



Andrea Morales for The New York Times

WISHING FOR DIAMONDS IN COAL COUNTRY

ACEs and Despair Culture and its impact on southern
Ohio.

Adam Anderson

CM 238: Pastoral Care for Families and Kin
Networks

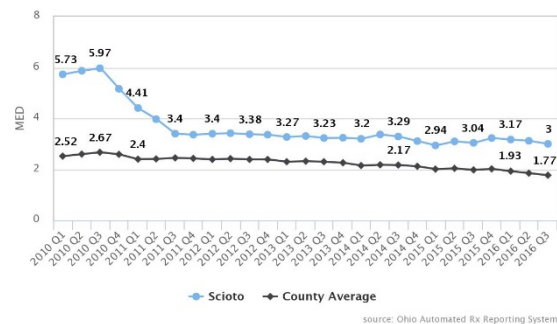
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Introduction

In a 2011 interview with the New York Times, Lisa Roberts, a nurse from Portsmouth, Ohio, remarked that “around here, everyone has a kid who’s addicted [to opiates]... it doesn’t matter if you’re a police chief, a judge or a Baptist preacher. It’s kind of like a rite of passage.”¹ The same year, the Kasich administration launched a new cabinet-level task force aimed at reducing the amount of prescribed Opioid doses dispensed amongst other treatment and recovery options. The results have been mixed: while there have been 81 million fewer doses of opioids dispensed in Ohio between 2011 and 2015, the rate of drug overdose deaths continues to rise, reaching a record 3,050 unintentional deaths in 2015.² Scioto County (of which Portsmouth is the county seat) also continues to see increases in its death rate at a level 60% higher than the statewide average.³ Moreover, the amount of opioids dispensed to people in Scioto County is at a rate nearly double that of the county average.⁴ This paper contends the mixed outcomes are a result of neglecting the inter-generational aspect of the crisis, which becomes more obvious by considering the impact of Adverse Childhood Experiences (ACEs), and a “culture of despair” as evidenced by Case and Deaton’s “Mortality and Morbidity in the 21st Century.” This paper will also explore the potential role the church can play in helping to break the “ACE/Despair” cycle.

Average Daily MED Per Capita to Ohio Patients by County and Quarter



¹ Tavernise, “Prescription Drug Abuse Takes Toll on Appalachia.”

² Ohio Department of Health, “2015 Ohio Drug Overdose Data: General Findings.”

³ Ibid.

⁴ “Ohio Automated Rx Reporting System: OARRS.”

The Crisis and Consequences in Scioto County: Economic Decrease and Opiate Increase

The most complete data to explore the current crisis in Scioto County is from 2015. The data paints a picture of significant and prolonged crisis for the whole of the county, which is situated on the Ohio/Kentucky border. Like many Ohio Appalachian counties, Scioto County enjoyed significant growth in the industrial era, peaking in the early third of the 20th Century. In



Location of Scioto County (Wikipedia)

1916, the area was noted to be a “larger and important manufacturing center,” with “perhaps the largest paving brick manufacturing center in the United States.”⁵ Bricks gave way to steel, but by the 1980s, the last major steel plant had shut down. These jobs have never returned - as of 2015, only 7% of the population in Scioto County now works in manufacturing.⁶ In the immediate years after the collapse of the steel industry, “pill-mills,” often disguised as pain clinics, began to grow. At its peak in 2010, there were 9.7 million doses of Opiates dispensed in the county, enough for 123 doses for each resident.⁷ This peak also came with other health consequences: the county had the highest fatal overdose rate in Ohio, the highest Hepatitis B and C rates in the state, as well as the highest homicide rate in Ohio.⁸

This led to a series of local and state policy changes, including the development of statewide Opiate taskforce in 2010, as well as a ban on pain clinics in April of 2011. In December of 2011, the final pain clinic was shut down in the county. However, despite those victories over

⁵ Norfolk and Western Railway Company Agricultural and Industrial Dept, *Industrial and Shippers Guide*.

⁶ “Private, All Industry Aggregations, Scioto County, Ohio 2015 Annual Averages, All Establishment Sizes Source.”

⁷ Roberts, “Waging the War Against the Devil in Scioto County: A Grassroots Response to Prescription Drug Abuse in a Rural Community.”

