



Memorandum

Date: July 29, 2019

To: Jamie McMillen, Vice President of Government Affairs
Akron Cleveland Association of REALTORS®

From: Brian R. Peterson, Consultant

Re: Analysis of proposed lead-safe ordinance

Purpose of Memorandum

The Akron Cleveland Association of REALTORS® (ACAR) retained Anderson Economic Group (AEG) to determine the impacts of the proposed “lead-safe” ordinance, Ordinance No. 747-2019¹, on property owners, tenants, and the City of Cleveland. In this memorandum, we provide an overview of the ordinance, discuss the feasibility of the proposed certification timeline, quantify the costs of inspections, mitigation, and abatement, and determine the impacts of the ordinance on the Cleveland rental housing market.

Background of Lead Paint Safety Regulations in Cleveland

Lead-based paint was banned nationwide in 1978 due to its negative impact on public health. There are nearly 80,000 rental housing units in Cleveland built before 1978, all of which could contain lead-based paint. The City of Cleveland currently has a lead hazard control ordinance that requires that sellers or lessors of residential property disclose the presence of any lead-based paint or paint hazards at the point of sale or lease. The City also runs a voluntary program in which property owners can obtain Certificates of Lead Maintenance and Lead-Free Status for their rental units.²

Summary of Proposed Ordinance

The Cleveland City Council is considering significant changes to the city’s lead laws. These changes are being proposed under ordinance 747-2019, known as the “lead-safe” ordinance. Key provisions of the ordinance include:

- An increase in rental registration fees for all units, regardless of year built, from \$35 to \$70 per unit.

1. The Cleveland City Council voted to pass the ordinance under suspended rules during the July 24, 2019 council meeting.
2. Cleveland Code of Ordinances, Part II - Health Code, Chapter 240 - Lead Hazards.

- A mandate that requires owners of rental properties built prior to 1978 to secure lead-safe certificates for residential rental units prior to March 1, 2023.
- Lead-safe certification would be completed by a licensed lead inspector, lead clearance technician, or lead risk assessor.
- Owners would need to recertify their unit every two years, or secure an exemption certificate stating the unit is entirely free of lead hazards.

The council is likely to vote on the legislation when it returns to its regular meeting schedule in September. If passed, Cleveland would join a small group of major cities that have passed strict lead-based paint laws.³ Property owners have expressed concern over the proposed implementation timeline, and have also raised concerns about the high cost of abatement and the impact of the ordinance on rental housing costs.

Types of Costs in Achieving Lead Free or Lead Safe Status

If passed, the proposed ordinance would impose three new costs on property owners. The first is an increase in registration fees. The second and third costs are costs for inspection and mitigation or abatement. Inspection costs include the cost of having a certified lead inspector conduct a lead hazard inspection. Mitigation and abatement costs include the costs of mitigating lead-based paint hazards or abating the hazard to remove all lead from a unit, such that the unit is safe for occupancy and able to pass a second inspection.

Under the ordinance, once an inspector determines that any lead hazards in a unit are mitigated or abated, the owner would receive a lead-safe certification that is valid for two years. Some units may require minor mitigation or abatement, such as painting over surfaces that were previously covered with lead-based paint. Others may require major work, such as the removal of lead-painted surfaces or the replacement of windows or other fixtures that present a lead-based paint hazard.

Findings

Our analysis led to the following findings:

- 1. Sixty-four newly-licensed lead inspectors would be needed in the Cleveland area in order to administer lead inspections over a two-year period. Property owners could face challenges in finding abatement workers or covering the costs of abatement.*

The lead-safe ordinance requires all rental units built prior to 1978 to be inspected by March 1, 2023. Certification would begin in March, 2021, and last two years, with the certification schedule set by the City. If all inspections were administered by new lead inspectors (rather than currently-licensed ones, who may already be working at full capacity), 64 additional inspectors would be needed to complete all inspections within two years. Owners of units that fail inspection would need to mitigate or abate lead-based paint hazards in their units. Given the variability of mitigation and abatement costs and timelines, it is not clear whether there is an adequate supply of mitigation and abatement workers in the region.

3. See “Appendix C. Lead-Based Paint Programs in Other Cities” on page 11 for a summary of lead-based paint regulations in other cities and states.

