

**BEFORE THE  
POSTAL REGULATORY COMMISSION**

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

Docket No. N2010-1

**DIRECT TESTIMONY**

**OF**

**DR. MICHAEL A. CREW**

**ON BEHALF OF**

**THE NATIONAL ASSOCIATION OF LETTER CARRIERS, AFL-CIO**

## I. AUTOBIOGRAPHICAL SKETCH

My name is Michael A. Crew. I am the Director of the Center for Research in Regulated Industries (“CRRRI”) and CRRRI Professor of Regulatory Economics at Rutgers University. I have taught economics at Rutgers Business School since 1977. Prior to joining Rutgers, I taught at Harvard University, Wesleyan University, Carnegie-Mellon University and the University of Texas, University of Stathclyde and other universities in the United Kingdom. I received my Ph.D. in economics in 1972 from the University of Bradford.

My principal research interests include regulatory economics and the economics of postal services. My current research includes the economics of postal service and public utility economics. My publications include five books, twenty-five edited books, and numerous journal articles, published in e.g. *American Economic Review*, *Economic Journal*, *Bell Journal of Economics*, *Journal of Political Economy*, *Journal of Regulatory Economics*, *Public Choice* and *Quarterly Journal of Economics*. I am the founding editor of two journals, *Applied Economics* and the *Journal of Regulatory Economics*, the latter which I have edited since 1988. I have also served on several editorial boards. I was the recipient of the 2009 Distinguished Member Award, Transportation and Public Utilities Group, the 2002 PURC Distinguished Service Award from the Public Utility Research Center at the University of Florida, and the 1992 Hermes Award of the European Express Organization.

In addition to my teaching, writing and editing, I have consulted on pricing, economic costing, and regulatory economics for a number of governments agencies, corporations and organizations, including the United States Postal Service, the United States Treasury, the United States Department of State, the Royal Mail (of Great Britain), the Government of Canada, Canada Post, the European Commission, the New Zealand Post, the New Zealand Commerce

Commission, the Belgian Post, the Australia Competition and Consumer Commission, AT&T, BellSouth, Independent Power Producers of New York, Jersey Central Power and Light, New York Telephone and Sithe Energies. I served on the Board of Directors of Energy Initiatives, Inc., from 1984-1988.

## **II. PURPOSE OF TESTIMONY**

The purpose of my testimony is to evaluate the Postal Service's proposal to eliminate Saturday delivery. I conclude that implementation of the proposal may cause a far more significant drop in mail volume than the Postal Service projects and that such a drop in volume could erase a substantial amount of the savings that the Postal Service hopes to realize by ending Saturday delivery. In addition, I conclude that implementation of the proposal may cause the Postal Service to incur larger than anticipated transition costs, further eroding the potential savings that its proposal is designed to produce.

More importantly, 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. By allowing others to take part of its business, the Postal Service's plan to implement five-day delivery could aggravate, rather than ameliorate, the Postal Service's financial condition and in the long-run could threaten the Postal Service's viability.

Rather than take a step in the wrong direction -- a step which in practical terms would likely be irreversible -- I believe the Postal Service should consider other means to address its financial challenges. In particular, it is my opinion that rather than cutting services, the Postal Service should make its services more accessible and attractive to its customers.

### **III. ENDING SATURDAY DELIVERY MAY CAUSE A GREATER DROP IN MAIL VOLUME THAN THE POSTAL SERVICE ANTICIPATES**

There is no question that ending Saturday delivery will cause a drop in mail volume. Frequency of delivery is one of a number of attributes that constitute the quality of a mail service. Reducing frequency, therefore, represents a reduction in quality. Generally, when the quality of a product or service falls, everything else remaining equal, demand for that product or service falls too.

It is easy to see how this would be the case here. Postal customers dissatisfied with less frequent delivery would move more readily to alternatives. For example, local retailers, who time their advertising mail to reach customers' mailboxes on Saturday, would likely seek alternative means of advertising. Another example: residential customers accustomed to receiving parcels at home on Saturday because they work during the week might turn increasingly to FedEx, which already has Home Delivery on Saturdays, or to other parcel carriers. Abandoning Saturday delivery is going to slow down the Postal Service's current program aimed at expanding its package services.