⁸ Ibid.

one significant source, it did not solve the problem of drug abuse. In 2015, of the 1089 unique dockets brought before the Scioto County courts, 498 were related to drug offenses.⁹ Based on the 2015 population estimates of 78,017 people, this would mean that there are roughly 6.38 drug related cases for every 1,000 people in the county. This rate is nearly a third higher than the 4.83 per 1000 reported by the FBI arrest trends for 2015 of similar nonmetropolitan counties.¹⁰ Moreover, most the offenses are related to heroin, as individuals are still looking to maintain an opiate addiction.¹¹ Even as recently as April 6th of this year, the county has experienced a “sudden and large increase in overdoses... an especially strong batch of heroin laced with fentanyl or animal tranquilizer is in local drug supply.”¹²

Adverse Childhood Experiences (ACEs) and Adult Despair: A Cultural Death Spiral

Despite myriad efforts based on policy and punitive action, the issues of the opiate crisis persist in Scioto County. An alternative approach to the problem would be to consider the cultural consequences of the crisis through Adverse Childhood Experiences (ACEs) and a “culture of despair,” based on Case and Deaton’s 2017 work for the Brookings Institute. When put together, a framework of continuous pressure of families and kin networks becomes clear – children are born into traumatic experiences amongst people who live into the decay around them, furthering the trauma around children as they age and begin the cycle over again.

⁹ Charges included are in Appendix A.

¹⁰ Federal Bureau of Investigations, “Table 56.” NB: *Non-metropolitan was used to approximate the same region as Scioto County. Based on the same reporting, the national rate for drug arrests is 4.63 per 1000 individuals. There was no direct way to receive direct arrests records from Scioto County, so criminal dockets were used as a reasonable analogue. Further research would be to perform an “apples-to-apples” analysis.*

¹¹ Massatti et al., “Increasing Heroin Overdoses in Ohio: Understanding the Issue.”

¹² Lewis, “Scioto County Experiences Overdose Alert.”

Developed out of a partnership between the Centers for Disease Control and Kaiser Permanente, The Adverse Childhood Experiences (ACEs) Study sought to explore the relationships between risk behavior in adulthood and exposure to abuse and dysfunction in childhood. The study explored seven categories of ACEs: “psychological, physical or sexual abuse; violence against mother; or living with household members who were substance abusers, mentally ill or suicidal, or ever imprisoned.”¹³ While many individuals have at least one ACE throughout their childhood, the results found that “persons who had experienced four or more categories of childhood exposure... had 4-to 12-fold increased health risks for alcoholism, drug abuse, depression, and suicide attempt; a 2- to 4-fold increase in smoking, poor self-rated health, ≥ 50 sexual intercourse partners, and sexually transmitted disease; and a 1.4- to 1.6-fold increase in physical inactivity and severe obesity.”¹⁴ While there are no studies directly surveying people in Scioto County, other develop a picture of childhood trauma.

First, Neonatal Abstinence Syndrome (NAS) is a group of maladies that occur in a newborn exposed to opiates *in utero*. Symptoms can include hyperactivity and excessive crying, seizures, low weight gain, and can lead to potential other complications, including later developmental delays.¹⁵ Most recent data from 2012 shows that nationally, the incidence of NAS was 5.8 per 1,000 live births.¹⁶ However, the average annual rate of NAS hospitalizations in Scioto County from 2011-2015 was 117.0 per 1,000 live births, an increase by a factor of over 20.¹⁷ In

¹³ Felitti et al., “Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults,” 245.

¹⁴ Ibid.

¹⁵ Lee, “Neonatal Abstinence Syndrome.”

¹⁶ Patrick et al., “Increasing Incidence and Geographic Distribution of Neonatal Abstinence Syndrome.”

¹⁷ Ohio Department of Health, “Number of Neonatal Abstinence Syndrome (NAS) Hospitalizations and the Average NAS Rate by County of Residence, Ohio 2011-2015.”

other words, a full 11% of children born in Scioto County from 2011-2015 had indications of opiates in their system, likely due to opiate use by the mother during pregnancy. This confirms for a significant amount of the children in Scioto County that there is at least one member of the family who is actively using illegal drugs, and likely exposed to dysfunction related to drug use.

