

53. AT&T has been found to violate section 202 before, and is not immune from section 202 merely because its discrimination is based on investment decisions. In *Nat'l Communications Ass'n, Inc. v. AT&T Corp.*, the Second Circuit affirmed a 202 violation, in part, because AT&T had given far fewer resources to a department that serviced one set of customers than the department that served AT&T's own customers. *Nat'l Communications Ass'n, Inc. v. AT&T Corp.*, 238 F.3d 124, 126 (2d Cir. 2001).

#### **V. The Commission Must Act Regardless of BIAS Title II Classification**

54. The Commission has recently questioned whether broadband services should be subject to Title II of the Act. *Restoring Internet Freedom*, Notice of Proposed Rulemaking, Docket 17-108 (rel. May 23, 2017). While this complaint is ample evidence for the reasons why the Commission should retain its Title II over broadband, nonetheless the Commission possesses authority no matter its future decision in that proceeding.

55. Moreover, even if the Commission was to revise its regulatory treatment of broadband service, this complaint should not be dismissed based on a future regulatory decision.

56. National policy supports “deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans” and “access to advanced telecommunications and information services ... in all regions of the Nation.” 47 U.S.C. § 1302(a), 254(b)(2).

57. Section 706(a) of the 1996 Telecommunications Act directs the Commission to utilize its arsenal of tools to promote broadband deployment, including, “measures that promote competition in the local telecommunications market.” 47 U.S.C. § 1302(a).

58. The Commission is directed in Section 706 to “take immediate action to accelerate deployment of [advanced telecommunications] capability by removing barriers to

infrastructure investment and by promoting competition in the telecommunications market.” 47 U.S.C. § 1302(b).

59. The Commission has authority here because the courts have affirmed the Commission’s conclusion that Section 706 contains an operative grant of authority. *Verizon v. FCC*, 740 F.3d 623, slip. Op 20-22 (D.C. Cir. 2014); *see also United States Telecom Ass’n v. FCC*, 825 F.3d 674 (D.C. Cir. 2016).<sup>9</sup>

60. The Commission is authorized under Section 706 because Complainants do not seek in this case sweeping common carrier regulation, but rather a finding that advanced telecommunications capabilities have not been deployed to low-income neighborhoods in Detroit, MI, in contravention of Section 706.

61. Section 706 is therefore directly applicable to the deployment of advanced services to all Americans, and thus grants direct authority for the Commission to act.

#### **VI. The Commission Should Initiate an Investigation Pursuant to Section 403.**

62. Under Section 403, the Commission has sweeping authority to “institute an inquiry” pursuant to an authorized complaint relating to the enforcement of Commission rules. 47 U.S.C. § 403.

To that end, it should investigate the following counts:

#### **COUNT I: Section 202, 47 U.S.C. § 202(a), Unjust and Unreasonable Discrimination**

Complainants repeat their assertions in paragraphs 1 thru 62 of this Complaint, as they set forth herein.

63. Section 202(a) of the Communications Act states, “It shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in ... facilities, or services for

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<sup>9</sup> *Comcast v. FCC*, 600 F.3d 642 (D.C. Cir. 2010), is not relevant here because the Commission has now revisited its previous position which concluded that Section 706 was not a grant of authority.

or in connection with like communication service, ... or to make or give any undue or unreasonable preference or advantage to any particular person, class of persons, or locality, or to subject any particular person, class of persons, or locality to any undue or unreasonable prejudice or disadvantage.” 47 U.S.C. § 202(a).

64. As is documented in the complaint and attached declarations, AT&T has not offered Complainants the same facilities or the same quality of broadband service as it has offered to similarly-situated customers Taylor Decl. ¶ 5; R. Taylor Decl. ¶¶ 3

65. Specifically, Mr. Taylor describes his status as AT&T customers, his interest and unsuccessful efforts to obtain high-speed broadband from AT&T. Taylor Decl. ¶ 5; R. Taylor Decl. ¶¶ 3.

66. As described in the Complaint’s legal analysis, high-speed broadband service is subject to Section 202(a) of the Communications Act. Complaint ¶38.

67. The complaint details findings demonstrating the disparities in facilities and service deployment between proximate low-income and wealthier communities in Detroit, MI and its suburbs. Complaint ¶¶22-33; Whitacre Decl. ¶¶27-34.

68. Complainants demonstrate that they live in high-poverty neighborhoods described in the *AT&T’s Digital Redlining* report and Dr. Whitacre’s analysis. Taylor Decl. ¶ 5; R. Taylor Decl. ¶¶ 3.

69. Complainants demonstrate the harm to him as a result of not being able to obtain high speed broadband Internet from AT&T. *Id.*

70. AT&T has violated Section 202(a) through “unjust and unreasonable discrimination” by failing to provide Fiber To The Node (FTTN) “facilities” and high-speed broadband Internet “service” to a “class of persons” who are low-income, and to census *blocks*

identified in the complaint where low-income households reside, *i.e.*, “localities”, causing them harm.

71. In applying the standard the Commission has adopted, it is instructed to launch: “[a]n inquiry into whether a carrier is discriminating in violation of § 202(a). This inquiry involves a three-step inquiry: (1) whether the services are ‘like’; (2) if they are, whether there is a price difference between them; and (3) if there is, whether that difference is reasonable.” .” *Nat’l Communications Ass’n, Inc. v. AT&T Corp.*, 238 F.3d 124, 127 (2d Cir. 2001). The Commission applies the same test when evaluating formal complaints filed with the Commission.

72. Accordingly, when applied here, AT&T unreasonably discriminated against the lower income citizens of Detroit, MI by subjecting them to differences in service speed for broadband service, in violation of Section 202(a) of the Act, 47U.S.C. §202(a).

73. As a direct and proximate result of AT&T’s violations of the Act, Complainants have been deprived of services at comparable speeds as other residents in their city. AT&T should be made to rectify its service lapse *by* creating accommodations or a means for Complainants to receive equitable service, and the Commission should launch in inquiry to determine if a violation of Section 202(a) has occurred.

**COUNT II: Section 706 of the Act, codified at 47 C.F.R. §1302**

Complainant repeats his assertions in paragraphs 1 thru 73 of this Complaint, as he sets forth herein.

74. The Commission has authority to act under 47 U.S.C. § 1302(b). Complaint ¶¶46-53. Section 706, 47 U.S.C. §1302(b) directs the Commission “determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely

fashion,” and if not, “take immediate action to accelerate deployment of such capability.”.”

Section 706 of the Act, codified at 47 C.F.R. §1302.

75. Complainants have shown above that AT&T has not deployed “advanced telecommunications capabilities” to low income neighborhoods Detroit, Michigan “in a reasonable and timely fashion,” as evidenced of the disparate treatment of low-income Census blocks and wealthier Census blocks, in contravention of Section 706, 47 U.S.C. § 1302(b).

Complaint ¶¶21-

Accordingly, AT&T has failed to Support the Commission’s mission to broadly deploy Telecommunications Services to all, and as such, the Commission must investigate and

**actRELIEF REQUESTED**

76. Complainants request that the Commission: (a) find that Defendant AT&T has violated Section 202, 254 and 706 of the Act, 47 U.S.C. § 202, 254, 1302, by failing to serve the low-income, communities of color in Detroit, Michigan, and as such, issue preliminary and permanent injunctions prohibiting AT&T from engaging in the discriminatory and anticompetitive conduct and practices alleged herein, and (b) find that AT&T has violated Sections 202, 254 and 706 of the Act, codified at 47 C.F.R. §1302, 47 U.S.C. §§ 202, 254 and 1302, by failing to deploy broadly, and thereby direct specific performance of AT&T’s obligations, including but not limited to AT&T’s obligation to provide broadband services to the lower income minority communities in Detroit, Michigan.

