# Report on the Survey of Record-Keeping Practices of Photographers Using Digital Technology

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November 16, 2005

InterPARES 2 Latin American and Caribbean Workshop

# Hypotheses

- (1) Photographers keep their digital images for re-use and reference,

- (2) they are not generally concerned with authenticity and reliability, and

- (3) they have not begun to grasp the challenges to continuing access and long-term preservation presented by the use of proprietary digital systems and by technological obsolescence.

# Research Questions

- **1.What kinds of digital records do photographers produce?**
    - a.     Which constitutes the "original" and the "final image," and which are necessary to ensure the integrity of the work?
    - b.     What are the contexts in which the images are created and used?
- **2. What are photographers' assumptions about future access to these records?**
    - a.     What is the photographer's intent regarding the disposition and dissemination of their images?
- **3. What is the nature and variety of digital materials used by photographers?**
    - a.     What is the nature of the hardware and software used?
    - b.     What is the nature of the storage materials used?

- Qualitative Research Method
- Web-based Survey delivered through an online Questionnaire.
- Contacted professional photographers and associations.
  - Canadian Association of Photographers and Illustrators in Communications.
  - Editorial Photographers United Kingdom & Ireland
  - Institute of Medical Illustrators
  - National Press Photographers Association
  - Professional Government and Military Photographer of Canada.
  - Professional Photographers of Canada
  - Professionals Using Digital Imaging
  - Stock Artists Alliance
  - Toronto Photographers Workshop
  - US National Institute of Justice
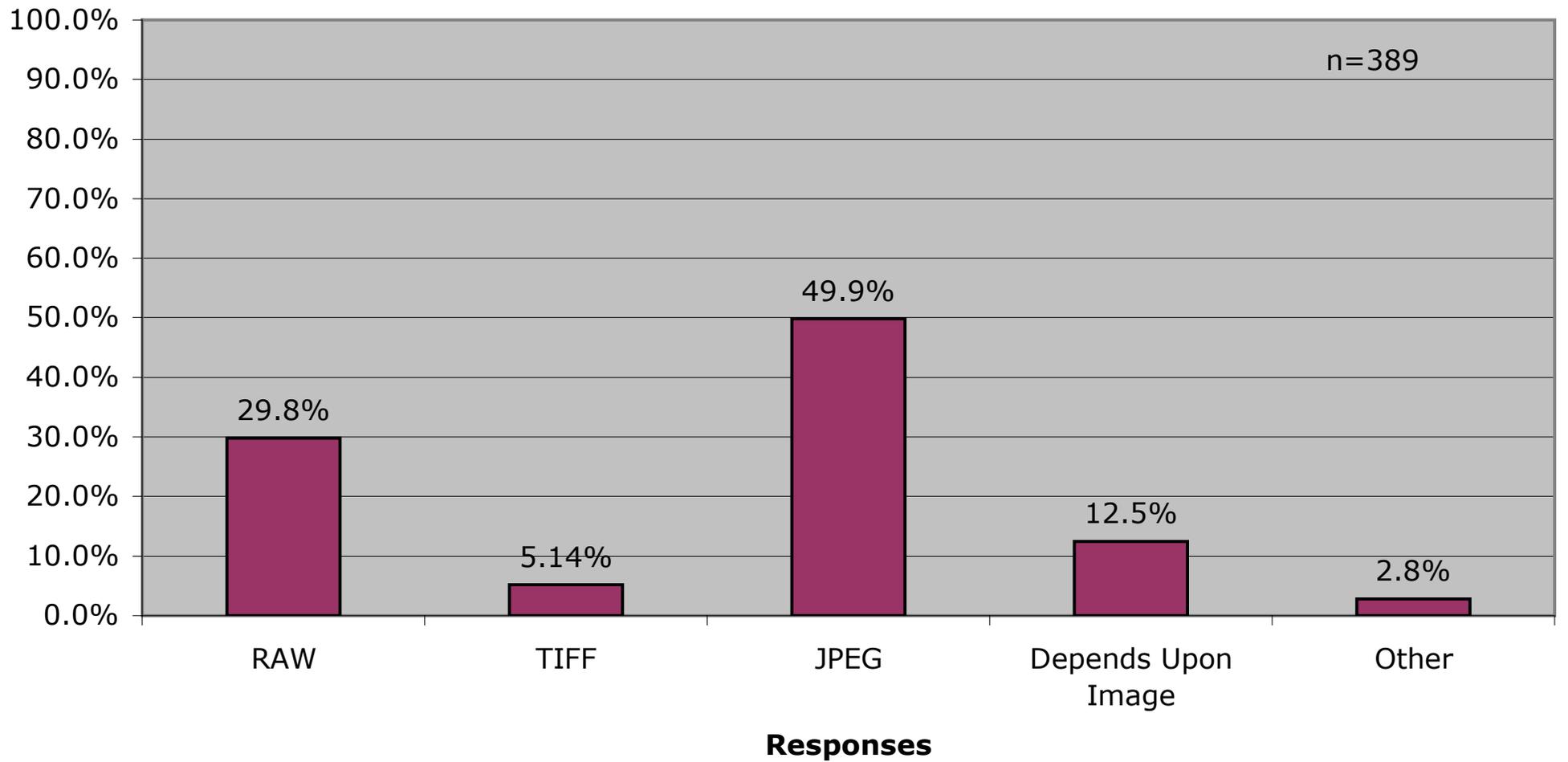- 402 respondents.

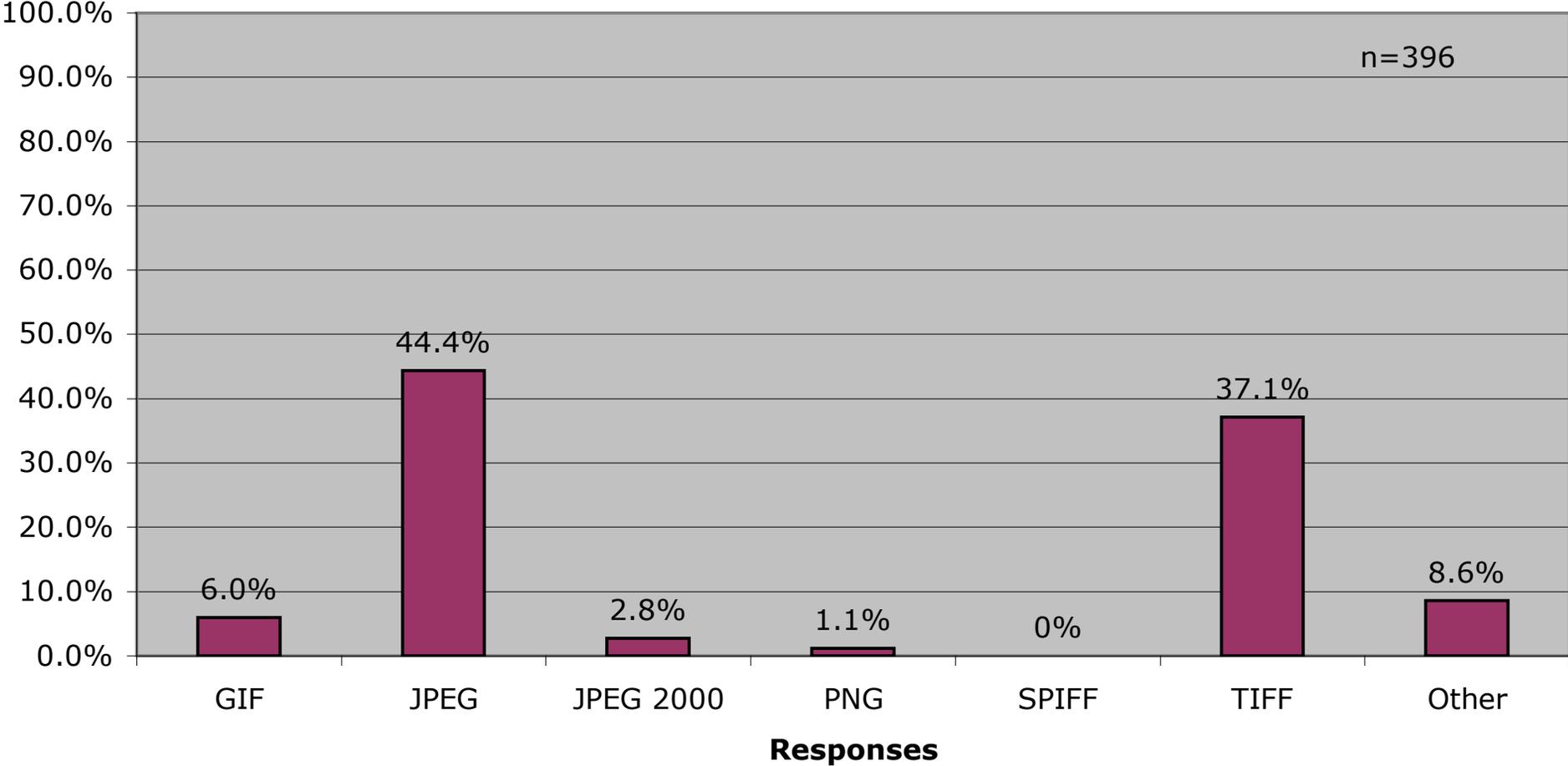# 1.Which best describes the context in which you make photographs?



n=371

| | |
|---|---|
| Artistic | 84.1% |
| Government | 9.2% |
| Scientific | 6.7% |

Responses
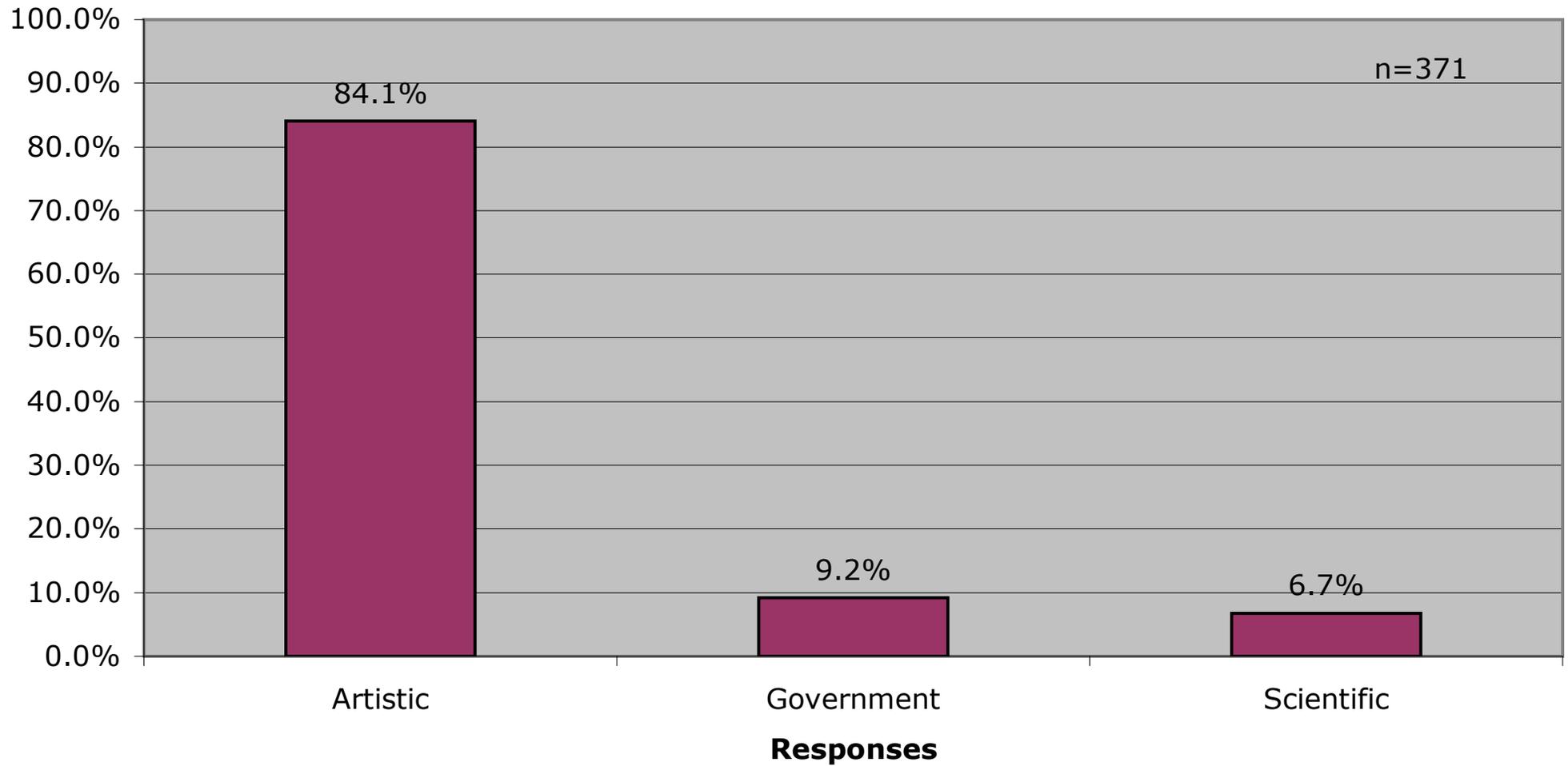
# 2. Which best describes your current photographic practice in the digital environment?
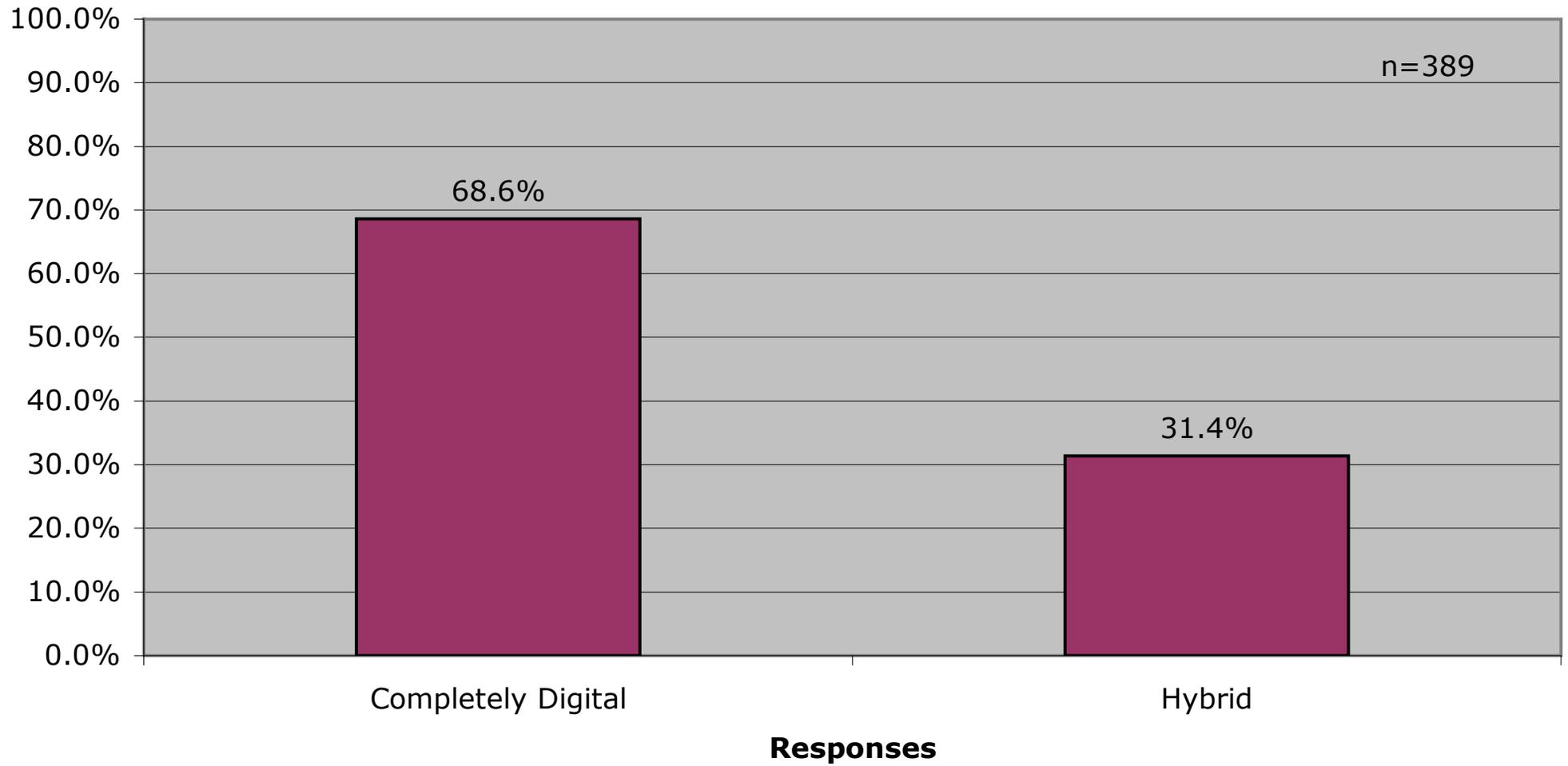
# 3.What format do you most often use to capture digital images in your digital camera?