Second, it's possible view incarceration rates for drug offenses in Scioto County. In the most recent snapshot of incarceration on January 1, 2015, 3.79 per every 1000 people in the county were in prison for a drug offense, the highest in the entire state, and higher than the average state rate by a factor of nearly five.¹⁸ Scioto County has had the highest incarceration rates for drug offenses in the state since January 1, 2005.¹⁹ This confirms both the likelihood of use of illegal drugs again, as well as the likelihood of individuals in families that are incarcerated. Additionally, mean age of offenders with drug-related charges in 2015 was almost 37, with a standard deviation of almost a decade. Moreover, the ages of offenders ranged from 21 to 69 years old. Individuals who were children at the start of the opiate crisis in the 1990s are now adults engaged in criminal activity along with individuals who have been a part of the crisis from its outset. Previous studies have shown that for each increase in ACE score the likelihood of early initiation into illicit drug use by a factor of 2- to 4- fold.²⁰

Third, Scioto County has a significantly limited amount of primary care and mental health providers, ranking 72nd of 88 counties in clinical care.²¹ Moreover, 26% of individuals reported

¹⁸ Ohio Department of Mental Health and Addiction Services, "Incarceration Rates for Drug Offenses, Snapshot of Prison Census January 1, 2015."

¹⁹ See Appendix B for a chart of incarceration rates between Scioto County and the statewide average.

²⁰ Dube et al., "Childhood Abuse, Neglect, and Household Dysfunction and the Risk of Illicit Drug Use."

²¹ "Scioto County, Ohio."

that they were unable to see a doctor due to cost, the highest report in the state.²² While this does not directly indicate mental health issues or suicide within families, it does indicate that when individuals do have mental health issues, they are less able and less likely to seek treatment.

Fourth, based on general county health rankings, it's possible to get a sense of the extent of the outcomes that ACEs are purported to cause later in life. While there are meaningful arguments to be made for causality, the circumstances are grim regardless – based on the Robert Wood Johnson Foundation's county health rankings, Scioto County ranks in the lowest quartile (and often amongst the last 2 to 3 counties) for health outcomes, health behaviors (including the highest percentage of individuals with BMIs over 30 in the whole state), clinical care, and social and economic factors.²³ The life expectancy in Scioto County near the lowest decile of all counties throughout the country at 74.77 years.²⁴

It is quite possible, then, for any given child who is born in Scioto County to be affected by three ACEs almost immediately – drug use, incarceration, and issues of mental illness within the family. And given that Scioto County has one of the highest childhood poverty rates in the county (32%), they are “two to five times more likely than their less impoverished peers to experience such trauma as... physical abuse, [and] neighborhood violence” in addition to all the other ACE conditions, making it incredibly likely that children in the county have experienced more than four ACEs, making them highly vulnerable to problems later in life.

²² Ibid.

²³ Ibid.

²⁴ “US Health Map | IHME Viz Hub.” *Note Appendix C to see the visualized Map of counties at or below Scioto County.*

If ACEs gives insight into how children are responding in this type of culture and are growing into adults who continue a cycle, how did it begin? The work of Case and Deaton argues that amongst working class whites (Scioto County is nearly 93% white) without college degrees, mortality and morbidity have increased, while more educated whites as well as other races irrespective of education have continued to decrease. They further argue that it is part of a

long-term process of decline... this process, which began for those leaving high school and entering the labor force after the early 1970s... worsened over time, and caused, or at least was accompanied by, other changes in society that made life more difficult for less-educated people, not only in their employment opportunities, but in their marriages, and in the lives of and prospects for their children. Traditional structures of social and economic support slowly weakened... these changes left people with less structure when they came to choose their careers, their religion, and the nature of their family lives... We can see this as a failure to meet early expectations or, more fundamentally, as a loss of the structures that provide a meaning to life.²⁵

This explanation fits well with the history and current situation in Scioto County.

Individuals, often men, graduated high school and believed that they would be able to find well-paying jobs in manufacturing and industry that did not require high-skilled labor at their peak in the 70s and 80s. However, with the continued decline of manual labor sector (and specifically the closure of the final steel mill in the county) led to increased unemployment. Individuals could then choose to reenter the work force, likely at a lower wage than what was envisioned after graduating high school, or leave altogether. The life that they had perhaps imagined had disappeared. As individuals aged, the pains of work take their toll, and has likely resulted in a significant disability. For that group, a solution to the pain was beginning to blossom in the county – pain clinics and opiate dispensaries.²⁶ Moreover, “lower wages not only brought

²⁵ Case and Deaton, “Mortality and Morbidity in the 21st Century: FINAL POST-CONFERENCE VERSION,” 38–39.

