The cover photo shows an aerial view of the 32 Quincy Street Renovation and Expansion Project. The Project will renovate, restore and expand the Harvard Art Museums facilities at 32 Quincy Street and includes 100,000 GSF of new construction. The Insurance Department and Harvard Planning And Project Management designed a comprehensive Owner Controlled Insurance Program (OCIP) for the project, covering a wide range of exposures including but not limited to bodily injury to contractors working at the site; design errors & omissions; damage to the building and/or construction materials resulting from fire, hurricane/windstorm, earth movement, collapse, defective workmanship, etc. The OCIP is expected to save approximately $2.9M in workers compensation and general liability insurance costs compared to the cost for the more traditional approach of contractor provided insurance.
HARVARD UNIVERSITY
Risk Management & Audit Services – Insurance Group

ANNUAL REPORT FOR FY2011

Director’s Note:

While many schools and departments around campus are familiar with the type of consultative support work the Insurance Group within the Risk Management & Audit Services Department (RMAS-INS) provides, there remains a sizeable number of groups that believe our function involves mostly the administrative and transactional aspects of insurance buying and claims processing. Though an over-simplification, such work does represent a material share of the department’s activities, but just not all. Thus, we’ve decided to begin publishing an annual report as a way to give some insight and hopefully broaden everyone’s understanding of the spectrum of risk management services performed over the fiscal year. We’ll highlight the means and methods used to arrive at the current portfolio of insurances by department staff — a very dedicated and hard working team — one that I am proud to be a part of.

Being the department’s first ever attempt at publishing a holistic view at its programs and activities, we are weighing the value of brief vs. in-depth content while experimenting with various layouts and formats to present the message. Admittedly, our debut issue may be a little rough and awkward in places but we trust that you will find the overall presentation a valuable exercise. We look forward to hearing your feedback on the report and the group’s overall performance as an expert resource in designing solutions for your department’s risk financing needs.

Thank you.

Walter Pizzano, Director, Risk Strategy and Insurance
I. Achievements in Insurance Procurement

The RMAS-Insurance group is responsible for overseeing an array of insurance policies that are structured as “blanket” programs applied uniformly across all university operations and locations. This master program approach yields substantial efficiencies in procuring commercial insurance for large complicated organizations such as Harvard while minimizing unintentional gaps that could be created by taking a TUB-by-TUB coverage planning approach. A summary of the most significant of those policies is shown below in Figure 1.

![Figure 1. Key Info on Select Master Insurance Policies (as of July 01, 2011)](image)

A high-level audit of the University’s current insurance program completed this past winter (by the visiting risk director from the University of California) concluded that the program’s structure, scope, and cost are consistent with that of other major University’s with a similar risk universe with one exception: the present method RMAS-INS uses to allocate fixed program costs does not materially consider the differences in
risk profile and loss experience among the insured TUBS. To address this, we are investigating how to incorporate one or both of these aspects into our FY13 allocation algorithm.

Overall RMAS-INS renewed nearly $9.0 million in commercial property & casualty insurance policy premium from FY2010-11. This included the above set of master insurances plus a collection of 25 miscellaneous standalone policies held for special situations involving a single department, TUB, project, or exposure. Aggregately for the portfolio of master insurances, $8.5M of premium was successfully renewed at a 15% increase over FY2010. The vast majority of renewal premiums realized only a nominal YOY change; the new blended management liability insurance program, instituted in June 2010 and which constitutes an additional $1.3M expense over the previous program, drove nearly the entire YOY increase. Excluding the one-time premium bump for this new program addition reveals that the YOY change in premium costs would otherwise have been <1%.

Results from the FY11 master insurance program renewal cycle show continued success in holding the cost of insurance (per unit of risk) stable while maintaining, or more so, increasing the broad scope of coverage over the University’s risk universe. This accomplishment was especially demonstrated when analyzing the expansion of coverages under the blended management liability program.

