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Prepared for: The Cleveland Foundation

THE NEED FOR CLEVELAND PROMISE

Prepared by:
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Marcus Notaro
Nikki Glazer
Ziona Austrian, Ph.D.

CENTER FOR ECONOMIC DEVELOPMENT

July 2014

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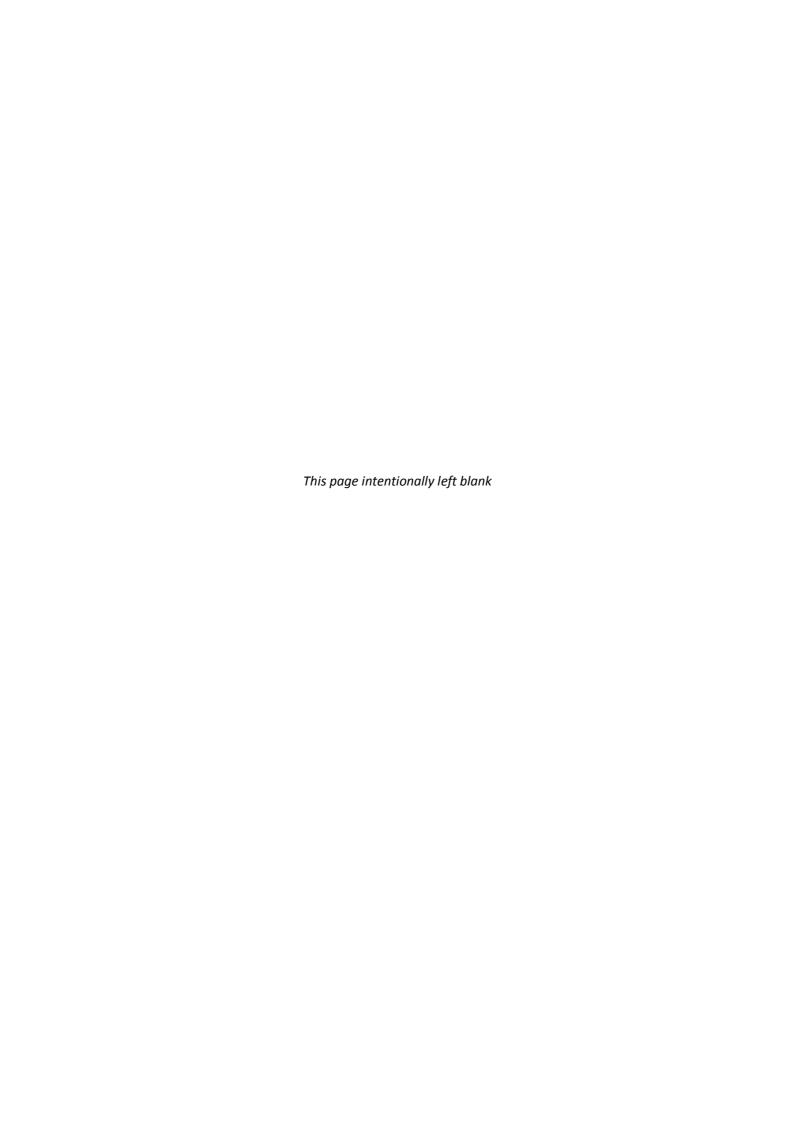


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INTRODUCTION

Many cities throughout the United States have created educational "promise" campaigns. Cities such as Kalamazoo and Pittsburgh have offered students money to attend college if they were enrolled in an urban public school and met other specific curriculum goals. These policies were created based on economic development research that cities and regions benefit from having population with education beyond high school. Studies have shown that the more educated a city's population is, the more rapidly the city will experience growth. Moreover, cities with a diverse mix of jobs and a high concentration of human capital will attract employers, other highly educated individuals, and offer high wages.

The Center for Economic Development (the Center) at the Maxine Goodman Levin College of Urban Affairs at Cleveland State University has prepared a report for the Cleveland Foundation on the state of the city of Cleveland's population, educational attainment, poverty, crime, cost of living, and financial aid recipients. This report seeks to assist the Cleveland Foundation in making the argument for a new scholarship program in Cleveland: the Cleveland Promise. The purpose of the Cleveland Promise is to promote academic success within our communities in order to develop a qualified workforce, inspire growth in our communities, and improve the quality of life in Northeast Ohio.