²⁶ See Krueger, “Where Have All the Workers Gone?,” 20–22.: “Nearly two-thirds of those who took pain medication reported that they took prescription pain medication [i.e. opiates].”

withdrawal from the labor force, but also made men less marriageable; marriage rates declined, and there was a marked rise in cohabitation... both men and women lose the security of the stable marriages that were the standard among their parents.”²⁷ The net result is a culture that has collapsed upon itself – greater disillusionment regarding a life that was supposed to be available to them, limited educational resources and opportunities to develop new skills, fractured family and kin networks to support individuals while in crisis, limited institutional resources for health, and an easily accessible means to limit the emotional and physical trauma through addicting prescription opioids, and when they are no longer available, heroin. Children are more likely exposed to ACEs, and with few consistent adults that are available that can help mitigate the effects of ACEs, suffer their effects into adulthood, engaging in similar behaviors as those around them, having children themselves who are born in to high ACE environments.²⁸ The cycle continues.

Breaking A Cycle: A Potential Church Response

The continued crisis call for a renewed response from churches, who must navigate both individual crises, as well as the cumulative intergenerational effect of a depressed economy and use of drugs as a mitigation of physical and emotional pains. This section will specifically address action that the PC(USA) can do and is doing, as well as local considerations.

First and foremost, it is important for the church writ large to recognize that while many of the discourses that occur regarding drug use and abuse are valid as they pertain to the systemic

²⁷ Case and Deaton, “Mortality and Morbidity in the 21st Century: FINAL POST-CONFERENCE VERSION,” 42.

²⁸ Bellis et al., “Does Continuous Trusted Adult Support in Childhood Impart Life-Course Resilience against Adverse Childhood Experiences - a Retrospective Study on Adult Health-Harming Behaviours and Mental Well-Being.”

racial dynamics of policy, a lack of nuance and acknowledgement of regional issues. For instance, the PC(USA)'s "Proposed Drug Policy Reforms & Background Study" notes "racially differentiation application and enforcement of drug laws cause deep and pervasive harm."²⁹ This is true. However, by following with the statement "as a predominantly white denomination, PC(USA) members have special opportunities and responsibilities to addresses the racist structures, processes, and social outcomes that give the war on drugs so disproportionate an impact" racializes the problem to where it becomes easy to discount the depth of the problem – including the role of class and other intersections – facing places like Scioto County.³⁰ If the numbers of the last ten years of drug incarceration are any indication, the thought that "no serious alternatives to the War on Drugs³¹ and 'get tough' movement were being entertained in mainstream political discourse" has become a part of all drug policies against those who do not fit within the dominant power structure.³² This may also be a scotoma of the PC(USA): of the 402 PC(USA) churches in Ohio, only two are in Scioto County.

For those two churches in the county, it will be critical to consider the fully impact of a high ACE culture that has become intergeneration. It will not be sufficient to only focus on therapeutic Pastoral Care, nor political advocacy. Instead, a longitudinal view of the county and its culture need to be at the foundation of all approaches. A good place to start is SAMHSA's 2003 core competencies for clergy, which focus on the individual and communal aspects of drug addiction, encouraging awareness of definitions and stigmas related to drug dependence, the stages

²⁹ "Drug-Reforms-Proposed-for-PCUSA-2018-GA - Drug-Reforms-Proposed-for-PCUSA-2018-GA.pdf," 6.

³⁰ Ibid.

³¹ Interesting, John Kasich has openly declared that the state is going to "war" against the opiate crisis, see <http://www.toledoblade.com/Politics/2017/03/31/Governor-Kasich-aims-to-reduce-Ohio-s-overdose-deaths.html>

³² Alexander and West, *The New Jim Crow*, 56.

of dependence, withdrawal and recovery, available community resources, as well as the need for prevention strategies.³³ Collectively, these competencies require clergy to be consistent and engaged members of the community where they serve. They must know how addictions are affecting both members of their churches and those outside, as they “work to create a community of mutual caring, making individual congregants aware of the importance of serving others both within the congregation and beyond in the outside community, alerting them to the needs of others as they arise, and developing mutual aid programs.”³⁴ This type of deep understanding of the community and appropriately reaching out also has the benefit of being, and ideally shaping other, Always Available Adults, which has been suggested to reduce the impact of ACEs.³⁵ This stands in direct opposition to a heavy-handed punitive approach, but instead emphasizes the right of individuals to be healed from addiction and receive grace, a significant part of the shift that is also underway on the General Assembly level of the PC(USA).³⁶ It is only then – when the church looks to each individual who engages in the use of drugs not as criminals, but instead as people with significant childhood traumas in their past, oppressive economic and physical conditions in their present, and a life of despair in the future as beloved children of God who deserve grace and liberation – that we may be able to seek physical and cultural restoration, and perhaps start, little by little, to break the traumatic despair cycle in Scioto County, and see the beautiful diamonds of God’s Creation once again.