Prior to adopting the expanded policy structure, Harvard carried four separate policies, director’s & officer’s liability, educator’s legal liability, fidelity / employee dishonesty, and employed lawyers liability, each with differing levels of risk assumption (deductibles) and risk transfer (coverage limits) increasing the opportunity for overpaying for coverage, inadequate catastrophe limits and extended policy disputes for complicated claims, and questionable value for risks specific to Harvard Management Company’s operations. The new program, which blends together (i.e. all coverages are contained in a single policy with common limits and deductibles under the same insurer) all former coverage lines plus four additional coverages – fiduciary liability, multimedia / publishing liability, data security / privacy breach liability, and investment management errors and omissions. Moving forward, the University’s management is now protected by $100M of management liability insurance all at a premium rate (per unit of insurance limits) that is roughly equal to what was being paid prior to its adoption.

Results for other select polices:

**General Liability (including umbrella and excess)** – Commercial General Liability insurance covers legal liability for bodily injury, damage to other’s property, false arrest/detention, libel, and slander resulting from negligence while performing the general, non-managerial activities of our business operations. The cost to defend against claims is also covered under the policy. Umbrella/Excess Liability insurance typically provides additional limits over the primary Commercial General Liability, Worker’s Comp & Employer’s Liability, and Automobile Liability insurance coverages and may consist of a single policy or a series of layered policies summing to the intended aggregate limit of insurance. Similarly, the cost to defend against claims is covered under umbrella / excess policies.
On an absolute premium cost basis, Harvard’s expense for general liability insurance was $1,493,402, $1,316,183, and $1,286,727 for fiscal years 2010, 2011, and 2012, respectively. RMAS-INS was able to decrease the total cost year-over-year mainly through diligent negotiations with the umbrella and excess insurers; the cost of the primary or base layer of coverage, obtained from the CRICO group captive insurer, has remained relatively flat across the time horizon.

Looking at the underlying premium rate (per unit cost of risk – in this case square feet of occupied building space), RMAS-INS secured the 18.4% rate decrease for the period covering FY2010-12 while the total volume of floor space increased by 5.6%. [N.B. for predominately habitational / assembly occupancies such as Harvard, general liability insurance is typically underwritten using square feet of building floor space].

Projecting into FY2013 however is a different story. While overall market trends in this area are indicating relatively low or no pressure for price increases, CRICO has intimated a desire to “reset & update” the University’s pricing structure for their layer – nearly doubling the premium rate (per square foot cost) by 2014. Though proposing to phase this adjustment in over a 2-3 year period, based on CRICO’s initial proposal, Harvard’s total liability premium cost would be expected to increase 5.4% in the FY2013 if all else remained the same. The dashed lines in Figure 2 reflect the expected CRICO change into FY2013 coupled with a fairly aggressive assumption that RMAS-INS will again be successful in attenuating the CRICO increase by securing offsetting concessions from the various umbrella and excess insurers. Of course, we will pursue alternatives to CRICO if necessary to maintain long-term stability in the cost of commercial general liability insurance.
Property Insurance – Property insurance covers damage to or loss of the University’s buildings and other physical assets from a host of perils such as fire, windstorm, water leakage, earthquake, sinkholes, temperature extremes and structural collapse. It reimburses Harvard to replace, with like kind and quality, the physical structure and typical contents should they be partially or totally destroyed by a covered peril. The policy also provides limited coverage for a documented loss of net income accompanying a physical loss to an insured property.

Resulting from RMAS-INS securing a multi-year rate cap agreement with its insurer in FY2010, the aggregate cost of property insurance for the period FY2010-12 was nearly flat with the modest change experienced over that period driven entirely by the annual increase in values of building replacement cost (including contents and equipment) plus new additions to the property inventory (as tracked by CAPS). In fact, by taking advantage of competitive market pressures, the Insurance Group able to obtain a nominal decrease in the effective premium for the same period (see Figure 3) after adjusting for any change in building values.

Looking outward to FY2013, there’s a building headwind against continued low or no rate change environment – this shift is being driven by the 5+ year string of major (natural) catastrophe events around the globe. In particular, large property owners along the eastern United States with significant windstorm exposure (includes most everyone within 100 kilometers of the coastline) are confronting published expectations for premium rate increases of 7-10% per year for the next few years. Despite such trend, we feel confident that by leveraging Harvard’s substantial market clout, RMAS-INS will be able to obtain renewal terms well below prevailing industry averages from our policy underwriters. The trend line in Figure 3 shows an assumed rate change for FY2013 of +4.1% or an increase of $.005/sf of floor area over FY2012 (as depicted by the dashed portion of the line in Figure 3).

