

**Ann Arbor’s Middle-Income Needs Analysis:
Introducing the
Neighborhood Assistance Corporation of America (NACA)**

WORKING PAPER #1

This paper describes Ann Arbor’s housing dynamic affecting lower-middle-income households through an analysis of Ann Arbor homeownership and rental trends by household income; Ann Arbor employment as impacted by COVID-19 shutdowns; and Ann Arbor Area incomes by occupational groups.

NACA, with reduced rate mortgages, and zero down payment and closing costs for those below the area median income, provides a potentially critical option for wealth accumulation by low and lower-middle-income Ann Arbor area residents, which has not been traditionally available.

This paper is a call for local sponsorship of NACA by key employers, unions and economic actors in the Ann Arbor area, including the University of Michigan, the City of Ann Arbor, Washtenaw County and the Huron Valley Labor Federation (HVALF).

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Ann Arbor's Middle-Income Needs Analysis

Preface

This paper introduces the Neighborhood Assistance Corporation of America (NACA) as a means to address economic segregation in the greater Ann Arbor area. The lack of available housing at prices middle-income households can afford to own in the Ann Arbor area is a key aspect of its economic segregation. Middle-income households, those between two-thirds and double the US median income, from \$50,000 to ~\$150,000 for 2021, have become less able to secure down payments and closing costs needed for a first-time mortgage, depending on their circumstances, debt load, and credit history.^{1 2 3 4 5}

NACA provides character-based mortgages at below-market interest rates with no down payment, closing costs, or mortgage insurance requirements for individuals below the area median income for where they live, without regard to their credit scores.⁶ Grants can significantly reduce NACA's already below market fixed interest rate. As a result, NACA applicants are obtaining very low fixed interest rates, and many receive rates of less than one percent.⁷

NACA has 47 offices throughout the United States, helping families achieve the dream of homeownership. NACA's local offices work in sponsorship with an area's larger cities and employers, unions, as well as religious communities, to reach the low and moderate-income populations they serve.

The qualification process starts with a Home Buyers workshop. Currently due to COVID, NACA is conducting virtual workshops twice a month.⁸ See: [NACA Homebuyer's Workshops Sign-up Link](#)

For the Ann Arbor metropolitan area, i.e., Washtenaw County, the largest employers and associated union locals should consider being a sponsor of NACA, on behalf of their respective workforce and union members with incomes below the area median. This would include the local governments, City and County, acting on behalf of their employees, as well. It would be their local Human Resource and Personnel Departments that would be involved.

- Appendix 1, Table 7, lists Washtenaw County's largest employers proposed for NACA sponsorship.
- Appendix 2 lists the Huron Valley Area Labor Federation (HVALF) Affiliates Locals, also proposed for NACA sponsorship.

For NACA to take hold, these organizations would provide their ongoing sponsorship, as described in this paper on page 6. NACA offers a no-cost support model to assist employers' workers in establishing their own ability to accumulate wealth, in ways that are not traditionally available.

Large employers and unions have a mutual interest in helping stabilize their employees and members, financially, given today's pandemic economy, and ongoing retention and hiring challenges. In addition, there is significant research that identifies the high cost of housing stress to work-life stability.^{9 10 11 12}

As provided in Appendix 3, Tables 8 - 11, much of the Ann Arbor area's employment base is unionized, especially those in Heavy Industry Technical Trades and Human Services professions, such as Healthcare, Education, local government and public safety. As detailed in this paper, their income ranges are among those being progressively constrained from affording homeownership, with an increasing rate of rental households and a decreasing rate of owner-occupied housing.

Unlike with mortgages, rents continue to increase, driving up the cost of living for these households, furthering segregation. On top of this dynamic, COVID has worsened the area's economic segregation.

Forecasters expect mortgage costs to continue to increase dramatically.^{13 14} NACA's mortgages, targeted to low to moderate-income households, dramatically reduce the cost of purchasing a home and provide options in neighborhoods not normally accessible to middle-income households.

Based on level of interest, an initial core team of major employers and union affiliates of HVALF should form to collaborate with NACA. The Greater Ann Arbor Society for Human Resource Management could be a means for its employer expansion.¹⁵

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Ann Arbor's Middle-Income Needs Analysis

Executive Summary

This paper has two major sections, “**A Call to Action**” and “**Ann Arbor's Middle-Income Needs Analysis.**”

A Call to Action breaks down elements of the Ann Arbor area's economic segregation, the New Urban Crisis, and the so-called ‘missing middle’ dynamic as it plays out locally.¹⁶ It introduces Neighborhood Assistance Corporation of America (NACA) mortgages, provided to those earning below the area median income, with zero down payment, closing cost or mortgage insurance requirements, at reduced rates. NACA can provide a means to affect the area economic segregation by increasing the potential for homeownership in the low and middle-income ranges.

This section ends with a recommendation for the University of Michigan, the City of Ann Arbor, Washtenaw County and the Huron Valley Area Labor Federation (HVALF) to provide information on NACA mortgages and virtual mortgage application workshops to employees and related union affiliates.

Ann Arbor's preferred city status, by definition, is well known.¹⁷ The University of Michigan's presence as the leading Public Research University in the US has fostered and helped maintain a local advanced technology business environment.¹⁸ In addition, Ann Arbor has the highest ranking for the portion of residents with at least a 4-year degree, and the fastest growing demographics are above 65 years of age. It is becoming a tech-hub and retirement destination. The knowledge economy is alive and doing well.

Success is not without its downside. These factors have likely been the drivers of the divide in local home ownership rates, exacerbating economic segregation.

Homeownership removes the dynamic of increasing rents that occurs over time. The Neighborhood Assistance Corporation of America (NACA) mortgages can offset the forces of this economic segregation.

Rates of homeownership by middle-income households are also constrained by the range of housing supply available. Small scale, multi-unit housing was restricted from most residential zones by the designation of single family zoning districts across Ann Arbor in the 1960s.¹⁹ For Ann Arbor, 70% of land parcels are now zoned single family, while only 20% are zoned multi-unit housing.²⁰ Architects and urban planners have popularized the ‘missing middle’ construct for where the limited range of housing types further limits the ability of middle-income households to afford housing. Economic segregation, on this basis, starts by limiting access to affordable homeownership to middle-income households.

The section on **Ann Arbor's Middle-Income Needs Analysis** starts by covering a number of elements to understand the local economic forces playing out, including housing and population growth, as well as area employment, housing value and price growth factors. Employment growth over the past 10 years has been higher than housing growth. The constrained housing supply helps explain the rapid increase in home prices over this period.

This paper then posits that if a housing divide in the middle-income ranges were occurring in Ann Arbor, a breakdown in homeownership rates by household income ranges would find it. The section on the middle-income housing dynamic at play in Ann Arbor explores this question.

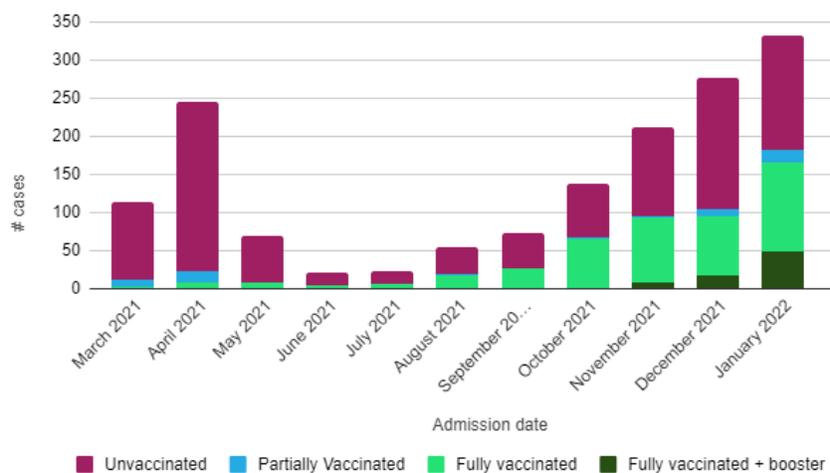
Sure enough, there were decreasing rates of homeownership since 2010 in all household annual income ranges below \$150,000. The falloff was steepest for those households with annual incomes from \$50,000 - \$75,000, the lower-middle-income range. Twenty percent of the Ann Arbor population has household incomes above \$150,000, and is the only segment experiencing homeownership growth. All household income segments have been experiencing increasing rates of rentership, except those below \$50,000 in annual income, which were actually decreasing. This data reflects the well-known 40+-year shift in the area's economic structure, with a reduction in low-income families, and a shift from homeownership to renting for those in the middle-income ranges of \$50,000 - \$150,000 a year.²¹

Ann Arbor’s Middle-Income Needs Analysis

The next section of the Needs Analysis explores the impact the COVID pandemic and shutdown had on Ann Arbor employment by major economic sectors from October 2019 through September 2021. Recovery in employment occurred rapidly, following the availability of COVID vaccines for all adult populations in April of 2021, as shown in Tables 3 and 4 of that section. Hospitalization rates shown in Figure 1, below, with their lagged relationship to COVID onset, dropped precipitously beginning in May 2021, the following month.

The employment data is tracked through September 2021 by Industry sector, before the Delta and Omicron surges were having their severe impact. Therefore, admittedly, this analysis only covers the initial COVID employment impact, mostly driven by the shut downs and initial vaccine success. The employment and income dynamics of these more recent COVID surges is not explored, but while different in nature, will likely reflect similar behavior. We may continue to live in a COVID based economic system, if it becomes endemic.

Figure 1. COVID Vaccine Status of Washtenaw County Residents with COVID-related Hospitalization (by month of admission).²²



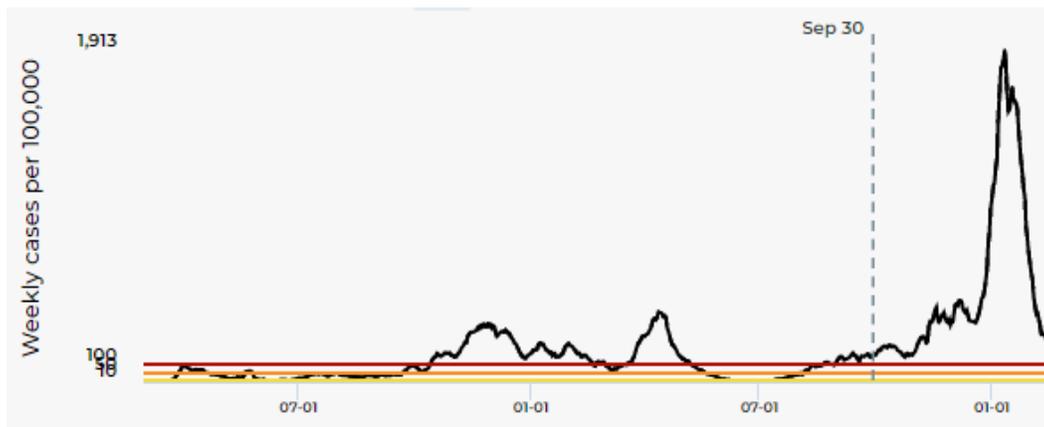
Heavy Industry Technical Trades have actually grown through September 2021, while Business and Technology Services has been relatively flat. Human Services sectors have been the most severely affected, with a net average monthly decline of just over 11,000 people. These employment losses were greatest for Government, Leisure and Hospitality sectors, but also included Education and Health Services. This was before the Delta and Omicron surges became severe for the Ann Arbor Area, as shown in Figure 2, below.

The next section of the Needs Analysis looks at the median incomes of the employed in the Ann Arbor area by major and detailed occupational groups to better understand the types of occupations and work performed by those in the income ranges being housing constrained. This analysis is to build empathy for taking action on these challenges, by knowing the types of work performed and contributions made to the community by people working in these affected income ranges.

