ROI CASE STUDY
SPSS
INFINITY PROPERTY & CASUALTY

THE BOTTOM LINE

Infinity Property & Casualty Corporation (IPACC) deployed SPSS to reduce its payments on fraudulent claims and improve its ability to collect payments from other insurance companies.

ROI: 403%

Payback: 3 months

THE COMPANY

Infinity Property & Casualty Corporation (IPACC) is a provider of personal automobile insurance with an emphasis on nonstandard auto insurance. Nonstandard auto insurance provides coverage to drivers who, because of their driving record, age, or vehicle type, represent higher than normal risks and pay higher rates for coverage. The company's products provide insurance coverage for liability to others for bodily injury and property damage, and for physical damage to an insured's vehicle from collision and various other damages. IPACC distributes its products primarily through the Web and a network of independent agencies.

THE CHALLENGE

Because IPACC insures drivers who have higher incidences of accidents and claims, its profitability is highly dependent on its ability to identify fraudulent claims. It also needs to both maximize and accelerate the collection of subrogation payments, which are sought when a claim is the responsibility — or partial responsibility — of a driver who is not an IPACC policy holder.

In early 2007, IPACC began looking for ways to automate the workflows and data gathering related to fraudulent and subrogated claims. The identification of potentially fraudulent claims was the responsibility of claims adjusters who had varying degrees of training and used inconsistent practices. As a result, data related to potentially fraudulent claims was typically not gathered rapidly or completely enough. Speed of investigation and the early gathering of key data are both important for claims investigators. The prompt initiation of fraud investigation tends to reduce factors that inflate the values of fraudulent claims, such as the number of injured parties and the extent of their injuries.

THE STRATEGY

In mid-2007, IPACC began looking for a solution that would enable the company to more rapidly identify and investigate suspicious claims. IPACC also wanted to be able to identify unsuspicious claims so that they could be handled rapidly in order

to improve customer satisfaction. IPACC evaluated solutions from ChoicePoint, IBM, and SPSS. The SPSS solution was chosen for a number of reasons, including:

- SPSS could be deployed on an on-premise basis, and IPACC wanted to maintain sole ownership of both the deployment and the underlying data.

- The SPSS platform could be expanded beyond claims management and could also be used for other insurance-specific functions including predictive models for pricing strategies, marketing strategies, product and agency management, and customer retention. Use of SPSS could also be expanded over time to support broader collection of data from different sources for analysis.

- The SPSS solution, although purpose-built for the insurance industry, could readily be customized to accommodate IPACC's workflows and preferences.

After purchasing SPSS in July 2007, IPACC assembled a team of three people from IPACC who spent five months deploying the solution. The deployment required:

- Documentation. The team worked with the business units to create the optimal workflows for identifying suspicious claims, forwarding them for investigation, processing subrogated claims, and fast tracking unsuspicious claims.

- Rules building. Parameters were adjusted in SPSS to match IPACC's intended workflows.

- Fine tuning of red flags. The team fine tuned the settings in SPSS so that claims would be flagged as suspicious based on the geographic markets IPACC operates in and the riskier nature of its customer base.

- Testing. Once the rules and parameters were set, the tool was tested using an old body of claims for which the actual incidence of fraud was known. Based on these results, the tool was further fine tuned for deployment.

SPSS was deployed in February 2008 and is used to identify suspicious claims before they are handled by investigators. Suspicious claims are forwarded to IPACC's 35 investigators who are now able to begin their investigations within days of a claim and have access to better data. Having used the tool to accelerate investigations and increase case closure rates, IPACC will soon utilize the text-mining functionality to interpret and analyze the handwritten notes of claims adjusters so that they are more easily used in fraud investigations.

KEY BENEFIT AREAS

Adopting SPSS PredictiveClaims enabled IPACC to reduce claims payments and accelerate the collection of subrogation payments. Key benefits from the solution include:

- Accelerated payment collection. When an IPACC policy holder submits a claim in which another driver is partially or fully responsible for the accident, IPACC is now able to collect payment from that driver's insurer more rapidly because SPSS acquires and rapidly makes available the information required to successfully pursue collection. Additionally, the tool prioritizes collection efforts, so that payments from uninsured drivers are pursued last and payments from properly insured drivers are pursued first.

BENEFITS

Indirect
1%

Direct
99%
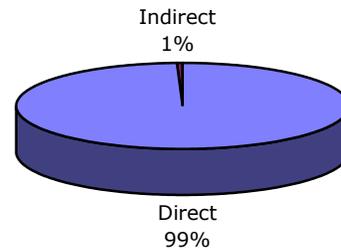
TOTAL: $17,661,311

- Reduced cost of claims payments. SPSS enables investigators to begin investigations earlier, before evidence becomes stale or people's memories change. This leads to more successful investigations and reduced costs related to fraudulent claims activity.