All of this points to the critical question of how much ending Saturday delivery would cause mail volume to drop. To attempt to answer this question, the Postal Service had marketing research conducted by Opinion Research Corporation ("ORC") in the fall of 2009, in which ORC asked businesses and consumers to project how the volume of their mail use would change if five-day delivery were implemented. *See* USPS-T-9 (testimony of Gregory M. Whiteman), at p.1; *see generally* USPS-T-8 (testimony of Rebecca Elmore-Yalch). Based on ORC's research, the Postal Service projects that implementation of five-day delivery will cause a once-and-for-all mail volume decline of only 0.71%, resulting in an annual revenue loss of \$466

million and an annual contribution loss of \$206 million. *See* USPS-T-9, at pp.11-12; *see also* USPS-T-2 (testimony of Joseph Corbett), at p.15.

The Postal Service's projections are presented as single-point estimates with no uncertainty bounds or confidence limits. In fact, given that the change proposed is entering into largely unknown territory, there are inevitably considerable uncertainties associated with this policy. Indeed, five-day delivery may cause a much more significant drop in mail volume than that projected by USPS. In addition, there are problems with the studies used by the Postal Service to support its proposal.

First, the Postal Service's estimate is unreliable because the projections given to ORC by the surveyed businesses and consumers were necessarily hypothetical: in the real world, Saturday delivery has not been eliminated. Thus, the respondents in ORC's survey were describing how they *thought* they or their firms *would* change their mailing behavior *if* Saturday delivery were eliminated. As with any hypothetical study, the results are inherently uncertain and must be treated with caution. 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. In addition, unless they had studied the matter they would be unable to estimate the impact accurately. Moreover, there is an extensive academic literature on how surveys like ORC's may be subject to significant biases.<sup>1</sup> Bias could have occurred here, for example, when ORC asked respondents to estimate how their mail use would change with five-day delivery *after* telling them that “[d]espite very aggressive cost cutting, the Postal

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<sup>1</sup> *See, e.g.,* Baruch Fischhoff, “Value Elicitation: Is There Anything in There?” *American Psychologist*, Vol. 46(8), August, 1991, pp. 835-847. For a more recent discussion from an economic perspective, *see* I. Bateman, R. Carson, B. Day, M. Hanemann, N. Hanley, T. Hett, M. Jones-Lee, G. Loomes, S. Mourato, E. Ozdemiroglu, D.W. Pearce, R. Sugden and J. Swanson, *Economic Valuation with Stated Preference Techniques: A Manual*, Edward Elgar Publishers, Cheltenham, UK (2002).

Service is projecting financial losses for this and the next several years.” *See* USPS-T-8, at p.26. Respondents sympathetic to the Postal Service’s stated financial plight, or concerned that it could lead to price increases, may have consciously or unconsciously underestimated how much a change to five-day delivery would impact their mail use.

Another problem is that the ORC study was performed during just one limited period of time, in September-October 2009. *See* USPS-T-8, at pp.4, 12. Estimates that respondents gave during this one short timeframe provide scant basis for predicting how they would behave for years to come. Moreover, 2009 was, to say the least, an atypical year; the economy was still suffering from what the Postal Service accurately describes as the worst economic downturn since the Great Depression. At minimum, an event of this magnitude is going to add greater uncertainty to any estimates made from a survey, casting further doubts on the accuracy of the Postal Service’s estimates. Indeed, 2009 saw the largest annual mail volume decline *in postal history*, of 12.7%. *See* USPS-T-2 (testimony of Joseph Corbett), at p.3. It is hard to imagine how this extreme macroeconomic environment could not have colored the perspectives of the businesses and consumers respondents. For example, a business experiencing severely diminished activity as a result of the recession might have seen five-day delivery as impacting it less than during times of normal business activity.

Next, in estimating how much mail volume would drop if Saturday delivery were ended, ORC systematically understated the amount by which respondents estimated they would reduce their mail use, by applying a “likelihood” factor to the calculation. Business respondents were asked by ORC to estimate their mail use volume both in the next twelve months and in the twelve months after the implementation of five-day delivery. *See* USPS-T-8, at p.31. Similarly, consumer respondents were asked to estimate their actual past twelve-month mail volume and

what that past twelve-month volume would have been with five-day delivery. *See id.* at p.36.

