Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)
	)
Protecting and Promoting the Open Internet	) GN Docket No. 14-28
	)

Declaration of

Susan M. Gately

On Behalf Of
Ad Hoc Telecommunications Users Committee

February 19, 2015

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DECLARATION OF SUSAN M. GATELY

Susan M. Gately, of lawful age, declares and says as follows:

1. My name is Susan M. Gately; I am President of SMGately Consulting, LLC (SMGC), 84 Littles Avenue, Pembroke, MA 02359. SMGC is a consulting firm specializing in telecommunications, economics, and public policy. I have participated in numerous proceedings before the Federal Communications Commission ("FCC" or "Commission") dating back to 1981 and have appeared as an expert witness in state proceedings before state public utility commissions. My Statement of Qualifications is annexed hereto as Attachment 1 and is made a part hereof.

I. Introduction

2. I was asked by the Ad Hoc Telecommunications Users Committee to review and respond to a declaration submitted with a January 15, 2015 letter filed by Verizon in this docket.[1] The declaration, authored by Andres Lerner and Janusz Ordover and entitled "The 'Terminating Access Monopoly' Theory and the Provision of Broadband Internet Access" purports to demonstrate that "claims that wireless providers are 'terminating access monopolies' are both flawed as a matter of economic logic and inconsistent with the empirical evidence."[2] This declaration sets forth the results of my review and responds to the Lerner and Ordover declaration (herein after Lerner / Ordoverdeclaration) by identifying the flaws integral to the superficial analysis contained in that document and is demonstrating that the conclusions presented therein are supported neither by economic logic nor empirical evidence but instead based entirely upon speculation. The analysis in the Lerner / Ordover declaration lacks rigor and could not withstand peer review.

II. The authors fail to make the case that no "terminating access monopoly" exists for wireless broadband service

3. Much of the argument set forth by Lerner and Ordover boils down to an untested hypothesis that as a result of a highly competitive market for retail wireless service consumers can and will easily switch providers if they are dissatisfied with any aspect of the provider's practices with respect to content providers. The argument has no grounding in either fact or

[1] Letter from Verizon to FCC, GN Dkt. Nos. 14-28, (Jan. 14, 2015) (attaching "*Terminating Access Monopoly" Theory and the Provision of Broadband Internet Access*") ("Lerner / Ordover declaration")

[2] Lerner / Ordover Declaration at 1.

economic theory – a point made clear by the complete absence in the declaration of any reference to other independent economic analysis or research supporting their position, any modeling or any data relevant to the market power broadband providers exert relative to edge service providers..

4. Despite the fact that the purpose of the Lerner / Ordover declaration is to demonstrate that a terminating access monopoly does not exist in the market for wireless broadband services a surprisingly small portion – 11 paragraphs out of 57 – tackles that issue and even that limited treatment consists primarily of inapposite examples from other industries.[3] The remaining 80% of the Lerner / Ordover declaration is devoted primarily to two areas: 1) repetitive descriptions of Lerner and Ordover's rather rosy view of the competitiveness of the retail market for broadband services and 2) generally speculative assertions about the ease with which customers can migrate between broadband providers (for all wireless subscribers and wireline subscribers located in that portion of Verizon's footprint where it offers FiOS). Lerner and Ordover also provide a history of the terminating access monopoly theory as it was recognized by the FCC in the market for wireline voice services in the US.[4] In fact read closely the claim in the Lerner / Ordover declaration is not so much that a terminating access monopoly (competitive bottleneck) does not exist, but speculation that a) the it would be against a wireless provider's self-interest to abuse that monopoly and b) even if a wireless broadband provider did extract monopoly profits from, or degrade service to, edge providers those edge providers are in a position to recoup those costs elsewhere.

[3] Lerner / Ordover Declaration at paras 33 – 44.
[4] Notably absent from the description of the "historical" record relative to terminating access monopolies is any mention that the existence of a terminating access monopoly has been recognized virtually worldwide in markets where retail wireless service is competitive.

5. The author'sLerner and Ordover's rejection of the existence of a terminating access monopoly in the wireless broadband market suffers from at least four fatal flaws discussed in greater detail below:

a. Lerner and Ordover fail to acknowledge or rebut most other relevant economic work that has been done in this area proving the existence of monopoly conditions relative to terminating access.[5] In rejecting a long-established economic tenet (like that of terminating access monopolies) economists generally do not merely opine that it is not true but instead mathematically disprove it. In their declaration Lerner and Ordover merely postulate a new hypothesis without proving it.