KEY COST AREAS

Key cost areas for the deployment included software, consulting, personnel, and hardware.

COSTS

Personnel
8%

Training
2%

Consulting
17%

Hardware
3%

Software
70%
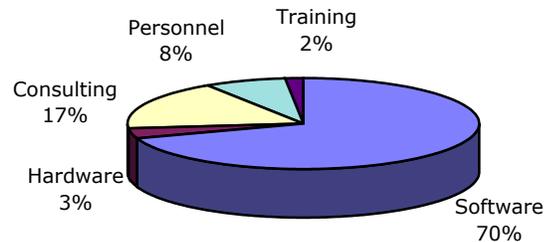
TOTAL: $1,270,063

The solution was deployed over a 5-month period by three employees of IPACC and three consultants from SPSS who assisted with construction of rules for data analysis and script building. At the end of the deployment, four employees received a week of training from SPSS. Software costs consisted of SPSS licenses and maintenance. Three new servers were deployed to support the project.

BEST PRACTICES

Although IPACC started using SPSS for claims, it chose SPSS over other applications because it could be expanded to additional business uses within and outside the claims department. For example, IPACC recently purchased an additional license for its actuarial area for customer retention and pricing analysis. As IPACC continues its deployment of SPSS, it plans to analyze how it can gain

more value by both identifying new potential applications and how it can collect data from additional sources for more effective predictive modeling.

IPACC is also using its knowledge from the initial deployment to fine-tune the application and make it a more integrated part of call center operations. For example, when a call center representative records a claim, the solution will continually reevaluate the claim as new details are entered into the system. Based on the interpretation of the claim, the application will give the call center representative a different response for the claimant based on whether the claim is likely to involve fraud, unlikely to involve fraud, or if more fraud-related data is needed. Because the proper questions will be asked — and the proper data gathered — during the first contact, SPSS will help IPACC to further streamline its claims management process.

CALCULATING THE ROI

Nucleus calculated the costs of software, consulting, personnel, hardware, and training over a 3-year period to quantify IPACC's total investment in SPSS.

Direct benefits calculated included both avoided costs related to fraudulent claims and higher collection rates on subrogated claims. Indirect benefits consisted of accelerated collection of these claims. The value of avoided costs related to fraudulent claims was based on the increase in the number of successful investigations resulting from the deployment. The benefit from higher collection rates on subrogated claims was quantified based on the increased number of referrals to the subrogation claims department resulting from SPSS.

SUMMARY

Project:	**SPSS**
Annual return on investment (ROI)	**403%**
Payback period (years)	**0.25**
Net present value (NPV)	**5,967,279**
Average yearly cost of ownership	**426,765**

ANNUAL BENEFITS	Pre-start	Year 1	Year 2	Year 3
Direct	0	5,847,720	5,847,720	5,847,720
Indirect	0	39,384	39,384	39,384
Total Benefits Per Period	0	5,887,104	5,887,104	5,887,104

DEPRECIATED ASSETS	Pre-start	Year 1	Year 2	Year 3
Software	558,452	0	0	0
Hardware	44,726	0	0	0
Total Per Period	603,178	0	0	0

DEPRECIATION SCHEDULE	Pre-start	Year 1	Year 2	Year 3
Software	0	111,690	111,690	111,690
Hardware	0	8,945	8,945	8,945
Total Per Period	0	120,636	120,636	120,636

EXPENSED COSTS	Pre-start	Year 1	Year 2	Year 3
Software	0	111,690	111,690	111,690
Hardware	0	0	0	0
Consulting	223,614	0	0	0
Personnel	15,963	27,413	27,413	27,413
Training	10,232	10,000	0	0
Other	0	0	0	0
Total Per Period	249,809	149,103	139,103	139,103

FINANCIAL ANALYSIS	Pre-start	Year 1	Year 2	Year 3
Net cash flow before taxes	(852,987)	5,738,001	5,748,001	5,748,001
Net cash flow after taxes	(728,082)	2,929,318	2,934,318	2,934,318
Annual ROI - direct and indirect benefits				**403%**
Annual ROI - direct benefits only				400%
Net present value (NPV)				5,967,279
Payback (years)				**0.25**
Average annual cost of ownership				426,765
3-year IRR				399%

FINANCIAL ASSUMPTIONS

All government taxes	50%
Discount rate	15%