The business and consumer respondents were also asked to assess the likelihood that the change to five-day delivery would change their mail use, and this “likelihood” assessment was converted into a percentage, with anything less certain than “extremely likely” being assigned a percentage of less than 100. *See id.* at pp.31, 36. In reaching its estimate of how much five-day delivery would reduce volume, ORC multiplied the respondents’ estimated drop in mail use by this “likelihood” percentage, effectively reducing the respondent’s estimate. For example, if a business respondent estimated mailing 10,000 fewer pieces of first-class mail in the year after Saturday delivery ended, but responded that he/she was only 50% likely to change his/her mailing practices in response to the five-day delivery proposal, ORC calculated a 5,000 piece reduction in first-class mail for that business. *See USPS-T-8*, at p.31 (Figure 13).<sup>2</sup>

By applying this “likelihood” factor to adjust downward respondents’ estimates of reduced mail use, ORC artificially and arbitrarily decreased how much the businesses and consumers surveyed believed their mail volume would fall. As far as I can recall, I have never seen anything like this, and I believe it is a serious flaw. If respondents’ gave their best estimate of how their mail use would change with five-day delivery, there is no reason for ORC to adjust those estimates downward. If ORC wanted to capture the uncertainty of respondents’ estimates, it should have treated the estimates provided by survey respondents as mean estimates, with both upside and downside possibilities. However, the Postal Service and ORC did not follow the familiar practice of providing a range of estimates. At a risk of repeating myself, applying the

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<sup>2</sup> The actual language used, e.g. for national accounts (similar language was used for other respondents) was the following (*USPS-T-8*, at p.104): “If the service change described does happen, what is the likelihood that this change would cause your organization to modify the number of individual pieces of mail and/or packages your organization sends or the way you send it?”

“likelihood” factor, as ORC did, guaranteed a downward bias in its point estimate of volume decline.

Finally, a customer survey alone is a thin reed on which to make an unprecedented and, in practical terms, irreversible change in operations like ending Saturday delivery, even if, unlike the ORC’s, the survey had been flawless. At the very least, the Postal Service should have also undertaken an econometric analysis as another means of predicting how ending Saturday delivery would impact mail volume. The Postal Service has a long history of using econometric analysis in various applications, including to measure elasticity of demand. Similarly, other postal operators worldwide employ econometrics extensively. Econometric studies can predict, using historical data on price increases, how a future price increase will impact mail volume. Similarly, other aspects of postal service, for example percentage of on-time delivery, can be assessed as to their consequences for demand. The Postal Service has no historical data on reductions in frequency delivery. 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.<sup>3</sup> Indeed, other postal operators have used econometric studies when seeking to assess demand elasticity in connection with contemplated service changes. These have also led to calibrated simulation studies and sensitivity analyses on the consequences for demand resulting from changes in pricing structures, postal networks and delivery frequency. The Postal Service’s failure to engage in any rigorous economic analysis of

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<sup>3</sup> For a recent example of combining survey results with econometric studies of demand, *see*, *e.g.*, Veruete-McKay, L., S. Soteri, J. Nankervis and F. Rodriguez (2010), “Letter traffic demand in the UK: an analysis by product and envelope content type” (presented at the Institut d’Economie Industrielle (IDEI) Sixth Conference On Regulation, Competition and Universal Service In The Postal Sector”, Toulouse, March 25-26 2010 and the Rutgers University CRRI 18<sup>th</sup> Conference on Postal and Delivery Economics, Porvoo, Finland, June 2-5, 2010.

demand effects of their proposal, but rather to rely solely on the ORC's study, further puts in doubt its projection regarding the impact on mail volume of ending Saturday delivery.

If it turns out that USPS's projection understates the extent to which five-day delivery would decrease mail volume, the savings it anticipates from ending Saturday delivery could be significantly eroded. Assume, for example, that rather than a 0.71% decline in mail volume, ending Saturday delivery causes a 2% decline. (*See* NALC-LR-N2010-1/12 (Robert H. Cohen, Charles McBride, George Mason University School of Public Policy, Study on Universal Postal Service and the Postal Monopoly, Appendix F, Section 3, Estimates of the Current Costs of the USO in the U.S. (Nov. 2008)), at p.15 (predicting 2% volume loss from change to five-day delivery)). This would mean an annual loss of contribution of \$563 million. 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.

