# Демонстрационный вариант и методические рекомендации по направлению «Государственное и муниципальное управление»

Профиль: «Государственное и муниципальное управление» <u>Ко</u>

<u>КОД – 160</u>

# ДЕМОНСТРАЦИОННЫЙ ВАРИАНТ

# Время выполнения задания – 240 мин., язык – русский и английский

Раздел А. Выберите среди предложенных ответов один или несколько правильных(ых) варианта(-ов) и заштрихуйте соответствующий ему(им) овал(-ы) в бланке ответов на пересечении номера вопроса и номера ответа(-ов).

# A1. Отметьте все верные утверждения, относящиеся к Кейнсианской макроэкономической модели:

- 1. Модель описывает поведение экономики в краткосрочном периоде;
- 2. Действует принцип нейтральности денег;
- 3. На всех рынках существует несовершенная конкуренция;
- 4. На всех рынках существуют «жесткие» (не гибкие) цены;
- 5. Процентная ставка формируется на рынке заемных средств в результате соотношения инвестиций и сбережений;
- 6. Существует необходимость государственного вмешательства и государственного регулирования экономики;
- 7. Реальный и денежный сектор не взаимосвязаны;
- 8. Равновесие рынков устанавливается на уровне полного использования ресурсов;
- 9. Верно все вышеперечисленное;
- 10. Нет верного ответа.

#### А2. Согласно критерию Парето, одновременно выполняется следующее:

- 1. Ухудшение (снижение эффективности) происходит, когда значения функций полезности одного или нескольких индивидов понижаются, а для остальных индивидов эти значения повышаются;
- 2. Улучшение (повышение эффективности) имеет место в тех и только тех случаях, когда переход от одной аллокации к другой влечет за собой позитивное изменение значения функции полезности хотя бы одного индивида;
- 3. Улучшение (повышение эффективности) имеет место в тех и только тех случаях, когда переход от одной аллокации к другой влечет за собой негативное изменение значения функции полезности хотя бы одного индивида;
- 4. Улучшение (повышение эффективности) имеет место в тех и только тех случаях, когда переход от одной аллокации к другой не вызывает негативных изменений значений функций полезности хотя бы одного индивида;
- 5. Улучшение (повышение эффективности) имеет место в тех и только тех случаях, когда переход от одной аллокации к другой не вызывает негативных изменений значений функций полезности ни одного из прочих индивидов;
- 6. Ухудшение (снижение эффективности) происходит, когда значения функций полезности одного или нескольких индивидов понижаются, а для остальных индивидов эти значения остаются неизменными;
- 7. Верно все вышеперечисленное;
- 8. Нет верного ответа.

# АЗ. К инструментам монетарной политики, дающим возможность Центральному Банку Российской Федерации контролировать величину денежной массы, относятся:

- 1. Финансовые операции на открытом рынке;
- 2. Государственные закупки;
- 3. Налоги;
- 4. Трансферты;
- 5. Изменение ключевой процентной ставки (ставки рефинансирования);
- 6. Изменение нормы обязательных резервов;
- 7. Использование международных стандартов финансовой отчетности;
- 8. Верно все вышеперечисленное;
- 9. Нет верного ответа.

# А4. Федеральные и региональные органы исполнительной власти образуют единую систему исполнительной власти в Российской Федерации:

- 1. По полномочиям Российской Федерации;
- 2. По структуре органов исполнительной власти Российской Федерации;
- 3. По структуре органов исполнительной власти субъектов Российской Федерации;
- 4. По полномочиям Российской Федерации по предметам совместного ведения;
- 5. По полномочиям Российской Федерации по предметам раздельного ведения;
- 6. По полномочиям субъектов Российской Федерации по предметам совместного ведения;
- 7. По полномочиям субъектов Российской Федерации по предметам раздельного ведения;
- 8. По полномочиям муниципалитетов Российской Федерации по предметам совместного ведения;
- 9. По полномочиям муниципалитетов Российской Федерации по предметам раздельного ведения;
- 10. Нет верного ответа.

# А5. При каком соотношении Х и У в нижеприведенной модели существует лишь одно равновесие по Нэшу?

	Игрок 1		
		Стратегия А	Стратегия Б
Игрок 2	Стратегия А	X-Y/2, X-Y/2	Х-Ү, Х
	Стратегия Б	Х, Х-Ү	0, 0

- 1. X>Y;
- 2. X<Y;
- 3. X=Y;
- 4. X=2Y;
- 5. X>2Y;
- 6. X=4Y;
- 7. X>4Y;
- 8. Верно все вышеперечисленное;
- 9. Нет верного ответа.

Аб. Выберите верное(-ые) утверждение(-я), характеризующие предельные нормы замещения (MRS), если предпочтения индивида характеризуются предельными нормами замещения  $MRS_{xy} = 2$  и  $MRS_{xz} = 0, 8$ :

- 1.  $MRS_{vx} = 2;$
- 2.  $MRS_{yx} = 0.5;$
- 3.  $MRS_{zx} = 1,25;$
- 4.  $MRS_{zx} = 1;$
- 5.  $MRS_{yz} = 0.8$ :
- 6.  $MRS_{yz} = 0,4;$
- 7.  $MRS_{zy} = 0,5;$
- 8.  $MRS_{zy} = 2,5;$
- 9. Для вычисления MRS<sub>zx</sub> недостаточно данных;
- 10. Для вычисления MRS<sub>zy</sub> недостаточно данных.

# А7. Графически экономический рост может быть представлен в виде:



Рис. 1. Рост реального ВВП







Рис. 3. Сдвиг кривой производственных возможностей

- 1. Рисунка 1;
- 2. Рисунка 2;
- 3. Рисунка 3;
- 4. Всеми тремя рисунками;
- 5. Нет верного ответа.