Catastrophe Modeling

In FY2011, the Insurance Group kicked off a multi-year effort towards using more quantitative engineering analyses to estimate the University’s potential financial exposure to a catastrophic natural event.

Phase I of the project, which involved the collection of individual building risk data via engineering surveys conducted by our insurer, was completed in Spring 2011.

Though still in development, a sufficient array of risk data points on the highest value properties has been assembled to allow the execution of a preliminary catastrophe modeling exercise. The early results suggest that Harvard’s current property insurance coverages are within the range of predicted loss impacts from any single CAT event. However more exacting calculations, based on additional survey data and refined event assumptions, are required before recommending any substantive programmatic changes – that work is slated to restart in mid FY2013.
FIGURE 3 - PREMIUM RATE HISTORY AND TREND - PROPERTY INSURANCE

[@XX.XB = total replacement cost value of all insurance buildings for each period in $USD billions]
II. Success in Claim Outcomes

The nature of claims processed through the department fall into two categories: 1) reimbursements for claim expenses to Schools and Departments out of the University’s internal self-insurance (reserve) pool; and 2) indemnification recoveries from external insurers against large claims exceeding the insurance policy deductibles.

In FY2011, RMAS-INS administered $12.3 million of claims on behalf of Schools and Departments for insurable losses across the University. Out of that total, roughly $3.9 million was related to property damage matters, $100,000 to fleet auto related damages, $225,000 related to legal liability related matters, and $8.0 million to environmental contamination clean-up (see sidebar story). In all, around 250 claim transactions were aggressively administered by the Group ensuring accurate reimbursements were directed to the affected TUBS on a timely basis.

Taking a deeper look into these figures, of the $12.3 million of reimbursements, RMAS-INS secured approximately 73% or $9 million of that amount from the University’s various insurance companies. Borrowing a metric used by mostly commercial insurers, on an aggregate basis, Harvard’s loss ratio (calculated by dividing the total amount of loss payments and expenses by the total amount of premiums paid) was 116% cumulatively for the past 3 years. This means the University has recovered $1.16 dollars from outside insurers for every $1 dollar it paid in premiums (anything over 80% or $0.80 is considered a successful outcome).

Regarding property damage matters specifically, 90% or $3.0 million of the FY2011 loss reimbursements back to Schools and Departments arose out of water infiltration and sewage water back-up type events, of which the 07/10/2010 tropical storm event accounted for $1.8 million in damage (see below and Section III for more details). This is a change from FY2010 where fire was the predominate cause of property damage claim values, accounting for 63% of the damages, of which the 12/3/2009 fire at HBS’ McCulloch Hall was the most significant yielding $1.7 million in damages.
Campus-wide Tropical Storm (July 2010)

On July 10, 2010 a tropical downpour lasting several hours struck the Boston and Cambridge areas resulting in numerous buildings sustaining serious flood damage. According to the National Weather Service, the Boston/Cambridge area received almost 2½" of rainfall in less than 3 hours overwhelming catch basins and storm water drainage systems. On campus, the rain caused water to intrude into buildings through low lying doorways and window casings, and through the building envelope where the water was ponding outside the foundation. In other cases, the city drainage system was inundated causing a back up of those floor drains, toilets and sinks located below grade.

The storm resulted in 67 buildings across 13 TUBS being impacted from the water and sewage intrusion to varying degrees. Being completely self-insured for the loss due to the property insurance policy deductible, RMAS-INS, relying entirely on internal claim adjuster resources, mobilized quickly to gather and vet the requisite loss documentation turning around nearly all reimbursements within 90 days of the event. Since the loss wasn’t eligible for external insurance company funds, the scale and size of the event presented a great opportunity to demonstrate our claim administration and adjustment skills, gleaning important customer service improvements along the way.