Those major occupational groups with annual median incomes at or above \$75,000, are less constrained in their rates of homeownership, and include Management, Architecture and Engineering, Computer and Mathematical, as well as Healthcare Practitioners and Technical occupations. Each of these occupational groups may also be ones that establish new technology ventures and spin-offs. At and above an annual income of \$75,000, single parent families can begin to earn a Livable Wage.

Ann Arbor's Middle-Income Needs Analysis

Figure 2. Washtenaw County COVID Weekly Cases per 100,000
From March 2020 through February 12, 2022²³



Those major occupational groups with the lowest annual median incomes were those most impacted by the COVID shutdowns, including, Healthcare Support, Personal Care and Services, and Food Preparation and Serving related occupations. The area median incomes for these major occupational groups are all at or below a Living Wage of \$32,500 per year for a single adult without children in Washtenaw County, a level of income clearly not tenable for families. The outstanding need for government subsidized, affordable housing for those below \$50,000 in annual household income has only grown during COVID.

The lower-middle-income segments from \$50,000 to \$75,000 in annual median incomes cover many occupations critical to the stable function of the Ann Arbor area (see Appendix 3, Tables 10 and 11). These include all industry sectors, across Management and Technology Services, Heavy Industry technical trades, and Human Services across health and medical, education, government and public safety occupations. Heavy Industry occupations are overrepresented by men, as well as Blacks or African Americans, and those of Hispanic / Latinx ethnicity in most segments. Human Services professions are overrepresented by women, Blacks or African Americans, and people of Hispanic / Latinx ethnicity, and are likely the hardest hit demographics. Households in this income range have been experiencing a rapid decline in homeownership rates. This would especially be the case for single parent, single-income households. Below \$75,000 in annual income is under a livable wage for a single parent.

Significantly, following the COVID lockdown and initial recovery once vaccines were widely available, fewer people in the Ann Arbor area are now working in Human Services, a sector overrepresented by women, Blacks or African Americans, and Hispanic / Latinx people. This has likely resulted in more single-income households than before COVID. On this basis, COVID's impact worsened housing affordability, and disproportionately affected women, Black and Hispanic households. Households and families in these lower-middle-income segments could certainly benefit from NACA-based mortgages

It is critical that the area's major employers, including the University of Michigan, the City of Ann Arbor, and Washtenaw County, and associated union locals through the Huron Valley Area Labor Federation, support options like NACA for their respective employees and affiliates' members. NACA provides a way to increase local homeownership to lower middle-income households, thereby reducing the housing stress and living costs, and potentially commute times, being experienced in the Ann Arbor area.

Ann Arbor's Middle-Income Needs Analysis

A Call for Action

Ann Arbor Area's Economic Segregation, the New Urban Crisis, and the 'Missing Middle'

The Ann Arbor area, with the University of Michigan as its largest employer and main economic engine, is typical of many areas around mid-sized college towns across America that experience high levels of economic segregation. In 2015, Richard Florida and Charlotta Mellander reported that the Ann Arbor area was the eighth most economically segregated in the US.²⁴ They described this college town segregation dynamic as being due to: (1) the town/gown divide between well-paid professors and lower-paid service workers; (2) the "creative class" attracted to the University and technology community; as well as (3) the large concentrations of students, who are often temporarily low-income residents while they are working toward their degree.²⁵ The Ann Arbor Metropolitan Statistical Area (MSA); i.e., Washtenaw County, is the area in which this economic segregation was identified.

Additionally, Florida has defined a "New Urban Crisis" as it closely tracks the concentrations of high-tech industry, adults who hold college degrees, and the creative class; all three defining features of leading tech and knowledge hubs like Ann Arbor.²⁶ The back-to-the-city movement of the affluent and the educated²⁷—accompanied by rising inequality, deepening economic segregation, and increasingly unaffordable housing, defines this New Urban Crisis for the Ann Arbor area.

The economic development fostered by the creative class has clear benefits to the Ann Arbor area, in terms of the economic opportunity and vitality it brings.^{28 29} However, with benefits come the costs associated with them. For Ann Arbor, the economic drivers from having the top US public research University, a local tech / knowledge hub, and high levels of education, comes with costs, as experienced by the economic segregation they foster.^{30 31 32 33} Call it a 'yin/yang', double-edged sword dynamic.

This economic segregation extends across the County, including Ypsilanti and surrounding cities, as Ann Arbor home prices force middle-income households to seek housing outside of Ann Arbor itself. Through this process, it is having a cascading impact on the affordability of housing to the outlying areas.

"Economic segregation" is composed of three types of segregation: income-based, education-based and occupation-based, and each correlates highly with the others. "Segregation" means that members of a particular economic category are more likely to live amongst themselves, as opposed to living with members from different ones. We often think of this as the gap between rich and poor. This paper looks at the gap at the middle, where the central forces driving economic segregation are occurring.³⁴

Economic segregation fundamentally comes down to the gaps in housing affordable to the middle-income earners. On this basis, increasing the diversity of housing, and the ability for middle-income households to afford them, define two critical housing needs. The 'missing middle' phrase defines this housing and affordability gap, for the housing types, affordable to middle-incomes that are missing.^{35 36}

Historically, excluding certain housing types was often done for a specific purpose: prioritizing single-family neighborhoods as a way for cities and towns to legally segregate communities.³⁷ Because of this exclusionary zoning, there has not been enough housing to meet demand as cities grow, so housing prices rise. This dynamic excludes or pushes people who are less affluent farther away from high-opportunity neighborhoods, often people of color.³⁸ Federal Housing Administration (FHA) secured loans fueled Post-WWII housing growth, and have a history of racial discrimination prior to the Fair Housing Act of 1968.^{39 40} Since 1980, Ann Arbor's Black population has gone from 9.3% of total residents, to 6.8% of the total in 2020, in a County that went from 10% to 12% African American over the same period.^{41 42 43 44 45 46 47}

Ann Arbor's Middle-Income Needs Analysis

A new movement popularized by architects and urban planners targets the 'missing middle' of housing.⁴⁸ It seeks to meet the needs of people priced out of expensive markets who do not qualify for low-income subsidies. Small-scale 'missing middle' housing such as duplexes, triplexes, and four-plexes are generally the same scale as single-family homes. The term can also apply to small-scale apartment and condominium buildings (i.e., multiplexes) that co-exist with other housing types.

The construct of 'missing middle' housing started out with a focus on the range of housing types. First, it is about scale; then it is about delivering affordability, particularly for middle-income households at 60 percent of the area median income or higher.^{49 50} Addressing the gap of missing-middle housing can facilitate more economically - and racially inclusive neighborhoods. Ann Arbor neighborhoods, however, without a diversity of housing options at different price points, will continue to price out middle-income households, furthering economic segregation. 'Missing middle' also implies ample housing above and below the middle-income range, which is not the case – it is low-income households getting pushed out.⁵¹

Ann Arbor's City Council has recently established policies and initiatives to foster greater housing diversity, including: (1) updating Capital Improvement Plans for housing and mixed-use development on City-owned land with affordable housing, with the intent to retain many of the City properties on a land-lease basis;^{52 53} (2) proposing and securing an Affordable Housing Millage; (3) passing the Transit Corridor ordinance; and (4) expanding the scope and criteria for Accessory Dwelling Units (ADUs).

While these initiatives will likely foster a greater diversity of housing types, and a significant increase in affordable units, market forces on home prices still challenge middle-income homeownership. Without even more concerted market interventions, ongoing economic segregation across the Ann Arbor area will likely continue unabated. Economic segregation will remain if we do not have a way to mitigate the risk of middle-income households being priced out of Ann Arbor homeownership, as well as low-income ones.

Introducing the Neighborhood Assistance Corporation of America

Ann Arbor's housing prices are a challenge for those households earning below the area median income of \$106,600.^{54 55 56} Many of the area's largest employers presumably have a large portion of their employees below this household income threshold. On this basis, these households face many challenges by commuting longer distances, or otherwise acquiring suboptimal housing. This creates family stress, which may affect their work-life and family health,^{57 58} let alone impeding progress towards carbon neutrality. In Washtenaw County, nearly 20 percent of employed households are housing stressed, earning more than the Federal Poverty Level, but less than the basic cost of living for the state.⁵⁹ Unaddressed, the Ann Arbor area could very well experience Green gentrification.⁶⁰

The Neighborhood Assistance Corporation of America (NACA) is a potential means to provide greater housing affordability to low and lower-middle-income households.⁶¹ NACA is a nonprofit 501(c)4, US Housing and Urban Development (HUD) approved homeownership and advocacy organization. It is committed to assisting low-to-moderate income households with becoming homeowners. It does this by offering below-market interest rate loans with no down payment, closing costs or mortgage insurance requirements. NACA also provides rehab loans, foreclosure prevention, and emergency renter assistance.^{62 63 64} Potential NACA program downsides include a longer and more rigorous mortgage process, a financial reserve requirement, and property price limits.⁶⁵ Bank of America and NACA recently announced the expansion of their national affordable homeownership program, with a goal of \$15 billion in mortgages to low-to-moderate income homebuyers through May 2027.⁶⁶

NACA provides mortgages for those below the area median income for single family and multi-unit, owner occupied properties, with these loan thresholds:

Ann Arbor's Middle-Income Needs Analysis

Area Type	Single	Two-Family	Three-Family	Four-Family
Most Areas	\$484,350	\$620,200	\$749,650	\$931,600
High Cost*	\$726,525	\$930,300	\$1,124,475	\$1,397,400

* i.e., key California and New York municipal areas

Realtor.com recorded the peak monthly median home sales for Ann Arbor at \$446,500 in June 2021.^{67 68} Therefore, by simple estimation, at least half the recent Ann Arbor home sales are feasible for NACA-based mortgages. For a \$450,000 mortgage, having \$90,000 for a 20% down payment in addition to closing costs can be a challenge for many, especially if their income is below the median for this area.

The author first learned about NACA through an Avalon Housing blog post by a tenant who received their mortgage through NACA (<https://www.avalonhousing.org/from-tenant-to-first-time-home-buyer-veronicas-story/>). NACA's Mid-west Regional Director, Washington Ryles, is from Washtenaw County, with initially 2 years at Ypsilanti High, and then 2 years at Pioneer, before graduating high school in Ann Arbor. While he currently lives out of state, he knows the Ann Arbor community. On this basis, NACA has local presence and experience with the Ann Arbor area.

NACA normally works in coalition with a key stakeholder set of an area's largest employers, City and County governments, Unions, as well as faith-based networks and churches. These organizations provide information on NACA's service offerings of mortgages, including refinance and rental assistance, to their workforce. Churches and religious networks would do the same to their congregants. The local press, like MLive, would also do feature articles on NACA, as part of a coordinated communication strategy. The area sponsoring organizations would post information to their employees and members on NACA workshops, and host the workshops onsite or in other regional facilities. NACA is self-managing, and conducts virtual and on-site Home Buyers workshops that take people through their application process. Once NACA area client base is at a critical mass, it spreads by word of mouth.

While the focus for NACA would be County wide, it first and foremost needs to be able to address Ann Arbor's homeownership challenges, that subsequently impact the Ypsilanti market, and beyond.

As Ann Arbor's City Council continues to increase opportunities for the growth in housing diversity by increasing the supply of housing-stock options, previously outlined, to address equity it will also be important to bolster effective demand for households at or below the area median income. Middle-income people having greater access to mortgages like those that NACA provides are a credible option.

Recommended Actions by the University of Michigan, the City of Ann Arbor, Washtenaw County and the Huron Valley Area Labor Federation (HVALF)

NACA receives no direct funding from major area employers in their community campaigns across the US, but does coordinate with them. Below are the recommended actions for the University of Michigan, the City of Ann Arbor, Washtenaw County, and HVALF to take to help get NACA established locally.

