

**BEFORE THE  
POSTAL REGULATORY COMMISSION**

SIX-DAY TO FIVE-DAY STREET DELIVERY  
AND RELATED SERVICE CHANGES, 2010

Docket No. N2010-1

**RESPONSES OF NATIONAL ASSOCIATION OF LETTER CARRIERS, AFL-CIO  
WITNESS DR. MICHAEL A. CREW TO INTERROGATORIES AND DOCUMENT  
REQUESTS OF THE UNITED STATES POSTAL SERVICE (USPS/NALC-T4-7  
Through T4-32)**

The National Association of Letter Carriers, AFL-CIO hereby files the responses of witness Dr. Michael A. Crew, NALC-T4, to the following interrogatories and document requests of the United States Postal Service, USPS/NALC-T4-7 through T4-32, filed on August 17, 2010.

Each interrogatory/document request is stated verbatim and followed by the response.

Respectfully submitted,

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**USPS/NALC-T4-7**

**Please refer to page 2 of your testimony, the first full paragraph, wherein you state that elimination of Saturday delivery “may cause a far more significant drop in mail volume than the Postal Service projects”. Aside from any documents filed by the Postal Service in this docket, please provide copies of all data, analyses, market research studies and other documents, upon which this conclusion is based.**

**RESPONSE:**

This conclusion is based on the analysis set forth on pages 3-9 of my testimony and on the documents referred to therein.

**USPS/NALC-T4-8**

**Please refer to page 2, the second full paragraph of your testimony wherein you state that “by ending Saturday delivery, the Postal Service would be abandoning a valuable part of its enterprise, giving existing or future private sector competitors the opportunity to fill the gap in service.” Have you conducted any primary or secondary research or analyses with or about existing competitors to determine their reaction to the proposed change? If your answer is affirmative, please provide copies of all such research or analyses.**

**RESPONSE:**

No, but my knowledge and training as an economist, with a specialty in postal economics, makes me confident that competitors would seek to fill the gap if USPS abandoned part of its enterprise.

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**USPS/NALC-T4-9**

- (a) **Have you conducted, managed, directed or reviewed any economic or market studies of the change in volumes of foreign postal administrations that have eliminated Saturday delivery since 1960? If your answer is affirmative, please provide copies of all such studies.**
- (b) **Have you performed any analyses, economic or otherwise, of the change in volumes of foreign postal administrations that have eliminated Saturday delivery since 1960? If your answer is affirmative, please provide copies of all such analyses.**
- (c) **If your answers to subparts (a) or (b) are negative, are you aware that several foreign postal administrations have eliminated Saturday delivery since 1960? If so, please identify the posts that, to your knowledge, have eliminated Saturday delivery and state your understanding of the change in volume they experienced in the first year after eliminating Saturday delivery.**

**RESPONSE:**

(a) No

(b) No

(c) Yes, I am aware that Saturday delivery was eliminated in Belgium, Latvia and Singapore. I do not know what change in volume the postal operators in those countries experienced in the first year after eliminating Saturday delivery. Indeed, Singapore only eliminated Saturday delivery in 2010.

**USPS/NALC-T4-10**

**Please refer to page 2, last paragraph of your testimony, wherein you state that implementation of five-day delivery “would likely be irreversible.” Please provide and explain the basis for this statement and provide all data, documents, analyses and economic and market studies you have prepared or reviewed to support this statement.**

**RESPONSE:**

The basis of my statement that implementation of five-day delivery would likely be irreversible is set forth on page 11 of my testimony.

**USPS/NALC-T4-11**

**Please refer to page 3 of your testimony, top line, heading, wherein you state that ending Saturday delivery may cause a greater drop in mail volume than the Postal Service anticipates. Have you performed any analyses of economic or market studies to reach this conclusion? If yes, please provide a copy of all documents that you reviewed together with any that support your claim.**

**RESPONSE:**

My conclusion is based on the analysis set forth on pages 3-9 of my testimony and the documents referred to therein. I did not perform any analysis or studies other than the analysis contained in my testimony.