³³ Substance Abuse and Mental Health Services Association, “Core Competencies for Clergy.”

³⁴ *Ibid.*, 6.

³⁵ Bellis et al., “Does Continuous Trusted Adult Support in Childhood Impart Life-Course Resilience against Adverse Childhood Experiences - a Retrospective Study on Adult Health-Harming Behaviours and Mental Well-Being.”

³⁶ “Drug-Reforms-Proposed-for-PCUSA-2018-GA - Drug-Reforms-Proposed-for-PCUSA-2018-GA.pdf,” 3.

Works Cited

- Alexander, Michelle, and Cornel West. *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*. Revised edition. New York: New Press, 2012.
- Bellis, Mark A., Katie Hardcastle, Kat Ford, Karen Hughes, Kathryn Ashton, Zara Quigg, and Nadia Butler. "Does Continuous Trusted Adult Support in Childhood Impart Life-Course Resilience against Adverse Childhood Experiences - a Retrospective Study on Adult Health-Harming Behaviours and Mental Well-Being." *BMC Psychiatry* 17 (March 23, 2017). doi:10.1186/s12888-017-1260-z.
- Case, Anne, and Angus Deaton. "Mortality and Morbidity in the 21st Century: FINAL POST-CONFERENCE VERSION." Brookings Institution, May 1, 2017. https://www.brookings.edu/wp-content/uploads/2017/03/casedeaton_sp17_finaldraft.pdf.
- "Drug-Reforms-Proposed-for-PCUSA-2018-GA - Drug-Reforms-Proposed-for-PCUSA-2018-GA.pdf." Accessed May 9, 2017. <http://www.presbyterianmission.org/wp-content/uploads/Drug-Reforms-proposed-for-PCUSA-2018-GA.pdf>.
- Dube, Shanta R., Vincent J. Felitti, Maxia Dong, Daniel P. Chapman, Wayne H. Giles, and Robert F. Anda. "Childhood Abuse, Neglect, and Household Dysfunction and the Risk of Illicit Drug Use: The Adverse Childhood Experiences Study." *Pediatrics* 111, no. 3 (March 2003): 564–72.
- Federal Bureau of Investigations. "Table 56." *FBI: UCR*. Accessed May 7, 2017. https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-56/table_56_arrest_trends_nonmetropolitan_counties_2015.xls.
- Felitti, Vincent J., Robert F. Anda, Dale Nordenberg, David F. Williamson, Alison M. Spitz, Valerie Edwards, Mary P. Koss, and James S. Marks. "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults." *American Journal of Preventive Medicine* 14, no. 4 (May 1, 1998): 245–58. doi:10.1016/S0749-3797(98)00017-8.
- Krueger, Alan B. "Where Have All the Workers Gone?" presented at the The Elusive "Great" Recovery: Causes and Implications for Future Business Cycle Dynamics, Boston, October 2016. <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwj2s8CJveHTAhVny1QKHQO7DQsQFggmMAA&url=https%3A%2F%2Fwww.bostonfed.org%2F-%2Fmedia%2FDocuments%2Feconomic%2Fconf%2Fgreat-recovery-2016%2FAlan-B-Krueger.pdf&usq=AFQjCNGXjjudogU4ZhunZqnDQlai1944ww&sig2=ixWDqsoHhuBXHGowMOMRMA>.
- Lee, Kimberly G. "Neonatal Abstinence Syndrome: MedlinePlus Medical Encyclopedia." *MedlinePlus: Trusted Health Information for You*. Accessed May 8, 2017. <https://medlineplus.gov/ency/article/007313.htm>.
- Lewis, Frank. "Scioto County Experiences Overdose Alert," April 6, 2017. <http://portsmouth-dailytimes.com/news/15045/scioto-county-experiences-overdose-alert>.
- Massatti, Rick, Christy Beeghly, Orman Hall, Mbabazi Kariisa, and Laura Potts. "Increasing Heroin Overdoses in Ohio: Understanding the Issue." Columbus, OH: Ohio Department of Mental Health and Addiction Services. Accessed May 7, 2017.