- Hold direct discussions with NACA to understand their business model, and conduct appropriate due diligence
- Support joint communications to each respective workforce and member-base on NACA and their ongoing virtual Home Buyers NACA workshops ([NACA Homebuyer's Workshops Sign-up Link](#))
 - Coordinate messaging with Union representatives, given highly unionized workforces
 - Provide NACA event information to employees and members through newsletters
- Provide a point of contact for the news media
- Provide on-site meeting space for NACA workshops once COVID subsides enough to be safe

Ann Arbor's Middle-Income Needs Analysis

Ann Arbor's Middle-Income Needs Analysis

The rest of this paper presents a 'needs analysis' on Ann Arbor housing challenges for middle-income households, to more precisely understand the economic segregation gap at the middle. It presents the analysis primarily using US Census, Bureau of Labor Statistics (BLS) and other publically available data. The analysis will describe these housing and income dynamics of the City of Ann Arbor and Washtenaw County, defined as the Ann Arbor Metropolitan Area. These data sources will also allow us to assess the economic impact of the COVID shutdowns on local employment by job category, as well as the potential impact of technology ventures and University spin-offs affecting Ann Arbor housing demand.⁶⁹

For clarity, the Ann Arbor Housing Commission (AAHC), as well as the area's affordable housing community, uses a specific framework to provide affordable housing to those below the 80th percentile of the area median household income. This is for three reasons:⁷⁰

1. **AAHC-OWNED PROPERTIES, TAXES AND REVENUE BONDS.** The Michigan Housing Facilities Act (Act 18 of 1933) enables municipalities to create housing commissions to own and manage housing that is affordable to low-income households (up to 80% AMI).
 - This act exempts AAHC property from taxation by the state or municipality unless the property is subject to a PILOT.
 - The act enables the AAHC or the municipality to issue tax-exempt revenue bonds for the development and maintenance of rental housing affordable to low-income households.
2. **PILOT (Payment in Lieu of Taxes).** The only way to significantly reduce taxes for affordable rental housing owned by the private sector is by the City's Payment In Lieu of Taxes (PILOT) Ordinance.
 - A project can only qualify for a PILOT if it meets the statutory requirements of having financing from a state or federally aided mortgage; and if the ownership entity is a non-profit housing corporation, a consumer-housing cooperative, a limited dividend housing association limited partnership, a limited dividend housing association limited liability corporation or a limited dividend housing corporation.
 - In addition, the City of Ann Arbor limits the PILOT to households at 60% AMI or less or seniors without income restrictions. In 2019 AAHC recommended that the City's PILOT ordinance be amended to increase the maximum rent to 80% AMI (or 60% AMI averaging) for qualified PILOT projects doing income-averaging. (Amendment is being confirmed)
3. **Low Income Housing Tax Credit Financing (LIHTC)** - An indirect federal subsidy used to finance the construction and rehabilitation of low-income affordable rental housing whereby a private investor funds housing in exchange for a write-off of federal corporate tax obligations.
 - LIHTC is the single largest source of financing for low-income housing available and it is administered by the IRS, not HUD.
 - Congress recently amended the LIHTC regulations to increase the maximum income under the program from 60% AMI to 80% AMI. A LIHTC project can only include 80% AMI units if the average LIHTC unit is still 60% AMI. This new rule is intended to incentivize more 30% - 40% AMI units by offsetting the lower rent revenue with 80% AMI rents.

The chart below provides the distribution of the 2021 Ann Arbor area median household incomes by household size.⁷¹ HUD places the Area Median Income into the 100% AMI 4-person household slot, or \$106,600 for the Ann Arbor area. All other percentiles are derived from algorithms based off that number. The 80th percentile is at ~\$80,000, and the 60th is at ~\$64,000 in annual household income. These thresholds overlap with the middle-income range of \$50,000 – \$150,000 used for this paper.^{72 73}

Ann Arbor’s Middle-Income Needs Analysis

Table 1. 2021 Ann Arbor Area Median Income by Household Size

Area Median Income	1 Person	2 Person	3 Person	4 Person	5 Person
30%	\$22,400	\$25,600	\$28,800	\$31,950	\$34,550
50%	\$37,300	\$42,600	\$47,950	\$53,250	\$57,550
60%	\$44,800	\$51,200	\$57,600	\$63,900	\$69,100
80%	\$55,950	\$63,950	\$71,950	\$79,900	\$86,300
100%	\$74,600	\$85,200	\$95,900	\$106,600	\$115,100
120%	\$89,600	\$102,400	\$115,200	\$127,800	\$138,200

Ann Arbor Primary Metropolitan Statistical Area includes all of Washtenaw County – Median Family Income = \$106,600; USA = \$79,900

Housing and Population Growth

In terms of housing and population growth, Ann Arbor redefined itself over the 40 year post-WWII housing boom, fueled in part by FHA-backed mortgages.^{74 75 76 7778} As shown below in Figures 3 and 4, growth, per se, has not been foreign to Ann Arborites [the data for these charts are from different sources, and hence are not directly, cross-comparable]. Up to at least 1980, rapid growth was the dynamic that characterized the City, with large increases in housing and people. Since then, increases have been at a reduced rate due to zoning and available land use restrictions. For example, the US Census estimated Ann Arbor’s population growth of 9,917 people, from 2010 to 2020, at only 8.7%.⁷⁹

Figure 3. Post-WWII Ann Arbor Housing Units Built by Decade⁸⁰

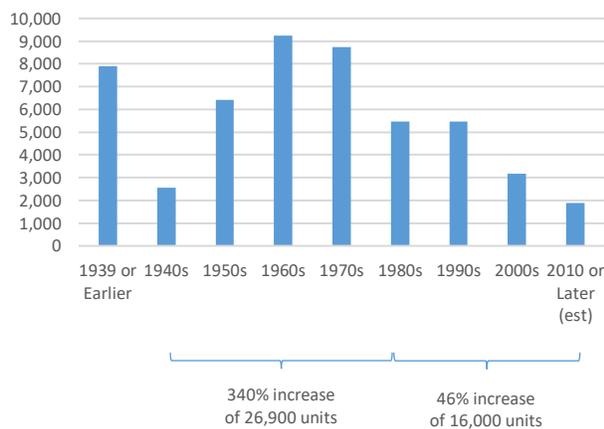
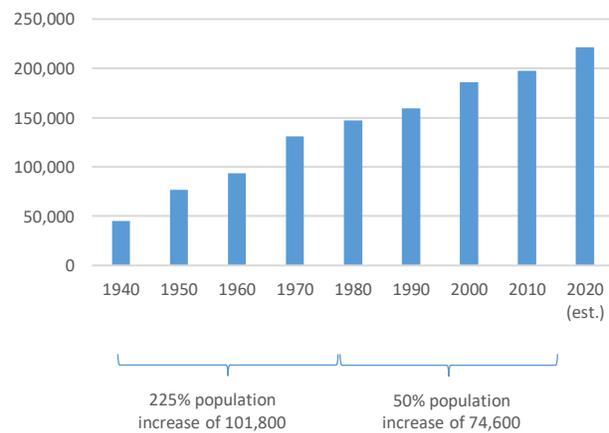


Figure 4. Post-WWII Ann Arbor Population by Decade⁸¹



Ann Arbor Area Employment, Housing Value and Price Growth

While the Ann Arbor housing and population growth has been constrained over the past 40 years, the employment growth has not been.

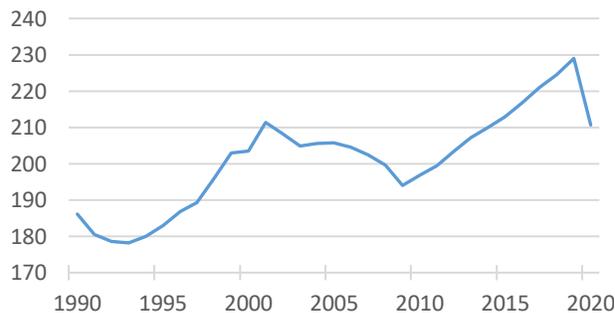
Figure 5 presents the annual Ann Arbor area employment data since 1990. The 2001 recession is evident. A multi-year decline followed that downturn through the Great Recession of 2007/09, which also coincided with the departure of Pfizer Pharmaceutical from Ann Arbor. The Ann Arbor area employment following that recession period went from 194,000 in 2009, to an annual peak of 229,000 in

Ann Arbor’s Middle-Income Needs Analysis

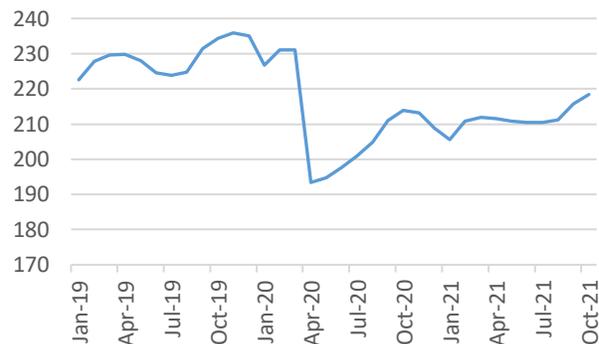
2019, an 18% increase. This is far greater than the 8.7% population increase over the past 10 years, noted previously. The Ann Arbor area was experiencing a significant growth in employment over the past 10 years, which likely contributed to significant demand-based pricing on the local housing market.

Figure 6 presents the more recent monthly employment data for the Ann Arbor area from January 2019 through October 2021. The area had a monthly employment peak in October – December of 2019 at around 235,000, pre-COVID, and as of October 2021 was at 218,500, which is 17,500 below its pre-COVID peak. Later in this paper, we will dissect this COVID pandemic dynamic, and its implications for housing affordability.

*Figure 5. Bureau of Labor Statistics
Ann Arbor Area Total Employment by Year⁸²*

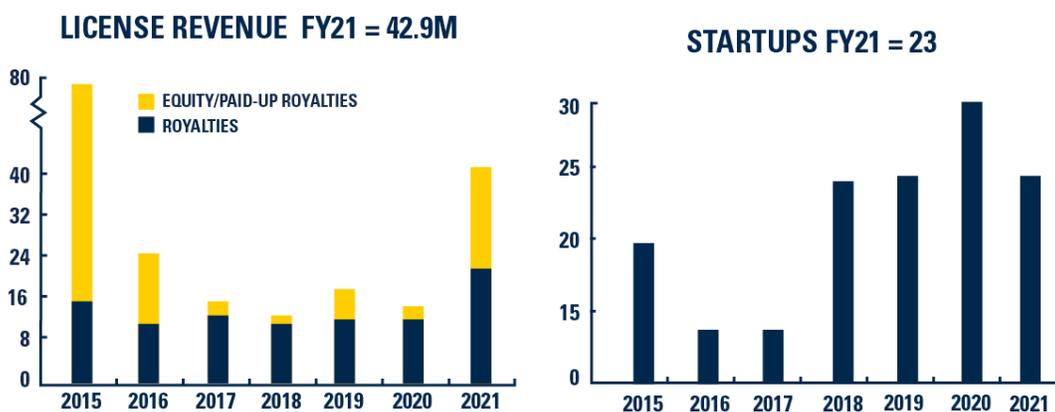


*Figure 6. Bureau of Labor Statistics
Ann Arbor Area Total Employment by Month*



The University of Michigan’s Innovation Partnerships unit in the Office of the Vice President for Research and Development provides information on its business impact, with approximately 150 start-ups created just since 2015, over 2,000 jobs created since 2000, and \$42.9 Million of license revenue in 2021, alone. Sixty-percent of companies launched by U-M in the last ten years have remained in the Ann Arbor area.⁸³

Figure 7. University of Michigan Innovation Partnerships Performance - 2015 – 2021⁸⁴



This employment and business growth is likely driving the local housing stock valuations and price increases over the past 10 years, as depicted by the Zillow Home Value Index for Ann Arbor, in Figure 8 below.