A8. Используя нижеприведенную «коробку Эджуорта», иллюстрирующую конфликт интересов работающих в одном помещении курильщика и некурящего человека, выберите верное(-ые) утверждение(-я):



- 1. Если право на запрещение вредного использования принадлежит курящему, а величина транзакционных издержек не позволяет сторонам вести взаимовыгодный торг, равновесие будет находиться в точке S;
- 2. Если право на запрещение вредного использования принадлежит курящему, а величина транзакционных издержек не позволяет сторонам вести взаимовыгодный торг, равновесие будет находиться в точке S';
- 3. Если право на запрещение вредного использования принадлежит некурящему, а величина транзакционных издержек не позволяет сторонам вести взаимовыгодный торг, равновесие будет находиться в точке L;
- 4. Если право на запрещение вредного использования принадлежит некурящему, а величина транзакционных издержек не позволяет сторонам вести взаимовыгодный торг, равновесие будет находиться в точке F;
- 5. Сдвиг кривой безразличия I (А) вправо будет означать перераспределение дохода между курящим и некурящим в пользу курящего;
- 6. Сдвиг кривой безразличия I (А) вправо будет означать перераспределение дохода между курящим и некурящим в пользу некурящего;
- 7. Верно все вышеперечисленное;
- 8. Нет верного ответа.

# А9. Должности государственной гражданской службы подразделяются на следующие категории:

- 1. Руководители;
- 2. Исполнители;
- 3. Помощники (ассистенты);
- 4. Помощники (советники);

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- 5. Эксперты;
- 6. Специалисты;
- 7. Ведущие эксперты;
- 8. Ведущие специалисты;
- 9. Обеспечивающие специалисты;
- 10. Нет верного ответа.

# А10. Какие федеральные органы исполнительной власти являются действующими на сегодняшний день?

- 1. Министерство регионального развития Российской Федерации;
- 2. Министерство Российской Федерации по атомной энергии;
- 3. Министерство имущественных отношений Российской Федерации;
- 4. Министерство Российской Федерации по делам Северного Кавказа;
- 5. Федеральная служба России по финансовому оздоровлению и банкротству;
- 6. Государственная фельдъегерская служба Российской Федерации;
- 7. Федеральное агентство по поставкам вооружения, военной, специальной техники и материальных средств;
- 8. Федеральное агентство по делам национальностей;
- 9. Все вышеперечисленные федеральные органы исполнительной власти;
- 10. Все вышеперечисленные федеральные органы исполнительной власти упразднены/ расформированы.

# Раздел В. Анализ англоязычной статьи и ответы на вопросы по статье.

# Прочитайте статью и ответьте на следующие вопросы (на русском языке):

В1. Кратко опишите основную идею авторов статьи. Как Вы относитесь к этой идее? Аргументируйте Ваш ответ.

В2. Какие теории проверяются в рамках данного исследования? Перечислите и кратко охарактеризуйте данные теории. Какая из данных теорий представляется Вам наиболее перспективной? Обоснуйте Ваш ответ.

ВЗ. Обозначьте основные особенности методологии исследования. Насколько корректна, по Вашему мнению, приведенная методология исследования, каковы границы ее применимости в изучении данной проблемы?

В4. Насколько актуальна представленная в статье проблема для России? Какие гипотезы можно сформулировать в этой связи? Каковы отличительные особенности оказания государственных услуг в России по сравнению с рассматриваемыми в исследовании?

В5. Как влияет рост числа поставщиков государственных услуг в сфере электроэнергии США на вероятность смены поставщика в случае «сбоев» при оказании услуг? Обоснуйте Ваш ответ.

В6. Какой вид эконометрической модели используется авторами для анализа вероятности того, сменит ли пользователь государственных услуг в сфере электроэнергии предыдущего поставщика?

В7. Что используется авторами в качестве зависимой переменной в базовой регрессионной модели? Как Вы думаете, почему?

В8. Согласны ли Вы с выводами и объяснением полученных результатов? В чем, по Вашему мнению, могут заключаться слабости в интерпретации результатов исследования? Поясните, почему.

В9. Являются ли, на ваш взгляд, представленные авторами статьи выводы исчерпывающими? Обоснуйте Ваш ответ.

В10. Чтобы бы Вы еще предложили для улучшения положения дел в данной области, в том числе исходя из результатов известных Вам исследований, не упомянутых в статье?

# Responses to Decline in Marketized Public Services: An Experimental Evaluation of Choice Overload

Sebastian Jilke\*, Gregg G. Van Ryzin\* and Steven Van de Walle

## Introduction

Policy makers and academic proponents of introducing competition and choice into public service delivery have repeatedly claimed that overcoming state monopoly-led provision of public services would increase the efficiency of public service delivery and result in a boost in citizens' welfare (Ostrom and Ostrom 1971; Savas 1987). It has been argued that this would be achieved through shifting the autonomy for decision making (in terms of provider choice) from the state to the citizen by creating public service markets and allowing service providers to compete for customers. Citizens would then send market signals to suppliers by complaining to or switching their providers. Service providers, in turn, would respond accordingly by adjusting the value-formoney of their services in order to keep service users as well as attracting new ones. As a result, a long-run equilibrium would be achieved between citizens' demands and preferences and the price and quality of the offered services.

Such a neoclassical perspective on public service delivery under competition tends to assume that increasing the number of service providers to choose from will result in an optimal allocation of available resources. Or more simply put, public services would become cheaper and better. This rests on the assumption that citizens choose from a set of service providers the one that best matches their needs and demands (Stone 2005). But can there be too much choice? In a well-known study, Iyengar and Lepper (2000) conducted a field experiment where they randomly assigned customers of a US grocery store to taste among a set of six (limited choice), or 24 (extensive choice) different gournet jams. Subsequently, the authors found that despite the perceived higher attractiveness of the larger sample of jams, people who were exposed to the extensive-choice condition were clearly less likely to purchase one of the jams. Or in other words, increasing choice reduced people's likelihood of making a decision. These findings stand in stark contrast to basic assumptions put forward by standard psychological theories of human motivation and economic theories of rational decision-making, that is "[...] that having more, rather than fewer, choices is necessarily more desirable and intrinsically motivating" (Iyengar and Lepper 2000, 997).