Inspection timeline. Under the ordinance, licensed clearance technicians, lead risk assessors, and lead inspectors would be authorized to certify a unit as lead safe. We reviewed Ohio's Environmental Licensing system and determined that there are 80 licensed individuals within a one-hour drive of Cleveland who could provide inspection services. These professionals would need to complete 101,748 inspections in order to inspect passing units once, and units that fail their first inspection twice. If these professionals inspected an average of two to three units per workday, at an average of two hours per inspection, they would be able to complete the necessary inspections in two years.

Should the existing lead inspection workforce have limited capacity to inspect additional units, we estimate that 64 newly-licensed inspectors would be needed to complete all inspections at a rate of three inspections per workday. Application and exam fees range between \$600 and \$900.⁴ Courses are offered frequently across the state, and the maximum number of course hours required for certification is 24 hours.

Abatement timeline and costs. Owners of units that fail inspection would be required to mitigate or abate any lead-based paint hazard before renting the unit. The U.S. Department of Housing and Urban Development recommends that mitigation or abatement be undertaken by contractors that have certifications or experience in handling lead-based paint hazards. There are 213 licensed lead workers within a one-hour drive of Cleveland. Given the variability in project costs and time required to mitigate or abate a unit, we were unable to determine whether this is an adequate supply of mitigation and abatement workers. New workers could obtain abatement certifications by paying applicable exam fees and taking certification courses.

Even if the number of mitigation and abatement workers is sufficient, some property owners would face significant costs in abating units prior to 2023. The cost of abatement could exceed \$15,000 for some units. Some property owners may not have the funds on hand to make extensive repairs to their unit by March, 2023.

4. See <http://www.leadcertification.org/>

2. *The total initial cost of registration and lead inspection for rental property owners could total \$130 million.*

The proposed ordinance would impose registration, inspection, and mitigation and abatement costs on property owners. If all property owners chose to mitigate or abate their units, the total cost of these activities would total nearly \$130 million, as shown in Table 1 below.

TABLE 1. Estimated Registration, Inspection, and Mitigation and Abatement Costs for Rental Units Subject to Lead Ordinance

Item	# of Units	Estimated Cost	Total Cost (millions)
Registration ^a	79,348	\$70	\$5.6
Initial Inspections ^b	62,280	\$350	\$21.8
Mitigation/Abatement ^c	39,468	\$0 to \$15,000	\$87.4
Second Inspection for Failing Units	39,468	\$350	\$13.8
Total Cost:			\$128.5

Source: Anderson Economic Group analysis of base data from the U.S. Census Bureau, U.S. Department of Housing and Urban Development, Dewalt et al., American Healthy Homes Survey.

Note:

(a) Includes only occupied units built prior to 1978. Represents an upper bound of potential registration fees. The proposed ordinance limits the total registration fees paid by any single property owner to \$30,000.

(b) Accounts for HUD guidelines for sample testing of multifamily buildings.

(c) We estimate that 25,881 of 39,468 rental units would have measurable abatement costs. The remainder of units would be able to pass a second inspection after minor cleaning or painting, which we consider to be part of normal maintenance costs.

There are approximately 79,500 occupied rental units in Cleveland built before 1978, excluding public housing, which is already subject to federal lead regulation. All of these units would be required to register with the City, at an estimated cost of \$5.6 million. Roughly three-quarters of all units (62,280) would require inspections, since some multifamily buildings would only need to inspect a sample of units. Based on our discussion with lead inspectors in Cleveland, we estimate that each inspection would cost approximately \$350 per unit.

Approximately 39,500 units would require mitigation or abatement. Mitigation or abatement costs would range between \$0 and \$15,000 per unit, for a total cost of \$87.4 million to bring all units into compliance with the ordinance. Failing units would be required to pass a second lead inspection at a total cost of \$13.8 million. The total cost of registration, inspection, and abatement would be \$128.5 million if all property owners complied with the ordinance and no units were taken off the market.