Ann Arbor's Middle-Income Needs Analysis

Figure 8. Zillow Home Value Index^{85 86}
Ann Arbor 2012 through 2021 (October)



Figure 9. Geographic Area Covered by Zillow Home Value Index for Ann Arbor



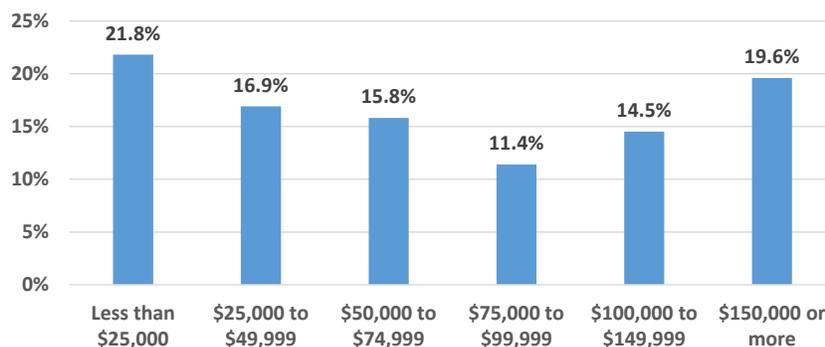
Since Zillow has recently come under controversy for its own housing price forecasts, and with their definition of the Ann Arbor market being overly broad, checking other housing pricing operations would make sense. Realtor.com also tracks the Ann Arbor housing market, but just within the freeway ring, and reports a peak of the median monthly price of homes sold to date in 2021 at \$446,500 in June.⁸⁷ This is within range of Zillow's Home Value Index estimate of \$469K. On this basis, the Zillow Home Value Index of Ann Arbor, and the price-curve increase it reflects, is a reasonable 10-year approximation.⁸⁸

Evidence of a Middle-Income-Based Housing Divide at Play in Ann Arbor

If Ann Arbor were suffering from a middle-income-based housing divide, in terms of homeownership and rental affordability, one would expect to see it in the US Census data on the distribution of home ownership and rental housing by household income ranges.

Figure 10 presents the 2019 distribution of household incomes for the City of Ann Arbor, and Figures 11 and 12 breakdown the data between owner-occupied and renter occupied units for the years 2010, 2015 and 2019, all in inflation-adjusted dollars.

Figure 10. Distribution of Household Incomes – City of Ann Arbor – 2019⁸⁹

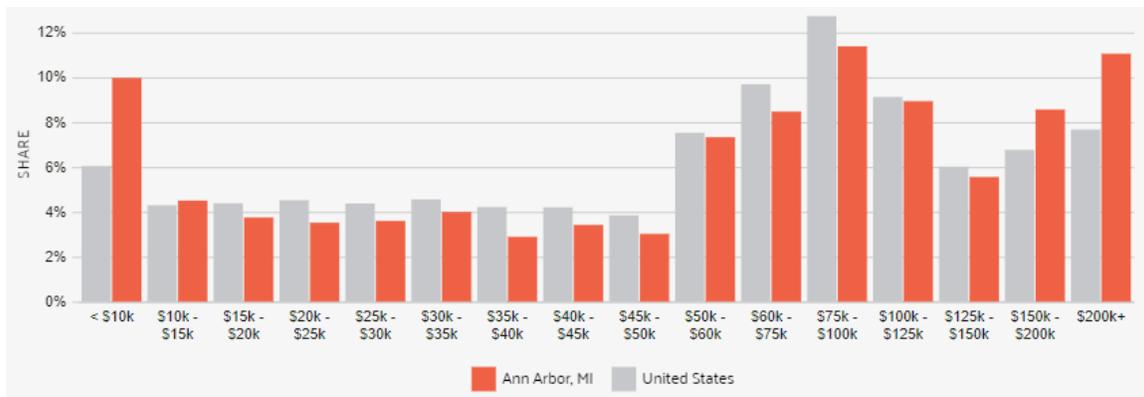


As shown in Figure 11, 42% of Ann Arbor households are within the middle-income range of \$50,000 - \$150,000, below the 45% of households that are, nationally. The distribution of households below \$10,000 / year at 10% is higher in Ann Arbor than nationally at 6%, likely due to the University student population. The distribution of household incomes above \$150,000 / year is also significantly higher in Ann Arbor at 20%, than the U.S nationally at 14%, approximately 1.3x an over-representation, over that

Ann Arbor’s Middle-Income Needs Analysis

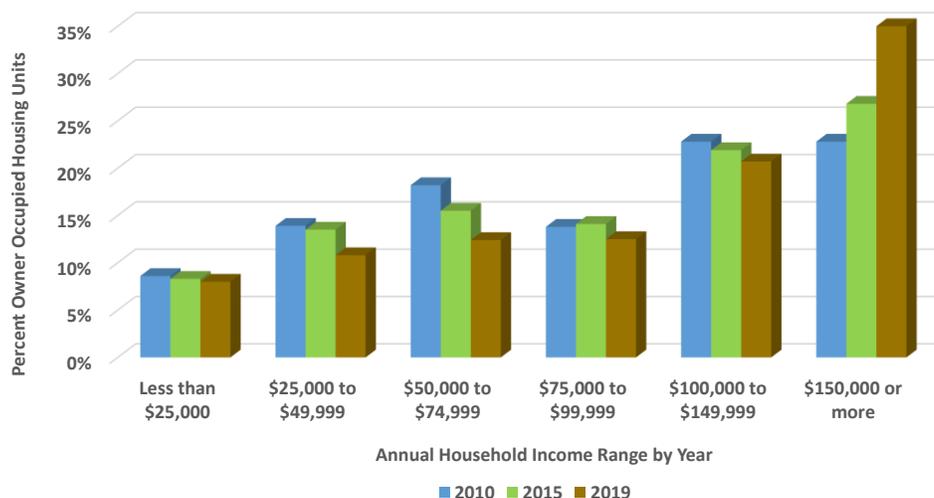
presumed of the students. While the growth in the student population has likely had an appreciable impact on housing prices, the impact of upper income households is likely greater.

Figure 11. Ann Arbor 2019 Household Income Compared to USA ⁹⁰



In Figure 12, one sees a marked declining distribution of home ownership over the 2010 – 2019 period for annual household incomes below \$75,000, and slightly declining distributions of ownership for households in the \$75,000 – \$100,000, and \$100,000 – \$150,000 annual income ranges. The distribution of home ownership is only increasing for those above annual incomes of \$150,000, the top 20% of Ann Arbor household incomes. It is also decreasing for those households earning below \$50,000.

Figure 12. Ann Arbor City
Distribution of Owner Occupied Housing Units
by Annual Household Income Ranges and Year ⁹¹

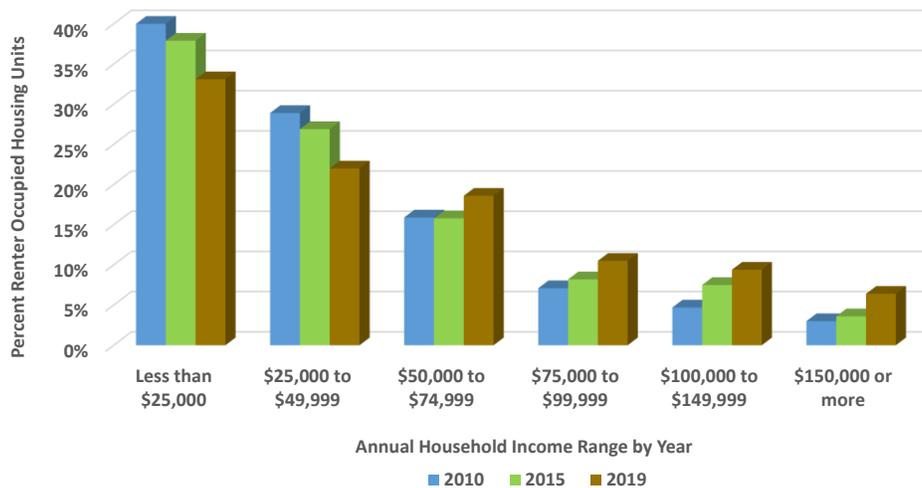


We can see the reduction of home ownership in the middle-income ranges, between \$50,000 and \$150,000 per year, occurring in Ann Arbor. Presumably, the ability to meet down payment, closing cost, and credit standards, let alone property taxes, are affecting these reduced ownership rates in these income tiers. Lending standards also tightened significantly following the 2008 Great Recession. ^{92 93}

Ann Arbor’s Middle-Income Needs Analysis

Figure 13, below, presents this analysis for renter occupied households. What you will note from this chart is that those ranges experiencing ownership declines are experiencing reciprocal increases in the distribution of rentals, except for those below the \$50,000 annual household income threshold.

**Figure 13. Ann Arbor City
Distribution of Renter Occupied Housing Units
by Annual Household Income Ranges and Year**



Those no longer able to make Ann Arbor rents, below \$50,000 in annual household income, are being pushed to rental housing outside Ann Arbor, consuming the limited housing supply and having increased commuting costs. Below that threshold is within the income range available for AACH housing assistance, as well as from NACA, as previously discussed. This low-income rental decline exceeds the University of Michigan Ann Arbor campus student population growth of 8,000 since 2010, which has occurred without additional campus housing.^{94 95} The 19% increase in student renters has not made up for the marked decline in low-income renters in Ann Arbor. The rental market has shifted to middle income households.

As of now, only 40% of all U-M Ann Arbor campus employees live in the Ann Arbor area⁹⁶ and the proportion among staff is only 28%, having dropped 12% between 2012 and 2018.⁹⁷

Ann Arbor has a continuing 40+-year displacement of the lowest income households by moderate-income households, who are feeling housing pressure from the highest income households.⁹⁸ The increasing distribution of home ownership by households with annual incomes over \$150,000 is likely driving the resistance to higher densities of market-rate homes within Ann Arbor. The 80%+ of residents below this income threshold are responding viscerally. Without addressing the loss families are experiencing in their ability to afford Ann Arbor homeownership, the rancor will likely continue.

As the Ann Arbor City Council continues to seek ways to increase housing densities, and with it economic diversity, additional tools for home ownership like NACA are critically necessary in order to attain equity goals.

Ann Arbor Employment COVID K-Recovery and the UofM Tech Sector Impact

While the shifts in the distribution of homeownership, up through 2019, measurably identify an equity problem in the Ann Arbor housing market, COVID has potentially also made it measurably worse.

Ann Arbor’s Middle-Income Needs Analysis

This section provides an analysis of the impact of COVID on Ann Arbor area employment by major and detailed job categories for the Ann Arbor area. The data reflects the so-called K-recovery across the March 2020 – September 2021 period.⁹⁹ As a “K” letter shape denotes, some sectors have lagged or declined, such as Hospitality and Leisure, while the opposite is true for Information Technology.

The Bureau of Labor Statistics data on the Ann Arbor area provide an opportunity to assess the impact of COVID on employment, as well as the potential impact of technology ventures and business start-ups / spin-offs from the University of Michigan, and follow in the subsequent section. The COVID shutdowns and their employment impact have potentially made the economic segregation across the Ann Arbor area even greater, so it is important to understand the nature of the COVID impact.

To the degree that the local technology ventures, i.e., in Technology Services, create and foster upper income jobs, they may also drive the increase in the area housing price curve, previously described. This is not to be critical of these new ventures, as they are good for the local economy, but to identify and mitigate the impact of higher housing prices they can generate, an option NACA mortgages represent.

To understand overall context, Table 2 presents the Ann Arbor Area employment over the 12-month period from October 2020 through September 2021 by Industry Supersector. Grouping them further by Business and Technology Services, Heavy Industry and Human Services shows that Human Services is the largest by far at 128.7 thousand workers, with Business and Technology Services and Heavy Industry each about 1/3 the size of Human Services. Table 2 also shows that the largest employment sectors for the Ann Arbor area include Government at over 80,000 employed in September of 2021, Professional and Business Services at over 26,500, followed by Education and Health Services at 27,500 workers.

