLET projects? Perhaps, but that attractive urbanism is a result of both new, growing, and longstanding amenities promoted in many different ways including bars and restaurants, historic preservation, public art, the modern streetcar, shops, galleries, performing arts, special events, greener streets, bike paths, and so on.

But exactly how much of that growing vitality could have been caused by GPLET? GPLET housing and hotel projects, in particular, create customers for the elements of attractive vitality that can cause gentrification, such as shops, galleries, bars, and restaurants. But only around 400 GPLET project housing units have been built to date. And considering that households spend about \$3,000 to \$4,000 per year on food away from home,²² the GPLET housing project households probably spend no more than about \$1 to \$2 million per year on downtown restaurants. That is only enough to support about 1 average Arizona restaurant.²³ So while GPLET has certainly helped foster downtown vitality by creating customers for cultural, food, entertainment and other establishments, those customers and the GPLET projects that brought them to the area have played a rather small role in creating the dynamism and supporting the establishments that have likely contributed to gentrification.

In summary, data support the conclusion that:

- gentrification is occurring in the Study Area,
- job growth in the Study Area is not a significant cause, and
- displacement of lower income households in areas undergoing gentrification is best explained by the loss of affordable rental housing caused by housing market changes unrelated to economic development.

2.5 Cultural and political displacement

According to widely cited work on cultural displacement by Dr. Derek Hyra, most gentrification studies put greater focus on residential than political or cultural displacement. Political displacement happens when prior residents become outnumbered, losing decision making power in local institutions. This has

²² Bureau of Labor Statistics Consumer Expenditures Survey

²³ The average restaurant in Arizona generated about \$1,430,000 per year in sales in 2018; see <https://restaurant.org/downloads/pdfs/state-statistics/arizona.pdf>

been known to cause prior residents to withdraw from public participation, impede bridging relationships with newcomers that could help them economically, cause them to resent otherwise positive physical improvements, and feed cultural displacement. Cultural displacement occurs when the norms, behaviors and values of the newcomers overwhelm those who were there before. If long-term residents can no longer identify with their neighborhood, they lose attachment to place and leave, hastening the conversion to “homogenous enclaves, instead of integrated, mixed income neighborhoods.” This means that just as it is important to preserve affordable housing to prevent residential displacement, maintaining the “political equity and power balances between longstanding and new residents in transitioning neighborhoods might be important to ensuring that long-term residents benefit and thrive as their neighborhood revitalizes around them.”²⁴

It is common to think about race or ethnicity, much more than income, as a marker of cultural difference. Whites moving into Black neighborhoods is the starting point for many studies about cultural displacement. However, studies have found that in cases of Black gentrification, cultural displacement did not occur to the same extent as with white gentrification.

In the Study Area, we do not see an overall case of non-Hispanic whites moving into Hispanic neighborhoods. Across the whole Study Area, the Hispanic or Latinx population grew by 2.1% (from 2012-18), while non-Hispanic whites declined by 3.2%. Still there was enough growth across all races of non-Hispanics (2.8%) to produce a slight decline in the relative share of Hispanics or Latinx, from 57.7% Hispanic or Latinx in 2012 to 57.3% in 2018. Meanwhile, the non-Hispanic white population actually fell from 31.1% in 2012 to 29.3% in 2018, consistent with a similar trend across Tucson. Also, during this time, the Native American (American Indian) and Other Pacific Islander population grew by 400, from 3.9% to 4.8% of the total in the Study Area.

However, these figures at the Study Area level mask more significant changes in specific census tracts. Three tracts saw relative losses in the Hispanic or Latinx population of more than 5%:

- In CT 1, including the downtown core and Hotel Congress areas, Hispanics fell from 33% to 22%, while non-Hispanic whites grew from 58 to 62%.
- In CT 10, including parts of Barrio Viejo and Santa Rosa, Hispanics fell from 61 to 42%, while non-Hispanic whites grew from 26 to 40%.

²⁴ Hyra, D. (2015). The back-to-the-city movement: Neighbourhood redevelopment and processes of political and cultural displacement. *Urban Studies*, 52(10), 1753-1773.

- And in CT 11, including Barrio Hollywood, Hispanics fell from 89 to 80%, while non-Hispanic whites grew from 8 to 10%.

Of these three, however, *only 1 saw a decline in the Hispanic population*. That occurred in CT 10, where *the Hispanic population fell by 111 (19%), from 570 to 459*, while the total population grew by 19% and *non-Hispanic whites grew by 185 (13%), from 247 to 432*.

Meanwhile, in the other two tracts, *the Hispanic population grew, but the total and non-Hispanic white populations grew faster*. For example, in CT 11 (Barrio Hollywood), Hispanics or Latinx grew by 19 (0.4%), from 2,286 to 2,296, while non-Hispanic whites grew by 69 (106%), from 212 to 281.

In the first case we see *ethnic change occurring from non-ethnic population growth and Hispanic displacement*, while in the second two we see it occurring from *non-ethnic growth being adding to a stable ethnic population*.

One might imagine that there would be greater loss of cultural identity in the case where the white population grows and the Hispanic population declines. But this is just an assumption. The theory of cultural displacement does not rule out the possibility that where a non-Hispanic white population grows quickly and preexisting ethnic or racial populations are stable or growing slowly, there can still be a sense of alienation and being overwhelmed, leading to withdrawal and a decline in cultural vitality.

It is important to better understand how much cultural displacement is occurring in Tucson's neighborhoods and why. There is no readily available set of indicators we can look to, other than the population figures, that tell us about these trends. This does not mean they are not there, only that we have not done enough to systematically monitor them. Tucson and all our cities need to find a way to do this. We also need to better understand what causes cultural displacement in our own community. Is it from population change alone, or from other factors, like generational assimilation? Is it only happening where demographics are changing and development is occurring, or elsewhere as well? Ultimately, as a matter of economic development and cultural conservation, we should support the ways our diverse communities choose to respond to the changes and challenges they are experiencing. There are few who would disagree that a loss of cultural richness and diversity harms much of what we love about the Old Pueblo and our economic competitiveness.

That said, the cultural displacement that is or may be occurring, as with gentrification and displacement, is not a product of GPLET projects to date because GPLET has not been a significant factor in the population changes occurring, as has already been discussed. The most likely exception to this, however, are the shifts described above for CT1 – the downtown core and Hotel Congress areas. The Cadence

alone, with its 456 student beds could easily explain most or all the increase in non-Hispanic whites in the area. The fact that in tract 1, GPLET and other projects occurred in a tract with barely more than 10% of the population size, and half the proportion of Hispanics or Latinx typically found in other tracts in the Study Area, means the projects probably had a much larger relative impact on ethnic shift than they would have had in other neighborhoods. But it also suggests that the same projects could have had an equally outsized impact on promoting and celebrating Tucson's diversity through art, architecture, or tenancies, if that had been more of a goal for the project planners and designers. It also suggests that GPLET projects in culturally diverse neighborhoods need to be considered quite carefully, finding ways to foster cultural preservation and shops, homes and jobs for those already there, as part of a triple bottom line approach to economic development.

This will require more work to understand the challenges and build solutions into future projects. An example of such work is being done by Tucsonan Marc Pinate, an indigenous Xicano and producing artistic director of Borderlands Theater. Through his "intensive collaboration with the community, and his passion for creative place-making he has produced Southern Arizona narratives in the form of plays, street theater and in-situ performances of stories: Barrio Stories and Barrio Stories in Barrio Anita."²⁵ That kind of work lays the foundation for more success in cultural preservation and would help protect cultural equity in and around the CBD.

2.6 Equity, Gentrification, and Employment

Insofar as GPLET doesn't drive displacement, it is not creating gentrification related racial or ethnic effects. However, the neighborhoods undergoing gentrification with displacement have seen a different trend in racial and ethnic change compared to the City of Tucson. In the Study Area block groups undergoing gentrification with displacement, the citywide decline in the share of population that are non-Hispanic or Latinx white persons is occurring more slowly, indicating there has been a larger share of non-Hispanic or Latinx white people among the in-movers (of any income) and/or a smaller share among the out-movers, compared to citywide trends. *This suggests that regardless of GPLET's role, the burden of displacement is falling more heavily on people of color.*

Another possible effect on racial equity that GPLET could be having is through the type and location of jobs it creates. In many cities, a spatial mismatch exists because most racial minorities live in the central city and most jobs are in the suburbs. This has led to the idea that shifting jobs downtown could increase participation by minorities in the job market and reduce minority unemployment.

²⁵ <https://www.youtube.com/watch?v=HeqaHvWiPgE>

In Tucson, however, there is very little difference between the racial mix of workers in the Focus Area or CBD and the City as a whole (see Tables 3-5). This means that *any effects GPLET may be having on how jobs are geographically distributed in Tucson is neither improving nor aggravating employment opportunities among the races.*

Table 3: Jobs by Worker Race – Focus Area (all Private Jobs)

	2018		2012	
	Count	Share	Count	Share
White Alone	5,924	87.2%	4,326	89.5%
Black or African American Alone	271	4.0%	209	4.3%
American Indian or Alaska Native Alone	222	3.3%	104	2.2%
Asian Alone	204	3.0%	101	2.1%
Native Hawaiian or Other Pacific Islander Alone	11	0.2%	10	0.2%
Two or More Race Groups	162	2.4%	84	1.7%

Table 4: Jobs by Worker Race – CBD (all Private Jobs)

	2018		2012	
	Count	Share	Count	Share
White Alone	11,754	86.9%	10,616	88.6%
Black or African American Alone	559	4.1%	505	4.2%
American Indian or Alaska Native Alone	440	3.3%	313	2.6%
Asian Alone	408	3.0%	311	2.6%
Native Hawaiian or Other Pacific Islander Alone	33	0.2%	32	0.3%
Two or More Race Groups	328	2.4%	202	1.7%

Table 5: Jobs by Worker Race – City of Tucson (all Private Jobs)

	2018		2012	
	Count	Share	Count	Share
White Alone	163,361	86.0%	160,755	88.5%
Black or African American Alone	10,190	5.4%	8,207	4.5%
American Indian or Alaska Native Alone	5,413	2.8%	3,842	2.1%
Asian Alone	6,033	3.2%	5,442	3.0%
Native Hawaiian or Other Pacific Islander Alone	480	0.3%	370	0.2%
Two or More Race Groups	4,507	2.4%	2,980	1.6%

Another way that GPLET could be affecting racial equity is by the economic sectors it promotes, because certain industries tend to employ more minorities. *GPLET projects have created jobs in sectors associated with more minority workers, although they also tend toward lower salaries.*

Table 6 lists the share of jobs by industrial sector that Applied Economics has projected to be associated with the GPLET projects. It also gives national figures on the share of employees in those sectors who are women, Hispanic or Latinx, and 3 races. The top row shows the breakdown for all US workers, followed by the sectors of permanent employment expected to be generated by GPLET projects, in rank order by

percent of all GPLET jobs. Indirect jobs in landscaping and temporary construction jobs are also listed. Unfortunately, local data on worker race and ethnicity by sector were unavailable for this report. It is likely, however, that the local situation is *relatively* similar.

