

Study on the Affordability of Personal Automobile Insurance

FEDERAL INSURANCE OFFICE, U.S. DEPARTMENT OF THE TREASURY

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Glossary

Affected Persons	Traditionally underserved communities and consumers, minorities, and low- and moderate-income persons
Affordability Index	.....	Personal automobile insurance affordability index as described in this Study
AP ZIP Codes	.....	ZIP Codes in which Affected Persons are the majority
BI	.....	Bodily injury liability insurance coverage
FIO	.....	Federal Insurance Office
FR Limits	.....	Financial Responsibility Limits, i.e., state mandatory minimum requirements for personal auto insurance
LMI	.....	Low- and moderate- income
MFI	.....	Median family income
MSA	.....	Metropolitan Statistical Area
NAIC	.....	National Association of Insurance Commissioners
PD	.....	Property damage liability insurance coverage
PIP	.....	Medical payments and personal injury protection insurance coverage
Study	.....	This Study on the Affordability of Personal Automobile Insurance
UM	.....	Uninsured Motorist insurance coverage
UIM	.....	Underinsured Motorist insurance coverage
ZIP Code	.....	U.S. Postal Service ZIP Code

I. Introduction and Summary of Findings

When establishing the Federal Insurance Office (FIO) within the U.S. Department of the Treasury, Congress tasked FIO with, among other things, monitoring the extent to which traditionally underserved communities and consumers, minorities, and low- and moderate-income (LMI) persons have access to affordable insurance products for all lines of insurance (except health insurance).¹ Congress recognized that minorities and LMI persons and communities could be at a higher risk from financial downturns than other groups within the United States, and designed the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 to ensure federal monitoring of consumers' access to affordable insurance products.² With this awareness, and in recognition of the importance of affordable, accessible insurance products to individuals and families in the United States, FIO previously has written about access to insurance and other consumer protection concerns.³

This Report constitutes FIO's first insurance affordability study, focusing on automobile insurance for individual consumers. This first annual Study on the Affordability of Personal Automobile Insurance (Study) provides an objective, quantifiable, national perspective on auto insurance affordability for traditionally underserved communities and consumers, minorities, and LMI persons (collectively, Affected Persons).

Section II explains why affordable auto insurance is critically important to consumers, and describes the public notice and comment process used to help determine the Study's definitions and metrics. After outlining some basic insurance terms and concepts, Section III summarizes state personal auto insurance requirements since, of course, the business of insurance in the United States – including auto insurance – is regulated primarily at the state level.⁴ Section IV discusses auto insurance availability, as well as how the numbers of uninsured drivers can affect auto insurance affordability. Section V discusses other factors that can affect affordability. Section VI explains how the Affordability Index is calculated; discusses Affected Persons and affordability; outlines how to calculate the Affordability Index; and describes the underlying data and its limitations. Section VII provides the Study's findings, including a state-by-state summary of results and illustrative state examples. Section VIII concludes with additional observations and next steps.

¹ See 31 U.S.C. § 313(c)(1)(B).

² See *Press Release: Waters Wins Big for Consumers, Homeowners, Minorities and Shareholders in Wall Street Reform and Consumer Protection Legislation* (June 30, 2010), available at <https://waters.house.gov/media-center/press-releases/waters-wins-big-consumers-homeowners-minorities-and-shareholders-wall>. See also 156 CONG. REC. H5242 (June 30, 2010) (“The Federal Insurance Office, we will be asking them to gather information about the ability of minorities and low income persons to access affordable insurance products.”) (statement of Maxine Waters).

³ These FIO reports are available at <https://www.treasury.gov/initiatives/fio/reports-and-notice> and include: *How to Modernize and Improve the System of Insurance Regulation in the United States* (December 2013); *Annual Report on the Insurance Industry* (September 2014); *Report Providing an Assessment of the Current State of the Market for Natural Catastrophe Insurance in the United States* (September 2015); *Annual Report on the Insurance Industry* (September 2015), and *Report on Protection of Insurance Consumers and Access to Insurance* (November 2016) (*Consumer Report*).

⁴ See, e.g., the McCarran-Ferguson Act, 15 U.S.C. § 1011; the Gramm-Leach-Bliley Act, 15 U.S.C. § 6711.

In brief, this Study calculates and reports the results of an Affordability Index which, following extensive consultation and analysis, FIO has defined as the ratio of the average annual written personal automobile liability premium in the voluntary market to the median household income (based on U.S. Census Bureau data) for U.S. Postal Service ZIP Codes in which Affected Persons are 50 percent or more of the population (AP ZIP Codes). For the purposes of this analysis, personal auto insurance is presumed unaffordable within an AP ZIP Code if its Affordability Index is above two percent.⁵ As described in more detail in Section VII, the United States has 9,172 AP ZIP Codes in which Affected Persons are the majority population, or approximately 28 percent of all of the ZIP Codes nationwide. Auto insurance has Affordability Index values above two percent in 845 AP ZIP Codes nationwide; those 845 AP ZIP Codes have an aggregate population of over 18.6 million. Affordability Index results for each AP ZIP Code are available at www.treasury.gov/initiatives/fio/reports-and-notice.

Using the information provided in this Study, consumers and policymakers will be able to assess the affordability of personal auto insurance for Affected Persons within each state and the District of Columbia, at the ZIP Code level. Given the wide variations among states, any interstate comparisons should be made with great caution: the Affordability Index allows for comparison of ZIP Codes within the same state, but should not be considered for interstate analysis. Also, the Study is limited to auto insurance affordability for Affected Persons. Importantly, however, even for Affected Persons the Affordability Index is not intended to provide guidance for individual insurance budgeting or affordability for specific individuals. Due to the range of unique personal characteristic and variance among state laws and regulations, the Affordability Index is not appropriate for measuring the affordability of an auto insurance premium paid by any one person. Rather, the Affordability Index is designed for the purpose of gaining a better understanding of auto insurance affordability for Affected Persons, collectively, at the ZIP Code level.

This Study is based on premium and related data that is publicly available and/or that was voluntarily provided by states and statistical agents.⁶ The underlying data, therefore, does not include all U.S. auto insurance policies. More data will be available for the next study, when all large auto insurers will be asked to voluntarily produce premium data through the appropriate statistical agent.⁷ As more data is analyzed and year-to-year trends become visible, annual study results are likely to provide more insights into industry trends and developments.

⁵ Monitoring Availability and Affordability of Auto Insurance, 81 Fed. Reg. 45,372 (July 13, 2016) (July 2016 Notice). See also Monitoring Availability and Affordability of Auto Insurance, 79 Fed. Reg. 19,969 (Apr. 10, 2014) (April 2014 Notice), and Monitoring Availability and Affordability of Auto Insurance, 80 Fed. Reg. 38,277 (Jul. 2, 2015) (July 2015 Notice).

