



## APPLES Institution Overview Checklist

---

The APPLES Institution Overview Checklist serves three central purposes, it assists us in: (1) ensuring that the relevant populations of students will be sampled at your institution, (2) establishing the target sample size for your institution – including the best ways to meet the strata (or sub-group) targets and finally (3) accurately interpreting data from your institution.

**Date due: 15 September 2007** – Please return this form to us by then!

If you have any questions, please email your APPLES liaison or [info@applesurvey.org](mailto:info@applesurvey.org)

1. **Coordinator information:** Please provide your institution's APPLES coordinator's name, contact information and best means to contact him/her.  
Example:

Coordinator: *Dr. Alexandria Smith, Director of Institutional Research*  
Email: *asmith@orchard.edu*  
Phone: *333-222-5555*  
Fax: *333-222-5554*  
Best way to contact: *Email*

2. **Overview description:** Please provide a short description (1 brief paragraph) of your university.

*Orchard is a private research university in a suburban setting located in the eastern United States, with an enrollment of about 14,000 students, divided equally between graduate and undergraduate students. Orchard's School of Engineering is one of three schools at Orchard that offers an undergraduate degree. The University attracts students from around the nation and the world, with fifty percent of students classified as non-Caucasian. Of the approximately 1600 freshmen entering each year, 550 to 620 tend to self-identify as being interested in engineering. (Entering freshmen do not formally declare majors.)*

3. **List of engineering majors:** Please provide a list of your institution's engineering majors (as defined by your institution).

*Orchard's: chemical engineering, civil engineering, computer science, electrical engineering, mechanical engineering, management engineering, materials science, industrial design, and environmental engineering. (In the enrollment chart, industrial design and environmental engineering are counted as "Engineering")*



This material is based upon work supported by the United States National Science Foundation under Grant No. ESI-0227558.

4. **List of technical non-engineering majors:** Please provide a list of technical non-engineering majors at your institution. We define technical non-engineering majors as non-engineering majors that share some of the mathematical, scientific and/or technological aspects of an engineering major, e.g. majors that:
- share engineering prerequisites
  - many students who started off in engineering later migrated to
  - produce graduates who may take jobs similar to engineering graduates.

*At Orchard: Applied Mathematics, Economics, Physics, Management Sciences.  
(Economics at Orchard is highly analytical)*

5. **Overview of major declaration process:** Please provide a brief description of how and when students declare an engineering major at your institution.

*Students apply to Orchard without specifying an intended major. They must declare their major by the first quarter of their junior year or by the time they have completed 85 units. At Orchard we are able to get an estimate of the number of incoming potential Freshmen engineering students from a form they fill out (after being admitted) where we ask their preliminary area of academic interests for the purpose of assigning them an academic advisor.*

6. **Engineering enrollment and graduation figures:** Please provide the most recent enrollment and graduation numbers for your School of Engineering. (Your institution's current figures are preferable to existing ASEE figures).

<b>ORCHARD's ENGINEERING ENROLLMENT – Fall 2007</b>	<b>Frosh 1st Year</b>	<b>Soph 2nd Year</b>	<b>Junior 3rd Year</b>	<b>Senior 4th Year</b>	<b>Part Time Total</b>	<b>Full Time Total</b>
<i>Chemical Engineering (B.S.)</i>	0	5	16	24	0	45
<i>Civil Engineering (B.S.)</i>	0	3	17	29	0	49
<i>Undeclared</i>	605	547	100	10	0	1262
<i>Computer Science (B.S.)</i>	0	17	44	84	0	145
<i>Electrical Engineering (B.S.)</i>	0	9	38	71	0	118
<i>Engineering (B.S.)</i>	0	2	46	58	0	106
<i>Management Engineering (B.S.)</i>	0	6	31	74	0	111
<i>Materials Science (B.S.)</i>	0	0	1	2	0	3
<i>Mechanical Engineering (B.S.)</i>	0	4	37	63	0	104
<b>TOTAL</b>	<b>605</b>	<b>593</b>	<b>330</b>	<b>415</b>	<b>0</b>	<b>1943</b>

*\* Frosh and Soph engineering majors largely estimated from students' preliminary areas of academic interest at acceptance to Orchard.*

*GRADUATION FIGURES: In 2007, 89% of Orchard's declared engineering students graduate within four years of enrolling at Orchard.*

*Source: Orchard's Registrar's Office*



This material is based upon work supported by the United States National Science Foundation under Grant No. ESI-0227558.