b. Lerner and Ordover's theory is premised upon the notion that by switching service providers wireless subscribers would discipline wireless broadband providers that exploit the terminating access monopoly – a theory that requires, among other things, that there be viable alternative providers competing for a subscribers business that are not also exploiting their terminating access monopoly. I am aware of no reason, and Lerner and Ordover have provided no explanation or evidence to demonstrate why the vast majority if not all broadband providers should not be expected to seek to exploit the monopoly created by their bottleneck control over terminating access.[6] Lerner and Ordover's If abuse of the terminating access monopoly is the rule rather than the exception, Lerner and Ordovers's reliance on users' ability to discipline provider behavior through switching loses any shred of credibility.

c. Although Lerner and Ordover claim to present "empirical evidence" of customer likelihood to switch wireless broadband providers the foundation for their claim is entirely speculative. In addition to having viable equivalent alternatives to "switch" to, Lerner and Ordover's theory is dependent upon purported "evidence" that consumers will switch providers if their existing providers exploit the competitive bottleneck. The primary "evidence" relied upon, data from two surveys, was not even generated from wireless users or in response to questions about wireless broadband subscriptions. Instead, as discussed below, the referenced surveys were conducted of wireline broadband subscribers. Even if one assumes that the markets and switching constraints are the same for wireline and wireless broadband services (they are not), the respondents were queried about

[5] Lerner and Ordover do in several instances attack an analysis previously undertaken by Nicholas Economides, but their criticisms are largely related to Economides characterizations of the market offering nothing more than opinion that those characterizations are incorrect.

[6] Indeed, the extensive participation in this proceeding by broadband providers of every stripe (and their trade organizations) in opposition to rules that would prohibit the exploitation of the access monopoly could be taken as evidence of their intentions in that regard.

what they thought they would do in response to specific behavior, not what they have done. Lerner and Ordover made no attempt to evaluate the actual marketplace response of subscribers to the well-publicized instances of broadband providers (wireline and wireless) blocking or degrading access to customers. This crucial "empirical evidence" is nothing more than speculation.

d. The remaining "empirical evidence" cited is either irrelevant (i.e., investment levels of wireless carriers), tainted by unsupported assumptions (i.e., that market conditions and consumer behavior in response to a cable company's reduction in programming will be mimicked in the wireless broadband world as a response to slow website loading or imposition of a charge on an edge provider), or overblown (i.e., exaggeration of the importance of churn rates and competitiveness of wireless market).

6. The final section of Lerner and Ordover's Declaration,[7] wherein they extend their primary hypothesis regarding the wireless broadband market into those wireline markets where Verizon has installed FiOS is incongruous at best – particularly given that they provide no evidence of more than a single competitive wireline alternative to Verizon.[8]

III. Lerner / Ordover cite no economic literature that supports their unproven hypothesis

7. Notably Lerner and Ordover cite no economic literature that supports their contentions. Nor have they undertaken any modeling in support of the opinions they express – relying instead on inferences from customer responses to survey questions about their propensity to change providers and recitations of churn rates in the wireless industry. No elasticity studies of demand for wireless broadband or termination of traffic to wireless broadband subscribers are presented. (Indeed the concept of elasticity is not even mentioned.) Lerner and Ordover's conclusory declaration neither acknowledges nor analyzes the fact that even monopolists are

[7] Lerner / Ordover Declaration at paras 45 – 56.
[8] Lerner / Ordover Declaration at paras 46 – 48.

constrained by demand curves and face a price point at which raising prices further will not be profitable. Nor do they address the fact that there are monopoly profits to be gained to by raising prices above efficient levels. Moreover, their conclusions are based upon speculation that edge providers' behavior in response to abuse of the terminating access monopoly will cause wireless subscribers to switch providers thereby penalizing the wireless provider that abused the monopoly. But the Lerner / Ordover declaration is glaringly devoid of any analysis of the level of subscriber drop-off from a wireless providers' network that would be necessary before the additional profits garnered from captive edge providers, or benefits flowing to a broadband provider's own affiliated content providers no longer offset the revenues from lost subscribers. In fact the Lerner / Ordover Declaration does not even acknowledge the issue.

8. Nor do Lerner and Ordover reference much of the existing economic literature proving the existence of terminating access monopolies in the market for fixed and wireless services or attempt to prove flaws in those analyses that would need to be true for Lerner and Ordover's speculative conclusions in this docket to be correct. For example, using relevant empirical (as opposed to speculative) data and economic modeling of that data, a paper published by Armstrong and Wright in 2009 provided an analysis of the market for wireless services in the UK and found that a terminating access monopoly (also known as a "competitive bottleneck) did exist for "fixed to mobile" (FTM) terminations[9] i.e., charges by wireless carriers to wireline service providers for the termination of traffic on mobile devices originated on wireline networks – precisely the situation that exists in the market under discussion here. In their breezy

[9] Armstrong, M. and Wright, J, (2009) Mobile Call Termination, The Economic Journal, 119: F270-F307. Doi: 10.1111/j.1468-0297.2009.02276.x. ("Armstrong and Wright")

dismissal of the terminating access monopoly, Lerner and Ordover fail entirely to address this peer-reviewed analysis from a well-respected economic journal.