⁶ With some state-specific exceptions, property and casualty insurers generally are required by state law to send premium and claims/loss data to statistical agents, who then compile the data for state insurance departments; the states, in turn, use the reported information to ensure that insurance rates meet statutory standards and to monitor the insurance market. See, e.g., Independent Statistical Service, *Statistical reporting made simple*, available at <http://www.iss-statistical.net/subscriber-home/home>; National Independent Statistical Service, *About Statistical Reporting*, available at <https://www.niss-stat.org/HTML/AboutStatisticalReporting.aspx>; Verisk Analytics, *Statistical Service*, available at <http://www.verisk.com/capabilities/data-and-statistical-services/statistical-service-reporting-insurance-data-to-iso.html>.

⁷ See Proposed Collection; Comment Request, 81 Fed. Reg. 45,381 (July 13, 2016) (Collection Request).

II. Why Personal Auto Insurance?

This Study focuses on personal auto insurance because affordable auto insurance can promote financial security for individuals and families. Auto ownership is associated with greater opportunity for economic well-being, such as better access to employment opportunities.⁸ For example, one researcher found that “transit only enables [low-income] commuters to reach less than one-third of metro-wide jobs within 90 minutes while the automobile enables them to reach all jobs in the 51 largest metropolitan areas within 60 minutes.”⁹

Furthermore, nearly all states require a driver or owner of a motor vehicle to have automobile liability insurance or financial security that may be satisfied by auto liability insurance while operating a motor vehicle, or at the time of registering a motor vehicle.¹⁰ (Section III provides additional information about states’ auto insurance requirements). Commentators have observed that “[u]naffordable auto insurance leaves many Americans in the predicament of either not driving, which dramatically restricts their economic opportunities, or driving without insurance, which not only is illegal but puts them and other drivers at risk.”¹¹

Finally, insurance stakeholders often disagree about whether auto insurance has become more or less affordable for Affected Persons over time.¹²

In light of the above factors, FIO published a request for information regarding: (1) a reasonable and meaningful definition of affordability for personal auto insurance; (2) appropriate metrics and data for monitoring the extent to which Affected Persons have access to affordable auto insurance; and (3) sources to use for data monitoring auto insurance affordability for Affected Persons.¹³ After reviewing the responses to the initial information request, FIO published for comment a proposed framework for measuring the affordability of personal auto insurance for Affected Persons.¹⁴ After carefully considering all of the comments received, and in conjunction with additional research and consultation, FIO published a notice advising of the adoption of a

⁸ See Clifford Winston, “On the Performance of the U.S. Transportation System: Caution Ahead,” *Journal of Economic Literature*, Vol. 51, No. 3, at 805 (2013), available at <https://www.aeaweb.org/articles?id=10.1257/jel.51.3.773>.

⁹ *Id.*

¹⁰ See, e.g., Insurance Information Institute, *Compulsory Auto/ Uninsured Motorists* (July 2016), available at <http://www.iii.org/issue-update/compulsory-auto-uninsured-motorists>.

¹¹ Consumer Federation of America et al. Comment, at 1 (August 31, 2015), available at <http://www.regulations.gov/#!documentDetail;D=TREAS-DO-2015-0005-0014>.

¹² See, e.g., Insurance Research Council, *Trends Indicate Auto Insurance is Becoming More Affordable for All Income Groups* (Aug. 25, 2015), available at http://www.insurance-research.org/sites/default/files/downloads/Trends%20in%20Auto%20Insurance%20Affordability%20NR_FINAL.pdf, and compare with Stephen Brobeck and J. Robert Hunter, “No Increase in Affordability of Auto Insurance for Low- and Moderate-Income Households,” *Consumer Federation of America* (Sept. 2, 2015), available at http://www.consumerfed.org/pdfs/150921_CES_affordability_brobeckhunter.pdf. See also July 2016 Notice, *supra* note 5, 81 Fed. Reg. at 45,373.

¹³ April 2014 Notice, *supra* note 5, 79 Fed. Reg. at 19,969-19,970.

¹⁴ July 2015 Notice, *supra* note 5, 80 Fed. Reg. at 38,277 et seq.

methodology to monitor the affordability of personal auto insurance for Affected Persons,¹⁵ which is summarized in Section VI.

III. Auto Insurance and State Requirements – the Basics

Auto insurance provides protection against loss arising from the operation, maintenance, or use of automobiles covered by the insurance, for the potential benefit of insured car owners, passengers, drivers, and others.¹⁶

Personal automobile insurance covers private passenger vehicles (as distinct from commercial vehicles). Private passenger autos generally are four-wheel motor vehicles (other than trucks) that are either owned or leased under contract for six months or more, including cars and SUVs.¹⁷ Personal auto insurance can consist of one or more types of coverage to pay specified types of loss, subject to the insurance policy's terms, conditions and exclusions, including the following:

- Personal Liability insurance covers bodily injury (BI) costs associated with injuries and death, and property damage (PD) such as damage to structures or another car caused by the insured owner or other driver of the insured car.
- Uninsured Motorist (UM) coverage reimburses the insured car owner when an auto accident is caused by an uninsured motorist, or for hit-and-run accidents.
- Underinsured Motorist (UIM) coverage pays an insured car owner's costs when another driver has insufficient insurance to pay all accident costs.
- Collision insurance coverage reimburses the insured car owner for damages to the car that results from a collision with another vehicle or other object (such as a tree or guardrail) when the owner is at fault for the accident.
- Comprehensive coverage insures against theft as well as damage caused to an insured car by an incident other than a collision such as flood, vandalism, hail, falling trees, or other hazards.

¹⁵ July 2016 Notice, *supra* note 5, 81 Fed. Reg. at 45,372 et seq.

¹⁶ See, e.g., Florida Division of Consumer Services, *Personal Automobile Insurance Overview*, available at <http://www.myfloridacfo.com/Division/Consumers/UnderstandingCoverage/PersonalAutoInsuranceOverview.htm>.

¹⁷ See, e.g., Rosalie L. Donlon & Christine G. Barlow, "Personal auto policies: 5 questions agents should ask buyers," *PropertyCasualty360* (Nov. 30, 2016), available at http://www.propertycasualty360.com/2016/11/30/personal-auto-policies-5-questions-agents-should-a?eNL=583f2aab160ba0a472aeccc5&utm_source=PC360_Daily&utm_medium=EMC-Email_editorial&utm_campaign=11302016&page_all=1.

- Medical Payments or Personal Injury Protection (PIP) provides reimbursement for the insured driver's and passengers' medical expenses from injuries caused by an accident, regardless of who is at fault.¹⁸

Except for New Hampshire, all states require consumers to maintain personal liability automobile insurance as a condition for registering and driving a car. Currently 17 states also have mandatory PIP requirements, and 20 states require UM and/or UIM coverage. Comprehensive and collision insurance usually are optional. States' minimum requirements for personal liability coverage are generally known as financial responsibility limits (FR Limits). FR Limits requirements vary considerably by state.¹⁹

The personal auto insurance marketplace, broadly speaking, has three segments based on risk profile categories: (1) the standard market, which consists of all drivers except those in the non-standard market and the residual market; (2) the non-standard market, which usually includes high risk drivers such as new drivers, drivers with moving violations, drivers with rare or unusual cars, or drivers with more frequent incidences of insurance policy cancellation or non-renewal; and (3) the residual market, which generally includes drivers with the highest risk of submitting a claim. Generally, premiums are highest in the residual market, followed by the non-standard market, and of course the lowest premiums are in the standard market.²⁰ Standard and non-standard markets together comprise the "voluntary" market, as distinct from the residual market.²¹

The Affordability Index assesses personal liability auto insurance and personal injury protection coverage, at FR Limits, in the voluntary market, for Affected Persons, as described in greater detail in Section VI.

