



**HPI** HARVEY L. NEIMAN  
HEALTH POLICY INSTITUTE®

Studies in Health Care and Economics

MAKING INFORMED DECISIONS TO IMPROVE HEALTH CARE IN AMERICA

A photograph of a woman with blonde hair, wearing a white lab coat, sitting in a black office chair and smiling. She is shaking hands with another person whose back is to the camera. The background is a blurred office setting with windows.

**Harvey L. Neiman Health Policy Institute**  
2016 Year in Review

## Mission

The Harvey L. Neiman Health Policy Institute studies the value and role of radiology and radiologists in evolving health care delivery and payment systems.

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## Senior Director's Message

By Danny R. Hughes, PhD

I am pleased to state that this annual report reflects the tremendous accomplishments of the Harvey L. Neiman Health Policy Institute over the past calendar year.

At present, lawmakers and regulators are making policy decisions about medical imaging without knowing the full effects on individual patients or the health care system as a whole. Radiologists are being asked to participate in alternative payment models without data to ascertain their appropriate share of payments and without knowledge of how to best participate in these nontraditional environments. The Neiman Institute provides this much needed information and helps ensure that future imaging policies benefit patients and make efficient and effective use of health care resources.

- Over the past year, the Neiman Institute successfully launched the Inpatient Cost-Evaluation Tool (ICE-T), which allows radiology practices and hospitals to compare their internal costs to national benchmarks to decide if bundled payment for specific services should be pursued. This web-based resource assists radiology practices in deciding which inpatient diagnosis related groups (DRG) to bundle and how they may participate in DRG-based bundled payments. Using this and other Neiman Institute online data tools, radiologists can prepare and succeed in CMS' evolving payment models.
- A 2016 Neiman Institute paper, published online in the *Journal of the American College of Radiology (JACR)*, proposed a breast cancer screening bundle that provides a framework for radiologist-led bundled payment models, and can be implemented with different services included in the bundle depending upon a practice's specific patient panel.

- We continued to expand our research portfolio by publishing 18 new studies in peer-reviewed journals and presenting research at several academic and professional meetings, which garnered media coverage for the Institute in several news outlets, including Radiology Business, DOT Med News, HealthImaging and AuntMinnie.com.
- We significantly expanded our social media presence on Facebook, Twitter and LinkedIn.