HMS Water Damage

Late in the afternoon, on Saturday March 26, 2011, a water pipe burst in the 6th floor suite of the Harvard Institutes of Medicine (HIM), a building leased by Harvard Medical School to Brigham & Women’s Hospital (BWH). Water poured out of the pipe for several hours flooding portions of the building down to the 2nd floor, including 16,000 sq. ft. of lab and office space occupied by BWH on the 5th and 6th floors. Contractors were promptly retained to dry and restore the affected areas. Restoration efforts included demolishing and reconstructing an entire office suite and conference room and a number of walls, ceilings and floorings that were damaged or at risk of future mold growth.

Although restoration of the property proceeded quickly and efficiently, there was disagreement between HMS and BWH as to which party was responsible to pay for the cost of the work, which had been supervised and carried out under the direction of BWH. Despite the loss falling within the coverage terms of Harvard’s property insurance program, to expedite a resolution for HMS and its tenant, the Insurance
Department decided to utilize its internal expert claim resources to evaluate and process the claim instead of relying on external insurance company adjusters. The Insurance Group, after securing a copy of the lease agreement, quickly determined HMS was financially responsible to pay for water extraction and restoration of the building interior.

Brigham and Women’s submitted invoices totaling $351,000 from the restoration contractor’s work. The Insurance Group partnered with Wescor Construction, a general contracting firm that is a long-time, trusted vendor for HMS, to evaluate the invoices. Together the Insurance Department and Wescor identified a number of costs that appeared excessive against the given damages and exceeded HMS’ responsibility to reimburse. The Department documented the reasons for a reduction in the claim from BWH and participated in successfully negotiating a 10% ($35,000) offset in the payment by HMS for the cost of the restoration.
III. Insights to Client Service and Risk Management Support

The RMAS-Insurance Group supports schools and departments in their efforts to manage risk using a number of methods that are complementary to the purchase of insurance. The Department regularly provides consultation with respect to hazard identification, loss control techniques, loss reduction (reducing the amount of loss absorbed by Harvard in the event of an occurrence), and counter-party risk transfer in addition to serving as subject matter experts on the effective application of commercial insurance solutions. The following are just a few examples out of the dozens of occasions where RMAS-INS was called upon to deliver timely risk management support during FY2011.

Harvard Law School’s Clinical and Pro Bono Program

Concerned that the impending release of a controversial report by one of their faculty criticizing the behavior of a major gold mining concern could prompt a significant defamation lawsuit against the school, the Office of Clinical and Pro Bono Programs contacted RMAS-INS for assistance in understanding how they and the report’s author would be protected from the distracting and potentially devastating effects of such a response.

RMAS-INS completed a comprehensive review of all in-place and available insurance contracts capable of responding to allegations of defamation and presented the Office a report that identified existing protections and described options for expanding on it if desired. Based on the report’s findings, the Office decided, that while a material risk of legal action did exist, it wasn’t sufficient enough to refrain from publishing the report nor warrant procuring separate or additional coverage specifically for this project.

Campus-wide Tropical Storm – Loss Control Response against Future Water Intrusion

After extraordinarily heavy summer rains in July 2010, many facility managers found themselves with significant water intrusion problems and sewer line back-up intrusions to the interior of many low lying buildings. RMAS-INS retained Global Risk Consultants (GRC), a leading engineering and loss prevention advisory firm, providing them with a list of facility managers and details how the water intruded and the extent of the damages, seeking their expert root cause insights. After inspecting a number of affected buildings, GRC provided a detailed report on their recommendations on how to prevent and/or mitigate future incidents. This report was provided to senior facility management and, as a result, numerous building construction/alteration proposals have been scheduled for FY2012 incorporating the consultant’s recommendations.
Beau Geste Bicycles-for-Guests Program

The management of the DoubleTree Hotel, which was purchased by Harvard in 2005, advised the Insurance Group that they were considering creating a bicycle renting program for guests. The program would involve the hotel constructing a holding area for approximately 12 new purchased bicycles and instituting a short-term (<1 day) “no cost” rental policy that allows guests to reserve and borrow one of them during their stay. RMAS-INS requested copies of pertinent information about the program and specifics on how it was to work, including any envisioned risk management controls (an age restriction for guests, signed waivers required, bicycles maintenance, and rider suitability).