Although the choice-overload effect has been studied many times in various private-sector contexts (for an overview see Scheibehenne, Greifeneder, and Todd 2010; but see also Chernev, Böckenholt, and Goodman 2010; Gonzales 2013), commentators have questioned whether choice-overload matters in the case of public service markets where only a limited amount of service providers compete for customers (Dowding and John 2009; Le Grand 2007). But there has been a push in many countries to liberalize the provision of core public services, such as education and health care, in order to create more choice and competition. A prime example is the provision of electricity, which used to be delivered by state-owned or state-regulated monopolies that gave residents of a city or region essentially no choice in providers. But today's electricity markets have been liberalized and/or de-regulated to a great extent (Conway and Nicoletti 2006). This means that in many markets there are now multiple public and private service providers that compete for electricity customers. For example, in the State of New York people have on average 41 electricity providers available to choose from 1, clearly a situation in which choice overload could well be a relevant factor. Whereas the possible adverse effects of choice overload for public service provision have been discussed repeatedly (Dowding and John 2009; Jos and Tompkins 2009; Macaulay and Wilson 2008; Schwartz 2004; Tummers, Jilke, and Van de Walle 2013; Wilson and Price 2010), an empirical evaluation of the unintended negative consequences of increasing provider choice is missing in the public management literature. In this study, we extend and test the theory of choice overload by investigating whether or not

In this study, we extend and test the theory of choice overload by investigating whether or not increasing the number of (hypothetical) providers of public services in the US electricity sector has adverse effects on peoples' motivation to switch their provider after a service failure. To do

so, we use a survey experiment (N = 1,154) in which we randomly vary the number of service providers in a hypothetical service failure scenario. Results show that increasing provider choice—in the hypothetical scenario—reduces individuals' stated preferences for switching away from a poor performing provider by about 10% points. These findings also hold when replicating the experiment with an independent online sample (N = 545). Thus our results indicate that increasing provider choice in public service markets causally influences peoples' motivation to switch away from poor performing public services. In turn, this may lead to a situation where citizens become locked-in to a suboptimal provider simply due to an overload of choices.

Choice Overload and Public Management Reform: A Theory for Citizen Responses

Empirical studies of the detrimental effects of too much choice have spread considerably since Ivengar and Lepper's (2000) seminal jam study, which as indicated earlier found that offering people too much choice reduced their motivation to choose. Since then, various studies in cognitive psychology and marketing have corroborated a choice-overload effect in different contexts, ranging from simple consumption decisions for items such as chocolates (Chernev 2003), pens (Shah and Wolford 2007) or gift boxes (Reutskaja and Hogarth 2009), to more complex decisions like choosing music players that differ on many attributes (Greifeneder, Scheibehenne, and Kleber 2010), volunteering with a charitable organization (Caroll, White, and Pahl 2011), or enrolling in 401(k) pension plans (Iyengar, Huberman, and Jiang 2004). Studies have also shown that having too many choices not only undermines people's motivation to choose, but also negatively impacts their subsequent satisfaction with the option they have chosen (Diehl and Poynor 2010; Greifeneder, Scheibehenne, and Kleber 2010; Haynes 2009; Reutskaja and Hogarth 2009), including disappointment and regret (Schwartz 2000). Proponents of choice-overload argue that these adverse psychological outcomes can be explained by three basic factors: information overload, unclear preferences, and negative emotions (for an overview see Botti and Iyengar 2006).

Research on information overload suggests that individuals have limited capabilities to encode information, and when those limits are reached people tend to become uncertain (Chen, Shang, and Kao 2009; Lee and Lee 2004; Miller 1956; Timmermans 1993). Therefore, as the amount of information to be processed grows, decision-making becomes poorer and the motivation or ability to make a decision diminishes. Moreover, work in psychology has shown that people do not hold stable and clearly ordered preferences ready at their disposal when faced with a choice; rather, people's preferences are fluid and heavily context dependent (Feldman and Lynch 1988; Kahn and Baron 1995; Payne, Bettman, and Johnson 1993; see also Botti and Iyengar 2006). Given this fluidity and contextual nature of people's preferences, having to choose among a large array of alternatives can produce cognitive conflicts and overload, which can in turn result in negative emotions and stress (Botti and Iyengar 2006). In particular, choosing in a context of too many options often means disregarding potentially attractive alternatives, and regretting forgone choices, and has been found to be associated with choice deferment (Beattie et al. 1994; Simonson 1992). As a result, people often avoid choosing altogether.

Closely related to this stream of research is Simon's (1955, 1972) concept of bounded rationality. Simon observed that the decision making of individuals is bounded by their psychological limitations, including uncertainty, cognitive constraints in processing information, and information overload. Because of such limitations, people may end-up making poorer (non-optimal) decisions, including sticking with their default. Thus, according to the concept of bounded rationality, a person's risk of making a poor decision increases when confronted with a greater number of options to choose from. Since people are in general risk-averse, and since choosing among many options raises the risk of making a wrong choice, they tend to avoid making a decision at all. Samuelson and Zeckerhauser (1988) labeled this tendency of people to stick with their default a "status-quo bias" (see also Thaler and Sunstein 2008). In the context of public service provision, status-quo bias would imply that citizens will become more likely to

remain with their current service provider when faced with too many alternatives to choose from in the market.