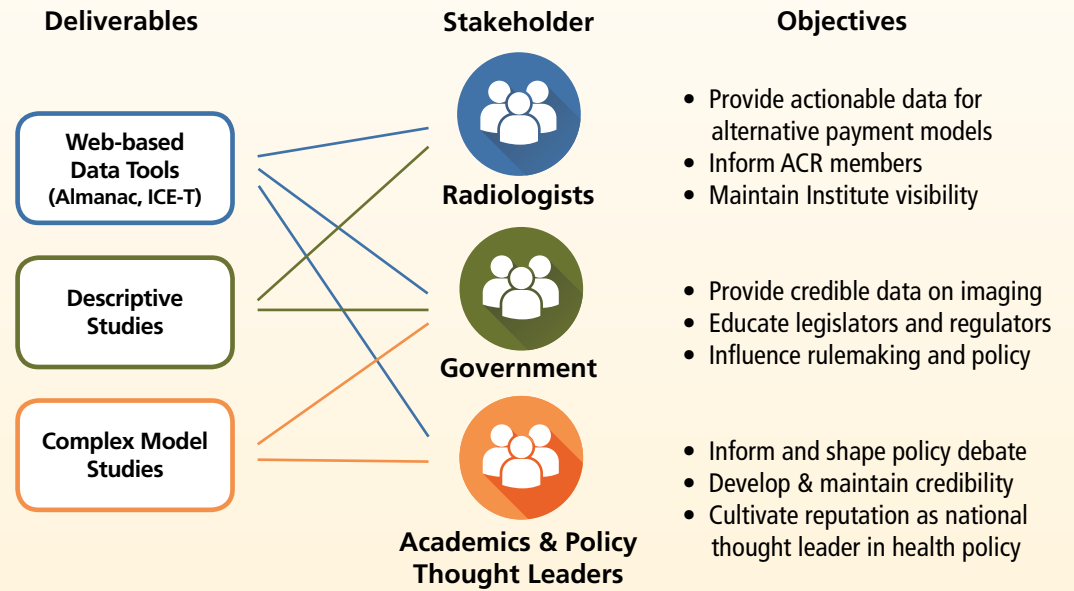
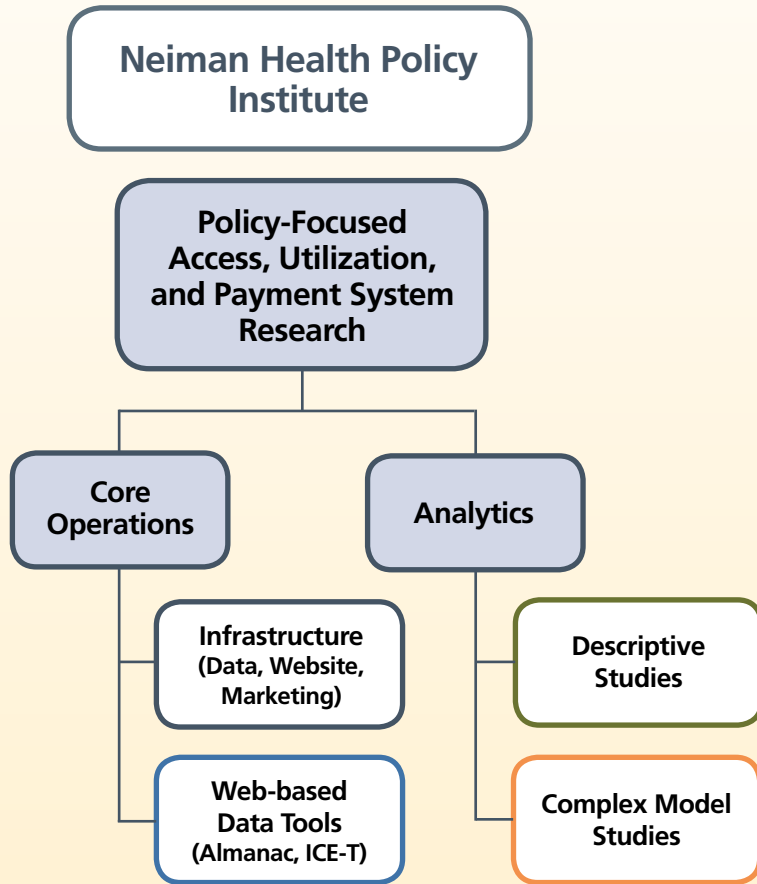
With more research on the horizon, there will be much to discuss in the coming months and I hope you will continue to follow the exciting work of our research staff, fellows and grantees. More information about the Institute's work can be found at [neimanhpi.org](http://neimanhpi.org). I offer a special thanks to the Neiman Institute Advisory Board for their support. It is truly an honor and privilege to serve this dynamic organization, and we look forward to continuing to provide rigorous, policy-relevant research and tools for the benefit of the radiology community.

Sincerely,



Danny R. Huhges, PhD

# Neiman Institute Structure and Research Efforts



## Neiman Institute Staff



Danny R. Hughes, PhD  
Senior Director, Health Policy Research  
and Senior Research Fellow



Jennifer Hemingway, MS  
Research Associate



Miao Jiang, PhD  
Research Fellow



Wenyi Wang, MA  
Research Associate



Darwyn Deyo, MA, *PhD Candidate*  
Research Fellow



Nicole Racadag, MSJ  
Communications Manager

## Scientific Achievements

In 2016, the Neiman Institute had 18 papers published or accepted for publication. This brought the Institute to a total of 48 published papers since 2013. The calculated impact factor of Neiman Institute research was 4.20 in 2015 and 3.74 in 2016.

Neiman Institute research and data tools were presented 15 times at several national conferences in the health policy, radiology and non-radiology space including:

- American College of Radiology
- American Roentgen Ray Society
- Association of University Radiologists
- Radiological Society of North America
- American Public Health Association
- AcademyHealth
- American Society of Health Economists
- The Institute for Operations Research and the Management Sciences

In addition, the Institute connected directly with radiology practices at several meetings and events. In total, the Institute presented 20 times, including the ACR 2016 annual meeting, the Radiology Business Management Association meetings, the Economics of Diagnostic Imaging Symposium, and several ACR state chapter meetings.