77. Complainants seek a hearing on the amount of damages in a separate proceeding per a supplemental complaint per Commission Rule 1.722. 47 C.F.R. § 1.722.

78. If the Commission is unwilling at this time to proceed through an adjudication, it should refer the matter to the ALJ for a public hearing under 47 U.S.C. §403.

79. Complainants request all other such relief as may be just and proper.

## **CONCLUSION**

For the reasons set forth above and in the Formal Complaint, the Commission should grant Complainants the relief he has requested.



Daryl Parks  
Parks & Crump, LLC.  
240 North Magnolia, Drive  
Tallahassee, Florida, 32301

(850) 222-3333  
(850) 224-6679 (fax)

*Counsel for Edward Garner Taylor  
and Ray Taylor*

September 25, 2017

**Federal Communications Commission  
Washington, DC 20554**

In the matter of	)	
	)	
Edward Garner Taylor, Esq.	)	
Ray Taylor	)	
Complainants	)	
	)	
	)	Proceeding Number _____
	)	File No. EB _____
v.	)	
	)	
AT&T Corp.	)	
Defendant.	)	

**INFORMATION DESIGNATION**

Pursuant to Sections 1.721(a)(10)(i), (ii), (iii), and 1.721(a)(11) of the Federal Communications Commission's ("Commission") Rules, 47 C.F.R. §§ 1.721(a)(10)(i), (ii), (iii) and 1.721(a)(11), Petitioners submit this information designation.

**Individuals Believed to Have First-Hand Knowledge, Rule 1.721(a)(10)(i)**

In accordance with Sections 1.721(a)(10)(i), (ii), (iii), and 1.721(a)(11) of the Federal Communications Commission's ("Commission") Rules, 47 C.F.R. §§ 1.721(a)(10)(i), (ii), (iii) and 1.721(a)(11), and 1.724(f)(2), and 1.726(d)(2) Petitioners set forth to the best of their knowledge, the individuals, names, addresses and positions of those with first-hand knowledge of the lapses by AT&T that form the basis of this Complaint:



Name	Title	Address	Facts Within Knowledge
Edward Garner Taylor	Resident	2183 Bassett Street, Detroit, Michigan 48217	Generally, experiences as a Detroit resident at the identified address for 19 years attempting to obtain high-speed broadband Internet at home and consequences of not obtaining high-speed broadband Internet at home; Inferior service impedes his ability to work from home. Can not access online files, webcast and many other resources that contribute to his profession. Specifically, as a resident of Detroit in a neighborhood without upgraded infrastructure, the speed of broadband service at a speed of 3.33 Mbps download and .033 Mbps upload; That he was told by AT&T technicians, including some that came to his home, that he did not have access to higher speeds.
Ray Taylor	Resident	2183 Bassett Street, Detroit, Michigan	That he has relied on AT&T for internet and broadband access for as long as he has resided in his parents home, a 19-year customer of AT&T; That specifically, the extreme slow speeds and lag deter him and prevent him from completing college course assignments and research; and from conducting internship and job opportunities and filling out online application forms and submitting them because his home suffers from a speed of 3.33 Mbps upload and .033 Mbps

			download.
Dr. Brian Whitacre	Oklahoma State University Associate Professor and Extension Economist in the Agricultural Economics Department	504 Ag Hall Stillwater, OK 74078	What his analysis of AT&T's Form 477 data submitted during the relevant time reveals in terms of which communities and neighborhoods had what level of service; that consumers, generally, view ADSL and VDSL2 as services which meet the same needs; What communities had access to ADSL and VDSL2 service; That wireless services are typically subject to data caps and therefore are an inferior substitution to fixed broadband; that the lack of competitive fiber-based products reduces competition in the provision of broadband services; that AT&T has withheld fiber-enhanced broadband improvements from most Detroit neighborhoods with high poverty rates.

### **Documents, Data Compilations, and Tangible Things, Rule 1.721(a)(10)(ii)**

The National Digital Alliance has released a report that reviews AT&T's own FCC filings of the relevant coverage area and examines advertised speeds by AT&T itself; and identifies which areas had access to high speed broadband and which did not. National Digital Inclusion Alliance, *AT&T's Digital Redlining*, <https://drive.google.com/file/d/0B62agIFGHrbTYtMGdK0XZ4NmM/view>, generally (last visited September 17, 2017) (hereinafter NDIA Study).

This report was released on March 10 2017 and published online by a research team for the public, with a copy of the report at the respective residences of each Petitioner and their attorney; and can be found <https://digitalinclusion.org/blog/2017/03/10/atts-digital-redlining-of->

cleveland/. The report is relevant to the Complaint because it essentially explains the reasons Complainants have been unable to receive high speed broadband services in their home and community.

The Declaration by Dr. Brian E. Whitacre includes detailed economic analysis, charts and spreadsheets analyzing the data provided by AT&T itself in its Form 477 data for the relevant time period, but specifically for the city of Detroit, Michigan by mirroring and patterning the analysis conducted in the NDIA Study.

**Identification of Persons and Documents, Rule 1.721(a)(10)(iii)**

Pursuant to Section 1.721(a)(10)(iii) of the Commission's Rules, 47 C.F.R. § 1.721(a)(10)(iii) Complainants' attorney, Daryl Parks of Parks & Crump, identified his client's experiences, which are the subject of the complaint, as relevant to this complaint. After exploring the reasons for the individual experience of the Complainants, using general research, Mr. Parks identified the data and analysis in the NDIA Study as relevant, and considered the mirrored analysis conducted by Dr. Whitacre for Detroit, Michigan based on AT&T's Form 477 data in that city; and determined there are systematic actions by AT&T which resulted in Complainants' inability to obtain high speed Internet service.

Mr. Parks consulted with expert Dr. Brian Whitacre to verify and substantiate the findings of NDIA's report, and identified Dr. Whitacre's materials verifying his replication of the NDIA study on Form 477 data submitted by AT&T for the city of Detroit as relevant to the complaint, which he summarized in a Declaration attached to the Complaint; *See* Declaration of Brian E. Whitacre, generally.

**Documents Relied Upon, Rule 1.721(a)(11)**

In accordance to Section 1.721(a)(11) of the FCC's Rules at 47 C.F.R. § 1.721(a)(11), petitioner attached declarations, the NDIA report, documents, data compilations and tangible things in Petitioners' possession, custody, or control, upon which Petitioners relies or intends to rely to support the facts alleged and legal arguments made in its Formal Complaint, as exhibits and certifies that these exhibits have been served, along with the Formal Complaint to AT&T.

A handwritten signature in dark ink, appearing to read 'D. Parks', is centered within a light gray rectangular box.

Daryl Parks  
Parks & Crump, LLC.  
240 North Magnolia, Drive  
Tallahassee, Florida, 32301

(850) 222-3333  
(850) 224-6679 (fax)

*Counsel for Edward Garner Taylor  
and Ray Taylor*

September 25, 2017

**Federal Communications Commission  
Washington, DC 20554**

In the matter of	)	
	)	
Edward Garner Taylor, Esq.	)	
Ray Taylor	)	
Complainants	)	
	)	Proceeding Number _____
	)	File No. EB _____
v.	)	
	)	
AT&T Corp.	)	
Defendant.	)	

**EDWARD GARNER TAYLOR’S & RAY TAYLOR FIRST REQUEST FOR  
INTERROGATORIES OF AT&T CORP**

Pursuant to 47 C.F.R. § 1.729(a), Complainants Edward Garner Taylor (Resident) hereby submits to the Federal Communications Commission, and concurrently serves on Defendant AT&T Corp (“ATT”), this First Request for Interrogatories (“Interrogatories”). AT&T shall respond to these Interrogatories in the time provided by 47 C.F.R. § 1.729, in writing, under oath, and in accordance with the Commission’s rules and the Instructions and Definitions set forth herein.