9. Armstrong and Wright found that:

> [d]espite competition between mobile networks in the retail market, the equilibrium FTM termination charge is equal to the monopoly charge. The result does not depend on the competitiveness of the market for subscribers (it does not depend on product differentiation *t* and it would not depend on the number of firms if our benchmark model was extended to allow more firms). Thus, it is perfectly possible that one side of the mobile market (the retail market for mobile subscribers) is highly competitive, yet the other side (FTM call termination) is essentially a series of monopolies.[10]

10. Fixed to Mobile call termination rates were subject to varying levels of regulation in the UK at the time the study was undertaken. Reviewing FTM call termination rates there Armstrong and Wright discovered that among the five mobile networks operating in the UK in 2006 "the newest entrant, *H3G,* faced softer regulation than the established networks, and took advantage of this to set termination charges which were substantially higher than its rivals."[11] Armstrong and Wright revealed that *H3G*'s daytime call termination charge was approximately twice as high as its competitors, 15.6 compared to charges ranging between 6.4 and 8.5 for O_2, Orange, T-Mobile and Vodaphone.[12]

11. The analysis conducted by Armstrong and Wright is directly applicable to the issue at hand yet Lerner / Ordoveroffer no explanation as to why Armstrong and Wright's well accepted analysis of the market power of wireless service providers operating in a highly

[10] Armstrong and Wright at F283
[11] Armstrong and Wright at F273
[12] Armstrong and Wright at F274

competitive environment and those providers' ability to extract monopoly profits from parties attempting to reach wireless subscribers is not relevant here.

IV. Foundational "evidence" relied upon by Lerner / Ordover for their assertions is mere speculation, rendering it neither relevant nor compelling

12. The "empirical evidence" that Lerner / Ordover claim supports their conclusions consists primarily of evidence related to the competitiveness of the wireless market,[13] wireless customer churn rates,[14] and survey data related to the propensity of wireless subscribers to "switch" carriers in the event of a specific set of service degradation scenarios.[15] The relevance of the proffered "empirical evidence" to the existence, or lack thereof, of a terminating access monopoly in the market for broadband services is speculative at best and in no way disproves the competitive bottleneck that broadband service providers control over edge service providers access to broadband subscribers.

a) Survey data cited by Lerner / Ordover as demonstrating subscribers' propensity to switch broadband providers

13. In support of their contention that "the evidence indicates that subscriber switching is likely to be highly sensitive to any restriction or degradation of access to content on a broadband network" Lerner / Ordover cite surveys from Consumer Reports and Global Strategies Group (GSG).[16] Lerner / Ordover appear not to have undertaken any independent analysis of the data

[13] Lerner / Ordover Declaration at paras 13 - 19.
[14] Lerner / Ordover Declaration at paras 20 – 26.
[15] Lerner / Ordover Declaration at paras 37.
[16] Id.

that is cited, and their characterization of the survey results as demonstrating subscriber behavior in response to "any" restriction or degradation of access to content" is wildly off-base.

14. First, while Lerner and Ordover's use of the Consumer Reports' and GSG survey data is proffered in support of claims relative to wireless broadband, each of the surveys were of *wireline*, not wireless, broadband. In fact, Lerner and Ordover do not even disclose that the Consumer Reports' results they rely upon did not address the wireless broadband market at all. The Consumer Reports survey queried households with what is described as *home* internet service,[17] which at least in most cases would be interpreted to mean wireline, not wireless, broadband. Similarly, the GSG survey was *not designed nor executed* to elicit information about respondents' propensity to switch wireless providers. The GSG survey was undertaken on behalf of Comcast in support of its merger with Time Warner Cable and "the survey sample was selected to be statistically representative of the population under study, which is adults in households that subscribe to non-DSL broadband service offered by a cable company or telephone company."[18] Again, Lerner and Ordover do not disclose this fact in their references to the survey. Nor do they address the extent to which the propensity to switch wireless broadband providers – a decision that implicates handsets, family or group plans, coverage areas, and other logistical issues that do not exist with wireline broadband services – is as great as it may be for wireline carriers.

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[17] http://consumerreports.org/cro/news/2014/02/71-percent-of-households-would-switch-if-provider-interferes-with-internet-traffic/index.htm#. .