By comparing the GPLET sectoral employment in Table 6 to Total Employment, we can see if the GPLET sectors will employ a higher or lower percentage of the different social groups indicated compared to the entire US workforce. For example, 59 percent of the workers in traveler accommodation nationwide are women, compared to 47% across all sectors, meaning traveler accommodation is a sector that supports an above average amount of women in the workforce.

What Table 6 shows us is that *traveler accommodation and restaurants - the two largest segments of jobs that, so far, GPLET will be creating - employ an above average share of minority workers*. It also underscores the importance of building and dwelling services (i.e., pest control, janitorial, landscape maintenance, carpet cleaning, pool cleaning, etc.), landscaping services (installation), and construction to Hispanic or Latinx workers; and casual local observation suggests they may be even more important to lower income Hispanic or Latinx workers here in Tucson.

Unfortunately, many of the jobs in these industries are part-time and lower pay. While the overall average full-time equivalent salary for permanent GPLET jobs is over \$30,000 per year, based on data in the Applied Economics reports, the average full time equivalent salary for the GPLET related hotel jobs is expected to be \$20,000 to \$30,000 for the major hotel projects (AC Marriott and Hyatt Regency), and around \$18,000 to \$22,000 for the larger retail and restaurant projects (Cadence, Gibson Family LLC, and Brother John's).²⁶ So, while the GPLET projects may be creating permanent jobs for women, racial minorities, and Hispanics or Latinx in need of employment, many of those jobs will probably not pay a living wage that would enable them to live above the poverty level, which Pima County set for 2020 at \$13.12 per hour (over \$27,000 per year) for employees not receiving benefits, and \$12.00 per hour with \$1.12 in benefits for those employees who do receive benefits.

3.0 Legacy and Other Small, Local Business

One side effect of urban development and gentrification, whether it is incentivized or not, can be the displacement of small, locally owned stores, restaurants, barber shops, bookstores, bakeries, and other establishments that add to the cultural tapestry that makes Tucson and its neighborhoods distinct and special places. The loss of even one such place can raise alarm bells in a community. There could, of course, be many reasons for such a loss, even something as common as an owner's retirement. But when

²⁶ Arizona's minimum wage is now \$12.15 per hour, so the minimum full-time job in retail establishments should now be at least \$25,272.

it occurs amidst new development, people wonder if that new development put them out of business, especially when large national chains are part of the change.

Table 6: Percent of Total Employed, USA (boldface indicates higher share for the sector vs. Total Employment)

	Percent of permanent GPLET jobs	Women	White	Black	Asian	Hispanic or Latinx
Total Employment, 16 years and over		47	78	12	7	18
GPLET Sectors						
Traveler accommodation	32%	59	66	19	10	30
Restaurants and other food services	23%	52	74	13	8	27
Retail	13%	48	78	12	6	18
Office	9%	comprised of office work in other unidentified sectors				
Professional and business services	6%	43	77	7	13	9
Grocery stores	4%	48	76	13	6	21
Other general government and support	4%	37	75	21	2	12
Health services	3%	79	72	18	6	15
Services to buildings and dwellings	3%	56	80	13	2	41
Printing	2%	36	87	6	3	18
Drinking places, alcoholic beverages	1%	55	84	7	2	15
Indirect: Landscaping services	n/a	11	88	7	1	43
Temporary: Construction	n/a	10	88	6	2	30

Source: US Bureau of Labor Statistics, 2019 and Applied Economics

“Legacy business” is a term used locally and elsewhere to identify a certain set of small, locally owned establishments. Seattle’s Legacy Business Study defines them as follows:

“Legacy businesses are defined as a type of established business (minimum of 10 years in operation) that is small (typically less than ten employees), accessible (i.e. pedestrian-oriented, contributes to the ground-level streetscape), retail or food service sector oriented, and independently owned. However, the primary defining attribute is that these businesses serve some community function that goes above and beyond the simple sale of goods and services. Legacy

businesses serve as community gathering spots, hubs of social capital and cohesion, and valuable “third spaces” apart from home and work that support local culture and stability.”²⁷

In San Antonio:

[Legacy businesses] have been around for 20 years or more and contribute to the history, culture, and authentic identity of San Antonio. Boot makers and hat shops, piñata-makers and sellers, restaurants, ice-houses, saloons and cantinas, schools of ballet folklórico, butchers and bakers and candlestick-makers are all eligible!”²⁸

And in Los Angeles:

“Legacy businesses are long-standing community anchors where neighbors connect, memories are made, and our sense of community nourished.”²⁹

Tucson has not inventoried such businesses, so we do not fully know how many there are, where they are, and how they are doing. Census data on establishments by sector, size, and age is also unavailable at the Tucson or CBD scale. We can make a very rough estimate of the number of legacy businesses in part of the CBD, however, by merging national data on the share of retail and dining establishments that are more than 20 years old and have fewer than 10 employees, with zip code level data on the number of local establishments.

Unfortunately, however, Tucson's zip codes are too large to use them to understand what is happening in particular neighborhoods. The one zip code that is small enough to be helpful is 85701 which covers parts of the CBD undergoing gentrification and residential displacement. It includes the downtown core, the Hotel Congress area, Armory Park, Barrio Viejo, Barrio Libre, El Presidio, Barrio Santa Rosa, and Santa Rita Park north of West 22nd Street. Using this approach, Table 7 gives a rough estimate of the number of legacy businesses that might exist in 85701. This assumes, however, that the mix in 85701 is similar to the mix nationwide, which is not very likely; so these figures should be only viewed as rough estimates and only broadly indicative.

²⁷ City of Seattle, Legacy Business Study, September 2017
[https://www.seattle.gov/Documents/Departments/economicDevelopment/22820_Legacy_Report_2017-09-25.pdf].

²⁸ City of San Antonio, Legacy Business Program, Office of Historic Preservation, 2021
[<https://www.sanantonio.gov/historic/LivingHeritage/LegacyBusiness>].

²⁹ Los Angeles Conservancy, Curating the City: Legacy Business, 2020,
[<https://www.laconservancy.org/curating-city-legacy-business>].

Table 7: How Many Legacy Business Might There Be?

	Retail	Accommodations & Food Services	Total
Number of employer establishments in 85701 with <10 employees	21	61	82
<i>Percent of firms with <10 employees & 10+ years old, U.S.</i>	36%	39%	
Estimate of Tucson firms in 85701 with <10 employees & 10+ years old	8	24	31
<i>Percent of firms with <10 employees & 20+ years old, U.S.</i>	15%	17%	
Estimate of Tucson firms in 85701 with <10 employees & 20+ years old	3	10	14

When it comes to discussing the benefits of legacy business, things become somewhat complicated because the concept is a multidimensional construct containing at least 3 dimensions that many Tucsonans care about and are studied separately in the literature: character, scale, and ownership.

Character refers to the features of places with unique qualities, products, or attributes that make them distinctive. Sociologists focus on shared values and significant social interaction, like “community gathering spots.”³⁰ Urban designers, on the other hand, think more about physical character, like pedestrian accessibility.³¹

Meanwhile, the *local* dimension of legacy businesses can add to that character, for example by fostering social ties and shared values between customers and vendors. But it can also boost the local economy, allow for entrepreneurial pathways out of poverty, and reduce carbon footprints (when it relies on local supply chains).³² Economic development focused on local business is gaining attention as an element of sustainable development. It has been called development from below, economic gardening, and bottom-up development.³³ Still, national chain stores may sometimes pay higher rents and taxes, offer better inventory and prices, and invest in remodeling. One study found the poor in the Twin Cities pay more for

³⁰ Roland L. Warren, *The Community in America*, 2nd Edition, Chicago: Rand McNally and Company, 1972, p.2.

³¹ Harry L. Garnham, *Maintaining the Spirit of Place: A Process for the Preservation of Town Character*, Mesa, Arizona: PDA Publishers, 1985; Edward Ward, "Report on the First Conference on the Aesthetics of the Rural Renaissance," *Design Methods and Theories*, Journal of the Design Methods Group, Vol. 22, No. 2, 1988, pp. 830-832.

³² See A. Rupasingha, *Regional Studies* 51(5), 2017 for a review of the peer reviewed literature. Studies have found that local entrepreneurship reduces local unemployment and give entrepreneurial pathways out of deprivation. They also show that start-ups perform better when located where their founders have lived longer, that non-resident firms may provide less local economic impact (e.g., lower multiplier effects), and that local establishments do better at improving income growth and strengthening local problem-solving capacity.

³³ Coffey, W. J., & Polese, M. (1984, December). The concept of local development: a stages model of endogenous regional growth. In *Papers of the Regional Science Association* (Vol. 55, No. 1, pp. 1-12). Springer-Verlag. Barrios, S., & Barrios, D. (2004). Reconsidering economic development: The prospects for economic gardening. *Public Administration Quarterly*, 70-101.

food because those who shop in non-chains pay a significant premium and they have less access to chain stores.³⁴ Chains may also bring new customers to an area, with their branding and advertising, that may benefit nearby local establishments in a form of agglomeration economics. On the other hand, predatory pricing can be used by chains to drive out local competition in the short run, leading to less competition and higher prices in the long run, though whether that occurs or is harmful is subject to debate among economists.³⁵

In Tucson and elsewhere, when people say *small business*, they often mean fewer than 10 employees. In business statistics, these are called “micro-sized establishments.” Economic studies are inconclusive on whether having more micro-sized firms improves economic performance, such as net job creation, but as most micro-establishments are probably locally owned, they would add to the economic benefits of local ownership described above.³⁶

Trend data on the well-being of local, small, and legacy business in Tucson is unavailable, especially at the neighborhood level. Given the interest in their fate, the city should put more effort into maintaining a good dataset on their annual starts and exits. Business license data could help with this, but currently it is insufficiently detailed or accessible for that purpose.

There are larger scale data sets, however, that can help us reach tentative conclusions about the local context. For instance, Chart 3 shows trends for different business establishment closures. In the Tucson metropolitan area, about 7% of all establishments over 11 years old closed in 2018, down from nearly 8% in 2000. *Exits by older establishments improved slightly since 2000 at the metropolitan scale. Exits by smaller establishments also improved. But compared to larger establishments, smaller ones exit at a faster pace.* The exit rate for larger establishments (20 to 499 employees) is only about *a quarter the rate* of smaller ones. Also shown are figures for older establishments (26+ years) for entire state of Arizona. Those figures are similar to data for older establishments (11+ years) in the Tucson metro area. Trend data on establishments that are simultaneously small and old were only found at the national scale. Nationwide, firms that are 26+ years old with 5 to 9 employees have an exit rate of only 2%. This underscores the general fact that as businesses age, their failure rate declines. Unfortunately, these trends

³⁴ Chung, C., & Myers Jr, S. L. (1999). Do the poor pay more for food? An analysis of grocery store availability and food price disparities. *Journal of consumer affairs*, 33(2), 276-296.

