

**TEXAS STATE VITA****I. Academic/Professional Background**

A. Name: Rasim M. Musal

Title: Associate Professor

B. Educational Background

<i>Degree</i>	<i>Year</i>	<i>University</i>	<i>Major</i>	<i>Thesis/Dissertation</i>
Ph D	2007	George Washington University	Decision Sciences	Bayesian Modeling of Group Preferences and Population Utility Estimation
MBA	2001	George Washington University	Management and Technology	
BA	1998	Koc University	Business Administration	

C. University Experience

<i>Position</i>	<i>University</i>	<i>Dates</i>
Assistant Professor	Texas State University	August 2009 - Present
Visiting Assistant Professor	Texas State University	January 2009 - May 2009
Visiting Research Professor	The George Washington University	January 2007 - December 2008
Research Associate	The George Washington University	October 2007 - December 2007
Adjunct Instructor	The George Washington University	January 2005 - December 2006

D. Relevant Professional Experience

<i>Position</i>	<i>Entity</i>	<i>Dates</i>
Subcontractor	SGS	October 2007 - December 2008
Subcontractor	IMS Government Solutions	May 2007 - September 2007

**II. TEACHING**

A. Teaching Honors and Awards:

Dean Nominee for the Presidential Award for Excellence in Teaching, McCoy College of Business Administration. (August 2011)

Excellence in Teaching, Health Services Management and Leadership, The George Washington University. (May 2007)

B. Courses Taught:

Spring 2016

QMST 2333.253 "Business Statistics"

QMST 2333.254 "Business Statistics"

QMST 5334.251 "Advanced Statistical Methods for Business"

Fall 2015

QMST 2333.2 "Business Statistics"

QMST 2333.5 "Business Statistics"

QMST 3334.1 "Statistical Modeling"

Spring 2015

QMST 2333.253 "BUS STAT"

QMST 2333.254 "BUS STAT"

QMST 3334.251 "STATISTICAL MODLNG"

Fall 2014

QMST 2333.002 "Business Statistics"

QMST 2333.005 "Business Statistics"

QMST 3334.001 "Statistical Modeling"

Spring 2014

QMST 2333.254 "BUS STAT"

QMST 3334.251 "STATISTICAL MODLNG"

QMST 3334.252 "STATISTICAL MODLNG"

Fall 2013

QMST 2333.001 "BUS STAT"

QMST 2333.004 "BUS STAT"

QMST 3334.001 "STATISTICAL MODLNG"

Spring 2013

MGT 5333. "Independent Study: Advanced Time Series"

QMST 2333.253 "BUS STAT"

QMST 3334.251 "INTERM BUS STAT"

QMST 5334.252 "ADV STAT METHODS"

Fall 2012

QMST 3334.001 "INTERM BUS STAT"

QMST 5334.001 "ADV STAT METHODS"

QMST 5334.002 "ADV STAT METHODS"

Spring 2012

QMST 2333.253 "BUS STAT"

QMST 5334.252 "ADV STAT METHODS"

Fall 2011

QMST 3334.001 "INTERM BUS STAT"

QMST 5334.001 "ADV STAT METHODS"

QMST 5334.002 "ADV STAT METHODS"

Spring 2011

QMST 2333.258 "BUS STAT"

QMST 2333.259 "BUS STAT"

QMST 5334.251 "ADV STAT METHODS"

Fall 2010

QMST 2333.001 "Business Statistics"

QMST 2333.006 "Business Statistics"

QMST 5334.002 "Advanced Statistical Methods for Business"

Spring 2010

QMST 2333.254 "Business Statistics"

QMST 2333.261 "Business Statistics"

QMST 2333.262 "Business Statistics"

Fall 2009

QMST 2333.10 "Business Statistics"

QMST 2333.11 "Business Statistics"

QMST 2333.6 "Business Statistics"

C. Graduate Theses/Dissertations or Exit Committees (if supervisor, please indicate):

Master's Thesis Committee Member, "Sustainable Supply Chain: Key Performance Indicators," Other (Within Texas State University - San Marcos). (2012).

Advised: Ricardo Videtta

Comprehensive Examination Committee Member, Other (Within Texas State University - San Marcos). (April 20, 2012).

Advised: Zhuo Wang

Doctorate Proficiency Examination Committee, Other (Outside Texas State University - San Marcos). (June 22, 2011).

Advised: Can Aydin

Doctorate Proficiency Examination Committee, Other (Outside Texas State University - San Marcos). (June 22, 2011).