After experiencing decades of population decline and disinvestment, Cleveland is beginning to slowly show growth and improvement in both population and the economy. Although the city has lost population over the past decade, it has also experienced a very modest increase in the educational level of its citizens. It is an opportune time to improve Cleveland's long-term economic future by investing in the educational level of the city's youths in order to attract and retain highly educated and skilled individuals to the area. Improving the educational attainment of Cleveland is important to fostering economic growth for Northeast Ohio. Today's cities facilitate the flow of ideas and survive only if they are able to adapt quickly and capitalize on the use of changing technologies

METHODOLOGY

This report uses data compiled from secondary sources for the Cleveland Metropolitan Statistical Area (MSA),³ Cuyahoga County,⁴ and the city of Cleveland. Metropolitan Statistical Areas (MSAs) have been defined by using the 2013 Office of Management and Budget (OMB) delineations. The counties included in the 2013 definitions were then used for all previous years, from 1970 to 2010. Based on the size of some of the counties included in metropolitan areas, any data used from the American Community Survey (ACS) uses one-Year estimates. The Cleveland MSA is benchmarked to a cohort of eight comparable MSAs (Columbus, Cincinnati, Indianapolis, Kansas City, Milwaukee, Minneapolis, Pittsburgh, and St. Louis). These metro areas were selected based on characteristics similar to those of Cleveland: population size, industry, educational attainment, and geographic location.

¹ Glaeser, E., Saiz, A. (December 2003) the Rise of the Skilled City. http://www.nber.org/papers/w10191.pdf

² Moretti, E. (2012) *The New Geography of Jobs*. Boston: Houghton Mifflin Harcourt.

³ Cleveland-Elyria Metropolitan Statistical Area (MSA) consists of Cuyahoga County, Geauga County, Lake County, Lorain County, and Medina County,

⁴ The city of Cleveland is located in Cuyahoga County.

POPULATION DECLINE

Cleveland's population decline over the years is no secret. In the first half of the twentieth century, Cleveland was one of the top five largest cities in the United States and known as the "Sixth City" for its ranking in population. Cleveland now struggles to retain and grow its population. There are many factors that have contributed to the rapid decline of Cleveland's population, one of which is urban sprawl. According to the Urban Institute, sprawl can be defined "as a pattern of urban and metropolitan growth that reflects low-density, automobile-dependent, exclusionary new development on the fringe of settled areas often surrounding a deteriorating city." People became more mobile due to personal transport of the car which increased the distance a person could live from the urban core while maintaining the same commute time. As in many other central cities, because of increased use of the car and development of the highway system, individuals were no longer required to remain in the city of Cleveland.

Examining the data one can see the urban sprawl trend in Cleveland from 1970 to 2010. Figure 1 displays a population index, where 1970=100, for four geographies: the city of Cleveland, the Cleveland MSA, the Cleveland MSA excluding the city of Cleveland, and the Cleveland MSA excluding Cuyahoga County. Population declines between 1970 and 2010 can be seen in the Cleveland MSA (-11%) and the city of Cleveland (-47%). However, gains are realized within the Cleveland MSA excluding the city of Cleveland (7%) and the Cleveland MSA excluding Cuyahoga County (33%). This delineates that although the central city has been struggling to retain its population, the surrounding region has seen growth. Although the suburbs have been increasing steadily over the last few decades, the total population gained is still not enough to make up for the city's losses. Even when suburban population gain is large enough to account for a city's deficit, a St. Louis Federal Reserve Bank study has shown that central cities are essential to an overall region's success. In addition, having strong shared assets (such as airports, public transit, and highways) makes the entire metropolitan area more prosperous. ⁶

⁵ Squires, G. D. (2002). Urban Sprawl and the Uneven Development of Metropolitan America. In Squires, G. D., Urban Sprawl: Causes, Consequences & Policy Responses. (pp.1-22) Washington, D.C.: Urban Institute Press

⁶ Insert citation on this topic. The McKinsey report cites Jordan Rappaport's "The Shared Fortunes of Cities and Suburbs". Federal Reserve Bank of Kansas City. http://www.kansascityfed.org/PUBLICAT/ECONREV/PDF/3q05rapp.pdf

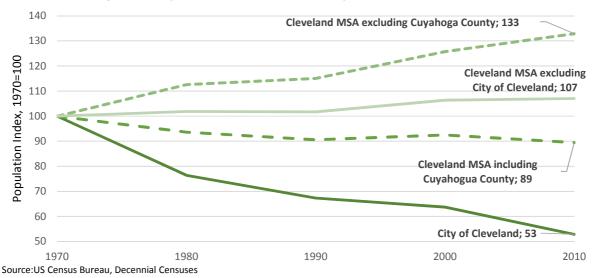


Figure 1: City of Cleveland and Suburb Population Index, 1970-2010

Table 1 outlines the exact population change for the city of Cleveland, the entire Cleveland MSA including Cuyahoga County, Cleveland MSA excluding the city of Cleveland, and the entire MSA excluding Cuyahoga County between 1970 and 2010. This table emphasizes the signs of sprawl mentioned earlier as we see populations in the outer suburbs rising, and those in the principal city declining.

