



**PHASE 1:
IMPLEMENTATION ASSESSMENT
OPPORTUNITY AUSTIN 3.0 MID-COURSE UPDATE**

Submitted by Market Street Services Inc.
www.marketstreetservices.com

June 8, 2016





TABLE OF CONTENTS

Performance Metrics and Competitive Scorecards.....	2
Performance Metrics.....	4
Economic Performance.....	10
Workforce Capacity.....	16
Innovation and Entrepreneurship.....	21
Business Climate.....	26
Quality of Place.....	30
Key Takeaways	35
Appendix 1: Data Sources and Notes.....	37
Appendix 2: Opportunity Austin 3.0 Mid-Course Assessment Partner Survey (Selected Questions)	39

Performance Metrics and Competitive Scorecards

This Performance Metrics and Competitive Scorecards section presents a series of tables that demonstrate how Greater Austin compares to nine other U.S. metropolitan areas with which it competes regularly for jobs, investment, and talent. Each table evaluates Greater Austin's competitiveness across dozens of indicators that help measure how the region has performed prior to and during the implementation of Opportunity Austin 3.0.

These indicators are organized into tables around key areas that seek to determine the region's relative success and ability to attract, retain, and create new jobs and investment. This section is divided into **six key areas**:

1. **Performance Metrics** – Opportunity Austin's implementation performance is measured by eight overall key indicators that best capture the region's overall economic health and wellbeing including total private employment, poverty rate, and per capita income.
2. **Economic Performance** – The economic performance scorecard highlights the general health of the regional economy, its defined target sectors, firm activity, and workforce productivity.
3. **Workforce Capacity** – Greater Austin's workforce competitiveness is primarily determined by its ability to meet regional businesses' demand for workers and its capacity to attract and retain talent.

4. **Innovation and Entrepreneurship** – In a knowledge-driven economy, capacity to produce new ideas, innovations, and businesses are predominant drivers of future economic growth. Patents, venture capital funding, and startup job growth are central to assessing innovation and entrepreneurial activity in the Greater Austin region.
5. **Business Climate** – Greater Austin's infrastructure, electricity, and tax climate are critical decision factors for relocating and expanding businesses. An adverse or favorable business climate can often be a deciding factor for choosing to locate in Greater Austin over another metro.
6. **Quality of Place** – Quality of life and place is essential to the region's ability to attract and retain residents and workers. While it is difficult to quantify the region's culture and feel, crime, walkability, livability, health outcomes, and cost of living can objectively define the average resident's quality of life.

Each of these six scorecards ranks the Austin region on a scale of 1 to 10 alongside nine other U.S. metropolitan areas:

1. Boston-Cambridge-Newton, MA-NH
2. Denver-Aurora-Lakewood, CO
3. Nashville-Davidson-Murfreesboro-Franklin, TN
4. Orlando-Kissimmee-Sanford, FL

5. Phoenix-Mesa-Scottsdale, AZ
6. Raleigh-Cary, NC
7. Salt Lake City, UT
8. San Jose-Sunnyvale-Santa Clara, CA
9. Seattle-Tacoma-Bellevue, WA

These comparison regions were selected either based on their inclusion in previous Opportunity Austin research reports, feedback from the Opportunity Austin team as to the region's top competitor metros, or similarities between their most dominant industry sectors and those of the Austin metropolitan statistical area (MSA).

All data for these regions are collected for the MSAs as delineated by the U.S. Office of Management and Budget in July 2015, unless otherwise indicated. Tables include column headings with the state and secondary city abbreviations removed for each comparison metropolitan area for ease of interpretation. **Rankings are color-coded with top performers in green, the middle of the pack in yellow and orange, and bottom performers in red. A ranking of "1" signals that a metro is the top performer** (Note: this does not mean that the indicator "value" for the top performer is lowest; for example, the metro with the lowest numerical crime rate would receive a ranking of "1").

Each table is accompanied by a **summary of key takeaways**. The actual data values for the aforementioned metro areas are shown alongside the rankings for more context for the comparisons. **Data sources are detailed in the appendix.**

As a component of the Opportunity Austin 3.0 Mid-Course Update process, **Market Street conducted extensive public input with Austin area public and private leaders.** This was comprised by multiple interviews and focus groups with regional economic development partners and top corporate investors.

Feedback from these interviews and focus groups has been incorporated throughout the Implementation Assessment report and is indicated by **BOLD BLUE FONT.**

An **online survey** was also made available to Opportunity Austin investors and selected implementation partners. The results of this online survey can be found in Appendix B of this report.

EXECUTIVE SUMMARY

In its third iteration, Opportunity Austin maintains its position as a model economic development program for chambers of commerce throughout the United States. Through its efforts, Opportunity Austin has had an outsized impact on job growth in the Greater Austin region, made significant progress in diversifying the region's economic base, and, through its ongoing policy advocacy efforts, ensured that change is systematic and sustainable now and into the future. This is not to say that improvements cannot be made, rather it highlights how far the program has come since its first iteration almost 15 years ago.

This Implementation Assessment benchmarked the Greater Austin region against nine incredibly strong peer metros it competes with for jobs and talent. Results of data analysis, combined with stakeholder interviews, focus groups, and an online survey, informed the following key takeaways highlighting key trends and issues facing Opportunity Austin 3.0 in the second half of its implementation cycle:

- **Overall rankings show that Greater Austin has maintained its position as one of the nation's top performing metropolitan areas.** Across six key areas that measure Greater Austin's economic performance, workforce capacity, innovation and entrepreneurship, business climate, quality of place, and overall performance, the Austin region finished at or near the top of the rankings.
- **Greater Austin's private sector employment growth outpaced all of its peers over a one- and five- year period.** From 2010 to 2015 the region added approximately 170,000

private sector jobs – a gain of 25.5 percent. Only San Jose (20.5 percent) saw five-year job growth above 20 percent. Likewise, year-over-year job growth in Greater Austin (3.7 percent) outpaced all of its peer metros – only Raleigh (3.2 percent) and San Jose (3.1 percent) experienced year-over-year growth above three percent.

- **Opportunity Austin's six target sectors have experienced considerable growth over the last five years.** Compared to its peer metros, Greater Austin ranked first in employment growth in all but three sectors: advanced manufacturing, creative and digital media, and corporate and regional headquarters. Overall, employment in Opportunity Austin's target sectors grew by 33.4 percent – adding nearly 33,000 jobs to the regional economy since 2010.
- **Greater Austin is making strides in its efforts to slow the rise of poverty.** While the region's total and youth poverty rates still rank among the top third of comparison geographies, poverty in both categories rose slower than all but two competitor metros in the previous five-year period.
- **Transportation is a key competitive concern for the Greater Austin region.** Public input participants frequently cited Greater Austin's growing congestion as undermining business competitiveness and diminishing the region's quality of life. Various data measuring congestion and commute time substantiate stakeholder concern. As was highlighted by stakeholders during public input, addressing Greater Austin's

transportation challenges will require public and private consensus around both short- and long-term solutions.

- **Greater Austin’s population growth over the last five years is the fastest among its competitor metros.** Over a five-year period (2010–2015), the Greater Austin region added roughly 270,000 new residents. Domestic and international migration continues to be a driving force propelling growth in Greater Austin. From 2010 to 2015, the region attracted nearly 200,000 net domestic and international migrants.
- **Despite Greater Austin’s ability to attract and retain talent, work shortages in particular skills sets are a persistent challenge.** While the Austin Chamber’s partnership with the education community is cited as a model to follow, stakeholders noted that the Chamber’s approach to workforce development may be due for adjustment.
- **Entrepreneurship is thriving in the Greater Austin region.** Whether it is academic spending on research and development or the percentage of Greater Austin area workers who were self-employed, the regional innovation and entrepreneurship ecosystem ranked favorably against many of its peer metros. As new startups continue to fuel growth, Opportunity Austin has the potential to elevate its visibility and continue to expand its ecosystem through investments in South by South West Interactive, Innovate Austin, and Austin A-initiatives.
- **Opportunity Austin, the Austin Chamber, and the regional business community face a challenging political landscape**

in the city of Austin. While many feel that the shift demands the business community’s voice grow louder, others feel outreach and advocacy efforts must be more nuanced, inclusive and acknowledge that there is a “new day” for economic development within the city of Austin.

The Opportunity Austin program continues to be a key contributor to regional growth and prosperity. As the 3.0 initiative moves towards the second half of its implementation, challenges to the region’s transportation systems, cost structures, and business climate remain the metro area’s priority concerns. Though the perspectives of regional leaders and Opportunity Austin investors sometimes differ in terms of the degree to which business should drive regional conversations on these issues, there is clear consensus that the Opportunity Austin program should continue its aggressive pursuit of high-value job development and workforce training.

The second phase of this Mid-Course Update will recalibrate Opportunity Austin 3.0 strategies and tactics based on changes made to the program since its launch as well as identify new opportunities and challenges that have arisen during this time.

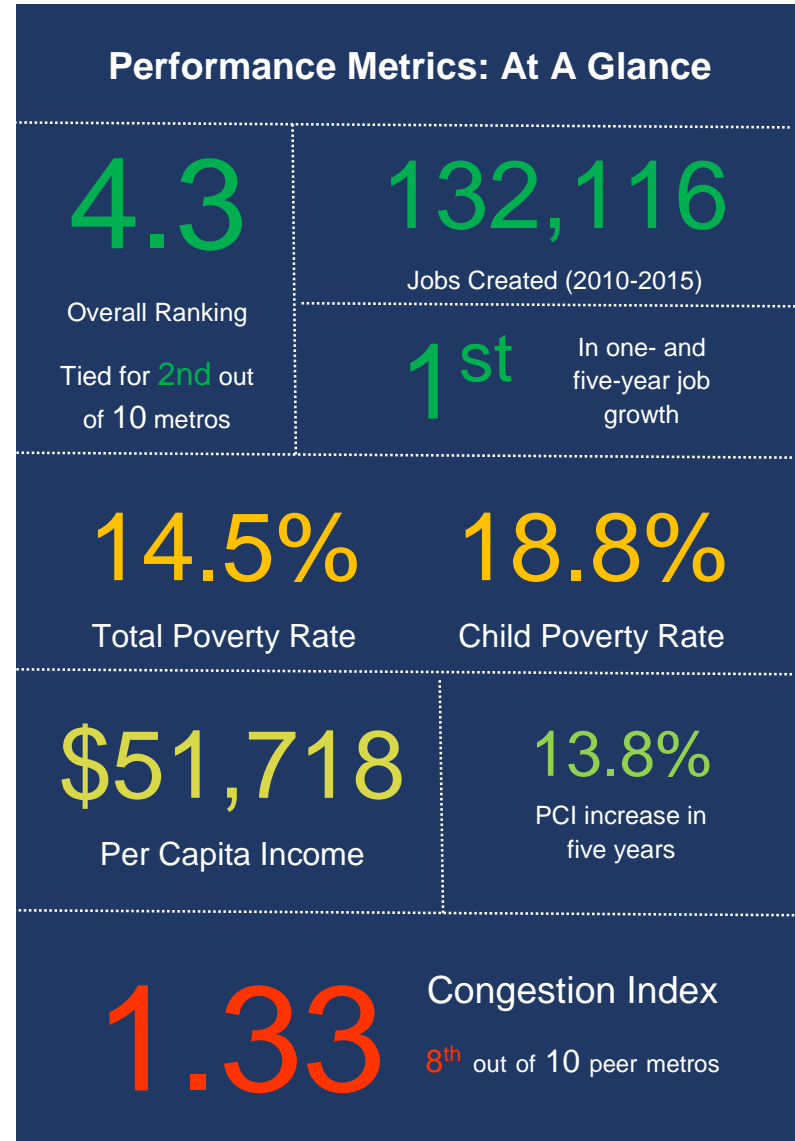
PERFORMANCE METRICS

At the conclusion of Opportunity Austin 3.0, business and community stakeholders determined that implementation progress would be best measured by focusing on **eight key indicators** central to Greater Austin's economic health and overall wellbeing. These eight indicators include: total private employment, average annual wages, per capita income, total and child poverty rates, educational attainment, percent of commuters who drive alone to work, and the Texas Transportation Institute's Travel Time Index.