Such negative effects of too much choice, however, may be context dependent. In their metaanalysis of choice-overload effects in consumer research, Scheibehenne, Greifeneder, and Todd (2010) find that despite great variance between studies, there was no support for a single main effect of choice overload (but see also Chernev, Böckenholt, and Goodman 2010; Gonzales 2013). They conclude that this variance in findings across studies could be a result of the context-dependent nature of choice overload. Yet, in their meta-analysis, Scheibehenne, Greifeneder, and Todd (2010) were not able to identify any specific preconditions that must be met for choice overload to occur. Thus, in line with the critiques of their meta-analysis (Chernev, Böckenholt, and Goodman 2010), Scheibehenne, Greifeneder, and Todd (2010) call for further research to identify such conditions. Indeed, most of the studies examined in their meta-analysis drew upon simple consumption decisions of private goods with relatively simplistic attributes and limited daily importance to participants (such as jams or pens). Our study differs from these existing works in two important ways. First, we study people's responses to service decline instead of a simple consumption decision based on various product attributes. And second, we focus on a core public service (electrical power) that is fundamental to modern life and of great daily importance for citizens. Whereas much of the research on choice overload has concentrated on simple consumption decisions for private goods (such as jams, pens, chocolate, or music players), whether the choice-overload hypothesis holds true for citizens' responses to poorly performing public services has not been examined. This is an important question because citizens cannot simply withdraw from using vital public services, such as electricity, but rather must switch providers if they want to leave poor performing service organizations. Such a choice decision is arguably much more meaningful than deciding whether or not to buy a gourmet jam or a pen.

Theories of citizen responses to decline in public service performance suggest that as a result of their dissatisfaction with public services, citizens frequently switch between public service providers (Dowding and John 2012; Lyons, Lowery and DeHoog 1992). The key driver here seems to be their dissatisfaction with the state of affairs of a certain public service. This assertion rests on Hirschman's (1970) classical distinction between exit and voice as response to organizational failure, meaning people can either voice their dissatisfaction, hoping that things improve, or they can leave the respective organization or service provider. The likelihood of exit and voice, in turn, is moderated by people's loyalty to the organization in question. Voice can be either collective, such as participating in a demonstration or voting in an election (see for example James and Moseley 2014; Boyne et al. 2009), or individual, such as filing a personal complaint (see Jilke and Van de Walle 2013). Exit means that people either stop using the service in question or switch to another (public or private) service provider (for an overview see Dowding and John 2012).2 In this study, we focus on exit in the form of switching providers as a response to a decline in public service performance.

Public management reforms over the past decades have often aimed at improving citizens' opportunities to choose among multiple providers of public services. Indeed, a core element of many New Public Management initiatives was to move away from state-led provision of public services to a more open public services market that would allow for competition (Barzeley 2002; Osborne and Gaebler 1993; Pollitt and Bouckaert 2011). This holds especially true for the public utility sector (Bognetti and Obermann 2008). While in decades past publicly owned or heavily regulated private monopolies were the dominant model of service provision, in more recent years effective competition has emerged in many public service sectors across Europe and North America (Conway and Nicoletti 2006). Thus, these reforms have substantially changed the way public services are delivered today. Indeed, a central aim of liberalizing public service provision among providers. Le Grand (2007) argues that choice can lead to greater responsiveness to the needs and demands of service users, but only if two conditions are met: (a) competition must be real

(there must be true competitors), and (b) there must be a real choice among alternatives. But even if choice and competition may not lead to desirable outcomes, Le Grand (2007) makes the case that choice has intrinsic value on its own. For citizens, however, simply increasing the number of alternatives does not necessarily leave them with more valued choice, as Dowding and John (2009) argue. For example, if parents could choose among a public and private school for their child, adding another similar public school may not increase their options as much as, for example, adding a faith-based school. The choice set of three very different types of schools would be valued higher than a choice set of three very similar schools. Thus parents' indirect utility would likely be higher for the first case, despite having the same number of alternatives. But while "[...] increasing the number of alternatives ('hard choice') does not entail increasing choice in any valued sense, it may induce costs" (Dowding and John 2009, 228), including psychological costs.

In line with Hirschman's (1970) theory of responses to poor performing organizations, we argue that people respond to a decline in public service performance by either expressing their discontent (voice), or leaving the public service provider in question (exit). However, the likelihood of exiting decreases when there are too many alternatives for people to choose from. Although people can rather easily navigate through a set of two or three alternatives, the growing overload of information that comes with many alternatives produces cognitive conflicts, including stress, and makes citizens uncertain about picking the "right" option. Anticipating the risk of potentially being worse-off after switching (loss aversion), individuals stick with the service provider they are currently using (status-quo bias), even if they are dissatisfied with the service. This assertion is in line with key tenets of choice overload, but also provides a valuable extension of the theory by not only considering simple consumption decisions, but applying it to models of citizens' responses to poor performing public services. Therefore, the central hypothesis we test in this study is as follows: All things being equal, citizens who experience severe dissatisfaction with a given service will be less likely to switch away from their current service provider when faced with many alternative providers, compared to people who are equally dissatisfied but have a more limited set of providers to choose from.

## **Experimental Design and Participants**

To investigate the choice-overload hypothesis in the context of public service delivery, we designed a discrete choice experiment based on a hypothetical service failure (see also Maute and Forrester 1993), which was embedded in an online survey. The particular strengths of survey experiments are that they combine the internal validity of laboratory experiments with the external validity of population surveys (Mutz 2011). This allows us to make a firm cause-effect assessment of choice overload across a very diverse subject pool. We examine our theoretical predictions in the context of enhanced deregulation and competition in the provision of electrical power in the United States. Historically, the US electricity market was dominated for much of the 20th century by monopolistic municipal utilities, power cooperatives, or privately held companies highly regulated by public utility commissions. Following liberalization trends that began in countries like the United Kingdom and Chile, coupled with advances in smart-grid technology, the US electricity market over the least few decades has experienced deregulation and a proliferation of the number of electricity providers available in many states and metropolitan areas. As mentioned earlier, New York State now includes over 40 electricity providers on average, and other states with deregulation and significant retail choice include Texas, Pennsylvania, Ohio, Illinois, New Jersey, and Michigan (US Energy and Information Administration 2010). Thus, choosing an electricity provider is a necessary and salient task faced by a great many people in the United States and makes this a relevant and realistic public service context for studying the choice-overload hypothesis.