Table 1. City of Cleveland and Surrounding Area Population, 1970-2010

MSA or Place Name	1970	1980	1990	2000	2010
City of Cleveland	750,903	573,822	505,616	478,403	396,815
Cleveland MSA including Cuyahoga County	2,321,037	2,173,734	2,102,248	2,148,143	2,077,240
Cleveland MSA excluding Cleveland City	1,570,134	1,599,912	1,596,632	1,669,740	1,680,425
Cleveland MSA excluding Cuyahoga County	599,737	675,334	690,108	754,165	797,118

Source: US Census Bureau, Decennial Censuses

Figures 2 and 3 display the relationship of the principal city's percentage change in population by decade to the percentage change in population of the MSA excluding the principal city (Figure 2) or county excluding principal city by decade (Figure 3). The average percentage per decade is calculated from the population changes between 1970-1980, 1980-1990, 1990-2000, and 2000-2010. When looking at the suburbs and cities in Cleveland and surrounding regions, there is a clear correlation in terms of population growth; as the surrounding regions grew, Cleveland declined.

Figure 2 enumerates that for every 1% increase in population growth in the principal city there is 0.6% suburban growth. Based upon the cohort of cities in Figure 2, even when a city is declining, the slower the decline, the faster the suburban growth. For example, if Cleveland were to lower the average rate of decline from -14.5% to -13.5%, the rest of the MSA would see an increase in suburban growth of 0.6%. The regression model specifies that 55% of the variation can be explained by the data, so the model is better than it would be if only by chance. Compared to the other MSA s in the cohort, Cleveland has experienced greater declines in city population and slower growth in suburban population.

25.0% y = 0.6006x + 0.1301MSA Excluding Principal City Population Growth (1970-2010) $R^2 = 0.5478$ 20.0% Indianapolis Minneapolis 15.0% Kansas City Columbus Cincinnati 10.0% Milwaukee St. Louis 5.0% Cleveland 0.0% Pittsburgh -5.0% -20.0% -10.0% -5.0% 0.0% 5.0% 10.0% 15.0% -15.0% Principal City Population Growth (1970-2010)

Figure 2: Principal City Population Growth vs. MSA Excluding Principal City Population Growth:
Regression Line of Average Percentage Population Growth by Decade; 1970-2010

Source: US Census Bureau, Decennial Censuses

Figure 3 examines the relationship between the principal city decade-by-decade percentage change to the central county less the principal city decade-by-decade percentage change from 1970 to 2010. When comparing cities and the surrounding county in which the principal city resides, a reduction in the dispersion of growth is apparent. Based upon the cohort of cities in Figure 3, for every 1% increase in principal city growth, the suburban county grows by 0.87%. Focusing again on Cleveland, if the average rate of decline were to change from the current -14.5% to -13.5%, the rest of Cuyahoga County would grow by 0.88%, from 1.8% to about 2.7%. The regression model specification shows that 72% is due to the variation of the data.

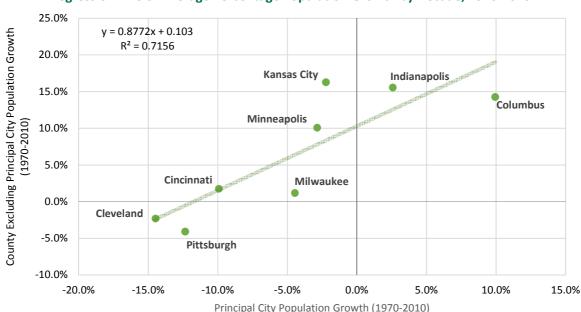


Figure 3: Principal City Population Growth vs. County Excluding Principal City Population Growth:

Regression Line of Average Percentage Population Growth by Decade; 1970-2010

Source: US Census Bureau, Decennial Censuses

Note: St. Louis is not included in Figure 3 because it is an independent city and not within a county boundary

When comparing the Cleveland MSA to other Midwest MSAs, it becomes clear that efforts need to be made to retain, and attract, people to the region if Cleveland is to grow. From 1970 to 2010, Cleveland's metropolitan area lost 11% of their population or nearly 250,000 people (Figure 4). The only other comparable region that has seen a similar decline to Cleveland's is the Pittsburgh MSA, which lost 15% of its population, and averaged a loss of over 10,000 people each year since 1970.

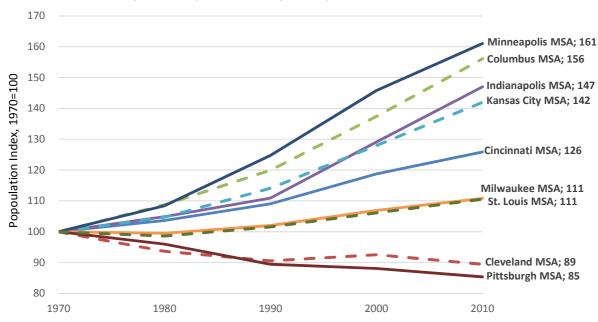


Figure 4: Population Change, Comparable MSAs, 1970-2010

Source: US Census Bureau, Decennial Censuses

EDUCATIONAL ATTAINMENT

A successful regional economy depends on many factors, one of which is educational attainment. Edward Glaser studied the relationship between a city's educational level and the benefits experienced. Cities where a larger percentage of the population had a bachelor's degree or more experienced both population and productivity growth. The educational level of the population was also a strong indicator of the formation of an agglomeration economy. ^{7,8,9} Research has shown that in more recent years, Cleveland has seen a "brain gain," specifically of individuals 25 to 34 years old. ¹⁰ Currently, Cleveland is seeing a boom in the "eds and meds" sectors, with the Cleveland Clinic and University Hospital being two of the major employment generators. These institutions have aided in creating an agglomeration of bio-technology industries in the Northeast Ohio Region. ¹¹ As an educated workforce fills the jobs being created in this sector, more start-ups, venture capital, and revenue boost the economy.