Advised: Ozlem Yavuz

D. Courses Prepared and Curriculum Development:

Spring 2013

MGT 5333. "Independent Study: Advanced Time Series"

**III. SCHOLARLY/CREATIVE**

A. Works in Print (including works accepted, forthcoming, in press):

## 1. Books (if not refereed, please indicate):

## a. Creative Books:

Musal, R., Soyer, R. (2011). In N. Balakrishnan, M.S. Nikulin, and V. Rykov (Ed.), *Bayesian Modeling of Health State Preferences* (1st ed., vol. 36, pp. 9). Basel: Birkhauser. [www.springerlink.com/content/978-0-8176-4970-8](http://www.springerlink.com/content/978-0-8176-4970-8)

## 2. Articles:

## a. Refereed Journal Articles:

Ekin, T., Musal, R., Fulton, L. (2015). Overpayment Models for Medical Audits: Multiple Scenarios. *Journal of Applied Statistics*, 42(11), 2391-2405.

Musal, R., Aktekin, T. (2015). Analysis of Income Inequality Measures on the HIV Mortality: a Bayesian Perspective. *Journal of Royal Statistical Society A*.

Musal, R., Soyer, R. (2014). Estimation of Group Priorities and Value of Information. *Journal of Multi-Criteria Decision Analysis*(21), 173-181.

Fulton, L., Bastian, N., Mendez, F., Musal, R. (2013). Rainwater harvesting system using a non-parametric stochastic rainfall generator. *Simulation*, 89(6), 693-702.

Musal, R., Aktekin, T. (2013). Bayesian Spatial Modeling of HIV Mortality via Zero-inflated Poisson Models. *Statistics in Medicine*, 32(2), 267-281.

<http://onlinelibrary.wiley.com/doi/10.1002/sim.5457/abstract>

Fulton, L., Mendez, F., Bastian, N. D., Musal, R. (2012). Confusion Between Odds and Probability, a Pandemic? *Journal of Statistics Education*, 20(3), 1-15.

Fulton, L., Bastian, N., Musal, R. (2012). Grade Performance In Statistics: A Bayesian Framework. *Journal of the Academy of Business & Economics*, 12(5), 55-62.

Musal, R., Soyer, R., McCabe, C., Kharroubi, S. A. (2012). Estimating the Population Utility Function: A Bayesian Parametric Approach. *European Journal of Operational Research*, 218(2), 538-547.

Musal, R. (2010). Two Models to Investigate Medicare Fraud within Unsupervised Databases. *Expert Systems with Applications*, 37(12), 8628-8633.

[http://www.sciencedirect.com/science?\\_ob=ArticleURL&\\_udi=B6V03-50G696B-X&\\_user=10&\\_coverDate=12%2F31%2F2010&\\_rdoc=1&\\_fmt=high&\\_orig=search&\\_sort=d&\\_docanchor=&view=c&\\_acct=C000050221&\\_version=1&\\_urlVersion=0&\\_userid=10&md5=14f1fadbb51ae7fbbb54d2a2677e1b49](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V03-50G696B-X&_user=10&_coverDate=12%2F31%2F2010&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=14f1fadbb51ae7fbbb54d2a2677e1b49)

## b. Non-refereed Articles:

Fulton, L., Mendez, F., Bastian, N. D., Musal, R. (2013). Rejoinder to Letter to the Editor: Confusion Between Odds and Probability, a Pandemic? *Journal of Statistics Education*, 21(1). [http://www.amstat.org/publications/jse/v21n1/fulton\\_rejoinder.pdf](http://www.amstat.org/publications/jse/v21n1/fulton_rejoinder.pdf)

## 3. Conference Proceedings:

## a. Refereed Conference Proceedings:

Fulton, L., Musal, R., Mendez, F. (2012). *Construction Analysis of Rainwater Harvesting Systems* (pp. 1-11). Proceedings of the 2012 Winter Simulation Conference.

<http://dl.acm.org/citation.cfm?id=2429831>

Fulton, L., Ivanitskaya, L., Musal, R., Erofeev, D. (2011). *Comparing Traditional Teaching Methods with Variable Certification Requirements in Computer-Assisted*