Opportunity Austin since its inception in 2004 has had an enormous impact on job creation and the overall diversification of Greater Austin's economy. In fact, it has been the top performing regional economy in the nation during this time and **ranked first among its ten comparison metros for job growth in the previous five-year period**. The continuing strength of the Austin MSA is demonstrated by its overall rating of 4.3 in these eight key measures, a ranking that **tied it for second** among this list of top-performing U.S. metros.

Also indicative of this evolution is Opportunity Austin's business retention and expansion program. In Opportunity Austin 1.0, a key stakeholder concern was the absence of a comprehensive, regional business retention and expansion (BRE) program. By 2015, Opportunity Austin 3.0 executed 414 BRE executive surveys and was directly involved in the creation or retention of nearly 5,000 jobs through its BRE activities.

Certain stakeholders are concerned that adverse impacts from this very success like increases in traffic congestion and housing cost



have diminished the urgency for the Opportunity Austin program and have led many public sector and some private sector officials to question the need for continuing levels of economic development investment. One OA investor noted, “I’ve heard more people questioning Austin’s future recently than in the last five to seven years combined because of traffic and housing issues... We are at a crossroads on the business side that we have to be careful of.” Another investor acknowledged, “We’re at a day of reckoning” in terms of the program’s future. Still another said there are “two camps” in Austin: active, invested, pleased OA investors and “those who feel we’re over our heads as a region in accommodating growth.”

Data show that Greater Austin has unquestionably enjoyed strong private sector employment growth over a one- and five-year period. Between 2010 and 2015, the region added approximately 170,000 private sector jobs. **In percentage point terms, Greater Austin’s private sector job growth (25.5 percent) outpaced all nine of its peer metros.** San Jose (20.5 percent) was the only other metro to achieve a five-year private sector employment growth rate in excess of 20 percent.

One-year private sector job growth in Greater Austin is equally notable. From 2014 to 2015, the regional economy added nearly 30,000 private sector jobs, a gain of 3.7 percent. **Only two other peer metros experienced a year-over-year private sector employment growth rate above 3 percent:** Raleigh (3.2 percent) and San Jose (3.1 percent).

Despite past trends, such robust job growth numbers are difficult to sustain. Between 2015 and 2020, EMSI projects that Greater Austin

will only add 132,116 jobs, an increase of 15.8 percent. Although employment growth in the region is expected to cool, **Greater Austin is still projected to outperform all of its peer metros if anticipated trends are realized.**

The rapid expansion of opportunity in the Greater Austin region has elevated standards of living for the region’s residents. From 2009 to 2014, per capita incomes (PCI) – a common measure of living standards – rose by 20.9 percent trailing only San Jose (34.3 percent). Despite strong five-year growth, Greater Austin’s per capita income has only moved from “below average” to “average” compared to its peer metros. In 2009, Greater Austin’s per capita income (\$38,904) ranked 7th among its nine peer metros. By 2014, Greater Austin’s PCI stood at \$47,026 – a 6th place ranking. Greater Austin’s average annual wage trends follow a similar pattern; growth outperformed while overall levels still remain average compared to its peer metros.

Partially because of the job mix of metro Austin’s growth with large numbers of service-sector jobs created, some of the region’s residents have not seen their incomes rise in recent years. **In 2014, approximately 14.5 percent of all Greater Austin residents lived at or below the poverty line – the fourth highest percentage among Austin’s peer metros.**

For the first time, Opportunity Austin has committed to tracking poverty rates to assess its implementation performance. In its 2015 Annual Report, Opportunity Austin’s Chair’s stated “A stronger economy isn’t meaningful if many of our friends and neighbors are left behind.” Data show that the region is making strong headway in stabilizing and potentially reducing future poverty rates. **From 2009 to 2014, the**

region's total poverty rate increased by just 0.8 percentage points – the third lowest rate amongst its peers.

Without question, Greater Austin's transportation systems remain burdened by an insufficient plan, lack of investment, and the continued pressure of population growth. Data confirm what stakeholders know from experience: metro Austin's traffic is a major challenge. In fact, **public input respondents nearly universally confirmed that work to ease traffic congestion should be Opportunity Austin's most aggressive future initiative. When asked "what should be the highest priority strategy for the final two-plus years of Opportunity Austin 3.0 implementation?" more than half of investors and OA 3.0 stakeholders identified transportation and mobility as their top issue.**

Despite concerns about traffic congestion, input participants acknowledged that Opportunity Austin is operating in a challenging political climate, citing the recent failure of the rail/road referendum, a tightening budget environment in state government, and long-term time horizons for new capacity development. Stakeholders felt that addressing Greater Austin's transportation challenges will likely require an "all of the above" approach inclusive of multiple interconnected strategies.

Dependence on automobile transportation and an absence of alternative commuting options are contributors to increasing traffic congestion. In 2014, approximately 76.6 percent of Greater Austin commuters drove alone to work according to data from the

United States Census Bureau. A much lower percentage of commuters drove alone to work in Boston (67.7 percent) and Seattle (69.0 percent), metropolitan areas that both possess robust transit infrastructure.

Since 2010, Greater Austin's travel time index – the ratio of travel time during the peak period to the time required to make the same trip at free-flow speeds – has increased from 1.28 to 1.33 in 2014.

During peak hours, it takes approximately 40 minutes to complete a trip that would normally take 30 minutes during free-flow speeds in Greater Austin. Renewed cooperation between the state, Texas Department of Transportation (TxDOT), and the city of Austin is an optimistic sign that the region can collaboratively alleviate traffic congestion. The potential upcoming mobility bond referendum, if successfully passed, could also provide much needed funding for traffic flow improvements.

Overall, however, OA 3.0 investors are satisfied with Opportunity Austin's return on investment. One business leader noted in input, "I don't know any investor who thinks their money has not been effectively used." Approximately 80.6 percent of OA investors stated that they were satisfied with the return on investment of their Opportunity Austin contribution. As one investor stated "Cannot imagine where we'd be if we hadn't embarked on OA so many years ago."

Performance Metrics

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
Employment Change										
1-Yr. Private Sector Employment Change (2014-2015)	3.7%	1.7%	2.9%	2.8%	2.9%	2.6%	3.2%	2.6%	3.1%	2.2%
Rank	1	10	5	6	4	7	2	8	3	9
5-Yr. Private Sector Employment Change (2010-2015)	25.5%	9.1%	16.5%	17.8%	16.6%	14.9%	17.9%	13.3%	20.5%	13.6%
Rank	1	10	6	4	5	7	3	9	2	8
Income and Poverty										
Average Annual Wage (2015)	\$51,718	\$65,275	\$55,300	\$47,195	\$40,820	\$46,718	\$47,089	\$46,391	\$97,422	\$60,920
Rank	5	2	4	6	10	8	7	9	1	3
5-Yr. Change (2010-2015)	13.8%	13.8%	12.5%	13.3%	9.3%	8.2%	11.1%	11.6%	23.6%	16.3%
Rank	3	4	6	5	9	10	8	7	1	2
Per Capita Income (2014)	\$47,026	\$64,311	\$53,983	\$47,392	\$37,104	\$39,846	\$46,636	\$41,940	\$73,887	\$58,205
Rank	6	2	4	5	10	9	7	8	1	3
5-Yr. Change (2009-2014)	20.9%	17.1%	17.6%	19.3%	12.1%	11.2%	10.3%	15.1%	34.3%	19.0%
Rank	2	6	5	3	8	9	10	7	1	4
Total Poverty Rate (2014)	14.5%	10.7%	10.9%	15.0%	16.5%	17.1%	12.3%	11.7%	8.7%	11.4%
Rank	7	2	3	8	9	10	6	5	1	4
5-Yr. PCT Change (2009-2014)	0.8%	1.3%	-0.9%	1.4%	3.1%	2.2%	0.8%	1.2%	-0.5%	1.0%
Rank	3	7	1	8	10	9	4	6	2	5
Child Poverty Rate (2014)	18.8%	13.5%	14.8%	21.0%	23.7%	24.4%	15.8%	14.8%	9.6%	14.4%
Rank	7	2	5	8	9	10	6	4	1	3
5-Yr. Change (2009-2014)	0.7%	2.2%	-1.7%	2.0%	4.4%	2.9%	1.5%	1.9%	-1.9%	1.8%
Rank	3	8	2	7	10	9	4	6	1	5
Educational Attainment										
5-Yr. BA or Higher PCT Change (2009-2014)	2.8%	3.0%	3.2%	1.1%	2.1%	1.7%	1.2%	1.6%	4.2%	2.0%
Rank	4	3	2	10	5	7	9	8	1	6
Transportation										
% of Commuters Who Drive Alone (2014)	76.6%	67.6%	76.3%	81.7%	79.8%	77.0%	80.0%	74.9%	76.2%	69.0%
Rank	6	1	5	10	8	7	9	3	4	2
Congestion Index (2014)	1.33	1.29	1.3	1.21	1.21	1.27	1.17	1.18	1.38	1.38
Rank	8	6	7	3	3	5	1	2	9	9
Average Rank	4.3	5.1	4.3	6.4	7.5	8.3	5.8	6.1	2.3	5.0

ECONOMIC PERFORMANCE

As one of its key goals, Opportunity Austin 3.0 continues to drive economic diversification and growth of Greater Austin. By focusing on high-value sectors, Opportunity Austin enhances the economic base of the region, promoting ripple effects that lead to further job creation and investment in supporting sectors such as retail. **Stakeholders unanimously highlighted Opportunity Austin’s business retention, expansion, and attraction practices as a core strength of the Opportunity Austin program. OA 3.0’s high priority recommendation “focus targeted attraction efforts on Greater Austin’s highest-value domestic markets” was rated the highest in terms of the effectiveness of its implementation by OA 3.0 investors and stakeholders.**

By almost all accounts, **the health of Opportunity Austin’s target sectors is strong, although wage growth remains a challenge.** This is despite the fact that most international strategies proposed in Opportunity Austin 3.0 were not pursued due to financial constraints. Instead, Opportunity Austin has identified certain regions of the world it views as having the highest value and has sought to develop symbiotic business relationships with foreign companies and dignitaries traveling to the Greater Austin region. Moreover, certain business attraction activities, such as utilizing Greater Austin’s Formula One U.S. Grand Prix for inbound marketing opportunities, has proven not to result in increased prospect activity. Implementation of Opportunity Austin continues to evolve and adjust, ensuring that the program focuses its resources on activities that yield maximum value.



Opportunity Austin's business retention and expansion practices are also adjusting to change. Austin's City Council philosophical composition has recently shifted with more emphasis on worker rights and economic equity at the expense of the provision of incentives and other pro-business policies. **While elected officials feel these policies are justified in the face of increased resident displacement and a growing local earnings gap, most private sector leaders and elected officials outside the Austin Council feel that the new policy environment promotes an anti-growth climate in the city and is harmful to the region's future prospects. Leaders are concerned that Council recalcitrance will jeopardize prospects for Interstate-35 expansion and growth of a proposed innovation district associated with the new Dell Medical School.**

Input respondents fear that perception of Austin as "anti-business" will adversely influence companies' location decisions, leading to businesses seeking alternative locations outside of the region. To retain businesses potentially driven from the city of Austin's core, regional economic development partners have established a strong protocol to direct firms considering leaving the region to other attractive locations in the Greater Austin area as envisioned by Opportunity Austin 3.0.