[18] *In the Matter of Applications of Comcast Corp., Time Warner Cable Inc., Charter Communications, Inc., and Spin Co For Consent To Assign or Transfer Control of Licenses and Authorizations*, MB Docket No. 14-57, *Opposition to Petitions to Deny and Response to Comments*, ("Comcast Application Reply") Sept 23, 2014, at 128, fn 397.

15. Respondents to the referenced surveys were asked their thoughts about the likelihood that they would switch broadband providers in response to a particular scenario. Consumer Reports queried respondents about their likelihood of switching providers if their ISP "started to block *or charge extra*" for high-bandwidth content. It is entirely unclear whether consumers' reported propensity to switch was related to the threat of a price increase from their broadband provider or to blocked content. Moreover, the survey, as described, appears to have specifically queried customers relative to possible ISP action associated with "high bandwidth sites" such as "Amazon Instant Video, Netflix, Pandora, and Skype"[19] and made no effort to evaluate consumer response to possible ISP behavior that would involve blocking, slowing down, or charging more for access to sites other than "high bandwidth" sites, meaning the very sites which comprise the vast majority of edge service providers. The data reported by Consumer Reports reveals no responses to queries about consumers' perceptions of likely future behavior if their broadband provider undertook action that raised prices to a 3rd party (e.g., an edge content provider).

16. The GSG survey appears to have been designed to elicit responses that would show customers willing to switch broadband subscribers. It queried customers regarding the slow down or blocking of their "favorite" website.[20] Moreover, no breakdown of the data between those "very likely" and "somewhat likely" to switch was provided – meaning that both responses are presented as equally valid indications of the impact of service degradation upon subscriber levels. It is reasonable to assume that if the percentage of consumers responding that they were

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[19] Id.

[20] Review of the Israel Reply Declaration in the *Comcast Application Reply* cited in the Lerner and Ordover declaration reveals that respondents were asked whether they would be likely to switch providers if their ISP were to "Slow down Internet speeds for your favorite websites, so that the webpages load slowly" or "Prevent access to your favorite websites."

"very likely" to switch ISPs had been sufficiently high to make the point standing alone, Comcast (attempting to make a point similar to that made by Lerner and Ordover with the data) would have disaggregated the "very likely" results from the "somewhat likely" results.

17. Contrary to the conclusions drawn by Lerner and Ordover , the number of consumers indicating that they would be only "somewhat" rather than "very" likely to switch ISPs, even if access to their *favorite websites* were downgraded or blocked, suggests that consumers will tolerate ISP abuse and does not support the statement that subscriber switching is "highly sensitive" to "any" degradation of service.

18. Put in different terms, the surveys cited by Lerner and Ordover asked respondents if they would be willing to continue to pay the same amount for less service (i.e., sustain a price increase). In the event of such an occurrence, the actual answer to the question would of course depend upon the price levels and service quality of competing carriers and whether they too were degrading service. It would depend, in the end, on whether consumers have any provider to switch to. Thus, if not just one but most wireless broadband providers chose to block or degrade service to edge providers that do not pay to reach that broadband provider's end user customers, then "switching" would do consumers little good. Because market structure to date has resulted in similar pricing structures by dominant mobile wireless providers, there is no basis for assuming that providers would adopt differentiated practices with regard to edge providers. Under these circumstances, a consumer's threat to switch will be ineffective.

19. In addition, at least some of the GSG survey results upon which Lerner and Ordover rely appear patently incongruous, indicating that respondents didn't fully understand what they

were being asked, perhaps resulting in an overstatement of the propensity to switch. When asked as part of the same series of questions whether they would be likely to switch to another ISP if their ISP were to "Slow down Internet speeds for Netflix, so that movies and TV shows stream or download slowly, the video is jumpy and stops in places, or the video has lower-quality resolution," GSG reported that 62% of users who *rarely or never used streaming video* answered that they would be likely to switch,[21] even though the behavior they were questioned about would, by definition, have no negative impact on them.

20. Finally, there is no telling from results of either survey whether those customers identifying themselves as "likely to switch" are the same group of customers that are already "churning" in the data discussed below, nor any indication of the timeframe over which the "switching" would happen.

b) Absence of actual evidence on subscriber "switching" in response to prior broadband provider degradations of service

21. Lerner and Ordover failed to present any evidence of actual subscriber behavior in response to actual providers that blocked or degraded content from edge providers, despite the fact that there have been well-documented incidents of wireline and wireless providers interfering with traffic between content providers and subscribers over the past several years.[22] In response to those incidents, no evidence has emerged that subscribers "switched" providers in any great numbers or at levels anywhere close to what would be required to discipline those