Figure 5 indicates the percentage of the population that is 25 and older with a bachelor's degree or greater in nine metropolitan areas. Ranking last of the nine areas within this cohort, the Cleveland metropolitan area (MSA) has only 27.8% of its adult population with at least a bachelor's degree. If

⁷ An agglomeration economy is an economy that benefits from the colocation of businesses and people due to clustering of urbanization.

⁸ Glaeser, E., & Saiz, A. (2003). *The Rise of the Skilled City*. Cambridge, MA: National Bureau of Economic Research. Working Paper 10191. http://www.nber.org/papers/w10191.pdf

⁹ Cleveland Federal Reserve. (2005). 2005 Annual Report.

http://www.clevelandfed.org/about_us/annual_report/2005/pdf/essay2005.pdf

¹⁰ Piiparinen, R. & Russell, J. (May 2014) *Globalizing Cleveland: A Path Forward.* Cleveland: Cleveland State University http://engagedscholarship.csuohio.edu/cgi/viewcontent.cgi?article=2166&context=urban_facpub

¹¹ Smith, R. (April 2014) Cleveland's Biomedical Industry Growing by Billions. *The Plain Dealer*. http://www.cleveland.com/business/index.ssf/2014/04/clevelands_biomedical_industry.html

Cleveland makes a greater effort to create and attract college graduates, the symbiosis of high tech industries and high wage workers will continue to grow.

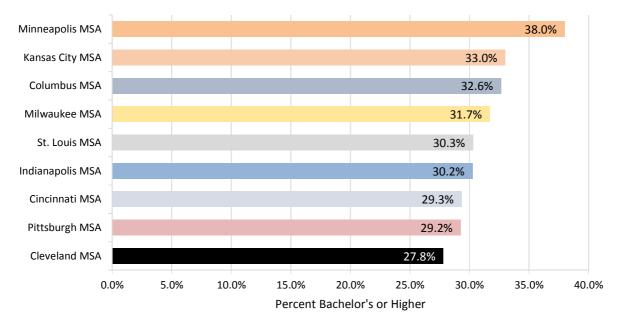


Figure 5: Percent of Persons 25 and Older with Bachelor's Degree or Higher in the Cohort MSAs, 2012

Source: US Census Bureau, American Community Survey

The city of Cleveland showed some progress over the last twelve years in regards to education attainment. Figure 6 displays educational attainment for individuals 25 years and over in the city of Cleveland. Over the last 12 years, the percentage of individuals with a *High School Degree or G.E.D.* (33% in 2000 and 2012) has remained stable, and those that have graduated from a college or university has increased from 11% in 2000 to 15% 2012. However, the percentage of population with at least a bachelor's degree in 2012 was much higher in the MSA (27.8%) than in the City (15%) (Figures 5 and 6).

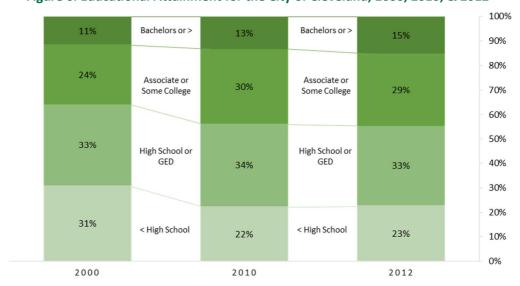


Figure 6. Educational Attainment for the City of Cleveland, 2000, 2010, & 2012

Source: US Census Bureau, American Community Survey, Decennial Census

Ohio Department of Job and Family Services' Bureau of Labor Market Information has projected, by educational requirement, which 30 occupations are expected to be the top growing for each MSA in the state of Ohio. Figure 7 presents this data for the Cleveland MSA. Projections show that most of the top growing occupations from 2010 to 2020 will require at least *some college or an associates* Twenty-three percent (37%) of the occupations that are projected to grow will require at least a *bachelor's degree*.