n=389

| | | | | |
|---|---|---|---|---|
| 29.8% | 5.14% | 49.9% | 12.5% | 2.8% |
| RAW | TIFF | JPEG | Depends Upon Image | Other |

**Responses**

# 4. Which of the following digital image file formats do you produce?

n=396

| | | | | | | |
|---|---|---|---|---|---|---|
| 6.0% | 44.4% | 2.8% | 1.1% | 0% | 37.1% | 8.6% |
| GIF | JPEG | JPEG 2000 | PNG | SPIFF | TIFF | Other |

**Responses**

# 5. Are you concerned with TIFF version compatibility in the future?

n=386



32.6% Yes

37.6% No

24.9% I do not understand.
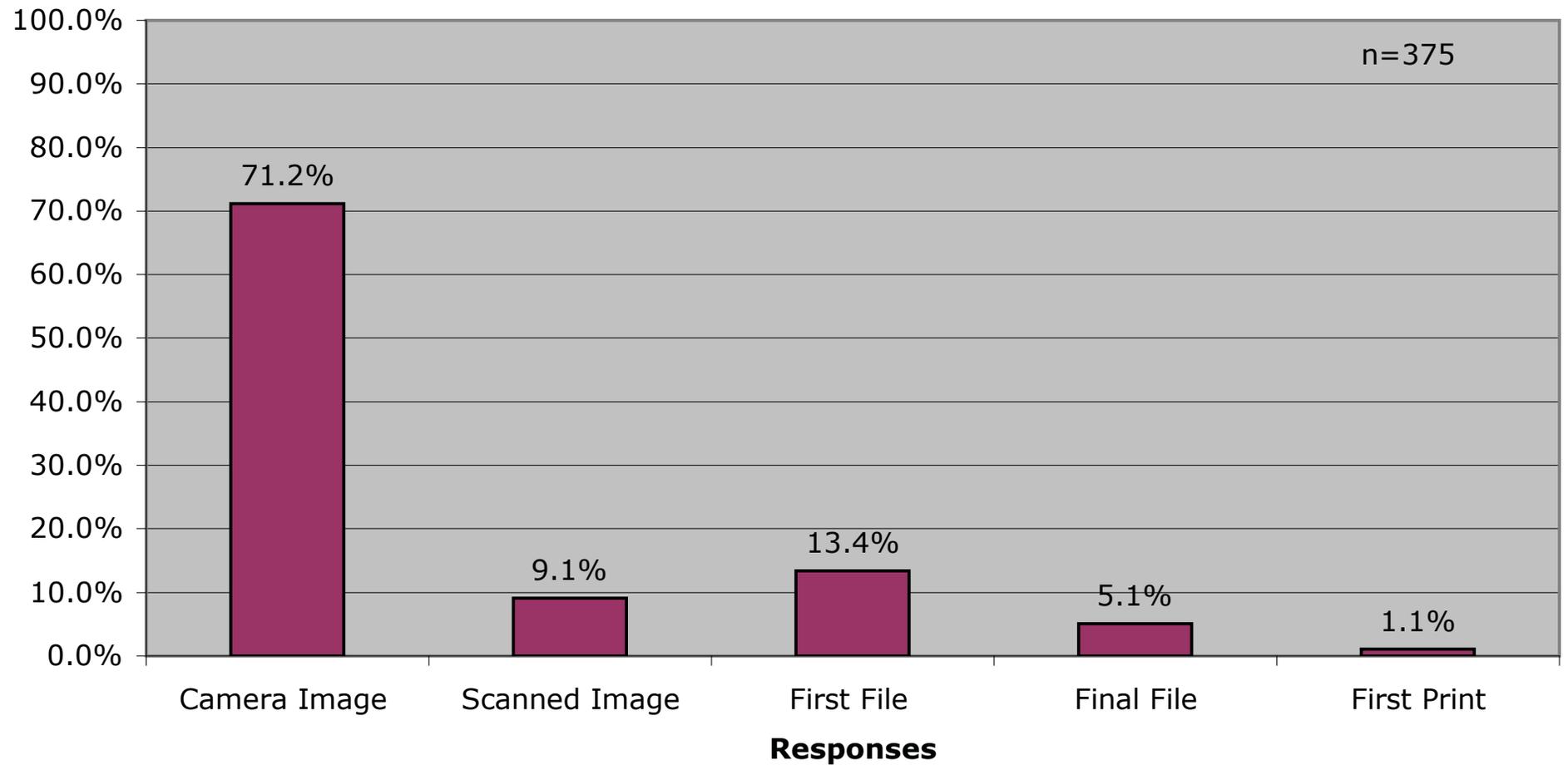
5% Other

**Responses**
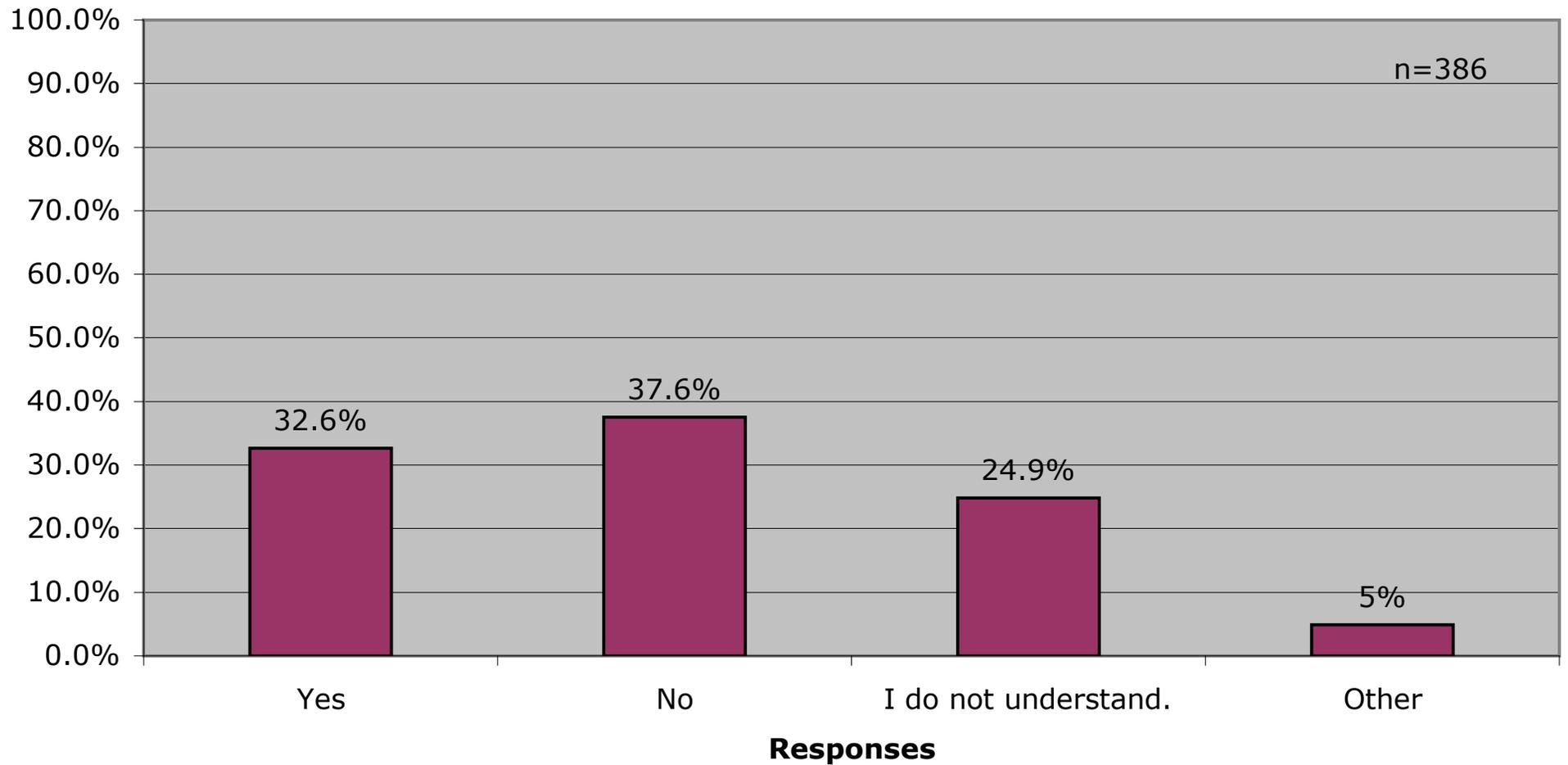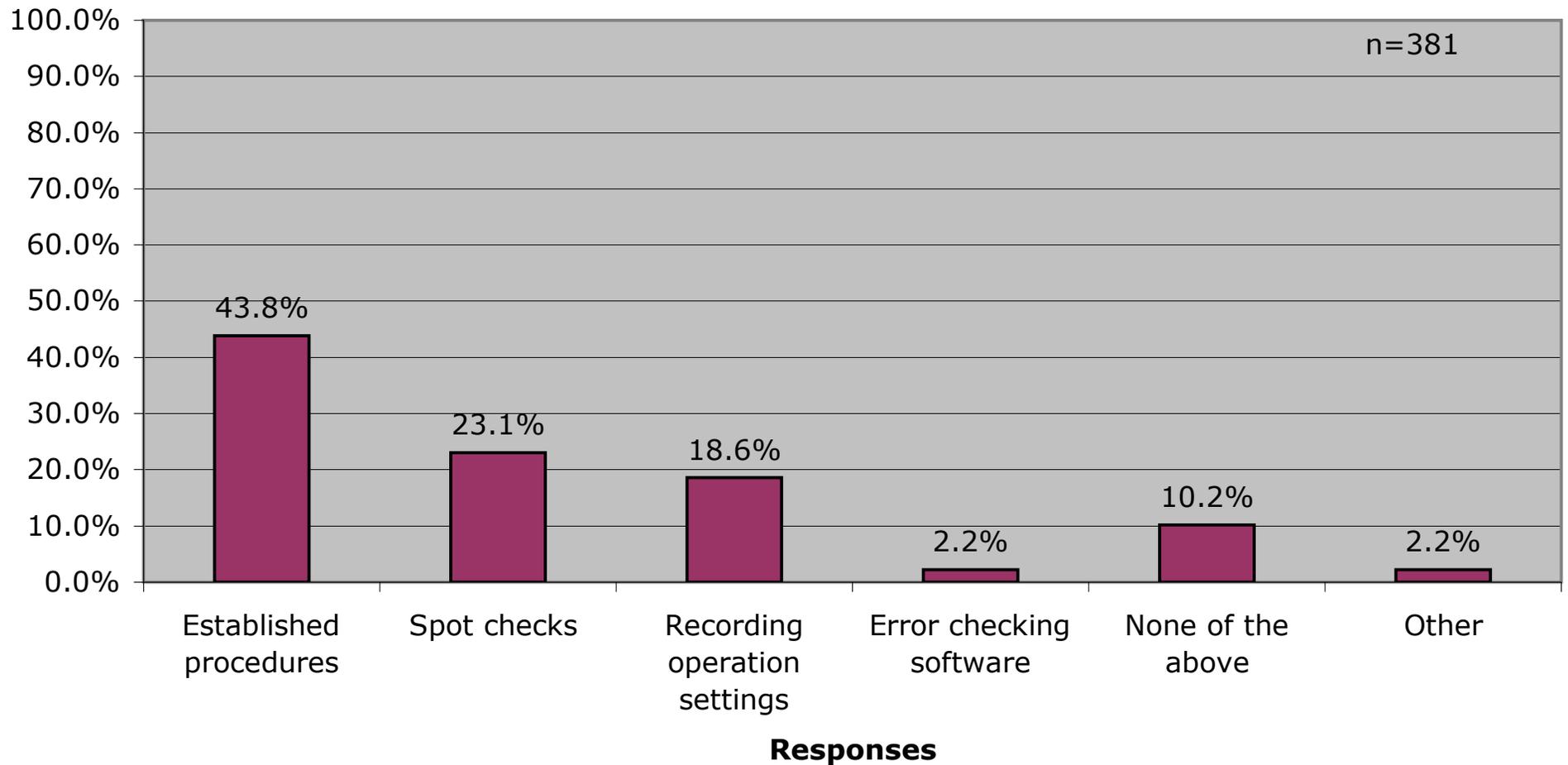
# 6. Is the digital imaging software you use primarily:
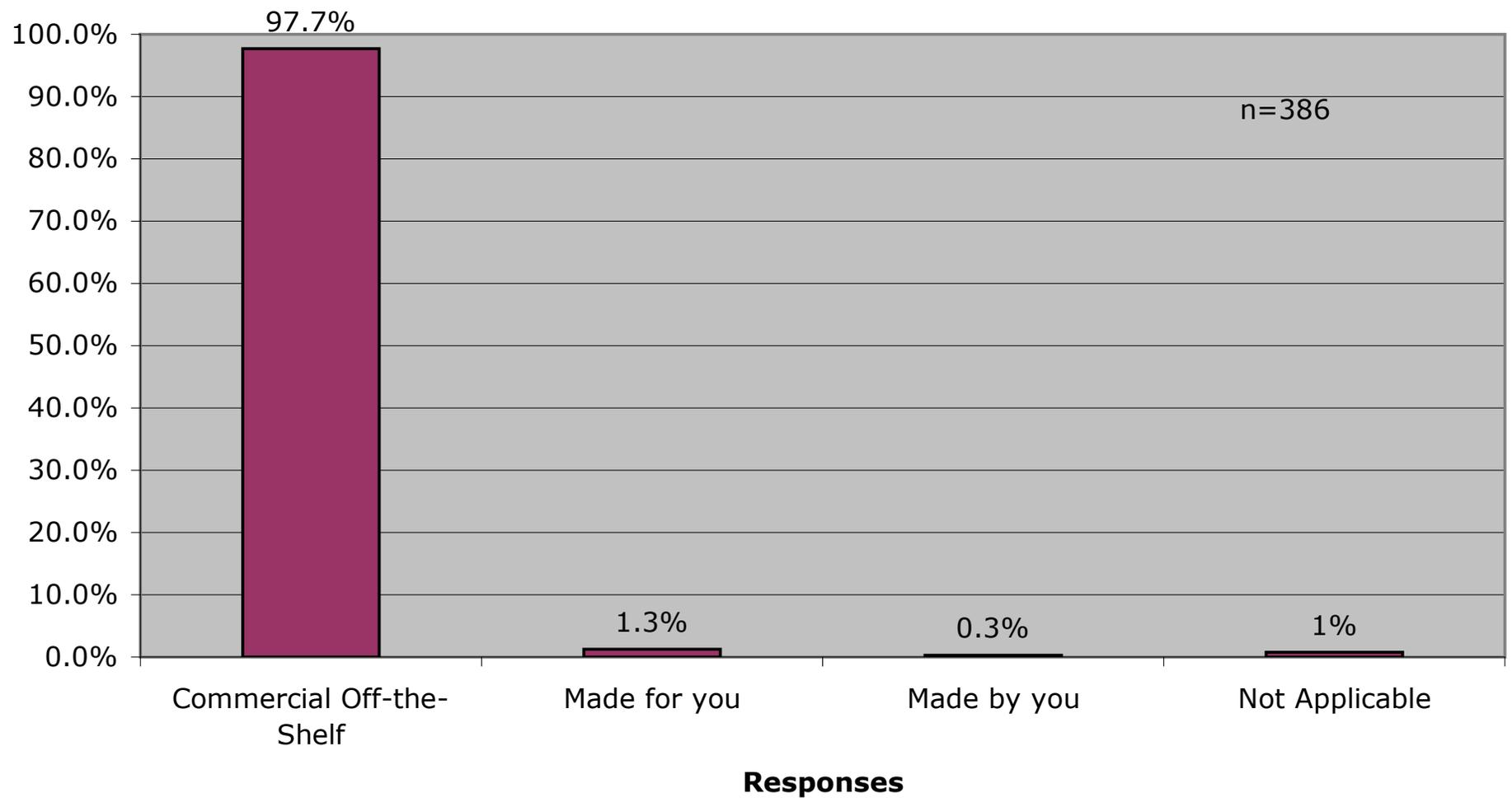
# 7. Do you implement or maintain version control over your digital image files especially when more than one person is working on the same file?