## Awards and Recognition

The Neiman Institute was the recipient of numerous awards for its research and data tools.



- A Neiman Institute study earned the Charles E. Gibbs Leadership Prize for the best paper published in *Women's Health Issues* in 2015. "Screening Mammography Rates in the Medicare Population before and after the 2009 U.S. Preventive Services Task Force Guideline Change: An Interrupted Time Series Analysis," authored by Miao Jiang, PhD, and coauthored by Danny R. Hughes, PhD, and Richard Duszak, MD, FACR, was the first Neiman Institute paper to win this prestigious award.



- Two Neiman Institute scientific abstracts were named ACR 2016 Gold Merit Award Abstracts.

S. Patel, J. Hemingway, J. Rawson, D.R. Hughes, R. Duszak  
*"Changing Utilization of Brain Imaging in the Emergency Department: Perspectives from Nearly Two Decades of National Medicare Claims."*

G. Gan, P. Harkey, J. Hemingway, D.R. Hughes, R. Duszak  
*"Changing Utilization Patterns of Cervical Spine Imaging in the Emergency Department Setting: Perspectives from Two Decades of National Medicare Claims."*



### Neiman Institute Tool Named Finalist for Radiology Excellence Award

The Neiman Institute's ICE-T (Inpatient Cost Evaluation Tool) was a finalist in the 2016 edition of the Minnies, auntminnie.com's annual campaign to recognize the best and brightest in medical imaging. ICE-T, was included in the Best New Radiology Software category.

In addition, Neiman Institute Senior Director for Health Policy Research and Senior Research Fellow Danny Hughes, PhD, was named a semi-finalist in the Most Influential Radiology Researcher category and a Neiman Institute study, "Recent Medicare Policy Initiatives and the Relative Utilization of "Double Scan" Computed Tomography," published in the *Journal of the American College of Radiology (JACR)*, was named a semi-finalist in the Scientific Paper of the Year category.

## Stakeholder Value

In 2016, the Neiman Institute produced policy-influencing research by:


- Publishing evidence supporting the successful rollback of the multiple procedure payment reduction (MPPR), one of radiology's most maligned reimbursement cuts.
- Providing analysis that influenced the Centers for Medicare and Medicaid Services' (CMS) definition of a non-patient facing clinician under the Merit-Based Incentive System (MIPS).

In addition, the Institute informed practices coping with evolving payment reform by:

- Issuing multiple *JACR* papers about the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) and MIPS requirements, and specifically what practices can do to best position themselves.

Finally, the Institute examined the role of radiology practices in alternative payment models (APMs) by:

- Developing a bundled payment model for breast cancer screening. The study, published in the *JACR*, reported that breast cancer screening provides a framework for radiologist-led bundled payment models, and can be implemented with different services included in the bundle depending upon a practice's specific patient panel.
- Presenting the model to CMS as a radiology-driven APM and as a potential episode for meeting MIPS requirements.

ORIGINAL ARTICLE HEALTH SERVICES RESEARCH AND POLICY 

### An Empirical Framework for Breast Screening Bundled Payments

Danny R. Hughes, PhD<sup>1,2</sup>, Miao Jiang, PhD<sup>3,4</sup>, Geraldine McGinty, MD, MBA<sup>5</sup>, Sanjay K. Shetty, MD, MBA<sup>6</sup>, Richard Duszak, MD<sup>6,7</sup>

**Abstract**

**Purpose:** In an effort to curb health care costs and improve the quality of care, bundled payment models are becoming increasingly adopted, but to date, they have focused primarily on treatment episodes and primary care providers. To achieve current Medicare goals of transitioning fee-for-service payments to alternative payment models, however, a broader range of patient episodes and specialty physicians will need opportunities to participate. The authors explore breast cancer screening episodes as one such opportunity.