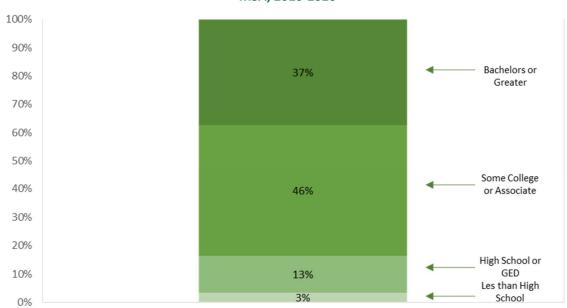


Figure 7. Educational Requirements of the Projected Top 30 Growing Occupations in the Cleveland MSA, 2010-2020

Degree Requirement of Cleveland MSA Top Growing Occupations

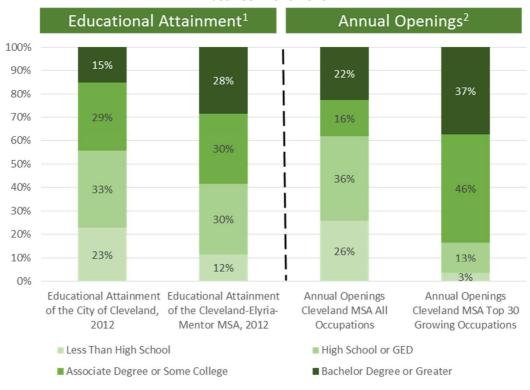
Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information. Fastest Growing Occupations Cleveland-Elyria-Mentor MSA. 2010-2020.

Figure 8 compares the educational attainment level of the City of Cleveland to the educational attainment of the entire MSA in 2012, and the total annual occupational openings to the openings of the projected top 30 growing occupations in the Cleveland MSA. In comparison to the entire Cleveland MSA, the City of Cleveland has higher concentrations of individuals with lower levels of education, and lower concentrations of individuals with high levels of education. 56% of the City of Cleveland's 25 and older population has obtained a high school diploma, GED or less. When aggregated among the entire MSA, this percentage falls to 42%. On the other hand, in regards to high levels of educational attainment, 44% of the population has attended some college, or has obtained an associate's degree or greater as compared to 58% across the entire MSA. This shows that there is a significant skills gap among residents in the City of Cleveland compared to the residents of the entire MSA

This skills gap becomes an issue for the city when we look at occupational opening trends. The second half of figure 8 shows us that, of all the projected annual openings, 38% will require some college, an associates, or greater. When narrowing our scope to only the fastest growing occupations in the MSA, 83% will require some college, an associates, or greater. With lower concentrations of highly educated individuals in the City of Cleveland as compared to the Cleveland MSA, residents of the city lack the educational level necessary to compete in the regional labor market. As more individuals within the City advance their educational attainment, they are more able to meet the skill demands of the region's

fastest growing occupations, and participate in the regional labor market. With over half of the city's adult population lacking post-secondary education, we need to encourage our youth to obtain a bachelor's degree, and enable the current workforce in Cleveland to go back to college to qualify for these new occupations.

Figure 8. The Comparison of the Educational Level of the City of Cleveland to the Cleveland MSA for the population that is 25 and older in 2012, and the Degree Requirement of All the Annual Projected Occupational Openings to the Top 30 Fastest Growing Occupation Openings in the Cleveland MSA between 2010-2020



Source:

- 1. US Census Bureau, American Community Survey, Decennial Census
- 2. Ohio Department of Job and Family Services, Bureau of Labor Market Information. Fastest Growing Occupations Cleveland-Elyria-Mentor MSA. 2010-2020

Figure 9 displays median earnings by educational attainment. Individuals with a bachelor's degree have income that is nearly double that of individuals with only a high school diploma or equivalent for the three years 2005, 2010, and 2012. Median earnings for those at the different educational levels in 2012 varied dramatically. Individuals with less than a high school education earned a median wage of \$15,146, while those with a high school degree or equivalent earned \$21,486. People with some college or an associate's degree earned \$25,286, whereas those with a bachelor's degree earned an average of \$40,084, and graduates or professionals earned an average of \$51,044. Moreover, median incomes between 2005 and 2012 decreased for lower educational attainment brackets, while incomes of individuals with masters or professional degrees grew by 5% (Table 2). Incomes for people with less

¹² These years were chosen since 2005 was before the recession, 2010 was just after the recession, and 2012 was the most recent data available. Examining these three years would give an indication of earnings in the city of Cleveland throughout the business cycle.

than high school diploma declined by 25% between 2005 and 2012, and incomes of those with only high school degree fell by 12%. Sizeable growth in incomes is seen only in those individuals with higher educational attainment levels. The data also outlines a widening gap between the average incomes of those at each end of the educational spectrum. In 2005 the annual income gap between those with less than a high school diploma and those with a graduate or professional degree was \$29,789. This gap grew to 35,898 in 2012. The fact that higher levels of education yield higher productivity and earnings, and the widening income gap between educational levels provides a testament to the increased importance of education in our economy.