- Instruction - A Two Instructor Study* (pp. 800-808). Proceedings For The Northeast Region Decision Sciences Institute.  
<http://www.nedsi.org/proc/2011/proc/p101201003.pdf>
- Fulton, L., Musal, R., Wierschem, D. (2011). *Phishing for Scam: an Experimental Design* (pp. 611-614). Proceedings For The Southwest Region Decision Sciences Institute.  
[http://www.swdsi.org/swdsi2011/2011\\_SWDSI\\_Proceedings/papers/papers/PA151.pdf](http://www.swdsi.org/swdsi2011/2011_SWDSI_Proceedings/papers/papers/PA151.pdf)
- Fulton, L., Musal, R., Ivanitskaya, L., Haidar, S. (2011). *The Effects of Computer Assisted Instruction and Variable Certification Requirements on Student Performance in Undergraduate Statistics Classes* (pp. 3470-3475). International Academy of Technology, Education and Development.  
[http://library.iated.org/?search\\_text=publication%3AINTED2011&adv\\_title=&rpp=25&adv\\_authors=&adv\\_keywords=&orderby=page&refined\\_text=musal](http://library.iated.org/?search_text=publication%3AINTED2011&adv_title=&rpp=25&adv_authors=&adv_keywords=&orderby=page&refined_text=musal)

B. Works not in Print:

1. Papers Presented at Professional Meetings:
 

Musal, R. (Presenter & Author), Ekin, T. (Author Only), INFORMS Annual Meeting, "A Dynamic Sampling Framework for Medical Overpayments," INFORMS, San Francisco. (November 2014).

Musal, R., Temponi, C., INFORMS 2013, "Text Mining via Hierarchical Bayesian Methods: The Case of Small Samples," INFORMS, Minneapolis. (October 9, 2013).

Musal, R. (Presenter & Author), Tevfik, A. (Author Only), INFORMS 2012, "Bayesian Modeling of HIV and Tuberculosis Mortality via Zero Inflated Poisson Models," INFORMS, Phoenix. (October 16, 2012).

Musal, R., YIRCOBS 2012, "Bayesian Spatial Modeling of HIV Mortality via Zero-Inflated Poisson Models," Yeditepe University Management Application and Research Center, Istanbul. (June 14, 2012).

Musal, R., Fulton, L., INFORMS 2011, "A Hierarchical Bayesian Model with Inflated Beta Mixtures," INFORMS, Charlotte, North Carolina. (2011).

Fulton, L. (Presenter & Author), Musal, R. (Author Only), Ivanitskaya, L. (Author Only), Haidar, S. (Author Only), Joint Statistical Meeting, "Bayesian Hierarchal Models of Final Exam Grades in Statistics Classes: A Two-University Study," American Statistical Association, Miami Beach, Florida. (August 2, 2011).

Musal, R., 5th INFORMS Workshop on Data Mining and Health Informatics, "Data Mining Methods to Investigate Medicare Fraud Within Unsupervised Database," INFORMS, Austin. (2010).

Musal, R. (Presenter & Author), Aktekin, T. (Author Only), INFORMS 2010, "Explaining HIV Mortality, Bayesian Spatial Models Applied with MCMC Methods," INFORMS, Austin. (2010).

Musal, R., Joint Statistical Meetings, "Estimating the Population Utility Function: A Parametric Bayesian Approach," American Statistical Association, Washington D.C. (2009).

Musal, R., Institute for Operations Research and Management Sciences, "Finding Fraud Waste and Abuse in Health Care," INFORMS, Washington, D.C. (October 2008).

Musal, R., Institute of Operations Research and the Management Sciences Conference, "Population Utility Function; A Bayesian Frame work," INFORMS, San Francisco, California. (2005).