¹⁸ See, e.g., Insurance Information Institute, *Auto Insurance Basics—Understanding Your Coverage*, available at <http://www.iii.org/article/auto-insurance-basics-understanding-your-coverage>.

¹⁹ See, e.g., Insurance Information Institute, *Compulsory Auto/ Uninsured Motorists*, *supra* note 10.

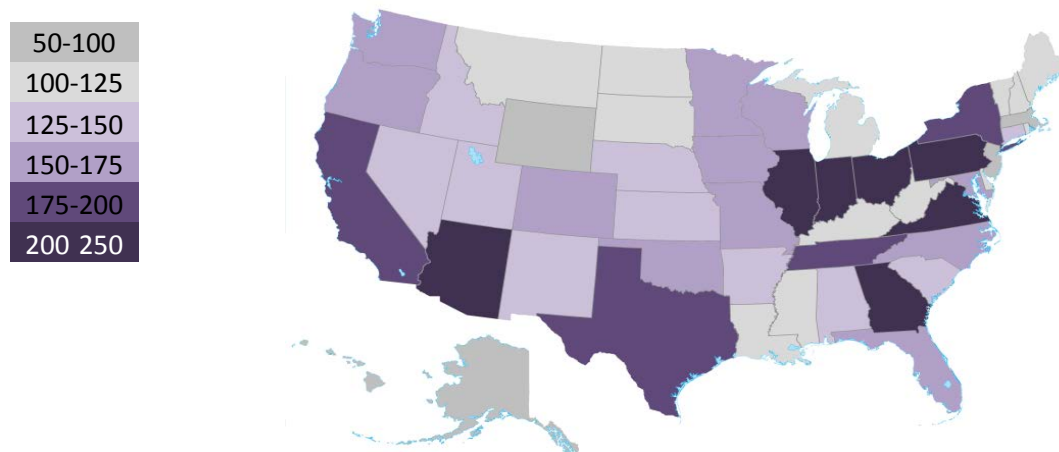
²⁰ See, e.g., July 2015 Notice, *supra* note 5, 80 Fed. Reg. at 38,820 & fn. 38. Insurers do not have a universal method for determining market placement: different insurers may offer the same driver standard and non-standard market rates. See, e.g., July 2016 Notice, *supra* note 5, 81 Fed. Reg. at 45,373.

²¹ See July 2016 Notice, *supra* note 5, 81 Fed. Reg. at 45,377.

IV. Auto Insurance Availability and Uninsured Drivers

The personal auto insurance market generated \$199.9 billion in total direct premiums in 2015, representing about 38.4 percent of all property and casualty insurance net premiums.²² Nearly 900 personal auto insurers conduct business in part or all of the United States.²³ No state has fewer than 50 auto insurers, and 45 states have at least 100 insurers offering coverage for private vehicles (see Figure 1).²⁴

Figure 1: Number of Personal Auto Insurers in Each State



Source: SNL Financial

Despite the existence of a competitive marketplace, nearly 30 million uninsured drivers drove on U.S. roads in 2012.²⁵ The percentage of uninsured drivers in the total U.S. population generally has declined over the last five years for which data is available.²⁶ Notably, lower-income drivers are more likely to be uninsured, which could indicate a correlation with affordability.²⁷ Figure 2 shows the percentage of uninsured drivers by state as of 2012.²⁸

²² See SNL, *P&C Industry: U.S. P&C Business Overview*, available at <https://www.snl.com/web/client?auth=inherit#statIndustry/pcIndustry?KeyStatEntity=E61858CD-F1F9-42BD-8848-8CB6B42ED2FE>.

²³ See SNL Financial. See also Property Casualty Insurers Association of America Comment, at 10 (August 13, 2015) (PCI Comment) (citations omitted), available at <http://www.regulations.gov/#!documentDetail;D=TREAS-DO-2015-0005-0006>.

²⁴ See SNL Financial. See also PCI Comment, *supra* note 23, at 10.

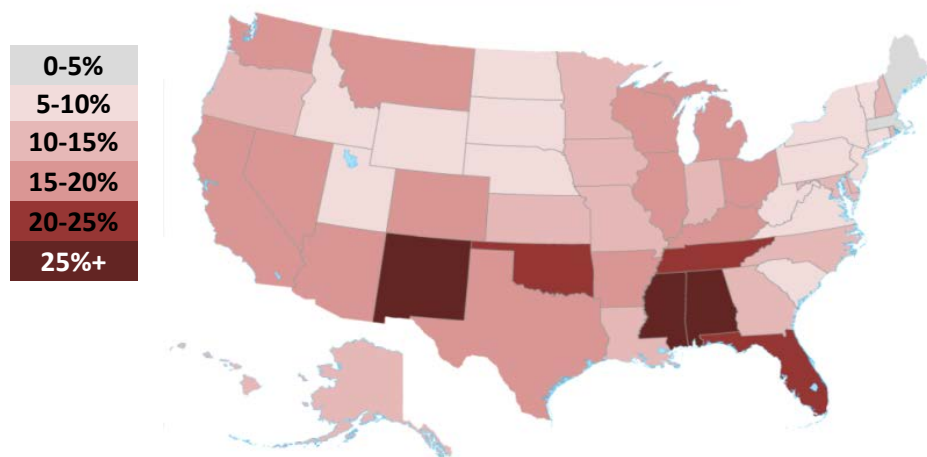
²⁵ See Insurance Research Council, *New Study Reveals a Declining Trend in the Percentage of Uninsured Motorists* (August 5, 2014), available at http://www.insurance-research.org/sites/default/files/downloads/IRC%20UM_NewsRelease_1.pdf.

²⁶ See *id.*

²⁷ See Consumer Federation of America, *Uninsured Drivers: A Societal Dilemma in Need of a Solution*, at 5 (March 2013) (citing own analysis and collecting sources), available at http://www.consumerfed.org/pdfs/140310_uninsureddriversasocialdilemma_cfa.pdf.

²⁸ Insurance Information Institute, *Uninsured Motorists*, available at <http://www.iii.org/fact-statistic/uninsured-motorists> (citing Insurance Research Council). See also Cecile Holton, “How the States Rank on Uninsured

Figure 2: Percentage of Uninsured Drivers by State



Source: Insurance Information Institute

The reasons for the numbers of uninsured drivers – and the widely varying percentages by state – are beyond the scope of this Study. However, Uninsured Motorist (UM) claims – i.e., claims paid by an insurer even though the insured was not at fault – are one of the many factors that can affect premium pricing and, thereby, affect the affordability of personal auto insurance. Additional factors affecting affordability are discussed in Section V.