**Methods:** The authors developed a bundled payment model for breast cancer screening and calibrated it using both a national sample of retrospective Medicare claims data and data from a private health system. The model includes alternative screening episode definitions, methods for calibrating prices, and an examination of risk and can serve as a general framework on which other cancer screening bundles could be crafted.

**Results:** The utilization of services associated with breast cancer screening and diagnosis is stable over time. The inclusion of high-risk patients in breast screening bundles did not cause substantial changes in estimated bundle prices. However, prices are sensitive to the choice of services included in the bundle.

**Conclusions:** Breast cancer screening may provide a mechanism to expand the use of bundled payments in radiology and could serve as a framework for other episode specialty bundles. Because screening bundles include costs for follow-up diagnostic imaging in addition to the initial screening mammographic examination, patient adherence to screening guidelines may improve, which may have profound effects on public health.

**Key Words:** Bundled payments, alternative payment models, mammography, cancer screening, breast cancer

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#### INTRODUCTION

The growing pressures of an increasingly expensive, fragmented, and uncoordinated fee-for-service system have led to an aggressive push from payers toward alternative payment models (APMs) to incentivize the quality and value of care over the volume of services performed [1]. Bundled payment models are seen as a particularly important APM because of the magnitude of cost savings potentially achievable by the explicit incentives to constrain episode costs [2,3]. Currently, the CMS Bundled Payments for Care Initiative has more than 1,600 participating provider organizations, and CMS has mandated that all lower extremity joint replacements performed at acute care hospitals in selected geographic areas be paid through bundled payments [4,5].

Bundled payments are designed to reduce inefficiencies and improve quality through better care coordination and management by a provider organization responsible for an entire episode of care. To date, bundled payment models have focused primarily on treatment episodes and primary care providers. The responsible provider is commonly a hospital (27%) or postacute facility (54%) and less frequently a physician group practice

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The screenshot shows the homepage of the Harvey L. Neiman Health Policy Institute. The header includes the HPI logo and navigation links for 'About', 'News and Events', and 'Contact Us'. A search bar is located in the top right. Below the header is a dark blue navigation bar with links for 'Research Topics', 'Publications', 'Data Tools', 'Grants + Fellowships', and 'Commentary'. The main content area features several articles and a newsletter sign-up form.

**About the Harvey L. Neiman Health Policy Institute**  
 The Harvey L. Neiman Health Policy Institute studies the value and role of radiology in evolving health care delivery and payment systems, including quality based approaches to care and the impact of medical imaging on overall health care costs. Neiman Institute research provides a foundation for evidence-based imaging policy to improve patient care and bolster efficient, effective use of health care resources. [READ MORE](#)

**Radiologists and CMS' Patient Facing Designation**  
 January 5, 2017 | [Health Policy](#) | [Commentary](#)  
 To help radiologists understand whether they – or their practice – are likely to be designated as patient facing for participation in MIPS, the Neiman Institute has provided the Radiologist Patient Facing Dataset. [READ MORE](#)

**New Research Examines Trends in Radiology Journal Publications Relating to Patient-Centered Care**  
 January 3, 2017 | [Press Release](#)  
 New research reports that the number of articles within radiology journals designated as dealing with patient-centered care has increased substantially in recent years. [READ MORE](#)

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**New Report Examines Physician-Focused Payment Models in Radiology**  
 A new Neiman Institute study finds physician-focused payment models may foster greater radiologist participation in Advanced Alternative Payment Models under MACRA. [Read More](#)

## Neiman Institute Website: neimanhpi.org

Since the Neiman Institute website launched in November 2014, it has resulted in more than:

- 78,000 page views
- 28,000 sessions
- 17,500 users

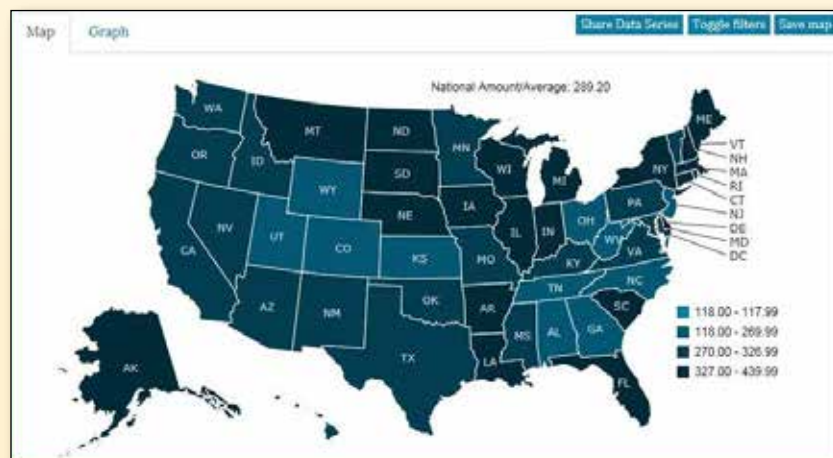
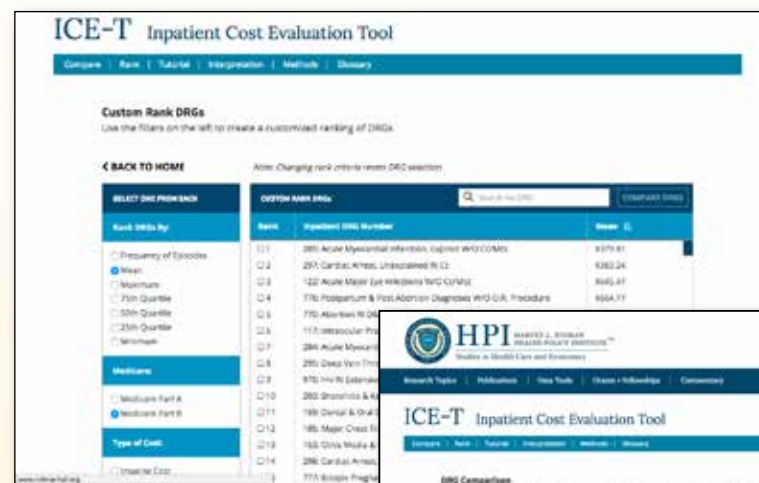
The Neiman Institute website delivers accurate data to help lawmakers, regulators and payers make informed policy decisions that will improve patient care. The website attracts visitors from over 2,300 internal service providers for government health agencies, leading academic institutions, private payers and numerous private firms and consultancies such as:

- The Centers for Medicare & Medicaid Services
- The U.S. Department of Health and Human Services
- The Medicare Payment Advisory Commission
- The National Institutes of Health
- The United States Department of Veterans Affairs
- The National Health Service (United Kingdom)
- Harvard University
- The Johns Hopkins University
- The Massachusetts Institute of Technology
- Yale University
- UnitedHealth Group Inc.
- The Advisory Board Company

## Web-Based Data Tools

### Neiman Institute Tool Assists in Radiology Bundle Building

In 2016, the Institute released the Inpatient Cost Evaluation Tool (ICE-T) ([neimanhpi.org/ice-t/](http://neimanhpi.org/ice-t/)), which enables radiology practices and hospitals to compare internal costs to national benchmarks to decide if bundled payment for specific services should be pursued. ICE-T aggregates multiple years of Medicare inpatient claims data and allows the user to examine both hospital and imaging costs across inpatient DRGs.



### The Neiman Almanac: A Powerful Tool for Radiology Researchers

The Neiman Almanac ([neimanhpi.org/almanac](http://neimanhpi.org/almanac)) allows users to create easy-to-read graphs and maps from more than 125 data sets related to radiology access, workforce issues, spending and volume. The Almanac offers reporters, researchers and others free online access to the most up-to-date medical imaging utilization, cost, access and workforce data available. This speeds collection of radiology services data for a number of uses — including news reports, health policy papers and government planning.

## Enhanced Media and Public Visibility

Neiman Institute research garnered media coverage in several news outlets, including Radiology Business, DOT Med News, HealthImaging and AuntMinnie.com, resulting in 43 articles in online media outlets reaching 455,000 confirmed readers.



With the increased use of social media, production of information graphics featured prominently in the Neiman Institute's communications strategy in 2016. The Institute released several shareable graphics based on data from the Neiman Almanac, which aggregates multiple years of data from varying data sources to create dynamic tables of both state and national figures on volume, spending, access and workforce of radiology services.



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