2. Invited Talks, Lectures, and Presentations:
  - Ekin, T. (Presenter & Author), Musal, R. (Author Only), Lakomski, G. (Author Only), Conference of Texas Statisticians 2016, "Unsupervised Bayesian Approaches For Medical Fraud Assessment," Conference of Texas Statisticians, American Statistical Association, San Antonio, TX. (April 9, 2016).
  - Ekin, T. (Author Only), Musal, R. (Presenter & Author), INFORMS Annual Meeting, "The Use of Lindley's Entropy in Dynamic Sampling Decisions," INFORMS, Philadelphia, PA. (November 2, 2015).
  - Ekin, T. (Presenter & Author), Lakomski, G. (Author Only), Musal, R. (Author Only), INFORMS Annual Meeting, "Unsupervised Data Mining for Medical Fraud Detection," INFORMS, Philadelphia, PA. (November 1, 2015).
  - Musal, R., "Current Research Stream: Fraud Investigations," University of New Hampshire, New Hampshire. (December 13, 2013).
  - Musal, R., "Phone Interview on Fraud," IEEE Spectrum. (November 17, 2010).
  - Musal, R., Brown Bag Talks, "Effect of Inequality and Poverty on the Mortality rate of HIV," School of Business, Texas State University, San Marcos, Texas. (April 23, 2010).
  - Musal, R., Brown Bag Presentations, "Finding Medicare Fraud in Unsupervised Database," Texas Center for Geographic Information Science, Texas State. (November 6, 2009).
3. Other Works not in Print:
  - a. Works "Submitted" or "Under Review":
    - Ekin, T., Lakomski, G., Musal, R. An Unsupervised Bayesian Hierarchical Method for Medical Fraud Assessment. *Omega*.
    - Musal, R., Ekin, T. Medical Over-payment Estimation: A Bayesian Approach. *Statistical Modeling*.
    - Musal, R., Sullivan, P. A Bayesian Exploration; Sustainable Fashion Product Knowledge on Sustainable Product Adoption. *Journal of Royal Statistical Society (C)*.
  - b. Works "In Progress":
    - Bhardwaj, V., Ekin, T., Musal, R. Bayesian Variable Selection for Counterfeit Purchase Behavior.
    - Musal, R., Aktekin, T. Multivariate Spatio Temporal Model of Quantifying the Effects of HIV Comorbidities. *Annals of Applied Statistics*.
    - Musal, R., Ekin, T. An Entropy Based Sampling Framework for Medical Overpayments. *Journal of Royal Statistical Society Series C*.
    - Bhardwaj, V., Ekin, T., Musal, R. Factors in determining Counterfeit Purchase Behavior: A Bayesian Framework.
    - Temponi, C., Musal, R. An Investigation of the Demand Driven Supply Chain Networks Literature via Data Mining Methods. *Journal of Supply Chain Management*.
  - c. Other Works not in Print:
    - Musal, R., Fulton, L., I. L. Explaining the Grade Variation-A Multi Institutional Study.
- C. Grants and Contracts:

1. Funded External Grants and Contracts:  
Feng, L. (Supporting), Chen, X. (Principal), Ekin, T. (Supporting), Musal, R. (Supporting), Grant, "Enabling and Improving Data-Driven Research at Texas State University", National Science Foundation, Federal, \$499,896.00, Funded. (start: October 1, 2014, end: September 30, 2016).
2. Funded Internal Grants and Contracts:  
Ekin, T., Musal, R. (Co-Principal), Grant, "Overpayment Models for Medical Audits: Multiple Scenarios", McCoy College of Business, Texas State University - San Marcos, \$2,500.00, Funded. (sub: February 17, 2014, start: September 1, 2014, end: May 1, 2015).

#### **IV. SERVICE**

- A. College:  
Committee Member, Research Enhancement Program.
- B. Departmental:  
Committee Member, Chair Search. (August 2014 - Present).  
Coordinator, Course Coordinator 3334. (August 2011 - Present).  
Committee Chair, Faculty Search. (September 2015 - May 2016).  
Committee Member, Faculty Hiring - Fall 2013. (September 18, 2013 - May 1, 2014).  
Committee Member, Research and Enhancement Program. (August 2012 - May 2013).  
Committee Member, Faculty Hiring - Fall 2013. (February 18, 2013).  
Committee Member, Course Coordinator 5334. (August 2010 - May 2012).  
Committee Member, Faculty Hiring - Fall 2012. (May 15, 2012).  
Committee Member, Faculty Hiring - Spring 2011. (February 2011 - December 2011).
- C. Professional:  
Reviewer, Journal Article, Health Care Management Science. (2014).  
Reviewer, Journal Article, International Journal of Technology and Decision Making. (2014).  
Reviewer, Journal Article, European Journal of Operational Research. (2012).  
Reviewer, Journal Article, International Journal of Technology and Decision Making. (2012).  
Reviewer, Conference Paper, Transportation Research Board. (2012).  
Reviewer, Conference Paper, Transportation Research Board. (2012).  
Reviewer, Journal Article, European Journal of Operational Research. (December 21, 2011).  
Reviewer, Journal Article, European Journal of Operational Research. (July 2, 2011).  
Reviewer, Journal Article, Health Care Management Science. (2010).  
Reviewer, Journal Article, Health Care Management Science. (2010).  
Reviewer, Journal Article, Health Care Management Science, New York, New York. (July 30, 2010 - August 3, 2010).  
Reviewer, Journal Article, Applied Stochastic Models in Business and Industry, Hoboken, NJ. (April 6, 2010 - April 20, 2010).
- D. Organizations:

Institute for Operations Research and Management Science Institute for Operations  
Research and Management Science Institute for Operations Research and  
Management Science.

Marine Environment TRB Committee, National Academy of Sciences. (June 5, 2008 -  
Present).