Opportunity Austin also continues to make inroads into Greater Austin's technology economy. The Greater Austin Technology Partnership has since evolved into Innovate Austin – an initiative that is focused on making Greater Austin a competitive location to start and grow a technology and innovation based business. Innovate Austin focuses its efforts on four key areas to drive Greater Austin's technology

economy forward: talent, capital, innovation ecosystem, and ensuring that Austin's Dell Medical School and innovation district reaches its full potential. **Opportunity Austin investors were complimentary of the progress that has been made incorporating technology leaders more into the framework of the initiative, though were discouraged by ongoing challenges soliciting contributions from technology companies for the program. Many feel that the best way for Opportunity Austin to be sustainable is to source greater investments from not only technology companies but also major regional corporations that have long been on the sidelines of the initiative.**

Opportunity Austin's six target sectors have enjoyed considerable growth over the last five years. Compared to its peer metros, Greater Austin ranked first in employment growth in all but three sectors. Growth in Greater Austin's advanced manufacturing (20.0 percent) target was outpaced by Nashville (24.5 percent) and Raleigh (23.3 percent). San Jose likewise continues to be a market leader in creative and digital media; however, Greater Austin's creative and digital media growth only missed the top ranking by four-tenths of a percentage point. **Overall, employment within Opportunity Austin's target sectors grew by 33.4 percent – adding nearly 33,000 jobs to the regional economy since 2010.**

As its target sectors grow, Opportunity Austin continues to look for new opportunities in cutting-edge sectors that have the potential to propel future regional economic growth. Space Technology, a target inclusive of the growing privatization of space exploration and commercial activities, was recently added as an Opportunity Austin target sector.

Given the size of Greater Austin's Space Technology sector, it is an aspirational target for the region but could lead to future growth as the sector matures regionally. According to NewSpace Global – a consortium of space industry researchers – Greater Austin represents only a small fraction of the nation's space technology companies, revenues, and employees. Competing with the nation's top Space Technology hubs such as Los Angeles, Washington DC, Denver, and Houston will require considerable asset-building in the Austin region.

While employment in Opportunity Austin's target sectors has risen significantly over the last five years, wage growth has trailed behind many of Greater Austin's peer metros. From 2010 to 2015, average annual wages for Greater Austin's target sectors increased by 13.1 percent or 0.7 percentage point below Greater Austin's wage growth for all sectors. Compared to its peer metros, average annual wage growth for Greater Austin's target sectors outperformed only three other metro areas. San Jose (29.5 percent), Boston (18.8 percent), Seattle (20.3 percent), Salt Lake City (15.7 percent), Raleigh (14.9 percent), and Orlando (13.4 percent) witnessed higher target sector wage growth and far outpaced average annual wage growth for all sectors of their respective economies.

Slower wage growth within Opportunity Austin's target sectors is notable given Greater Austin's notoriously tight labor market. **In February 2016, Greater Austin's unemployment rate stood at just 3.2 percent – only Denver (2.8 percent) possessed a lower unemployment rate.** One would expect that lower unemployment would lead to rising wages, particularly among Greater Austin's most competitive business sectors. **The occupational composition of**

Greater Austin's target sectors (i.e. the types of jobs employed within the target sector) partially explains why wages have underperformed relative to its peers. Greater Austin's target sectors employ more customer service representatives, general office clerks, and lower skilled technology occupations, such as computer support specialists, than the national average. Moreover, highly skilled occupations within Greater Austin's target sectors typically earn less than their respective national medians. For instance, Greater Austin's systems software developers, who earned a wage at the median, earned \$2.57 per hour less than their national counterparts. In fact, of the top 20 occupations employed in Greater Austin's target sectors, only five earned above their respective national medians. This trend could lead to talent-attraction challenges for key occupations in the future for metro Austin companies.

Wage trends were substantiated by stakeholder input. Stakeholders noted that Greater Austin lacks middle career professional employment opportunities. Without a sufficient number of middle management opportunities, Greater Austin's employment was seen to be either at the high or low end of the skill spectrum. The scarcity of middle career professional employment could be alleviated through the attraction of headquarters and other major corporate operations. Opportunity Austin's advocacy efforts to expand company eligibility under the Texas Development Act, Chapter 313 and its support of the Texas Enterprise Fund have the potential to enhance the region's attractiveness to relocating corporate operations.

Export production similarly underperformed slightly relative to Greater Austin's peer metros. In 2013, each worker within the Greater

Austin area produced \$116,486 in export value on average, according to EMSI. While Greater Austin ranked sixth overall, it is important to note that the difference between second and sixth place was relatively small. With the exception of San Jose (\$208,412 export value generated per worker), the Greater Austin region was only \$13,442 away from a second place ranking. When multiplied, the Greater Austin region would need to produce approximately \$12.6 billion more in exports to obtain the same level of export productivity as the second ranked Seattle region.

Renewing efforts to increase the region's export capacity could serve to expand the region's economic base, improve overall output, and

promote continued job growth within Greater Austin's existing business community.

Economic Performance

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
Target Sector Performance										
5-Yr. % Change Advanced MFG Emp. (2010-2015)	20.0%	0.1%	10.3%	24.5%	7.8%	7.6%	23.3%	6.4%	4.3%	12.8%
Rank	3	10	5	1	6	7	2	8	9	4
5-Yr. % Change Creative & Digital Media Emp. (2010-2105)	45.5%	19.0%	21.3%	20.4%	2.8%	30.0%	22.4%	18.7%	45.9%	15.1%
Rank	2	7	5	6	10	3	4	8	1	9
5-Yr. % Change Clean Tech Emp. (2010-2015)	38.3%	14.1%	28.1%	25.0%	14.0%	9.9%	34.8%	20.2%	20.2%	16.3%
Rank	1	8	3	4	9	10	2	6	5	7
5-Yr. % Change Life Sciences Emp. (2010-2015)	60.4%	17.6%	31.1%	38.0%	4.5%	29.5%	44.9%	18.7%	28.6%	14.6%
Rank	1	8	4	3	10	5	2	7	6	9
5-Yr. % Change Data Management (2010-2015)	51.5%	17.3%	16.6%	24.4%	2.7%	29.2%	32.9%	23.5%	46.4%	14.4%
Rank	1	7	8	5	10	4	3	6	2	9
5-Yr. % Change Corp./HQ/Reg. Emp. (2010-2015)	9.9%	13.4%	26.4%	66.6%	27.6%	26.9%	9.8%	9.0%	27.6%	30.1%
Rank	8	7	6	1	3	5	9	10	4	2
5-Yr. Change All Target Sectors (2010-2015)	33.4%	9.1%	16.6%	27.0%	8.0%	16.1%	24.3%	11.2%	22.2%	14.3%
Rank	1	9	5	2	10	6	3	8	4	7
Average Annual Wage (All Target Sectors) (2015)	\$93,370	\$114,315	\$97,591	\$69,550	\$70,635	\$76,043	\$85,189	\$69,022	\$190,836	\$107,552
Rank	5	2	4	9	8	7	6	10	1	3
5 Yr. Change (2015)	13.1%	18.8%	12.7%	12.2%	13.4%	11.6%	14.9%	15.7%	29.5%	20.3%
Rank	7	3	8	9	6	10	5	4	1	2
Unemployment										
Unemployment Rate (February 2016)	3.2%	4.0%	2.8%	4.1%	4.5%	4.8%	4.6%	3.2%	3.9%	5.3%
Rank	2	5	1	6	7	9	8	3	4	10
Peak Recession Unemployment (Varies)	7.6%	8.1%	8.8%	10.1%	11.2%	10.5%	9.4%	7.9%	11.4%	9.9%
Rank	1	3	4	7	9	8	5	2	10	6
Establishments										
5-Yr. Establishment % Change (2009-2014)	19.8%	8.0%	4.7%	14.0%	7.2%	-0.8%	6.0%	1.8%	8.6%	10.4%
Rank	1	5	8	2	6	10	7	9	4	3
Average Rank	3.6	6.1	5.6	4.9	7.8	7.2	4.6	6.8	3.3	4.8

Economic Performance (Cont.)

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
Output and Productivity (Cont.)										
Gross Metropolitan Product Per Worker (2014)	\$118,107	\$137,819	\$126,808	\$112,121	\$99,101	\$106,763	\$118,339	\$108,124	\$195,801	\$148,379
Rank	6	3	4	7	10	9	5	8	1	2
5 Yr. GMP Change Per Worker (2009-2014)	37.7%	32.5%	32.4%	37.6%	20.3%	26.4%	40.3%	35.7%	47.6%	44.0%
Rank	4	7	8	5	10	9	3	6	1	2
Total Exports, \$ Millions (2013)*	\$109,215	\$328,338	\$158,420	\$115,865	\$87,269	\$192,898	\$73,255	\$74,904	\$219,704	\$256,469
Rank	7	1	5	6	8	4	10	9	3	2
Value of Exports per Worker (2013 export/pop.)	\$116,486	\$120,619	\$111,462	\$126,094	\$77,462	\$97,917	\$125,176	\$109,421	\$208,412	\$129,928
Rank	6	5	7	3	10	9	4	8	1	2
Exports as a % of supply (2013)**	56.0%	51.0%	50.0%	60.0%	50.0%	50.0%	63.0%	56.0%	67.0%	53.0%
Rank	4	7	8	3	8	8	2	4	1	6
Best Performing Cities Ranking (2015)	4	51	16	18	28	62	6	11	1	7
Rank	2	9	6	7	8	10	3	5	1	4
1 Yr. Ranking Change (2014-2015)	-2	-7	-4	-3	28	3	-1	-5	3	4
Rank	6	10	8	7	1	3	5	9	3	2
Average Rank	3.6	6.1	5.6	4.9	7.8	7.2	4.6	6.8	3.3	4.8

*For the metros examined, export data captures to all goods and services leaving the region—both domestic and international export.

**Exports as a percentage of supply shows the amount of total export sales as a percent of total sales.

WORKFORCE CAPACITY

Greater Austin’s capability to attract and retain talent remains its core strength. Even as young professionals continue to flock to the region, attracted by the quality of life and opportunities it offers, shortages in certain skill sets have proven persistent throughout Opportunity Austin’s evolution. **Leaders speak of a “skills mismatch,” citing the availability of 38,000 vacant jobs and 40,000 unemployed adults.** In response, Opportunity Austin has used advanced metrics to link open positions to the available workforce with applicable degrees and used the delta between the two as a leverage point to inform its college-readiness initiative. The program’s direct-to-college achievement plan (DTC70) – a partnership with private employers, local chambers, and Austin area ISDs – is committed to 70 percent of Austin area seniors pursuing a college degree post-graduation. To ensure the initiative’s success, Opportunity Austin has established an extensive information technology backbone and developed a strong network of high school counselors that keep students well-informed of key Free Application for Federal Student Aid (FAFSA) deadlines. Financial Aid Saturdays, a long-time stalwart of the Opportunity Austin program, continues to utilize business volunteers to assist students and families with filling out the FAFSA form.

Opportunity Austin investors were pleased with the performance of the initiative’s talent development efforts, feeling it is one of the “strongest programs we have.” The Austin Chamber’s partnership with the education community was cited as a model to follow with the Austin City Council and regional tech community. Even so, one



leader noted that “we’ve been running many of the same plays for years. Maybe we need some different plays.”

In terms of post-secondary and adult education, Opportunity Austin supported Texas State University’s successful facilities request with the legislature leading to new health sciences and computer science instructional facilities at the institution’s campuses. Opportunity Austin has also sought to leverage Fort Hood as a source for skilled talent. In 2015, the program hosted a job fair that involved 62 Greater Austin companies and more than 700 soldiers and their spouses.