More significantly, even if mail volume only dropped 0.71% initially in response to the end of Saturday delivery, the resulting mail volume loss may grow in magnitude in subsequent years. Indeed, the Postal Service's viewing the loss of mail volume as a static, one-time drop that remains at the same level year after year fails to take into account the dynamics of the marketplace. Once the Postal Service cedes a valuable piece of its enterprise -- Saturday delivery -- existing or future private-sector competitors will undoubtedly rush to fill the gap. Given the chance to profit from unmet demand, these competitors will eagerly deliver newspapers, magazines, advertising flyers and parcels on Saturdays to the doorsteps of millions of Americans. As postal customers increasingly turn to these competitors, the mail volume loss caused by the end of Saturday delivery could snowball. Indeed, once given a "foot in the door" to compete with the Postal Service, these private-sector competitors may press to open it wider,

moving beyond Saturdays to other days, or even making demands on the political system to lift the Postal Service's monopoly on access to the mailbox. Such a turn of events would not only weaken the Postal Service but could threaten its long-term viability.

In sum, the Postal Service's projection that ending Saturday delivery will cause a one-time, modest drop in mail volume is both unreliable and ignores the dynamics of the market. The initial drop may be far greater and may grow substantially with time.

Since there is a distinct possibility that the savings realized by ending Saturday delivery would be substantially less than the Postal Service hopes, and, more importantly, that ending Saturday delivery could begin a process that threatens the long-term viability of the Postal Service, the Postal Service would be well advised (as I discuss below) to consider alternatives before making what would likely be an irrevocable and damaging change to its operations.

#### **IV. THE POSTAL SERVICE IS LIKELY TO BE UNDERESTIMATING THE TRANSITION COSTS THAT WOULD BE INCURRED IN IMPLEMENTING FIVE-DAY DELIVERY**

The Postal Service may realize less in savings from ending Saturday delivery than it projects not only because mail volume may drop more than estimated, but also because costs arising from implementing five-day delivery may be more than expected.

First, the Postal Service may be grossly underestimating the transition costs related to a reduction in delivery frequency. The Postal Service estimates that it will experience just \$110 million in transition costs, and that these transition costs would be incurred only once, during the first year of five-day delivery. *See* USPS-T-2 (testimony of Joseph Corbett), at p.16. When compared to the \$3.3 billion in gross annual savings that the Postal Service hopes to realize from ending Saturday delivery, *see* USPS-T-2, at pp.15-16, it is projecting almost

negligible transition costs: about one-third of one percent. Moreover, according to the Postal Service, these projected transition costs -- the bulk of which would be for unemployment compensation for non-career employees laid off, *see* DFC/USPS-T2-1 -- would drop to zero in the years after the first year of implementation. In other words, the Postal Service appears to be betting on a virtually seamless shift from six- to five-day delivery.

In my view, this is entirely unrealistic. The literature on project implementation suggests that when an enterprise undergoes a major process change in its operations, transition costs, which often arise unexpectedly, can be substantial, especially for large projects.<sup>4</sup> Moreover, failure to provide even the rudiments of a temporal template or plan for the implementation of the USPS proposal violates accepted principles of project management and hardly inspires confidence in the accuracy of this estimate.<sup>5</sup> The Postal Service is an enormous, complex organization. Furthermore, ending Saturday delivery would be a major -- indeed, unprecedented -- alteration of its operations that would impact virtually every aspect of the Postal Service, including the transporting, storing, processing and delivery of mail, interactions with senders and recipients of mail, and the potential reassignment or redeployment of thousands of employees. It is hard for me to imagine how such a monumental change in the Postal Service's operations would not give rise to logistical glitches, as well as problems in modifying

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<sup>4</sup> *See, e.g.,* Tyre, M. J. and O. Hauptmann, "Effectiveness of Organizational Responses to Technological Change in the Production Process," *Organization Science*, Vol. 3, No. 3, 301-320, 1992.

<sup>5</sup> For a case-based discussion of the problems likely to result from lack of attention to the temporal planning of projects, and from neglecting factors affecting complexity and uncertainty of projects, *see* GAO, "NASA: Lack of Disciplined Cost-estimating Processes Hinders Effective Program Management," GAO Report, 046-642, available at <http://www.gao.gov/new.items/d04642.pdf>. In particular, Table 2 (p. 14) of this GAO report, and the discussion surrounding this Table, makes plain that accounting for uncertainty and undertaking temporal planning of project costs is essential for good program management. Neither of these basic practices is evident in the USPS estimates provided for project costs associated with their proposal.

information systems and other elements of operations and infrastructure support. These problems could produce unexpected and substantial costs, not only internally but also to its customers.