#### Sample: Amazon's Mechanical Turk

For our study, we used Amazon's Mechanical Turk (MTurk)3 to recruit experimental subjects. MTurk is an online labor market in which people ("workers") are paid for small online tasks, including survey participation. Scholars have increasingly relied on MTurk for conducting

experimental or survey research<sup>4</sup>. Various studies have demonstrated the quality of data obtained via MTurk (Amir, Rand, and Kobi Gal 2012; Berinsky, Huber, and Lenz 2012; Crump, McDonnell, and Gureckis 2013; Goodman, Cryder, and Cheema 2013; Horton, Rand, and Zeckhauser 2011; Paolacci, Chandler, and Ipeirotis 2010). Nevertheless, the MTurk pool of online workers is clearly not a random sample of the population and hence not statistically representative. But the MTurk population is very diverse in terms of demographic characteristics when compared to other non-random samples that are regularly used for experimental studies, such as college student samples or even standard internet panels (Buhrmester, Kwang, and Gosling 2011). Moreover, scholars have used samples from MTurk to replicate both surveys and experimental studies from random samples and have found few substantial differences in the results obtained (Berinsky, Huber, and Lenz 2012). MTurk findings have also been shown to be consistent with results produced in behavioral laboratories, which are commonly regarded as the gold-standard in terms of internal validity (Berinsky, Huber, and Lenz 2012; Kagel and Roth 1995; Horton, Rand, and Zeckhauser 2011; Suri and Watts 2011). In sum, according to Mason and Suri (2012, 4) "[...] evidence that Mechanical Turk is a valid means of collecting data is consistent and continues to accumulate"; thus, MTurk can be regarded as a promising sampling frame for experiments in public administration research involving a general population.

We hosted our survey-experiment through the Qualtrics software and directed subjects to the URL provided in their MTurk work-description. Only US-based participants were recruited. One concern when using online recruitment panels is that subjects rush through the online questionnaire without properly reading the provided instructions and questions. Indeed, Goodman, Cryder and Cheema (2013, 213) illustrate that participants recruited via MTurk "[...] are less likely to pay attention to experimental materials". Others also warn against so-called bots, computer programs designed to answer survey questions (Mason and Suri 2012). Therefore, to increase the statistical power and reliability of our dataset, and to reduce Type II error (false negatives), we screened respondents based on two criteria. First, we included an instructional manipulation check5, as recommended by Oppenheimer, Myvis, and Davidenko (2009) to detect "satisficers", spammers, or even bots. Those study participants that failed this attention check were excluded from our sample (a total of only 30 respondents). Second, we examined the time subjects took to fill out the questionnaire (mean of 5.23min, with a SD of 3.37). Extreme deviations from the average time to complete the questionnaire were regarded as an indication of satisficing behavior that was not captured by the instructional manipulation check (see also Mason and Suri 2012; Mutz 2011). Thus respondents within the highest and lowest 1% percentile (less than 1.77 and more than 17.92min, respectively) in terms of total time till survey completion were excluded (23 subjects in total). Another commonly raised concern about using MTurk samples is that respondents log in to the online platform with multiple accounts and participate in the very same experiment more than once (Chandler, Mueller, and Paolacci 2014; Horton, Rand, and Zeckhauser 2011). This obviously violates the assumption that subjects are independent observations and thus poses a threat to the internal validity of the experiment. Hence, we checked whether the subjects' internet protocol (IP) addresses overlapped, as proposed by Horton, Rand and Zeckhauser (2011). When this was the case, subjects were excluded from our analysis (11 respondents in total). After applying these screenings, we were left with a total number of 1,154 study participants.

Table A1 in the statistical appendix presents the characteristics of our sample of respondents from the MTurk compared to the general US adult population using data from the American Community Survey with regard to gender, age, income, race-ethnicity, and place of residence. MTurk respondents are more likely to be white, male and younger, but represent a range of incomes and places of residence. Although not representative, as discussed previously, the sample is nevertheless nationwide in scope and fairly diverse.

# **Experimental Procedure**

To assess the choice-overload hypothesis in the context of liberalized public services, we have conducted a scenario-based survey experiment based on a  $2 \times 2$  factorial, between-subjects design

as depicted in figure 1. Dissatisfaction with the service and the amount of choice available were each experimentally manipulated in the following manner. First, the degree of service failure was experimentally manipulated, with either a mild or a severe decline in service performance (the dissatisfaction factor). This was expected to induce subjects to be either mildly or severely dissatisfied with the hypothetical service provider. Second, respondents were randomly assigned to a public service market with either a high or low degree of provider choice (the choice factor). This yields a total of four experimental arms or conditions: (a) mild dissatisfaction and low provider choice, (b) severe dissatisfaction and low provider choice, (c) mild dissatisfaction and high provider choice, and (d) severe dissatisfaction and high provider choice. The information presented to participants mimics information that is typically available on electricity provider comparison websites. The respective scenario description was as follows:

Say you are a resident of Middletown and you receive your home electricity services from ABC utility, which is owned and operated by the municipality. In recent years, the local electricity market was opened up for competition. There exist [three/eighteen] electricity providers.

Recently, ABC utility mistakenly over-charged you and deducted too much from your bank account. After notifying them, it took ABC utility [two/90] days to refund you the money. The customer service representative you talked with at ABC utility was [friendly and helpful/ not that friendly or helpful], and the utility [later/never] sent a letter of apology for the mistake. Surveys indicate that people are in general [fairly/not that] satisfied with ABC utility.