After reviewing the information and speaking with the Office of the General Counsel to understand the contractual arrangement between Harvard and Hilton regarding the University’s financial exposure to a claim against Hilton, we solicited the reaction of the insurance underwriter assuming this risk under the liability policy for any financial impacts the program may have on the hotel’s stand-alone insurance package. Upon receiving confirmation that the DoubleTree’s insurance carrier would assume the new financial exposure and confident that the University would be adequately isolated from any legal liabilities arising from the program, we informed hotel management of our acceptance of their proposed risk management plan and consent to proceed with implementation.

Improving Campus-wide Fleet Safety and Driver Training

During the renewal of the Umbrella (General Liability) insurance program, RMAS-INS recognized an opportunity to negotiate a guaranteed premium rate for a 3-year period in exchange for a commitment that Harvard establish a University-wide vehicle safety program, something that was already under consideration prior to the renewal exercise. The Insurance Group spear-headed a collaboration with Transportation Services, EHSEM, and Human Resources on developing a comprehensive policy on improving loss prevention actions such as driver selection, driver record screening, driver training, vehicle maintenance and other related matters. The program, intended for campus-wide rollout in the fall of 2011, has a goal for complete integration by end of FY2012 [exception: those departments with unionized employee drivers will need to engage in special negotiations with their respective collective bargaining groups before full policy implementation].

Reconstructing the Sherman Fairchild Water Reclamation System Overflow Loss

The Sherman Fairchild building, the Cambridge home of the Department of Stem Cell and Regenerative Biology, sustained more than $260,000 in water damage during the June 2010 renovation work from an overflow in the facility’s water reclamation system. After reviewing the static, pre- and post-loss conditions of the system, RMAS-INS arranged for a full-scale re-enactment to determine the cause of the overflow. From that investigation, it was determined that a fundamental design flaw (i.e. city water entering the reclamation system at 90 PSI and the overflow transfer box booster pumps only capable of ejecting the water at 45 PSI) was the primary cause of the loss. Simply stated, the system can’t pump out the water at a fast enough rate to keep pace with the flow of city water coming into the system.
RMAS-INS presented a formal recommendation to the FAS Project Team to install an overflow drainage pipe connecting into the storm drainage system, which will mitigate the flawed installation thus preventing future overflows during peak system utilization.

Multi – Million Dollar Savings: The Wasserstein Hall, Caspersen Student Center, Clinical Wing Project

A savings of $2-3.0M in the cost of insurance is projected for the soon to be completed Wasserstein Hall, Caspersen Student Center, Clinical Wing construction project through utilization of the Owner Controlled Insurance Program (OCIP) administered by the RMAS-INS. The savings was achieved as a result of successful execution of the project risk management plan by Harvard Law School, Transportation Services, Fluor Construction, Skanska USA, and the Insurance Group through The Graham Company (Harvard’s OCIP Administrator). The final cost of insurance under the OCIP is projected to be approximately 2% of the project construction cost, which compares favorably to the cost of contractor provided insurance, as proposed by Skanska USA, at 3.5% of the construction cost.
IV. Training & Education Programs Conducted by Group

RMAS-INS is often called upon to help coach the various administrative groups around campus on the broad topic of risk financing, sometimes focusing on a very narrow subject of special interest to a select group of individuals. The latter was the Group’s focus for FY2011 where we sponsored two presentations to members of Harvard’s construction community regarding 1) the effectiveness of insurance and surety bonds as instruments for transferring the risk of financial loss due to subcontractor default, and 2) the legal and financial implications of construction defects. The presentations allowed for an open discussion exploring the benefits and limitations of these loss mitigation tools, and the ways in which they complement other risk management techniques as part of a comprehensive program.

Contract Surety Bonds vs. Subcontractor Default Insurance – Presentation to the UCMC

In January 2011 RMAS-INS presented in front of the University Construction Management Council (UCMC) on alternatives for financing risk of loss from subcontractor default (e.g. failure to perform in accordance with a construction agreement and/or their failure to pay requisite project labor/payroll and material costs). The presentation compared the two risk financing instruments most commonly employed by project owners: standard contract surety bonds vs. subcontractor default insurance (as sold by Zurich under the trade name Subguard).