**USPS/NALC-T4-12**

**Please refer to page 2, the last line of your testimony, wherein you state: “it is my opinion that rather than cutting services, the Postal Service should make its services more accessible and attractive to its customers.”**

- (a) Please provide copies of all data, studies, analyses or other documents that you created, reviewed or used to reach this opinion?**
- (b) Have you performed any analyses or estimates of the amount of net revenue the Postal Service would realize if it were to do what you suggest?**
- (c) If your answer to subpart (b) is affirmative, please provide copies of documents reflecting such analyses or estimates.**
- (d) What is your estimate of the costs required to “make . . . services more accessible and attractive to customers.” Please break them out by cost segment and component.**

**RESPONSE:**

- (a) I based this statement on my extensive knowledge of postal economics.
- (b) No.
- (c) ---
- (d) I have no such estimate.

**USPS/NALC-T4-13**

**Please refer to page 3 of your testimony, first line, where in you state that “There is no question that ending Saturday delivery will cause a drop in mail volume.” Is it your conclusion that every postal product will realize a loss of volume due to the elimination of Saturday delivery to street addresses? If your answer is affirmative, please provide copies of all analyses of economic or market studies that you used or relied on to reach this conclusion. If your answer is negative, what products do you conclude will realize an increase in volume and explain in detail the bases for your conclusion? Provide copies of documents reflecting all analyses of economic or market studies that you used or relied on to support your conclusion.**

**RESPONSE:**

My conclusion is that most postal products will realize a loss of volume due to elimination of Saturday delivery. The conclusion is based on elementary economics, in which the demand curve is positively influenced by service quality. Reductions in service quality, such as those envisaged here, will then have a negative impact. Some postal products, such as express services, which will continue on Saturdays, could see an uptick based on substitution effects with eliminated services. This presumption again is based on demand theory. I have not seen any reliable empirical estimates of service quality elasticity across products, so my statement, as cited above, is based on demand theory.

**USPS/NALC-T4-14**

**On page 7 of your testimony you assert that the Postal Service should have undertaken an econometric analysis of the effect on mail volumes of eliminating Saturday delivery.**

- (a) Has NALC or any party in this docket asked you to perform such an econometric analysis? If your answer is affirmative, please identify that party.**
- (b) Have you conducted an econometric analysis of the Postal Service's proposal to eliminate Saturday delivery? If your answer is affirmative, please provide a copy of documents reflecting that econometric analysis. If your answer is negative, please explain why you did not perform such an analysis?**
- (c) Please provide copies of any publication or peer-reviewed paper that embodies any econometric study that you performed personally.**

**RESPONSE:**

(a) No.

(b) No.

(c) The one econometric study that I have published is "Governance Costs and Rate of Return Regulation," (with P.R. Kleindorfer), *Journal of Institutional and Theoretical Economics*, March 1985.

**USPS/NALC-T4-15**

**Please refer to page 4, second paragraph of your testimony, wherein you state: ORC's [market research] may be subject to significant biases." Please provide specific instances of biases in the ORC market research and provide all documents, data and references you used or relied on to support this statement, aside from any noted in the footnote on that page.**

**RESPONSE:**

A specific instance of bias is explained on pp. 5-6 of my testimony.

**USPS/NALC-T4-16**

- (a) **Do you agree that businesses, government agencies and postal administrations routinely use market research studies, to the exclusion of econometric analyses, to forecast the demand for new products and services and/or to determine impact of changes in service on demand? If you agree, please provide the circumstances under which businesses, government agency or postal administrations rely on such studies to forecast demand and provide examples of businesses, government and postal administrations that have used such studies to make such forecasts.**
- (b) **If you disagree, please provide citations to economic literature discussing or approving the use of econometric analyses exclusively or in conjunction with market research to forecast demand.**
- (c) **If you do not agree with the proposition in subpart (a), is it your opinion that businesses, government agencies and postal administrations should never rely on such studies to forecast demand. If so, explain in detail the reasons for your opinion. Please provide all documents, analyses and documents that form the basis for your disagreement.**

**RESPONSE:**

- (a) I agree that businesses, etc frequently use market research studies as appropriate.