- <http://mha.ohio.gov/portals/0/assets/research/reports/heroinoverdosereportfin43014.pdf>
- Norfolk and Western Railway Company Agricultural and Industrial Dept. *Industrial and Shippers Guide*. Union Print. and Manufacturing Company, 1916.
- “Ohio Automated Rx Reporting System: OARRS.” Accessed May 6, 2017.
<https://www.ohiopmp.gov/Portal/County.aspx>.
- Ohio Department of Health. “2015 Ohio Drug Overdose Data: General Findings.” Accessed May 6, 2017. <http://www.odh.ohio.gov/-/media/ODH/ASSETS/Files/health/injury-prevention/2015-Overdose-Data/2015-Ohio-Drug-Overdose-Data-Report-FINAL.pdf>.
- . “Number of Neonatal Abstinence Syndrome (NAS) Hospitalizations and the Average NAS Rate by County of Residence, Ohio 2011-2015.” Accessed May 8, 2017.
<https://www.odh.ohio.gov/-/media/ODH/ASSETS/Files/health/injury-prevention/NAS-Rate.pdf?la=en>.
- Ohio Department of Mental Health and Addiction Services. “Incarceration Rates for Drug Offenses, Snapshot of Prison Census January 1, 2015.” Accessed May 8, 2017.
http://mha.ohio.gov/Portals/0/assets/Research/Maps/Ohio_ODRC_2015.pdf.
- Patrick, S. W., M. M. Davis, C. U. Lehmann, and W. O. Cooper. “Increasing Incidence and Geographic Distribution of Neonatal Abstinence Syndrome: United States 2009 to 2012.” *Journal of Perinatology* 35, no. 8 (August 2015): 650–55. doi:10.1038/jp.2015.36.
- “Private, All Industry Aggregations, Scioto County, Ohio 2015 Annual Averages, All Establishment Sizes Source: Quarterly Census of Employment and Wages - Bureau of Labor Statistics.” Accessed May 7, 2017.
https://data.bls.gov/cew/apps/table_maker/v4/table_maker.htm#type=11&year=2015&qtr=A&own=5&area=39145&supp=0.
- Roberts, Lisa. “Waging the War Against the Devil in Scioto County: A Grassroots Response to Prescription Drug Abuse in a Rural Community.” presented at the National Conference on Pharmaceutical and Chemical Diversion, Cincinnati, Ohio, November 2012.
https://www.deadiversion.usdoj.gov/mtgs/drug_chemical/2012/roberts.pdf.
- “Scioto County, Ohio.” *County Health Rankings & Roadmaps*. Accessed May 8, 2017.
<http://www.countyhealthrankings.org/app/ohio/2015/rankings/scioto/county/factors/4/snapshot>.
- Substance Abuse and Mental Health Services Association. “Core Competencies for Clergy and Other Pastoral Ministers in Addressing Alcohol and Drug Dependence and the Impact On Family Members.” Washington, DC: DHHS, February 26, 2003.
<https://www.samhsa.gov/sites/default/files/competency.pdf>.
- Tavernise, Sabrina. “Prescription Drug Abuse Takes Toll on Appalachia.” *The New York Times*, April 19, 2011. <http://www.nytimes.com/2011/04/20/us/20drugs.html>.
- “US Health Map | IHME Viz Hub.” Accessed May 8, 2017.
<http://vizhub.healthdata.org/subnational/usa>.