**DEFINITIONS**

1. All terms used herein shall be construed according to common understood definition of the terms and not in complex or highly technical terms, though acronyms and other terms of art in the telecommunications industry shall have the meaning typically ascribed to them by the industry.
2. “Any” means each, every, and all persons, places, or things to which the term refers.
3. “Communication” means any transfer of information, whether written, printed, electronic, oral, pictorial, or otherwise transmitted by any means or manner whatsoever.
4. “Concerning” means relating to, involving, reflecting, identifying, stating, referring to, evidencing, constituting, analyzing, underlying, commenting upon, mentioning, or connected with, in any way, the subject matter of the request.
5. “Copy” means any reproduction, in whole or in part, of an original document and includes, but is not limited to, non-identical copies made from copies.
6. “Describe” and “description” means to set forth fully, in detail, and unambiguously each and every fact of which you have knowledge related to answering the interrogatory.
7. “Document” means any written, drawn, recorded, transcribed, filed, or graphic matter, including scientific or researchers’ notebooks, raw data, calculations, information stored in computers, computer programs, surveys, tests and their results, however produced or reproduced. With respect to any document that is not exactly identical to another document for any reason, including but not limited to marginal notations, deletions, or redrafts, or rewrites, separate documents should be provided.
8. “Identify,” “identity,” or “identification,” when used in relation to “person” or “persons,” means to state the full name and present or last known address of such person or persons and, if a

natural person, his or her present or last known job title, the name and address of his or her present or last known employer, and the nature of the relationship or association of such person to you.

9. “Identify,” “identity,” or “identification,” when used in relation to “document” or “documents,” means to state the date, subject matter, name(s) of person(s) that wrote, signed, initialed, dictated, or otherwise participated in the creation of the same, the name(s) of the addressee(s) (if any), and the name(s) and address(es) (if any) of each person or persons who have possession, custody, or control of said document or documents.

10. “Identify” when used in relation to a “communication” means to identify the participants in each communication and, if such communication is not contained in a document, the date, place, and content of such communication.

11. “Including” means including but not limited to.

12. “Original” means the first archetypal document produced, that is, the document itself, not a copy. 15. “Person” or “persons” means any natural person or persons, group of natural persons acting as individuals, group of natural persons acting as a group (e.g., as a board of directors, a committee, etc.), or any firm, corporate entity, partnership, association, joint venture, business, enterprise, cooperative, municipality, commission, or governmental body or agency.

13. “Relevant Period” means January 2016 to the present, unless otherwise specified.

14. “You,” “your,” or “AT&T” means AT&T Corp any of its parent, affiliated, or subsidiary companies; and employees, officers, directors, agents, representatives, and all other persons or entities acting or purporting to act on their behalf, including without limitation any outside

consultant or witness retained by them. In that regard, each and every interrogatory contained herein is directed at you.

### **INSTRUCTIONS**

When responding to the following interrogatories, please comply with the instructions below:

1. Each interrogatory is continuing in nature and requires supplemental responses as soon as new, different, or further information is obtained that is related to answering the interrogatory.
2. Provide all information, including all documents, related to answering the interrogatory that are in your possession, custody, or control, regardless of whether such documents are possessed directly by you or by your employees, officers, directors, agents, representatives, or any other person or entity acting or purporting to act on their behalf.
3. In any interrogatory, the present tense shall be read to include the past tense, and the past tense shall be read to include the present tense.
4. In any interrogatory, the singular shall be read to include the plural, and the plural shall be read to include the singular.
5. In any interrogatory, the use of the conjunctive shall be read to include the disjunctive, and the use of the disjunctive shall be read to include the conjunctive.
6. Any document withheld from production on the grounds of a privilege is to be specifically identified by author(s), addressee(s), length, and date, with a brief description of the subject matter or nature of the document, and a statement of the privilege asserted.
7. Please begin the response to each request on a separate page.
8. Please restate each interrogatory before providing the response or objection.



9. Please specify the interrogatory in response to which any document, narrative response, or objection is provided. If a document, narrative response, or objection relates to more than one request, please cross reference.
10. For each separate interrogatory, identify the person(s) under whose supervision the response was prepared.
11. For any interrogatory consisting of separate subparts or portions, a complete response is required to each subpart as if the subpart or portion were propounded separately.
12. Produce any documents in the form of legible, complete, and true copies of the original documents as “original” is defined herein. To the extent that excel spreadsheets are produced, they should be provided in native format.
13. Please provide all documents in their native format, together with all metadata.
14. If you assert that documents or information related to answering an interrogatory are unavailable or have been discarded or destroyed, state when and explain in detail why any such document or information was unavailable, discarded, or destroyed, and identify the person directing the discarding or destruction. If a claim is made that the discarding or destruction occurred pursuant to a discarding or destruction program, identify and produce the criteria, policy, or procedures under which such program was undertaken.
15. If any interrogatory cannot be answered in full after reasonable inquiry, provide the response to the extent available, state why the interrogatory cannot be answered in full, and provide any information within your knowledge concerning the description, existence, availability, and custody of any unanswered portions.

**INT REQUEST 1.** Share the cost and demand forecast modeling used to determine which neighborhoods in Detroit, Michigan received VDSL service and/or Fiber to the Home (FTTH).

**EXPLANATION:**

To the extent that AT&T has claimed that it has selected certain neighborhoods to serve based on cost and demand, providing this information is essential for Complainants to ascertain why his home was omitted.

**INT REQUEST 2.** Provide all marketing of broadband services which targets African American, Hispanic, Asian and other communities of color and low-income communities in Detroit and the state of Michigan.

**EXPLANATION:**

AT&T expressed to the Commission a commitment to serve all communities including those in service areas with high concentration of people of color; and therefore it is important that Complainants learn how, if at all, others in his neighborhood and community became aware of services and products offered by AT&T.

**INT REQUEST 3.** Provide how AT&T determines what the average data usage is for various broadband functionality, such as email, streaming movies, internet browsing, music, and gaming.

**EXPLANATION:**

AT&T asserts that it must manage its network efficiently and therefore, it must have established a benchmark or certain standards to determine the amount of usage expended by the average users, high bandwidth users and less active users. Complainants seek access to certain services and must know this information in order to ascertain whether they were properly assessed or perhaps incorrectly assessed because AT&T's knowledge and awareness of their needs are not matched with their actual needs.

**INT. REQUEST 4.** Provide racial and ethnic breakdown of AT&T customers nationwide, Michigan and Detroit, broken down by municipality or service area.

**EXPLANATION:**

This complaint is based on recently published data by NDIA that suggests AT&T is purposefully bypassing residents by ethnic and racial characteristics and in order to determine if there is corroboration of fact in this data, Complainants would require access to this data that AT&T presumably has in its possession.

**INT. REQUEST 5** Provide marketing budget directed toward African American, Hispanic, Asian and other communities of color and low-income communities in Detroit, the state of Michigan, and nationally. Include aggregate marketing budget, in particular, the percentage of the total budget targeting communities of color.

**EXPLANATION:**

AT&T states that it serves the city and it creates marketing materials and advertising in the city to promote services and offerings. Complainants require awareness of the amount of money spent on marketing because that will assist it in determining if the company's outreach spend and effort is adequate given the Complaint's concerns about non-ubiquitous adoption. If the problem has to do with marketing, then making the marketing budget available will assist the Complainants and the Commission better understand.

**INT. REQUEST 6.** Provide total participation rates in AT&T's Access program in Michigan, Detroit and and nationally. Provide all demographic information, including income, race and ethnicity, of participants.