n=392

- File Naming: 50.9%
- File Logs: 8.1%
- No: 37.3%
- Other: 3.7%

**Responses**
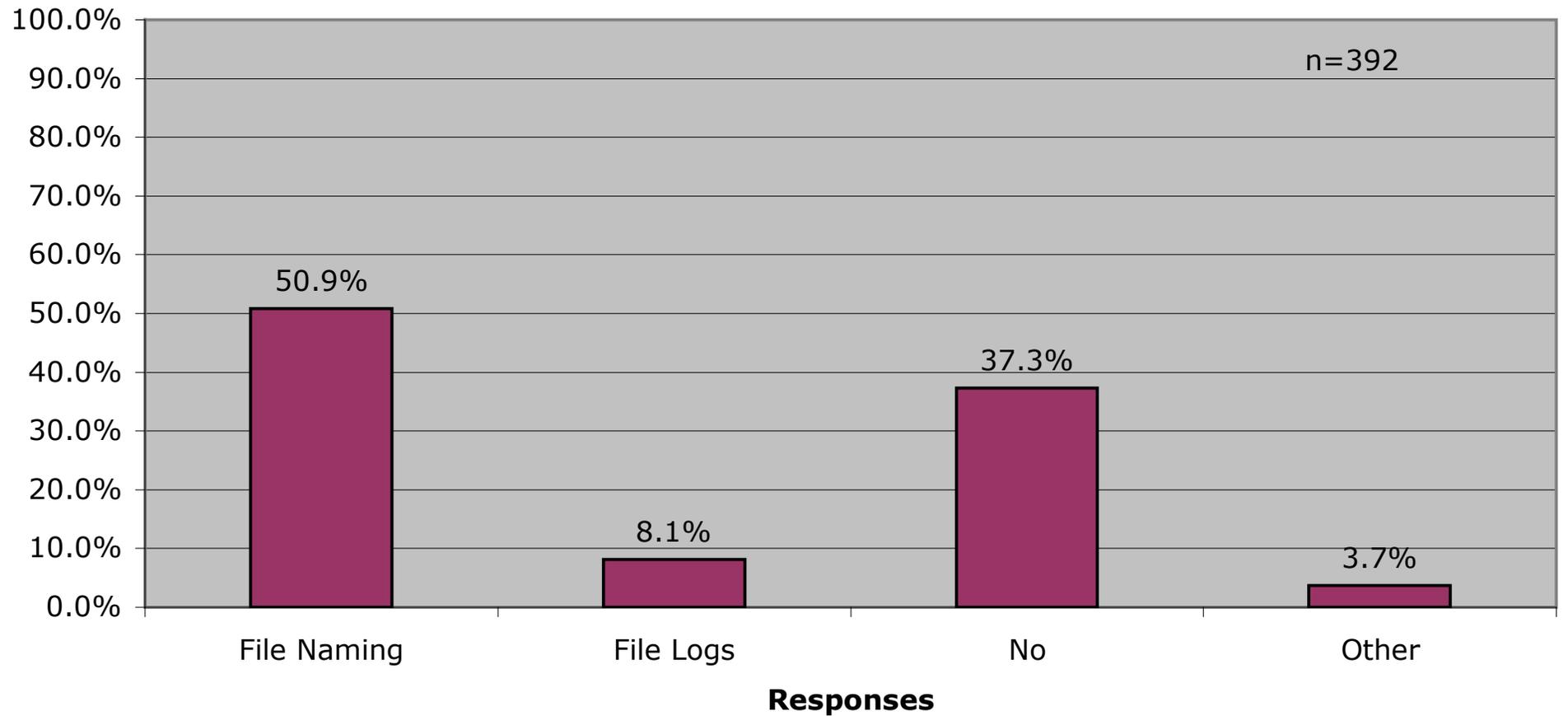
# 8. Which digital image file do you consider to be the original?



n=375

| Response | Percentage |
|---|---|
| Camera Image | 71.2% |
| Scanned Image | 9.1% |
| First File | 13.4% |
| Final File | 5.1% |
| First Print | 1.1% |

**Responses**
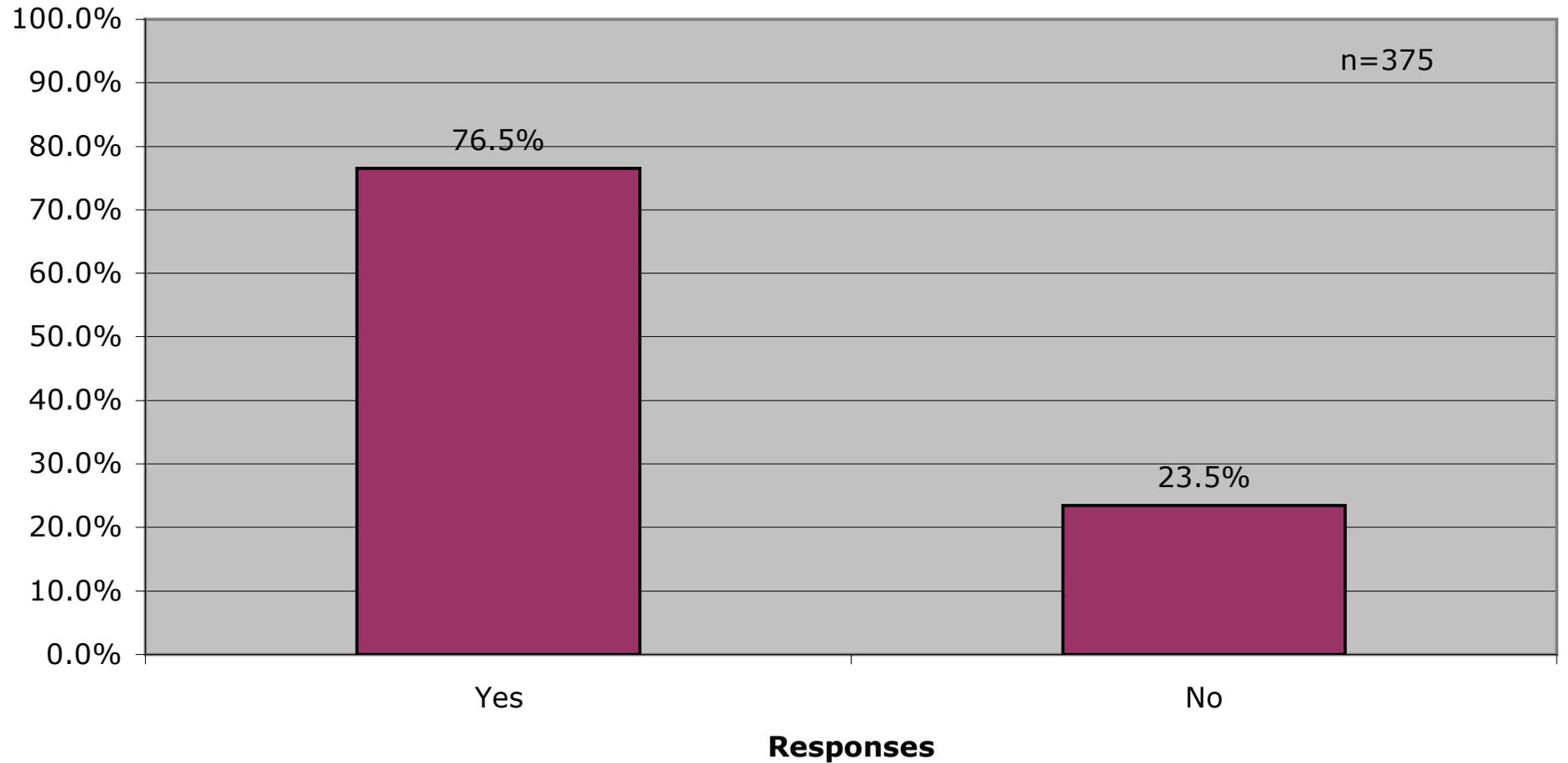
# 9. Which of the following methods do you use to maintain quality control over the digital image capture process?



n=381

- Established procedures: 43.8%
- Spot checks: 23.1%
- Recording operation settings: 18.6%
- Error checking software: 2.2%
- None of the above: 10.2%
- Other: 2.2%

Responses

# 10. Do you produce digital images with collaborators?



n=372

- Yes: 22.0%
- No: 78.0%

Responses
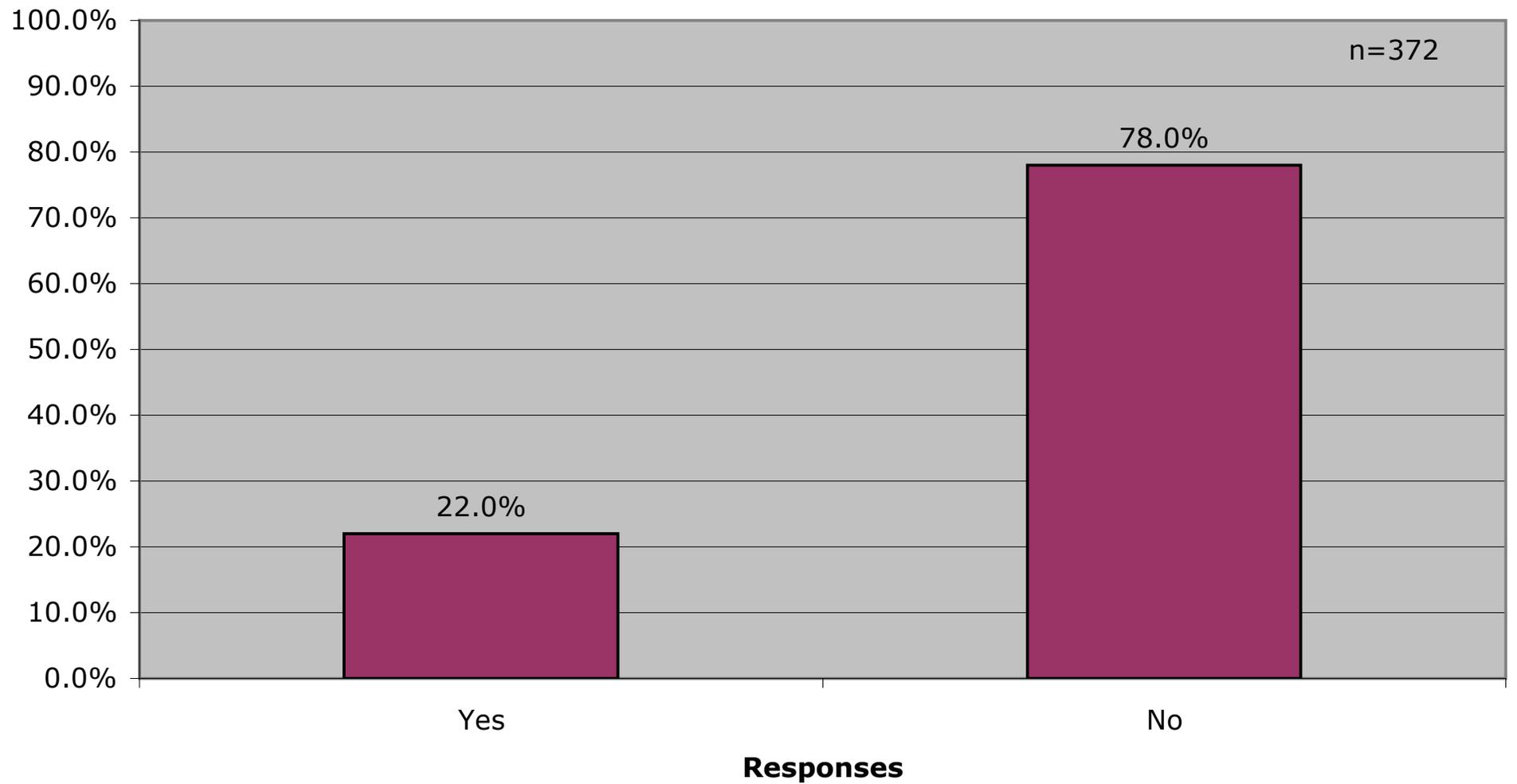
# 11. Do you keep any of the draft digital image files you create during the working process?



n=375

- Yes: 76.5%
- No: 23.5%

**Responses**

# 12. If yes, why do you keep these working files?

n=377

| | |
|---|---|
| Ensure Access | 25.3% |
| Notation | 34.5% |
| Intellectual Property Rights | 15.3% |
| Evidence of Routine | 15.5% |
| Other | 9.4% |

**Responses**
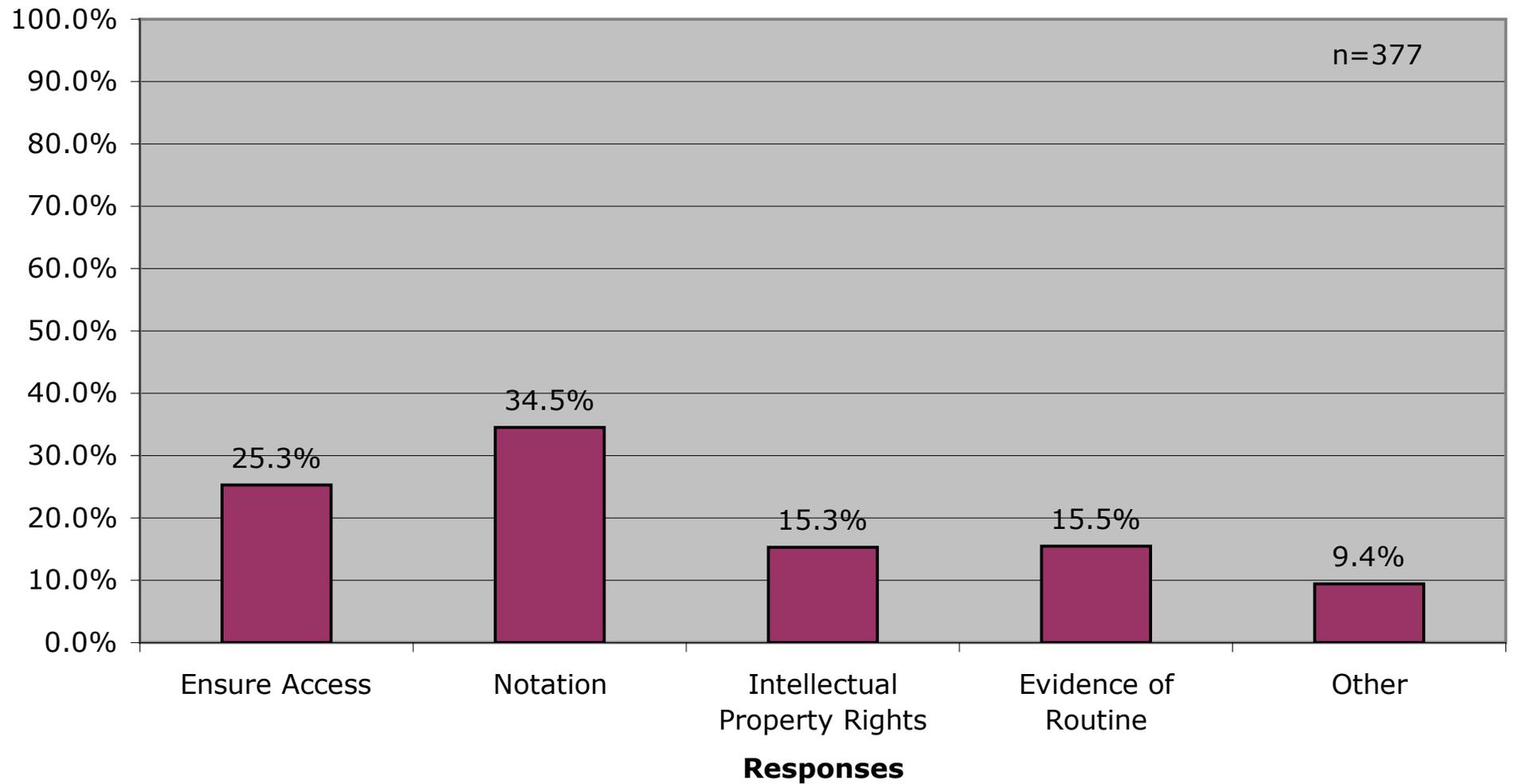
# 13. Do you move any of your digital images into long-term storage?