V. Factors Affecting Affordability

Numerous activities, trends, and pricing factors at both the macro (state/national) and micro (individual consumer) levels may affect personal auto insurance affordability.

At the state and national levels, factors affecting the price of an auto insurance premium include: state law and regulation such as required FR Limits and whether the state mandates PIP coverage;²⁹ state programs which offer low-cost auto liability insurance or help low-income and other drivers obtain more affordable auto insurance;³⁰ accidents involving uninsured drivers which can contribute to higher premium costs for insured drivers;³¹ health and safety measures

Drivers,” *carinsurance.org*, available at <http://www.carinsurance.org/2011/04/how-the-50-states-rank-on-uninsured-drivers> 408.

²⁹ See, e.g., Insurance Information Institute, *No-Fault Auto Insurance in Florida: Trends, Challenges and Costs* (January 2011), available at http://www.insuringflorida.org/wp-content/uploads/2015/05/No-Fault-Paper_0125111.pdf.

³⁰ See e.g., California Dep’t of Insurance, *California’s Low Cost Auto Insurance*, available at <https://mylowcostauto.com/>; State of New Jersey Dep’t of Banking & Insurance, *Special Automobile Insurance Policy (SAIP)*, available at http://www.state.nj.us/dobi/division_consumers/insurance/saip.htm; Haw. Rev. Stat. § 431:10C-407, available at <http://law.justia.com/codes/hawaii/2010/division2/ title24/chapter431/431-10c-407/>; Michigan Dep’t of Insurance and Financial Services, *Your Guide to Automobile Insurance*, available at https://www.michigan.gov/documents/difs/Auto_Insurance_Guide_448003_7.pdf.

³¹ See, e.g., “Why Auto Insurance in Detroit is So Damn High, Explained,” *Daily Detroit* (Oct. 19, 2015), available at <http://www.dailydetroit.com/2015/10/19/why-car-insurance-detroit-so-high-explained/>.

such as highway safety initiatives, the increasing use of collision avoidance technology in motor vehicles, and health care reform which can promote cost-savings and reduce insurance premiums; medical utilization rates;³² and the prevalence of crime such as auto theft and insurance fraud.³³

For individual consumers, numerous additional pricing factors can affect affordability. Pricing factors may include the amount of coverage purchased and premium bundling discounts, such as discounts offered when purchasing auto and home insurance from the same insurer. In addition, depending on the state, insurers typically consider numerous additional factors in determining personal auto insurance premiums, including: driving record; age; gender; marital status; education; occupation; type of car insured; and location of residence which may affect the probability of accidents (often higher in more densely populated areas with more cars on the road), as well as the likelihood of damage from natural hazards (such as when a region is prone to hail or flooding).³⁴ Academics have highlighted how state insurance anti-discrimination laws vary significantly, and that many states' insurance laws do not explicitly restrict insurers' ability to discriminate on the basis of race, national origin or religion.³⁵

VI. Calculating the Affordability Index

A. Who Are Affected Persons?

Affected Persons are defined by LMI and majority-minority ZIP Codes which serve as proxies for capturing both rural and urban traditionally underserved communities.³⁶ For the purpose of calculating the Affordability Index, a ZIP Code is deemed “majority-minority” if the minority population within that ZIP Code – including “Black American, Native American, Hispanic American, or Asian American”³⁷ – exceeds 50 percent of the total population of that ZIP Code. Similarly, a low-income ZIP Code has a median family income (MFI) less than 50 percent of the

³² See Insurance Research Council, *Auto Insurance Affordability Problems Linked to Underlying Cost Drivers* (June 21, 2016), available at <http://www.insurance-research.org/sites/default/files/downloads/NRcostdrivers2016.pdf> (finding medical utilization rates above national norms in 8 of the 12 least affordable auto insurance systems).

³³ See, e.g., Insurance Information Institute, *Insurance Fraud* (January 2016), available at <http://www.iii.org/issue-update/insurance-fraud>; Insurance Research Council, *Insurance Research Council Finds that Fraud and Buildup Add Up to \$7.7 Billion in Excess Payments for Auto Injury Claims* (Feb. 3, 2015), available at <http://www.insurancefraud.org/downloads/InsuranceResearchCouncil02-15.pdf>. By some measures, auto insurance fraud costs the average family \$400-\$700 in additional premiums every year. See, e.g., EMC Corp., *Making Sense of Today's Insurance Market: Bringing Business and IT Together to Drive Growth, Boost Revenue, and Reduce Costs*, at 9 (March 2013), available at <https://www.emc.com/collateral/white-papers/making-sense-of-todays-insurance-market-wp.pdf>.

³⁴ For more on insurance pricing and risk classification, see, e.g., FIO, *Consumer Report*, *supra* note 3.

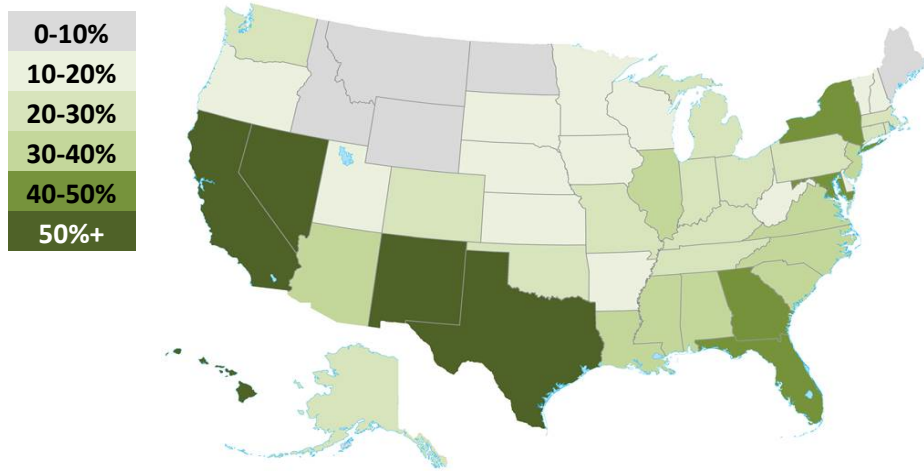
³⁵ See, e.g., Ronen Avraham, Kyle D. Logue, and Daniel Schwarcz, “Understanding Insurance Antidiscrimination Laws,” 87 S. CAL. L. REV. 195 (2013-2014); Ronen Avraham, Kyle D. Logue and Daniel Schwarcz, “Towards a Universal Framework for Insurance Anti-Discrimination Laws,” 21 CONN. L.J. 1 (2014-2015).

³⁶ For more on defining Affected Persons, see the July 2016 Notice, *supra* note 5, 81 Fed. Reg. at 45,377 et seq.