Given the sheer length of time it takes to align higher education resources, Greater Austin’s talent shortages will likely be a persistent challenge. **Stakeholders and Opportunity 3.0 investors felt, however, that addressing the region’s long-standing workforce shortages in key skill sets should continue to be a priority. Improving connections to Austin Community College, continuing to focus investments in Texas State University, and improving the interface between technology companies and local higher education institutions were all seen as high value priorities.**

Greater Austin’s workforce capacity continues to be strongly bolstered through talent in-migration. From 2010 to 2015, the United States Census Bureau estimates that nearly 200,000 migrated to Greater Austin. As a percentage of total population, these **migrants represented approximately 10 percent of Greater Austin’s total population – the highest of all comparison communities.**

Net migration as well as natural population change support overall population growth in Greater Austin. Between 2010 and 2015, the

region added approximately 270,000 new residents, an increase of 15.8 percent. Only three other peer metros attained a growth rate above 10 percent over the five-year period: Denver (10.2 percent), Orlando (11.6 percent), and Raleigh (12.0 percent).

Along with population growth, key elements of Greater Austin’s demographic composition further enhance its competitiveness.

Only 40 percent of Greater Austin’s workforce employed within its target sectors were aged 45 and over – approximately 8 percentage points below the national average. Only Boston (40 percent) had an equally favorable advantage. Greater Austin’s overall resident population also tends to skew younger relative to its peer metros.

Greater Austin led its peer metros in 25 to 44 year old population growth – a key demographic for assessing workforce sustainability.

From 2009 to 2014, Greater Austin’s 25 to 44 year old population grew by 17.1 percent – only Denver (10.2 percent) and Orlando (10.2 percent) achieved a growth rate exceeding 10 percent. As a result of the growth, Greater Austin’s (1.4) workforce dependency ratio – the ratio of residents aged 25 to 44 compared to those aged 45 to 64 – was the second highest of its peer metros in 2014.

However, in today’s skills-based economy, workforce *quality* is as important as *quantity*. Among its peer metros, **Greater Austin (6.3 percent) possessed the lowest percentage of its adult population (aged 25 and over) with an associate’s degree.** Orlando (11.5 percent), Seattle (9.5 percent), and Phoenix (9.4 percent) led in associate’s degree attainment. Greater Austin (10.5) granted the lowest number of associate’s degrees per capita than all of its peer metros. Technical college systems in Orlando (94.7 associate’s degrees

conferred per capita), San Jose (81.0), and Salt Lake City (79.3) granted far more associate's degrees when normalized by population. More in-depth analysis – beyond the scope of this Assessment – would be required to determine if this trend is due to Greater Austin's economic mix or is a signal of a training shortcoming. It is worth noting that while 50 percent of open jobs in Greater Austin require a bachelor's degree, about 12-17 percent openings require or expect applicants to possess an associate's degree.

Greater Austin's Bachelor's degree attainment and capacity performed more favorably against its peers. In 2014, approximately 41.5 percent of Great Austin residents possessed a bachelor's degree education or higher – a higher percentage than six of the region's peer metros. Bachelor's degree attainment rates in Greater Austin are rising as well. From 2009 to 2014, the percentage of residents who possessed a Bachelor's degree education increased by 2.8 percentage points, ranking fourth among the peer metros.

Although strong migration trends are a hallmark of Greater Austin, domestic and international migrants may not be contributing to brain gain at the same level as its peer metros. In 2014, just 48.3 percent of domestic migrants moving to the Greater Austin region possessed a Bachelor's degree or higher education while half of Greater Austin's international migrants possessed similar levels of educational attainment. Compared to its peers, Bachelor's degree or higher attainment rates among Greater Austin's domestic and international migrants were average. San Jose (64.7 percent BA or higher), Boston (58.1 percent), and Raleigh (52.9 percent) witnessed a stronger influx of highly educated domestic migrants. Other peer metros including San

Jose (74.3 percent), Seattle (61.0 percent), and Salt Lake City (59.0 percent) similarly benefited from international migrants whose Bachelor's degree or higher attainment rates were well in excess of 20 percentage points compared to each metro's respective general population.

Greater Austin's higher education capacity at the Bachelor's and post-Bachelor's degree levels was also average. Higher education institutions in Greater Austin conferred approximately 89 Bachelor's and 35 graduate, professional, or doctoral degrees per resident in 2014. While increasing degree production will be important, it is also incumbent on the business community, higher education leaders, and other stakeholder groups to continue ensuring that training closely matches labor market skills demand. Given the region's strong population growth and the absence of a local serving university, local businesses and political leaders could consider pursuit of an additional degree granting institution so long as it fills shortages in high demand occupations and skill-sets including information technology, electrical engineering, and entrepreneurship. Ensuring that such a university avoids redundant capacity will be critical however.

Workforce Capacity

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
Population & Workforce Dynamics										
5-Yr. Population Change (2010-2015)	15.8%	4.6%	10.2%	9.2%	11.6%	8.8%	12.0%	7.2%	7.3%	8.3%
Rank	1	10	4	5	3	6	2	9	8	7
5-Yr. Laborforce Change (Feb 2011-Feb 2016)	15.0%	3.9%	7.2%	7.6%	9.3%	8.5%	13.5%	7.3%	10.4%	7.3%
Rank	1	10	9	6	4	5	2	8	3	7
Workforce dependency ratio (2014)	1.4	1.0	1.2	1.1	1.1	1.1	1.2	1.4	1.1	1.1
Rank	2	10	3	9	7	5	4	1	8	6
Change in Age 25-44 (2009-2014)	17.1%	3.1%	10.2%	5.9%	10.2%	4.5%	5.6%	8.8%	4.0%	7.2%
Rank	1	10	2	6	3	8	7	4	9	5
% of Workers Age 45+ in Target Sectors Only (2015)	40.0%	40.0%	47.0%	46.0%	49.0%	47.0%	45.0%	41.0%	44.0%	45.0%
Rank	1	1	8	7	10	8	5	3	4	5
Diff. from Nat. Average (2015)	-8.0%	-8.0%	-1.0%	-2.0%	1.0%	-1.0%	-3.0%	-7.0%	-4.0%	-3.0%
Rank	1	1	8	7	10	8	5	3	4	5
Regional Completions as % of Workers Age 45+ (2015)	7.6%	8.8%	6.5%	6.0%	10.1%	15.8%	6.2%	10.9%	5.2%	6.1%
Rank	5	4	6	9	3	1	7	2	10	8
Net Migration (2010-2015)	192,904	137,505	169,823	105,958	189,354	220,111	94,090	16,801	67,029	176,382
Rank	2	6	5	7	3	1	8	10	9	4
Net Migration as % of Total Population (2010-2015/2015)	9.6%	2.9%	6.0%	5.8%	7.9%	4.8%	7.4%	1.4%	3.4%	4.7%
Rank	1	9	4	5	2	6	3	10	8	7
Educational Attainment										
% of 25+ pop w/ associate's degrees (2014)	6.3%	7.4%	7.3%	7.3%	11.5%	9.4%	8.4%	8.9%	7.3%	9.5%
Rank	10	6	7	9	1	3	5	4	8	2
5 Yr. Change (2009-2014)	-0.3%	-0.4%	0.0%	1.0%	2.1%	0.3%	0.2%	0.5%	-0.6%	1.1%
Rank	8	9	7	3	1	5	6	4	10	2
% of 25+ pop w/ a bachelor's degree or higher (2014)	41.5%	45.2%	40.8%	32.1%	28.7%	29.0%	43.4%	31.3%	47.5%	39.4%
Rank	4	2	5	7	10	9	3	8	1	6
5 Yr. Change (2009-2014)	2.8%	3.0%	3.1%	1.9%	2.1%	1.7%	2.3%	1.6%	4.2%	2.0%
Rank	4	3	2	8	6	9	5	10	1	7
Average Ranking	4.5	5.5	5.6	7.0	5.3	6.6	4.6	5.4	4.9	5.5

Workforce Capacity (Cont.)

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
Educational Attainment (cont)										
Age 25-44 w/Associate's Degree (2014)	6.0%	6.6%	7.5%	7.8%	13.2%	8.7%	8.3%	9.6%	6.6%	9.9%
Rank	10	9	7	6	1	4	5	3	8	2
5 Yr. Change (2009-2014)	-0.3%	-0.4%	0.0%	1.0%	2.1%	0.3%	0.2%	0.5%	-0.6%	1.1%
Rank	8	9	7	3	1	5	6	4	10	2
Age 25-44 w/BA Degree or Higher (2014)	43.7%	54.1%	43.9%	37.8%	31.0%	29.3%	49.0%	31.2%	53.5%	43.1%
Rank	5	1	4	7	9	10	3	8	2	6
5 Yr. Change (2009-2014)	3.5%	3.5%	4.2%	1.9%	2.1%	2.6%	2.4%	2.4%	6.5%	2.8%
Rank	4	3	2	10	9	6	8	7	1	5
% of In-Migrants w/BA Degree+ (Domestic) (2014)	48.3%	58.1%	46.0%	40.4%	31.7%	36.2%	52.9%	45.8%	67.4%	43.5%
Rank	4	2	5	8	10	9	3	6	1	7
% of In-Migrants w/BA Degree+ (International) (2014)	50.0%	53.8%	57.2%	42.0%	35.5%	34.3%	54.2%	59.0%	74.3%	61.0%
Rank	7	6	4	8	9	10	5	3	1	2
Higher Education Capacity										
Associate's degrees granted per capita* (2014)	10.5	20.4	18.8	14.6	94.7	25.4	46.2	79.3	81.0	43.1
Rank	10	7	8	9	1	6	4	3	2	5
Bachelor's degrees granted per capita* (2014)	88.9	104.8	69.6	63.8	85.2	32.9	144.5	210.7	179.4	43.9
Rank	5	4	7	8	6	10	3	1	2	9
Graduate degrees granted per capita* (2014)	34.8	84.6	39.1	32.9	24.1	16.1	92.9	77.5	101.7	21.6
Rank	6	3	5	7	8	10	2	4	1	9
Graduation rate, core district (2013-2014)**	86.3%	66.7%	62.8%	78.7%	75.0%	78.8%	82.9%	70.9%	85.9%	75.5%
Rank	1	9	10	5	7	4	3	8	2	6
% of 18-24 year olds enrolled in college (2014)	48.6%	54.0%	33.7%	38.0%	45.9%	37.6%	45.8%	33.2%	57.0%	35.5%
Rank	3	2	9	6	4	7	5	10	1	8
Average Ranking	4.5	5.5	5.6	7.0	5.3	6.6	4.6	5.4	4.9	5.5

*With a 50 mile radius of the central city.

**Salt Lake graduation figures exclude Innovations High School. Phoenix figures exclude SHARP and Superstition High School.

INNOVATION AND ENTREPRENERUSHIP

After getting a late start in its efforts, Opportunity Austin’s startup and entrepreneurship activities have advanced in the 3.0 program.

The transition was undoubtedly necessary as one stakeholder noted during the Opportunity Austin 2.0 Mid-Course Review: “we languished too long in semiconductors.” Opportunity Austin 3.0 has, however, altered course to purposefully pursue a niche in working with and supporting the region’s technology and startup communities.

Innovate Austin is Opportunity Austin’s signature innovation and entrepreneurship program. The economic development initiative – which in many respects has replaced the Greater Austin Technology Partnership – is focused on developing a sustainable model for starting and growing technology and innovation based businesses in Greater Austin. Through Innovate Austin, Opportunity Austin has begun showcasing top local startups in a high-profile annual event along with taking part in outbound marketing events to attract venture capital to high-value startups and the technology ecosystem as a whole.

Though the program is still in its infancy, Opportunity Austin investors are pleased with the performance of Innovate Austin to date. However, they caution that more must be done to demonstrate the value of Opportunity Austin to local technology companies in order to secure investment from these firms in the OA program, gain their support behind major policy initiatives, and convince them to become members of the Austin Chamber.

Opportunity Austin and the Austin Chamber of Commerce have also invested significant resources to capitalize on opportunities



presented by South-by-Southwest (SXSW) attendees. Whether it is meeting with key entrepreneurs or providing meeting space for thought leaders attending the event, Opportunity Austin and the Austin Chamber of Commerce continue to pursue strategies to enhance their relevancy in the startup, innovation, and entrepreneurship space.