After being presented with this information, subjects were presented a list of hypothetical service providers, including their current hypothetical provider (ABC utility), and a list of alternatives (2 alternatives in the low choice group, and 17 alternatives in the high choice group). The list of providers was provided to respondents along with information about a variety of attributes such as the number of customer complaints per year, price, minimum contract term, and cancellation fee. Thus, respondents were given information on each of these attributes for each provider (see figure A1 in the statistical appendix, e.g. of the provided choice sets). This was done to show subjects that they have a choice among a diverse set of providers, while avoiding providers that had attributes (such as price or service quality, i.e. number of complaints) that deviated strongly from the respective mean values. These attributes were determined randomly before the start of the experiment, and held constant across subjects. The number of complaints per year was regarded as a proxy for service quality. The incumbent (ABC utility) was assigned the lowest or highest value (90 or 230 complaints per year, respectively), in accordance with the mild and severe dissatisfaction conditions. For the low choice condition, we assigned one alternative the highest/lowest value respectively, and the other the mean value of 160. For the high choice condition, values were determined randomly (before the start of the experiment) with the range of 90-230 complaints per year. Next, we wanted to control for the economic effects that respondents simply choose the cheapest offer. Therefore, the actual prices were varied between 0.0111 and 0.0127 cents per kwh. The incumbent was assigned the mean value of 0.0119, whereas all other providers were randomly assigned a value in between 0.0111 and 0.0127 before the experiment started. Lastly, we included two additional attributes to signal low switching barriers: the minimum term for each supplier, and the cancellation fee, which are typically available on electricity provider comparison websites.6 Here we assigned our

incumbent a minimum term of 1 month and no cancellation fee, whereas all other providers were randomly assigned on these attributes prior to the start of the experiment.

After being presented with this information, all respondents were asked whether they would stay with their current provider, or choose one of the others (which they had to name). This resulted in a discrete choice outcome variable for our subsequent analysis. Respondents were also asked to indicate their satisfaction with ABC utility and the perceived amount of choice available to them as a manipulation check.

Before fielding the actual experiment, we conducted a pretest via MTurk to determine the actual number of providers that respondents perceive as many or only a few choices. Here we varied the number of service providers (8, 13, 18, and 23) based on real-life information. In the State of New York, for example, the mean number of electricity providers within cities is 41 (with a SD of 11.4, ranging from 1 provider in Long Island to 68 in New York City9). Our pre-test clearly identified 18 providers as the number that participants start to consider as a lot of choice when compared with the baseline of 3 providers. We also pre-tested our questionnaire among a small sample of MTurk respondents which resulted in minor changes in the questionnaire and the detection of some typos. Respondents from the MTurk pretests were not included in the experiment that followed.

# Results

Before turning to the main results, we first present evidence of the effectiveness of the dissatisfaction and choice manipulations. As intended, respondents in the severe service failure condition reported significantly higher levels of dissatisfaction than those assigned to the mild service failure scenario (F = 29.84, p < .05)10. Similarly, subjects that were randomly assigned to the low choice condition reported having significantly less choice available when compared with those participants that were in the high choice condition (F = 6.10, p < .05)11. This provides evidence that both manipulations worked as intended.

To test the independent and combined effects of the experimental manipulations, we estimated a binary logit regression model with subject's discrete choice decision (stay with current provider versus switching) as the dependent variable (table 1). The first model serves as a baseline model. The second model displays the effects of both treatment variables and tests the choice-overload hypothesis by interacting them with each other. This way we can assess the effect of service failure on respondents' stated switching behavior contingent on the amount of choice that was made available to them. Both treatment variables have been effect coded in order to avoid misinterpretations of the main effects of the treatments in the interaction model.

# Table 1. Experimental Results (MTurk; N = 1,154) Image: N = 1,154

	Baseline	<b>Interaction Model</b>
Choice	0.432* (0.235)	0.136 (0.268)
Dissatisfaction	5.393** (0.257)	5.485** (0.268)
Choice × dissatisfaction	. –	-1.536** (0.535)
-2 Log likelihood	571.080	562.373
∆ −2 Log likelihood	-	8.71**

	Baseline	Interaction Model
Pseudo R-squared	0.64	0.65

- *Note*. Standard errors in parentheses.
- \*\*p < .05, \*p < .1 (two-tailed tests, except for the interaction term where a one-tailed test was used because it represents a directional hypothesis).

The results from our baseline model show that both treatments have an effect on subjects' choice decisions. Being in the dissatisfaction treatment group significantly increased respondents' probability of stating that they would switch service providers. Moreover, confronting them with a large array of alternative providers (choice treatment) also increased subjects' propensity to switch. This suggests that choice overload is indeed less likely to work when it is framed as a simple consumption decision. In a second step, we examine the combined effect of both experimental manipulations, and thereby whether participants in the experiment have experienced choice overload as a consequence of both, a large amount of alternatives and the experience of a severe service failure. First, adding an interaction term between both treatment dummies significantly improved the model's fit to the data: the  $-2 \log$  likelihood significantly decreased by 8.7. Here, the main effect for the dissatisfaction treatment stays essentially the same when compared to the baseline model, whereas the main effect of increasing choice decreases and becomes statistically insignificant. Moreover, the interaction term between both treatments turns statistically significant and exhibits a negative effect direction. This means that those respondents in the severe dissatisfaction condition who were given many choices were less likely to abandon their default provider. This lends support to the choice-overload hypothesis as outlined in the previous section.

Figure 2 illustrates the magnitude of this choice-overload effect graphically, showing the marginal effects of being dissatisfied on switching, contingent on the amount of choice that has been made available. The marginal effect of dissatisfaction on switching is 0.91 for the low choice condition and 0.81 for the high choice condition. This corresponds to a decrease by 0.10 and is not only statistically significant but also of non-trivial magnitude. In other words, for dissatisfied subjects who were confronted with a large choice set of service providers, the likelihood of stating that they would switch to one of the alternative providers decreased by 10% points.