Table 2. Monthly Ann Arbor Area Employment from October 2020 through September 2021.¹⁰⁰

Ann Arbor Area Employment by Industry Supersector	Total Employment (1,000s)												Sept-21 Totals
	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	
Total Nonfarm	213.9	213.1	208.9	205.6	210.9	212.7	211.5	210.9	210.4	210.5	211.2	215.7	
Business and Technology Services													
Information	6.0	6.0	6.0	6.0	6.1	6.1	6.1	6.2	6.2	6.3	6.3	6.2	41.9
Professional and Business Services	29.5	29.2	29.4	29.4	29.7	29.4	29.3	29.5	29.4	29.2	28.8	29.1	
Financial Activities	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.6	6.7	6.6	6.6	6.6	
Heavy Industry													
Trade, Transportation, and Utilities	25.7	25.9	26.3	25.9	25.8	26.2	26.1	26.5	26.9	26.7	26.5	26.5	45.1
Mining, Logging, and Construction	4.8	4.8	4.6	4.5	4.3	4.4	4.6	4.9	5.1	5.2	5.3	5.2	
Manufacturing	13.2	13.2	13.2	13.2	13.3	13.6	13.3	13.3	13.4	13.3	13.6	13.4	
Human Services													
Education and Health Services	28.1	28.1	27.9	27.7	28	28	27.7	27.7	27.8	27.5	27.2	27.5	128.7
Government	81.7	81.9	80	77.4	80.1	80.9	80.0	77.5	75.1	75.5	76.6	81.2	
Other Services	5.4	5.4	5.3	5.3	5.3	5.3	5.3	5.4	5.5	5.5	5.5	5.4	
Leisure and Hospitality	13.1	12.2	9.8	9.8	11.9	12.4	12.7	13.3	14.3	14.7	14.8	14.6	

Tables 3 and 4 below show the impact of COVID during the lockdowns, ordered by the 6-month average rate of 12-month change, from October 2020 through September 2021.

Table 3 presents it through March '21, with estimates of the 12-month rate of employment change by job sector for the Ann Arbor area, starting in October 2020. By this method, it shows the employment change from October of 2019, and so on. October of 2019 was during the previous employment peak in the third quarter of 2019, previously described.

Ann Arbor’s Middle-Income Needs Analysis

Table 4 presents the 12-month employment change data for April to September '21, on the same basis. It reflects the employment rebound once vaccines were available to all adults in the US, by April 2021. Heavy Industry sectors have had the greatest rebound, and Human Services-based ones still have not recovered. Business and Technology Services have essentially been flat over this 12-month time period.

The green shaded cells in Tables 3 and 4 show the sectors with the lowest rate of employment losses during the lockdowns, highlighting those more prone to continued home-based remote work for the Information, Professional and Business Services, and Financial sectors. The green outline on the Information sector row is to emphasize its continued relative growth over this period. However, outside of the Information sector, the rest were all negatively impacted by the COVID shutdowns.

The yellow shaded cells show the sectors that experienced the greatest rates of employment loss during the lockdowns – Human Services. Each of these sectors has an annual median income below \$30,000. The orange outline on Government and Leisure and Hospitality sectors is to emphasize the tremendous hit those sectors experienced; 7,300 jobs lost for Government, and 6,400 lost in Leisure and Hospitality.

This reflects the "K-recovery" that occurred locally during the lockdowns, minor decline with some growth for Information, Professional and Financial Services, and significant decline for Human Services.

On this basis, it is likely the COVID pandemic made the economic segregation affecting the Ann Arbor area worse for those at the lower income tiers in these human services based sectors. Racial disparities of those who acquired COVID are well documented.¹⁰¹ Understanding the occupational groups impacted by the COVID shutdown can also help understand the impact of COVID in furthering economic segregation. Knowing the occupation groups by income levels most affected can provide this insight.

Table 3. Rolling Monthly View of the COVID Pandemic Impact on Ann Arbor Area Employment: Percent Change in Employment by Super-Sector October 2019 through March 2020 – vs – October 2020 through March 2021

Ann Arbor Area Employment by Industry Supersector	Prior 12-month % change							6 Month Average	Oct-20 to Mar-21 Average 6-Month Change (1,000s)
	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21			
Total Nonfarm	-8.7	-9.7	-11.1	-9.3	-8.7	-7.9	-9.2	-21.45	
Business and Technology Services									
Information	0.0	-1.6	-1.6	0.0	1.7	3.4	0.3	-1.53	
Professional and Business Services	-3	-6.1	-4.9	-3.3	-2.9	-3.6	-4.0		
Financial Activities	-5.9	-5.9	-5.9	-4.5	-4.5	-3	-5.0		
Heavy Industry									
Trade, Transportation, and Utilities	-5.5	-8.2	-7.7	-5.5	-4.8	-2.6	-5.7	-2.73	
Mining, Logging, and Construction	-9.4	-5.9	-6.1	-4.3	-6.5	-4.3	-6.1		
Manufacturing	-8.3	-7.7	-7	-5.7	-5	-2.9	-6.1		
Human Services									
Education and Health Services	-6.6	-7.3	-7.6	-8.9	-9.4	-8.5	-8.1	-17.20	
Government	-8.3	-8.4	-10.2	-7.0	-7.9	-8.5	-8.4		
Other Services	-15.6	-15.6	-15.9	-15.9	-15.9	-15.9	-15.8		
Leisure and Hospitality	-29.6	-33.0	-45.9	-44.6	-33.1	-27.9	-35.7		

The balance of this paper will use the Table 3, ‘6 Month Average’ of the 12-month rate of change ordering of Business and Technology Services, Heavy Industry, and Human Services occupations for a consistent analysis framing.

Ann Arbor’s Middle-Income Needs Analysis

As shown in Table 4, Heavy Industry has experienced growth in actual employment of 3,190 jobs, while Human Services, through September of 2021, is still experiencing the most in net lost jobs of 11,440.

The primary driver of the lower recovery in Human Services may be because over two-thirds of Human Services workers are women who still predominantly maintain childcare responsibilities, and constitute the majority of those not staying in or returning to the workforce.^{102 103 104 105} The October 2021 unemployment rate of 3.8% for the Ann Arbor area is considered full employment.^{106 107} Therefore, those who have not returned to the area workforce are likely no longer seeking employment.

The post-vaccine rebound is evident from April to September 2021, 12-month employment change data. As of September 2021, total Ann Arbor area employment is just above 215,000, but still well below the prior peak of 235,000 in the 3rd Quarter of 2019 (sees Figure 6, above).

Table 4. Rolling Monthly View of the COVID Pandemic Impact on Ann Arbor Area Employment: Percent Change in Employment by Super-Sector April 2020 through September 2020 – vs – April 2021 through September 2021¹⁰⁸

Ann Arbor Area Employment by Industry Supersector	Prior 12-month % change							Apr-21 to Sep-21 Average 6-Month Change (1,000s)	Average 12-month Change (1,000s)
	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	6 Month Average		
Total Nonfarm	9.4	8.3	6.5	4.8	3.1	3.9	6.0	11.98	-9.47
Business and Technology Services									
Information	3.4	6.9	5.1	5.0	5.0	5.1	5.1	1.41	-0.12
Professional and Business Services	12.3	6.1	1.7	0.3	-1.4	1.4	3.4		
Financial Activities	3.2	4.8	4.7	0.0	-1.5	3.1	2.4		
Heavy Industry									
Trade, Transportation, and Utilities	26.1	18.3	13.0	7.7	5.2	4.3	12.4	5.93	3.19
Mining, Logging, and Construction	100.0	19.5	8.5	8.3	8.2	10.6	25.9		
Manufacturing	51.1	34.3	7.2	3.9	3.8	2.3	17.1		
Human Services									
Education and Health Services	9.1	9.9	6.5	3.4	0.4	-0.7	4.8	5.76	-11.44
Government	-6.7	-1.6	4.3	4.7	3.4	5.4	1.6		
Other Services	12.8	10.2	3.8	1.9	0	0	4.8		
Leisure and Hospitality	67.1	40.0	19.2	15.7	13	10.6	27.6		

Decomposing Ann Arbor Income Data by Major Occupational Groups

The Bureau of Labor Statistics (BLS) releases detailed job data in May of every year, for the prior period, so the data presented here from May of 2020,¹⁰⁹ is reflective of pre-COVID median incomes.¹¹⁰

Table 5 presents the BLS occupational employment and the area annual median income (AMI) estimates for Ann Arbor at the **major** occupational group level. As this data is for individuals, and not households, the AMI for all occupations in the Ann Arbor Area is \$47,230 / year. Given the housing affordability challenges already described, a two-income household would likely be necessary for home ownership at this income level.

Those major occupational groups with annual median incomes at or above \$75,000, which are less constrained in their rates of homeownership, include Management, Architecture and Engineering, Computer and Mathematical, as well as Healthcare Practitioners and Technical Occupations. Each of these occupational groups may also be ones that establish new technology ventures and spin-offs.

Living Wage Thresholds for the Ann Arbor Area

At and above an annual income of \$75,000, single parent families can begin to earn a Livable Wage.¹¹¹

Ann Arbor’s Middle-Income Needs Analysis

Table 5 also shows that those major occupational groups with the lowest annual median incomes were those most impacted by the COVID shutdowns, including, Healthcare Support, Personal Care and Services, and Food Preparation and Serving related occupations. The area median incomes for these major occupational groups are all at or below a Living Wage of \$32,500 per year for a single adult without children in Washtenaw County,¹¹² a level of income clearly not tenable for families.

Table 5. Ann Arbor Median Income by Major Occupational Group

Major Occupational Group	Ann Arbor Area Total Employment	Ann Arbor Area Annual Median Income
All Occupations for the Ann Arbor Area	208,320	47,230
Business and Technology Services		
Management Occupations	11,280	114,690
Architecture and Engineering Occupations	6,950	86,640
Computer and Mathematical Occupations	9,090	75,180
Legal Occupations	1,070	72,790
Business and Financial Operations Occupations	12,510	70,160
Life, Physical, and Social Science Occupations	3,980	60,870
Office and Administrative Support Occupations	24,150	38,550
Sales and Related Occupations	13,660	33,220
Heavy Industry		
Construction and Extraction Occupations	4,580	59,640
Installation, Maintenance, and Repair Occupations	5,570	54,000
Production Occupations	10,110	37,590
Transportation and Material Moving Occupations	10,260	33,720
Building and Grounds Cleaning and Maintenance Occupations	5,520	33,650
Farming, Fishing, and Forestry Occupations	110	33,350
Human Services		
Healthcare Practitioners and Technical Occupations	23,030	74,780
Arts, Design, Entertainment, Sports, and Media Occupations	3,600	53,850
Protective Service Occupations	2,470	50,580
Educational Instruction and Library Occupations	26,320	49,720
Community and Social Service Occupations	4,320	45,050
Healthcare Support Occupations	10,180	33,100
Personal Care and Service Occupations	6,030	24,690
Food Preparation and Serving Related Occupations	13,520	24,560

The living wage model is an alternative measure of basic needs. It draws upon expenditure data related to a family's likely minimum food, childcare, health insurance, housing, transportation, cell phone and broadband service, funds for civic engagement and other necessities. The living wage draws on these cost elements and the effects of income and payroll taxes to determine the minimum employment earnings necessary to meet a family's basic needs while also maintaining self-sufficiency. It does not provide a financial means for planning for the future through savings and investment or for the purchase of capital assets (e.g., provisions for retirement or home purchases). The living wage is the minimum income standard that, if met, draws a line between the financial independence of the working poor and the need to seek out public assistance or suffer consistent and severe housing and food insecurity.¹¹³

While the focus of this paper is on the middle-income ranges impacted by Ann Arbor’s housing market trends, the knowledge that many occupations in the Ann Arbor area have incomes below a livable wage should be a cause of continuing concern. NACA also supports mortgage financing for those below the 60% Area Median Income range, which is also the threshold targeted by Ann Arbor’s Affordable Housing Millage, or just below \$64,000 in annual household income for Ann Arbor (see Table 1).¹¹⁴

Ann Arbor’s Middle-Income Needs Analysis

Employed Persons by Sex, Race, and Hispanic / Latinx Ethnicity

Table 6 presents national demographics for 2021 across the major occupations. Cells highlighted yellow are more than 5% above the national average, to denote overrepresentation of a demographic.