³⁵ Johnson, J. P. (2017). Unplanned purchases and retail competition. *American Economic Review*, 107(3), 931-65. Fortin, J. (2020). Predatory Pricing and the Flaws in Brandesian Economics Challenging Recoupment Theory. *Available at SSRN 3676799*.

³⁶ Rupasingha (op cite) refers to studies on both sides of this issue. His research shows that locally based micro-businesses, are positively associated with local income growth (at the county level), but negatively associated with change in poverty.

suggest, as was also found in the Seattle study, that legacy firms, if defined as smaller and older, face countervailing forces – age improves longevity while size reduces it.

Coming back to Tucson's 85701, when that zip code, that includes the downtown core and parts of the barrios to the south, is compared to Pima County, we see something concerning. As shown in Table 8, from 2014-18 *small business establishments (of any age) in the sectors listed disappeared faster in 85701 than they did countywide*. Why? As it happens, much of 85701 includes areas undergoing *gentrification with displacement*, including Barrio Santa Rosa, Barrio Viejo, and Armory Park. As lower-income residents moved away, legacy businesses may have lost core clientele. Landlords may also have raised rents or sold their properties to capitalize on higher income newcomers. A detailed survey of establishment owners would allow us to pin down the exact size and cause of the problem.

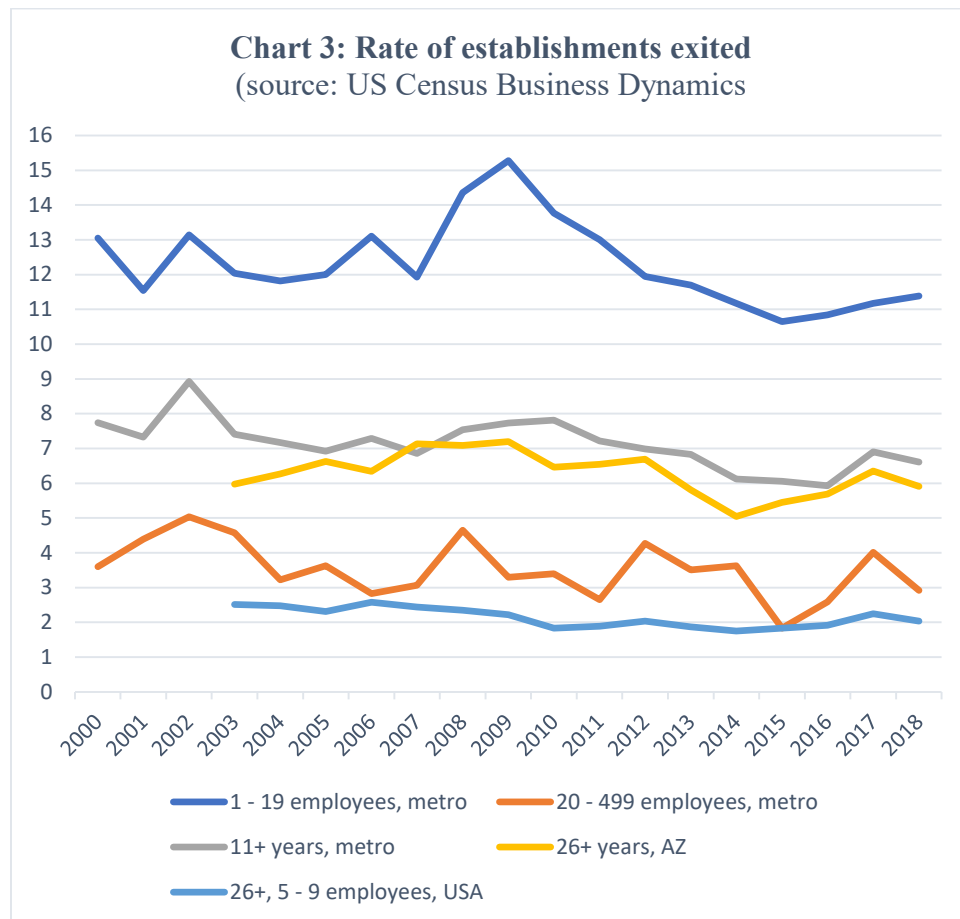


Table 8: Establishments by Size, 2014-2018

	Zip Code 85701 including Downtown, Hotel Congress area, Armory Park, Barrio Viejo, Barrio Libre, El Presidio, Barrio Santa Rosa, and Santa Rita Park north of W. 22 nd Street				Pima County			
	All	1-4 Employees	5-9 Employees	10-19 Employees	All	1-4 Employees	5-9 Employees	10-19 Employees
Retail Trade (44-45)	-5 (-19%)	-9 (-56%)	2 (33.3%)	2 (66.7%)	-150 (- 5.4%)	-121 (- 12.1%)	-93 (- 11.7%)	34 (6.5%)
Food services & drinking places (722)	1 (2%)	-7 (-50%)	5 (83.3%)	1 (7.7%)	121 (7.6%)	6 (1.9%)	46 (20.4%)	26 (6.1%)
Repair & maintenance (811)	-1 (-25%)				-21 (- 3.4%)			

Source: Author's analysis of data from Zip Codes and County Business Patterns, 2014 and 2018, U.S. Census Bureau

Another dataset, that counts employees rather than establishments, tells us that employment in small businesses is declining in the CBD and Focus Area (see Table 9). From 2012 to 2017, across Tucson, the number of employees working for small businesses with less than 20 workers (again, not controlling for age) grew by 0.6%. But in the CBD and Focus Area, the number of employees working for such businesses fell by 8.4 and 8.6 percent, respectively. This reinforces concern about the fate of small business in the CBD.

But can the trend be blamed on gentrification? As in the case of displacement, it seems to depend more on trends in housing than gentrification *per se*.

Chart 4 shows there is no relationship in the Study Area between employment change in small firms at the block group level and change in the number of households earning \$50,000 per year (i.e., gentrification). However, Chart 5 indicates that block groups that lost employment in small firms, also lost lower priced rental housing. As in the case of residential displacement, when gentrification happens without the loss of lower priced housing, employment by small firms is stable or grows. But when gentrification is accompanied by a loss of affordable housing, small firms lose employees. This makes sense if the small firms are retailers or service providers with a significant number of lower income customers who live nearby. If a neighborhood loses lower cost housing, leading to the loss of lower income households, the retailers who relied upon them are forced to lay people off. *But as already discussed, because GPLET is not a significant driver of gentrification and displacement, it also cannot be cause of these worrisome trends with small establishments in the CBD.*

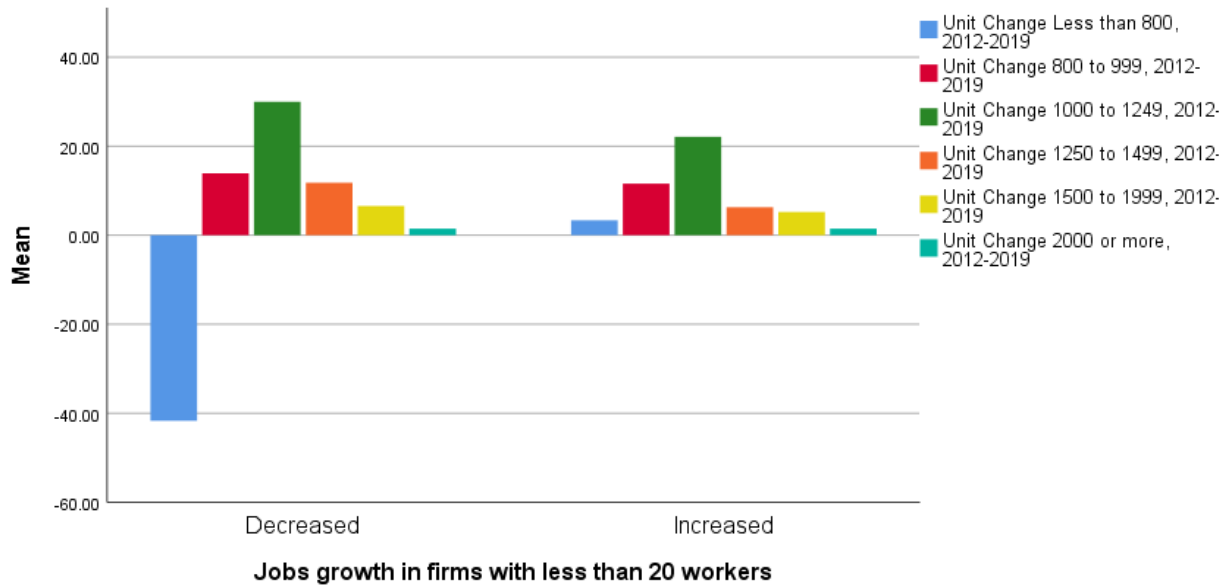
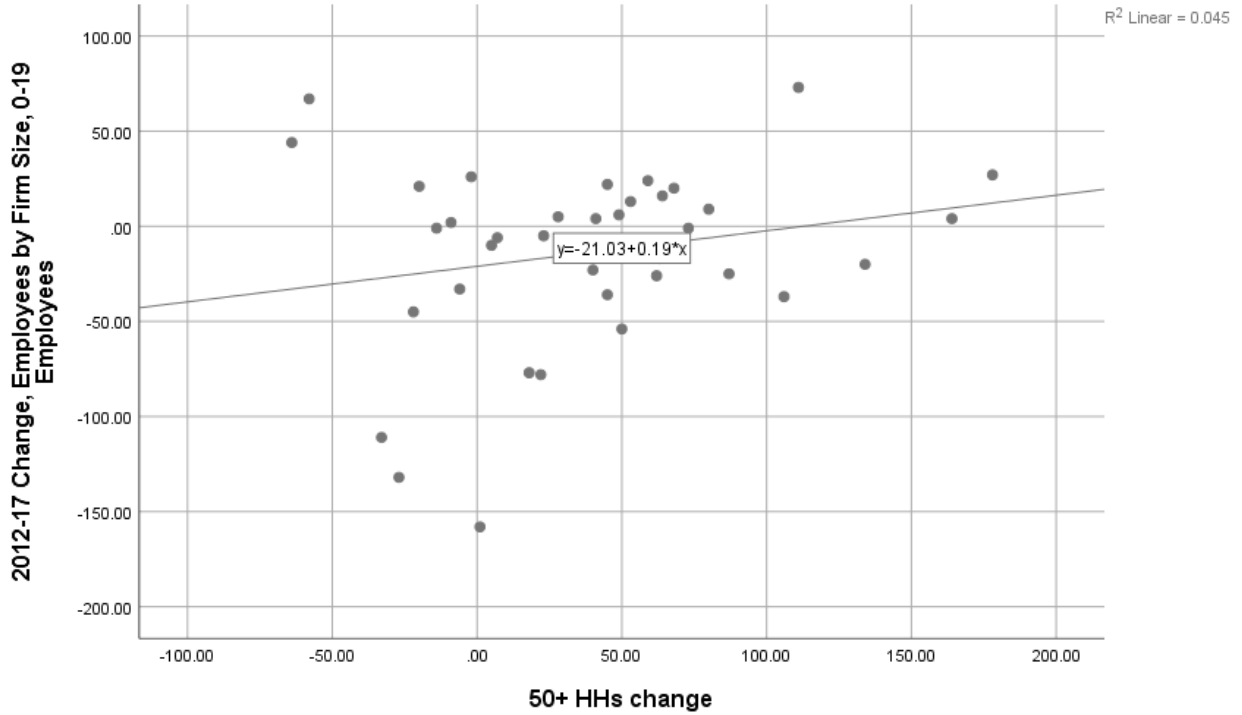
But what about at the individual project and neighborhood level?