#### Replication

There have been calls in (experimental) social sciences for an increase in replication studies (see most prominently King 1995). A very recent large scale replication project in psychology, for example, replicated 13 authoritative studies across 36 different samples with a total of 6,344 participants, and thereby validating a great share of the experimental effects under scrutiny (Klein et al. 2013). Here we aim to validate the experimental results reported in the previous section and, therefore, increase our findings' external validity. Our direct replication used a new sample from CivicPanel, a university-affiliated online pool of voluntarily recruited participants in the United States.12 Participants in CivicPanel are not financially compensated for completing surveys, but rather are included in a post-survey lottery for gift vouchers (10 vouchers of 20 USD, and 1 voucher of 100 USD in total were offered). We used the very same experimental design and Qualtrics questionnaire as reported for the original study. Again, we have performed the same subject screening techniques as were done for the original experiment, with the only difference that CivicPanel did not provide us the subjects' internet protocol addresses. But since panelists here are not directly financially compensated, we do not expect that the same respondents answered the survey experiment more than once. Table 2 in the statistical appendix illustrates the characteristics of our sample of 545 participants. Unlike the MTurk sample, the group of participants from the CivicPanel is predominately female and includes fewer young people and more middle-age and older respondents. Compared to the general US population, respondents are more likely to be female, white, and in the middle age categories. Although not representative, the CivicPanel sample is nationwide in scope and fairly diverse.

	Baseline	Interaction Model
Choice	0.921** (0.311)	0.935** (0.318)
Dissatisfaction	4.570** (0.311)	4.611** (0.318)
Choice × dissatisfaction	_	-1.072** (0.637)
-2 Log likelihood	346.594	343.678
$\Delta$ –2 Log likelihood	-	2.92*
Pseudo R-squared	0.54	0.55

# Table 2. Experimental Results (Civic Panel; N = 545)

- *Note.* Standard errors in parentheses.
- \*\*p < 0.05, \*p < 0.1 (two-tailed tests, except for the interaction term where a one-tailed test was used because it represents a directional hypothesis).

Tests of the effectiveness of our experimental manipulations showed that both treatments worked as intended.13 Turning to the main experimental findings, table 2 displays the empirical results from the analysis of respondents recruited via CivicPanel. As before, both treatments exhibit a main effect on people's stated switching behavior. Being in the experimental dissatisfaction condition significantly increased respondents' likelihood of switching. Similarly, being exposed to a large number of alternatives increased people's probability of switching. Both results are in line with findings from the MTurk sample. Next we include an interaction term between both treatment dummies. The inclusion of such an interaction term increased our models' fit (the chisquare difference between both models is statistically significant at a 10% level). Examining the coefficient for the included term, we find that the combined effects of both treatments has a statistically significant effect on subjects' stated choice decision. Here, the standard errors of the interaction term indicate a larger variation than what we found in the MTurk sample. Nevertheless, when inspecting figure 3, which depicts the marginal effects of dissatisfaction on switching contingent on the amount of choice available, a clear picture emerges. First we can see that the marginal effects of dissatisfaction on switching is 0.85 for the low choice condition. Moving to the high choice condition (0.76), the probability of switching decreases by 0.09. This corresponds closely to the choice-overload effect of 10% points from the MTurk sample. We can therefore conclude that, despite some variation in the identified effects between both samples, we have found a highly similar choice-overload pattern in our replication experiment.

Figure 3. Marginal effects of dissatisfaction on switching contingent on the amount of choice available (civic panel; 90% confidence intervals).



#### **Discussion and Implications**

This study used a survey experiment and direct replication to empirically examine an extended choice-overload hypothesis in the context of a vital public service, electricity provision, where it has not been tested before. In line with our theoretical predictions, we found that dissatisfied individuals who were exposed to many alternative providers decreased their stated preference for switching by 10% points. This effect is not only statistically significant but of potential substantive significance as well, especially in the context of a large population of service users. But before discussing the interpretation and implications of our findings for public services and public management theory, it is important to point to some limitations of our methodology and findings.

Although our study used rigorous experimental methods and two diverse national samples of participants, it has important limitations related to our reliance in individuals' stated preferences, the hypothetical nature of the scenario, and the discrete nature of the treatments. First we acknowledge that we cannot be completely confident that individuals' stated preferences necessarily translate into real life choices. Although there exists empirical work suggesting that stated preferences within vignette experiments work remarkably well in recovering the effects of individual's revealed behavior (Hainmueller, Hangartner, and Yamamoto 2015), follow-up studies are advised to cross-validate our findings in the context of real public service markets where revealed behaviors can be examined more effectively. Moreover, we manipulated dissatisfaction, in the sense of giving information about a service provider that would lead people 17

to judge it unfavorably, but real failures of an actual public service may induce stronger feelings and thus a greater motivation to switch. Alternatively, one could also argue that real-life switching behaviors are stickier (because of the time and effort involved) than stating an intention to switch in a survey experiment. As a result, choice overload may work differently in a real public service market. In addition, we tested decision making with only two rather extreme conditions, one with only a few providers and the other with a fairly large number of providers. Of course, the effect of choice overload may well vary along the continuum that lies in between, which probably describes many real-world public service markets in the United States and other countries. Thus, it is unclear from these results alone how large the choice-overload effect would be when a city with three providers added, for example, five more providers. It could be that this type of more modest increase in providers would result in relatively little choice overload while greatly expanding meaningful choices and (potentially) satisfaction. It would be useful to have some dose-response experimental designs to probe the point at which choice overload becomes a significant factor. We also acknowledge that the examined choice-overload effect is likely to be heterogeneous across different populations. For example, in line with Clifton et al. (2011), we may expect that so-called potentially vulnerable citizens as consumers (such as the elderly or people with low levels of formal education) may be more prone to experience choice overload. However, our sample is mainly composed of non-vulnerable citizens (young and affluent internet users). Our study provided a first test of the internal validity of an extended choice-overload hypothesis in the context of a core public service among a general population, which is a rather conservative test given that we have a relatively low number of potentially vulnerable citizens within our sample. It is possible that within a population of potentially vulnerable citizens as consumers, the revealed choice-overload effect may be stronger (see also Jilke 2014). Future studies should more effectively investigate whether disadvantaged segments of society are more prone to experience such cognitive constraints within public service markets.