3. *The total supply of rental housing could decrease by nearly 3,500 units as property owners could remove units unable to pass an inspection from the market.*

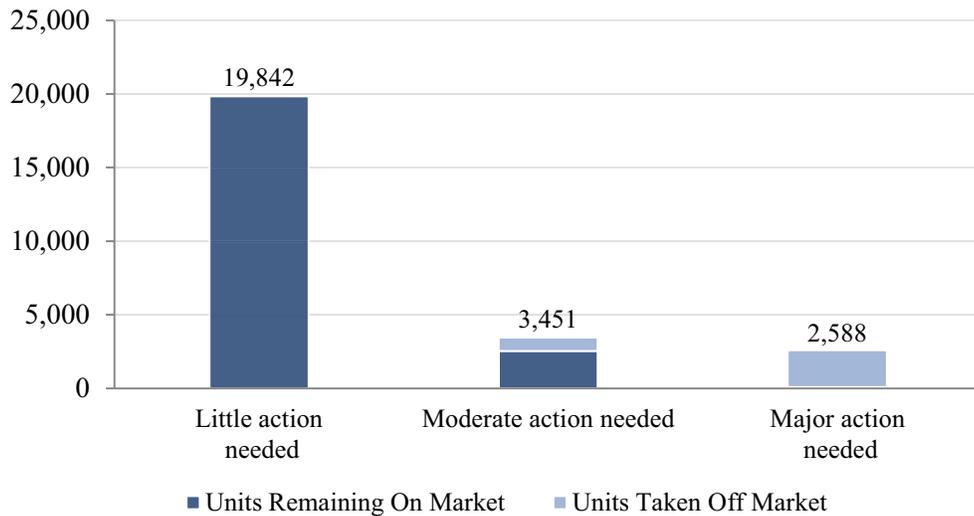
We estimate that 3,408 units would be taken off the Cleveland rental market after failing inspection, because the cost of abatement would not be worth covering when compared to the units' ability to generate rental income.

Across the city, 25,881 units would face measurable abatement or mitigation costs. The range of costs faced by property owners falls into three categories. Units requiring little action would face an

average repair cost of \$1,425. Units needing moderate action would face an average cost of \$5,712, and units needing major action would face an average cost of \$15,232.

Given the age distribution and rental rate characteristics of Cleveland’s rental housing stock, we determined that, if property owners raised rents by an average of \$100 per month, and required mitigation and abatement costs to be covered within three years, then none of the units needing little action would come off the market.⁵ One-quarter of units needing moderate action would come off the market, and nearly all units needing major action would come off the market due to the high cost of repairs, as shown in Figure 1.

FIGURE 1. Lead-safe Ordinance Impact on Cleveland Rental Housing Market



The total number of units being removed from the market could be even higher than this if property owners do not have the cash on hand to pay for abatement.

5. We used a \$100 monthly rent increase, coupled with a three-year payback period based on our conversation with Cleveland property owners. See “Appendix A. Methodology” on page 6 for a full description of our methodology.

Appendix A. Methodology

Feasibility of Implementation Timeline

We reviewed the State of Ohio’s lead licensing database to determine the number of licensed lead inspectors and abatement workers within a one-hour drive of downtown Cleveland. We assumed that each inspector would work an average of 261 days per year. We determined that the average inspection would take two hours based on conversation with local lead inspectors.

Cost of Compliance

We calculated mitigation and abatement costs by consulting data from the U.S. Census Bureau, speaking with Cleveland area property owners and lead inspectors, and reviewing empirical research on the costs of abatement. We describe our methodology below.

Universe of affected units. We consulted data from the U.S. Census Bureau on year structure built in order to determine how many occupied rental units in Cleveland were built before 1978. We subtracted out public housing units, since these units are already subject to federal lead regulation. We show the total number of non-public pre-1978 rental units by year built in Cleveland in Table 2 below.

TABLE 2. Estimated Number of Rental Units Subject to Proposed Lead Ordinance, by Year Built

Year Built	Number of Units
1939 or earlier	45,269
1940 to 1959	19,646
1960 to 1978	13,484
Total:	78,399

Source: Anderson Economic Group analysis of base data from the U.S. Census Bureau, U.S. Department of Housing and Urban Development.