**EXPLANATION:**

AT&T's program is stated to serve underserved and unserved communities and therefore a breakdown of the demographics of these communities is essential for ascertaining if it is meeting its stated purpose. If Complainants could access this information, he would have a better understanding of AT&T's stated goals of servicing the city.

**INT. REQUES 7.** Provide cost, service tiers, data limitations, costs per line, tethering and hot spot policies for mobile broadband products offered in the state of Michigan and Detroit.

**EXPLANATION:**

To the extent that some members of the Detroit service area rely on mobile broadband access, Complainants are eager to learn what AT&T's costs, limits and policies are for providing this alternative to Michigan and Detroit residents that do not have access to terrestrial broadband.



**INT. REQUEST 8** Share data regarding the total number of consumer complaints in Detroit, MI, about the speed of broadband, the geographic location of those complaints, the resolution of those complaints from January 2007 to Present

**EXPLANATION**

AT&T is bound by its franchise agreements, its FCC public service obligations and customer service provisions of both to monitor, intake and resolve customer complaints. Complainants would benefit from learning what the process is generally, for AT&T. This information is most likely in the custody of AT&T and providing it would aid the Commission in determining if there are other similarly-situated residents who have put AT&T on notice of their concerns prior to the filing of this Complaint.

**INT REQUEST 9.** Please provide a listing of all higher income areas in the Detroit metropolitan area where broadband speeds of the following levels are offered, and AT&T's definition of income: 1.5 Mbps or less; 3 Mbps or less; 6 Mbps or less; 18 Mbps or less; 24 Mbps or less.

**EXPLANATION:**

The report that spawned and initiated Complainant to file his concerns with the Commission did not identify with more specificity which areas by income have what level of broadband speed access. AT&T is the custodian of this information and if it provides it on the record, the Complainants and the Commission would get a more complete picture of the service demographic by access.

**INT REQUEST 10 Current plans to deploy fiber in Detroit and in the state of Michigan.**

**EXPLANATION:**

To the extent that AT&T has already indicated to the public and the Commission that it intended to deploy fiber in Detroit and the state of Michigan, it is essential to know whether it has completed its build out or has plans to deploy further.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "D. Parks", written on a light-colored rectangular background.

Daryl Parks  
Parks & Crump, LLC  
240 North Magnolia, Drive  
Tallahassee, Florida, 32301

(850) 222-3333  
(850) 224-6679 (fax)

*Counsel for Edward Garner Taylor  
And Ray Taylor*

September 25, 2017

## CERTIFICATE OF SERVICE

I hereby certify that on September 25, 2017, I caused a copy of the foregoing Formal Complaint, as well as all accompanying material to be served as indicated below to the following.

AT&T Corp.,  
One AT&T Way  
Bedminster, NJ 07921  
(Hand-Delivery by Courier)

Randall L. Stephenson  
Senior Vice President and Secretary  
AT&T  
208 S. Akard Street, Suite 3241  
Dallas, TX 75202  
(Hand Delivery)

James Meza III  
Senior Vice President and Assistant General Counsel  
AT&T  
2260 East Imperial Highway  
El Segundo, CA 90245  
(Via Email)



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Daryl Parks  
Parks & Crump  
240 North Magnolia, Drive  
Tallahassee, Florida, 32301  
[dparks@parkscrump.com](mailto:dparks@parkscrump.com)  
(850) 222-3333  
(850) 224-6679

Dated: September 25, 2017

### **CERTIFICATE**

I hereby certify that on September 25, 2017, I paid the \$240 filing fee via ECFS. My law firm's FRN is Parks & Crump, LLC 0026738203. I certify the payment was made on the same day as the filing.



Daryl Parks  
Parks & Crump  
240 North Magnolia, Drive  
Tallahassee, Florida, 32301

(850) 222-3333  
(850) 224-6679 (fax)

*Counsel for Edward Garner Taylor  
and Ray Taylor*

September 25, 2017

*Before the*  
**Federal Communications Commission**  
**Washington, DC 20554**

In the matter of

Edward G. Taylor, esq

v.

AT&T Corp.  
One AT&T Way  
Bedminster, NJ 07921

Proceeding Number \_\_\_\_\_  
File No. EB- \_\_\_\_\_ -

**DECLARATION OF EDWARD G. TAYLOR**

1. My name is Edward G. Taylor, I live at 2183 Bassett Street, Detroit, Michigan 48217

2. I am a residential customer of AT&T. I have been an paying AT&T customer since 1998

3. I conducted a speed test and learned that I get 3.33 mpbs upload and only .033 mbps download which is abysmal compared to other parts of the city that are more wealthy that receive much more true high speed access.

4. Because I work from home and am one of few professionals who have chosen to set up shop within a middle to low income African-American community, more specifically in the city of Detroit, I am beholden to receiving the level of broadband service available in this community.

5. In order for me to properly service this community and meet its needs, it is imperative that I be able to work from home, access legal databases, communicate with online court systems and set up meetings virtually and online with clients that are unable to travel to my

home office to meet. All of these activities require adequate internet access. Unfortunately, my Internet access at home is painfully slow. I would prefer to purchase faster access to the Internet. I attempted to obtain faster high speed broadband service from AT&T and made several phone calls to the phone number advertised for adding on service

6. I am harmed by the failure of AT&T to offer me faster speed broadband service because I cannot serve an underserved and unserved market with limited access to professional legal services. The extremely slow service that I endure makes it hard for me to continue to work inside this community and if I am forced to close up shop within this community, the community as a whole would suffer from not having access to one of the few legal professionals that are willing to sacrifice higher salaries and prestige and serve lower income and low-income African American residents from within their communities, which is essential for establishing and maintaining trust.

7. Also, personally, I have a difficult time operating my business and personal affairs using online services. Online banking and accessing government offices, online databases for research and more are all virtually impossible given the fact I have such slow upload and download speeds. This Declaration has been prepared in support of the foregoing Formal Complaint.

8. This statement is true to my personal knowledge, and is made under penalty of perjury of the laws of the United States of America.

\_\_\_\_\_

Edward G. Taylor

9-22-2017

Date

*Before the*  
**Federal Communications Commission**  
**Washington, DC 20554**

In the matter of

Ray Taylor

v.

AT&T Corp.  
One AT&T Way  
Bedminster, NJ 07921

Proceeding Number \_\_\_\_\_  
File No. EB- \_\_\_\_\_ -

**DECLARATION OF RAY TAYLOR**

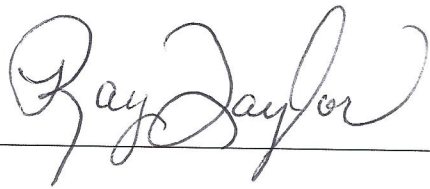
1. My name is Ray Taylor, I live at 2183 Bassett Street, Detroit, Michigan 48217
2. I am a residential customer of AT&T. I live in a residence that has been serviced by AT&T including by it broadband service since 1998.
3. I would prefer to purchase faster access to the Internet. I, and members of my household, have attempted to obtain faster high speed broadband service from AT&T but was not able to purchase it. Upon contacting an AT&T representative by telephone at the number advertised locally for high speed internet access, we were told that our home is not eligible to receive the service.
4. I am harmed by the failure of AT&T to offer me faster speed broadband service. As a student, I am incapable of accessing online resources, my college's and professor's pages for students, to register for courses and seek internship opportunities. When looking for a job, it is virtually impossible to have the applications load up in a timely fashion, and it is painstakingly



slow for each page to load, rendering the job search process futile. In a community with high unemployment and impoverishment rates, it is very critical that for me to be able to search for jobs online. A lot of employers now only accept applications via online means.