n=366

- Always: 80.3%
- Sometimes: 17.2%
- Never: 3.0%

**Responses**
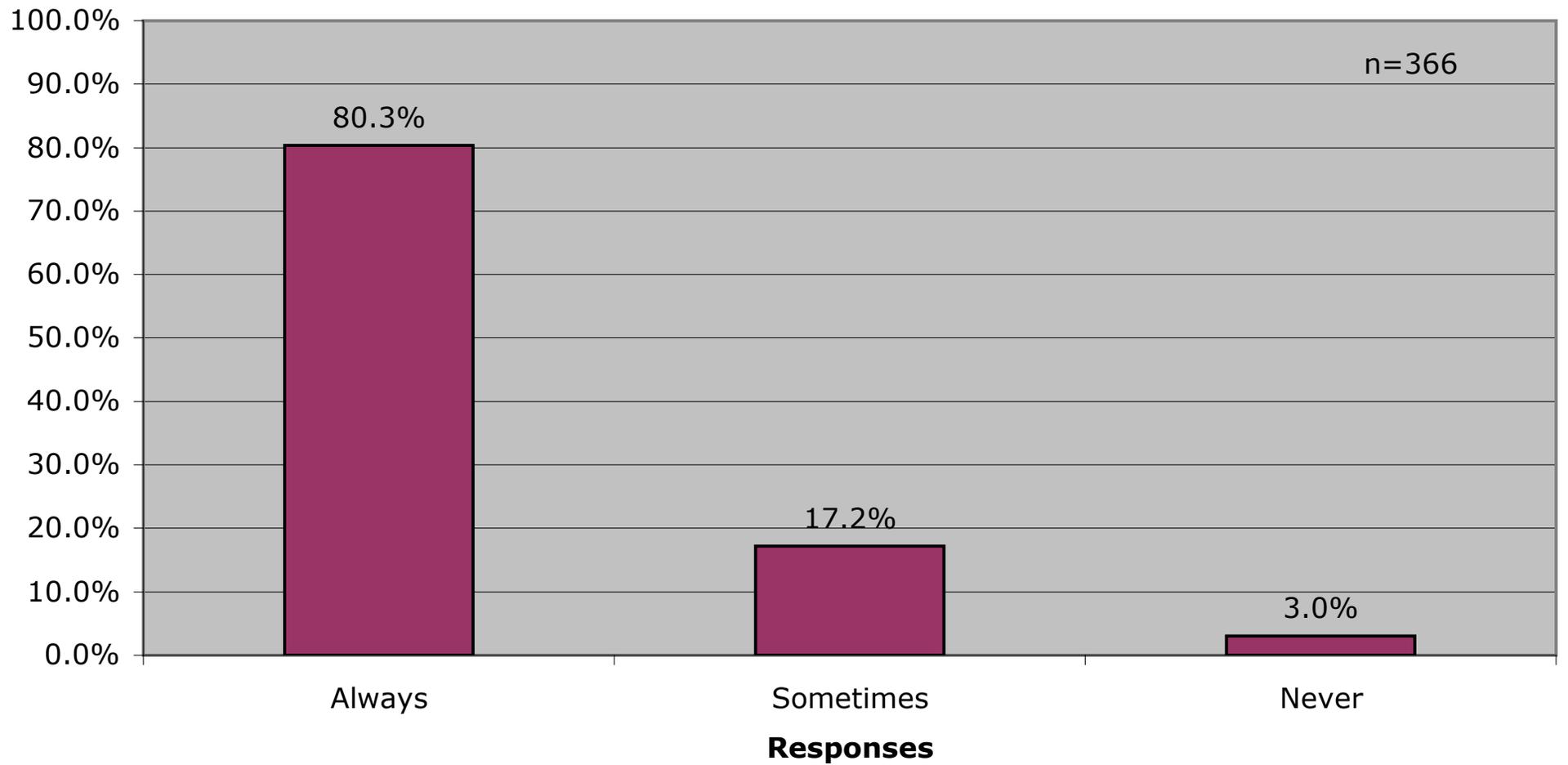
# 14. Which of the following influence your choice of methods and/or procedures you use to save your digital image files for the long term?



n=371

| Responses | Percentage |
|-----------|-----------|
| My own knowledge | 45.1% |
| Recommendations | 35.7% |
| Institutional Guidelines | 14.8% |
| Gallery Requirements | 1.6% |
| Other | 2.8% |
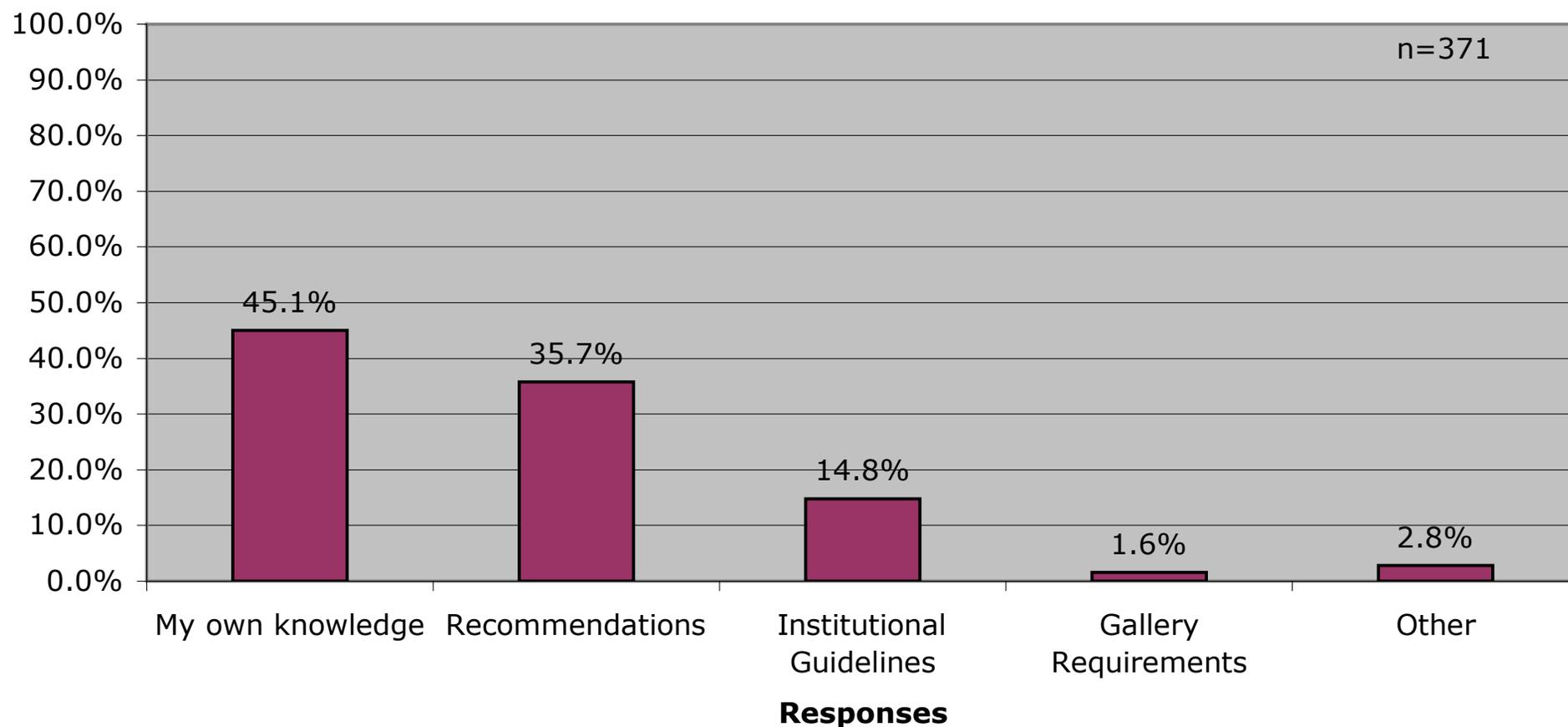
# 15. When in your working process do you consider long-term storage formats?

n=376

| Responses | Percentage |
|---|---|
| Planning Stage | 22.1% |
| Working Process | 19.5% |
| Completed Project | 49.9% |
| I do not consider | 8.5% |

**Responses**
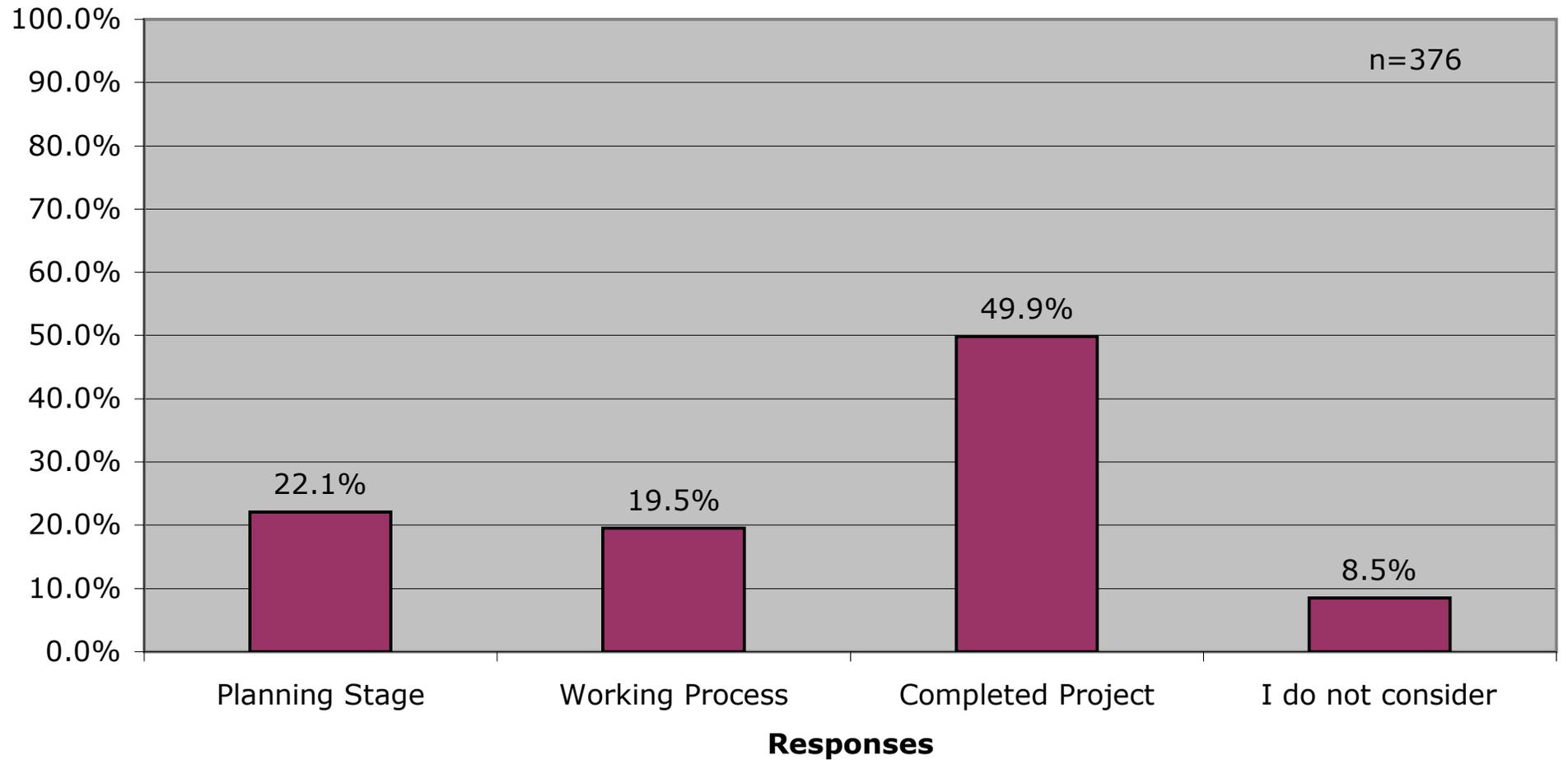
# 16. Which of the following activities does your digital image preservation method typically address or affect?

n=358

| | 13.3% | 14.6% | 18.9% | 20.3% | 30.7% | 2.3% |

**Responses**

Capture Hardware · Software · File naming · File formats · Storage Medium · I do not address
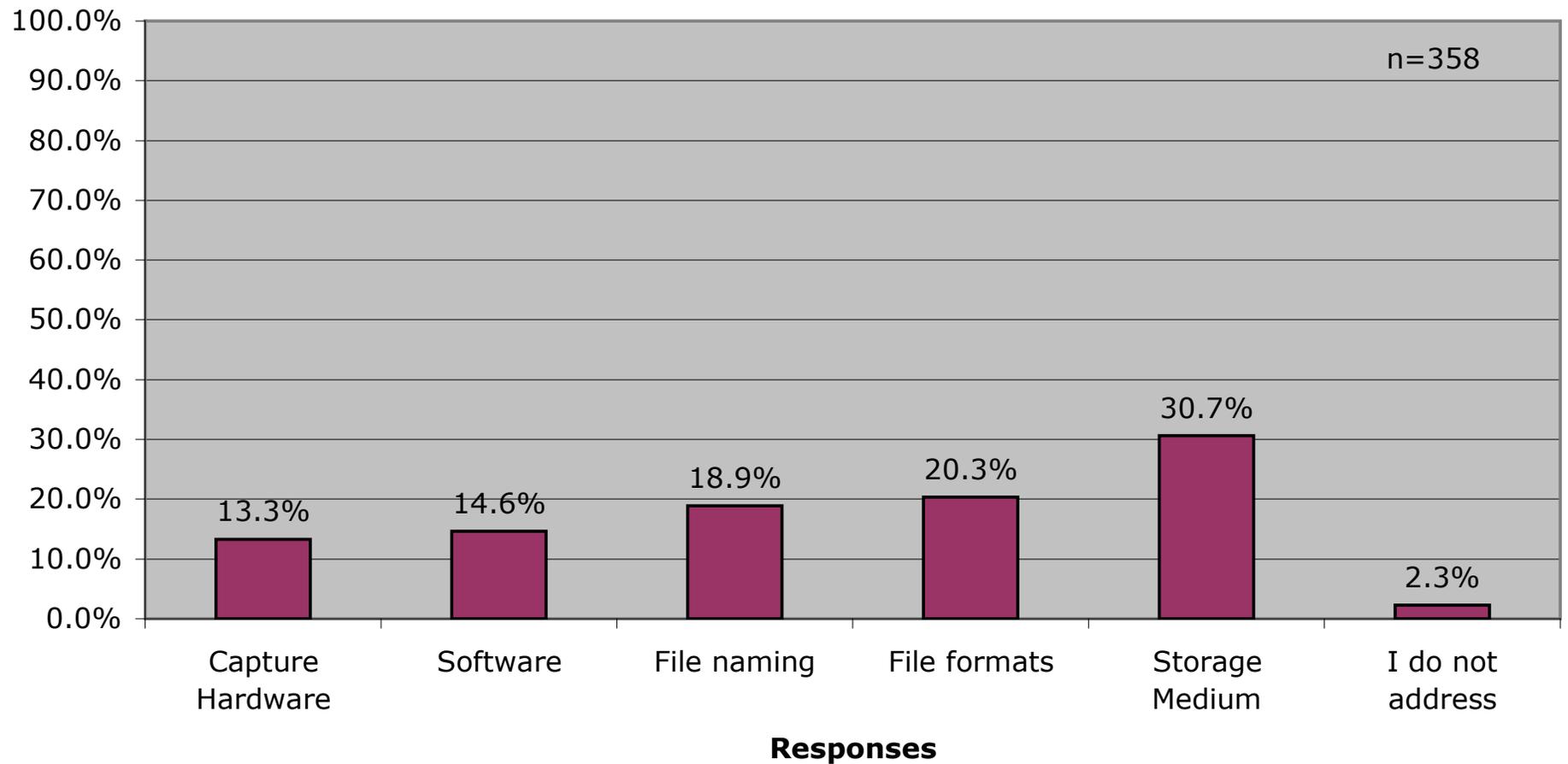
**17. If you do save your digital image files for long-term storage, in which of the following file formats are they saved?**

n=357

| Response | Percentage |
| --- | --- |
| GIF | 1.6% |
| PNG | 0.2% |
| JPEG | 50.3% |
| JPEG 2000 | 1.1% |
| SPIFF | 0.0% |
| TIFF | 46.7% |
| Other | 0.0% |

Responses
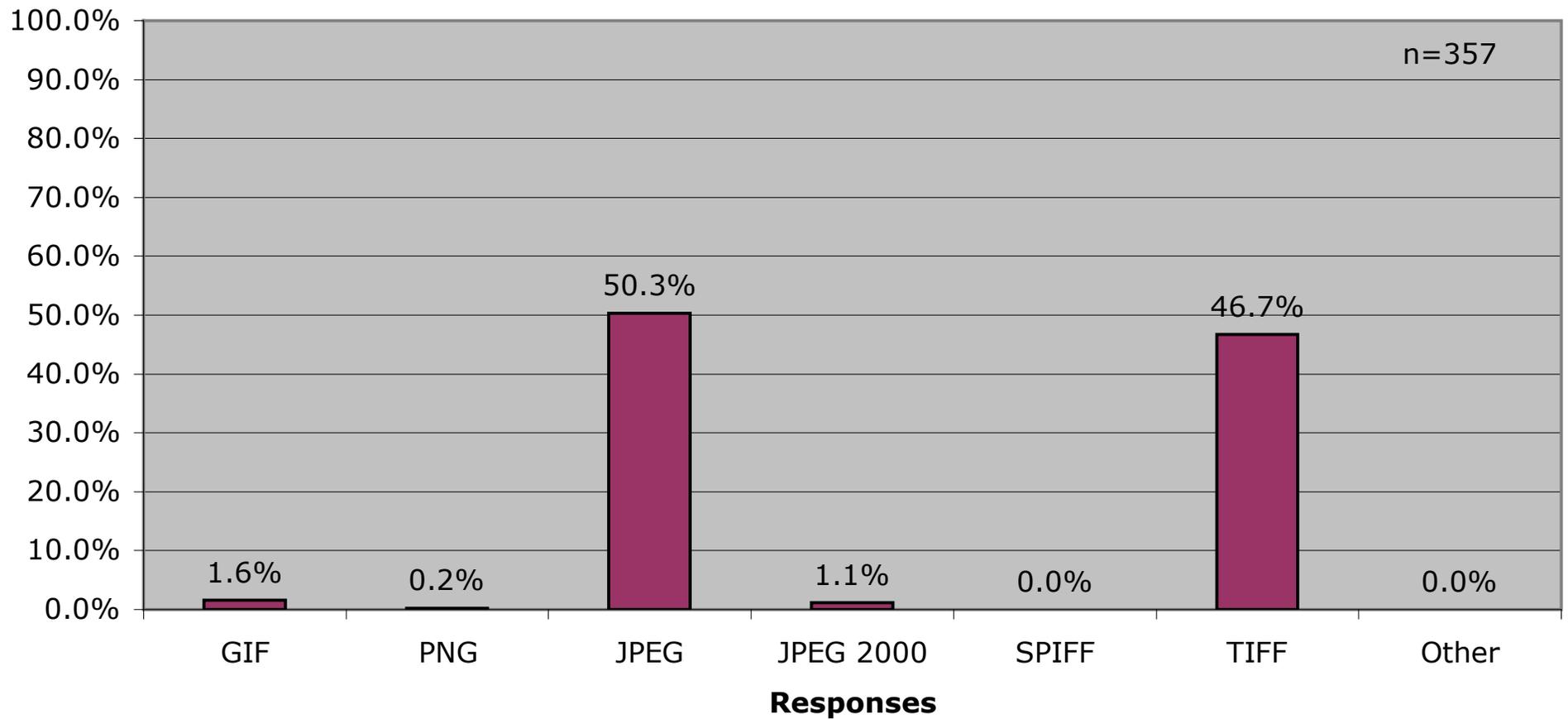
# 18. Is your choice of file format for long-term storage influenced by compression considerations?