Units requiring inspection. Although the proposed ordinance would require all rental units built prior to 1978 become lead safe, not all units would need to be inspected. Per HUD guidelines, buildings with five or more units would be subject to the proportional inspection requirements suggested by HUD.⁶ HUD’s proportional inspection requirements state that only a sample of units in multifamily buildings must be inspected. For buildings with 21 to 75 units, for example, ten units, or 20% of all units must be inspected, whichever is greater. The portion of units that must be inspected decreases as the size of building increases. We applied the HUD inspection guidelines to U.S. Census Bureau data on the number of rental units in structures of various sizes to determine

6.U.S. Department of Housing and Urban Development, “Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing,” 2012.

the total number of units that would need to be inspected, as shown in Table 3.

TABLE 3. Estimated Number of Rental Units Requiring Inspection, by Year Built

Structure Size	Number of Pre-1978 Units	Units Requiring Inspection
1 to 4	52,844	52,844
5 to 19	9,279	5,114
20 to 49	3,236	3,236
50 or more	13,040	2,573
Total:	78,399	61,535

Source: Anderson Economic Group analysis of base data from the U.S. Census Bureau, U.S. Department of Housing and Urban Development, HUD Lead Testing Guidelines.

Units failing inspection. In order to estimate the number of units failing inspections, we used Census Bureau data on year structure built for rental units in Cleveland and data from the American Healthy Homes Survey (AHHS), which identifies the frequency of lead-based paint and lead-based paint hazards in housing stock nationwide. Older units have a higher likelihood of containing lead-based paint. We multiplied the count of rental units by age by the percentage of homes with lead-based paint and lead-based paint hazards as reported in the AHHS, as shown in Table 4.

TABLE 4. Estimated Number of Rental Units with Lead-Based Paint Hazards, by Year Built

Year Built	Number of Units with Lead-Based Paint	Number of Units with Significant Lead-Based Paint Hazard
1939 or earlier	39,022	30,240
1940 to 1959	12,927	7,584
1960 to 1978	3,317	1,537
Total:	55,266	39,360

Source: Anderson Economic Group analysis of base data from the U.S. Census Bureau, U.S. Department of Housing and Urban Development, American Healthy Homes Survey.

Mitigation and abatement costs. Lead mitigation and abatement costs vary from unit to unit. Some units would require a simple cleanup or minor paint touch ups, while other units would require the replacement of windows, doors, or other fixtures presenting a lead hazard. We consulted data on abatement costs in Rochester, New York to estimate the total abatement costs for property owners in Cleveland. We estimate that abatement costs would range from \$0 to \$15,000. Approximately one-third of the 39,360 units failing a lead-based paint inspection would have negligible abatement costs, needing only minor cleaning or painting. At the other end of the spectrum, slightly less than 30% of units would have abatement costs over \$3,000. We show the

count of units and average costs in Table 5.

TABLE 5. Estimated Mitigation and Abatement Costs for Units Failing Inspections

Average Cost of Abatement	Number of Units	Total Cost (millions)
\$0	13,550	\$0.0
\$250	5,377	\$1.4
\$1,000	9,034	\$9.7
\$3,000	5,377	\$17.1
\$5,750	3,441	\$19.7
\$15,250	2,581	\$39.3
Total:	39,360	\$87.2

Source: Anderson Economic Group analysis of base data from U.S. Census Bureau, U.S. Department of Housing and Urban Development, American Healthy Homes Survey.

Housing Market Impacts

We reviewed empirical research on the impacts of lead-based paint ordinances on rental housing supply in other markets, conducted our own empirical research, and spoke with property owners in Cleveland in order to determine the impact of the proposed ordinance on the Cleveland rental housing market.

There is little empirical research on the impacts of lead-based paint ordinances on rental housing supply in major cities. Survey research on the effects of adopting a lead safe ordinance in St. Paul, Minnesota, indicated that about 8% of units requiring lead abatement were either temporarily or permanently abandoned; however the sample size is small, and the study did not indicate how abandonment is measured or defined.⁷

We analyzed Census Bureau data from Rochester, New York, which instituted a lead paint ordinance in 2006, and determined that the city saw a 14% decrease in the number of pre-1980 occupied rental housing units between 2005 and 2008. This decline is more severe than the change in Syracuse (-4%) and Buffalo (+2%), as well as the non-Rochester portions of Monroe County (0%), suggesting that the ordinance likely had a negative impact on rental housing supply.⁸

Net Income Approach. We constructed a model in which property owners weigh the costs of abatement against the net income received from renting out a unit in Cleveland in order to determine the impact of the lead hazard ordinance on the supply of rental housing in the city. Our model compares the costs of abatement to the net present value of rental income.