There are hundreds of small firms with fewer than 20 employees in the CBD and hundreds more with 20 to 49 employees. In the Focus Area there are dozens of each. Unfortunately, data is not available on how many of these are locally owned and where there might be clusters of locally owned businesses. Casual observation indicates there are several such clusters, such as in the Fourth Avenue Historic District and in the square mile centered on Grant and North Oracle.

Table 9: Change in Employment by Firm Size, 2012 v. 2017

City	2017		2012		2012-2017	
	Count	Share	Count	Share	Change	% Change
0-19 Employees	32,958	17.4%	32,773	18.0%	185	0.6%
20-49 Employees	18,488	9.7%	16,165	8.9%	2,323	14.4%
50-249 Employees	29,947	15.8%	31,025	17.1%	-1,078	-3.5%
250-499 Employees	12,391	6.5%	15,047	8.3%	-2,656	-17.7%
500+ Employees	96,058	50.6%	86,586	47.7%	9,472	10.9%
CBD	2017		2012			
	Count	Share	Count	Share	Change	% Change
0-19 Employees	2,847	21.6%	3,107	25.9%	-260	-8.4%
20-49 Employees	2,574	19.5%	1,741	14.5%	833	47.8%
50-249 Employees	2,944	22.3%	2,887	24.1%	57	2.0%
250-499 Employees	757	5.7%	1,836	15.3%	-1,079	-58.8%
500+ Employees	4,062	30.8%	2,408	20.1%	1,654	68.7%
Focus Area	2017		2012			
	Count	Share	Count	Share	Change	% Change
0-19 Employees	1,180	18.4%	1,291	26.7%	-111	-8.6%
20-49 Employees	1,123	17.5%	597	12.4%	526	88.1%
50-249 Employees	1,425	22.2%	1,182	24.5%	243	20.6%
250-499 Employees	372	5.8%	1,007	20.8%	-635	-63.1%
500+ Employees	2,318	36.1%	757	15.7%	1,561	206.2%

Source: Author's analysis of data from U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics



GPLET could affect the fate of clusters of locally owned business near its projects in at least two ways. One is by the type of retail or other business that rents the retail or office spaces it helps add to the supply. Another is by bringing new housing to areas where the new consumers might vote with their pocketbooks in support of national chains that could disrupt smaller local establishments either through competition or making the shopping district less distinctive and attractive to customers seeking out local character.

So far, however, GPLET's effects on this dynamic appear to be small at the scale of the CBD, though potentially more significant at the neighborhood scale. Nine of the 24 GPLET projects include retail space. Of the 12 establishments in those spaces, half are locally owned. Two are Eli Rio health clinics, a nonprofit long focused on neighborhood health for the underserved. Another – Johnny Gibson's Market – expressed a strong interest upon opening in meeting the needs of "middle-lower income residents" by taking SNAP cards, for example.³⁷ Meanwhile, two of the GPLET assisted projects – the Rialto Block and Cadence – are occupied by a mix of local and non-local establishments. The Rialto block is home to the branch of a national mortgage firm and local food and retail establishments. Cadence and Plaza El Centro are home to 5 non-residents and 1 local business.

In the Historic Fourth Avenue District, there are two GPLET projects with retail space that are yet to be filled. The Union on 6th project is working with the Historic Fourth Avenue Coalition to find a locally owned establishment to occupy the retail space, compatible with the area's character, pursuant to their Community Benefits Agreement with the owner. Opus on 4th has not reached such an agreement, so the spaces there could well have non-local occupants, which would likely be viewed by the Historic Fourth Avenue Coalition and others as a chink or worse in their efforts to preserve local ownership.

It should be emphasized, however, that when all spaces are fully leased, the total number of storefront businesses that will occupy the GPLET projects approved to date is very small compared to the dozens of establishments in the Focus Area and hundreds in the CBD. But when viewed at the neighborhood scale, the numbers are significant enough to affect the balance of business size and ownership mix, as in the cases of Cadence, Plaza Centro, Union on 6th, and Opus on 4th. The latter two are probably more concerning in this regard because of their location in an area where shopkeepers use the size and local ownership of their shops as a key business draw.

Also, at the neighborhood scale, the prominence or visibility of a retail location can increase impact on character in the same way that visually prominent locations draw more customers and higher rents. This is

³⁷ BizTucson, 2015

more likely to be a problem because prominent locations cost more, which increases their chance of being occupied by chains, exactly where chains have a larger impact on local character.

The corner of North 4th Avenue and East 6th Street in the Historic Fourth Avenue District, for example, where the GPLET assisted Union on 6th project is located, is one such location. It is the only signalized intersection in the District retail core and as such is a place where drivers, pedestrians and cyclists will pause and take more notice of their surroundings. A prominent chain there (notwithstanding the old Dairy Queen across the street) would have an outsized detrimental effect on the impression that the district is a place for shopping “Tucson local” So, while the total number of establishments in the GPLET projects has done little to affect the local ownership and small size balance in the entire CBD or Focus Area, it could make a bigger difference in visually prominent locations in neighborhoods like Fourth Avenue that are committed to preserving and defining themselves in terms of small, locally owned and legacy business. Context matters and needs consideration if GPLET wishes to avoid weakening the local and traditional character certain locations rely on to make them competitive and economically successful.

It should also be noted that the difference in cultural character is just one part of the conversation when it comes to local/non-local business. There are several economic differences as mentioned above that deserve consideration. Indeed, a case can be made that a chain store, such as a grocery store chain, could be a net positive in the right location, where it could bring lower priced food to a low-income food desert. But what is missing from the GPLET program is the intentional determination of what is best for any given location as a condition of the abatements given. The Community Benefits Agreement for Union on 6th is the sole exception, though that was a purely private agreement necessitated by issues unaddressed by the City when it decided to approve the GPLET lease and development project.

4.0 GPLET and Sustainability

4.1 Jobs, Commuting, and Sustainability

It's fair to say that the greatest global sustainability challenge is climate change. It is also a direct threat to Tucson's livability, water supply, heat stress, natural areas, and public health. In 2018, 28% of US greenhouse gas emissions came from transportation. Vehicle miles traveled by cars and light-duty trucks increased by 46 percent from 1990 to 2018, because of several factors including population growth, economic growth, urban sprawl, and periods of low fuel prices.³⁸ Meanwhile, spending on transportation is the second highest category for low-income household. So, for social and environmental sustainability,

³⁸ U.S. EPA, Sources of Greenhouse Gases. [<https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>]

changes in development patterns that increase options to driving alone, or reduce the miles we must drive, are important.

According to census data,³⁹ 80 percent of Tucsonans, who work outside the home, drive alone to work. For those working in census tracts 1 and 4, containing nearly all the GPLET projects, that falls slightly to 77 and 76 percent, respectively, because of more bus and streetcar use to jobs in tract 1 and more bicycle use to jobs in tract 4. This suggests that by encouraging jobs in the Focus Area, GPLET is helping Tucson reduce auto-related cost, congestion, pollution, road wear, and encourage healthy physical activity.

However, as Table 10 shows, the 3 percent drop in drive-alone commuters to downtown is quite probably offset by an increase in travel time (and vehicle miles travelled), which on net could produce more, not less congestion, hazards, and pollution. Compared to Tucson, about 5% fewer downtown workers drive less than 30 minutes to work and 5% more drive more than 30 minutes to work. So while jobs downtown produce a few percent fewer solo drivers, the remaining drivers take more time and probably drive more miles. A calculation of the net effect on the carbon footprint from slightly fewer but longer drives compared to jobs elsewhere in Tucson is needed but there is likely little sustainability benefit to commuting from concentrating jobs in the downtown area. As discussed below, this could be improved by focusing on more downtown housing development and putting more jobs elsewhere in clusters, closer to residential areas with affordable housing, along transit oriented corridors.

A related equity consideration is job access for lower income workers and others who depend on transit. About 19 percent fewer Tucsonans living below the poverty line drive alone to work, while 7 percent more take the bus, 2 percent more bicycle, and 4 percent more walk. That seems to suggest that those burdened with poverty would have better access to employment if more jobs were downtown because it is more transit, bike, and pedestrian oriented. But in fact, fewer workers burdened with poverty use these alternative modes when their jobs are downtown than in other locations. Only 9 percent of the poor who work downtown ride the bus to work, compared to 10.5 percent city-wide. And surprisingly, 20 percent more of the poor who work downtown drive alone to work compared to city-wide. The data suggest this is because fewer low-income downtown workers walk or carpool, presumably because they cannot find affordable housing within walking distance of downtown or because there are too few lower income jobs with routine schedules downtown to make carpooling feasible. Given the high cost of car ownership, and

³⁹ U.S. Census Bureau, American Community Survey 2012-2016 Five-year estimates. Special Tabulation: Census Transportation Planning

the increased driving time linked to downtown jobs, the minority transit-dependence case for shifting jobs downtown is unsupported by the evidence.

Table 10: Travel Time for Drive Alone Commuters, Tucson v. Census Tract 1 (downtown)

Travel Time	Tucson	CT1	Difference
Less than 5 minutes	1.5%	1.3%	-0.2%
5 to 14 minutes	20.8%	15.8%	-4.9%
15 to 19 minutes	17.1%	15.8%	-1.3%
20 to 29 minutes	26.3%	27.8%	1.5%
30 to 44 minutes	24.8%	31.1%	6.3%
45 to 59 minutes	6.5%	4.6%	-2.0%
60 to 74 minutes	1.8%	2.2%	0.4%
75 to 89 minutes	0.3%	0.0%	-0.3%
90 minutes or more	1.0%	1.5%	0.5%
U.S. Census Bureau, American Community Survey. Special Tabulation: Census Transportation Planning			

These facts undermine the notion that downtown job development is worth subsidizing for social equity or environmental sustainability reasons. It also raises the question of whether the City would be wiser to encourage a more multi-centered approach to job development, with nodes of transit, bike, and pedestrian oriented centers strung out along multi-functional, green, and complete boulevards, where jobs, housing and services are brought closer together. This would be consistent, for example, with concepts underlying the city's planned Bus Rapid Transit Corridor Study, as well as development eastward from downtown along Broadway, Speedway and Grant Avenue.