Moreover, contrary to the Postal Service's optimistic view, the transition costs would not likely be incurred all in the first year. For example, the increased mail volume on weekdays resulting from the elimination of Saturday delivery could well cause a need for the addition or adjustment of delivery routes. Even with an expedited adjustment process, reorganizing routes will take time and resources.

To the extent the Postal Service is underestimating the transition costs of implementing five-day delivery, it is further overestimating the savings that it would realize. In addition, substantial transition costs imposed on customers will exacerbate the decline in mail volume resulting from the reduction in service.

## **V. THE POSTAL SERVICE SHOULD CONSIDER ALTERNATIVES TO CUTTING SERVICE**

Because changing delivery frequency will be an enormous and costly undertaking, it would not be something that the Postal Service could easily undo. Indeed, businesses that incur substantial costs adjusting their mailing operations to a five-day environment would unlikely be willing to reverse those adjustments. Moreover, once postal customers who relied on Saturday delivery go elsewhere, they are unlikely to return. For all practical purposes therefore, abandoning Saturday delivery would likely be an irreversible decision.

For reasons already discussed, it may be an irreversible step in the wrong direction. It may cause mail volume to drop more than projected, and may give rise to unanticipated transition costs, which would erode expected savings. More importantly, by

reducing the quality of service, and ceding a valuable piece of the Postal Service's enterprise, the elimination of Saturday delivery would give private-sector competitors an opportunity that could in the long-run threaten the viability of the Postal Service.

Before abandoning Saturday delivery, therefore, the Postal Service should consider alternative means to address its financial challenges. Targeted price increases could both increase revenue and decrease cost and, unlike ending Saturday delivery, would be reversible if they do not produce the desired results. One example: increasing rates for nonprofit mailers whose rates may currently be below cost. Another example: reassessing worksharing discounts provided to bulk mailers since increased postal automation means that the Postal Service can now process mail more efficiently and therefore benefits less from pre-processed mail. Similarly, the Postal Service should concentrate on its strength in collection and delivery. It delivers everywhere six days a week. It has considerable scale economies in delivery. By developing improved ways of utilizing its delivery and collection networks it encourages entrepreneurs to develop new products that involve access to the Postal Service's collection and delivery networks.<sup>6</sup>

More fundamentally, in considering ways to improve its financial health, the Postal Service should focus not on cutting service, but on meeting the needs of its customers. Cutting service as an attempted solution to financial stress reflects a bureaucratic approach to doing business. It is part of the same bureaucratic approach that leads the Postal Service to produce thick manuals filled with complex mailing regulations that make it hard for customers to

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<sup>6</sup> For example, Michael A. Crew, and Paul R. Kleindorfer, "Competitive Strategies under FMO and Intermodal Competition," in Michael A. Crew and Paul R. Kleindorfer (eds.), *Reinventing the Postal Sector in an Electronic Age*, Edward Elgar Publishers, Cheltenham, UK (forthcoming 2011), provides analysis concerning how important it is to maximize utilization of the delivery network in the face of electronic competition.

do business with the Postal Service. It is an approach more fitting to a government agency like the Internal Revenue Service than a self-sustaining enterprise like the Postal Service.

Rather than making its services less accessible to its customers, the Postal Service should seek to make its services more accessible and more attractive. One idea, for example, would be service-differentiated pricing, which has been widely adopted by European postal operators. This would provide for a cheaper, slower second class of mail that consumers could use, for example, when paying bills that are not time-sensitive. By giving consumers the option of a less expensive alternative to first-class mail, the Postal Service would become more competitive with electronic bill payment.

## **VI. CONCLUSION**

Ending Saturday delivery will cause mail volume to drop, will likely produce unanticipated transition costs and could threaten the long-term viability of the Postal Service. Moreover, once Saturday delivery is eliminated, it will likely be irreversible. Rather than abandoning a valuable part of its enterprise, and cutting service to its customers, the Postal Service should seek other means to address its financial challenges, including by focusing on making its services more accessible and attractive to its customers.