

# About Data Loss

- Reasons for data loss
  - Theft
  - Hardware loss
  - Hardware failure
  - Natural disaster
  - User error
  - Malicious activity



**NUIT**

Northwestern University  
Information Technology

# Recovering Lost Data

**The cost for  
DriveSavers to  
recover your data:**

**\$2200 - \$3400**

For an 80GB HD, 1-2 day turnaround



# Backup Overview

- Backups are **critical**.
- Backups should be **regular**.
- Backups should be **incremental**.
- Backups should be **off site**.
- Backups should be **verified**.



# Backups for University Data

- Northwestern recommends Iron Mountain
  - Off-site, online storage
  - Small client program installed on each computer
  - Daily incremental backups
  - Ability to “heal” – restore a computer to an earlier state
  - Monthly fees
  - Automatic maintenance
  - PC only; Mac client in development



# Backups for Personal Data

- **Web-based storage**
- External hard drives (mobile or desktop) often include synchronization software
- Time Machine for Macs
- CD-Rs and DVD-Rs can deteriorate over time
- Flash drives are easily lost and unreliable



# RAID is NOT a backup solution

- RAID uses multiple hard drives to mirror data
- Ensures uptime and, in some cases, improves disk performance
- Does not provide incremental snapshots of files
- Should be used *in addition to* a dedicated backup solution for users who require increased performance and/or reliability