- Men are overrepresented in the Management, Architecture, Engineering, Computer and Mathematical occupations, all Heavy Industry, as well as Protective Service occupations.
- Women are overrepresented in Legal; Business and Financial Operations; Office and Administrative Support; and nearly all Human Services occupations, except for Arts, Design, Entertainment, Sports and Media, and Protective Services occupations.
- Whites are overrepresented in Management; Legal; Construction and Extraction; Installation, Maintenance, and Repair; Farming, Fishing and Forestry; Arts Design, Entertainment, Sports and Media; and Education, Training and Library occupations.
- Black or African Americans are overrepresented in Transportation and Material Moving; Protective Services; Community and Social Services; and Healthcare Support Occupations.
- Asian Americans are overrepresented in Architecture and Engineering; Computer and Mathematical; and Life, Physical and Social Science occupations.
- Hispanics / Latinx are overrepresented in Heavy Industry overall, and Food Preparation & Serving.

Women, Blacks or African Americans, and Hispanics are overrepresented in lower income occupations.

Table 6. National Household Annual Averages for Employed Persons by Major Occupation, Sex, Race, and Hispanic / Latinx Ethnicity ¹¹⁵

Major Occupations	Total U.S. employed (1,000s)	2021					
		Percent of total employed					
		Women	Men	White	Black or African American	Asian	Hispanic / Latinx*
Total, 16 years and over	152,581	47	53	78	12	7	18
Business and Technology Services							
Management occupations	18,986	41	59	82	9	7	11
Architecture and engineering occupations	3,235	17	83	77	6	15	10
Computer and mathematical occupations	5,688	26	74	65	9	23	8
Legal occupations	1,805	54	47	84	8	5	10
Business and financial operations occupations	8,878	55	45	78	11	9	10
Life, physical, and social science occupations	1,640	47	53	75	7	15	8
Office and administrative support occupations	15,797	72	28	76	15	5	18
Sales and related occupations	14,369	50	50	80	11	5	17
Heavy Industry							
Construction and extraction occupations	8,057	4	96	87	7	2	39
Installation, maintenance, and repair occupations	4,840	4	96	85	8	3	22
Production occupations	7,950	28	72	78	13	6	24
Transportation and material moving occupations	11,359	22	78	71	20	4	24
Building and grounds cleaning and maintenance occupations	5,482	42	58	78	14	3	38
Farming, fishing, and forestry occupations	1,061	24	76	88	4	2	44
Human Services							
Healthcare practitioners and technical occupations	9,639	74	26	76	12	10	9
Arts, design, entertainment, sports, and media occupations	3,151	50	50	83	8	6	11
Protective service occupations	2,987	24	76	73	20	3	15
Education, training, and library occupations	8,946	74	26	82	10	6	11
Community and social service occupations	2,777	68	33	73	20	4	13
Healthcare support occupations	4,887	85	15	65	25	7	21
Personal care and service occupations	3,676	79	21	73	13	10	18
Food preparation and serving related occupations	7,370	55	45	75	13	6	28

* Estimates for the above race groups (White, Black or African American, and Asian) do not sum to totals because data are not presented for all races. Persons whose ethnicity is identified as Hispanic or Latinx may be of any race.

Ann Arbor's Middle-Income Needs Analysis

Decomposing Ann Arbor Income Data by Detailed Occupational Groups

To understand the nature of the area's middle-income employment, the remainder of this Needs-Analysis will assess middle-income earners by **detailed** occupational groups. Knowing the detailed occupations across the impacted income ranges helps understand the people affected. This should build empathy, as many are those who we regularly interact with in our day-to-day lives at work and in our communities, and provide core functions to the Ann Arbor area.

Using BLS data at the detailed occupational group level, the tables in **Appendix 3** provide a further breakdown of Ann Arbor employment at the following individual annual median income groups:

- Table 8 – above \$100,000
- Table 9 – within \$75,000 – \$100,000
- Table 10 – within \$60,000 – \$75,000
- Table 11 – within \$50,000 – \$60,000

Occupational incomes in the \$50,000 – \$75,000 range, the lower middle-income wage earners, are broken into \$60,000 – \$75,000 and \$50,000 – \$60,000 segments given the breadth of occupations.

This assessment will highlight the detailed types of middle-income occupations people have that are experiencing both increasing and declining homeownership trends, above and below the annual household area median income of \$100,000. While household income was the basis for the homeownership data previously presented, this employment data is at the individual income level.

Although this data does not capture dual-income households, per se, the data can reflect occupations where single income households, such as single parent families or those with only one working adult, would be the most impacted by housing scarcity and stress in Ann Arbor and the surrounding area.

Occupations over \$100,000 in Annual Median Income

This is essentially above Ann Arbor's household Area Median Income.

The Ann Arbor area employment sectors least affected by the COVID shutdowns (Information, Professional and Business Services, and Financial Activities) include the higher income households above \$150K, which have the highest distribution of home ownership in Ann Arbor. These higher income segments include those likely to establish or manage new technology ventures and University spin-offs.¹¹⁶

That said, Figures 12 and 13 show that households in between \$100,000 – \$150,000 annual income, reflect relatively declining rates of homeownership and increasing rates of renter occupied housing. While this range defines upper-middle-incomes, these households are experiencing reduced home ownership trends. This would likely be especially true for single-income family households.

The Business and Technology Services occupations above \$100,000 in annual income include many of the Management roles associated with core business functions, including CEOs, Purchasing, Sales, Marketing, HR, Operations, and Finance Managers, as well as Medical and Health Services Managers. It also consists of core Information and Technology Services roles, including Architectural and Engineering, Computer and Information Systems, Natural Science and Industrial Production Managers, as well as Electronics Engineers, Computer Network Architects, Environmental and other Engineering roles.

One can appreciate that the establishment of new businesses or technology spinoffs from the University will include these core Business and Technology Services occupations.

Heavy Industry occupations with incomes above \$100,000 per year include Transportation, Storage and Distribution Managers, as well as Construction Managers.

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The Human Services occupations at these higher income levels include Healthcare and Medical occupations such as Nurse Anesthetists, Physicians, Pharmacists, Dentists, Nurse Practitioners, and Physician Assistants. College and University faculty are also above \$100,000 in annual median income, including Business, Computer Science, the Physical Sciences, Mathematics, Physics, Psychology and Health Specialties, among others. Leisure and Hospitality management occupations are also earning annual incomes above \$100,000, including Personal Service, Entertainment, and Recreation Managers.

Medical faculty and medical school graduates often establish new Healthcare and Medical businesses in the area. The College and University faculty occupations at these higher income levels are also in those domains likely experiencing new business formation, including Business, Computer and Physical Sciences, Mathematics, Physics and Health Specialty fields.

Occupations between \$75,000 – \$100,000 in Annual Median Income

Households at these income ranges for single-parent families are at foundational levels for a Livable Wage, as previously discussed. Reflected in the previous homeownership and renter trend data in Figures 12 and 13, having money for a down payment and closing costs is likely constrained in this range. NACA mortgages are certainly available for single income families in this annual income range, and the homeownership and renter trend data indicate these households would benefit from NACA mortgages.

Those in this income range include Management and Business Services support functions such as Administrative and Facilities Managers, Sales Representatives, Management Analysts and Logisticians. Median income levels for Information and Technology Services in this range include an array of IT and engineering occupations such as Database Administrators and Architects, Commercial and Industrial Designers, Computer Systems Analysis and Programmers, Network Administrators, Mechanical Engineers, Civil and Electrical Engineers and Architects. This annual median income range includes all Architecture, Engineering, Computer and Mathematical Occupations at the major group level.

Heavy Industry detailed occupational groups in this range include First Line Supervisors and Technical Trades such as Electrical Power-line Installers and Repairers, Supervisors of Mechanics, Installers, and Repairers, Control and Valve Installers and Repairers, as well as Plumbers, Pipefitters and Steamfitters.

Human Service occupations in the \$75,000 – \$100,000 annual income range include Healthcare and Medical professions such as Physical Therapists, Speech Pathologists and Occupational Therapists, Registered Nurses, Occupational Health and Safety Specialists, and Acupuncturists. Educational occupations include non-technical College and University professions such as Social Work, English Literature, Philosophy and Religion, Nursing, Art, Drama and Music, Communication, Education and Foreign Language teachers. This range also includes County and City Public Safety Supervisors of Police and Detectives, as well as Detectives and Criminal Investigators.

Occupations between \$60,000 – \$75,000 in Annual Median Income

Households below \$75,000 in annual income are experiencing a rapid decline in homeownership and a corresponding increase in rental rates. Affordable homeownership in Ann Arbor is likely the most limited for single parent families below this threshold, earning below a livable wage, but also single-income two-parent families.

Management and Business Services occupations in this range include additional business support functions such as Financial Analysts and Auditors; Project Management, Operations, Human Resource Specialists; Art Directors and Technical Writers; Executive Secretaries and Administrative Assistants; Services and Manufacturing Sales Representatives; as well as Editors, Fundraisers and Supervisors of Office and Administrative Support Workers. Also in this range are the Legal, Business and Financial Operations major occupations.

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Fewer Information and Technology Services occupations exist in this annual median income range than in those ranges above \$75,000. For this range, these include CNC Tool Programmers and Computer Operations services occupations.

More Heavy Industry detailed occupations exist in this annual median income range than in those above it. This includes the following First-line Supervisory and Technical Trades: Electricians; Supervisors of Production, Operating, Construction and Extraction Trades; Heating, Air Conditioning and Refrigeration Mechanics and Installers; Mechanical Engineering Technicians; and Chemists.

Human Services occupations from \$60,000 – \$75,000 in annual median income include Healthcare and Medical professions for Healthcare Practitioners and Life, Physical and Social Science major occupations. Detailed Healthcare and Medical occupations include Environmental & Medical Scientists; Cardiovascular and Radiologic Technologists; and Respiratory Therapists and Healthcare Social Workers.

Educational occupations in this income segment include Education Administrators; Librarians and Collections Specialists; Primary, Secondary and Special Education Teachers; as well as Training and Development Specialists.

County and City Public Safety occupations in this segment include First-line Supervisors of Correctional Officers; Probation Officers & Correctional Treatment Specialists; and Police and Sheriff's Patrol Officers.

Occupations between \$50,000 – \$60,000 in Annual Median Income

As with the previous income range, households between \$50,000 – 60,000 in annual income are also experiencing a rapid decline in homeownership and a corresponding increase in rental rates. In this range, affordable homeownership in Ann Arbor is likely most limited for single parent families, and single-income two-parent families.

Management and Business Services occupations in this range include PR Specialists; Buyers and Purchasing Agents; Insurance, Securities, Commodities, and Financial Services Sales Agents; Brokerage Clerks; Graphic Designers; and Paralegals and Legal Assistants. Major occupational groups in this median income segment include Arts, Design, Entertainment, Sports and Media occupations.

Information and Technology Services occupations are also more limited in this income segment. These occupations include Industrial Engineering Technologists and Computer Network Support Specialists.

Heavy Industry major occupation groups for First Line Supervisors and Technical Trades in this lower-middle-income range include all Construction and Extraction occupations, as well as Installation, Maintenance, and Repair occupations. Detailed occupational groups include Industrial Machinery Mechanics; Calibration and Engineering Technicians; Roofers; Cement Masons and Concrete Finishers; Carpenters; Bus and Truck Mechanics and Diesel Engine Specialists; and Automotive Body and Related Repairers. This median income range also includes First Line Supervisors of Transportation, Material Moving Workers, Landscaping, Lawn Service, and Grounds-keeping Workers.