The characterization “to the exclusion of econometric analysis” is misplaced. The vast majority of market research involves routine studies that may not require the use of econometric analysis. In terms of market research studies by postal administrations, several such studies have been published in the Crew-Kleindorfer edited volumes over the years. These market research studies have usually examined reactions of specific customer segments to product or pricing policies, rather than the historical time series studies that have been the major focus of econometric studies of postal demand.

- (b) *See my response to USPS/NALC-T4-2*

- (c) Of course, it would be wrong to state that businesses, etc should **never** rely on market research studies to forecast demand. Market research tools and methods are

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complementary to econometric methods and many approaches (e.g. discrete choice theory) are common to both market research and econometrics.

**USPS/NALC-T4-17**

**On page 7 of your testimony you state:**

**“However, by estimating the value of a reduction in service quality for various customer segments and products, it is possible to estimate how a quality reduction would impact demand.” Do you agree that quantified value estimates can be obtained by conducting a market research study to indicate the importance of six-day delivery relative to other aspects of service quality? If your answer is negative, please explain in detail the reasons why you do not agree and provide all documents, analyses and documents that form the bases for your conclusion.**

**RESPONSE:**

Several approaches are possible. It is important to note that not all market research is created equal—it comes in all different stripes. One is market research based on surveys. Another is the use of discrete choice modeling and conjoint methods, coupled with surveys. Yet another is simulation based on market segments and then validated with prototype studies (e.g., the on-going Finland experiment on ePost).

Beyond what is usually classified as market research, econometric studies of service quality elasticity could be undertaken.

So my answer to the question here is that I definitely agree that “market research”, broadly construed, should be undertaken in evaluating whether and when to undertake a major change of the sort envisaged here. However, this affirmative statement is not by itself very informative. The question is whether the market research undertaken is appropriate and sufficiently precise to inform the decision in question.

**USPS/NALC-T4-18**

**Is it your “experience” that respondents participating in quantitative market research studies that seek to forecast the demand for new products and services and/or to determine impact of changes in service on demand:**

- (a) Tend to overstate their actual usage or purchase of a new product or service or the impact of changes in service on demand?**
- (b) Tend to understate their actual usage or purchase of a new product or service or the impact of changes in service on demand?**
- (c) Please explain in detail the reasons why you believe that respondents tend to overstate or understate.**
- (d) What techniques and methodologies have you used to account for the overstatement or understatement of usage or intent to purchase?**
- (e) If your response to subpart (d) is that you have not used any such technique or methodology to account for either an overstatement or understatement, do you have knowledge of any such techniques or methodologies? If your answer is affirmative, please explain in detail those techniques or methodologies and provide all data, documents, articles or other materials you refer to or rely on to form the bases for your conclusion.**

**RESPONSE:**

I have no firm belief as to whether, in general, respondents tend to overstate or understate. I believe that how respondents respond depends on the particular facts and circumstances, for example, the questions in the survey, how it is administered, the circumstances under which it is administered, the identity of the respondents and the knowledge of the respondents.

**USPS/NALC-T4-19**

**Please refer to your testimony on page 3, first paragraph, where you state:  
“Frequency of delivery is one of a number of attributes that constitute the quality of a mail service.”**

- (a) What other attributes are constituents of quality of mail service?**
- (b) Where does frequency of delivery rank relative to these other attributes?**
- (c) Have you conducted any research or analyses of the attributes that constitute the quality of mail service? If your answer is affirmative, please provide copies of all such research or analyses.**
- (d) Please provide examples from economic literature that examine the relative value of constituent elements that bear upon some product’s service quality.**
- (e) Please provide examples from economic literature that quantify the relative value of respective components of service quality for a particular product.**

**RESPONSE:**

(a) Other attributes include on time delivery, speed of delivery, ubiquity of collection and delivery, conditions associated with tendering mail for bulk mailers, the nature and context of billing services, treatment of returns, customer orientation of the service, and more specific features associated with timing, tracking and treatment of particular products.