To increase Opportunity Austin's impact and influence, stakeholders noted a number of ideas that could improve the program's impact on technology entrepreneurship, including leveraging underutilized office space at Chamber members' office buildings to house small startup businesses, awarding cash prizes at the Austin A-List event, and establishing mentorship programs or lecture series that leverage Opportunity Austin's connection to seasoned business leaders.

Across a wide array of metrics, Greater Austin's innovation and startup ecosystem exhibited strong trends. **From innovation capacity to venture capital and small business loan originations, Greater Austin rated favorably against its peer communities.**

Innovation in the Greater Austin region is driven by a mixture of public and private entities. On the private side, while business spending on research and development in Greater Austin (\$581 per capita) was among the lowest of the region's peer metros, overall R&D spending masks the patent production capability of the region's private sector. **In 2013, the latest year figures are available, the top ten patent producing organizations were private companies, accounting for 63 percent of all patents produced in Greater Austin.** These companies represented many recognized brands such as International Business Machines (27.4 percent of all patents produced regionally),

AT&T (7.9 percent), Dell (6.4 percent), and Freescale Semiconductor, Inc. (6.3 percent) among others. During the same year, the University of Texas obtained 34 patents accounting for 1.3 percent of all patents produced regionally. **All told, Greater Austin produced 28.6 patents for every 1,000 workers; only San Jose (122.4) produced more patents per worker.**

Although the University of Texas system represented a small percentage of total patent production, Greater Austin's higher education systems are instrumental to the region's innovation ecosystem. While the Association of University Technology Managers does not disaggregate figures for the University of Texas-Austin from other system campuses, the University of Texas system unquestionably plays a vital role in the region's innovation ecosystem, especially through its pursuit of basic scientific research. In 2014 alone, the University of Texas system spent more than \$2.5 billion on academic research and development, the third highest of the peer communities. The system also spawned 27 startups, bested only by San Jose (98) and Boston (52).

Measures of entrepreneurship are also strong in Greater Austin.

According to the Milken Institute, Greater Austin's high tech gross domestic product was nearly two times (1.9) as concentrated as the average community nationwide. In comparison, only San Jose (4.4 times more concentrated) and Seattle (3.2 times) displayed higher concentrations of high tech gross domestic product relative to the national average.

Self-employment and new business creation rates in Greater Austin show that its startup culture remains a vital component of Greater Austin's overall economic growth. Greater Austin's rate of self-

employment (6.8 percent) ranked second among its peer metros while the region (91.5) led its peer metros in new business openings per 1,000 establishments.

A tightening venture capital market could impact the continued health and wellbeing of Greater Austin's startup ecosystem. Stakeholders cited the breakup of Austin Ventures as at least a temporary concern for venture capital accessibility among Greater Austin's startup businesses, but felt that long-term prospects were good as AV investors formed their own firms. Indeed, some in the region view the increase in smaller funding options as a positive, particularly for in-demand startups who no longer have a sole dominant venture capital source to pitch for investment. Others still saw the need for another VC fund to replace Austin Ventures and felt that attracting an established fund from the west or east coast could help fill the void.

Although venture capital is certainly concentrated on the nation's coasts, startups in Greater Austin were able to attract significant VC funding. In 2015, Greater Austin startups attracted nearly \$740 million in venture capital investment, or \$370 per Austin area resident. Even, so, **there remains a large gulf in venture capital accessibility between Greater Austin and the east and west coasts of the country.** Startups in the Boston metro area attracted nearly \$5.6 billion on venture capital investment (\$1,169 per metro area resident) during the same year that startups in San Jose attracted just under \$6.3 billion in investment (\$3,156 per metro area resident). Through its legislative support of the Texas Emerging Technology Fund and Innovate Austin, Opportunity

Austin is activity improving VC accessibility for startups located throughout the region.

Access to capital is particularly important since startups are a comparatively important driver for employment growth in Greater Austin. From 2003 to 2013, venture and private equity backed firms in the region added 5,466 jobs – a gain of 87.8 percent over 2003 figures. By 2013, venture and private equity backed firms employed nearly 12,000 according to the Association for Corporate Growth. Whether these employment growth figures remain sustainable in the long-term remains to be seen given the cautionary approach many venture capital firms and investors have adopted in recent years.

Innovation and Entrepreneurship

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
Innovation Capacity										
Business R&D expenditures per capita* (2012)	\$581	\$2,627	\$791	\$223	\$269	\$757	\$269	\$747	\$2,147	\$2,101
Rank	8	1	4	10	9	5	9	6	2	3
Academic R&D Expenditures, universities within 50 miles (\$M) (2014)	\$2,573	\$4,097	\$1,197	\$652	-	\$427	\$2,108	\$389	\$5,952	\$1,187
Rank	3	2	5	7	-	8	4	9	1	6
Licenses issued, universities within 50 miles (2014)	163	325	105	101	-	90	323	105	370	265
Rank	5	2	6	8	-	9	3	6	1	4
Licensing income, universities within 50 miles (in 000s) (2014)	\$52,690	\$151,086	\$7,670	\$6,213	-	\$3,377	\$51,044	\$76,515	\$223,981	\$104,767
Rank	5	2	7	8	-	9	6	4	1	3
Startups, universities within 50 miles (2014)	27	52	13	6	-	12	26	16	98	18
Rank	3	2	7	9	-	8	4	6	1	5
Patents issued to research universities within 50 miles (2014)	209	757	87	47	-	56	125	79	615	82
Rank	3	1	5	9	-	8	4	7	2	6
Patents per 1,000 jobs (2013)	28.6	20.6	7.5	2.6	3.6	7.8	23.6	8.5	122.4	22.1
Rank	2	5	8	10	9	7	3	6	1	4
High-Tech Growth and Start-Ups										
High-Tech GDP LQ (2015)	1.9	1.0	1.5	0.6	0.8	1.1	1.9	1.1	4.4	3.2
Rank	3	8	5	10	9	7	4	6	1	2
5 Yr. relative high-tech GDP growth score (2015)	123.9	112.7	95.2	90.0	89.4	104.6	105.9	103.2	132.1	112.2
Rank	2	3	8	9	10	6	5	7	1	4
New business openings per 1,000 establishments (2013)	91.5	66.1	80.3	69.4	79.5	77.4	81.5	66.4	77.3	68.5
Rank	1	10	3	7	4	5	2	9	6	8
5 yr. change in new business openings (2008-2013)	-48.4%	-43.1%	-36.7%	-50.0%	-60.1%	-56.4%	-46.0%	-59.1%	-48.0%	-35.0%
Rank	6	3	2	7	10	8	4	9	5	1
Self-Employment as a share of total employment (2015)	6.8%	6.2%	6.5%	7.0%	5.2%	6.8%	5.9%	3.9%	6.4%	6.0%
Rank	2	6	4	1	9	3	8	10	5	7
5 Yr. Change (2010-2015)	-0.2%	-0.2%	-0.6%	-0.8%	-0.3%	-0.2%	-0.4%	-0.4%	-0.6%	-0.6%
Rank	3	2	9	10	4	1	5	6	8	7
Average Rank	3.8	4.2	4.8	7.0	5.9	6.3	5.7	6.3	3.8	5.3

Innovation and Entrepreneurship (Cont.)

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
High-Tech Growth and Start-Ups (Cont.)										
% of MSA employment in firms with 9 or fewer employees (2013)	27.5%	22.1%	28.1%	25.0%	34.7%	27.6%	25.6%	25.7%	24.2%	25.1%
Rank	4	10	2	8	1	3	6	5	9	7
5 Yr. Change (2008-2013)	-1.9%	-2.2%	-1.8%	-3.0%	-3.5%	-2.3%	-4.0%	-2.5%	-1.8%	-1.9%
Rank	3	5	1	8	9	6	10	7	2	4
Average nonfarm proprietor income (2014)	\$31,410	\$42,051	\$43,486	\$59,097	\$16,783	\$26,501	\$23,714	\$33,142	\$31,321	\$39,694
Rank	6	3	2	1	10	8	9	5	7	4
5 Yr. Change (2009-2014)	35.5%	16.3%	29.2%	22.0%	-3.0%	19.8%	6.6%	30.6%	39.9%	33.8%
Rank	2	8	5	6	10	7	9	4	1	3
Start-up and Small Biz Capital										
Venture Capital Investment Per Capita (2015)	\$370	\$1,169	\$192	\$74	\$40	\$21	\$75	\$235	\$3,156	\$314
Rank	3	2	6	8	9	10	7	5	1	4
% of venture capital (VC) originating from in-state* (2015)	13.4%	27.1%	13.9%	16.8%	3.9%	8.9%	10.8%	13.6%	38.2%	9.6%
Rank	6	2	4	3	10	9	7	5	1	8
Average VC investment (in 000s) (2015)	\$7,475	\$13,041	\$10,593	\$3,314	\$10,701	\$3,998	\$4,552	\$10,992	\$16,460	\$10,654
Rank	7	2	6	10	4	9	8	3	1	5
Net new jobs created at PE/VC Backed Small Biz (2003-2013)	5,466	6,016	5,819	5,684	3,042	11,177	2,307	3,746	-543	580
Rank	5	2	3	4	7	1	8	6	10	9
% Change in jobs at PE/VC backed Small Biz (2003-2013)	87.8%	13.6%	52.7%	49.6%	87.9%	50.4%	63.3%	81.5%	-3.5%	3.6%
Rank	2	8	5	7	1	6	4	3	10	9
CRA small business loans (originations) per 1,000 establishments (2014)	783.3	591.9	755.2	619.1	630.9	834.9	659.7	579.9	738.9	563.0
Rank	2	8	3	7	6	1	5	9	4	10
Average amount of CRA small business loans (2014)	\$34,967	\$38,289	\$34,821	\$53,150	\$26,578	\$32,171	\$44,616	\$34,381	\$30,379	\$37,005
Rank	5	3	6	1	10	8	2	7	9	4
Average Rank	3.8	4.2	4.8	7.0	5.9	6.3	5.7	6.3	3.8	5.3

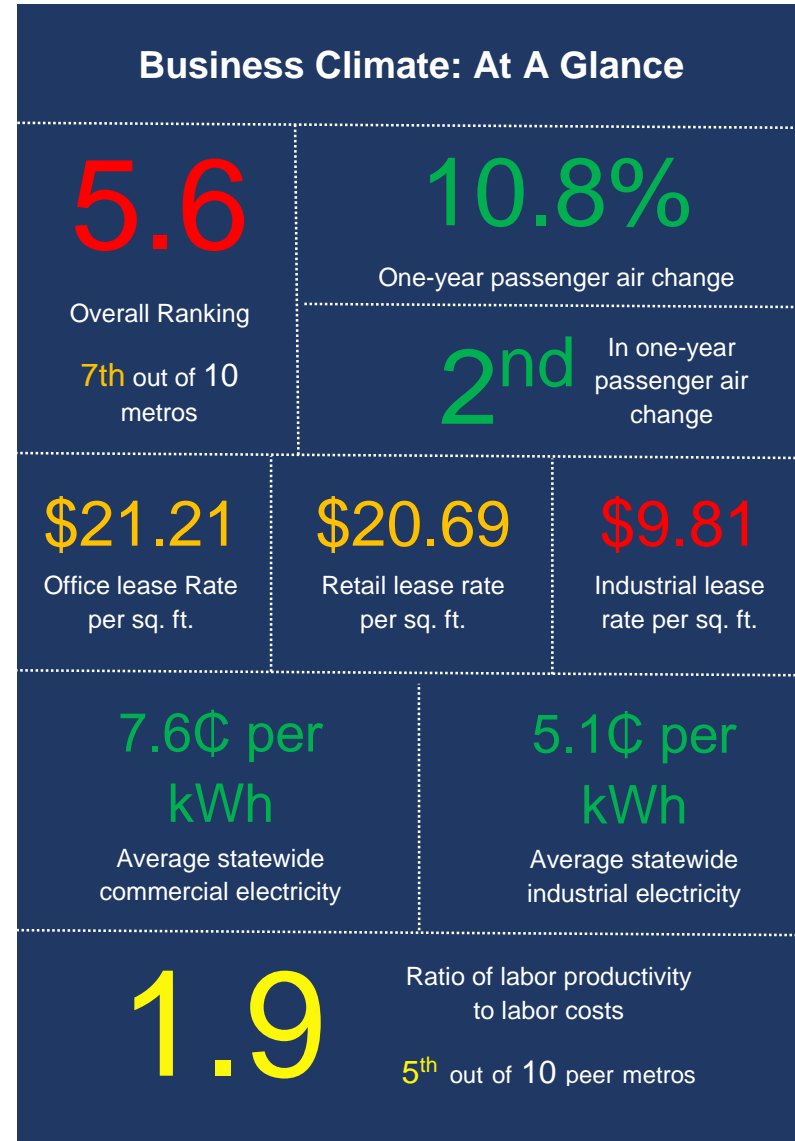
*Data is reported at the state level.