n=350

49.4%

50.6%

Yes

No

**Responses**
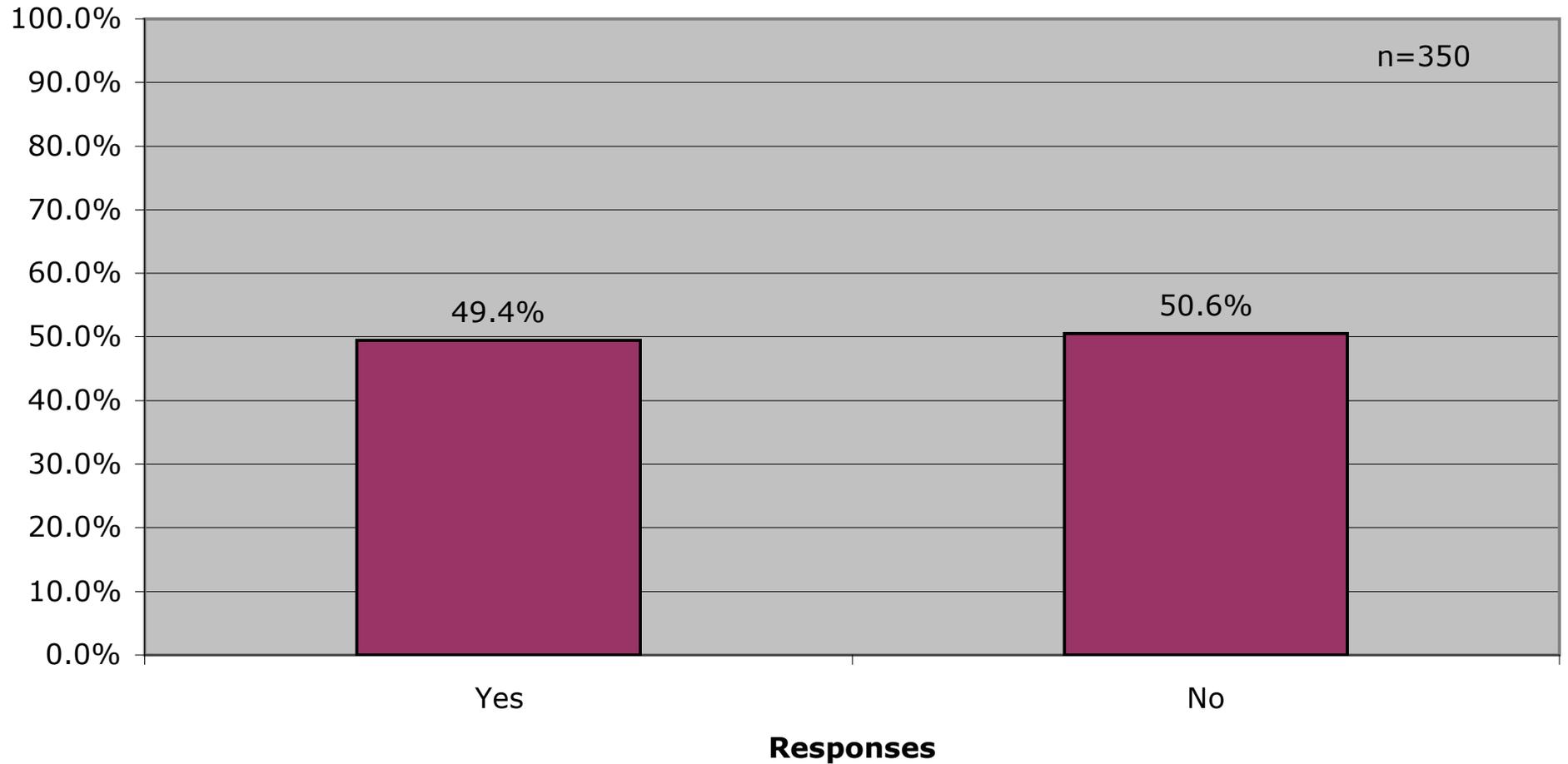
## 19. Have you lost digital image files that you considered valuable, through software or hardware obsolescence?

n=350

25.4%

74.6%

Yes

No

**Responses**
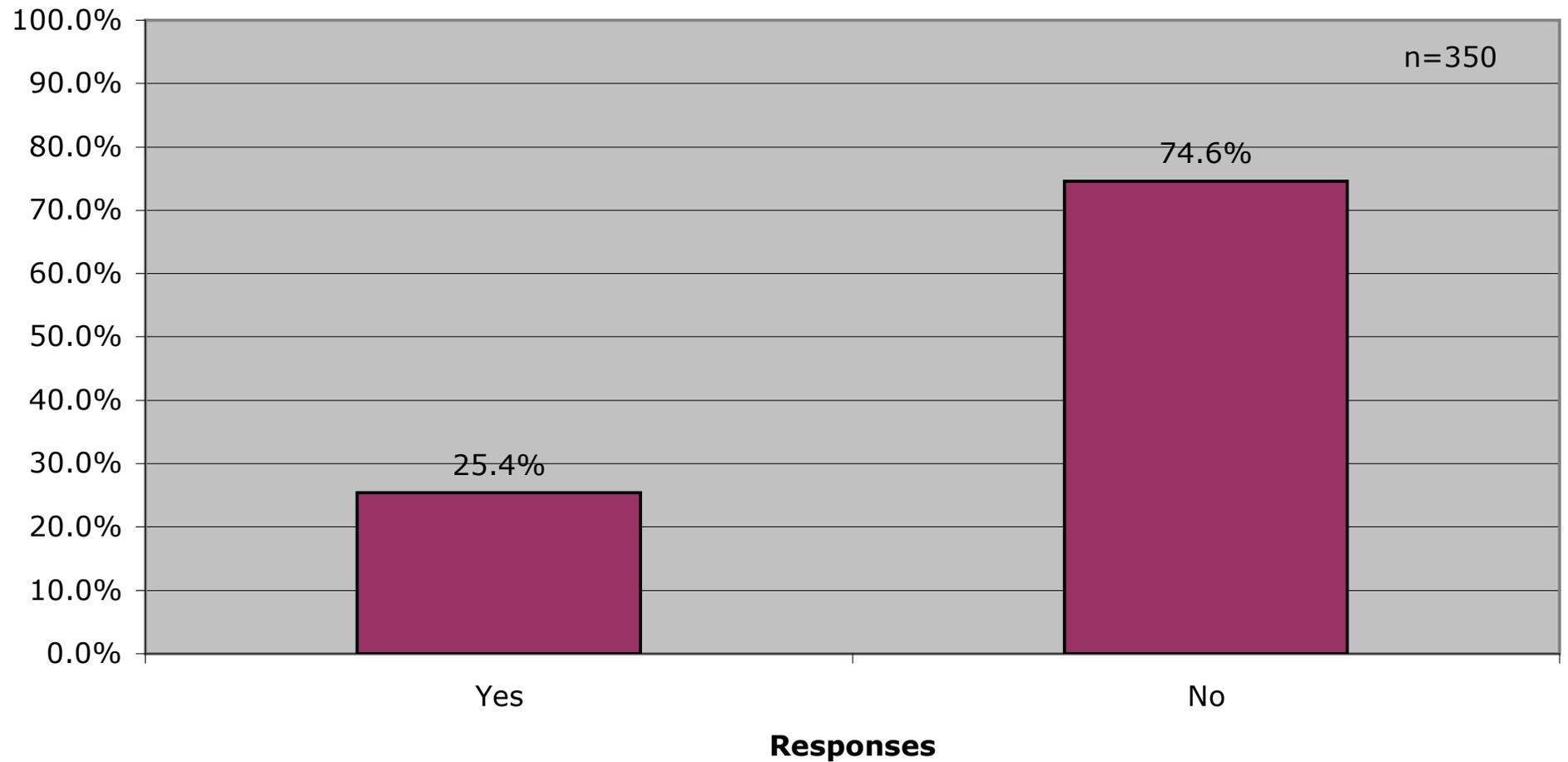
# 20. Do you take measures to protect your digital image files from becoming obsolete or outdated and irretrievable?



n=347

56.2% — Yes
43.8% — No

Responses
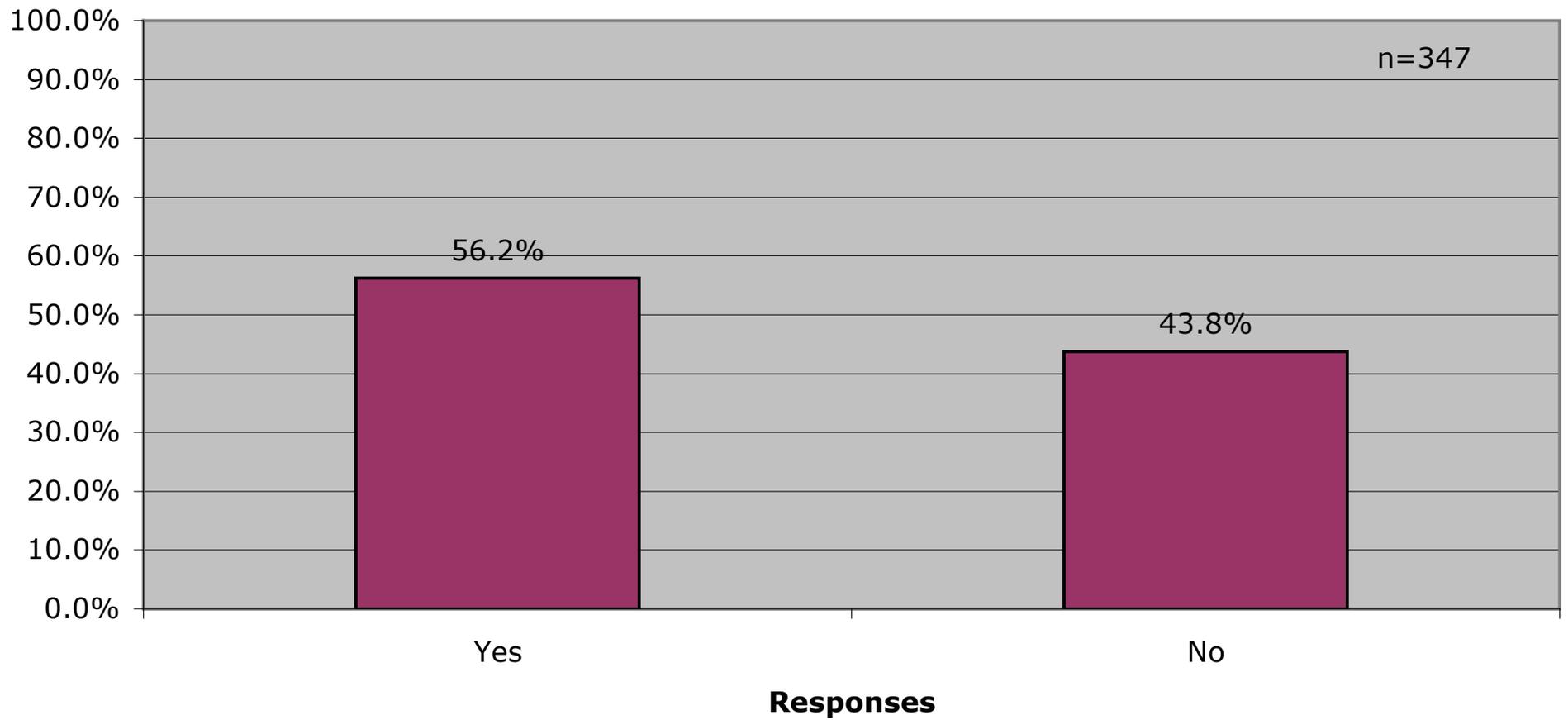
# 21. If yes, which of the following measures do you take?

n=195

| Response | Percentage |
|----------|-----------|
| Refresh media | 26.4% |
| Update files | 10.7% |
| BackUp files | 48.0% |
| Analog film | 2.9% |
| Print | 10.4% |
| Other | 1.7% |

**Responses**
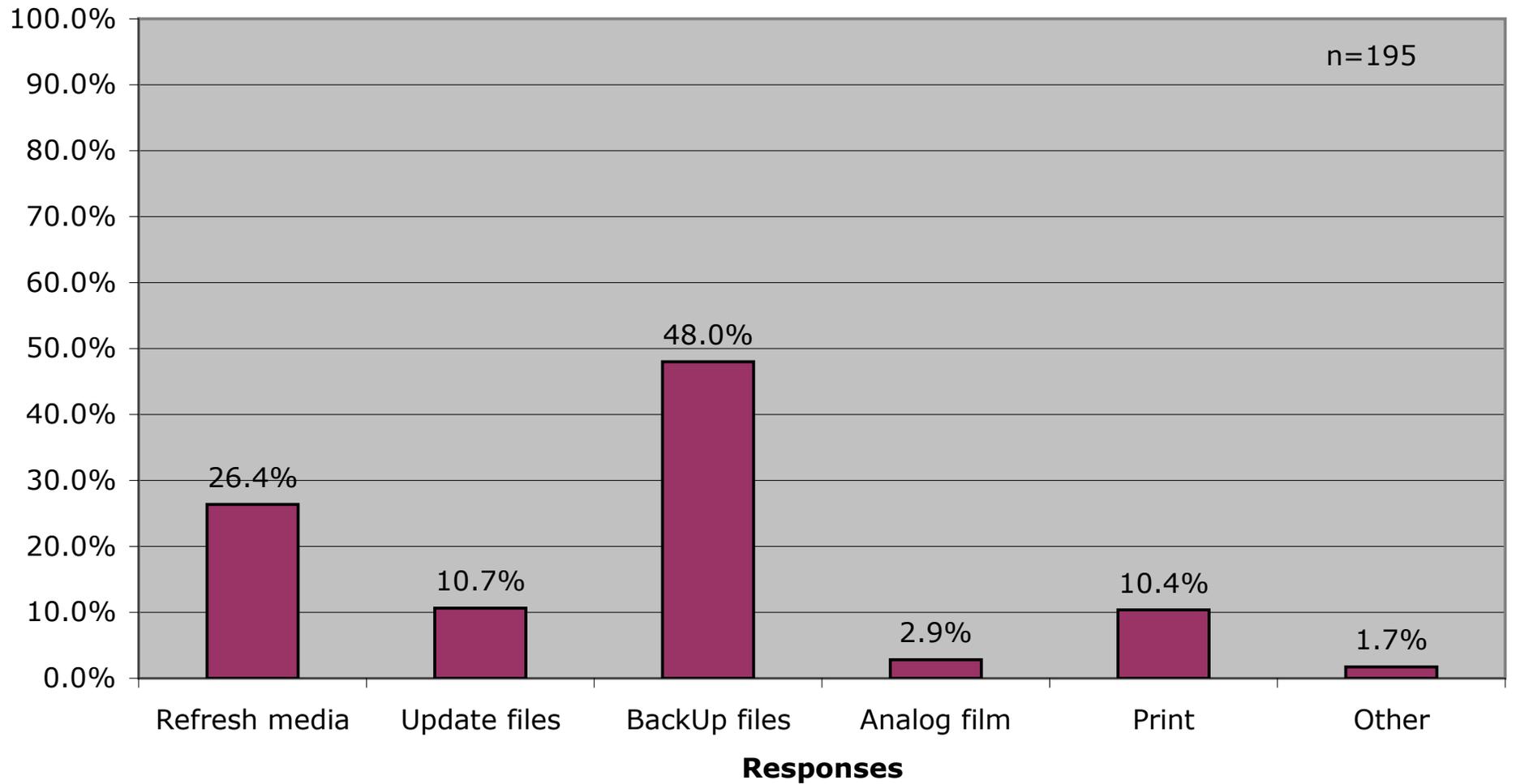
# 22. Is it important to you that your images can be proven to be yours?