\$51,044 \$48,960 \$48,650 \$50,000 \$42,716 \$41,904 \$40,084 Median Earnings (\$2012) \$40,000 Graduate or Professional Degree Graduate or Professional Degree Graduate or Professional Degree \$30,896 \$30,000 \$26,758 \$25,286 \$23,980 \$22,639 Some College or Associates \$21,486 Bachelor's Degree some College or Associates ome College or Associates < High School
Diploma
High School Graduate \$20,000 included equivalency < High School Strong St High School Graduate included equivalency included equivalency High School \$10,000 \$0 2005 2010 2012

Figure 9. Median Earnings by Educational Attainment in the City of Cleveland in \$2012, 2005, 2010 & 2012

Source: US Census Bureau, American Community Survey

Table 2. Actual and Percent Change in Median Earnings by Educational Attainment Levels in the City of Cleveland in \$2012, 2005-2012

	Actual Change (2005-2012)	Percent Change (2005-2012)	
Less than a high school diploma	-\$3,718	-25%	
High school graduate (includes equivalency)	-\$2,494	-12%	
Some college or associate's degree	-\$5,610	-22%	
Bachelor's degree	-\$1,820	-5%	
Graduate or professional degree	\$2,394	5%	

Source: US Census Bureau, American Community Survey

POVERTY

Figure 10 outlines the change in the percentage of people who are at poverty level, 200% of the poverty level, and above 200% of the poverty level in the city of Cleveland between 2007 and 2012. Over this five-year period, the percentage of the population in poverty (at or below 100% of poverty level) grew by 4%. Moreover, the percentage of people just above poverty (at or below 200% of poverty level) grew by 5% from 2007 to 2012. While the number of individuals in or nearly in poverty has increased, the highest bracket (those 200% above the poverty level) has declined by 9%. This indicates that individuals within the city of Cleveland are becoming poorer. The decline in income of residents over this six-year period has significant ripple effects that are detrimental to a community, such as a decline in tax base, increase in anti-poverty spending, and neighborhoods that fall into distress.



Figure 10. Cleveland City Population for Which Poverty Level is Determined

Source: US Census Bureau, American Community Survey

Looking at the same five-year period (2007-2012), Figure 11 shows the change in age for individuals in the city of Cleveland for which poverty level has been determined. There was little change between 2007 and 2012 in each of the three age groups (Less than 18 years, 18 to 64 years, and 65 and over). The population between 18 and 64 grew slightly from 62% to 64% while the portion of the population younger than 18 fell from 25% to 24%. The slight change in age demographics shows us that Cleveland is getting slightly older, but not at a rate that is threatening our economic competiveness.

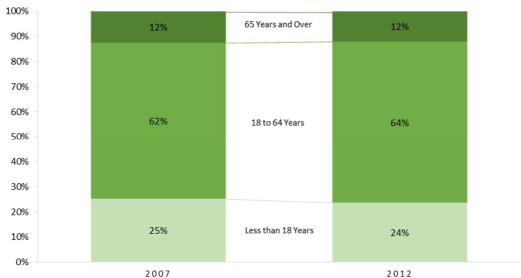


Figure 11. Age of Population for which Poverty Level is Determined

Source: US Census Bureau, American Community Survey

CRIME

High rates of violent crime pose a dangerous threat to Cleveland's future because safety is an important factor in attracting and retaining individuals in the city and region. According to Cullen and Levitt, "Each additional reported index crime in a central city is associated with a net decline of approximately one resident;" ¹³ The index of crime, formerly published by the Federal Bureau of Investigation was an aggregated indicator components of crime. ¹⁴ Therefore, based upon Cullen and Levitt's article, they note that if crime rises by 10% then the city's population declines by 1%.

Figure 12 outlines the violent¹⁵ crime rate¹⁶ for Cleveland and seven of the comparable cities (Minneapolis is excluded because the FBI determined that the agency did not follow national Uniform Crime Reporting (UCR) Program guidelines for reporting an offense). Figure 12 distinguishes between crimes that occurred in the city versus crimes that occurred in the suburbs (determined by subtracting violent crimes that occurred in the principal city from those which occurred in the entire MSA). Of these cities, Cleveland has the second highest violent crime rate behind St. Louis. In the City of Cleveland, 1,366 people fell victim to violent crime for every 100,000 people, or 1.4 for every 100 people.

¹³ Cullen, J. B. & Levitt, S. (1999). Crime, Urban Flight, and the Consequences for Cities. *The Review of Economics and Statistics*. 81(2) 159-169.

¹⁴ The components of the index were: willful homicide, forcible rape, robbery, burglary, aggravated assault, larceny over \$50, motor vehicle theft, and arson. For more information see: Federal Bureau of Investigation (2014). *About Uniform Crime Reports*. Crime in the United States. http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2012/crime-in-the-u.s.-2012/resource-pages/about-ucr/aboutucrmain

¹⁵According to the Federal Bureau of Investigation (FBI), violent crimes consist of murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault

¹⁶ The violent crime rate represents the number of crimes per 100,000 people in the population

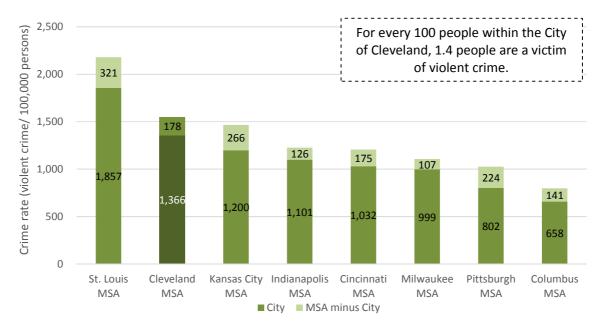


Figure 12: Violent Crime in Metropolitan Areas vs Cities, 2011

Source: FBI Uniform Crime Reports

Note: Minnesota state definitions of violent crime do not comply with national UCR program guidelines. Therefore, Minneapolis MSA data is not comparable with other MSAs.