[21] Israel Reply Declaration, at 199, Table 16.
[22] See, for example, AT&T's June, 2012 blockage of Apple Facetime for its wireless broadband subscribers (http://transition.fcc.gov/cgb/oiac/Mobile-Broadband-FaceTime.pdf), or Comcast's exemption of its own video-streaming service from data caps applied to its subscribers http://www.pcmag.com/article2/0,2817,2402149,00.asp), or Verizon Wireless' 2007 blockage of pro-abortion text messages "Verizon Reverses Itself on Abortion Messages," New York Times, September 27, 2007, http://www.nytimes.com/2007/09/27/business/27cnd-Verizon.html?_r=1&.

providers' ability to engage in that behavior. It is unclear whether Lerner and Ordover failed to research consumer responses to these actions or were aware of consumer responses and failed to include it because it did not support their hypothesis. In either case, the omission is significantly damaging, if not fatal, to the credibility of their hypothesis.

22. Most recently, using what Netflix described as "a 'congest transit pipes' peering strategy to extract direct payment from Netflix," subscribers attempting to access Netflix content over Comcast Broadband facilities found their service seriously degraded.[23] Contrary to the hypothesis posited by Lerner and Ordover, subscribers fled Netflix's service – not Comcast's – so that Netflix eventually agree to pay Comcast to terminate its traffic.[24] Also contrary to the Lerner and Ordover hypothesis, following Netflix acquiescence to Comcast's demand for payment to restore service levels, Netflix also found it necessary to pay TWC, AT&T, and Verizon for interconnection as well.[25]

c) Competiveness of retail wireless market and ease of switching providers

23. Throughout Section II of their declaration, Lerner and Ordover argue that the market for retail wireless service is highly competitive and that customers can and do easily switch wireless providers. Even assuming *arguendo* that Lerner and Ordover's representation of that market is accurate, it is simply irrelevant to the existence of a terminating access monopoly.

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[23] Petition to Deny of Netflix, Inc. filed in *Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Transfer Control of Licenses and Authorizations*, MB Docket No. 14-57, filed August 25, 2014, ("Netflix Petition to Deny") at 59.
[24] http://money.cnn.com/2014/08/29/technology/netflix-comcast/
[25] Netflix Petition to Deny at 59.

24. Lerner and Ordover's representations are not spot on instead they are often overblown, fail to support the Lerner / Ordovercase, and in many cases are unsupported even by the citations that are contained in their document. For example, in the opening paragraph of Section II Lerner / Ordoveropine that "Wireless providers compete intensely for customers on the basis of price, network coverage and reliability, plan characteristics, and with respect to important aspects of the wireless ecosystem, including the provision of valuable services, handset devices, operating systems, applications, and content"[26] All of this may be true but to the extent it is it is evidence that abuse by a wireless broadband provider of the terminating access monopoly would be but *one of many* parameters consumers might consider when evaluating future options relative to their choice of carrier to fulfill their wireless broadband demand. This statement offers no insight into customers' willingness, ability or propensity to switch providers in response to a broadband provider's exercise of control over the competitive bottleneck of terminating access.

25. When Lerner / Ordoverdo rely on FCC developed data (from the most recent FCC mobile wireless competition report) they frequently neglect to supply contextual explanations concerning these data and / or take quotes out of context. For example, in paragraph 16, Lerner / Ordoverstart out by asserting that "The Commission has recognized the competitive nature of the wireless marketplace, and the consumer benefits that have resulted from such competition" without any reference to where the commission has made this recognition. The next several sentences are comprised of a disjointed collection of observations about the Commission's latest Mobile Wireless Competition Report, which mention random analytical approaches and facts

[26] Lerner / Ordover Declaration at para 3. The citation here directs the reader to ANOTHER paper by the same authors, rather than any independent analysis.

from the report – but significantly no information relevant to the question at hand. Lerner / Ordovermention (and cite) that the report provides "an analysis and description of the CMRS industry's competitive metrics and trends" – which describes the CMRS report, not any finding that the market is competitive. Then they quote (and cite) a fragment to the effect that "market performance metrics provide more direct evidence of competitive outcomes and the strength of competitive rivalry than intermediate factors, such as concentration measures" – but they don't discuss what the evidence on any of these factors actually shows. Contrary to the intimation made by Lerner / Ordoverthe most recent FCC report on competition in the markets for wireless service "does not reach an overall conclusion or formal finding regarding whether or not the CMRS marketplace was effectively competitive."[27] Indeed, the Commission has consistently found industry concentration to be very high and continuing to get higher – increasing year over year.[28] Other sentences in the same Lerner / Ordoverparagraph are nothing more than random observations that fail to add up to support for the topic sentence, but even if they did the point would still be irrelevant to the question at hand.