BUSINESS CLIMATE

Since launching Opportunity Austin 3.0 in 2014, the city of Austin's business climate has seen changes in the tenor of debate and support for economic development and job-creation investment. During November of that year, City Council elections shifted from at-large elections to a neighborhood district model. Two years later, it is clear that businesses and community stakeholders are still searching for the most effective path to navigate the new political waters.

The role of Opportunity Austin, the Austin Chamber, and the regional business community in the face of this changing political landscape in the city of Austin was a frequent topic of discussion among input participants. While many feel that the shift on the Austin Council demands that the business community's voice grow louder, others feel that outreach and advocacy efforts must be more nuanced, inclusive, and acknowledge that there is a "new day" for economic development in the city of Austin – less so the region as a whole. One thing that most every input participant agreed on was that the provision of incentives by the city of Austin was "dead" – at least in the short-term.

Input participants offered suggestions for navigating the changed world of Austin politics. For some, improving face to face communication between C-level executives or establishing a phone tree for key issues were seen as a way forward. Others noted that the exasperation over Austin city politics was a sign that Opportunity Austin is was too core-city focused. They argued that by taking a more regional approach to advocacy, the business



community could better strengthen Greater Austin's business climate by establishing a broader, more inclusive voice.

While the rankings in this Business Climate section should not be considered an "index" of any kind relative to national performance, Greater Austin nevertheless finished in the second tier versus its comparison metros for many of the components of Business Climate measured for this Implementation Assessment.

Certain issues should be of greater concern for Greater Austin. Among these are comparatively higher costs for office, retail, and industrial space. The Austin MSA finished near the bottom for every category. Paired with the rising cost of housing, these trends would tend to bolster the argument that cost structures across the board in the Austin region are rising faster than most other communities. From March 2015 to March 2016, Austin area costs for office (7.0 percent), industrial (6.1 percent), and retail (1.6 percent) space rose well in excess of state averages.

A contrast between data findings and the perspectives of public input participants can be found in relation to electricity costs. While data show that the Austin metro ranks near the top in commercial and industrial electricity costs, **private sector leaders are concerned that planned rate increases by Austin Energy will have destructive impacts on area business costs.** Efforts are being mobilized to ensure that Austin Energy rates are competitive in the marketplace.

A local business cost that remains a challenge for Austin Chamber members and Opportunity Austin investors is the reportedly high

cost of securing development permits in the city of Austin. This has been a concern over the entire 13 year history of the Opportunity Austin program. While the city has hired dozens of new employees in its development department, benefits are still slow to accrue in terms of improved turnaround time for acquiring permits. **Business leaders hope that what they report as truly earnest attempts by the city to finally make their permitting processes more business friendly will eventually bear fruit as new personnel and processes take hold.**

Mobility as a Quality of Place competitive factor will be addressed in the next section of this report. But it is also worth mentioning in the context of business climate because the free movement of goods and workers is a critical economic concern. The costs of congestion for individuals far exceeded those for trucks. **Greater Austin ranked second versus its peers in average truck congestion cost.** This could be a function of the smaller share of the region's employment in transportation, warehousing, and logistics sectors than many of its competitor regions.

Growth within Greater Austin's passenger air capacity is a notable win for Opportunity Austin. The Air Service Task Force, launched by the Austin Chamber to help secure additional destinations and flights to Austin-Bergstrom International Airport (ABIA), was instrumental in securing direct service to London that began in 2014. Traffic on the route has exceeded expectations. Numerous domestic nonstops have also been added. Partially as a result of these efforts, passenger departures at ABIA increased by 10.8 percent; **only Seattle (12.1 percent) experienced a larger year-over-year change.**

Business Climate

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
Transportation Capacity										
Annual Hours of Delay Per Commuter (2014)	52	64	49	45	46	51	34	37	67	63
Rank	7	9	5	3	4	6	1	2	10	8
Truck Congestion Cost (\$M) (2014)	182	426	319	285	212	692	71	267	240	645
Rank	2	8	7	6	3	10	1	5	4	9
Cong. Cost per Auto Commuter (2014)	\$1,159	\$1,388	\$1,101	\$1,168	\$1,044	\$1,201	\$734	\$1,059	\$1,422	\$1,491
Rank	5	8	4	6	2	7	1	3	9	10
Passenger Air Departure Rank (Jan 2016)	34	15	5	35	11	7	39	25	42	10
Rank	7	5	1	8	4	2	9	6	10	3
1 Yr. Passenger Air Departure Change (Jan 2015-Jan 2016)	10.8%	5.2%	1.9%	6.3%	7.7%	5.3%	6.4%	3.9%	3.9%	12.1%
Rank	2	7	10	5	3	6	4	9	8	1
Air Freight Cargo (M lbs.) (Jan 2016)	167	344	395	438	470	551	170	647	94	470
Rank	9	7	6	5	3	2	8	1	10	3
Average Airfare (2015)	\$366	\$366	\$311	\$373	\$273	\$338	\$360	\$379	\$340	\$367
Rank	6	7	2	9	1	3	5	10	4	8
Business Costs										
Commercial Electricity Costs (State Avg.) (Jan 2016)	7.6	15.4	8.44	9.78	9.58	9.59	8.58	8.19	13.73	8.29
Rank	1	10	4	8	6	7	5	2	9	3
Industrial Electricity Costs (State Avg.) (Jan 2016)	5.09	13.05	6.5	5.74	8.03	5.38	6.16	5.74	10.52	4.4
Rank	2	10	7	4	8	3	6	4	9	1
Office Costs Per Sq. Ft. (Mar 2016)	\$21.21	\$17.22	\$18.79	\$19.45	\$17.61	\$18.29	\$19.00	\$17.32	\$31.50	\$21.92
Rank	8	1	5	7	3	4	6	2	10	9
Retail Costs Per Sq. Ft. (Mar 2016)	\$20.69	\$17.50	\$17.37	\$16.81	\$16.37	\$13.54	\$16.95	\$17.21	\$31.09	\$22.50
Rank	8	7	6	3	2	1	4	5	10	9
Industrial Per Sq. Ft. (Mar 2016)	\$9.81	\$8.29	\$8.63	\$6.60	\$7.29	\$7.78	\$8.90	\$6.05	\$16.34	\$9.21
Rank	9	5	6	2	3	4	7	1	10	8
Average Rank	5.6	6.8	5.1	5.8	3.8	5.0	5.1	4.2	7.4	5.3

Business Climate (Cont.)

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
Business Costs (Cont.)										
Total Tax Index (2016)	96.2	101.2	97.8	93.8	94.4	96.2	95.1	95	NR	100.8
Rank	5	9	7	1	2	5	4	3	NR	8
Business and Jobs Outcome State Rank (2016)	33	19	3	35	41	43	45	18	23	12
Rank	6	4	1	7	8	9	10	3	5	2
Business and Jobs Policy State Rank (2016)	36	6	6	36	17	17	36	27	3	1
Rank	8	3	3	8	5	5	8	7	2	1
Ratio of labor productivity to labor costs (2014/2014)	1.9	1.7	1.8	1.7	2.0	1.9	2.1	2.0	1.7	2.1
Rank	5	8	7	10	3	6	2	4	9	1
Average Rank	5.6	6.8	5.1	5.8	3.8	5.0	5.1	4.2	7.4	5.3

QUALITY OF PLACE

Of all the components that measure a community's competitive position, quality of life and place tends to be the most difficult to define. The attractiveness of a community's quality of place often varies from individual to individual and business to business. Certain individuals or businesses may prefer a walkable urban environment whereas others may place more value on the quality of the local school system. Quality of life and place encompasses a community's suite of offerings: it is a collection of all the attributes that engender a sense of place among long-time residents, workers, and visitors alike. **Greater Austin's capacity to provide diverse offerings and amenities to regional residents and businesses is its "ace in the hole" and is recognized often by a variety of national publications.**

A key metric that can communicate a region's quality of life advantages and desirability is net migration. While individuals move for a variety of reasons, including career pursuits and to be close to family, communities with little desirability to "objective" talent typically see little to no positive net migration. **From 2010 to 2015, nearly 200,000 more new residents moved into Greater Austin than left the region. Only Phoenix (220,111 net migrants) witnessed a higher net influx of new residents.** Net migration trends support and amplify one of Greater Austin's core messages: it is a desirable place to live.

Throughout public input, stakeholders' pointed to Greater Austin's quality of life as a central component of its competitiveness. However, many also expressed concern that the elements that make the Austin region a compelling place to live are being compromised by its meteoric growth. Principally, these concerns



are fueled by increasing traffic congestion and rising costs of housing, living, and business. These impacts are seen in the number of lower income residents who are moving farther from the region's core and even outside the metro altogether.

Across a variety of land-use and traffic congestion metrics, it is clear that Greater Austin's transportation system is under stress. In 2014, approximately 17.4 percent of Greater Austin commuters experienced a one-way work commute time of 45 minutes or more. Since 2009, the percentage of residents with a 45 minute or greater commute has increased by 4.0 percentage points – only Boston (4.3 percent) and San Jose (4.6 percent) saw a larger percentage point increase in the share of their commuters reporting a lengthy one-way commute.

While the percentage of Greater Austin residents with extreme commute times is increasing, mean travel time to work does compare favorably amongst its peers. In 2014, it took Greater Austin area residents 26.5 minutes to get to work, on average. Residents of six other metro areas experienced longer commute time, including Boston where a one-way trip to work took just over a half an hour.

That said, compared to its peers, **Greater Austin suffers from a lack of capacity in alternative modes of transportation.** The average annual transit miles per capita totaled just 86.3 miles in 2014 according to Bureau of Transportation Statistics. While six other peer metros displayed more annual transit miles per capita, Denver (219.9 average annual transit miles per capita) is most comparable to Greater Austin's overall size and population density. The Denver metro area has made significant progress expanding transportation infrastructure throughout

the region with streetcar, bus, light rail, and commuter rail systems. While there will likely be no silver bullet to address Greater Austin's transportation challenges, it is worth noting smaller, less dense metro areas have been proactive in investing in transportation alternatives, including public transit.

As seen in the infographic on the final page of Appendix B, Opportunity Austin investors taking the online survey overwhelmingly believe transportation should be the initiative's top future priority. This echoes feedback from most interviewees and focus group participants. While understanding that the Austin Chamber cannot improve mobility alone – city, regional, and state governments all have critical roles to play – stakeholders nevertheless feel that Opportunity Austin could be even more aggressive in elevating congestion relief as the region's top competitive challenge. The business community's role to inform and advance a regional transportation agenda was said to be essential because local and regional planning and governmental entities have not demonstrated sufficient leadership on this issue.