5. This Declaration has been prepared in support of the foregoing Formal Complaint.

6. This statement is true to my personal knowledge, and is made under penalty of perjury of the laws of the United States of America.

A handwritten signature in cursive script, reading "Ray Taylor", is written over a horizontal line.

Ray Taylor

\_\_\_\_\_

Date

*Before the*  
**Federal Communications Commission**  
**Washington, DC 20554**

In the matter of	)	
	)	
Joanne Elkins, Hattie Lanfair,	)	
Rachelle Lee	)	
Complainants,	)	Proceeding Number 17-223
	)	File No. EB-17-002
v.	)	
	)	
AT&T Corp.	)	
Defendant.	)	

**DECLARATION OF EXPERT WITNESS**  
**BRIAN E. WHITACRE**

1. My name is Dr. Brian Whitacre. I am a professor and extension economist in the agricultural economics department at Oklahoma State University.

2. I hold a Ph.D. in economics from Virginia Polytechnic Institute. For the last 11 years, my academic position has focused on what technology can mean for domestic economic development. A heavy portion of my research (and outreach) is dedicated to the economic impacts associated with broadband technology. Therefore, I am well-versed in the data and software tools used to explore broadband provision across the United States. Attached is my resume detailing my professional expertise.

3. I have reviewed in detail and am familiar with the contents of the Connect Your Communities and National Digital Inclusion Alliance report titled, *AT&T's Digital Redlining*, which focused on AT&T's broadband provision in the city of Cleveland. Subsequent analysis

considered AT&T's broadband provision in other cities, including Detroit. In my professional opinion, the NDIA report (and subsequent analysis) is accurate and has been conducted according to the professional standards of my profession. As part of my work on this project, I was able to replicate (and extend upon) the Detroit findings using the publicly available datasets cited (FCC Form 477 from June 2016; Census poverty rates from the 2011-2015 ACS).

4. The analysis for Detroit demonstrates that AT&T has withheld fiber-enhanced broadband improvements from most Detroit neighborhoods with high poverty rates, relegating them to Internet access services which are vastly inferior to the services enjoyed by their counterparts nearby in the higher-income Detroit suburbs.

### *Background*

5. In 2016, Connect Your Community and National Digital Inclusion Alliance learned that residents of many Cleveland neighborhoods were being declared ineligible for AT&T's "Access" discount rate program, solely because they couldn't get AT&T connections at the 3 Mbps download speed which was then the program's minimum requirement. Similar situations were found in Detroit and other cities across the nation.

6. AT&T Access offers discounted broadband service to low-income households, and was adopted by AT&T as a voluntary condition as part of Federal Communication Commission approval of its merger with DirecTV.

7. In order to further explore the quality of service offerings by AT&T in Cleveland, CYC and NDIA undertook an analysis of broadband infrastructure deployment in Cleveland using census block level data submitted to the Federal Communications Commission by AT&T

via FCC Form 477. This report was published in March 2017. Several months later, NDIA performed similar analysis for other cities, including Detroit. Although a full NDIA report does not exist specifically for Detroit, this declaration follows the process of the Cleveland NDIA report to demonstrate that the same basic pattern holds. The evidence laid out below suggests that AT&T systematically provided lower levels of broadband access to high-poverty neighborhoods than they did in higher-income locations.

### *Data Source and Study Goals*

8. The FCC's Fixed Broadband Deployment Data is based on Form 477 reports gathered every six months from all regulated Internet Service Providers. It is released to the public on the FCC website six months to a year later. Among other things, the Form 477 deployment data includes individual companies' own accounts of the broadband technology they are using to deliver residential service in each Census block, and the "Maximum Advertised Download Speed" (as well as Upload Speed) for each such technology in that block. These speeds are reported in megabytes per second (mbps).

9. In the case of AT&T, Form 477 block data shows where the company is offering 18, 24, 45 or 75 mbps download speeds via fiber-enhanced VDSL service, or even gigabit speeds via Fiber To The Home (FTTH), and where their Internet service is limited to slower speeds (often much slower) because it is still delivered over copper wires from a "central office" that may be miles away, using a version of old-style ADSL technology called ADSL2.

10. The Census block data in Form 477 lists the maximum speed of as few as one or two addresses in a block. Therefore if a Census block is listed as ADSL2 "Maximum Advertised

Download Speed” of 18 mbps, it is impossible to assume that every household in that block can get that speed.

11. On March 3, the FCC posted its latest round of Census block broadband deployment data, drawn from providers’ Form 477 reports for June 2016. The CYC/NDIA analysis is based on that most recent release, including that performed for Detroit. The maps and data included in this declaration also use this data.

12. CYC and NDIA undertook this analysis to learn what the new Form 477 Census block data tell us about three questions: 1) Where has AT&T invested in providing its mainstream Internet speeds and video services to residents, and where has it chosen not to do so? 2) How does AT&T’s deployment of FTTH/VDSL service compare to the distribution of high poverty areas, especially in Detroit? 3) Where are AT&T’s “maximum advertised download speeds” still provided by ADSL2 technology – i.e. old-style copper wire from a “central office” – and what are those speeds, especially in the Census blocks farther away from the central offices serving them?

13. To address the first two questions, CYC and NDIA mapped all the Census blocks in Wayne County where AT&T’s Form 477 data indicates it was able to provide Internet access via VDSL technology to at least one household, at a maximum download speed of 18 mbps or more, in June 2016. (CYC and NDIA included a couple of blocks where the data show FTTH service with 1 Gbps download speeds.) Then CYC and NDIA overlaid a map of all the Census block groups in the county where 35% of residents had incomes below the poverty line according to the most recent Census data available (from 2011-2015). The analysis in this declaration replicated this process.

14. The specific steps taken to obtain the broadband deployment data were:

- a) Download the state-level (Michigan) June 2016 Fixed Broadband Deployment Form 477 data from: <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477>
- b) Remove all non-AT&T observations
- c) Remove all non-Wayne County observations (FIPS code 26163)
- d) Generate a “maximum speed offered” by Census Block. Many Census blocks include multiple listings for AT&T, with each designating a speed that is available to customers. What is ultimately needed is the maximum speed AT&T offers for each Census block. This can be done by generating a maximum speed offered by Census block, and then dropping all non-optimal observations for that block. The result is a single observation per Census block that contains the maximum download and upload speeds available.
- e) The resulting data is attached to this declaration (Cuyahoga\_Co\_AT&T\_June2016.xls)

15. The specific steps taken to obtain the Census Poverty data were:

- a) Visit the “advanced search” version of the Census’ American Fact Finder, available at: <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- b) Select “Block groups” under “Geographies”
- c) Select State (Michigan) and County (Wayne). Select “Add to your selections”
- d) In the Topic Search bar at the top of the page, type “Poverty”
- e) Select ID B17021, “Poverty Status of Individuals In the Past 12 Months by Living Arrangement”, 2015 ACS 5-year estimates.
- f) Download the resulting table into Excel

- g) Create a new “% in Poverty” by dividing the number of households with income below poverty by the total number of households.
- h) Counties with poverty rates over 35% can be assigned by assessing the value of the “% in Poverty” column.
- i) The resulting data is attached to this declaration (Wayne\_Co\_Block\_Groups\_Poverty\_ACS\_11-15.xls). It can be meshed with the Census block-level Form 477 data by merging according to the geographical ID (the first 12 digits of the 15-digit census block ID dictate the block group each observation belongs to).

#### *AT&T home broadband technologies*

16. In general, AT&T offers home Internet, “cable” TV programming and IP phone services using one of three delivery technologies: (1) Fiber To The Home, (2) Fiber To The Node / VDSL, and (3) ADSL2.