Human Services occupations between \$50,000 – \$60,000 in annual median incomes include Healthcare and Medical professions for Clinical Laboratory and Psychiatric Technicians; Physical Therapy Assistants; Health Information Technologists; Medical Registrars and Surgical Assistants; Licensed Practical and Vocational Nurses; Massage Therapists; Mental Health and Substance Abuse Social Workers; Athletic Trainers; and Medical Dosimetrists, Medical Records Specialists and Health Technologists. Education occupations in this income range include Educational, Guidance, and Career Counselors.

Government occupations occur in this income range, and include Highway Maintenance Workers; Eligibility Interviewers; Water and Wastewater Treatment Plant and System Operators; as well as Postal

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Service Mail Carriers. County and City Public Safety Government occupations include Correctional Officers and Jailers; Firefighters; and Public Safety Telecommunications occupations. This median income segment also includes the major occupational group of Protective Services, overall.

Conclusions

The lower-middle-income segment from \$50,000 to \$75,000 in annual median household income covers many occupations critical to the stable function of the Ann Arbor area (Tables 9 and 10). This segment has been experiencing severe housing stress as reflected in their rapid decline in Ann Arbor homeownership rates. This stress would especially be the case for single parent, single-income households below \$75,000 in annual income, considered to be under a livable wage.

Heavy Industry occupations in this income range are overrepresented by men, as well as Blacks or African Americans, and those of Hispanic / Latinx ethnicity. Significantly, fewer people in the Ann Arbor area are now working in Human Services, which is female, Black or African American, and Hispanic / Latinx dominated. This is likely resulting in more single-income households than before COVID. COVID's impact worsened affordability, and disproportionately affected women, Black, and Hispanic households. Households in these lower-middle-income segments certainly can benefit from NACA-based mortgages.

The Ann Arbor area is experiencing significant and well-documented economic segregation. Ann Arbor has had a 40+-year displacement of the lowest income households by moderate-income households, who are feeling housing pressure from the highest income households. While it is most palpable at low-income ranges, under \$50,000 a year, middle-income households from \$50,000 – \$150,000 in annual incomes are also experiencing it in the form of reduced homeownership, and increasing levels of renter occupied housing. Renters, of course, experience year over year increases to their housing costs as rents increase, further exacerbating affordability. Homeownership is therefore critical.

For middle-income households, due to the lack of housing alternatives as well as housing affordable to them, a gap exists that separates people economically and geographically. Lower homeownership and increasing rental rates have developed for middle-income households in Ann Arbor. The growing gap in housing options especially affordable for ownership to lower-middle-income households defines the economic segregation affecting the Ann Arbor area, and the manner in which it is worsening. Home ownership affordability options are critical to impeding further economic segregation.

NACA provides zero down, zero closing cost, character-based mortgages for low and moderate-income households below the area median income. For the Ann Arbor area, it is at \$106,600 in annual household income. On this basis, NACA provides an option to help reduce economic segregation.

The current City Council of Ann Arbor will likely continue to foster increased levels of housing development, as it has already done with the Accessory Dwelling Unit and Transit District ordinances, among other actions. Without more significant market intervention to increase access to affordable homeownership, the economic segregation will likely continue to increase.

Knowing both the impact of the COVID shutdowns on local employment, as well as the detailed occupational groups within the impacted middle-income ranges, constrained from local housing they can afford to own, increases the empathy needed to address the challenges of economic segregation.

NACA provides a way to increase local homeownership to lower middle-income households, thereby reducing the housing stress, living costs, and potentially commute times, being experienced in the Ann Arbor area. It is critical that the area's major employers, including the University of Michigan, the City of Ann Arbor, and Washtenaw County, and associated union locals through the Huron Valley Area Labor Federation, support options like NACA for their respective employees and affiliates' members.

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Appendix 1 – Ann Arbor Area Largest Employers

The following table lists the largest employers for Washtenaw County proposed for NACA sponsorship. The University of Michigan and its Healthcare System, the City of Ann Arbor, and Washtenaw County could establish an initial core employer team with the Huron Valley Area Labor Federation. The Greater Ann Arbor Society for Human Resource Management could be a means for its employer expansion.¹¹⁷

*Table 7. The 20 Largest Employers of Washtenaw County (2021)*¹¹⁸

	Company Name	Business Segment Description	City	Employees
1	University of Michigan	Public university and health system	Ann Arbor	35,446
2	Ann Arbor Public Schools	Public school district	Ann Arbor	2,607
3	Toyota Technical Center	OEM research	Ann Arbor, Saline	2,295
4	Faurecia North America	Automotive component manufacturing	Saline	1,820
5	IHA Health Services Corp.	Healthcare system	Ann Arbor	1,592
6	Eastern Michigan University	Public university	Ypsilanti	1,426
7	Washtenaw County	Government	Ann Arbor	1,322
8	Thomson Reuters	Software/IT	Ann Arbor	1,155
9	Terumo Cardiovascular Group	Surgical & cardiovascular instruments	Ann Arbor	1,100
10	Domino’s Pizza	Headquarters	Ann Arbor	1,000
11	City of Ann Arbor	Government	Ann Arbor	700
12	IBM Watson Health	Data and information	Ann Arbor	700
13	Zingerman’s Family of Businesses	Food production	Ann Arbor	700
14	FCA US Proving Grounds	OEM research	Chelsea	687
15	Ford Motor Co. – Rawsonville	Automotive component manufacturing	Ypsilanti	680
16	Ypsilanti Community Schools	Public school district	Ypsilanti	634
17	ProQuest	Data and information	Ann Arbor	570
18	Truck Hero	Automotive component manufacturing	Ann Arbor	559
19	Washtenaw Community College	Public education	Ann Arbor	543
20	Martinrea Bishop Circle Assembly	Automotive component manufacturing	Manchester	520

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Appendix 2 – Huron Valley Area Labor Federation (HVALF) Affiliates

Here, in alphabetical order by acronym, are the HVALF's affiliates as of August 2019.¹¹⁹ Please note that text in red below is a link. HVALP is also proposed for NAVA local sponsorship.

1. AFGE (American Federation of Government Employees)
 - Local 2092 (Veterans Administration Hospital, Ann Arbor)
 - [Local 3907 \(Environmental Protection Agency or EPA, Ann Arbor\)](#)
 - [Local 3908 \(National Oceanic and Atmospheric Administration or NOAA, Great Lakes Environmental Research Lab, Ann Arbor\)](#)
2. AFM (American Federation of Musicians)
 - [Local 625 \(Ann Arbor\)](#)
3. [AFSCME \(American Federation of State, County, and Municipal Employees\)](#)
 - Local 139 (City of Jackson)
 - Local 369 (City of Ann Arbor)
 - Local 623 (City of Ypsilanti)
 - Local 1105 (Forensic Psychiatry Center, Saline)
 - Local 1182 (Ann Arbor Public Schools)
 - Local 1583 (University of Michigan)
 - Local 1921 (Washtenaw Community College)
 - Local 2098 (Jackson County)
 - Local 2587 (Jackson)
 - Local 2652 (Livingston Educational Service Agency)
 - Local 2733 (Washtenaw County Employees)
 - Local 3052 (Washtenaw County Supervisory Employees)
 - Local 3068 (Hillsdale)
 - Local 3451 (Ypsilanti Township)
 - Local 3866 (Eastern Michigan University)
4. AFT-MI (American Federation of Teachers-Michigan)
 - [Local 3550 \(Graduate Employee's Organization or GEO, U Michigan\)](#)
 - [Local 3760 \(Washtenaw Intermediate School Employees\)](#)
 - [Local 6244 \(Lecturers' Employee Organization or LEO, U Michigan\)](#)
 - [Local 9102 \(E Michigan U Federation of Teachers or EMU-FT\)](#)
5. BAC (Bricklayers and Allied Craft Workers)
 - [Local 9](#)
6. CWA (Communication Workers of America)
 - [Local 4123](#)

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7. [EMU-AAUP \(Eastern Michigan University-American Association of University Professors\)](#)
8. H&FI (Heat and Frost Insulators)
 - [Local 25](#)
9. HOA (House Officers Association), University of Michigan
10. IATSE (International Alliance of Theatrical Stage Employees)
 - [Local 395 \(SE Michigan\)](#)
11. IAFF (International Association of Fire Fighters)
 - [Local 401 \(Ypsilanti\)](#)
 - [Local 693 \(Ann Arbor\)](#)
12. [IAM \(International Association of Machinists\)](#)
 - Local Lodge 435 (Jackson)
13. IBEW (International Brotherhood of Electrical Workers)
 - [Local 58 \(Livingston & Wayne Counties\)](#)
 - [Local 252 \(Washtenaw & Jackson Counties\)](#)
14. IBT (International Brotherhood of Teamsters)
 - [Joint Council 43 \(Michigan\)](#)
15. Iron Workers (IW) Local 25
 - [Local 25 \(Michigan\)](#)
16. Laborer's International Union of North America (LIUNA)
 - Local 499
17. [Michigan Education Association \(MEA\)](#)
 - C-3 Council (Ann Arbor teachers, paraprofessionals and support staff)
18. Michigan Nurses Association (MNA)
 - University of Michigan Professional Nurses' Council (UMPNC)
19. NALC (National Association of Letter Carriers)
 - [Local 434](#)
20. OPEIU (Office and Professional Employees International Union)
 - [Local 277 \(Union staff in HVALF's four counties\)](#)
21. PASS (Professional Aviation Safety Specialists)
 - [Local MI 1](#)
22. SMART (Sheet Metal, Air, Rail and Transportation Workers)
 - [Local 80 \(SE Michigan\)](#)

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23. TWU (Transport Workers United)

- [Local 171 \(Ann Arbor Area Transportation Authority\)](#)

24. UA (United Association of Plumbers, Pipefitters, Service Technicians and Gas Distribution Workers)

- [Local 190 \(Ann Arbor\)](#)
- [Local 704 \(SE Michigan Sprinkler Fitters\)](#)

25. UAW (United Auto Workers)

- [Local 38 \(The Ecology Center\)](#)
- [Local 898 \(Ford Rawsonville Plant\)](#)
- [Local 1981 \(National Writers' Union\)](#)

26. UWUA (Utility Workers Union of America)

- [Local 101](#)

27. Washtenaw County Public Defenders Union

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Appendix 3 – Ann Arbor Area Detailed Occupational Groups Tables

Table 8 Ann Arbor Area Detailed Occupational Groups above \$100,000 in Annual Income. Those above \$150,000 Annual Household Incomes Define Ann Arbor's Homeownership Growth Segment

Detailed Occupational Group	Ann Arbor Area Total Employment	Ann Arbor Area Annual Median Income
Business and Technology Services		
Management and Business Services		
Chief Executives	130	> \$208,000
Purchasing Managers	90	\$124,500
Sales Managers	410	\$124,260
Marketing Managers	240	\$122,480
Public Relations and Fundraising Managers	250	\$121,590
Human Resources Managers	180	\$121,380
General and Operations Managers	3,050	\$120,440
Financial Managers	730	\$120,010
All Management Occupations	11,280	\$114,690
Medical and Health Services Managers	870	\$110,550
Lawyers	570	\$100,740
Information and Technology Services		
Architectural and Engineering Managers	**	\$137,870
Computer and Information Systems Managers	890	\$129,030
Natural Sciences Managers	270	\$127,810
Industrial Production Managers	280	\$125,610
Electronics Engineers, Except Computer	**	\$112,970
Computer Network Architects	90	\$109,220
Engineers, All Other	200	\$105,880
Environmental Engineers	120	\$101,020
Heavy Industry		
Transportation, Storage, and Distribution Managers	120	\$112,880
Construction Managers	140	\$112,420
Human Services		
Healthcare and Medical		
Nurse Anesthetists	260	> \$208,000
Physicians, All Other; and Ophthalmologists, Except Pediatric	1,060	\$201,460
Family Medicine Physicians	110	\$173,310
Pharmacists	520	\$130,390
Dentists, General	130	\$122,860
Nurse Practitioners	620	\$112,590
Physician Assistants	560	\$110,240
Education		
Business Teachers, (College & University)	360	\$150,770
Computer Science Teachers, (College & University)	120	\$123,590
Atmospheric, Earth, Marine, and Space Sciences Teachers, (College & University)	70	\$120,620
Education Administrators, (College & University)	660	\$118,290
Mathematical Science Teachers, (College & University)	360	\$116,070
Physics Teachers, (College & University)	100	\$106,960
Psychology Teachers, (College & University)	150	\$106,720
Health Specialties Teachers, (College & University)	570	\$105,120
Sociology Teachers, (College & University)	90	\$100,640
Biological Science Teachers, (College & University)	160	\$100,490
Leisure and Hospitality		
Personal Service Managers, All Other; Entertainment and Recreation Managers	330	\$110,630