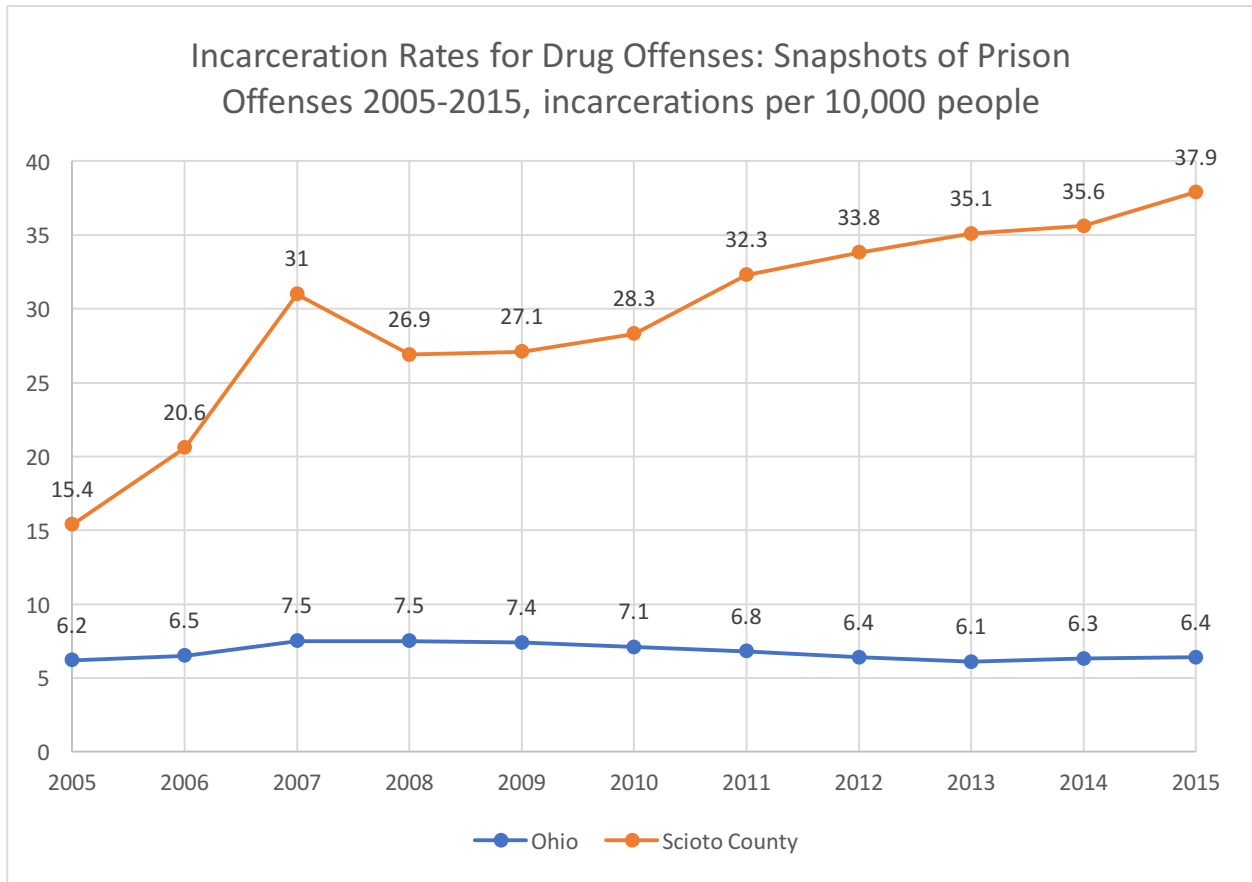
Appendix A: Count and Type of Drug Charge in Scioto County, 2015

Charge	Count
ILLEGAL MANUFACTURE OF DRUGS	69
POSSESSION CONTROLLED SUBSTANCE	63
POSSESSION OF HEROIN	62
TRAFFICKING IN HEROIN	57
AGGRAVATED POSSESSION OF DRUGS	46
POSSESSION OF A CONTROLLED SUBSTANCE	33
POSS DRUG ABUSE INST	25
POSSESSION OF COCAINE	23
TRAFFICKING CONTROLLED SUBSTANCE	22
TRAFFICKING IN COCAINE	18
POSSESSION OF DRUGS	16
POSSESSION DRUG PARAPHERNALIA	13
AGGRAVATED TRAFFICKING	11
TRAFFICKING IN DRUGS	10
ASSEMBLY OF CHEMICALS TO MANUFACTURE A CONTROLLED SUBSTANCE	9
POSSESSION OF MARIJUANA	3
AGGRAVATED TRAFFICKING IN DRUGS	3
ILLEGAL CUTIVATION OF MARIJUANA	2
TRAFFICKING IN A CONTROLLED SUBSTANCE ANALOG	2
POSSESSION OF METHAMPHETAMINE	2
ILLEGAL POSSESSION OF CHEMICALS FOR THE MANUFACTURE OF DRUGS	1
THEFT OF DRUGS	1
ILLEGAL PROCESSING OF DRUG DOCUMENTS	1
AGGRAVATED TRAFFICKING IN DRUGS/OXYCODONE	1
ILL CONVEYANCE OF DRUGS OF ABUSE ONTO THE GROUNDS OF A DETENTION FACILITY	1
POSSESSION OF CRACK COCAINE	1
CULTIVATE MARIJUANA	1
ATTEMPTED AGGRAVATED POSSESSION OF DRUGS	1
POSSESSION CRIMINAL TOOLS	1
Grand Total	498

Source: Scioto County Clerk of Courts

Note: For more specific definitions of charges, please see Ohio Revised Code Section 2925, found at <http://codes.ohio.gov/orc/2925>.