7. **University enrollment and graduation figures:** Please provide the most recent undergraduate enrollment and graduation numbers for your institution.

<b>ORCHARD UNDERGRADUATE ENROLLMENT – Fall 2007</b>	<b>Frosh</b>	<b>Soph</b>	<b>Junior</b>	<b>Senior</b>	<b>Total</b>
All Undergraduates	1623	1689	1598	1678	6588

Source: Orchard's Registrar's Office

8. **Unique sub-populations:** Does your institution have a (or several) unique sub-population of students? APPLES tracks gender, ethnicity, enrollment status (part-time versus full-time), and international students. Examples of other unique sub-populations might be a high commuter population or a large number of “non-traditional” students.

*At Orchard, we have a large number of international students. Almost all of our undergraduates are 18-22 years old and live on campus.*

9. **Choose a deployment week:** From the list below please rank your preferences for the week APPLES will be deployed at your institution (and note if any of the dates would not work at all.)
- 28 January-1 February
  - 11-15 February
  - 25-29 February

Things to consider: (1) *Your schedule* as additional recruitment during the week of deployment may require extra time from you. (2) *Your institution's schedule*, e.g. other surveys that your institution may be taking part in, holidays or special events. In our experience, the end of the term is not a good time to deploy a survey – the beginning seems to be fine.

*(1) 28 January-1 February, (2) 25-29 February, (3) 11-15 February. Option 3 is highly undesirable for us because we have “Engineering Week” that week – most of our engineering students will be off campus doing different projects and may not be as likely to participate in an online survey.*

10. **Significant structure changes?** In the last year, have there been any significant structural, curricular, or institutional changes at your university that would impact the profile of your student body?

*We are in the process of reorganizing our engineering curriculum to better meet specific ABET criteria – we do not however, expect this to noticeably impact our students.*



This material is based upon work supported by the United States National Science Foundation under Grant No. ESI-0227558.



## ORCHARD - APPLES Recruitment Plan

---

This is the last assignment we will ask you to do for us before the APPLES deployment on your campus in early 2008. We estimate it will take no more than one hour to complete. The information below will assist us and you in recruiting the needed subject participation in APPLES to achieve meaningful results. If you have any questions, please email your APPLES liaison. This is due: 15 November 2007. Thanks!

Coordinator: **Dr. Robert Jones**, Associate Dean, School of Engineering  
Contact: [robert.jones@orchard.edu](mailto:robert.jones@orchard.edu)

Recruitment classification: **SMALL** (> 500 undergraduate engineering students)  
Deployment week: **28 January - 1 February** (Your 1<sup>st</sup> choice)  
Your campus survey URL: <http://orchard.applesurvey.org>

**(1) How many APPLES posters would you like us to send you?**

See attached – they are 11” x 17” and will be tailored to your institution. We are able to send you up to 20 posters.

**(2) Choose one of the suggested pseudonyms below for your institution.**

In all external publications discussing APPLES data or findings (except your institution’s final APPLES report), pseudonyms will be used to refer to participating institutions.

- Connerman University
- State Tech University
- Midland University

**(3) Complete the shaded Orchard columns for Recruitment Plans A and B.**

Please see “Notes on Recruitment Plans and APPLES Deployment” (page 3) for instructions and additional information. The “Orchard” column of the Recruitment Plan provides sample recruitment methods for each of the stratum.

### Plan A – Planned Recruitment for APPLES Subjects

Strata (min target)	Response rate needed at Orch	Orchard	Grove ( <i>sample</i> )
<b>All (50)</b>	16 <sup>+</sup> %		Email to entire undergraduate engineering list Posters – around campus
<b>Engineering students (40)</b>	16%		Same as above.
<b>Non-persisters (10)</b> [students who initially intended to study engineering but opted for a non-engineering major]			Targeted email to students majoring in non-engineering fields (i.e., chemistry, math, economics departmental email lists)

### Plan B (Targeted recruitment if minimum responses are not achieved)

Strata (min target)	Response rate needed at Orch	Orchard	Grove ( <i>sample</i> )
<b>Female students (10)</b>	?		Email to SWE members
<b>Male students (10)</b>	4%		(won't be a problem)
<b>Minority students (0)</b>	n/a		Email to Minority Engineering program
<b>International students* (10)</b>		Let's discuss the International students	Email to International Student Center distribution list
<b>Transfer students (?)</b>		Let's discuss	Email to transfer students
<b>Freshmen (10)</b>	9%		Email to freshmen
<b>Sophomore (10)</b>	16%		Email to sophomores
<b>Juniors (10)</b>	29%		Email to juniors
<b>Seniors (10)</b>	22%		Email to seniors
<b>Non-persisters (still can't get enough...)</b>			Follow-up email to students majoring in non-engineering fields (i.e., chemistry, math, economics)
<b>Specific engineering major</b>			Targeted email to students in underrepresented major(s)
<b>Part-time students</b>	n/a		NA

\* Denotes special sub-populations at ORCH: International exchange students.