³⁷ 31 U.S.C. § 313(c)(1)(B) (incorporating by reference the definition established in 12 U.S.C. § 1811, note).

median income for the Metropolitan Statistical Area (MSA) for that ZIP Code, while a moderate-income ZIP Code has an MFI of at least 50 percent of the MSA median income but less than 80 percent of the MSA median income.³⁸ Figure 3 shows the concentration of Affected Persons within each state.

Figure 3: Concentration of Affected Persons as Percentage of U.S. Population



Source: U.S. Census Bureau, American Community Survey

B. Defining Affordability

The average U.S. household spends approximately two percent of its annual income on personal automobile insurance,³⁹ a ratio critical to the definition of affordability as used in FIO's Affordability Index.

The Affordability Index was developed to provide a single number representing affordability within a geographic area based on ZIP Codes, thereby simplifying the effort to compare affordability. Specifically, the Affordability Index is a ratio defined as the average annual written personal automobile liability premium in the voluntary market divided by the median household income for ZIP Codes identified as being majority-minority or majority-LMI.⁴⁰ Personal auto liability insurance is presumed to be affordable within a particular ZIP Code if the Affordability Index is equal to or less than the (approximate) national average of two percent.⁴¹

³⁸ See July 2015 Notice, *supra* note 5, 80 Fed. Reg. at 38,280; Federal Deposit Insurance Corp., *Community Reinvestment Act (CRA) Performance Ratings*, available at <https://www5.fdic.gov/crapes/peterms.asp>; July 2016 Notice, *supra* note 5, 81 Fed. Reg. at 45,378 et seq.

³⁹ Specifically, the Bureau of Labor Statistics' Consumer Expenditure Survey found that, in 2013 and 2015, consumers spent about 1.8 percent of average income (after taxes) on vehicle insurance. See *Bureau of Labor Statistics, Consumer Expenditure Survey*, available at <http://www.bls.gov/cex/>.

⁴⁰ July 2016 Notice, *supra* note 5, 81 Fed. Reg. at 45,375.

⁴¹ *Id.*

Of course, national averages can mask wide variations. A recent report showed that the average state premium for a full-coverage auto insurance policy varied from a low of \$808 per year in Maine to a high of \$2,738 in Michigan.⁴² Insurance premiums unsurprisingly span a wide range of price points given the state-by-state variability in affordability factors (discussed in Section V). For this reason, among others, the Affordability Index and its results are best used only for intrastate comparisons, rather than to compare one state with another, and are not intended to provide insight on the affordability (or not) for any individual consumer.

C. How to Calculate the Affordability Index

In essence, the Affordability Index measures personal auto insurance expenditures relative to income. Specifically, the Affordability Index assesses personal liability auto insurance and personal injury protection coverage, at FR Limits, in the voluntary market, for Affected Persons, as compared to median household income.

Calculating the Affordability Index requires multiple steps and data sets. Data from the Census Bureau, the Federal Financial Institutions Examination Council, and the U.S. Department of Housing and Urban Development was used to identify the 9,172 ZIP Codes in which Affected Persons are the majority population (AP ZIP Codes) (i.e., the majority-minority and the majority-LMI ZIP Codes) and for which the Affordability Index would be calculated. Then, using the available data, the average premium for policies at the FR Limits in the voluntary market in each AP ZIP Code was calculated. Next, using Census Bureau data, the median household income in each AP ZIP Code was identified. Finally, for each AP ZIP Code, the average annual written personal automobile liability insurance premium in the voluntary market was divided by the median household income.⁴³

D. Data Sources and Limitations

This is the first use of the FIO Affordability Index, and conclusions drawn from this study should be limited because FIO was unable to analyze comprehensive premium data for all auto insurance policies issued in the fifty states and the District of Columbia. Subject to confidentiality protections and the use of aggregated data, the Study relied upon data with ZIP Code level vehicle counts and premium data for most states for many (but not all) policies in the voluntary market written at the applicable state FR Limits, with policy inception dates between July 1, 2014 and June 30, 2015. Available premium data included BI and PD coverage, and PIP coverage for states where it is mandatory, but excluded UM and UIM coverage. The California Department of Insurance provided data (BI and PD basic limit premium and exposure data for calendar year 2012 for the entire state), as did the Texas Department of Insurance (ZIP Code level premium data for its top reporting groups for the policy year ending December 31, 2015). However, because the California and Texas regulator data covered a different time period than

⁴² Mark Vallett, “Car insurance rates by state, 2016 edition,” *insure.com* (last updated Mar. 2, 2016), available at <http://www.insure.com/car-insurance/car-insurance-rates.html>.

⁴³ The Affordability Index components are discussed in more detail in the July 2016 Notice, *supra* note 5, 81 Fed. Reg. 45,372.

the rest of the data, the tabulated results are premised only upon the premium data from 2014-2015.

Developing a single number index to represent a topic as complicated as personal auto insurance affordability is a challenging endeavor. Some of the challenges include: (1) ZIP Code level premium data for every ZIP Code in the United States are unavailable; (2) using ZIP Codes rather than census tracts⁴⁴ which generally better identify specific communities, but for which the premium data is unavailable; (3) ZIP Codes with low populations have a greater possibility of skewing results (which the Study addressed by omitting ZIP Codes with fewer than 100 residents); (4) ZIP Codes with low vehicle counts, which also have a greater possibility of skewing results (which the Study addressed by excluding ZIP Codes with fewer than 20 reported vehicles with insurance policies at the FR Limit); (5) atypical ZIP Codes, such as military bases, transportation facilities, and others (which the Study addressed through vehicle-to-population analysis); and (6) newly-created ZIP Codes, which could not be evaluated due to lack of detailed demographic data.⁴⁵

VII. The Affordability of Personal Auto Insurance for Affected Persons: Findings and Observations

A. Findings and Summary of Analysis

Subject to the definitions and data limitations described above, 9,172 ZIP Codes were identified as AP ZIP Codes (i.e., majority LMI and/or majority-minority ZIP Codes), representing approximately 28 percent of the 32,452 ZIP Codes analyzed nationwide.

All states have AP ZIP Codes, and most states have one or more AP ZIP Codes with an Affordability Index above two percent. The cost of auto insurance exceeds the Affordability Index in 845 AP ZIP Codes, with over 18.6 million residents (over 9 percent of all AP ZIP Codes nationwide). Given varying state laws, insurance requirements, and insurance markets, these results are best interpreted only on an intrastate basis. A detailed summary of the Study's findings and non-confidential data, listing each AP ZIP Code and whether the Affordability Index is above or below two percent (or data was insufficient), is available at www.treasury.gov/initiatives/fio/reports-and-notice.

Figure 4 provides an overview of the Affordability Index results for each state. The table first shows the total number of ZIP Codes within each state. Then, for each state's AP ZIP Codes, it

⁴⁴ A "census tract" is an area, roughly equivalent to a neighborhood, which the Census Bureau uses for analyzing population data. See U.S. Census Bureau, *Geographic Terms and Concepts – Census Tract*, available at http://www.census.gov/geo/reference/gtc/gtc_ct.html.