17. The newest and fastest of the three, not yet available in most of the Detroit market but coming on rapidly in other metropolitan areas, is Fiber To The Home (FTTH) – now branded as “AT&T Fiber”. As the name suggests, this is very fast service (typically up to 1,000 mbps, i.e. 1 gbps) delivered by optical fiber all the way to the customer premises. In Wayne County, only 64 out of the 29,100 Census blocks that AT&T provides service to have FTTH service. The average poverty rate in the Census blocks with FTTH service is 5.5%, compared to the county average of 26.5%.

18. The current mainstream AT&T home network technology, built out in Michigan and other markets between 2007 and 2014, is Fiber To The Node (FTTN). Data travels via fiber

to a “Video Ready Access Device” (VRAD) in a wiring cabinet in a neighborhood, often on a tree lawn or similar location, and then from the VRAD to the customer premises via a copper loop. AT&T’s FTTN system uses an advanced digital subscriber line technology called “Very-high-bit-rate digital subscriber line” or VDSL. VDSL technology can transmit data downstream and upstream simultaneously, at speeds of 100 mbps or more. AT&T’s Form 477 data lists “maximum advertised download speeds” for VDSL service of 18, 24, 45, and 75 mbps.

19. Where AT&T hasn’t upgraded its service to either FTTH or FTTN, new accounts are served using an older technology called “asymmetric digital subscriber line 2” (ADSL2 or ADSL2+). Data travels to an AT&T “central office” via fiber optics, is run through a “Digital Subscriber Line Access Multiplexer” (DSLAM) there, and then is sent over a copper loop to the customer premises – often a distance of two to three miles or more. The ADSL2 technology used by AT&T has a maximum download speed of 18 to 24 mbps near the DSLAM, but drops rapidly to 6 mbps, 3 mbps or less at distances above a mile.

20. I and the study authors understand, and believe to be true, that AT&T categorizes its “advertised speeds” as follows. AT&T’s three lowest advertised speed tiers — and price levels — are now “up to 3 mbps”, “up to 6 mbps”, and “up to 24 mbps.” A service whose maximum speed is 768 kbps is considered “up to 3 mbps” under AT&T’s rubric. If a customer’s available download speed is really 12 mbps, under AT&T’s rubric, that service is considered “up to 24 mbps” on that customer’s bill.

### *Consumer Use of Broadband and Benefits of Broadband Competition*

21. Consumers view ADSL and VDSL2 as services which meet the same needs. Both are broadband services used to reach the Internet, stream video, and other similar needs.



Both offerings also compete with other providers of broadband services, such as wired services offered by multichannel video programming distributor, *i.e.*, traditional cable operators.

22. Wireless broadband services, while they provide some similar access to broadband services, are qualitatively different from wired services. Indeed, the FCC's own 2016 Broadband Progress Report notes, "We find today that fixed and mobile broadband are often used in conjunction with one another and, as such, are not functional substitutes." (p. 6) The report also finds that, "fixed and mobile broadband are currently tailored to serve different consumer needs." (p. 6) Additionally, the Government Accountability Office (GAO) clearly differentiates between mobile and fixed Internet access in their 2014 report on broadband Internet, highlighting the faster data transfer for fixed connections and potential congestion issues for mobile. Academic research on the subject agrees, with Lee et al. (2011) finding that "mobile broadband service is a complement to fixed broadband service."

23. Even if mobile network improvements over time allow for similar fixed and mobile download speeds, the customer costs and experiences are not comparable. Wireless services are typically subject to data caps or limitations after a particular data threshold is met, and typically must be purchased for each device used, rather than shared like wired services. They also suffer noticeable reductions in speed and quality if multiple devices share the same data stream, such as through a mobile wifi hotspot. Therefore, mobile services are often much more expensive than wired services and do not offer as great a value, particularly for low-income consumers. According to AT&T's website, their fixed broadband plans start at \$40 / month for 50 mbps (where available) and 1 Terabyte of data (1,000 GB). Alternatively, AT&T's mobile broadband for the same price (\$40) comes with only 3 GB of data. On a cost-per-GB comparison, mobile is over three hundred times more expensive (\$.04 / GB for fixed, \$13 / GB

for mobile). Higher-data mobile packages cost more, such as their \$90 / month plan for 16 GB. Even AT&T's unlimited mobile data plan (\$100 / month) notes that "AT&T may slow speeds after 22 GB of data usage." For prepaid mobile data plans, which are commonly used by low-income customers, AT&T charges \$65 / month for unlimited data (which again may be throttled after 22 GB) but notes that speeds are limited to a maximum of 3 mbps. Thus, it is unrealistic to claim that a mobile AT&T broadband subscription can serve the same purpose as a fixed one.

24. The lack of competitive fiber-based products reduces competition in the provision of broadband services. Therefore, communities and individual customers who are limited to fixed broadband service offerings from only a single provider (for example, a cable provider) generally face higher prices and lower quality than they would if more than one provider of services were available. The problematic nature of limited broadband competition is firmly established in the economic literature.

#### *Analysis*

25. The analysis, methodology, and maps below are specific to Detroit, but follow the general outline established in the NDIA's study titled *AT&T's Digital Redlining* (which was focused on Cleveland). The original post on NDIA's website that focused on Detroit (dated Sep. 6, 2017) is attached and incorporated to this declaration by reference.

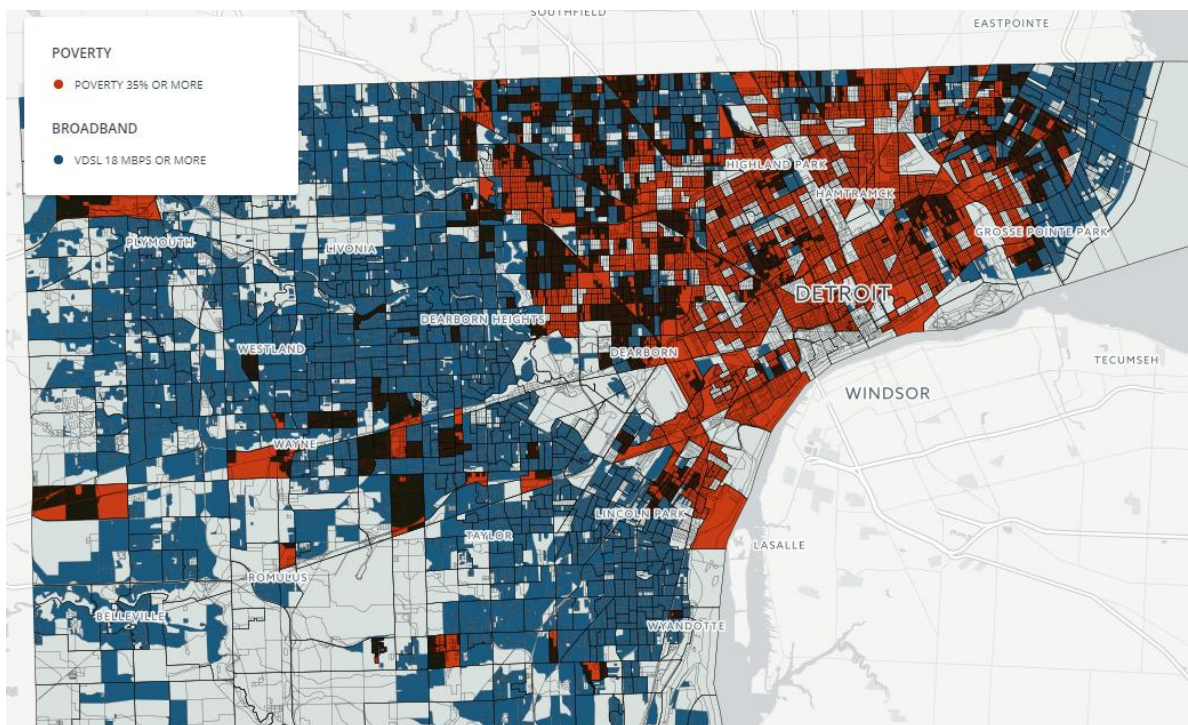
26. As detailed below, the data offers clear evidence that AT&T has withheld the standard product offering for most suburbs- its fiber-enhanced "Fiber To the Node" VDSL infrastructure ("FTTN") – from the overwhelming majority of census blocks with individual poverty rates above 35%. As a consequence, residents of these neighborhoods: suffer uneven, often severely limited Internet access , in many cases 3 mbps downstream or less, and also lack

access to AT&T's competitive fiber-enabled video service and the benefits such competition and service would bring.