** = indicates that an employment estimate is not available

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Table 9. Ann Arbor Area Detailed Occupational Groups between \$75,000 – \$100,000 in Annual Income.
Somewhat stable to declining home ownership, growing in distribution of renters
A Target Demographic for NACA Mortgages

Detailed Occupational Group	Ann Arbor Area Total Employment	Ann Arbor Area Annual Median Income
Business and Technology Services		
Management and Business Services		
Commercial Pilots	340	99,390
Administrative Services and Facilities Managers	480	99,070
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific	390	97,130
Personal Financial Advisors	180	88,940
Management Analysts	1,180	88,230
Logisticians	390	86,810
Information and Technology Services		
Mechanical Engineers	2,520	97,550
Database Administrators and Architects	220	93,730
Commercial and Industrial Designers	160	92,750
Software Developers and Software Quality Assurance Analysts and Testers	2,910	92,360
Civil Engineers	300	90,050
All Architecture and Engineering Occupations	6,950	86,640
Electrical Engineers	580	85,110
Computer Systems Analysts	990	84,280
Computer Programmers	350	82,800
Network and Computer Systems Administrators	460	78,830
Architects, Except Landscape and Naval	230	77,890
All Computer and Mathematical Occupations	9,090	75,180
Heavy Industry		
First-line Supervisors and Technical Trades		
Electrical Power-Line Installers and Repairers	110	91,840
First-Line Supervisors of Mechanics, Installers, and Repairers	550	83,090
Control and Valve Installers and Repairers, Except Mechanical Door	**	79,980
Plumbers, Pipefitters, and Steamfitters	440	77,090
Human Services		
Healthcare and Medical		
Physical Therapists	550	89,540
Speech-Language Pathologists	150	86,040
Occupational Therapists	260	83,430
Registered Nurses	9,690	79,240
Occupational Health and Safety Specialists	150	79,060
Acupuncturists and Healthcare Diagnosing or Treating Practitioners, All Other	230	77,330
Education		
Social Work Teachers, (College & University)	120	99,800
English Language and Literature Teachers, (College & University)	300	98,970
Education Administrators, Kindergarten through Secondary	230	98,690
Philosophy and Religion Teachers, (College & University)	**	93,820
Nursing Instructors and Teachers, (College & University)	310	93,510
Art, Drama, and Music Teachers, (College & University)	460	89,210
Communications Teachers, (College & University)	40	88,930
Education Teachers, (College & University)	160	84,710
Foreign Language and Literature Teachers, (College & University)	160	75,420
County and City Public Safety		
First-Line Supervisors of Police and Detectives	50	92,920
Detectives and Criminal Investigators	60	92,650

** = indicates that an employment estimate is not available

Ann Arbor's Middle-Income Needs Analysis

Table 10. Ann Arbor Area Detailed Occupational Groups between \$60,000 – \$75,000 in Annual Income. Home ownership falls off sharply in this segment with a growing in distribution of renters [A Target Demographic for NACA Mortgages](#)

Detailed Occupational Group	Ann Arbor Area Total Employment	Ann Arbor Area Annual Median Income
Business and Technology Services		
Management and Business Services		
Financial and Investment Analysts, and Financial Specialists	530	73,840
Accountants and Auditors	1,490	72,960
All Legal Occupations	1,070	72,790
Project Management Specialists and Business Operations Specialists, All Other	3,340	70,970
Art Directors	50	70,230
Technical Writers	80	70,490
All Business and Financial Operations Occupations	12,510	70,160
Human Resources Specialists	1,190	69,900
Executive Secretaries and Executive Administrative Assistants	470	65,720
Market Research Analysts and Marketing Specialists	1,310	65,170
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Real Estate	1,290	64,110
Fundraisers	500	62,250
Editors	340	61,640
Sales Representatives, Wholesale/Manufacturing, Except Technical and Scientific Products	1,990	60,380
First-Line Supervisors of Office and Administrative Support Workers	1,270	60,750
Information and Technology Services		
Computer Numerically Controlled Tool Programmers	**	70,970
Computer Occupations, All Other	530	67,560
Heavy Industry		
First-line Supervisors and Technical Trades		
Electricians	680	73,050
First-Line Supervisors of Production and Operating Workers	740	70,950
First-Line Supervisors of Construction Trades and Extraction Workers	500	70,600
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	310	69,620
Mechanical Engineering Technologists and Technicians	310	63,840
Chemists	480	62,530
Automotive Service Technicians and Mechanics	530	61,560
Human Services		
Healthcare and Medical		
All Healthcare Practitioners and Technical Occupations	23,030	74,780
Environmental Scientists and Specialists, Including Health	350	73,550
Medical Scientists, Except Epidemiologists	640	68,530
Cardiovascular Technologists and Technicians	310	64,390
Radiologic Technologists and Technicians	620	63,130
Respiratory Therapists	370	63,000
Healthcare Social Workers	570	62,270
All Life, Physical, and Social Science Occupations	3,980	60,870
Education		
Education Administrators, All Other	**	74,800
Librarians and Media Collections Specialists	320	70,700
Elementary School Teachers, Except Special Education	1,610	69,920
Middle School Teachers, Except Special and Career/Technical Education	310	69,710
Special Education Teachers, All Other	**	65,980
Secondary School Teachers, Except Special and Career/Technical Education	940	63,540
Training and Development Specialists	320	61,530
County and City Public Safety		
First-Line Supervisors of Correctional Officers	70	72,820
Probation Officers and Correctional Treatment Specialists	70	70,410
Police and Sheriff's Patrol Officers	440	68,080

** = indicates that an employment estimate is not available

Ann Arbor's Middle-Income Needs Analysis

Table 11. Ann Arbor Area Detailed Occupational Groups between \$50,000 – \$60,000 in Annual Income. Home ownership falls off sharply in this segment with a growing in distribution of renters
A Target Demographic for NACA Mortgages

Detailed Occupational Group	Ann Arbor Area Total Employment	Ann Arbor Area Annual Median Income
Business and Technology Services		
Management and Business Services		
Public Relations Specialists	420	59,540
Buyers and Purchasing Agents	600	58,010
Insurance Sales Agents	340	56,190
All Arts, Design, Entertainment, Sports, and Media Occupations	3,600	53,850
Brokerage Clerks	**	53,820
Graphic Designers	450	51,900
Securities, Commodities, and Financial Services Sales Agents	490	51,160
Paralegals and Legal Assistants	340	50,100
Information and Technology Services		
Industrial Engineering Technologists and Technicians	160	53,850
Computer Network Support Specialists	160	53,280
Heavy Industry		
First-line Supervisors and Technical Trades		
All Construction and Extraction Occupations	4,580	59,640
Industrial Machinery Mechanics	560	57,180
Calibration and Engineering Technologists and Technicians, Except Drafters	160	56,500
Roofers	120	56,280
Cement Masons and Concrete Finishers	**	56,040
Carpenters	**	55,100
First-Line Supervisors of Transportation and Material Moving Workers	340	54,590
All Installation, Maintenance, and Repair Occupations	5,570	54,000
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	120	53,390
Bus and Truck Mechanics and Diesel Engine Specialists	220	51,190
Automotive Body and Related Repairers	100	50,720
Human Services		
Healthcare and Medical		
Clinical Laboratory Technologists and Technicians	960	58,270
Psychiatric Technicians	320	58,260
Physical Therapist Assistants	150	56,270
Health Information Technologists, Medical Registrars, and Surgical Assistants	110	54,920
Licensed Practical and Licensed Vocational Nurses	540	54,260
Massage Therapists	110	54,060
Mental Health and Substance Abuse Social Workers	290	52,930
Substance Abuse, Behavioral Disorder, and Mental Health Counselors	170	51,450
Athletic Trainers	110	51,000
Medical Dosimetrists, Medical Records Specialists, and Health Technologists	750	50,790
Education		
Educational, Guidance, and Career Counselors and Advisors	540	52,040
Government		
Highway Maintenance Workers	100	58,540
Eligibility Interviewers, Government Programs	120	56,930
Water and Wastewater Treatment Plant and System Operators	130	55,390
Postal Service Mail Carriers	420	51,810
County and City Public Safety		
Correctional Officers and Jailers	630	57,230
Firefighters	150	56,250
Public Safety Telecommunicators	70	53,080
All Protective Service Occupations	2,470	50,580

** = indicates that an employment estimate is not available

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End Notes

- ¹ [Are you in the American middle-income?](#) Pew Research Center. JULY 23, 2020
- ² [Income and Poverty in the United States: 2020.](#) US Census, SEPTEMBER 14, 2021
- ³ [Estimated Median Family Incomes for Fiscal Year \(FY\) 2021](#) Department of Housing and Urban Development. April 1, 2021
- ⁴ [Housing Credit Availability Index \(HCAI\) 1999 - 2021](#) November 5, 2021. Urban Institute Housing Finance Policy Center
- ⁵ [Fewer Restrictions on Lending can make Housing more Affordable](#) White House Council on Eliminating Regulatory Barriers to Affordable Housing; Request for Information Submission. January 22, 2020. Kevin Erdmann. Visiting Fellow, Mercatus Center at George Mason University
- ⁶ [Neighborhood Assistance Corporation of America \(NACA\) - About Page](#) The first step to become NACA Qualified (i.e. pre-approved) is attendance at a Homebuyer Workshop (“HBW”). While Members are encouraged to go to a workshop in the community where they want to purchase, as they will receive information specific to that area, there are no restrictions on where they can attend. Homebuyers may go to any Homebuyer Workshop provide by any of NACA offices nationwide. The most up to date schedule [is available here](#) – enter the desired zip code and maximum travel distance. The search results will provide the list of available workshops, with a link to online registration.
- ⁷ [NACA Grant Funding](#) There is a lot of grant funding available through cities, towns and states. These grants –called down payment and closing cost assistance (DPA) –can also be used to buy-down the interest rate with the NACA Mortgage. The NACA Mortgage enables members to use these funds to significantly reduce NACA's already below market fixed interest rate. As a result, Members are obtaining very low fixed interest rates, and many receive rates of less than one percent.
- ⁸ [NACA Mortgage Qualification Process FAQ](#)
- ⁹ Swope CB, Hernández D. Housing as a determinant of health equity: A conceptual model. *Soc Sci Med.* 2019;243:112571. doi:10.1016/j.socscimed.2019.112571
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¹⁶ Jennifer Hall. February 10, 2022. Director, Ann Arbor Housing Commission, personal communication. “The ‘missing middle’ implies that there is sufficient housing for low-income households as well as high-income households, which is not the case. Housing demand far exceeds the supply and all housing prices are increasing, which always has the impact of putting housing pressure on lower and lower income households, who eventually have to leave.” Based on this valid critique, this paper will reference ‘missing middle’ as a construct, in lower-case with ‘single quote’ markings.

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