Rising costs of living were second to traffic congestion as the most frequently cited competitive challenge for Greater Austin's population and economic growth. Housing and rental affordability data partially support these concerns. Median home prices in the Greater Austin region have increased by 32.9 percent – an increase of \$67,150 dollars. Even so, when factoring in the region's median earnings, **housing affordability rated favorably compared to its peer geographies.** In 2015, a Greater Austinite earning region's median income had approximately 170 percent of the income necessary to

quality for a mortgage on a median priced home (assuming a 20 percent down payment).

Greater Austin’s rental market did not rate as favorably. In 2014, 50.2 percent of renters in Greater Austin reported spending 30 percent or more of their gross income on rent – a typical measure of rental affordability. This placed the Austin MSA in the bottom tier of comparison regions, one tenth better than Boston and well below Orlando, which had over 57 percent of its renters spending an unsustainable amount on rent. Thus, **while the perception of Austin area stakeholders is that all housing costs are anti-competitive, rental housing is actually more of an immediate concern.**

Some stakeholders felt that development pressures could also impact the region’s capacity to sustain and expand recreational amenities including parks, trail systems, and other assets cherished by Austinites.

According to the Trust for Public Land, which gathers statistics on 75 of the nation’s largest central city park systems, **park acreage composed roughly 14.5 percent of the city of Austin’s total land use – ranking third amongst its peer metros. Median park size in the city of Austin also rated favorably to its peer metros.** Moreover, the city continues to expand its park and trail system; in FY2014 the city acquired more than 80 acres of parkland and invested in 12 additional staff to help maintain the city’s 211 miles of trails, according to the Austin Parks and

Recreation Department. However, higher land costs certainly could adversely impact the city of Austin’s and other regional communities’ park systems capacity to expand in the future.

It is notable that Greater Austin residents tend to self-report high purpose (25th out of 190), community (21st), and physical (38th) wellbeing, according to Gallup-Healthway’s Wellbeing Index.¹ Overall, Greater Austin achieved a Wellbeing Index composite score of 63.5, the second highest score amongst its peer metros.

Greater Austin’s wellbeing composite score was brought down by two key indicators: financial (53 out of 190), a measure of how well the respondent is able to manage their economic life, and social (56), a measure of a respondents’ supportive relationships. And while some residents of Greater Austin do report high overall wellbeing, other data show a significant percentage of the population that lives in poor or fair health.

Measures of public safety were largely positive for Greater Austin. Current rates of violent crime were lower than all but two comparison metros, though property crime rates were higher (6th). However, both violent and property crime rates fell in Greater Austin faster than all but one benchmark region in the previous five years.

¹ Gallup-Healthway’s defines Purpose Wellbeing as “liking what you do each day and being motivated to achieve your goals,” Community Wellbeing as “liking

where you live, feeling safe and having pride in your community, and Physical Wellbeing as “having good health and enough energy to get things done daily.

Quality of Place

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
Land-Use and Traffic Congestion										
Population Density per sq. mile (2015)*	474.1	1369.0	337.2	290.4	686.3	314.1	601.3	152.3	738.0	635.8
Rank	6	1	7	9	3	8	5	10	2	4
% of commuters w/ commute time > 45 minutes (2014)	17.4%	25.2%	17.2%	17.9%	16.9%	14.2%	12.2%	8.7%	16.5%	21.2%
Rank	7	10	6	8	5	3	2	1	4	9
5 Yr. Change (2009-2014)	4.0%	4.3%	0.8%	3.1%	1.7%	-0.6%	0.6%	0.4%	4.6%	3.7%
Rank	8	9	4	6	5	1	3	2	10	7
Mean travel time to work (minutes) (2014)	26.5	30.8	27.4	27	27.9	25.4	25.2	22.2	27	29.6
Rank	4	10	7	5	8	3	2	1	5	9
Average annual transit miles per resident (2014)	86.3	389.9	219.9	36.6	76.6	80.6	24.9	325.1	125.2	332.2
Rank	6	1	4	9	8	7	10	3	5	2
Congestion cost per auto commuter (fuel/delay) (2015)	\$1,159	\$1,388	\$1,101	\$1,168	\$1,044	\$1,201	\$734	\$1,059	\$1,422	\$1,491
Rank	5	8	4	6	2	7	1	3	9	10
Walk Score (Principal City) (2016)	39	81	60	28	41	40	30	56	50	73
Rank	8	1	3	10	6	7	9	4	5	2
Public Safety										
Violent crime per 100k residents (2013)	270.9	350.4	328.5	596.1	538.3	392.2	217.3	356.6	249.8	323.5
Rank	3	6	5	10	9	8	1	7	2	4
5 Yr. Change (2008-2013)	-19.3%	-10.6%	0.0%	-5.4%	-17.1%	0.3%	-19.4%	4.7%	-10.0%	-12.2%
Rank	2	5	8	7	3	9	1	10	6	4
Property crime per 100k Residents (2013)	3,173.3	1,864.0	2,745.7	2,718.1	3,405.6	NR	2,257.4	4,347.0	2,364.1	4,023.3
Rank	6	1	5	4	7	NR	2	9	3	8
5 Yr. Change (2008-2013)	-13.1%	-9.3%	3.7%	-14.6%	-7.7%	NR	-8.1%	-5.0%	3.2%	5.7%
Rank	2	3	8	1	5	NR	4	6	7	9
Affordability										
Cost of Living (2015)	96.0	144.3	109.6	95.2	98.2	95.9	90.5	96.4	-	140.3
Rank	4	9	7	2	6	3	1	5	-	8
Wage to cost of living index differential (2015)	9.5	-10.2	3.3	1.4	-14.5	-0.9	5.5	-1.8	-	-16.5
Rank	1	7	3	4	8	5	2	6	-	9
Housing affordability index (2015)	168.9	133.8	128.7	178.5	158.9	167.1	183.5	160.9	63.9	129.9
Rank	3	7	9	2	6	4	1	5	10	8
Average Ranking	4.8	4.8	4.8	6.0	5.9	4.9	4.2	4.6	4.1	5.7

Quality of Place (Cont.)

	Austin	Boston	Denver	Nashville	Orlando	Phoenix	Raleigh	Salt Lake City	San Jose	Seattle
Affordability (Cont.)										
5-Yr. % change in median home sales price (Feb 2011-Feb 2016)	32.9%	27.8%	34.3%	37.2%	149.5%	60.3%	24.6%	14.0%	40.8%	23.1%
Rank	6	7	5	4	1	2	8	10	3	9
Renters spending 30%+ of income on rent (2014)	50.2%	50.3%	49.8%	50.7%	57.2%	49.5%	49.1%	46.2%	49.3%	48.8%
Rank	7	8	6	9	10	5	3	1	4	2
Social Capital and Public Health										
Median Park Size in Acres (2015)	10.1	1.7	6.1	12.9	NR	14.4	4.4	NR	3.9	2.4
Rank	3	8	4	2	-	1	5	-	6	7
Park Land Percentage (2015)	14.5%	16.9%	7.9%	10.1%	NR	15.0%	14.2%	NR	14.3%	12.4%
Rank	3	1	8	7	-	2	5	-	4	6
Volunteer Rate (2014)	28.2%	25.3%	30.0%	25.9%	19.1%	22.5%	25.3%	37.5%	31.3%	32.5%
Rank	5	7	4	6	10	9	7	1	3	2
Livability Index (2014)	56	65	60	53	48	47	59	56	52	63
Rank	5	1	3	7	9	10	4	5	8	2
% of population under age 65 without health insurance (2014)	17.0%	4.3%	11.3%	13.5%	20.0%	15.3%	13.0%	14.9%	7.8%	9.3%
Rank	9	1	4	6	10	8	5	7	2	3
Gallup-Healthways Wellbeing Index (2015)	63.5	62.3	62.5	61.6	61.7	62.3	62.9	62	63.7	61.1
Rank	2	5	4	9	8	5	3	7	1	10
Adults reporting poor or fair health (2016)	15.1%	12.8%	12.1%	19.0%	17.6%	15.3%	14.8%	13.0%	11.2%	11.5%
Rank	7	4	3	10	9	8	6	5	1	2
Obesity rates (2016)	23.3%	23.1%	19.9%	32.1%	25.7%	22.7%	26.8%	25.3%	20.1%	25.5%
Rank	5	4	1	10	8	3	9	6	2	7
Physicians per 100k Residents (2014)	285	1007	545	534	261	246	250	326	332	416
Rank	7	1	2	3	8	10	9	6	5	4
Average Ranking	4.8	4.8	4.8	6.0	5.9	4.9	4.2	4.6	4.1	5.7

*Population density calculated using 2010 land area.

KEY TAKEAWAYS

Greater Austin continues to thrive, due in part to the holistic economic development efforts carried day-in and day-out by Opportunity Austin. Perhaps Opportunity Austin's greatest contribution to the region is the continued diversification of the Greater Austin economy. **As one stakeholder noted, the region's economic diversification was instrumental in the region's ability to withstand the severity of the Great Recession.**

At the same time, Opportunity Austin continues to ensure that college remains accessible to students throughout the region, providing a locally-grown talent pipeline for Greater Austin companies. Advocacy, the other principal Opportunity Austin program area, is challenged by a changing political climate in the city of Austin and the daunting task of correcting years of underinvestment in multi-modal transportation capacity.

This Implementation Assessment benchmarked the Greater Austin region against nine incredibly strong peer metros it competes with for jobs and talent. Results of data analysis, combined with stakeholder interviews, focus groups, and an online survey, informed the following key takeaways highlighting key trends and issues facing Opportunity Austin 3.0 in the second half of its implementation cycle:

- **Overall rankings demonstrate the Greater Austin is one of the top performing metropolitan areas in the nation.** Across the majority of indicators measured for this analysis, the Austin region finished at or near the top of the rankings.
- **Greater Austin's transportation system is burdened by growth and the absence of a clear direction for improvement.** Throughout public input, stakeholders often cited Greater Austin's increasingly congested transportation network as the region's top competitive issue. Data from the U.S. Census Bureau and the Texas Transportation Institute's congestion index support perceptions of increasing traffic, but also indicate that Greater Austin's transportation challenges are comparable to its largest peer metropolitan areas. As was highlighted by stakeholders during public input, addressing Greater Austin's transportation challenges will require public and private consensus around both short- and long-term solutions.
- **Greater Austin workforce shortages in particular skill sets are a persistent challenge.** Opportunity Austin has seen notable accomplishments program areas such as K-12 performance monitoring and support, Financial Aid Saturdays and the Direct to College 70 initiative (DTC70). The program as a whole was often cited as a national best practice. However, a mismatch between unfilled jobs and available workers continues to be a regional concern.
- **Greater Austin has maintained its position as a top destination for domestic and international migrants.** Attracted by Greater Austin's renowned quality of life and place, new residents continue to flock to the region. From 2010 to 2015, Greater Austin attracted almost 200,000 net new residents. While net migration is a core regional strength,

migration data does indicate that new migrants tend to be less educated than those in its peer metro areas.

- **Greater Austin is home to a vibrant entrepreneurship ecosystem.** Whether it is self-employment rates or employment growth among venture capital and private equity businesses, Greater Austin houses a robust innovation and entrepreneurship ecosystem. As new startups continue to fuel growth, Opportunity Austin has the potential to elevate its visibility and continue to expand its ecosystem through investments in South by South West Interactive, Innovate Austin, and Austin A-initiatives.
- **Greater Austin's economy continues to grow and diversify.** Mirroring trends in the economy at large, Opportunity Austin's target sectors have exhibited strong growth over the last five years. Combined, Opportunity Austin's target sectors added approximately 37,000 jobs to the regional economy – a gain of 33.4 percent. While Greater Austin's target sectors continue to grow, average annual wage growth (13.1 percent) within these target sectors has slightly trailed overall regional wage increases.
- **Greater Austin is making strides in its efforts to slow the rise of poverty.** While the region's total and youth poverty rates still rank among the top third of comparison geographies, poverty in both categories rose slower than all but two competitor metros in the previous five-year period.