Appendix B: Incarceration Rates for Drug Offenses: Prison Census 2005-2015

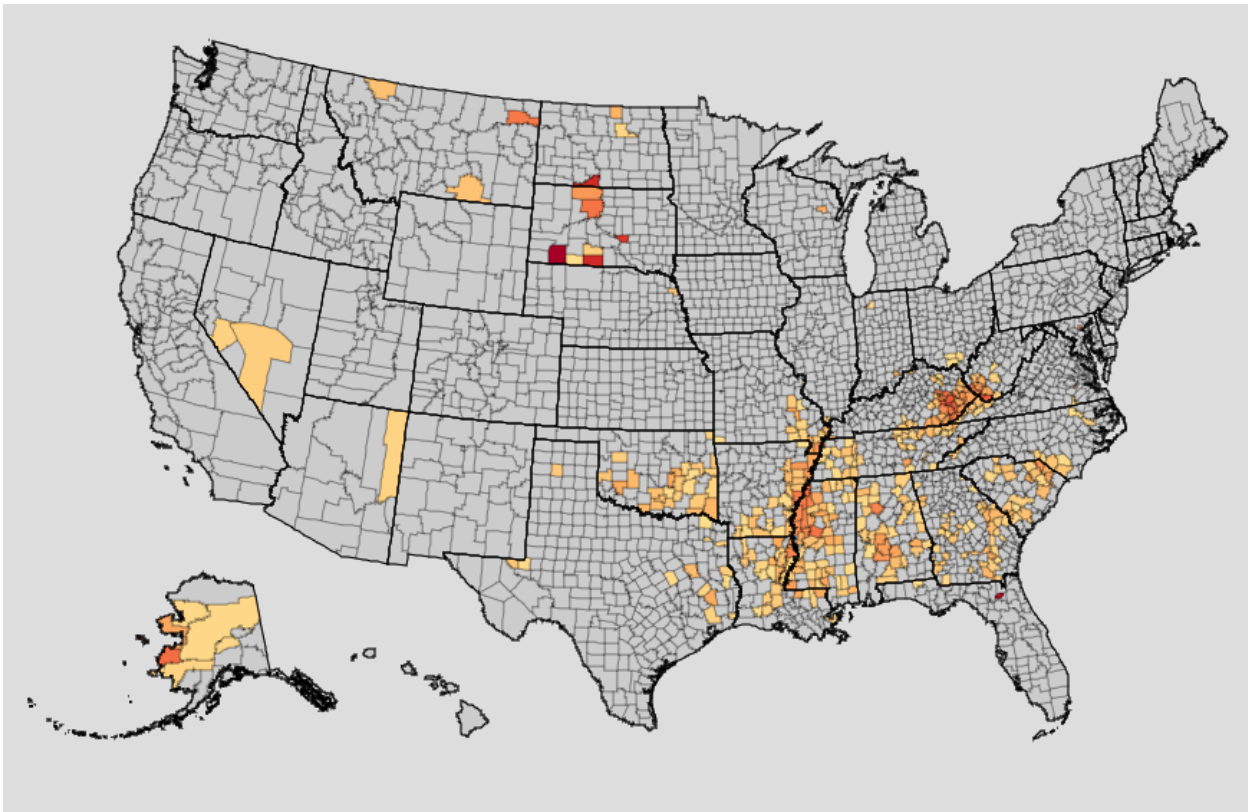


Source: Ohio Department of Rehabilitation and Corrections

“This series... examines incarceration rates for drug offenses with data from the Ohio Department of Rehabilitation and Correction. The total number of incarcerations related to drug offenses is divided by the total number of county residents, and then multiplied by 10,000 to calculate the drug offense incarceration rate per 10,000 persons. All prison facilities are required to submit data to ODPS, and data are considered complete. Data reflect snapshots of the prison census on a particular day, and do not reflect annual rates like other maps. Prison census data was unavailable for January 1, 2007 and 2008; therefore, data from July 2007 and 2008 was used in its place.” From

<http://mha.ohio.gov/Default.aspx?tabid=701#23471071-incarceration-rates-for-drug-offenses>

Appendix C: Map of Counties at or Below Scioto County Life Expectancy, 2014



Source: <https://vizhub.healthdata.org/subnational/usa>