(b) This is an empirical question, which is also likely to vary across customer segments, and across senders and recipients of mail.

(c) I have contributed over the years to many studies having to do with service-differentiated pricing, service quality and regulation. See my curriculum vitae for details.

(d) I object to this interrogatory as unduly burdensome. USPS is free to undertake research into the economic literature to obtain the answer to the interrogatory. I do not believe responding to interrogatories requires me to undertake such research. However, I do refer USPS to the volumes on postal economics edited by Paul R. Kleindorfer and me.

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(e) See response to (d) above.

**USPS/NALC-T4-20**

**Please refer to page 3, first paragraph of your testimony, wherein you state:  
“Reducing frequency, therefore, represents a reduction in quality.”**

- (a) Have you calculated how much of a reduction in quality will occur, if Saturday delivery to street addresses is eliminated?**
- (b) If your answer to subpart (a) is affirmative, what is the result? Please provide the calculations and all data, documents and studies that you use or rely on to perform those calculations.**
- (c) Have you calculated how much of a reduction in relative value of respective components of service quality will occur, if Saturday delivery to street addresses is eliminated?**
- (d) If your answer to subpart (c) is affirmative, what is the result? Please provide the calculations and all data, documents and studies that you use or rely on to perform those calculations.**

**RESPONSE:**

(a) No, but eliminating one-sixth of delivery days per week would be a significant reduction in quality.

(b) ---

(c) No.

(d) ---

**USPS/NALC-T4-21**

**Please refer to page 3, second paragraph of your testimony, wherein you state: “For example, local retailers, who time their advertising mail to reach customers’ mailboxes on Saturday, would likely seek alternative means of advertising.”**

- (a) Please explain in detail and provide the basis of your statement that advertisers would “likely” seek alternative means of advertising.**
- (b) Have you conducted any research or analyses with or about advertisers to determine their reaction to the proposed change? If your answer is affirmative, please provide copies of all such research or analyses.**
- (c) How likely are such retailers to seek alternative means of advertising as compared with any other options they may have?**

**RESPONSE:**

(a) My statement is based on my knowledge as an economist with years of experience studying microeconomics and the economics of postal services. I would note that advertisers are already substituting digital advertising for advertising mail.

(b) No, I conducted no such research or analysis in connection with USPS’s plan to implement 5-day delivery.

(c) I object to this interrogatory as unclear. I do not understand what is meant by the phrase “any other options they may have.”

**USPS/NALC-T4-22**

**Please refer to page 3 of your testimony, top paragraph, wherein you state: “Generally, when the quality of a product or service falls, everything else remaining equal, demand for that product or service falls too.”**

- (a) Have you calculated how much demand for mail will decrease, if Saturday delivery to street addresses is eliminated?**
- (b) If your answer to subpart (a) is affirmative, what is the amount by which such demand will fall? Please provide the calculations and all data, documents and studies that you used or relied on to perform those calculations.**
- (c) What other factors could drive a drop in demand?**

**RESPONSE:**

(a) No.

(b) --

(c) Any number of factors can cause a drop in demand for mail. For example, a recession that reduces business activity could cause a fall in demand.

**USPS/NALC-T4-23**

**Please refer to page 4, second paragraph of your testimony, where you open with the claim that responses to hypothetical questions are inherently unreliable, then state: “This is particularly the case since the individuals surveyed may not have fully understood how the reduction in delivery frequency would impact them or their organizations or mail recipients.”**

- (a) Please explain in detail why you believe that respondents in the market research failed to understand how the reduction in delivery frequency would impact them.**
- (b) Please provide all documents, data, references or other facts you used or relied to support your response to subpart (a).**

**RESPONSE:**

(a) I object to this interrogatory as mischaracterizing my testimony. I said, “As with any hypothetical study, the results are inherently uncertain and must be treated with caution...[and that the respondents] may not have fully understood how the reduction in delivery frequency would impact them or their organization or mail recipients.”