26. Lerner / Ordoveralso support their stance on the level of retail competition for subscribers with evidence of the substantial investment that has been made in wireless networks.[29] Once again, while competitive conditions can spur investment, so can the need to improve service to bring additional customers into the market, or the desire to improve service so that consumers use more of it, or any one of a number of other reasons – but it does not prove

[27] Federal Communications Commission, 17th Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services, December 18, 2014 (hereinafter, "FCC 17th Annual CMRS Report") at para 6.

[28] Ibid at para 33, Table II.C.1. Average HHI for 2013 is classified as "highly concentrated" at 3027 and the "HHI for individual Economic Areas (EAs) ranged from a low of 2,237 in EA 63 (Milwaukee-Racine WI) to a high of 6,689 in EA 146 (Missoula MT)."

[29] Lerner / Ordover Declaration at paras 17 - 19.

that the market for retail wireless broadband is competitive or offer any insight into the conditions extant in the terminating access market.

27. In fact, review of the data reveals that AT&T and Verizon, the (two carriers who have, and have had, the largest share of the wireless market)[30] have invested a lot more than the smaller national competitors who are constantly working at strategies to try to catch them.[31] Capturing a larger share of the market has consistently eluded the smaller carriers.[32] Lerner / Ordoverheap praise on the sponsor of their report for its (Verizon's) wireless investment, but again, they don't tie Verizon's investment levels to competition nor offer an explanation as to how other carriers that are able to invest but a fraction of the amount invested by Verizon Wireless will offer subscribers viable alternatives for switching providers.[33] Following the details on Verizon's investment L /O declare that "Other wireless providers, such as T-Mobile, also continue to invest in improving the capabilities of their broadband networks," and it is true, T-Mobile has continued to invest but as review of FCC data on the issue reveals T-Mobile's investments lag far behind the two dominant providers - AT&T and Verizon.[34]

28. The foundation of Lerner and Ordover's conclusions about the terminating access monopoly is also premised upon broad and unsupported generalizations about consumer behavior in response to service differences (especially those other than price).[35] A very thin and unconvincing analysis supports their claim that the level of "churn" for wireless carriers is a

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[30]FCC 17th Annual CMRS Report at para 22.
[31] The FCC reports that "AT&T and Verizon Wireless continued to invest more than Sprint or T-Mobile by wide margins." FCC 17th Annual CMRS Report at para 170.
[32] FCC 17th Annual CMRS Report at Table II.B.1. In fact share of subscribers for top 4 providers increased to 98.5% in 1st have of 2014 (up from 93% just three years earlier in 2011). AT&T's share of the market increased from 66% to 69% between 2011 and 1st half of 2014.
[33] Lerner / Ordover Declaration at paras 18 - 19.
[34] See, FCC 17th CMRS Report, para. 170-171, Charts VI.A.1 and VI.A.2
[35] See for example, Lerner / Ordover Declaration at para 20.

significant indicator of competition. Citing churn rates of between 1.0 and 2.2 percent per month, they make no effort to explain why this level of churn demonstrates "significant competitive rivalry between providers" of wireless broadband services, nor do they bother to explain the fact that the smaller national providers have much higher churn rates than either Verizon or AT&T[36] and the numbers they cite do not distinguish between voice-only and voice-plus-data plans.

29. No evidence is provided in support of Lerner and Ordover's contention that the costs to consumers of switching wireless providers is low,[37] nor is there evidence that consumers are "well-informed" through various sources, including product advertising, of the metrics upon which a consumer might choose a carrier.[38] In fact the experience of most consumers in attempting to navigate the myriad pricing plans available in the market today belies Lerner and Ordover's claims.[39]

30. The analysis of contracts and subscribers' opportunity to change providers[40] fails to take into account the growing percentage of lines associated with family plans, group plans, and shared data. The FCC's 17th CMRS Report specifically notes the "growing prevalence of shared data plans, family and group plans, and other types of bundling, along with the increasing number of accounts with multiple devices."[41] The same FCC report details the complexity involved in consumer choices among competitors, none of which is reflected in Lerner / Ordoveranalysis:

[36] Lerner / Ordover Declaration at para. 20.
[37] Lerner / Ordover Declaration at para 18.
[38] Lerner / Ordover Declaration at para 23.
[39] See, for example the recent NY Times article "A Flurry of Varying Cellphone Offers Sows Confusion Among Consumers" available at http://www.nytimes.com/2014/12/27/business/a-flurry-of-varying-cellphone-offers-sows-confusion-among-consumers.html?_r=0
[40] Lerner / Ordover Declaration at para 24
[41] FCC 17th CMRS Report at para 36.