We first grouped abatement costs into three categories—little action, moderate action, and major action, as shown in Table 6. We then determined the total monthly rent increase required in order for abatement costs to be covered over a three-year period.⁹ For example, units needing little action

7. Sandra Hartje, et al., 2001.

8. Anderson Economic Group analysis of U.S. Census Bureau data.

would incur \$1,424 in abatement costs, on average. This translates to a \$40 monthly increase in rent.

TABLE 6. Cleveland Rental Property Mitigation and Abatement Costs by Level of Work Needed

Type of Abatement	Initial Abatement Cost	Average Monthly Rent Increase if Total Abatement Cost Passed on to Tenant
Little action needed	\$1,424	\$40
Moderate action needed	\$5,712	\$159
Major action needed	\$15,232	\$423

Source: Anderson Economic group analysis of base data from Center for Government Research, 2008.

We interviewed property owners in Cleveland and determined that, given the current rental market, property owners would only be able to pass on a maximum rent increase to tenants of \$100 per month in order to cover lead abatement costs. We then calculated the net present value of repair costs for each unit needing abatement, and compared these costs to a maximum rental increase of \$100 per month over three years. We used a discount rate of 5%, and assumed that rental property owners would require a profit margin of 29.2%, based on the 2015 Almanac of Business and Financial Ratios. We assumed that, when the net present value of future cash flows, less abatement costs, was less than \$0, the unit would be taken off the rental market.

From this analysis, we estimate that 13.2% of all units with measurable abatement costs—3,408 units—would be taken off the market. This would amount to a 4.3% decrease in the supply of pre-1978 rental housing in Cleveland. In our model, over 80% of the units taken off the market rent for \$750 per month or less, indicating the disproportionately negative impact of the ordinance on lower-cost units. Our analysis provides conservative estimates for the amount of units that might be taken off the market, since we assumed that the distribution of units by lead abatement level required does not vary by rent. However, it is likely that properties with lower value would be in worse condition and require more repairs to bring into compliance.

9. Most property owners look to recoup capital investments in rental units over a period of two years. We chose three years for our analysis because deciding whether or not to abate a unit carries much higher consequences than most capital investments, so property owners may consider a longer pay back period.

Appendix B. Works and Data Consulted

Center for Government Research, “An Evaluation of the City of Rochester’s Lead Law: 2006-2008,” 2008.

Christine MacDonald, “Detroit landlords ignoring rental inspection rules, city says,” *Detroit News*, Aug. 6, 2018.

City of Detroit, “New Lead Ordinance Requirements for Rental Property Owners Effective January 1, 2010.”

City of Detroit 2019-2020 budget.

City of Rochester, New York Lead Paint Poisoning Prevention Ordinance information from the City of Rochester, New York website.

City of Rochester, New York 2018-2019 budget.

City of Toledo Council, “Ordinance 226-16, Amending the Toledo Municipal Code by Enacting a New Chapter 1760 Under Part 17, Title 3, Entitled Registration of Lead Safe Residential Rental Units.”

Katarina Korfmacher, “Rochester’s Lead Law: Evaluation of a Local Environmental Health Policy Innovation.” *Environmental Health Perspectives: (120):2*, Feb. 2012.

Ludovica Gazze, “The Price and Allocation Effects of Targeted Mandates: Evidence from Lead Hazards,” 2019. University of Chicago Department of Economics Working Paper.

Sandra Hartje, Becky Love Yust, Edward Goetz, and Evelyn Franklin, “Twin Tragedies in the Twin Cities: Childhood Lead Poisoning and the Loss of Affordable Rental Housing,” *Family and Consumer Science (29): 3*, 2001.

Phone conversations with property owners and lead inspectors in the Cleveland area.

Leo Troy and Philip Wilson, *2015 Almanac of Business and Industrial Financial Ratios*. Chicago: CCH Incorporated, 2014.

U.S. Census Bureau American Community Survey data and Public Use Microdata on the physical and financial characteristics of rental housing in Cleveland and the Cleveland Core-Based Statistical Area.

U.S. Department of Housing and Urban Development, “Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing,” 2012.