4.2 Housing and Sustainability

A stronger sustainability case can be made for promoting housing development rather than jobs in the downtown and CBD. As Table X shows, many more workers who live in or within 1 mile of the CBD (i.e., the CBD labor force), also work in the same geographic area, compared to those who live elsewhere but work in the area. For example, 13% of those who live in the CBD also work in the CBD, while only

1% of those who work in the CBD also live there. Living and working in the same area reduces both vehicle miles travelled and increases the feasibility of walking, biking, or using public transit.

The reason so few of those who work in the CBD also live there is probably because there are many more jobs than housing units that meet workers' needs or preferences within the area. And the reason so many who live there, work in the CBD is that there are far more jobs than housing units, so more residents can find work near home.

The underlying issue is referred to by urban planners as Jobs-Housing Balance. Studies show that when jobs and housing are in balance, more people work and live closer together, and that reduces vehicle miles travelled. Instead of people commuting from bedroom communities to job centers, proponents of jobs-housing jobs balance recommend a better balance throughout a region. As mentioned above, if the jobs are also then clustered along transit routes near neighborhoods with affordable housing, it is possible to promote transit, walking, and cycling and less driving for those who still choose to drive.⁴⁰

The CBD does not have a good jobs-housing balance. There are too few housing units relative to jobs. Just the opposite is the case in several other parts of Tucson and Pima County, where there are too few jobs relative to housing. Marana is the most balanced, as shown in Table 11.

Table 11: In-Area Efficiency, 2018

	Labor Force	Employment	Housing/Jobs Surplus
<i>Housing Deficit</i>			
CBD + 1 mile buffer	25%	11%	-14%
CBD	13%	1%	-12%
UA Tech Park/Rita Ranch	12%	5%	-7%
<i>Balanced</i>			
Marana	12%	13%	1%
<i>Jobs Deficit</i>			
Oro Valley	13%	18%	5%
Casas Adobes	9%	14%	5%
Vail	6%	12%	6%
Pantano to Agua Caliente in Tucson	7%	18%	11%
Drexel Heights	2%	20%	18%
Valencia West	1%	28%	27%

Notes: Labor Force Efficiency (LFE): percent of labor force who work in the area. Employment Efficiency (EE): percent of employed who live in the area. Housing/Jobs Surplus: EE-LFE; lower numbers = more housing needed vs. jobs

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics).

⁴⁰ Pivo, G. (1996). Toward sustainable urbanization on Mainstreet Cascadia. *Cities*, 13(5), 339-354.

What this means for GPLET is that if it focused on building more housing and less office space in the CBD, it could help create a more sustainable urban form. This would have the added benefit of reducing gentrification with displacement, as discussed above.

4.3 Sustainable buildings

The location of development creates an urban form that affects sustainability. But the design, engineering, and operations of the buildings themselves also have a key role to play. Modern energy and plumbing codes plus specific standards for rainwater harvesting and more, do much to ensure good environmental performance of GPLET assisted buildings. But the definition of corporate social responsibility, offered by Paul Portney, former Dean of UA's Eller College of Management, is a

“consistent pattern...of private firms doing more than they are required to do under applicable laws and regulations governing the environment, worker safety and health, and investments in the communities in which they operate.”⁴¹

As applied to real estate, that involves efforts to address ecological integrity, community development, and human fulfillment in the course of profitable real estate investing.⁴²

Green building certification programs such as LEED, Green Globe, and Energy Star are examples of programs that will confirm and recognize a project exceeding base requirements. Newer programs that promote healthy buildings include Well and Fitwel. In Tucson, certain important elements required for green certification are already standard via the building code and water harvesting ordinance. In addition, the transit-oriented, walkable, and infill nature of the CBD would also earn developers credit toward green certification. A comparison of the latest City codes and green or healthy building certification requirements does not exist and is needed if we want to know the incremental benefit would come from buildings being certified. But there most likely are dimensions of green building, such as indoor air quality, that may exceed city requirements; and there are educational, branding, status, *and property value*, to be gained from obtaining formal certification and displaying them at a building's entrance. GPLET could make it a priority to encourage owners to seek these certifications.⁴³

⁴¹ Portney, P. R. (2005). Corporate social responsibility. Environmental Protection and the Social Responsibility of Firms—Perspectives from Law, Economics, and Business.

⁴² Pivo, G., & McNamara, P. (2005). Responsible property investing. International Real Estate Review, 8(1), 128-43.

⁴³ Pivo, G., & Fisher, J. (2010). Income, value, and returns in socially responsible office properties. Journal of real estate research, 32(3), 243-270. Fuerst, F., & McAllister, P. (2011). Green noise or green value? Measuring the effects of environmental certification on office values. Real estate economics, 39(1), 45-69. An, X., & Pivo, G. (2020). Green buildings in commercial mortgage-backed securities: The effects of LEED and energy star certification on default risk and loan terms. Real Estate Economics, 48(1), 7-42.

One power of tax incentives is their potential to de-risk and induce innovations that others view as risky, hopefully proving their market feasibility. Important next generation innovations where Tucson should lead, include net zero water buildings and heat island mitigation. This would require us to push beyond local norms and standards, but with the help of tax and other incentives, we could help change market perceptions and speed development industry innovation.⁴⁴

5.0 Budget Equity

One of the ways that equity will or will not manifest via GPLET is by how the public funds it generates are used. According to Applied Economics, the total public revenue benefit for all agencies over the first 8 years of the projects to date comes to more than \$155 million, and much more over their entire lifetimes. The total for the City of Tucson is \$45.2 million over the first 8 years. Equality-based equity means using those funds equally across places and groups; needs-based equity means using those funds to help the poor and undeserved; and demand-based equity means using it according to citizens' highest priorities.

Of course, once received, the revenues are allocated by state and local agencies who are responsible for the equity or inequity of their spending. Unfortunately, equity assessments of past budgets could not be found to report on here. And given there are no legal or policy measures linked to GPLET that determine how revenues must be allocated except among the agencies, we cannot determine whether the public financial benefits from GPLET will be equitably used across the triple bottom line. Ultimately, the equitable use of the revenues depends on the equity of government spending.

Indirect evidence on equity can be obtained from the US Census of Governments every 5 years. Unfortunately, recent data on Tucson is unavailable from that census. But Table 12 shows changes in spending by function from 2012 to 2017 for all Arizona general and special purpose governments. It shows declines in social services and housing and increases in public safety and education. *If equity is assessed in terms of increased spending to redress poverty, Arizona's local governments overall seem to*

⁴⁴ Crosson, C., Tong, D., Zhang, Y., & Zhong, Q. (2021). Rainwater as a renewable resource to achieve net zero urban water in water stressed cities. *Resources, Conservation and Recycling*, 164, 105203. Fahed, J., Kinab, E., Ginestet, S., & Adolphe, L. (2020). Impact of urban heat island mitigation measures on microclimate and pedestrian comfort in a dense urban district of Lebanon. *Sustainable Cities and Society*, 61, 102375. Crosson, C. (2018). Innovating the urban water system: achieving a net zero water future beyond current regulation. *Technology| Architecture+ Design*, 2(1), 68-81. Forrest, N., Stein, Z., & Wiek, A. (2019). Water-independent residential properties as a transformational solution to achieve water sustainability in desert cities? *Journal of Cleaner Production*, 214, 1038-1049. Framework for net-zero and net-positive building water cycle management. *Building Research & Information*, 43(1), 121-132.

be reducing their commitment to budget equity. This gives Tucson a real opportunity to lead the state in equity budgeting.

Table 12: Change In Arizona Local Government Spending, 2012-2017

Education Services:	Percent
Elementary & Secondary	4%
Capital Outlay	-18%
Libraries	14%
Social Services And Income Maintenance:	
Public Welfare	-42%
Cash Assistance Payments	-63%
Vendor Payments	-38%
Other Public Welfare	-41%
Hospitals	-7%
Capital Outlay	-36%
Health	11%
Transportation:	
Highways	16%
Capital Outlay	0%
Public Safety:	
Police Protection	20%
Fire Protection	13%
Environment And Housing:	
Natural Resources	-21%
Parks And Recreation	19%
Housing And Community Dev	-24%
Sewerage	-14%
Solid Waste Management	27%
Source: 2012 And 2017 Census Of Governments	

The time value of money is another equity concern when it comes to budgeting because the financial gains from GPLET will come to us over many years. As economist Irving Fisher wrote 91 years ago, “a small income...tends to produce a high rate of impatience.”

What this means for GPLET related revenues is that using a given share of future revenues to address the needs or wants of those with smaller incomes is worth less to those citizens than using the same share of future revenues to support the needs or wants of those with higher incomes. That is because lower income people put less value on future benefits than do higher income people. This difference in “impatience” is

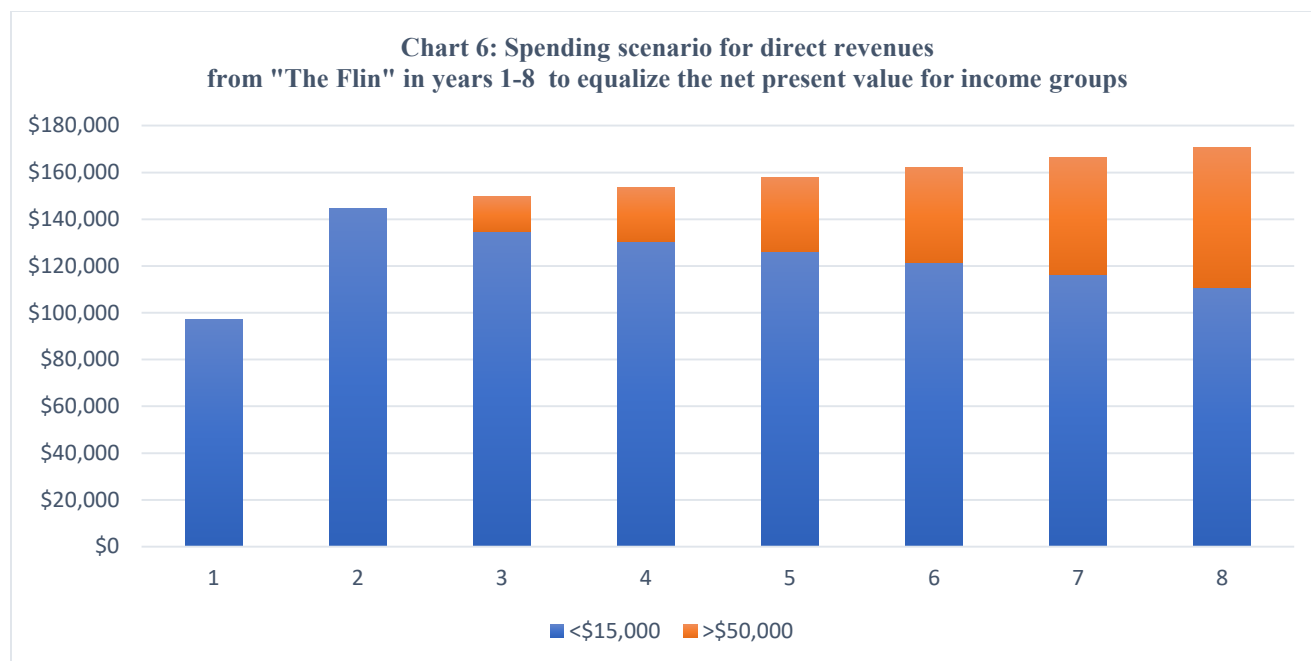
known as the time value of money and it is the underlying reason for applying discount rates to future benefits in policy studies to obtain a *present value*. In this case, *different income groups have different discount rates, so in order for them to receive equal benefits from future city spending (using the equality principle of equity planning), the city would need to spend a larger share of its total future spending on the needs and wants of lower income citizens.*

Table 13 gives the *discounted present value* of the first 8 years of revenue for one GPLET assisted project, for different income groups.⁴⁵ It comes to more than \$1.2 million for the highest income category and just under \$142,000 for the lowest. Chart 6 then gives one example (many alternatives are possible) for dividing the total direct revenues in the first 8 years between two income groups so that both groups get the same discounted present value from the benefits. *To achieve equality in the present value of benefits, most of the revenue would need to spent on the lower income group, especially in the first few years, because the lower income group puts much less value on benefits received years in the future.* The net result in present value terms from this difference in spending, however, is that both groups would experience nearly identical value from the benefits they receive. To implement such an approach, the City would have to determine how the benefits of its spending are distributed across income groups, which would be a useful exercise anyway to foster equity-sensitive budgeting, but that is less difficult than one might imagine. For example, spending on certain programs or groups of neighborhoods can be used to target spending for lower income households.