As the vast majority of stakeholders noted, the Opportunity Austin program continues to be a key contributor to regional growth and prosperity. As the 3.0 initiative moves towards its second phase, challenges to the region's transportation systems, cost structures, and business climate remain the metro area's priority concerns. Though the perspectives of regional leaders and Opportunity Austin investors sometimes differ in terms of the degree to which business should drive regional conversations on these issues, there is clear consensus that the Opportunity Austin program should continue its aggressive pursuit of high-value job development and workforce training.

The second phase of this Mid-Course Update will recalibrate Opportunity Austin 3.0 strategies and tactics based on changes made to the program since its launch as well as new opportunities and challenges that have arisen during this time.

Appendix 1: Data Sources and Notes

Performance Metrics

- Employment change and average annual wage: Economic Modeling Specialists International (EMSI)
- Per capita income: Bureau of Economic Analysis
- Total Poverty and Child Poverty rates: Small Area Income and Poverty Estimates, U.S. Census Bureau
- Educational attainment and commuter profile: American Community Survey, U.S. Census Bureau
- Congestion Index: Texas A&M Transportation Institute

Economic Performance

- Employment by target sectors, average annual wage by target sectors, total exports, export a percentage of supply: Economic Modeling Specialists International.
- Target sector definitions provided by the Greater Austin Chamber of Commerce, definitions for each sector are as follows:
 - **Advanced Manufacturing:** manufacturing (NAICS 31-33)
 - **Clean Tech:** 211 Oil & gas extraction; 2211 Power generation & supply; 2361 Residential Building Construction; 2371 Utility system construction; 2382 Building Equipment Contractors; 3334 HVAC &

commercial refrigeration equipment; 3336 Turbine & power transmission equipment mfg; 3344 Semiconductor & electronic component mfg; 3345 Electronic instrument manufacturing; 3351 Electric lighting equipment manufacturing; 3353 Electrical equipment manufacturing; 3359 Other electrical equipment & component mfg.; 4239 Miscellaneous Durable Goods Merchant Wholesales; Urban Transit Systems; 5112 Software publishers'; 5413 Architectural & engineering services; 5415 Computer Systems Design and Related Services; 5416 Management, Scientific, and Technical Consulting Services; 5417 Scientific R&D services; 5621 Waste Collection

- **Creative & Digital Media:** 3346 Magnetic media manufacturing & reproducing; 5112 Software publishers; 5121 Motion picture & video industries; 5122 Sound recording industries; 5151 Radio & television broadcasting; 5152 Cable & other subscription programming; 5161 Internet publishing & broadcasting; 5172 Wireless telecommunications carriers; 5182 Data processing & related services; 5413 Architectural & engineering services; 5415 Computer systems design & related services; 5417 Scientific R&D services
- **Life Sciences:** 3254 Pharmaceutical & medicine manufacturing; 3345 Measuring, electro-medical, & control instruments manufacturing; 3391 Medical equip. & supplies manufacturing; 5112 Software publishers; 5182 Data processing & related services; 5415 Computer systems design & related services; 5417 Scientific R&D services; 6215 Medical & diagnostic labs

- **Corporate Headquarters & Regional Offices:** Industry-wide, management of companies and enterprises (NAICS 55) was used as a proxy
- **Data Management:** 5112 Software publishers; 5161 Internet publishing & broadcasting; 517 Telecommunications; 5182 Data processing & related services; 5413 Architectural & engineering services; 5415 Computer systems design & related services; 5417 Scientific R&D services
- Findings related to Greater Austin's Space Technology sector was obtained from NewSpace Global
- Unemployment rate and establishment change: Bureau of Labor Statistics
- Gross metropolitan product: Bureau of Economic Analysis
- Best Performing Cities Ranking: Milken Institute

Workforce Capacity

- Population growth, dependency ratio data, and migration: U.S. Census Bureau, Population Estimates
- Labor force: U.S. Bureau of Labor Statistics
- Workforce age and completion dynamics: EMSI
- High school graduation rates: State departments of labor
- Degree completions by education level from public and private non-profit institutions within 50 miles of central city: National Center for Education Statistics

- Educational attainment and percent of 18-24 year olds enrolled in college: American Community Survey, U.S. Census Bureau

Innovation and Entrepreneurship

- National Science Foundation; U.S. Patent and Trademark Office; Association of University Technology Managers; Milken Institute; Edward Lowe Foundation; EMSI; U.S. Census Bureau, Business Dynamics Statistics; U.S. Bureau of Economic Analysis; National Venture Capital Association; Association for Corporate Growth; and Federal Financial Institutions Examination Council

Business Environment

- Texas A&M Transportation Institute; U.S. Energy Information Administration; Corporate for Enterprise Development
- Metro averages of office, industrial, and retail lease rates: Loopnet
- Total tax index: KPMG

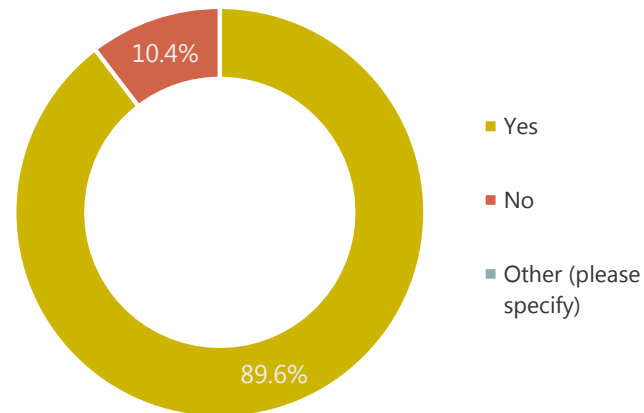
Quality of Life

- American Community Survey, U.S. Census Bureau; Texas A&M Transportation Institute; U.S. Bureau of Transportation Statistics; Walk Score; Council for Community and Economic Research (C2ER); EMSI; National Association of Realtors; CoreLogic, Inc., Moody's Analytics; U.S. Bureau of Economic Analysis; Trust for Public Land; Gallup-Healthways; County Health Rankings; Sperlings; and Federal Bureau of Investigation.

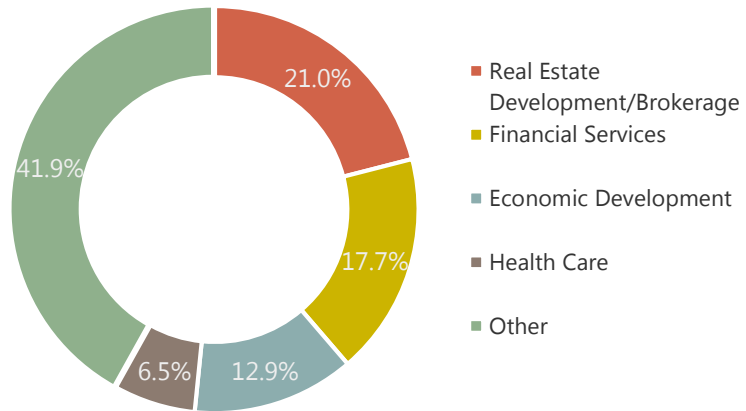
Appendix 2: Opportunity Austin 3.0 Mid-Course Assessment Partner Survey (Selected Questions)

A targeted survey was distributed to key Opportunity Austin 3.0 investors and stakeholders in May 2016. Over the course of three weeks, 77 investors and stakeholders completed the survey which covered OA 3.0 implementation and priorities for OA 3.0 post mid-course correction. While not all questions in the survey received a sufficient number of responses to make an informed conclusion, the following represents responses to mid-course survey questions.

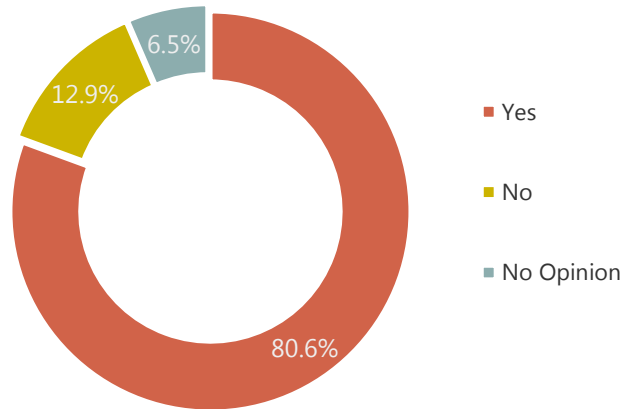
Question 1: Are you or your company/organization/government an Opportunity Austin 3.0 investor?



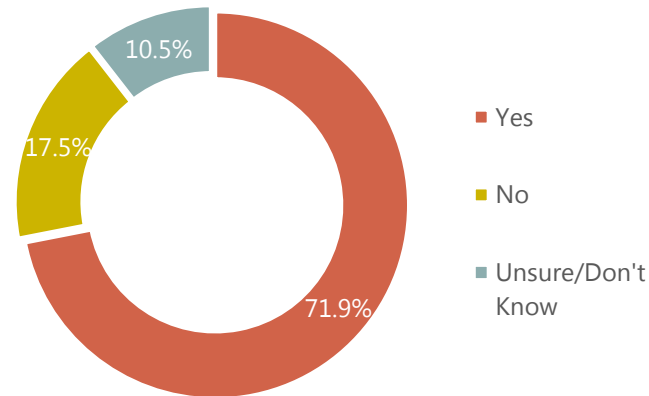
Question 2: Please select the following options related to your type of business:



Question 4: Are you satisfied with the return on investment of your Opportunity Austin contribution?



Question 5: Do you believe you are adequately informed on Opportunity Austin’s implementation news and success?*



*Figures exclude 8.1 percent of respondents who chose to leave a comment.

Question 10: The following actions were identified as the highest Opportunity Austin 3.0 implementation priorities:

- a. Leverage Greater Austin’s future medical school and teaching hospital as catalysts for development of a regional life sciences and biomedical cluster.
- b. Create a non-partisan Central Texas Transportation Alliance as a business partnership to advance mobility improvements in the region.
- c. Develop tools to formalize career-preparation pipelines in Greater Austin.
- d. Reorient Portfolio Austin (existing business program) based on Opportunity Austin 2013 target sectors.
- e. Continue the evolution of the Greater Austin Technology Partnership.
- f. Focus targeted attraction efforts on Greater Austin’s highest-value domestic markets
- g. Continue efforts to maximize the benefit of technology commercialization at the University of Texas-Austin and its partners.

- h. Ensure that Greater Austin’s business costs are supportive of continued regional growth and investment.
- i. Design a branded campaign to focus public attention on Greater Austin’s development dynamics and their positive effect on economic and quality of life issues.

Please rate the implementation of these priorities based on your perspective on their success. (1=Least Effective, 10=Most Effective)

Priorities	Average Rating
Leverage Greater Austin’s future medical school and teaching hospital as catalysts for development of a regional life sciences and biomedical cluster.	7.42
Create a non-partisan Central Texas Transportation Alliance as a business partnership to advance mobility improvements in the region.	6.16
Develop tools to formalize career-preparation pipelines in Greater Austin.	6.34
Reorient Portfolio Austin (existing business program) based on Opportunity Austin 2013 target sectors.	6.76
Continue the evolution of the Greater Austin Technology Partnership.	6.85
Focus targeted attraction efforts on Greater Austin’s highest-value domestic markets	7.67
Continue efforts to maximize the benefit of technology commercialization at the University of Texas-Austin and its partners.	6.43
Ensure that Greater Austin’s business costs are supportive of continued regional growth and investment.	6.76
Design a branded campaign to focus public attention on Greater Austin’s development dynamics and their positive effect on economic and quality of life issues.	6.37

Question 12: What should be the highest priority strategy for the final two-plus years of Opportunity Austin 3.0 implementation?