## Notes on the Recruitment Plans and APPLES Deployment at Orchard

**Orchard's strata targets** for APPLES are listed in the recruitment plans. These numbers are based on your institution's overall and engineering undergraduate enrollments, and the requirements for statistical analysis given the other institutions taking part in APPLES. **Based on the required response rates, we may need to put extra effort into recruiting juniors, seniors and women at Orchard. We need a minimum of ten International respondents in order to do statistical analysis on that stratum, which may not be realistic.**

**Plan A** is the recruitment that your campus will undertake the week of the survey deployment. Based on previous deployments of APPLES, we recommend that the primary means of recruiting students be an email from an engineering dean or other senior engineering administrator at your institution to engineering students. (We will provide suggested text.) We also will be sending you posters tailored to your campus' APPLES participation (please specify how many posters you would like on your Recruitment Plan). We have found that posters increase general awareness of APPLES on campus among both students and faculty. We have also found that advertising in student newspapers does *not* significantly increase student participation.

**The Survey and Daily Updates:** The **Orchard** APPLE survey will turn "on" at 12:01 am on Monday, **January 28**, 2008, and will turn "off" at 11:59 pm on Friday, **February 1**, 2008 (Pacific Standard Time). During the APPLES deployment on your campus, a member of the APPLES team will send you a daily report of survey response rates from your campus by strata, noting those strata that have been fulfilled. You will receive the report between 3 and 6 pm (PST).

**Plan B** is the strategic recruitment you *may* need to undertake during the week of survey deployment if your campus' responses are falling short of strata targets. Based on the numbers in your daily reports, you (the campus coordinator) will determine if you need to implement parts of Plan B. For example, if by **February 30** (Wed) only 6 women have filled out the survey (and **10** are needed from your campus) - you may decide to send an email to the SWE members first thing Thursday (**January 31**) morning. We urge you to be strategic in your Plan B recruitment – for example, we have found that targeting specific groups with low responses is *much* more effective than repeating mass emails to all students.

In rare cases, we and you may choose to extend the deployment period on your campus. Our experience with previous deployments indicates that most students take the survey immediately following the email announcement or reminder. (Thus, extending the survey doesn't buy us much.)

**"Non-persisters"** are students who initially intended to study engineering when they arrived at university, but later decided to pursue a non-engineering major. We have found the best way to recruit non-persister students is to send an email announcement of APPLES to non-engineering technical departments at your institution. From your Institutional Overview Checklist, these departments are:

*At Orchard: information systems, mathematics, mathematics/computer science, chemistry, and biology*

**Incentives** of \$4 paid through PayPal will be offered to all APPLES subjects. The APPLES team will handle all aspects of administering incentives to subjects. We reserve the right to temporarily close your institution's survey if we detect widespread fraud (individuals

repeatedly claiming the incentive). Should this happen, we will immediately notify you and have the survey offline only for the time required to address the problem.

**What's next?** After we receive your institution's recruitment plan, your APPLES liaison will seek to schedule a phone meeting with you (late November/early December). She will answer any questions you have and give you a more detailed rundown of what to expect during deployment week.

While this is the last "assignment" from us, there are still some "to do's" we recommend you consider:

- Determine who has access to the email distribution lists you will need to recruit the different strata, and contacting him/her in advance. This may be a bit more challenging, for example, with freshmen who intend to study engineering but have not yet declared the major.
- Decide who will hang the APPLES posters, and the most appropriate places given your strata targets (and various institutional rules about hanging posters).
- Come up with a schedule for the week of deployment to help you be sure you hit your target responses. In our experience, it is difficult to recruit more than 30% of any population (even with the incentive) – so coordinators at smaller schools may need to spend more time on strategic recruitment (Plan B) during deployment. We estimate that coordinators spend 2-10 hours on APPLES related activities the week leading up to and the week of APPLES deployment.

If you have any questions at all, please don't hesitate to contact your APPLES liaison.