U.S. Department of Housing and Urban Development, “American Healthy Homes Survey: Lead and Arsenic Findings,” April, 2011.

Appendix C. Lead-Based Paint Programs in Other Cities

Rochester, New York. Rochester adopted its Lead-Based Paint Poisoning Prevention ordinance in December 2005. The ordinance requires visual inspections for lead paint hazards as part of the existing inspection process that applies to all residential rental units in Rochester. Some units in high risk areas must pass visual and lead dust wipe test inspections. These inspections are performed by the City. Owners found in violation of the ordinance are required to pass private clearance testing. In the first four years of the program, 94% of units passed visual inspection, and 89% passed dust-wipe inspections. The City estimated that it would inspect 12,000 units and conduct 2,700 wipe tests during the 2018-2019 fiscal year.

Toledo, Ohio. Toledo passed its lead ordinance in August, 2016. The ordinance applies to properties constructed prior to 1978, and prohibits residential rental units or family child care homes from being rented or operated without a lead-safe certificate. To obtain a lead safe certificate, an owner must submit an application to the county health department that includes information about the property, a report from a licensed lead inspector who has performed both visual and wipe tests, and a \$45 application fee. The certificate must be renewed either every three years (if the property failed an initial visual inspection or dust wipe test) or 6 years (if the property passed the preliminary tests). A Lucas County, Ohio judge issued an injunction against the ordinance in June 2018, weeks before the first compliance deadline, and ultimately found the City did not possess the authority to grant the local health department power to enforce the law.

Detroit, Michigan. Since, 2010, the City of Detroit has required rental properties built prior to 1978 to receive a lead inspection and risk assessment—and for owners to reduce or control any discovered lead hazards—before a property is leased. This requirement was expanded to all housing units in 2017, and prohibited landlords that do not have a certificate of compliance from collecting rent.

Under the maintenance code, every rental unit must undergo a lead inspection prior to its first registration. If a unit fails inspection, property owners must remediate any lead paint hazard. Properties that previously failed inspection and used interim abatement controls must then continue receiving annual risk assessments unless all lead paint is removed or permanently eliminated from the property. After all lead-based paint is removed, owners must have a risk assessment performed every two years. To date, program compliance has been very low, and enforcement has been lax.

Rhode Island. Rhode Island enacted the Lead Hazard Mitigation Act in November 2005. The Act requires most owners of residential rental properties built before 1978 to obtain a certificate of conformance prior to renting. The certificate requires owners to attend a three-hour lead hazard awareness seminar that costs \$40 to \$65, conduct their own visual inspections, fix any hazards or hire a licensed professional, and obtain an independent clearance inspection. The certificate must be renewed every two years and whenever there is a change in tenants.

Appendix D. About Anderson Economic Group

About Anderson Economic Group

Anderson Economic Group, LLC, is a boutique consulting firm founded in 1996, with offices in East Lansing, Michigan, and Chicago, Illinois. We specialize in strategy, valuation, public policy, and market analyses. Our team has a deep understanding of advanced economic modeling and cost benefit analysis techniques. We insist on a high level of integrity in our analyses, together with technical expertise in the field. Relevant publications include:

- *Expanding the 'Lead Safe' Ordinance in the City of Philadelphia*, published in 2017.
- *The Economic Impact of Proposed "Lead Safe" Legislation in the City of Philadelphia*, published in 2011.
- *The Impacts of Rent Control on Chicago's Housing Market*, published in 2018.
- *Governor Wolf's FY 2016 Budget Proposal and the Pennsylvania Market for Homes*, published in 2015.
- The economic impact of first-time home buyer savings accounts in multiple states, commissioned by the National Association of REALTORS®, 2015-2019.

For more information about Anderson Economic Group, please visit our website at www.AndersonEconomicGroup.com

About the Authors

Brian R. Peterson. Mr. Peterson is a consultant and director of public policy and economic analysis with Anderson Economic Group. His work focuses on economic and fiscal impact modeling, actuarial analysis, and environmental economics. Mr. Peterson has worked with real estate industry clients across the country on issues such as lead paint regulation, rent control, and first-time homebuyer savings accounts. Prior to joining AEG, Mr. Peterson worked as a policy analyst in regional economic development and transportation planning in the Chicago region.