n=347

- Yes: 90.8%
- No: 9.2%

**Responses**
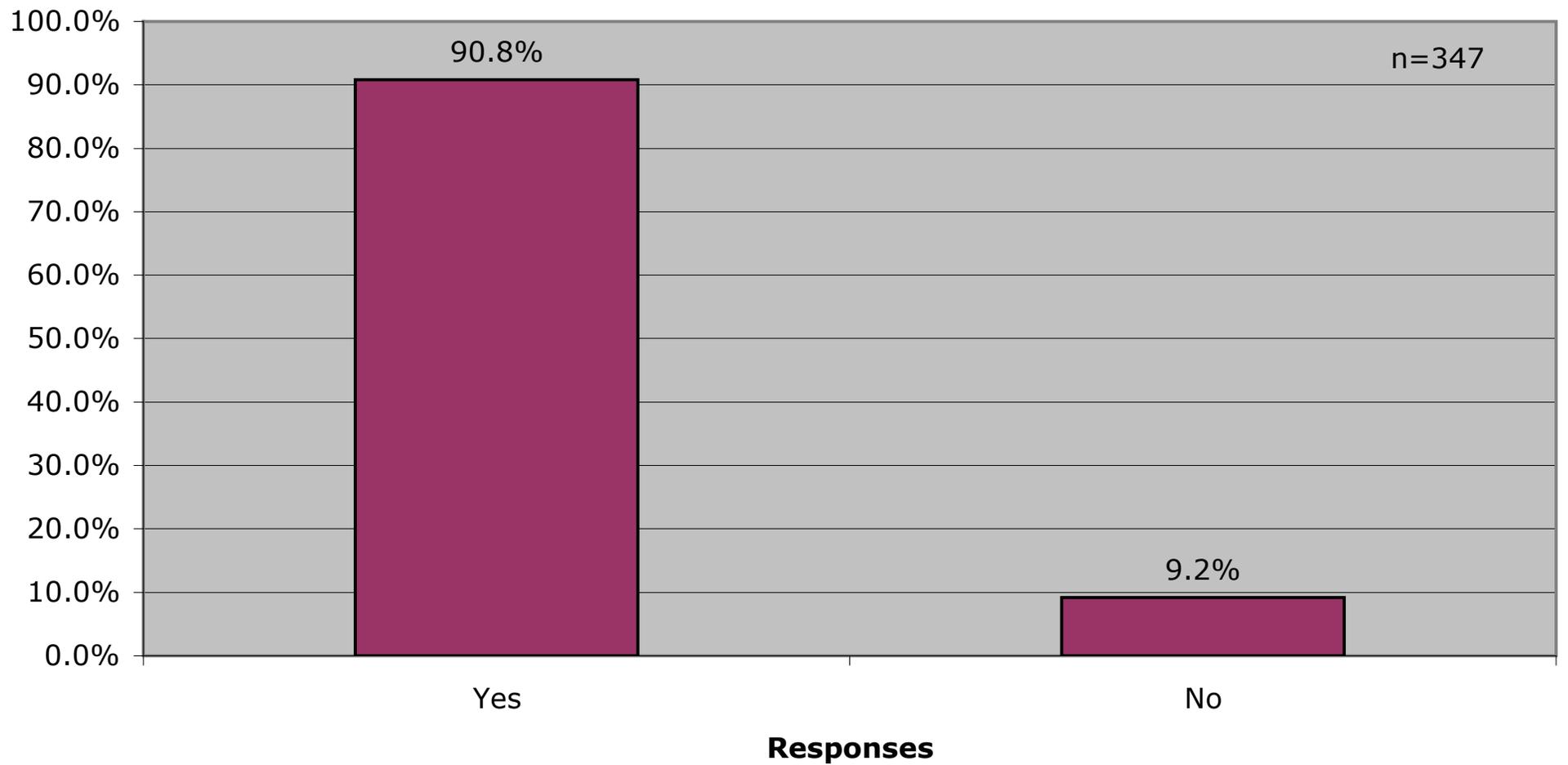
# 23. Is it important to you that your images are accurately displayed and properly credited to you?



n=345

| Responses | Percentage |
|-----------|-----------|
| Yes | 95.4% |
| No | 4.6% |
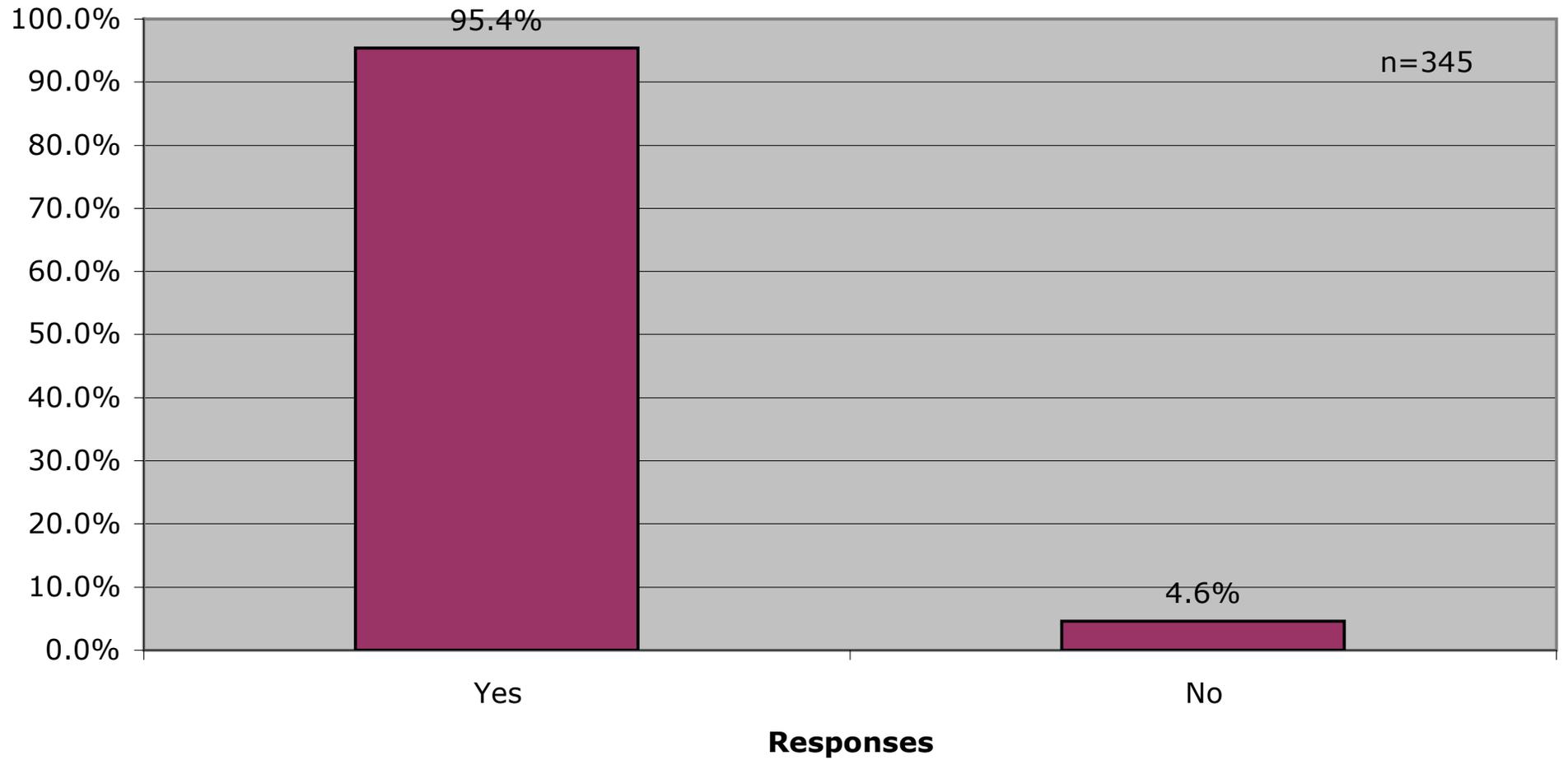
# 24. When you send images to others do you protect your digital images from being manipulated or copied?

n=341

43.1%

56.9%

Yes

No

**Responses**
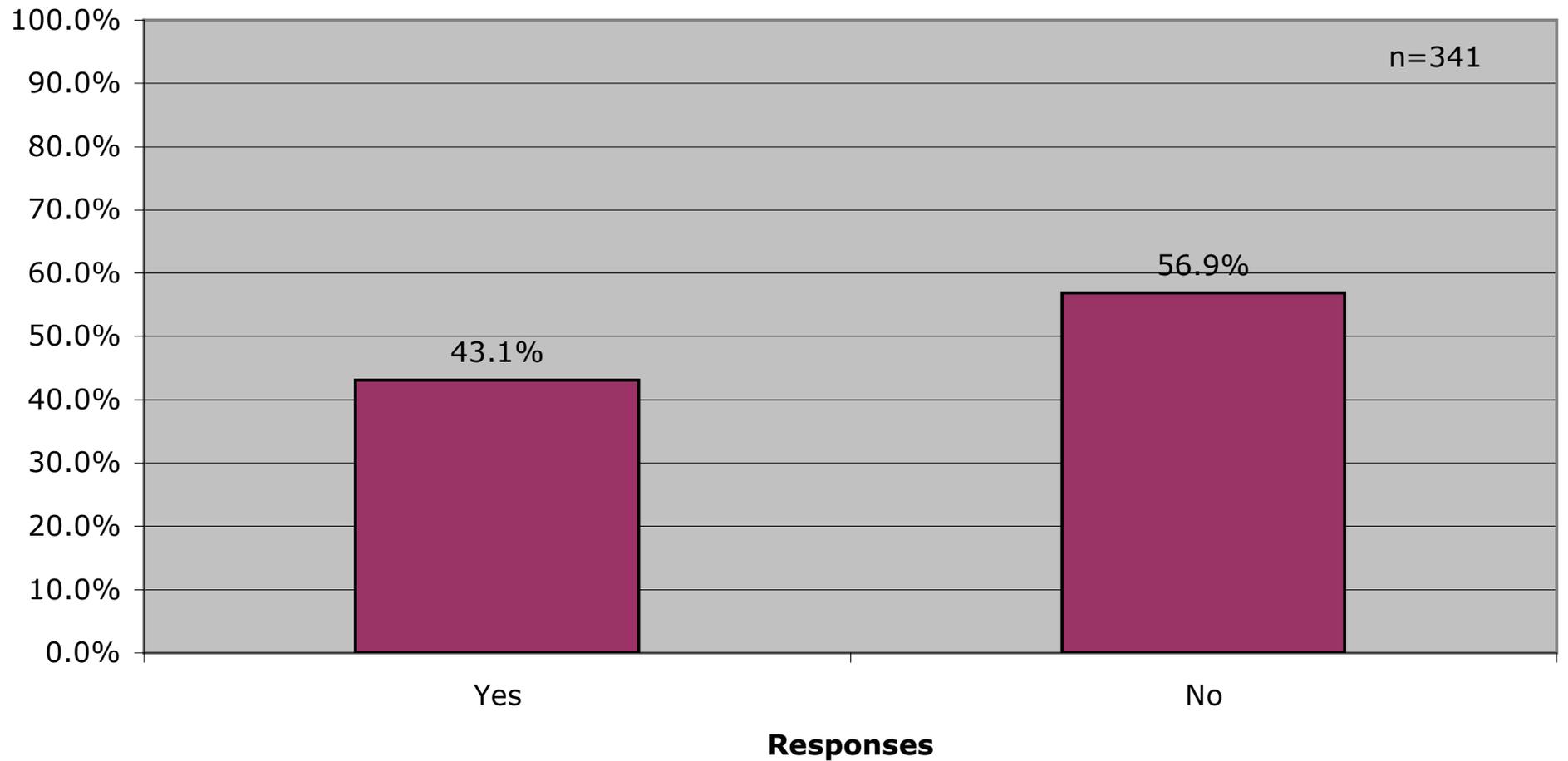
# 25. If yes, which of the following methods do you use to protect your digital images?

n=144

| | | | | | |
|---|---|---|---|---|---|
| 30.2% | 6.6% | 17.1% | 14.0% | 22.9% | 9.3% |
| Digital Watermarks | Encryption | Metadata | Printed Copies | Copyright | Other |