- (b) See response to (a) above.

**USPS/NALC-T4-24**

**Please refer to page 4, second paragraph of your testimony, wherein you state: “This is particularly the case since the individuals surveyed may not have fully understood how the reduction in delivery frequency would impact them or their organizations or mail recipients.”**

- (a) Please provide the basis for this statement and explain in detail why you believe that respondents to the market research may have not fully understood how the elimination of Saturday delivery would affect them.**
- (b) Please provide all documents, data and references you used or relied on making this statement and providing an answer to subpart (a).**

**RESPONSE:**

(a) I based this statement on the obvious fact that the future cannot always be predicted with certainty: five-day delivery has not occurred, so survey respondents would unlikely to be able to understand fully what may occur in a possible future environment. I also based my response on my understanding from reading the ORC materials, which led me to believe that the survey respondents had not necessarily studied issues related to implementation of five-day delivery and were not necessarily experts in the operational changes affecting them as a result of 5-day delivery.

- (b) See response to (a).

**USPS/NALC-T4-25**

**Please refer to page 4, second paragraph of your testimony, wherein you state: “In addition, unless they had studied the matter they would be unable to estimate the impact accurately.”**

- (a) Please describe what study would be necessary for a respondent to provide an accurate estimate.**
- (b) Please cite to and describe your understanding of how respondents were informed about: (1) their own businesses; and (2) five-day delivery.**
- (c) What specific additional study would have been sufficient for respondents to provide accurate survey responses?**
- (d) Please provide all documents, data and references you used or relied on making this statement and providing an answer to subpart (a).**

**RESPONSE:**

(a) I believe that because five-day delivery has not occurred, any estimate would necessarily be hypothetical. Nonetheless, if a respondent had studied his/her own mailing behavior and had studied how that might change with five-day delivery, an estimate might be more accurate than if a respondent had not done such a study. My reading of the ORC materials led me to believe that the respondents in the ORC research had not necessarily undertaken such studies.

- (b) My understanding is taken from what the ORC materials said about these matters.
- (c) See response to (a) above.
- (d) I relied on the ORC materials in the record in this proceeding.

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**USPS/NALC-T4-26**

**Do you agree that most Americans would adapt to elimination of Saturday street delivery, if it helps the Postal Service regain its financial stability? If you disagree, please explain in detail what you believe and provide all documents, data and references you used or relied on to support your response.**

**RESPONSE:**

I do not understand what the interrogatory means by “adapt to elimination of Saturday delivery,” nor do I understand what the interrogatory means by adapt “if it helps the Postal Service regain its financial stability.” I believe that Americans will “adapt” in the sense that life will go on in the United States of America if five-day delivery were implemented. I do not know whether most Americans would say they would “adopt” to five-day delivery. I think what they would say would likely depend on how the question was posed and what other options they believed were on the table.

**USPS/NALC-T4-27**

- (a) **Do you agree that measuring percentage change in use is a common approach utilized in quantitative market research studies because, in part, it minimizes the impact of extraneous and uncontrollable events? If you disagree, please explain in detail what you believe and provide all documents, data and references you used or relied on to answer this interrogatory.**
- (b) **Do you recognize any strengths of survey market research as a tool for measuring the impact of a change upon respondents? If so, explain what such strengths may be, why market research is often used, and when it should and should not be used.**

**RESPONSE:**

(a) Of course, percentage changes are used in marketing research, economics and econometrics. Elasticity is the most common example of a percentage based concept.

Percentage based measures can be affected by extraneous events and offer no protection from errors in survey design or vagueness or misconceptions in underlying theory.