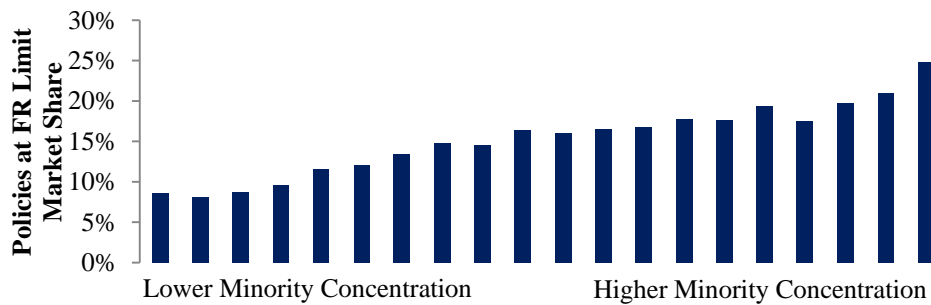
⁴⁵ The Auto Insurance C/D Working Group of the National Association of Insurance Commissioners (NAIC) is considering asking state insurance regulators to collect and examine more "granular" data on auto insurance affordability and availability. See, e.g., NAIC, *2016 Fall National Meeting: Auto Insurance (C/D) Working Group* (for December 10, 2016), available at http://naic.org/meetings1612/cmte_c_d_auto_insurance_wg_2016_fall_nm_materials.pdf?1480986907413.

lists the number of AP ZIP Codes within that state, the percentage of the state’s ZIP Codes that are AP ZIP Codes, the total population of AP ZIP Codes within the state, and the percentage of the state’s population within the AP ZIP Codes. Finally, the table shows the total number and percentage of the state’s AP ZIP Codes with an Affordability Index above two percent, the state’s population within those AP ZIP Codes, and that population’s percentage of the total number of Affected Persons within the state.

Figure 4: AP ZIP Codes and Affordability Index Values Above Two Percent by State

State	# All ZIP Codes	AP ZIP Codes Generally				AP ZIP Codes – Affordability Index > 2%			
		Total #	% State ZIP Codes	Total Population	% State Pop.	Total #	% State AP ZIP Codes	Total Population	% State Pop.
AK	238	160	67.2%	157,014	21.6%	0	0.0%	0	0.0%
AL	642	229	35.7%	1,478,597	30.7%	11	4.8%	52,273	3.5%
AR	591	170	28.8%	569,706	19.3%	7	4.1%	17,125	3.0%
AZ	405	166	41.0%	2,456,770	37.4%	13	7.8%	198,707	8.1%
CA	1,763	893	50.7%	24,915,144	65.5%	6	0.7%	98,417	0.4%
CO	525	123	23.4%	1,292,051	24.9%	0	0.0%	0	0.0%
CT	282	51	18.1%	1,049,902	29.2%	19	37.3%	434,518	41.4%
DC	53	12	22.6%	408,414	64.4%	3	25.0%	143,984	35.3%
DE	67	7	10.4%	146,590	16.0%	3	42.9%	82,333	56.2%
FL	983	323	32.9%	7,921,414	40.9%	95	29.4%	2,856,314	36.1%
GA	735	294	40.0%	4,518,269	45.6%	10	3.4%	188,235	4.2%
HI	94	81	86.2%	1,340,036	96.2%	0	0.0%	0	0.0%
IA	934	118	12.6%	393,351	12.8%	0	0.0%	0	0.0%
ID	278	54	19.4%	113,121	7.1%	1	1.9%	913	0.8%
IL	1,383	286	20.7%	4,226,070	32.8%	10	3.5%	78,455	1.9%
IN	775	142	18.3%	1,412,167	21.6%	4	2.8%	38,460	2.7%
KS	698	111	15.9%	536,093	18.6%	4	3.6%	32,417	6.0%
KY	768	231	30.1%	890,428	20.4%	99	42.9%	429,806	48.3%
LA	515	183	35.5%	1,539,121	33.5%	44	24.0%	604,509	39.3%
MA	537	94	17.5%	1,862,527	28.0%	0	0.0%	0	0.0%
MD	468	146	31.2%	2,701,458	45.9%	10	6.8%	334,269	12.4%
ME	432	55	12.7%	120,135	9.0%	0	0.0%	0	0.0%
MI	987	195	19.8%	2,369,870	24.0%	77	39.5%	1,706,039	72.0%
MN	885	137	15.5%	829,108	15.4%	5	3.6%	95,275	11.5%
MO	1,024	268	26.2%	1,512,925	25.1%	24	9.0%	349,448	23.1%
MS	423	203	48.0%	1,108,069	37.1%	4	2.0%	9,546	0.9%
MT	361	103	28.5%	93,051	9.2%	0	0.0%	0	0.0%
NC	808	277	34.3%	3,233,072	33.2%	0	0.0%	0	0.0%
ND	383	47	12.3%	60,908	8.7%	0	0.0%	0	0.0%
NE	581	90	15.5%	295,529	15.9%	3	3.3%	46,694	15.8%
NH	248	47	19.0%	261,362	19.8%	0	0.0%	0	0.0%
NJ	595	143	24.0%	3,438,632	38.7%	82	57.3%	2,309,120	67.2%
NM	368	228	62.0%	1,354,026	65.2%	5	2.2%	2,845	0.2%
NV	175	64	36.6%	1,395,364	50.5%	6	9.4%	223,268	16.0%
NY	1,794	403	22.5%	8,657,611	44.2%	115	28.5%	5,233,053	60.4%
OH	1,197	277	23.1%	2,650,639	22.9%	41	14.8%	503,008	19.0%
OK	648	166	25.6%	850,198	22.3%	4	2.4%	34,350	4.0%

Figure 6: Financial Responsibility Limits, Based on Minority Concentration



Source: U.S. Census Bureau, American Community Survey, and premium data

States with a higher number of AP ZIP Codes with an Affordability Index above two percent also appeared to correlate with states having mandatory PIP coverage requirements and states having higher percentages of uninsured drivers. Although other factors are also relevant, the characteristics of the state-required insurance coverage (such as the presence or absence of PIP) and the number of uninsured drivers may both contribute to AP ZIP Codes having a higher ratio of insurance costs to income.

B. Illustrations

For illustration purposes, the following paragraphs describe results from the four states with the largest populations in each census region: California (West), Florida (South), Illinois (Midwest), and New York (Northeast).⁴⁶

1. California

California has over 38 million residents, of whom approximately 66 percent (about 24.9 million residents) live in 893 AP ZIP Codes. Less than one percent of all AP ZIP Codes in the state (6 AP ZIP Codes) have an Affordability Index value above two percent. Fewer than one hundred thousand Californians reside in AP ZIP Codes with Affordability Index values greater than two percent.