**Responses**
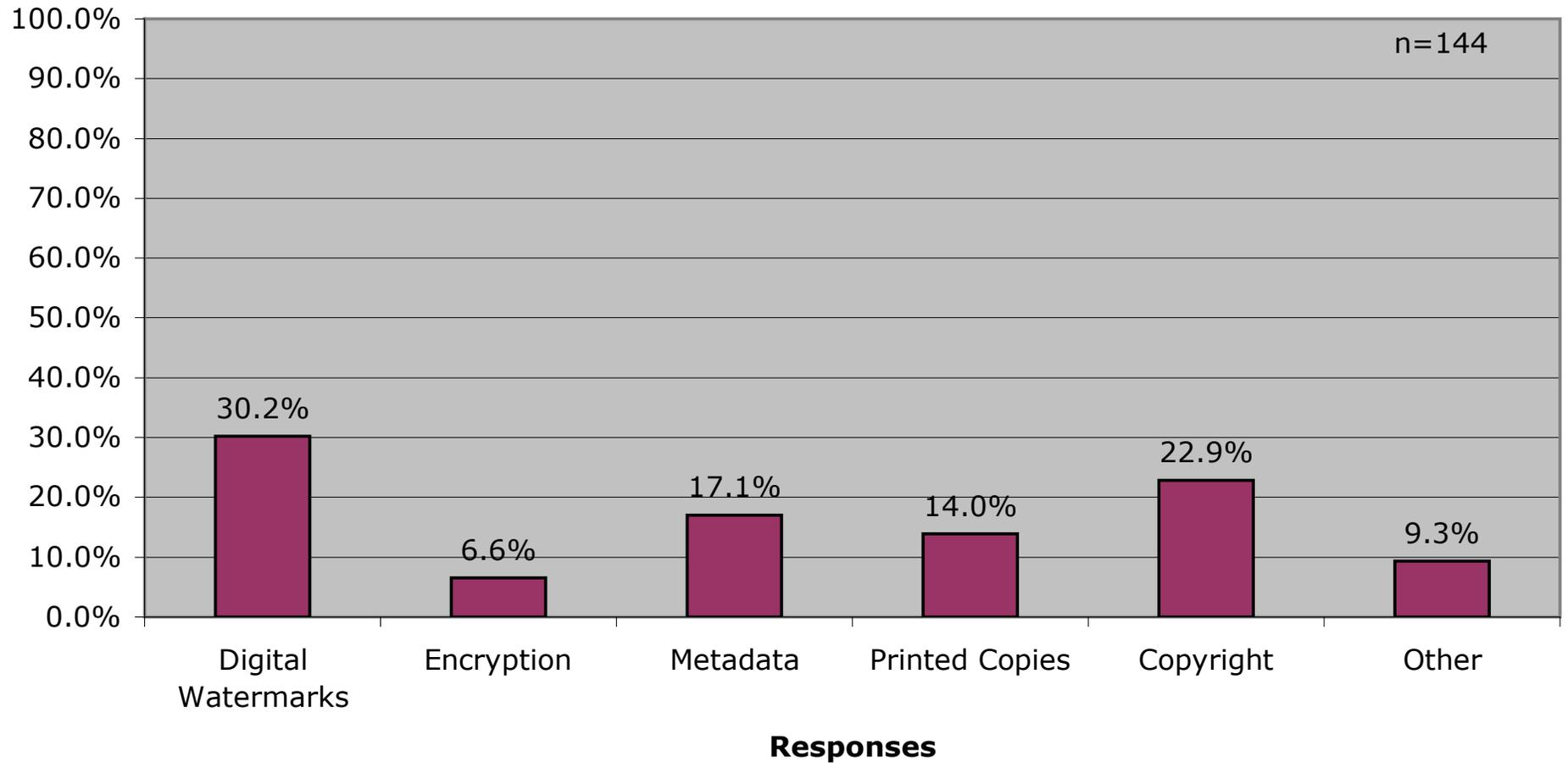
# 26. Do you make your digital images available via a web page?

n=354

56.8%

43.2%

Yes

No

**Responses**
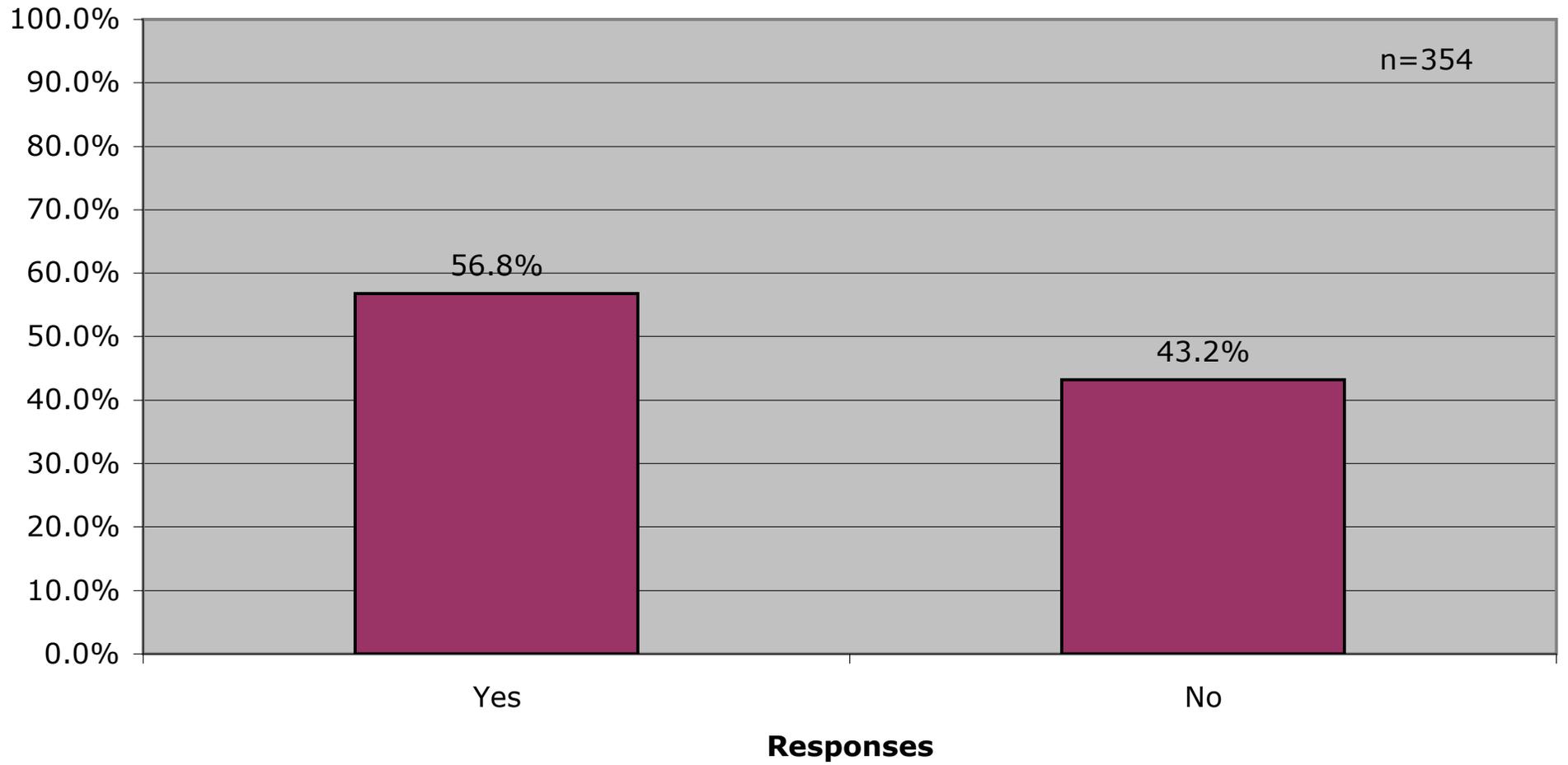
# 27. If so, how do you manage access to your digital images?

n=198

| | |
|---|---|
| Database | 31.5% |
| Vendor managed | 26.9% |
| File Header | 24.5% |
| Other | 17.1% |

**Responses**
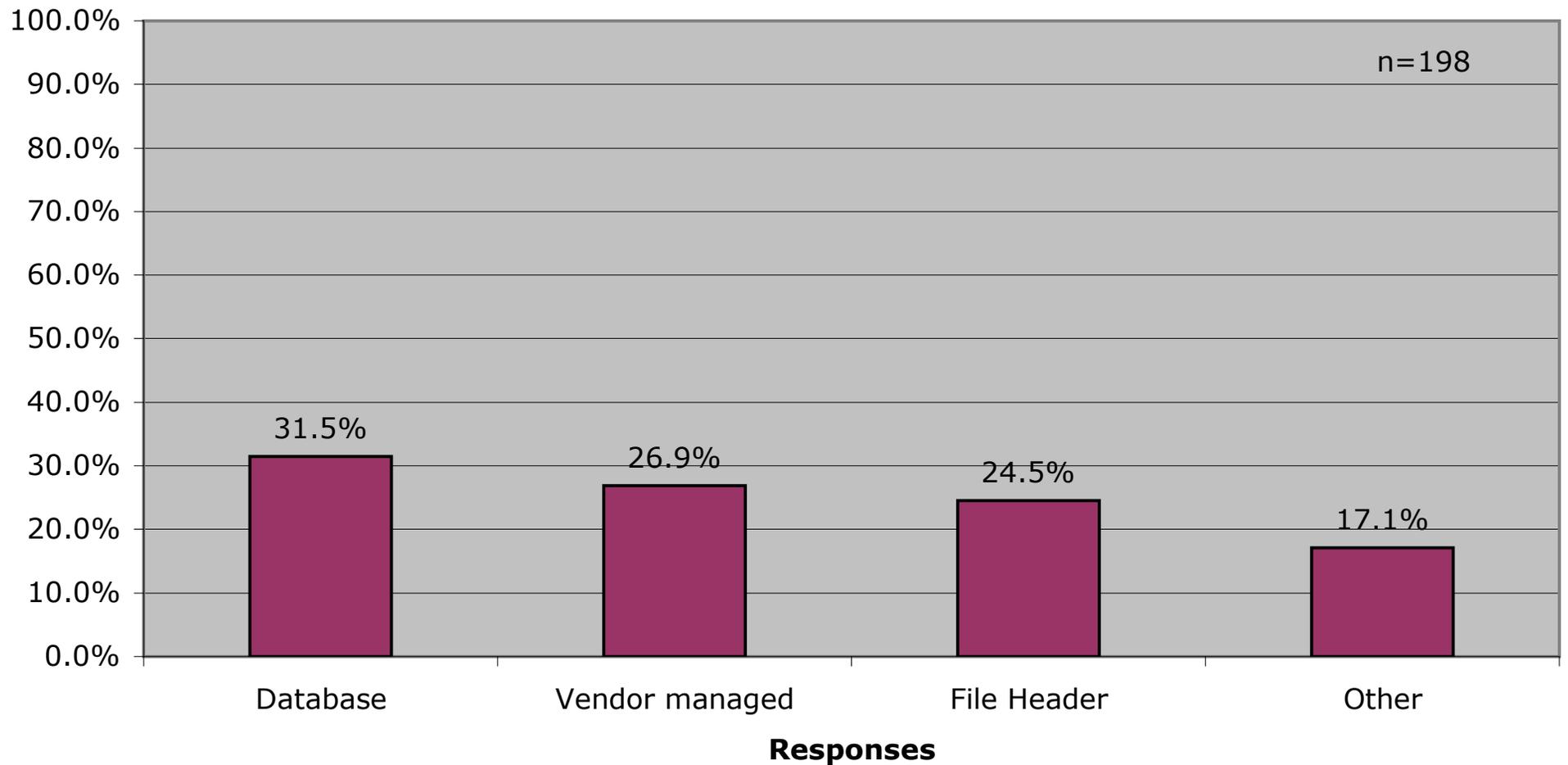
# 28. What information do you record about your digital images?

n=351

- Describe Image: 34.2%
- Who, When, Where: 34.2%
- Technical: 4.5%
- Hierarchical: 7.6%
- Usage/ Access: 14.8%
- Other: 4.7%

**Responses**
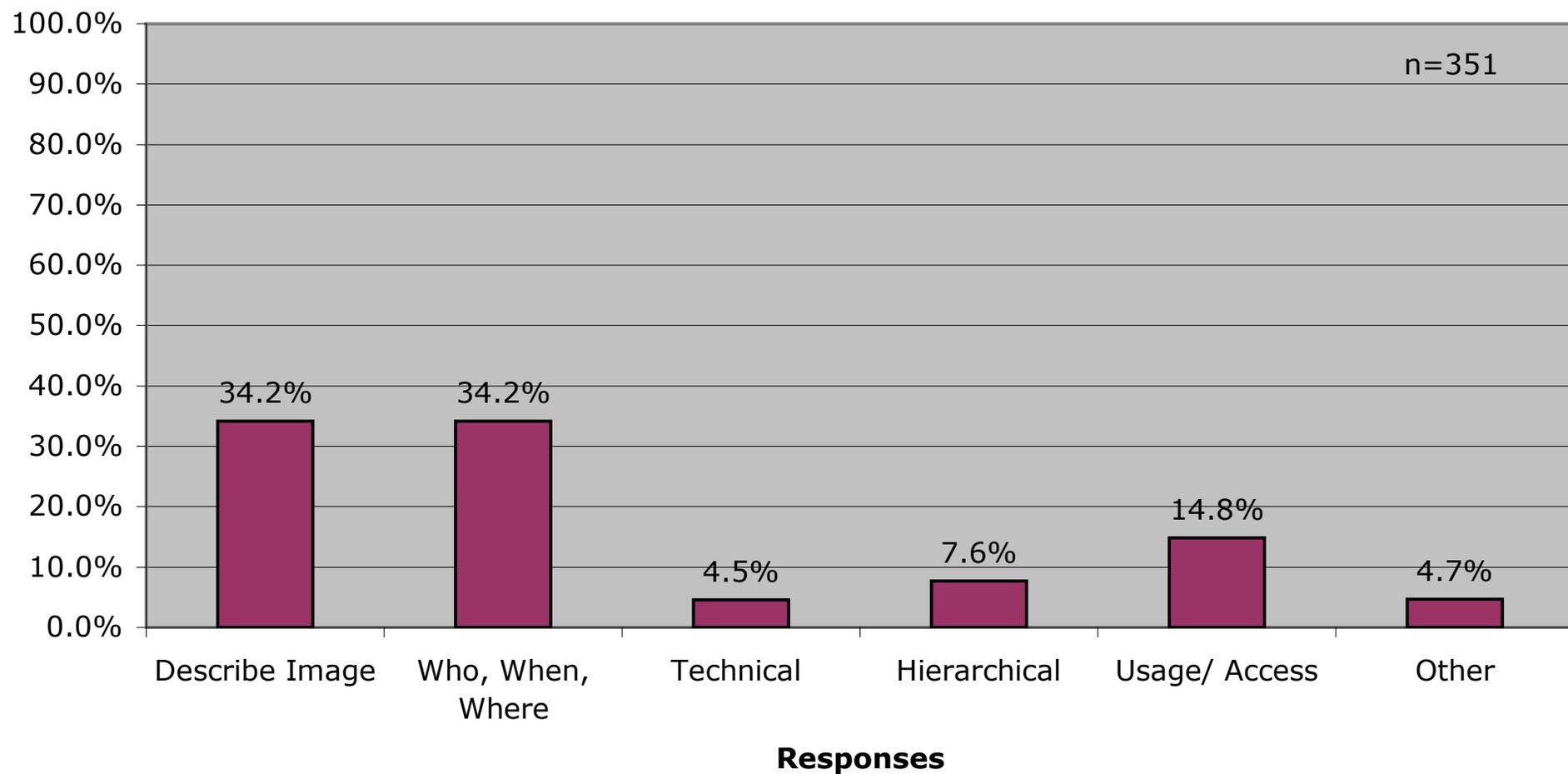
## 29. Do you apply security measures to protect your digital image files from access and accidental destruction?
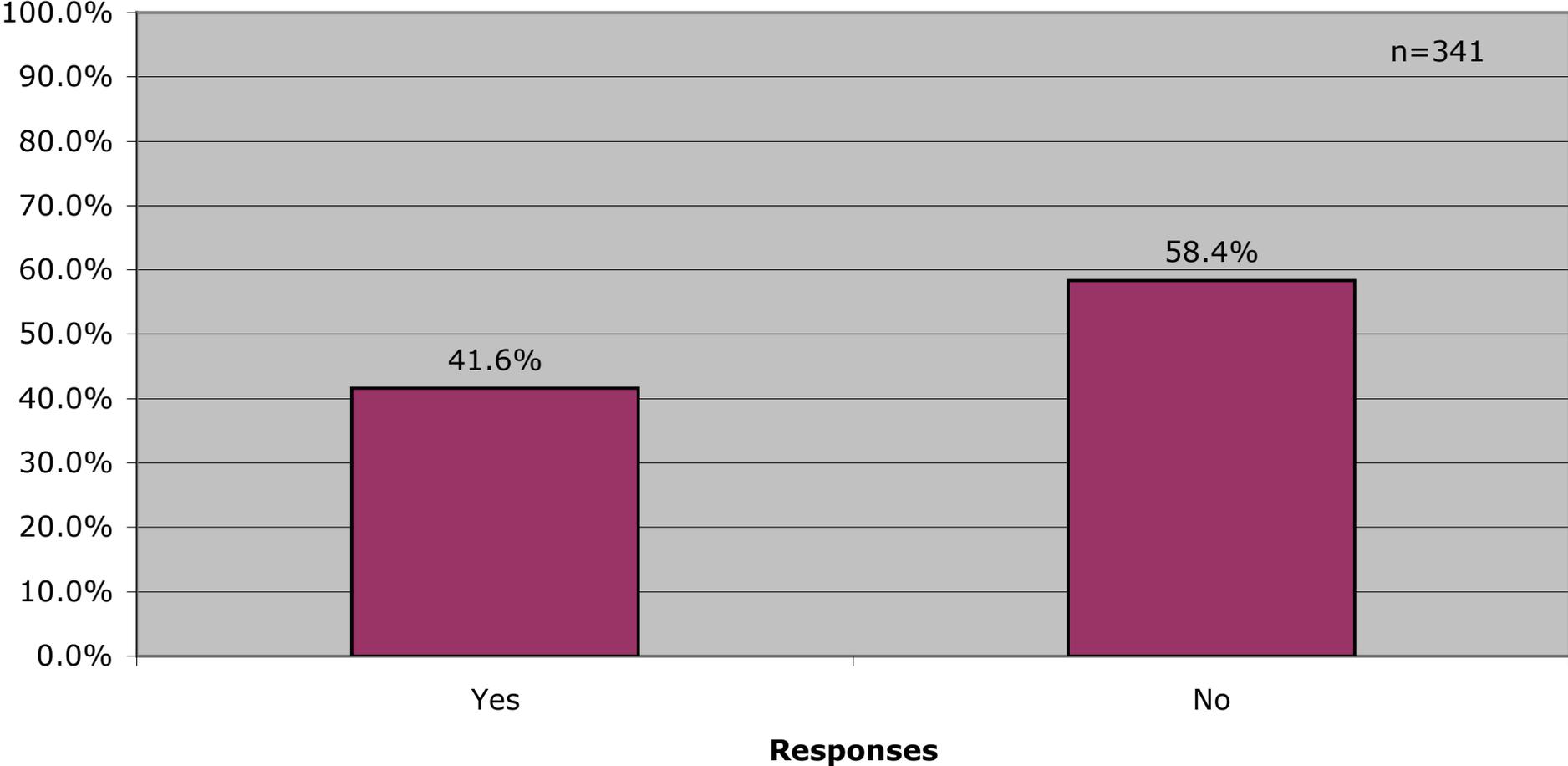
# 30. If yes, which of the following security measures do you use?



n=144

| Response | Percentage |
|---|---|
| Online /Password | 10.6% |
| Desktop/Password | 20.0% |
| Offline | 20.3% |
| Offline/On-site | 31.8% |
| Offline/Off-site | 15.8% |
| Other | 1.5% |