With these methodological caveats in mind, we believe our study still has several important implications for public management theory and practice. Previous works in cognitive psychology and marketing have conceptualized choice overload as a simple consumption decision. Our study expands existing experimental works on choice overload by applying it to a public service context of service failure through linking the theory of choice overload with models of citizens' responses to decline in service performance. By doing so, it suggests that choice overload occurs when people should exit poor performing providers. When too many service providers enter a public service market, therefore, individuals who would benefit from switching from poor performing providers remain stuck with their current provider. Choice overload, in this sense, limits people's ability to respond to organizational failure because of the cognitive biases they face. Yet the ability of citizens to send market signals to poor performing service providers is one of the key assumptions put forward by theories of public service competition. In response, it is assumed that service providers would adjust their services to more closely match citizen's demands and preferences. But given the evidence of a choice-overload effect, doubts arise about the extent to which a long-run equilibrium will be achieved between citizens' preferences and the quality of offered services. In addition, the results of this study highlight that increasing provider choice in public service markets can potentially result in consumer inertia; this means that public service users could become locked in to a suboptimal provider simply due to an overload of choices. Put together, these findings stand in stark contrast with neoclassical economic thought of individuals acting as rational utility maximizers. Here it needs to be noted

that public sector reforms aimed at greater competition and choice have borrowed their inspiration from exactly these theoretical frameworks. Thus our results suggest that theoretical models of competition and choice in public service delivery need to take into account citizens' bounded rationality and associated cognitive biases.

Our study has shown that reforms focused on introducing choice and competition into public service delivery are susceptible to overly positive assumptions about citizens' responses to poor service performance. However, the question here should not be whether or not to increase choice and competition in public service markets, but rather how to complement such an approach with appropriate government policies to empower individuals to make those choices that best maximize their welfare. For example, policy-makers may need to consider targeting their policies to those specific users who do not switch because of choice overload. One way to do this could be by providing guidance and advice during their choice process. Another possibility would be to bypass the individual decision-making process by providing collective switching schemes to citizens (see for example Department of Energy and Climate Change 2013). Here municipalities would invite citizens to enroll in collective switching schemes. Municipalities then select providers for the entire scheme on a tender basis. For citizens who encounter poor services, the choice process would then no longer focus on selecting providers, but on whether to enroll in such schemes, or not.

Table A1. Sociodemographic Characteristics of Study Participants (%)			
		Civic Panel	
	(N = 1,154)	(N = 545)	American Community Survey
Gender			
Male	63.6	33.1	51.5
Female	36.4	66.9	48.5
Age			
18–34 years	78.9	16.6	38.3
35–64 years	20.4	71.5	44.5
65 years or older	0.8	11.8	17.2
Income			
25,000 USD or less	26.64	16.5	24.7
25,000–75,000 USD	49.39	55.1	43.4
75,000 USD or more	20.97	28.5	31.9
Race/thnicity			
White (non-Hispanic)	77.90	81.62	67.0
Non-white	22.1	18.39	33.0
Region			
Northeast	21.23	30.57	18.3
Midwest	20.71	18.6	21.7
South	33.45	31.86	37.0

#### **Appendix: Statistical Appendix**

# MTurk Civic Panel (N = 1,154) (N = 545) American Community Survey 24.61 18.97 23.0

• *Note.* American Community Survey data come from 2010 (US Census Bureau). In the Civic Panel sample, 543 respondents provided information about their region of residence.

West

# Figure A1. Example of the low provider choice set (for two experimental conditions).

Low decline (high satisfaction)

con accine (in	Customer			
	complaints per		Minimum	
	year	Rate	term	Cancellation fee?
		0.0119 cents		
ABC-utility	90	per kwh	1 Month	No
		0.0127 cents		
DEF-utility	160	per kwh	No	\$50
		0.0111 cents		\$10 for each remai-
GHI-utility	230	per kwh	5 Months	ning month
Strong decline (	low satisfaction)			
	Customer			
	complaints per		Minimum	
	year	Rate	term	Cancellation fee?
		0.0119 cents		
ABC-utility	230	per kwh	1 Month	No
		0.0127 cents		
DEF-utility	160	per kwh	No	\$50
		0.0111 cents		\$10 for each remai-
GHI-utility	90	per kwh	5 Months	ning month

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#### Раздел С. Темы для написания мини-эссе

Выберите одну из предложенных тем. (Пожалуйста, прочитайте весь список перед выбором темы). Рекомендуемый объем мини-эссе 2-4 страницы формата A4, не более 5 страниц.

С1. Охарактеризуйте концепцию и основные положения теории научного менеджмента Ф. Тейлора.

С2. В чём заключается концепция «идеального бюрократа» М. Вебера?

С3. Подробно опишите основные элементы «пирамиды» А. Маслоу.

С4. В чем заключаются основные преимущества и недостатки административного управления в соответствии с концепцией Д. Валдо?

С5. Какие основные критерии управления продуктивностью и качеством были предложены М. Хольцером?

#### Раздел D. Темы для написания мини-эссе

For your essay, please choose any one of the topics below (please read the whole list before selecting a topic). Recommended scope of your essay is about 2-4 pages A4, not more than 5 pages.

D1. Describe the difference between public services and public functions.

D2. Describe three main models of e-government and give examples of implementation these models in some countries.

D3. What are potential benefits from administrative decentralization in Russia – and what are potential negative side-effects?

D4. What are the exogenous and endogenous conditions, which limit applicability of strategic management in public administration?

D5. Why governments should support domestic companies in the process of integrations into global market and how they can do it?

## Правильные ответы на тестовые вопросы (Раздел А)

- Вопрос А1 ответы: 1, 3, 4, 6;
- Вопрос А2 ответы: 2, 5, 6;
- Вопрос А3 ответы: 1, 5, 6;
- Вопрос А4 ответы: 1, 4;
- Вопрос А5 ответ: 2;
- Вопрос А6 ответы: 2, 3, 6, 8;
- Вопрос А7 ответ: 1;
- Вопрос А8 ответы: 1, 4, 5;
- Вопрос А9 ответы: 1, 4, 6, 9;
- Вопрос А10 ответы: 4, 6, 8;

# Желаем Вам успехов!