### *Maps, Data Analysis, and Findings*

27. To support these conclusions this declaration analyzes data and provides a series of maps and statistics demonstrating the following:

*Map 1: AT&T's FTTN / VDSL (18 MBPS or more) Network Coverage in Wayne County and Block Groups with 35% or Greater in Poverty ([Map 1 Link](#)).*



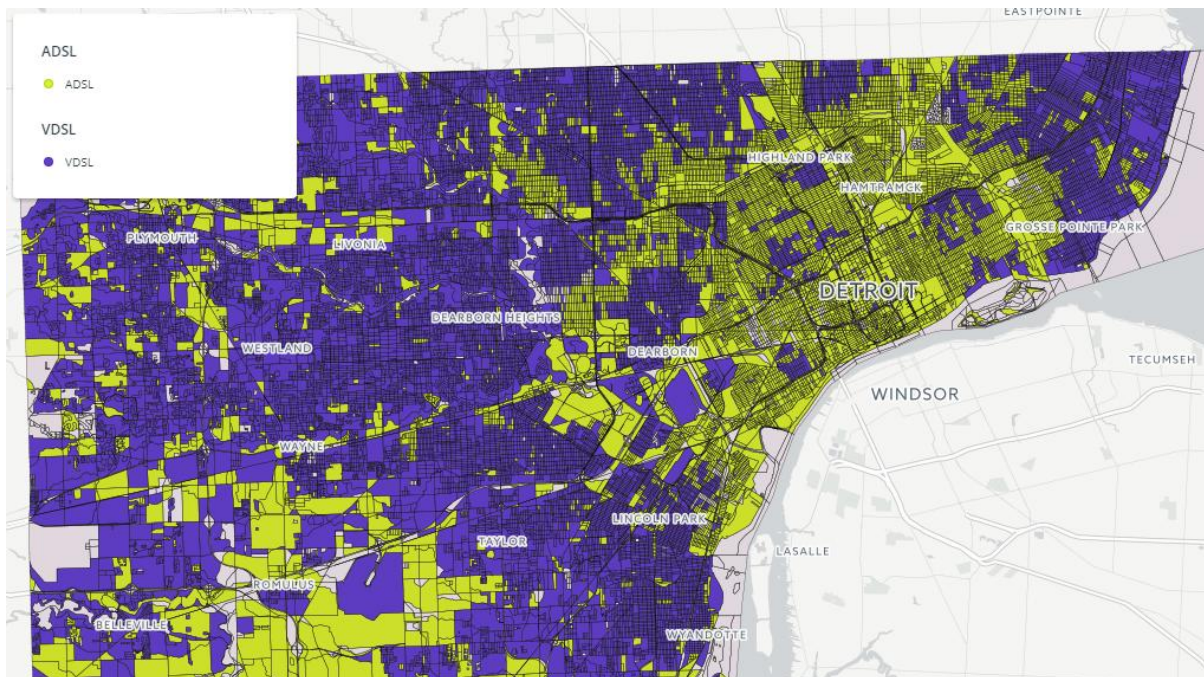
28. Out of the 29,100 Census blocks served by AT&T, 9,954 (34%) have poverty rates of 35% or more. AT&T's FTTN / VDSL network covers most of Wayne County but not most Census blocks in Detroit, especially those in high-poverty neighborhoods (Map 1). As Table 1 below demonstrates, this is also shown by the distribution of VDSL or ADSL across

high-poverty Census blocks. VDSL was only provided to 41% of Census blocks with high levels of poverty, compared to 74% of non-high poverty Census blocks. Similarly, the high-poverty blocks were more than twice as likely to receive ADSL (58% vs. 25%).

*Table 1: Percentage of Wayne County Census Blocks served by ADSL, VDSL, or FTTH (out of all blocks served by AT&T)*

	<b>Pov 35% +</b>	<b>Other</b>
ADSL	58.68%	25.23%
VDSL	41.32%	74.43%
FTTH	0.00%	0.34%
	100.00%	100.00%

*MAP 2: AT&T Provision of ADSL and VDSL service in Wayne County and Detroit ([Map 2 Link](#))*



29. Most of Wayne County’s suburban communities are fully covered by AT&T’s mainstream FTTH/VDSL service. Most of the city of Detroit is not.

30. The June 2016 Form 477 data lists 29,100 Census blocks in Wayne County served by AT&T with ADSL2, VDSL, or FTTH service. Of the 13,055 blocks located in the city of Detroit, in only 41% (5,406) is the Maximum Advertised Download Speeds provided by VDSL or FTTH. Of the 16,045 blocks in the rest of the county, the FTTH/VDSL percentage is nearly double (81%). Similarly, 59% of Detroit Census blocks are limited to ADSL service, which is three times the percentage seen in the remaining Wayne County Census blocks (19%). Table 2 provides more information about the breakout between Detroit and the rest of Wayne County, including the percentage of Census blocks with 18mbps download speed available to them and average poverty rates.

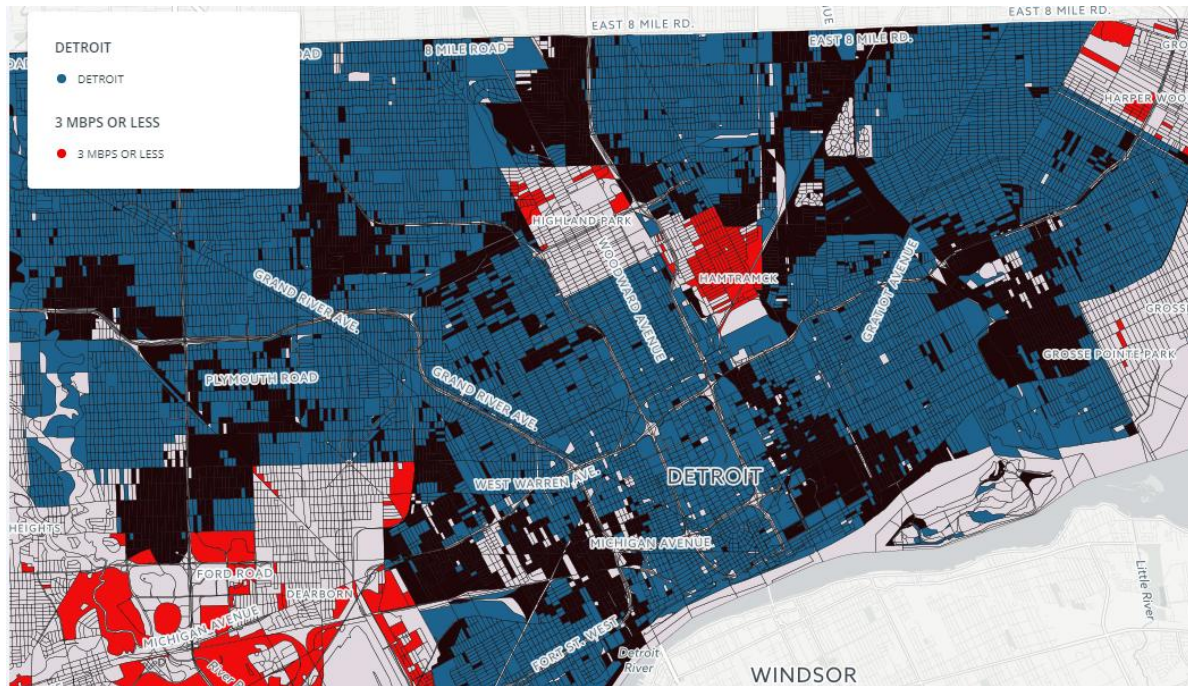
*Table 2: Percentage of Detroit and Rest of Wayne County Census Blocks Served by ADSL / VDSL (and other characteristics)*