While both contract surety bonds and Subguard provide Harvard project owners with significant financial protection in the event of subcontractor default, neither provides complete protection. [For example, neither instrument provides financing for lost revenues and/or extra expenses incurred as a result of subcontractor default.] Thrust of the presentation: there is no clear consensus as to whether Subguard or contract bonds are the more effective tool for managing risk of subcontractor default. Assuming a project is large enough to involve a General Contractor (GC) or Construction Manager (CM) making it eligible to utilize the Subguard option, there are many factors to be considered in deciding whether to employ Subguard or traditional contract bonds as the principal risk financing tool.

Construction Defect Risk Management Summit – March 2011

RMAS-INS sponsored an informational session between representatives from Harvard Planning and Project Management Department, the Office of General Counsel, Harvard project owners, the Graham Company (Harvard’s OCIP Insurance Broker), and Zurich Insurance Company, the largest construction insurer in North America and the lead insurer for the 32 Quincy Street Renovation and Expansion Project Owner Controlled Insurance Program, on construction defect risk. The discussion, intended to be the first in a series of talks sponsored by the Insurance Group on managing construction risks, focused primarily on the applicability of commercial general liability insurance to loss resulting from defective construction.
Construction Defect at Harvard

Defective work on Harvard construction projects is typically addressed without insurance company involvement and without consequential damage or injury. However, this is not always the case. Two instances of defective workmanship on Harvard construction projects which resulted in significant consequential damage and/or financial loss have been reported to the RMAS-INS in recent years. In the first, a storm water drainage system on a newly constructed building was improperly installed (figure right), resulting in flooding of the below grade levels of the building during moderate to heavy rains. The second involved construction debris being introduced into water chillers in a newly constructed chilled water plant causing damage to the chillers unit (figure above) requiring extensive.

The overall theme of the session was that Harvard is exposed to risk of loss resulting from construction defect on all of its construction projects regardless of size or scope. Although issues arising out of defective construction are very often resolved by project managers and contractors without significant financial costs or the involvement of insurers, there is the potential for defective construction to result in very large financial costs to correct work that has been performed incorrectly and repair any resulting damage to the work, especially defects that may not be discovered for many months after the work is completed. Additionally, the University may incur substantial indirect costs as a result of the defective workmanship. Examples include liability for injury to students, faculty, staff or visitors from falling or unstable objects, loss of revenue while defective construction is remedied, and extra expenses necessary for the continuity of operations while the property is (re)constructed to original design specifications.

Zurich led the discussion, using fact patterns from actual claims as examples, illustrating that the intricate process of obtaining a financial recovery for these types of loss can be arduous and require dedication of significant staff resources by the insured organization. If the financial loss is large enough, the responsible contractor’s commercial general liability insurance may be the only source of funding for amounts it is legally obligated to pay because of its defective work. This is significant because courts in
different jurisdictions have rendered differing decisions regarding the applicability of general liability insurance to construction defect claims. In a significant number of cases the courts ruled that CGL insurance does NOT apply to construct defect claims, leaving the building owner to pursue recovery directly from the GC or CM, which may have no means of funding such liability. For Massachusetts, case law arising from recent court reviews is ambiguous at best putting even greater pressure on the drafters of design documents and construction agreements to be explicit with respect to the treatment of and liability for construction defects.

The most important take away from the session: given the unclear applicability of commercial general liability insurance, a comprehensive risk financing scheme utilizing performance bond coupled with comprehensive contractor and subcontractor insurance requirements, all combined with meticulously drafted construction contracts, is required to hedge against the financial risk associated with construction defects.
V. The Team

Johanna Delahunty  
Administrative Assistant  
Johanna_Delahunty@harvard.edu

Mark Frazier  
Manager, Claims and Loss Prevention  
Mark_Frazier@harvard.edu

Victor Greene  
Associate Director of Insurance  
Victor_Greene@harvard.edu

Walter Pizzano  
Director, Risk Strategy and Insurance  
Walter_Pizzano@harvard.edu
For more information on risk financing topics, instructions for reporting claims and obtaining proof of insurance, and details on university insurance coverages including procedures for investigating special coverage needs, please visit the Insurance Group’s website and our online service center at:

http://vpf-web.harvard.edu/rmas/insurance.html