> In today's connected world, consumers are faced with a wide variety of choices in mobile service plans, devices and applications. But fundamental to these options is the choice of a mobile service provider. Consumers choose a service provider or switch between providers for varying reasons, including price, availability of family plans, network quality, free/unlimited in-network calling, billing/payment options/credit, reputation/recommendation, previous experience with the provider, customer service, mobile data services, specific phone offerings, and bundling mobile phone services with other services or other unspecified reasons. In the past, contract length, handset exclusivity, lack of interoperability were some factors that were highlighted as barriers to switching. Recently, the advent of no-contract plans, such as those discussed in Section V, newer premium models such as the new iPhone versions being available to more providers, and the FCC 700 MHz interoperability Order, may have eased some of the switching barriers, and somewhat reduced switching cost. *However, even now, switching is not free of costs. When mobile wireless customers wish to switch service providers, they may incur some switching costs including: search costs; early termination fees (ETFs); handset purchase; and implicit costs such as brand loyalty*.[42] [Emphasis added]

d) Lack of evidence that broadband providers behavior would not be similar throughout the industry

31. Moreover, even if and to the extent that Lerner / Ordoverare correct that the wireless market is fiercely competitive and customers have the ability to switch wireless broadband subscribers easily and at little to no cost, there is no reason to conclude that those circumstances eliminate the terminating access monopoly. In fact, in the highly competitive retail market portrayed by Lerner / Ordoverall of those wireless broadband providers would be incented to utilize the terminating access monopoly to obtain as much revenue as possible from edge providers. The reason is two-fold. Retail wireless providers that garner additional revenues from edge providers will face a choice of either flowing some portion of those dollars back to subscribers in the form of lower prices or back into the larger corporation (to be used for internal purposes or flowed through to the investors through increased profitability). In either case, in an

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[42] FCC 17th CMRS Report at para 69.

intensely competitive market other providers will be pressured by subscribers and investors to do the same.

32. The more a retail broadband provider shifts the responsibility for paying for the costs of providing service to wireless subscribers from those subscribers and to edge providers (shifting cost recovery away from the cost causer and allowing the carrier to reduce retail prices) the more successful a carrier operating in a competitive environment will be. In the highly competitive market Lerner / Ordoverdescribe once one carrier adopts such a model other wireless carriers would find it necessary to adopt the same model to compete thereby introducing unnecessary inefficiencies into the market as cost recovery shifts away from the customers causing the costs and onto edge providers that are already paying for their own connections.

33. Alternatively, to the extent providers use these additional revenues internally rather than flowing them through to subscribers in the form of reduced prices the additional funds will likely be used to ramp up competitive activities that will also require a response:more SuperBowl advertising, billboards and online ads, more funds for lobbying and PACs and greater returns for investors (that will also be need to be matched by competitors looking to attract investment).

34. The Lerner / Ordover declaration provides no evidence that all broadband providers should not be expected to behave in a similar manner. Not only does the Lerner / Ordover declaration utterly fail to analyze even the possibility that some, most or all broadband providers will ultimately behave similarly if the FCC makes clear that they may extract monopoly rents from their competitive bottleneck over access to their subscribers by edge content providers, it fails to analyze the impact that such similar behavior would have on their (Lerner and Ordover's

) hypothesis that consumer's ability to switch providers limits broadband providers ability to exercise their market power.

V. The "direct relationship" posited by Lerner / Ordoverthat would allow edge providers to recoup charges or encourage users to switch does not exist

35. In keeping with their hypothesis that wireless broadband subscribers would be working against their own self-interest if they chose to levy fees upon or degrade service on connections to edge providers, Lerner / Ordoverargue that a "direct relationship" exists between edge (content) providers and wireless subscribers.[43] As a preliminary matter it must be said that the very argument made in this section of the Lerner / Ordoverpresumes the existence of a terminating monopoly that would allow the wireless broadband providers to require terminating access payments from, or degradation of service to, edge providers. Lerner and Ordover's conclusion that attempts by some edge providers to recoup increased costs from subscribers, or alternatively turn those subscribers against their broadband provider, and that such actions and would ultimately inure to the harm of the broadband provider overstate the potential import of that scenario. While such a result may or may not occur in a situation in which only a single wireless provider is engaged in supra-competitive pricing of terminating access,[44] it clearly

[43] Lerner / Ordoverat para 42, claiming "Moreover, because online content and service providers have a direct relationship with subscribers, some online providers likely would pass on to subscribers added costs or fees imposed by the wireless broadband network in higher quality-adjusted prices for cont+
+ent, which also would reduce demand by subscribers for the broadband network." It is not clear what Lerner / Ordovermean by "quality adjusted prices," perhaps higher prices that a consumer is forced to pay to be given access to the edge providers content without having their service degraded?