COST OF LIVING

Cost of living is an important variable in attracting students to a city because the lower the cost of living is, the more affordable the city. The cost of living index (COLI) measures a common basket of goods and services, chosen to reflect consumer spending, over time in a geographical area. COLI includes factors in six major categories: grocery items, housing, utilities, transportation, health care, and miscellaneous goods and services. The average for all participating places, both metropolitan and nonmetropolitan, equals 100, and each participant's index is read as a percentage of the average for all places. Examining the cost of living for the Cleveland MSA against eight similar MSAs indicates that all of the cohort MSAs have a COLI under 100. Cleveland has the lowest COLI of all comparable cities in Figure 13. Cleveland's low cost of living gives it a competitive advantage in its ability to attract and retain talent if Cleveland maintains wages and salaries similar to those of the other MSAs.

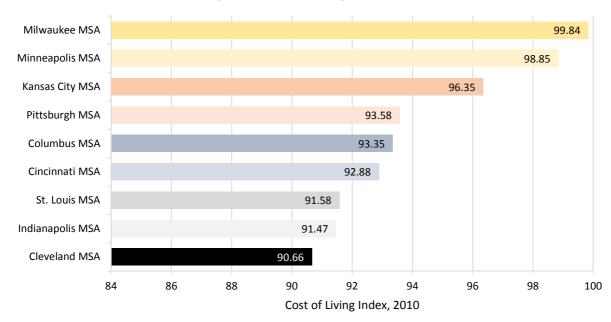


Figure 13. Cost of Living Index, 2010

Source: Moody's Analytics

FINANCIAL AID

In the city of Cleveland there is one public institution of higher education, Cleveland State University. By examining the amount of financial aid awarded we are able to gain deeper insight into the value and commitment our government and institutions have to higher education. Grants provide an incentive to individuals to pursue education that they may not have been able to afford it otherwise.

Figure 14 outlines financial aid awarded to first-time, full-time undergraduates¹⁷ at Cleveland State University between 2009 and 2012 by type of grant. It is important to note that the data does not distinguish between need based and merit based aid. Overall, there is an increase of \$2 million in total grants awarded between 2009 and 2012. This \$2 million increase includes substantial increases of Institutional and federal Pell grants (71% and 81% respectively), with smaller decreases in other federal and state/local grants (-62% and -46% respectively).

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¹⁷ A first time, full time undergraduate at Cleveland State University is a student that has not attended any post-secondary institution since graduating from high school, and is enrolled in at least 12 credit hours per semester.

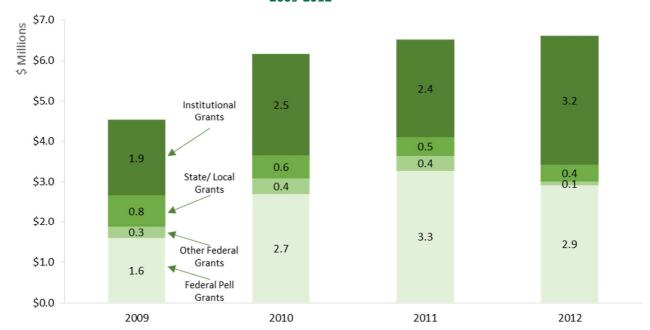


Figure 14. Cleveland State University Financial Aid Awarded to First-Time, Full-Time Undergraduates, 2009-2012

Source: National Center for Education Statistics

Financial aid is awarded to either provide those with few resources the opportunity to advance their education (need-based), or provide those who have attained outstanding academic or athletic achievements an incentive to continue their education at a particular institution (merit-based). Figure 15 outlines the average financial aid awarded at Cleveland State University by the student's level of income. Between 2010 and 2012 we see the average financial aid awarded to the lowest (\$0-30K and \$30K-48K) and middle (\$48K-75K) income brackets decline, while the aid for the highest income brackets (\$75K-110K and \$110K+) rise. The increase in financial aid awarded to the highest income brackets can be attributed to an increase in merit based scholarships and are consistent with the establishment of the Honors College.