**Responses**
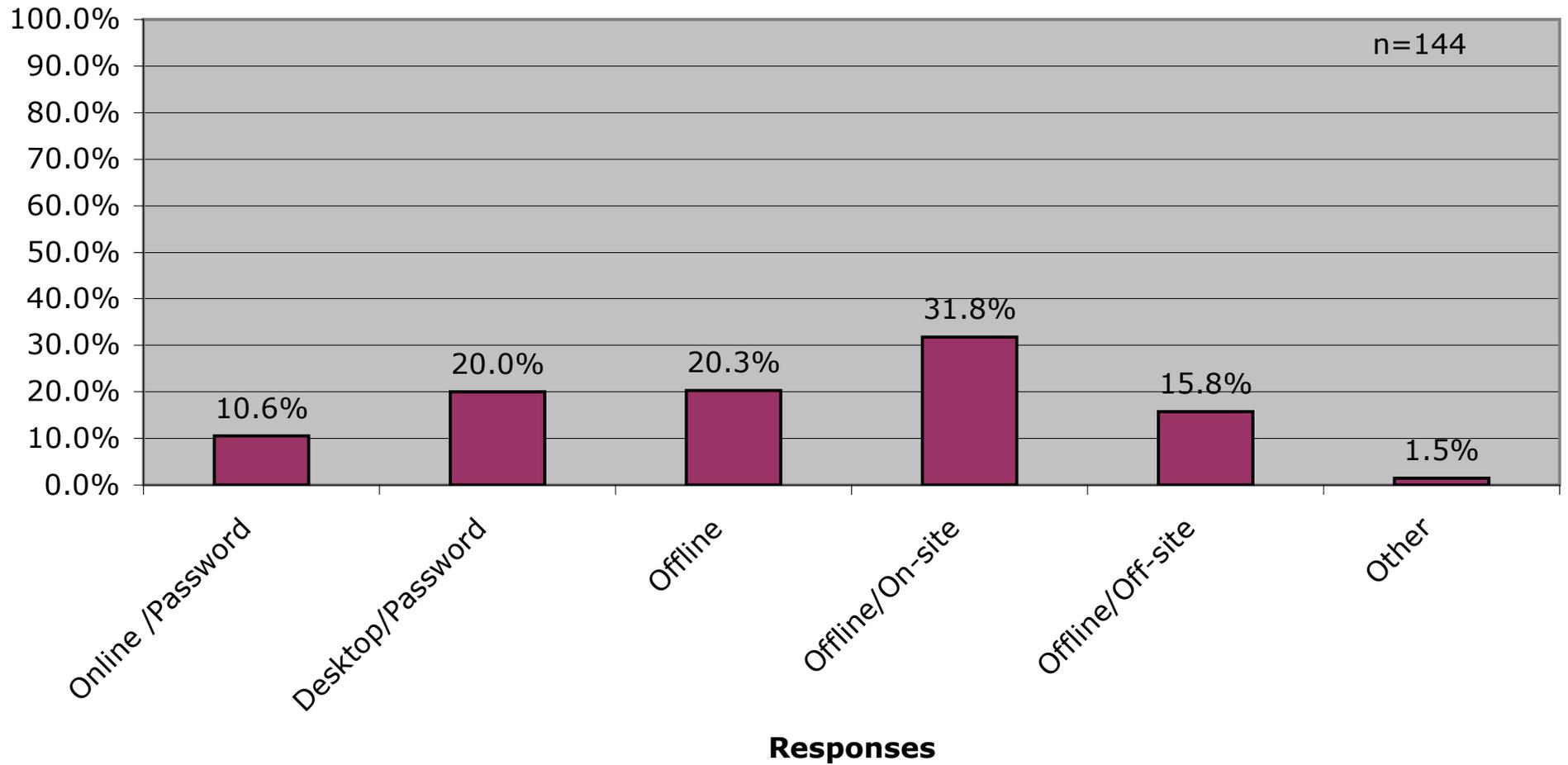
# 31. Are you aware of the standards and guidelines promoted by the follwoing institutions regarding information management and preservation?



n=349

| Response | Percentage |
|----------|-----------|
| BSI | 5.2% |
| CDWA | 0.6% |
| ISO | 16.8% |
| NISO | 2.5% |
| Object ID | 0.3% |
| RLG | 1.7% |
| None | 73.0% |

**Responses**
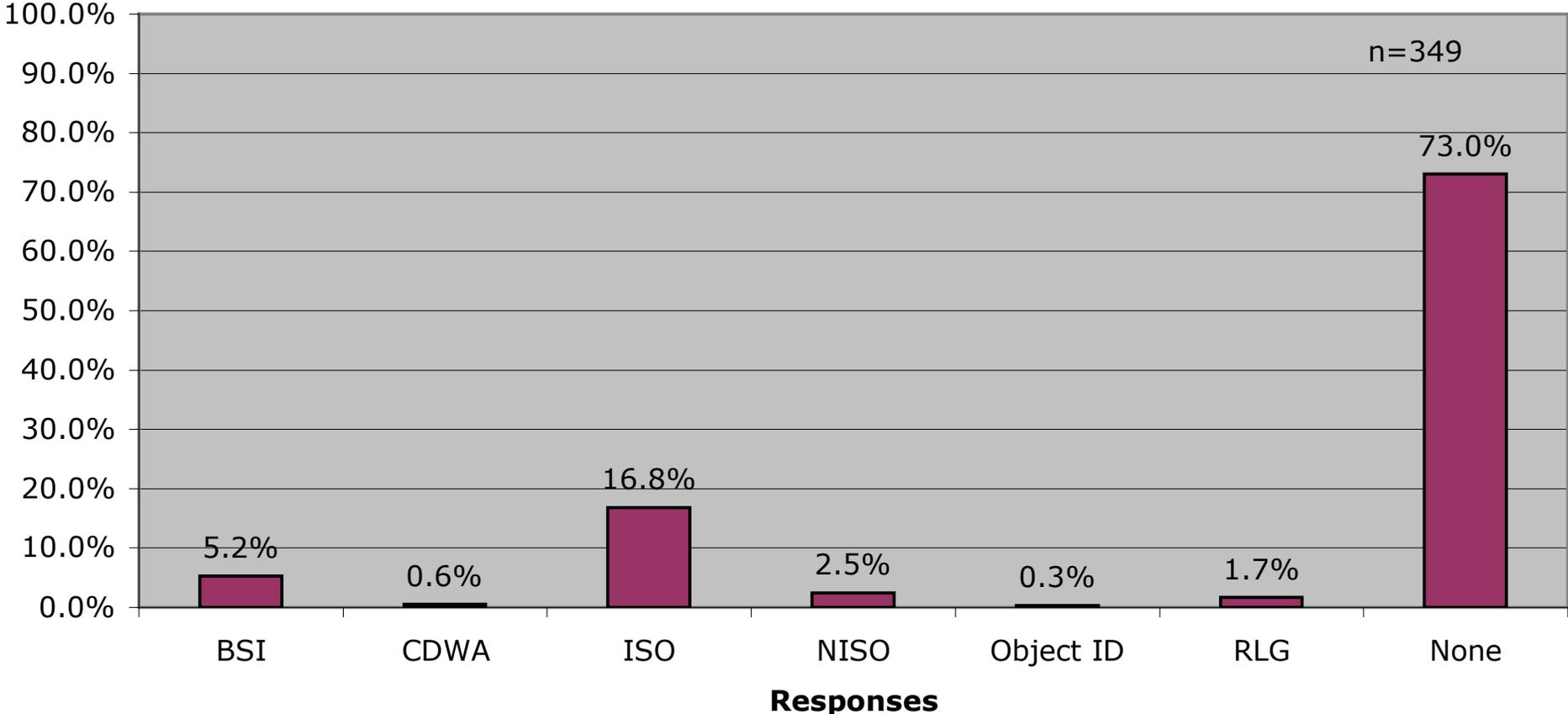
# 32. Would you follow a standard for digital image creation and file maintenance to ensure the longevity of your digital images if it was applicable to your practice and made available to you?



n=340

Responses
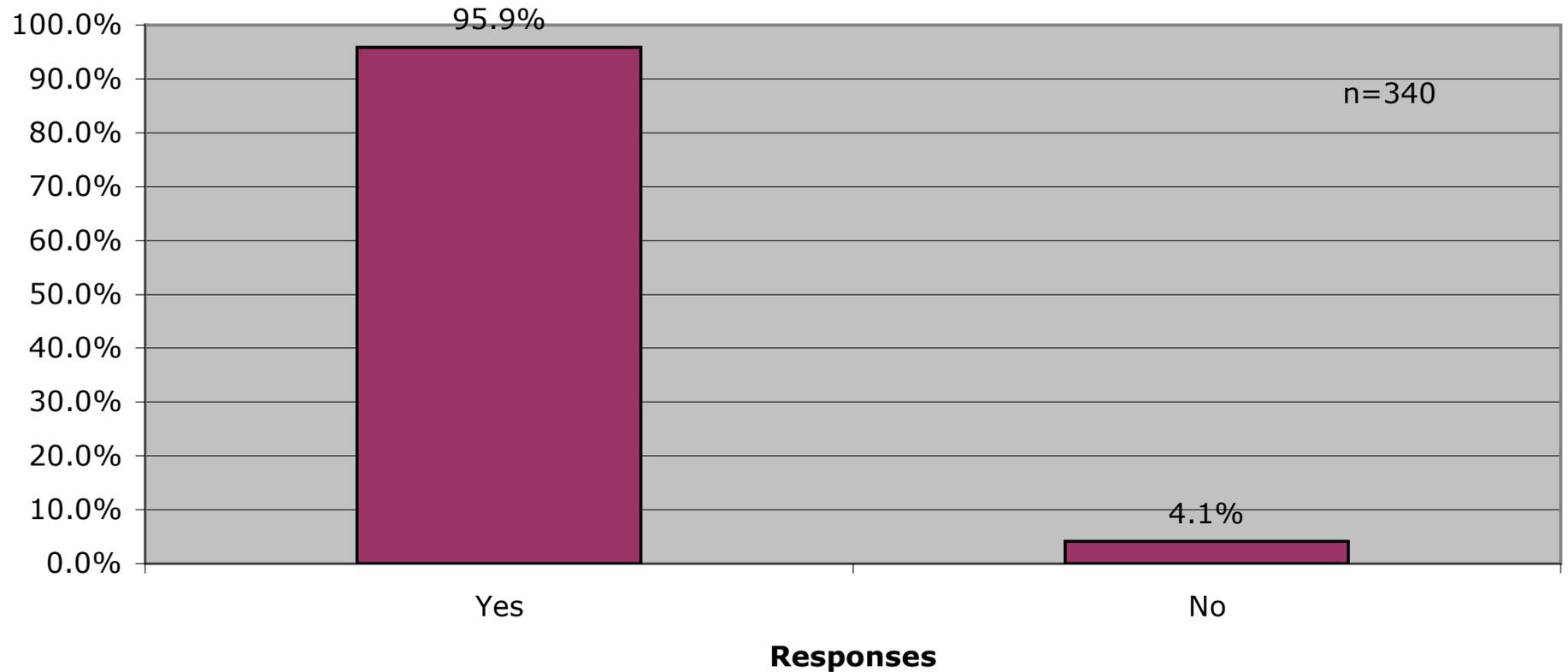
# 33. Please add anything further that you think might be useful for us to know about your digital photography practice.
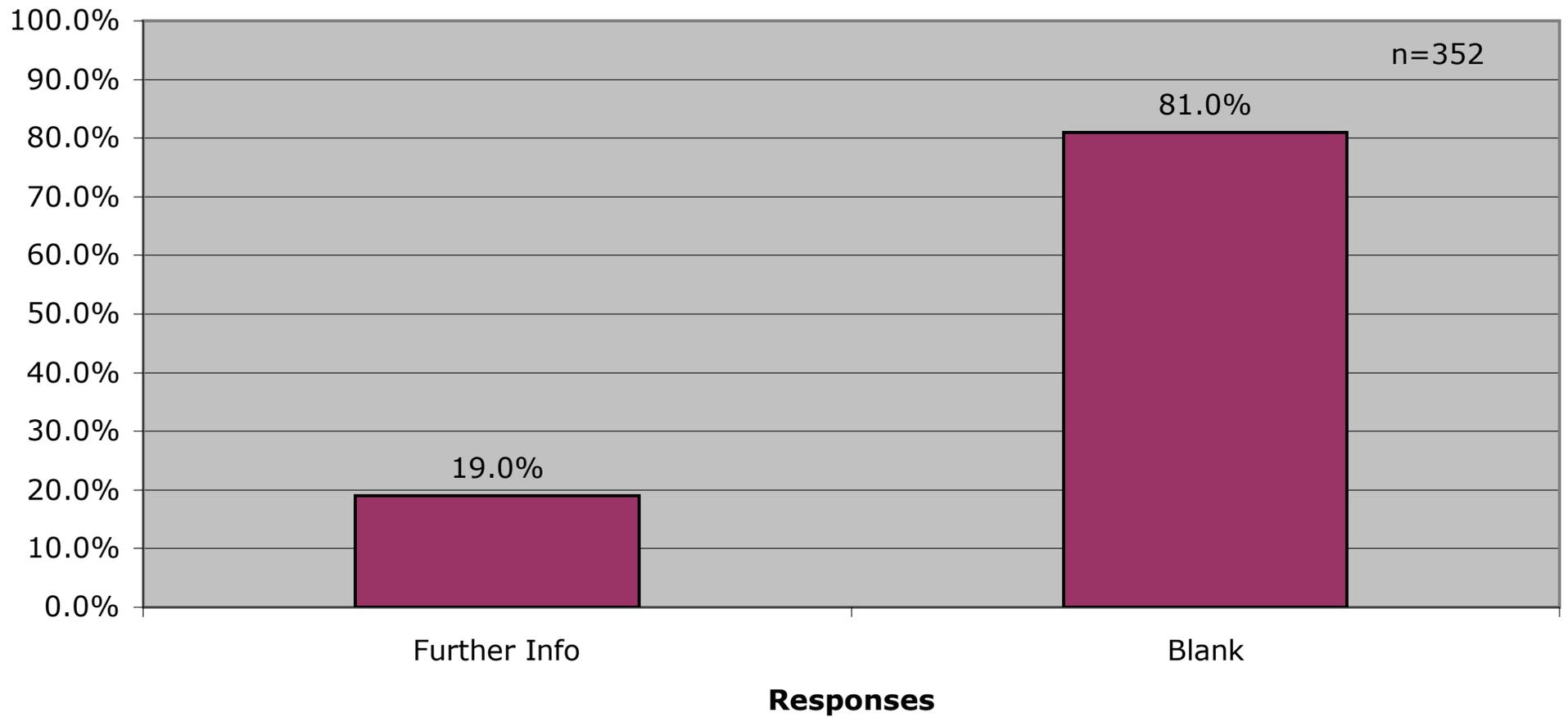
# Primary Findings

- 1. Photographers create the kind of digital record that is best suited for their business and creative needs.

- 2. Photographers assume that it is only a matter of time before something bad will happen to their images.

- 3. The nature and variety of digital materials used by photographers is determined by the contexts in which the images are generated as byproducts of business activities and cultural endeavours.

- 4. Photographers have developed procedures for the creation of their born digital images that involve designating an original image, copying derived images, and saving the original image onto external media for maintenance and long-term storage.

# Hypotheses revisited…

- 1. Photographers keep their digital images for re-use and reference.

- 2. Photographers are generally concerned with authenticity and reliability.

- 3. Photographers have begun to understand the challenges to continuing access and long-term preservation presented by the use of proprietary digital systems and technological obsolescence.

# Conclusion

- The survey data will assist preservers (i.e., archivists and collections managers) and creators (i.e., photographers) in understanding the digital record-keeping practices of photographers who operate in scientific, artistic and e-gov't environments.

- The survey findings will provide a systemic perspective on what archivists and collection managers will be facing when dealing with the long-term preservation of and access to born digital images.

- Ultimately, analysis of the data will facilitate the formulation of record-keeping guidelines for digital photographers, and will assist in developing measurements for the appraisal and preservation of authentic digital images for archivists and collection managers.

# Recommendations

- 1. Creators of born digital images should establish a record profile for each and every digital image that is saved.

- 2. Creators should establish and implement access privileges into their record-keeping system. Audit trails should document users' interactions with records.

- 3. Creators should use standardized file formats and metadata schema for born digital images intended for long-term preservation.

- 4. Creators should make regular upgrades to operating systems and hardware and software components as a preventive measure against technological obsolescence.

- 5. Creators should select metadata specification for their born digital images that are interchangeable, extensible, scalable, and consistent, in order to provide documentation that is viable and interoperable for the long term.

- 6. Creators should be able to provide authenticating information about their digital images. The authenticating information provided by the creator should be able to demonstrate the use of secure storage, access privileges, back-up procedures, a chain of custody, and proper training of the person responsible for the maintenance of the images.

- 7. The creator should designate a person or office of primary responsibility that is given formal competence and authority to maintain the authoritative records. Preservation functions include monitoring storage media and performing procedures for refreshing and migration.

- 8. Creators responsible for producing authentic copies of born digital image files for preservation purposes should understand the importance of documentary form and presentation features.

# Participant Response to Report

- "Thank you for including me in you survey, and for providing me with your excellent research document. This document will go along way to providing continuity and best practices and methodology for the future." Tom Davidson

- "Thank you for remembering us! I have made a "hard copy" and placed your survey in a binder to be circulated among our squadron's Imagery Techs; crediting you of course. It makes for interesting reading of the comments and practices of all the respondents." Dennis Mah

# Bibliography

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- Duranti, Luciana, Terry Eastwood, and Heather MacNeil. *Preservation of the Integrity of Electronic Records.* Vol. 2, The Archivist's Library. Dordrecht: Kluwer, 2002.

# Useful Resources on Image Metadata

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- IPTC. "Information Interchange Model." *IPTC* (2005), http://www.iptc.org/IIM

- IPTC. "IPTC Core Schema for XMP, V1.0: Specification." *IPTC Standards*             (2005), http://www.iptc.org

- Japan Electronics and Information Technology Industries Association.             "Exchangeable Image File Format for Digital Still Cameras: Exif             Version 2.2." JEITA (2002), http://www.exif.org

- Technical Advisory Service for Images. *Metadata Standards, Schemas and Specifications.* http://www.tasi.ac.uk/advice/delivering/metadata.html