California insurance requirements apply to all vehicles operated or parked on California roadways. The minimum liability insurance requirements are \$15,000 for BI per person and \$30,000 per occurrence, as well as \$5,000 for PD coverage.⁴⁷

The percentage of uninsured drivers in California was approximately 14.7 percent as of 2012.⁴⁸ California ranked 13 out of the 50 states plus the District of Columbia with respect to the percentage of uninsured drivers.⁴⁹

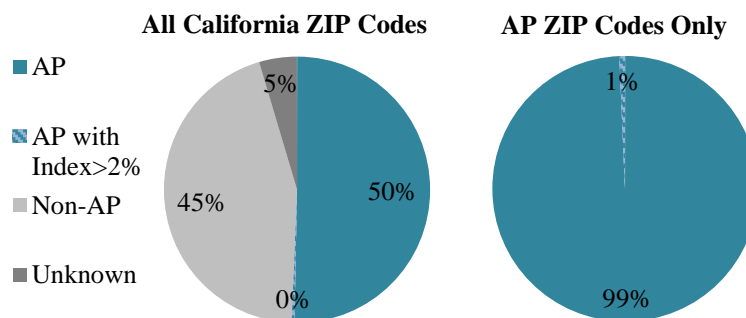
⁴⁶ In these examples, Florida replaced Texas, the largest population state in the South, because of data limitations.

⁴⁷ See California Insurance Code § 115801.1b. See also State of California Department of Motor Vehicles, *Financial Responsibility (Insurance) Requirements for Vehicle Registration (FFVR 18)*, available at https://www.dmv.ca.gov/portal/dmv/detail/pubs/brochures/fast_facts/ffvr18.

On average, according to one survey, a 40-year old man with a clean driving record and good credit would pay \$1,752 per year for car insurance in California, 32 percent above the national average.⁵⁰ Notably, as discussed above (in Section V), California has a low-cost auto insurance program designed to provide liability car insurance at affordable rates to income-eligible drivers.⁵¹ In addition, among other related laws and regulations, California prohibits consideration of ZIP Codes in setting auto insurance rates.⁵²

Figure 7 summarizes the analysis of California ZIP Codes: the first chart shows all California ZIP Codes (including the approximately 50 percent that are AP ZIP Codes); the second chart focuses on AP ZIP Codes alone to show that less than one percent have an Affordability Index greater than two percent. For the AP ZIP Codes for which sufficient premium data was available, the Affordability Index results in California range from a low of 0.12 percent to a high of 3.00 percent; the median result is 0.66 percent and the average is 0.58 percent.

Figure 7: California ZIP Code Analysis



Sources: U.S. Census Bureau, American Community Survey, and premium data

2. Florida

Florida has over 19 million residents, of whom nearly 41 percent (7.9 million residents) live in 323 AP ZIP Codes. Nearly 30 percent of all AP ZIP Codes in Florida (95 AP ZIP Codes) have an Affordability Index value above two percent. Over 2.8 million Floridians reside in AP ZIP Codes with Affordability Index values above two percent.

The state of Florida requires every vehicle with four or more wheels to maintain Florida auto insurance coverage. Florida requires at least \$10,000 PIP and \$10,000 PD coverage. Drivers

⁴⁸ Insurance Information Institute, *Uninsured Motorists*, *supra* note 28.

⁴⁹ *Id.*

⁵⁰ Vallett, *supra* note 42 (emphasizing that actual premiums would vary depending on individual driving factors).

⁵¹ California Dep't of Insurance, *California's Low Cost Auto Insurance*, *supra* note 30.

⁵² See 10 Cal. Code Regs. tit. 10, § 2632.5 (enumerating mandatory and optional rating factors which do not include ZIP codes except with respect to relative claims frequency which may be measured based on grouping zip codes or census tracts in the state).

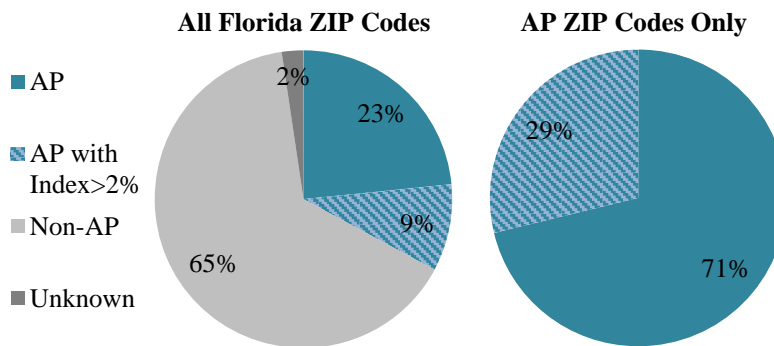
with previous accidents or violations may be required to also carry at least \$10,000 BI per person and \$20,000 BI per occurrence.⁵³

The percentage of uninsured drivers in Florida was approximately 23.8 percent in 2012, the second highest uninsured driver rate in the nation (ranked 2 out of 50 states plus the District of Columbia with respect to the percentage of uninsured drivers).⁵⁴

On average, according to one survey, a 40-year old man with a clean driving record and good credit would pay \$1,654 per year for car insurance in Florida, 25 percent above the national average.⁵⁵

Figure 8 summarizes the analysis of Florida ZIP Codes: the first chart shows all Florida ZIP Codes (including the approximately 32 percent that are AP ZIP Codes); the second chart focuses on AP ZIP Codes alone to show that approximately 29 percent have an Affordability Index greater than two percent. For the AP ZIP Codes for which sufficient premium data was available, the Affordability Index results in Florida range from a low of 0.42 percent to a high of 5.15 percent; the median result is 1.69 percent and the average is 1.81 percent.

Figure 8: Florida ZIP Code Analysis



Sources: U.S. Census Bureau, American Community Survey, and premium data

3. Illinois

Illinois has nearly 13 million residents, of whom approximately one-third (over 4.2 million residents) live in 286 AP ZIP Codes. Based on an analysis of approximately 25 percent of Illinois premium data, fewer than four percent of the state’s total AP ZIP Codes (10 AP ZIP Codes) have an Affordability Index value above two percent. Based on the available data, fewer

⁵³ DMV Florida, *Florida Car Insurance Information*, available at <http://www.dmvflorida.org/auto-insurance.shtml>. See also Fla. Stat. §§ 324.022, 627.736.

⁵⁴ Insurance Information Institute, *Uninsured Motorists*, *supra* note 28 (citing Insurance Research Council). See also Steve Bousquet, “Car insurance rates skyrocket as Floridians drive more and crash more,” *Miami Herald* (May 20, 2016), available at <http://www.miamiherald.com/news/politics-government/state-politics/article78819742.html>.

⁵⁵ Vallett, *supra* note 42 (emphasizing that actual premiums would vary depending on individual driving factors).

than 80,000 Illinois residents live in AP ZIP Codes with an Affordability Index value above two percent.