Within all three years, there is a steep drop-off in financial aid awarded to those that are in the middle income bracket (\$48K-75K). In 2010 the average aid awarded drops more than 50% between individuals making \$30K-48K and those making \$48K-75K. A similar decline of 45% is observed in 2012 in aid awarded between the two income groups. This is a growing concern as college tuition rises (Figure 16), and paying for post-secondary education becomes a greater financial burden for middle income individuals.

^{*}Data includes all financial aid awarded, and does not distinguish between need based and merit based aid

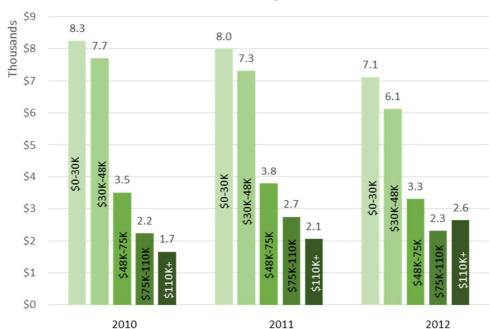


Figure 15. Average Financial Aid Awarded (in Thousands of Dollars) at Cleveland State University by Student Income Level, 2010-2012

Source: IPEDS

^{*}Data includes all financial aid awarded, and does not distinguish between need based and merit based aid

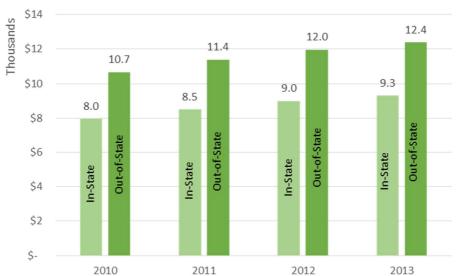


Figure 16. Cleveland State Tuition and Fees for First-Time, Full-Time Undergraduates, 2010-2013

Source: IPEDS

APPENDIX

Table A.1. List of Comparable MSAs by County

MSA	County
-	Dearborn County, IN
	Ohio County, IN
	Union County, IN
	Boone County, KY
	Bracken County, KY
	Campbell County, KY
	Gallatin County, KY
Cincinnati-Wilmington-Maysville, OH-KY-IN	Grant County, KY
	Kenton County, KY
	Pendleton County, KY
	Brown County, OH
	Butler County, OH
	Clermont County, OH
	Hamilton County, OH*
	Warren County, OH
	Cuyahoga County, OH*
	Geauga County, OH
Cleveland-Akron-Canton, OH	Lake County, OH
·	Lorain County, OH
	Medina County, OH
	Delaware County, OH*
	Fairfield County, OH*
	Franklin County, OH*
	Hocking County, OH
Calumbus Marian Zananilla Oll	Licking County, OH
Columbus-Marion-Zanesville, OH	Madison County, OH
	Morrow County, OH
	Perry County, OH
	Pickaway County, OH
	Union County, OH
	Boone County, IN
	Brown County, IN
	Hamilton County, IN
	Hancock County, IN
	Hendricks County, IN
Indianapolis-Carmel-Muncie, IN	Johnson County, IN
	Madison County, IN
	Marion County, IN*
	Morgan County, IN
	Putnam County, IN
	Shelby County, IN

MSA	County
	Johnson County, KS
	Leavenworth County, KS
	Linn County, KS
	Miami County, KS
	Wyandotte County, KS
	Bates County, MO
	Caldwell County, MO
Kansas City-Overland Park-Kansas City, MO-KS	Cass County, MO*
	Clay County, MO*
	Clinton County, MO
	Jackson County, MO*
	Lafayette County, MO
	Platte County, MO*
	Ray County, MO
	Milwaukee County, WI*
Mallowards a Danisa Mandrada Mil	Ozaukee County, WI
Milwaukee-Racine-Waukesha, WI	Washington County, WI
	Waukesha County, WI
	Anoka County, MN
	Carver County, MN
	Chisago County, MN
	Dakota County, MN
	Hennepin County, MN*
	Isanti County, MN
	Le Sueur County, MN
Minneapolis Ct. Davil MANI M/I	Mille Lacs County, MN
Minneapolis-St. Paul, MN-WI	Ramsey County, MN
	Scott County, MN
	Sherburne County, MN
	Sibley County, MN
	Washington County, MN
	Wright County, MN
	Pierce County, WI
	St. Croix County, WI
	Allegheny County, PA*
	Armstrong County, PA
	Beaver , PA
Pittsburgh-New Castle-Weirton, PA-OH-WV	Butler County, PA
	Fayette County, PA
	Washington County, PA
	Westmoreland County, PA
	Bond County, IL
	Calhoun County, IL
	Clinton County, IL
	Jersey County, IL
	Macoupin County, IL
	Madison County, IL
	Monroe County, IL
St. Louis-St. Charles-Farmington, MO-IL	St. Clair County, IL
	Franklin County, MO
	Jefferson County, MO
	Lincoln County, MO
	St. Charles County, MO
	St. Louis County, MO
	Warren County, MO
	St. Louis city, MO**

^{*}County of which the principal city resides.
**Independent city, not residing in any county.