Table 13: Present value of first 8 years of revenue impacts on Tucson from La Placita (the Flinn)

Income category	Discount rate	Present value
>\$50,000	0.4	\$1,178,984
\$40,000-\$49,999	9.1	\$807,671
\$25,000-\$29,999	26.6	\$446,095
\$12,000-\$14,999	52.8	\$241,578
\$5,000-\$6,999	79	\$158,391
<\$5,000	87.9	\$141,045

⁴⁵ Rates taken from Hartman, R. S., & Doane, M. J. (1986). Household discount rates revisited. *The Energy Journal*, 7(1). Also see similar findings in Carvalho, L. S. (2010). Poverty and time preference. RAND Corporation Publications Department, Working Papers, 1, 2010.



6.0 If not for GPLET

In this report so far, we have assumed that the economic activity associated with the GPLET assisted projects would not have occurred without the abatements. But this assumption deserves discussion. *If some or all the projects would have occurred without some or all of the abatements, then the city has an opportunity to require or incent additional public benefits from future projects. But if few or no projects would have occurred without the abatements, then the city's capacity to obtain more or different benefits is limited and would need to come from adjustments to development standards that do not increase project costs, or through different decisions on the use of future tax revenues produced from the projects.*

There is limited evidence on this question. Empirical studies support the hypothesis that property tax rebates are more effective at determining business location within a metropolitan area than between metropolitan areas or states.⁴⁶ In other words, abatements may not actually increase economic activity or tax revenues in a region by pulling investment in from elsewhere.

Of course, one of GPLET's purposes is to induce development in the CBD. So, even if that occurred through projects that would otherwise have located elsewhere in Tucson, the abatements would be a

⁴⁶ Wassmer, R. W. (2009). Property tax abatement as a means of promoting state and local economic activity. In N. Y. Augustine (Ed.), *Erosion of the property tax base: Trends, causes, and consequences* (pp. 221–259). Cambridge, MA: Lincoln Institute of Land Policy.

success. But in that case, the main benefit would be contributions to revitalizing the Focus Area where most projects have occurred, not from producing a net increase in Tucson's tax base.

Tax experts have long worried that if abatements do not produce a net increase in a jurisdiction's economic activity, they can have undesirable equity effects by increasing the regressivity of property taxes. This can occur by shifting needed taxes onto residential properties that do not qualify for abatements. Two studies have found that effect.⁴⁷ The result could be a worsening of the high rent burden already faced by lower income households because the portion of property taxes based on improvements tends to get shifted onto occupants via higher rents.⁴⁸

Probably the only real way of knowing whether projects would have occurred without the abatements is to see if similar projects occurred without them or to closely examine the financial forecasts that developers were using at the time they were seeking abatements. Unfortunately, there are few comparable projects that did not obtain abatements and financial information on just one project in the historic record.

Interviews with some of the GPLET project developers reveal a unanimous view that downtown development is financially challenging and could not occur without GPLET or other incentives. They also report their projects are producing investment returns of around 6 or 7%. When adjusted for risk, that is somewhat less than income returns for similar properties reported by the NCREIF Property Index, a widely used national index of real estate returns used to benchmark institutional investments.⁴⁹ Moreover, these returns include the benefit of the GPLET abatements, which shows that the abatements were necessary to make the investments competitive. If this finding holds across most GPLET assisted properties, it means the *GPLET projects are not generating excessive returns relative to existing capital markets and have required the abatements to attract investment*. If at some point, returns were to improve, then Tucson could be more attractive to investors, and abatements would be less necessary. At that point, more of the abatements could be used to obtain enhanced public benefits.

An exception to this conclusion is suggested by an analysis of The Cadence, the one project for which we have the financial pro forma that was submitted with its original GPLET proposal. Unfortunately, as a

⁴⁷ Mullen, John K. 1990. Property tax exemption and local fiscal stress. *National Tax Journal* 43:467–479. Anderson, John E., and Robert W. Wassmer. 2000. *Bidding for business: The efficacy of local economic development incentives in a metropolitan area*. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.

⁴⁸ Oates, W. E., & Fischel, W. A. (2016). Are local property taxes regressive, progressive, or what?. *National Tax Journal*, 69(2), 415.

⁴⁹ NCREIF stands for National Council of Real Estate Investment Fiduciaries. It is an imperfect benchmark for Tucson because it tracks returns on institutional grade properties, which probably require somewhat lower returns than properties in Tucson to attract investors because more institutional grade properties are located in the strongest real estate markets.

student housing project, it is a financially unusual case that is not generalizable to the other projects. But it does show that it is important for the city have insight into how much abatement is required for a project to achieve reasonable risk adjusted returns. The point here isn't to show that back in 2013 when The Cadence deal was happening that the city should or should not have provided the full abatement. But rather, that *good information in the future can help the city know how much abatement is needed by various types of projects in a changing market. This could help find opportunities where projects require less abatement to meet required returns. Any excess abatement capacity could then be used to go beyond what has been achieved in projects to date to deliver more social and environmental benefits for Tucson citizens.*

Real Estate development is a high risk “opportunistic” investment for which investors typically earn a 17% to 20% return on their equity investment.⁵⁰ According to the pro forma for The Cadence, the required return was 17.5%, in line with these industry norms. Based on a recent analysis of data in their original pro forma, prepared for this report, the project would have returned 17.2% per year without the abatement by the third year of operation when the property would be fully leased (stabilized). On net, across all 8 years given in the statement, investors would have earned 17.5% return per year *plus* \$500,000. The required 17.5% in the third year could have been achieved with just a 7% tax abatement. A 100% abatement of taxes for all 8 years would have been expected to increase returns to 21.7%, again, using the figures submitted by the applicant.⁵¹ That is more than 4% higher than what the pro forma says the investors required.

It is also notable that the pro forma did not indicate the added benefit that would be yielded by eventually selling the property. Developers add value for investors when they take high risk, low value “opportunistic” development plans and turn them into dependable, low risk, high value “core” investment properties.⁵² Much of the return to investors occurs when that added value is capitalized in the sale of stabilized properties. It is therefore no surprise that The Cadence was sold in 2020 for an undisclosed amount.

⁵⁰ P. Linneman and D.C. Moy, Understanding the Return Profiles of Real Estate Investment Vehicles, Wharton Real Estate Review 7(3), 2003.

⁵¹ The proforma estimated \$371,315 for taxes per year, which is what was used in this analysis. The actual total value of the GPLET incentive to the developer was about \$585,000 per year. If that amount were replaced the taxes estimated in the proforma, the return without abatement would have been 14.6% and 21.7% with it. A 40% abatement (\$240,000 per year) would have produced the required 17.5% return on equity.

⁵² Real estate investments are categorized as core, core plus, value add and opportunistic. From core to opportunistic risk increases and therefore investment returns are higher, and values are lower. A development project is opportunistic but when built and stabilized it will be core or core plus, depending on the reliability of its tenants and income.

If the sale had been included in the pro forma, in year 8 at a price based on the 5.75% cap rate prevailing at the time⁵³ (the cap rate, which is inversely related to price, has since declined, so the property probably sold for even more than estimated here when it sold in 2020), then using a standard discounted cash flow analysis, the internal rate of return for the investors would have gone up to 30% without, and 32% with, the tax abatement. This increase in return reflects the fact that the property would probably have sold for 80% more than it cost to build, based on the relationship between net operating income and price prevailing at the time. One might argue that an extraordinary return was required by investors at the time because of uncertainty in the downtown submarket, ignoring the 17.5% they say they wanted in their own pro forma. But the 30% return after sale that could have been expected without a tax abatement would have been half again as much as the 17 to 20% return normally expected from opportunistic investments that are at the top of the risk scale in real estate investing (and the 17.5% return the pro forma indicated the investors required).

As the company's own figures indicate, The Cadence would have met the investors stated requirements without the abatement.⁵⁴ But what about other and more recent projects? We do not know because we do not have the figures. But over the past few years, a project like The Cadence would have been even more profitable than it was when it was developed, because of falling interest and cap rates, which have lowered the cost of capital, and raised the selling price, for student and apartment housing. In fact, the increase in property values from falling cap rates that would have accrued to The Cadence would have been enough, all else equal, to fully substitute for the gain in returns produced by the abatement.

All of this evidence, from The Cadence case and developer interviews, suggests that for certain projects, like The Cadence, some of the tax abatements over the past years may not have been necessary, while for others the abatements have been absolutely necessary. The equity issue here is that if some investors received benefits they did not need, the public bears a greater tax burden and potentially higher rents as a result. But we must be careful not jump to conclusions from a single case study and a limited set of interviews. What it does suggest, however, is that better visibility into these issues would be sensible in the future.

There is also good news here. *If a fulsome review of the evidence can show that at least some future projects can occur without some or all of the abatements, there could be opportunities for the public to work with developers to include new public benefits in exchange for added abatements. This could*

⁵³ CBRE, CBRE North America Cap Rate Survey, Second Half 2019, U.S. Multifamily.

⁵⁴ Projects also need to draw loans and the figures for Cadence were well within the standards for debt coverage and loan to value ratios normally used in bank loan underwriting.

include things like affordable retail space or housing,⁵⁵ set asides for housing vouchers, enhanced public spaces, and other opportunities consistent with the goals of the CBD. Reliable, public information on the economics of real estate investing in the CBD could help the city find any such opportunities that may exist in the coming years.