[44] To the extent an additional charge is imposed on the broadband subscriber by a content provider it is likely that the magnitude of the additional charge would have to outweigh the burden (and out of pocket cost) of switching providers and would need to be sufficiently high to cause an economically rationale customer that is otherwise happy with their given provider to leave that carrier.

would not be true in the event that all wireless providers engage in the practice of imposing such terminating access charges.

36. The most glaring hole in Lerner and Ordover's logic here is the fact that the vast majority of edge content providers do not have a "direct" financial relationship with broadband subscribers in which a fee is paid for access to the edge provider's content. Lerner / Ordovertry to brush these concerns away as follows "However, even for online content and service providers that have no contractual relationship, and for content that has a "zero price," an online content and service provider may implement a higher "effective price" by increasing the number of advertisements shown to users or by reducing the amount of "free" content or services available."[45] Lerner / Ordoverprovide no explanation of how an increase in the number of advertisements or a reduction in the amount of "free" content or services available on edge an provider's website would negatively impact the wireless broadband service provider and prohibit it from availing itself of the terminating access monopoly. Therefore, even if one were to view the ability of an edge provider to increase ads or limit content as constituting a "direct relationship" with subscribers, the existence of that relationship would not lessen a broadband provider's market power over terminating access.

e) Transaction costs to edge providers

37. Citing no evidence Lerner / Ordoveralso claim that "There appear to be no material transaction costs or impediments for online content and service providers to set prices for their

[45] Lerner / Ordover Declaration at footnote 67. This explanation ignores the thousands of enterprise, institutional and other edge providers whose websites don't include any paid advertisements and on which all content is free.

services that differ depending on the broadband provider used by the subscriber."[46] But there can be little doubt that there are indeed "material transaction costs" and "impediments" for content providers attempting to create differential pricing plans based upon how a particular consumer accesses their content. The development of new billing algorithms, billing and tracking systems, customer notification and advertising are not likely to be immaterial, nor are the very real costs that would flow from increased customer service activity that would be likely to flow from such actions. Lerner and Ordover's blithely dismiss the transaction costs that edge providers would incur in such a scenario and the inefficiencies that would be introduced into the system without any evidence in support of their position.

38. The difficulty that content providers would encounter as a result of consumer's propensity to "multi-home" as described by Lerner and Ordover[47] is also ignored. Users that access content from the same edge provider over multiple devices and using multiple ISP platforms (wireless broadband, home and work wireline broadband connections, airport and coffee shop wifi arrangements, etc.) would present a particularly thorny problem for content providers attempting to recover supra-competitive terminating access charges from their content subscribers.

39. There is also the very real possibility that rather than reducing demand for the broadband providers' network (as described in the quote from Lerner / Ordoverabove) the imposition of a new charge by an edge content provider for subscribers of a particular ISP would instead reduce demand for the content provider's service. (See discussion of Netflix at paragraph

[46] Lerner / Ordover Declaration at para 42.
[47] Lerner / Ordover Declaration at paras 10, 41.

22** above.) Since the content business in most cases is at least as competitive as the market for internet access (fewer barriers to entry and switching) the customer might well have more opportunity / incentive to switch edge providers than to reduce network usage or switch wireless providers.

VI. Lerner / Ordoverignore the known inefficiencies that would flow from abuse of the competitive bottleneck by broadband providers

40. Lerner / Ordoversteer clear throughout their declaration of any discussion of the well documented inefficiencies that would flow from a decision to allow broadband service providers (wireline or wireless) to charge content providers for terminating access to broadband subscribers. The Commission has at many different times evaluated the efficacy of various access charge regimes and has time and again come to the conclusion that a "bill and keep" system (the current internet model) is the most economically efficient system.

41. As is reviewed in detail in the *ex parte* letter to which this declaration is attached, the Commission and its economists have a long history of examining this issue. Most recently, in its 2011 *USF/ICC Transformation Order*,[48] the Commission recognized that bill-and-keep was the only mechanism for intercarrier compensation that would (i) "ensure that consumers pay only for services that they choose and receive," (ii) "impose[] fewer regulatory burdens"; (iii) "reduce[] arbitrage and competitive distortions inherent in the current system"; and (iv) "eliminate[e]

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[48] *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform—Mobility Fund;* WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC 17663 (2011) ("*USF/ICC Transformation Order*").

carriers' ability to shift network costs to competitors and their customers."[49] A decade earlier two Working Papers by economists in the FCC's Office of Plans made similar findings. Lerner / Ordoverhave offered nothing that should sway the Commission from its earlier finding that "bill and keep" system of payments for terminating access is the most efficient approach.

Verification

The foregoing statements are true and correct to the best of my knowledge, information and belief.

[49] *USF/ICC Transformation Order* at para. 738.