	<b>Detroit</b>	<b>Rest of County</b>
ADSL	58.59%	18.84%
VDSL	41.41%	80.76%
% with 18mbps available	53.80%	80.50%
Avg. Poverty Rate	40.28%	15.27%

31. There is a glaring correlation between areas where AT&T has not invested in FTTN service and areas of high poverty. Even *within* Detroit Census blocks, there is a differentiation to the service provided across poverty lines. 50% of Detroit Census blocks that do not meet the 35% poverty threshold have VDSL service available, compared to only 36% of Detroit blocks classified as high-poverty (data not shown in table).



*MAP 3: Detroit Census Blocks with Maximum AT&T Wireline Internet Speeds of 3mbps or Less, June 2016 ([Map 3 Link](#))*



32. Where AT&T has not deployed FTTN technology, home Internet speeds delivered by the ADSL2 network vary widely depending on proximity to a central office. Maximum download speeds of 3 Mbps or less are common. Map 3 shows the Detroit Census blocks with maximum AT&T wireline Internet speeds of 3 Mbps or less, for June 2016. As this map (and Table 3 below) demonstrate, over 21% of Detroit Census blocks were reported by AT&T to have maximum residential download speeds of 3 Mbps or less. The comparable percentage for the rest of Wayne County was 9%. A similar story can be told for high-poverty (35% or more) Census Blocks within the county: 22% are limited to speeds of 3 MBPS or less, more than double the rate found in the rest of the county.

*Table 3: Percentage of Wayne County Census Blocks Served by AT&T With Low Download Speeds, by Location and High-Poverty Status*

	<b>Detroit</b>	<b>Rest of County</b>
1.5MBPS Or Less	15.87%	8.02%
3MBPS Or Less	21.10%	9.42%

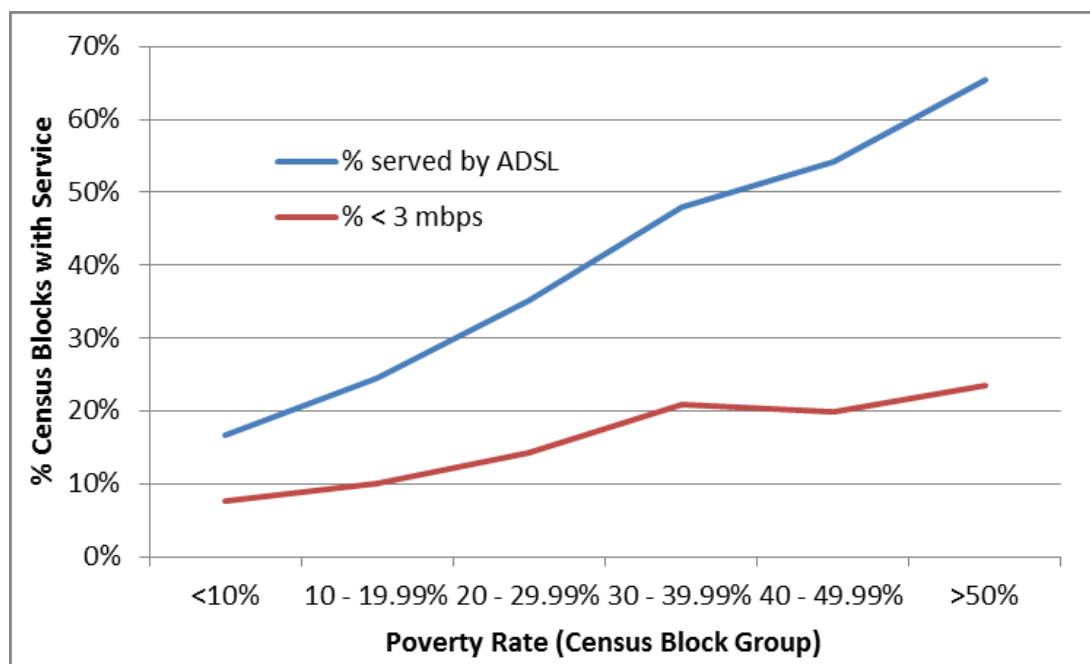
  

	<b>Pov 35% +</b>	<b>Rest of County</b>
1.5MBPS Or Less	16.87%	8.76%
3MBPS Or Less	22.01%	10.84%

The above analysis has mostly focused on high-poverty counties (rates of 35% or more).

However, when the analysis is extended to break out the Wayne County Census blocks into more detailed poverty rate groupings, a clear trend emerges (Figure 1).

*Figure 1: Percentage of Wayne County Census Blocks served by AT&T that are limited to ADSL and <3 MBPS Service, by Poverty Rate*



For the least impoverished blocks (those with less than 10% in poverty), only 16% are limited to ADSL service, and only 7.7% are offered a download maximum of 3 mbps. As the poverty rate grows, however, so does the percentage limited to ADSL and to 3 mbps. Census blocks with poverty rates of over 50% are more than 3 times as likely to be limited to both ADSL service (65%) and 3 mbps service (24%).

### *Conclusions*

33. The analysis shows a clear and troubling pattern: A pattern of long-term, systematic failure to invest in the infrastructure required to provide equitable, mainstream Internet access to residents of the central city (compared to the suburbs) and to lower-income city neighborhoods. Specifically, AT&T has chosen not to extend its “FTTN” VDSL infrastructure – which is now the standard for most Wayne County suburbs and other urban AT&T markets throughout the U.S. – to the majority of Detroit Census blocks, including the overwhelming majority of blocks with individual poverty rates above 35%.

34. The study’s results provide clear evidence that AT&T has withheld fiber-enhanced broadband improvements from most Detroit neighborhoods with high poverty rates.

35. The Detroit neighborhoods that did not receive VDSL investments have been relegated to an older, slower transmission technology called ADSL2, resulting in significantly slower Internet access speeds than AT&T provides to middle-income city neighborhoods as well as most suburbs.

36. As a result, their residents are left with: 1) uneven, often severely limited Internet access – in many cases 3 Mbps downstream or less; and 2) no access to the competitive fiber-enabled video service that AT&T promised communities in exchange for “cable franchise reform”, i.e. the elimination of municipal cable franchising, in Michigan in 2007.



37. Because the patterns revealed by this analysis result from a decade of deliberate infrastructure investment decisions, I agree with NDIA and CYC's conclusion that they constitute strong evidence of a policy and practice of "digital redlining" by AT&T — *i.e.* income-based discrimination against residents of lower-income urban neighborhoods in the types of broadband service AT&T offers, and in the company's investment in improved service.

38. This Declaration has been prepared in support of the foregoing Formal Complaint.

39. This statement is true to my personal knowledge, and is made under penalty of perjury of the laws of the United States of America.

40. I certify that I was able to replicate the NDIA findings for Detroit using the publicly available data referenced above.

41. I declare under penalty of perjury that the foregoing is true and correct.

42. Executed on September 19, 2017.

A handwritten signature in black ink, appearing to read "R. B. Whinn". The signature is written in a cursive, flowing style.

EXPERT SIGNATURE