(b) The strength of survey market research as a tool is that, if executed properly and in a manner free of bias, it can provide answers to well-defined questions. Market research should be used when changes in products or operations are contemplated, but they should be performed properly and may be supplemented by other tools , like econometric studies, when appropriate.

**USPS/NALC-T4-28**

**Please refer to page 6, second paragraph of your testimony, wherein you state that “As far as I can recall, ...” Did you do perform any review of the literature about market research in support of this statement? If yes, please provide all documents, data and references you used or relied on to formulate this statement.**

**RESPONSE:**

No, I did not perform any review of the literature about market research in support of my statement. However, the flaw I identified is so basic that none was necessary.

## RESPONSE OF NALC WITNESS CREW (NALC-T4) TO USPS INTERROGATORY

### USPS/NALC-T4-29

- (a) **Do you agree that the research conducted by ORC examines a range between two points - Likelihood of no change and likelihood of change? If you disagree, please explain in detail what you believe and provide all documents, data and references you use or rely on to answer this interrogatory.**
- (b) **Given a forthcoming change (five-day delivery), what is your best estimate of the impact of that change?**

### RESPONSE:

(a) No, I do not agree. The ORC asked respondents for their estimates of the consequences of 5-day delivery in the 12-month period following such a change. ORC also asked, in a separate question, for the likelihood that respondents would change their mailing behavior. The ORC results then multiplied these two estimates to obtain its estimate of volume declines. This procedure leads to an inherent downward bias for the reasons explained in my testimony.

(b) I object to this interrogatory on the grounds that it assumes that five-day delivery is forthcoming. My understanding is that it is undecided whether USPS will be allowed to implement five-day delivery. In any event, I do not have an estimate of the impact of such a change.

**USPS/NALC-T4-30**

**Please refer to page 8, first full paragraph of your testimony, wherein you state that: “Rather than having a net annual savings of \$3.1 billion, as the Postal Service projects, *see* USPS-T-2, at p.15, the annual savings would be close to \$2.5 billion.”**

- (a) Is it your opinion that \$2.5 billion would be a significant annual cost savings?**
- (b) Is it your opinion that \$2.5 billion in annual cost savings would help the Postal Service regain financial stability?**
- (c) If your response to either subpart (a) or (b) is negative, please explain in detail why and provide all documents, data and references relied upon to reach your opinions.**

**RESPONSE:**

(a) Yes, but, as I explain in my testimony, any such savings may be fleeting because the mail volume loss triggered by eliminating Saturday delivery may continue to grow in subsequent years, as a result of growth in competition from existing or future competitors.

(b) Not if eliminating Saturday delivery triggered a mail volume loss that continued to grow in subsequent years.

(c) See responses (a) and (b) above.

**USPS/NALC-T4-31**

**Have you conducted any primary or secondary research or analyses with or about alternative (non-postal) delivery service providers to determine:**

- (a) the business opportunity they would have if the Postal Service were to eliminate Saturday delivery?**
- (b) the operational, cost, or economic barriers to establishing alternative (non-postal) delivery of newspapers currently mailed to subscribers? If your answer is affirmative, please provide copies of all such research or analyses.**

**RESPONSE:**

No, but I do not believe I needed to conduct such research or analysis to know that eliminating Saturday delivery would give USPS's competitors an opportunity to take some of what is now USPS's business.

**USPS/NALC-T4-32**

**Please explain in detail what are the “dynamics of the market” that you refer to on page 9, first full paragraph of your testimony. Please identify each pertinent dynamic and provide all documents, data and references you use or rely on to formulate your explanatory response.**

**RESPONSE:**

By “dynamics of the marketplace,” I mean the functioning of the “market” and changes in the “market” over time in which USPS operates, as that term would be understood in microeconomics. USPS has taken a particular view of the dynamics. It has assumed that there will be a one-time effect of ending Saturday delivery and a *de facto*, essentially instantaneous, attainment of steady state. I believe that this view is unrealistic.