7.0 Summary and Recommendations

7.1 Determination of Financial Need and Opportunities for Additional Public Benefits

If a full 8-year tax abatement is unnecessary for a project to achieve market returns, then the unused portion of abatements could be used to incent (or require) more equity and sustainability benefits. It could make it feasible, for example, to include some below-market rate units in a market rate housing project.

But reductions in abatements that prevent projects from achieving a reasonable return on investment could slow or stop revitalization. This could be avoided through an analytical dialog between the city and each project developer to identify how much abatement is needed for reasonable returns, based on a realistic assessment of market conditions. The process could uncover opportunities to promote additional public benefits.

This dialog would be greatly assisted by better information on the performance of the CBD market if an independent body were to publish biannual CBD Development Performance Index. If downtown property owners would pool performance data, as is done for the NCREIF index (where privacy is strictly maintained for individual projects and members), financial return trends for relatively newer developments in CBD submarkets could be used to estimate the levels of risk and performance they can expect in the area. This would reduce any market misinformation that may giving the area a less positive reputation for investing than it deserves and confirm the actual market conditions, however strong or weak they really are. This would give both public and private parties a sound fact base for determining what public assistance is needed to support desired projects.

A text book approach for determining the level of assistance needed involves establishing whether there is a gap between project cost and available private resources. This allows public assistance to be structured to close the gap and ensure reasonable returns.⁵⁶

⁵⁵ Using data from the Cadence proforma, if all of the property taxes they estimated were abated, and the savings used to buy down rents for 10% of the units/beds for a 20-year period, the base rents for those units could have been reduced by 33%, falling from \$815 per student bed to \$546.

⁵⁶ Meshing Public and Private Roles in the Development Process. In Miles, M. E., G.L. Berens, M.J. Eppli, M.A. Weiss (2007). Real estate development: principles and process, 4th Edition, Urban Land Institute.

The dialog would require an examination of a project's pro forma financial documents. Since most developers might be reluctant to make financial documents public, the city could rely on an independent real estate advisor to review the materials and advise the city on the amount of abatement or other incentives that are appropriate given the market conditions. It would also make sense to combine the abatements with other incentive opportunities, including from other agencies, such as the Rio Nuevo Tax Increment Finance District, in order to put the public in the best position to achieve high priority public benefits. The real estate advisor would review and confirm the accuracy of the developers' figures, similar to how banks underwrite loans, and recommend the abatements or other assistance needed for reasonable project returns. This should include adjustments in required returns to account for how risky or innovative a project might be. If the parties agree that a reasonable risk adjusted return will not require 100% abatement for 8 years, the unneeded abatement capacity can then be used to encourage (or require) more equity or sustainability features or financial contributions to offsite benefits. To allow for creative inclusion of the benefits in a project, it would be helpful to initiate the dialog as early as possible in project planning, so new features can be negotiated and included with less difficulty. The assessment and agreements could always be revised later in the development process as more detailed cost and market information becomes available.

7.2 Adjusting Budgeting to Account for Differences in Discount Rates

GPLET abates taxes today to increase revenues in the future. But those future benefits are worth less to the poor than they are to the rich because of differences in their time value of money. Unless addressed, this creates structural inequity in public budgets. To account for this difference, the city could use a larger share of its revenues from GPLET projects to meet the needs of low-income communities. This would give lower income communities a larger share of the pie in dollar terms, but not in the present value of benefits, and would therefore be wholly consistent with the equality principle of equity planning. To paraphrase an old axiom about justice, for low income citizens "benefits delayed are benefits denied."

Also, to be sure that the erosion of spending on equity-related functions seen across Arizona local governments is not also occurring in Tucson, the city could employ a budget equity assessment tool. Several cities use them, requiring departments to consider the equity effects of their programming and what they can do to redress known needs and problems. One example is the Portland Budget Equity Assessment Tool.⁵⁷

⁵⁷ <https://www.portlandoregon.gov/oehr/80164>. <https://www.transformgov.org/programs-and-projects/racial-equity-budgeting-tools>.

7.3 Housing for All

For several equity and sustainability reasons, the GPLET program should explore opportunities to focus future abatements on housing in the CBD and future expansion areas, especially housing affordable to those earning less than \$35,000 per year (less than \$800 rents) and “close substitutes” for higher income households who are putting pressure on lower cost housing stocks (\$1200 to \$1500). As discussed, abatements can contribute indirectly to rising rents, the CBD is jobs rich and housing poor, lower income households must bear the expense of driving more to jobs in the CBD, and displacement of low-income households from gentrification can be reduced or avoided if housing of all income levels is added to the CBD and nearby neighborhoods. Lower cost and below market rate housing projects assisted by GPLET can directly offset residential displacement. Market rate projects assisted by GPLET can absorb demand for housing in the area and reduce demand to convert rentals to owner occupied units. It can also bring new money and social capital to help support local business, infrastructure improvements, and education.

GPLET can achieve this through at least six possible models:

- Find and support small local affordable housing developers. For the past few years, Tucson's own Central Barrio Development, for example, has been delivering new 400 square foot, double height, open floor plan, loft bedroom apartments in 20 unit buildings via ground up developments that rent for under \$800 per month, without tax abatements. They have built five of these projects, constructed by locally owned Durazo Construction, on 12 to 14,000 square foot R3 and C3 zoned infill lots, which are sufficiently available in or could be added to the CBD.⁵⁸ In the C3 zones, these projects could also include space for smaller, locally owned legacy and other retail establishments. These are small units, but more than half the low income households in Pima County are single person households, and most of those are single women.
- Support market rate projects capable of delivering units renting at about the same level currently being paid by the average higher income household in the area (\$1200 to \$1500).
- Require larger housing projects that receive abatements to use excess abatement capacity to provide some number of affordable units for 20 years.⁵⁹ This appears to be allowed under ARS 9-461.16.B.

⁵⁸ <https://www.centralbarrio.com/>

⁵⁹ See footnote 52 for an example, and the following for a further explanation of using abatements to offset inclusionary requirements: Abt Associates and NYU Furman Center, 2021, Tax abatements or exemptions, *Local Housing Solutions* <https://www.localhousingsolutions.org/act/housing-policy-library/tax-abatements-or-exemptions-overview/tax-abatements-or-exemptions/> From the website: “Washington, DC provides a property tax abatement equivalent to 75 percent of the difference between the property tax owed before and after development. To be eligible, at least five percent of the units in the development must be reserved for low-

- Do the same but allow the applicants to make equivalent payments to a trust fund to be used for rental vouchers, new affordable housing project equity, tenant rent payment insurance, or other mechanisms that can preserve and improve access to affordable housing.
- Partner with city planning and housing departments to combine multiple incentive and funding sources with up-zoning, together with tax abatements, to add land value and then capture it for inclusionary housing projects in the CBD.⁶⁰ This is subject to the limitations in demand for housing at a sufficient rent or price to justify any costs associated with higher densities, such as added fire safety requirements for projects with occupied floors over 75 feet.

These strategies may not be effective in the Tucson market because of the cost of development compared to what the market can pay for rental housing. Even though new rentals downtown rent for about 40% more than new rentals elsewhere in the region, the basic rule of development is that project value (which is mostly determined by potential cash flow) must exceed project cost (including investor profits). The effectiveness of density bonuses, abatements, or other compensation for including affordable units are subject to these same limits and analysis is needed to determine how much subsidy would be needed to make such projects feasible and whether Tucson can provide those subsidies.

This suggests that finding the lowest cost way to deliver new affordable housing is imperative. One possibility, in addition to working with the small affordable housing developers mentioned above, is to encourage the conversion of single family units to duplexes.⁶¹ For example, in Barrio Hollywood, where there has been gentrification with residential displacement, about 71% of the units are in 1 unit structures and fewer than 10% are in structures with 3 or more units. If 1 in 5 of the 1 unit structures had been converted to duplexes (or added accessory dwelling units) since 2012, enough units would have been added to house all of the 56 lower income households that were displaced, depending on how inexpensively the conversions can be done. The units may end up with just one or two bedrooms, but again, about half the low-income households in Pima County are 1 person households.⁶² Single family zoning is recognized by housing scholars as one reason why lower income households cannot afford to

income households, and an additional 10 percent of units must be reserved for households earning up to 60 percent of the area median income. The tax abatement is good for ten years, while the affordability requirements apply for at least 20 years, with a \$10,000 penalty per year for each unit that does not meet income set-aside requirements during the final 10 years. See [here](#) for more details.”

⁶⁰ Nzau, B., & Trillo, C. (2019). Harnessing the real estate market for equitable affordable housing provision through land value capture: insights from San Francisco City, California. *Sustainability*, 11(13), 3649.

⁶¹ An experienced design/build professor at UA estimates a conversion would cost \$50,000. If a 4 bed/2 bath property for sale today at \$325,000 were converted and refinanced at 3.5%, each 2 bed/1 bath unit could rent for about \$750 per month plus utilities operated on a not for profit basis.

⁶² Pivo, G, A Sanderford, K Smith, L Jensen, A Abu-Khalaf, S Santos and L Zhong, Gap Analysis of Affordable Housing in Pima County, Arizona, Family Housing Resources, Inc., 70 pp.

stay or move into many neighborhoods.⁶³ Parking could be a limiting factor but that would let waivers be used as a means of controlling the process. For example, waivers might be limited to pre-existing owners who agree to protect existing tenants from eviction. The remodeling could be done by small, women and minority owned contractors, helping to support grass roots business and non-profits. If these projects increase property values by 100% then GPLET abatements could be used to help lower the rents. That level of investment, however, might require two-lot mergers to allow for development of a 3 or 4 unit buildings. Whether the net effect of waiving taxes, reducing parking, setbacks or other standards, using non-profits, and other cost reduction measures would allow for sufficient affordability needs to be studied. But the idea seems promising.

7.4 Help for Legacy Business

The City needs a better way of tracking the annual starts and exits of legacy and other small, local establishments in districts where there is particular concern. A full citywide monitoring system would probably not be needed. A survey of owners should also be conducted to better understand their challenges and the degree to which gentrification or other factors are affecting their stability.

The GPLET program should also engage with neighborhood business leaders in districts when projects are planned, which could bring new competition to the area. The goal should be to find ways to reinforce and complement existing businesses rather than being a subsidizing new competition. The Community Benefits Agreement model could be useful for this but relying on local leaders to lead such negotiations with project owners is rather burdensome. City assistance in facilitating and if necessary enforcing such agreements would be a welcome addition to the process.

Seattle conducted an extensive survey of what cities are doing across the country to support legacy business.⁶⁴ Many programs target local business in general, but some are beginning to target legacies in particular. Interventions generally include financial assistance, protection, promotion (e.g., a legacy business map and website), and technical assistance. San Francisco and New York offer grants and tax abatements to legacy businesses and property owners while Sonoma and San Francisco restrict the number of chains in select neighborhoods. In San Francisco, the city offers grants to landlords that have agreements to lease space to legacy businesses for at least 10 years. Criteria for qualification could include community impact (e.g., cultural identity), business type (e.g., bookstores), independence (e.g., non-chains), ownership (e.g. low-income owner), and tenure (e.g., 30 years in business). Indirect support

⁶³ Rothstein, R. (2017). *The color of law: A forgotten history of how our government segregated America*. Liveright Publishing.