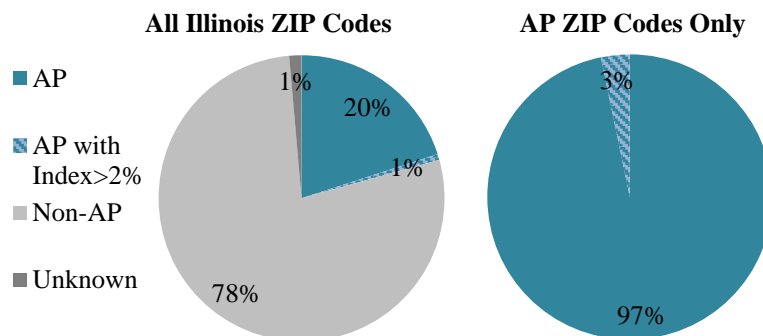
Illinois requires all motor vehicle owners to have insurance limits of at least \$25,000 BI per person and \$50,000 per occurrence, as well as \$20,000 in PD coverage. UM coverage is also mandatory.⁵⁶

The percentage of uninsured drivers in Illinois is approximately 13.3 percent as of 2012. Illinois ranked 20 out of 50 states and the District of Columbia with respect to the percentage of uninsured drivers.⁵⁷

On average, according to one survey, a 40-year old man with a clean driving record and good credit would pay \$1,035 per year for car insurance in Illinois, 22 percent below the national average.⁵⁸

Figure 9 summarizes the analysis of Illinois ZIP Codes: the first chart shows all Illinois ZIP Codes (including the approximately 21 percent that are AP ZIP Codes); the second chart focuses on AP ZIP Codes alone to show that approximately 3 percent have an Affordability Index greater than two percent. For the AP ZIP Codes for which sufficient premium data was available, the Affordability Index results in Illinois range from a low of 0.38 percent to a high of 3.50 percent; the median result is 1.00 percent and the average is 1.11 percent.

Figure 9: Illinois ZIP Code Analysis



Sources: U.S. Census Bureau, American Community Survey, and premium data

4. New York

New York has nearly 20 million residents, of whom approximately 44 percent (over 8.6 million) live in 403 AP ZIP Codes. About 28 percent of the state's total AP ZIP Codes (115 AP ZIP

⁵⁶ See Illinois Dep't of Insurance, *Shopping for Automobile Insurance* (Jan. 2015) (citing 625 ILCS 5/7601; 625 ILCS 5/7-203), available at http://insurance.illinois.gov/autoinsurance/shopping_auto_ins.asp.

⁵⁷ Insurance Information Institute, *Uninsured Motorists*, *supra* note 28.

⁵⁸ Vallett, *supra* note 42 (emphasizing that actual premiums would vary depending on individual driving factors).

Codes), have an Affordability Index value above two percent. Approximately 5.2 million New York state residents live in AP ZIP Codes with an Affordability Index value above two percent.

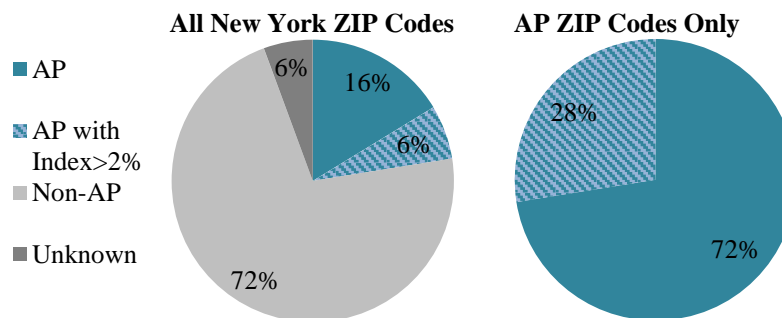
In order to satisfy state financial responsibility requirements and register a car, consumers must purchase PIP coverage, as well as limits of at least \$25,000 BI per person, \$50,000 for BI to two or more persons, and \$100,000 for injuries resulting in the death of two or more persons. The minimum limit of coverage for PD liability protection in New York is \$10,000 per accident. All auto insurance policies must provide UM coverage for bodily injury.⁵⁹

The percentage of uninsured drivers in New York was approximately 5.3 percent as of 2012, the third-lowest uninsured driver rate in the country (ranked 49 out of the 50 states plus the District of Columbia with respect to the percentage of uninsured drivers).⁶⁰

On average, according to one survey, a 40-year old man with a clean driving record and good credit would pay \$1,050 per year for car insurance in New York, 21 percent below the national average.⁶¹

Figure 10 summarizes the analysis of New York ZIP Codes: the first chart shows all New York ZIP Codes (including the approximately 22 percent that are AP ZIP Codes); the second chart focuses on AP ZIP Codes alone to show that approximately 28 percent have an Affordability Index greater than two percent. For the AP ZIP Codes for which sufficient premium data was available, the Affordability Index results in New York range from a low of 0.46 percent to a high of 8.83 percent; the median result is 1.49 percent and the average is 1.95 percent.

Figure 10: New York ZIP Code Analysis



Sources: U.S. Census Bureau, American Community Survey, and premium data

⁵⁹ New York State Dep't of Financial Services, *Shopping for Auto Insurance: Minimum Auto Insurance Requirements*, available at <http://www.dfs.ny.gov/consumer/auto/auto1202.htm>.

⁶⁰ Insurance Information Institute, *Uninsured Motorists*, *supra* note 28.

⁶¹ Vallett, *supra* note 42 (emphasizing that actual premiums would vary depending on individual driving factors).

VIII. Next Steps

Numerous related and complex factors can affect personal auto premium pricing and affordability. By providing a numeric index that will be readily comparable over time, this Study intends to provide an objective basis for measuring the affordability of personal auto insurance for Affected Persons. This first analysis provides an initial indication that approximately 18.6 million Americans live where auto insurance costs more than the Affordability Index ratio of two percent of median household income.

This Study analyzed thousands of population and premium data points nationwide to provide a national ZIP Code-level analysis of personal auto insurance affordability for Affected Persons using the Affordability Index. The Study thereby provides baseline measurements that policymakers, regulators, and consumers can use for future national, objective, quantifiable comparisons of changes in auto insurance affordability over time.

IX. Conclusion

FIO previously published notice of a proposed collection of data documents from the largest auto insurers nationwide.⁶² FIO currently is reviewing comments in response to that notice, and anticipates that, in 2017, it will collect more data from larger auto insurers. FIO will not collect this data directly, but looks forward to working with insurers through statistical agents to perform the aggregation exercise. Data from these large insurers would permit a more comprehensive affordability analysis that would be more meaningful to stakeholders. Specifically, the additional data will be used to supplement and update this Study; refine the calculation of the Affordability Index; and allow for evaluation of trends and changes in personal auto insurance affordability for Affected Persons.

FIO will continue to monitor auto insurance affordability and report its findings. The Study is necessarily qualified in its analysis because this is a first-ever exercise. As more data is gathered, and more feedback is provided, results will be refined in future studies with the objective of providing improved insight.

⁶² Collection Request, 81 Fed. Reg. 45,381, *supra* note 7.