⁶⁴ City of Seattle, *Legacy Business Study*, 2017.

can also come via grants to business districts (e.g., for planning and promotions). The GPLET program could be particularly helpful by requiring long term, affordable leases for legacies in its projects as a condition of or in exchange for abatements. It could also work with local developers interested in organizing retail condos or joint acquisitions of existing buildings, perhaps as part of larger multi-property projects that spend limited amounts on the retail property (to preserve affordability) but still meet the requirements to double the value of the total property by concentrating new investment in the non-retail portion. The Corbett is an example of how this could be done. The intent here is not to suggest a change to the Corbett plan, but to suggest what might be done in other locations with similar conditions. In the Corbett case, the existing 1 story Corbett Building on less than 10% of the lot is being refurbished, which could be used as a “legacy business building” in another setting, while the rest of the lot will eventually be used for a future hotel and multifamily housing. The required investment for GPLET will easily be achieved on the part that does not involve the Corbett Building, which given the right incentives and economics, could be dedicated to legacy business uses. A project like this could also be joined with upzoning and on- and off-site transferable development rights as a further compensatory incentive for the new investments.

7.5 Leases for Locals

There are several types of establishments that strengthen social capital, keep dollars circulating in the community, and provide needed local services that can improve the health and self-help capabilities of Tucson communities. A challenge for all of them, however, is finding affordable space. The Housing for All models discussed above could be extended to include ways that the GPLET abatements could help create and protect space for these types of establishments.

The Institute for Local Self Reliance has a helpful online Guide to Policy Tools that Expand Opportunity for Independent Businesses.⁶⁵ Examples of strategies listed there that could be merged into the GPLET program include: conditioning abatements on set-asides for local businesses in new development that require good faith efforts to lease 30 percent of the retail spaces to locally owned businesses,⁶⁶ helping support community-owned stores, requiring a finding that a majority of their sales will come from the surrounding neighborhood, requiring some portion of construction jobs go to local firms, and requiring contractors comply with responsible contracting principles promoting fair wages and benefits for GPLET assisted project.⁶⁷

⁶⁵ <https://ilsr.org/independent-business-policy-library/>

⁶⁶ <https://ilsr.org/new-action-on-commercial-affordability/>

⁶⁷ <https://www.jwj.org/wp-content/uploads/2019/07/Investing-in-Construction-Careers-July-2019.pdf>

7.6 Place-keeping

Cultural displacement is hard to track, but only because it is not done. A more robust program, perhaps led by the City's Historic Preservation staff could help. Additional professional capacity in cultural affairs and place-keeping may be needed. Funding from GPLET project revenues could be dedicated to this work. Work on documentary and oral histories, mapping districts with rich cultural diversity, and nominating and mapping legacy businesses would be a good start. Community development programming, building on current activities, could also be expanded in support of the many forms of cultural expression and place-keeping. Where newcomers are moving into these places, everyone could benefit from educational programs about the cultural histories and living folkways in the area. Efforts to bring newcomers and old timers together to build new social ties of mutual respect and overcome fears and alienation could also be important. The recommendations that could help preserve and produce affordable neighborhood housing could also reduce cultural displacement, as declines in the share of Hispanic populations in certain neighborhoods can be linked to a loss of lower cost rental housing.

GPLET projects themselves could go beyond the welcome use of murals to promote and celebrate Tucson's diversity through art, architecture, displays, or tenancies. Finding ways to foster cultural preservation and shops, homes and jobs for those already in the neighborhoods being developed could be part of a triple bottom line approach to economic development.

7.7 Urban Form

GPLET could help foster more sustainable urban form by linking its own plans for amending the CBD with the Transit Oriented Development Planning study that will be underway this year. By concentrating on housing in and around downtown, and jobs for workers in housing that already exist near future transit oriented clusters along TOD corridors, GPLET could help improve jobs-housing balance, improve access to employment for all incomes, lower the cost of commuting for lower income households, take pressure off gentrification in neighborhoods near downtown, and encourage walking and cycling as healthier commuting alternatives. This new direction should be considered in the context of the city's comprehensive plan and the regional transportation plan. A model that considers how changes in urban form would affect the carbon footprint from transportation could help find the best final approach.

7.8 Equity and Sustainability Features (onsite and offsite)

In projects that can occur without using some or all of the abatements allowed, the city has an opportunity to require or incentivize additional public benefits in exchange for additional abatements. But if few or no projects would have occurred without abatements, then the city's capacity to obtain more or

different benefits is more limited and would need to come from adjustments to development standards that do not increase project costs, or through decisions on the use of future tax revenues produced by the projects.

The priorities to seek if such opportunities are found to exist should be determined by the city, working in cooperation with affected neighborhoods and other stakeholders, keeping equity principles and sustainability in mind. One effort to set priorities for socially responsible property development started with more than 60 ideas and used a Delphi survey method to bring those surveyed into agreement on priorities.⁶⁸ In that case the panel preferred to emphasize less automobile-dependent and more energy-efficient cities where worker well-being and urban revitalization are priorities. But Tucson should set its own priorities and could then pursue those thru the GPLET program and elsewhere. It would also make sense to do this in coordination with the other incentive and permit review programs and procedures in order to increase the city's leverage, consistency, and chances of finding a good fit between the desired outcome and tools that are available to achieve them.

Investors and decision makers are increasingly seeking ways to ensure economic development investments align with goals for environmental, social, and economic performance. During the Obama administration the U.S. Economic Development Administration (EDA) funded The Triple Bottom Line Tool (TBL Tool) to support that process.⁶⁹

The TBL Tool was based on the idea that economic development investments should align with and support economic vitality, good governance, healthy people and communities, strong social fabric, natural resource stewardship, and quality built environments. Those priorities were translated into triple bottom line goals, performance areas, and metrics that can be used when assessing economic development investments.

A selected list of goals, performance areas, and measures from the TBL Tool are summarized below. They are offered to help Tucson's leaders and stakeholders think about what Tucson might want to pursue. It should be remembered that this is a national list limited by the availability of national data sets that were needed to make the tool operational. A local version of this list need not be so constrained. For

⁶⁸ Pivo, G. (2008). Responsible property investment criteria developed using the Delphi Method. *Building Research & Information*, 36(1), 20-36.

⁶⁹ This section is adapted from *The Triple Bottom Line Tool for Economic Development: User's Guide*, co-authored by this report's author and funded by the US Economic Development Administration. The full report is available [online](#). It provides much more detail that would be useful in the implementation of the recommended indicators including additional background, explanation, metrics, data sources, useful resources, and alternatives. Project case studies and other information are available at tbltool.org.

example, the list below does not mention rainwater harvesting, while Tucson might wish to encourage projects that include active rainwater harvesting to demonstrate the feasibility of, or progress toward, net-zero water buildings. Once developed, the highest priorities for equity and sustainability could be translated into local priorities for people, prosperity and planet. The TBL goals could then be assisted by the GPLET program and other city incentive and permit review activities.

Economic Vitality

- Quality Jobs
 - Relative Impact on Employment: investments with relatively large or catalytic impact on employment in the area.
 - Direct and Construction Jobs: the number created and/or retained.
 - Good wages and benefits: average wages are 120% or greater than county average; percentage of employees covered by good benefits including health insurance, retirement contribution, paid vacation, and sick time.
 - Career access and advancement opportunities: employer supported career training, hiring, and advancement programs.
- Sound Investment
 - Pro forma: whether a demonstrated need for tax abatement has been established.
 - Fiscal impact analysis: whether total fiscal costs and benefits have been calculated.
 - Consistency with economic development strategies: whether investment supports/aligns with county/regional ED strategies.
 - Support for local business purchasing: whether building owner and tenants will prioritize purchase of goods and services from businesses owned and operated in the city or county.

Natural Resource Stewardship

- Green Design and Construction
 - Green building: implementation of green standards, certifications, and practices.
 - Adaptive reuse: reuses existing structures.
 - Sustainable site design: implementation of sustainable site design standards, certifications, and practices (e.g., rainwater harvesting, heat mitigation, net zero discharge).
 - Remediation, restoration, conservation: for existing site conditions.
 - Avoidance of sensitive natural resources and hazards: avoids or mitigates impacts or exposure to flood zones, washes, views, etc.
- Green operations
 - Green energy: percentage of project energy derived from renewable energy sources.
 - Energy management: building monitored through Energy Star program.
 - Auto trip reduction: implementation of automobile trip reduction strategies (e.g., telecommuting, passes, shuttles).
 - Tenant incentives for green operation and management (e.g., reduced waste or green business certification, or green leases with protocols such as nontoxic cleaning and landscaping products).
 - Water use below industry norms: conservation leading to lower water use relative to industry norms (e.g. hotels, lessors of residential buildings and dwellings).

- Emissions lower than industry norms: practices that lead to lower toxic emissions relative to industry norms (e.g. hotels, lessors of residential buildings and dwellings).
- Industry best practices: adopt industry best environmental standards and/or certifications (e.g., American Hotel & Lodging Association, Green Seal).
- Green products and services: jobs created or retained that provide to green products and services (e.g., renewable energy, energy and water conservation, stormwater management, public environmental education; see BLS, [Measuring Green Jobs](#)).

Community Well-being

- Place-making and accessibility
 - Cultural and historic resources: project preserves, enhances, or diminishes historically or culturally significant practices, structures, facilities, or districts.
 - Public spaces: project creates, enhances, or diminishes public space.
 - Walkability: walkability of project location.
 - Transit accessibility: walkability of project location.
 - Project increases walking, biking, or transit options: projects that increase walking, biking, or transit options in the area.
 - Location in high need area: located in an area defined as distressed or severely distressed.
 - No net loss of affordable housing: where affordable housing is present, the project provides one for one replacement of units lost.
 - Housing affordability: provides affordable housing in excess of any one for one replacement.
- Governance
 - Stakeholder engagement: appropriate pre- and post-project stakeholder engagement strategy by owners and tenants.
 - Key infrastructure capacity: project does not cause exceedance of infrastructure capacities.
 - Accountability mechanisms in place: for ensuring that investments align with priorities, commitments are fulfilled, and investment dollars are accounted for (e.g., certified B Corporation established for building, incentive linked to performance on jobs or other features, or use of responsible contracting that ensure that foregone tax revenues are stewarded, and maximum value achieved).
 - Anti-poaching: considers whether jobs created are the result of avoidable losses in another jurisdiction (e.g., intra-regional HQ relocation).
 - Relocation planning and collaboration: whether temporary or permanent business relocations or closures will occur as part of the project without relocation planning with meaningful engagement of affected parties.
 - Prevention and mitigation of displacement: considers whether the cost of living or doing business in nearby neighborhoods are likely to increase as a result of the project and anti-displacement strategies are adopted following meaningful engagement with diverse residents and businesses in the area (e.g., assistance with purchasing units, affordability agreements, tax relief, counseling and skill building).