









#### INVESTMENTS IN EDUCATION DEVELOPMENT

# Project Platforma průmsylové spolupráce

# (Platform for Industrial Cooperation)

(CZ.1.07/2.4.00/17.0041)

## **Mentoring programme survey**

descriptive statistics

| Time period                     | 16th May – 7th July 2013   |
|---------------------------------|--|
| Questionnaire accessibility     | Information System of Masaryk University (IS MU), news in student section at fi.muni.cz, flyers, Lasaris web, Facebook |
| Number of potential respondents | 2390 (minimum)   |
| Number of respondents           | 61   |
| Respondents rate                | 2,6%   |
| Relevant responses <sup>1</sup> | 56   |

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<sup>1</sup> Respondents interested in the idea of the mentoring programme

#### Introduction

The on-line survey was conducted during the period from 16<sup>th</sup> May to 7<sup>th</sup> July 2013. We used Google form to create questionnaire for the survey. The on-line questionnaire was published on May 16<sup>th</sup> and announced by various channels (e.g. IS MU, web of the Lab of Software Architectures and Information Systems – Lasaris – lasaris.fi.muni.cz, Facebook sites, flyers at faculty premises).

There were at least 2390 potential respondents at the faculty as of 16<sup>th</sup> May 2013 – for detailed statistics see the Table 1: *The number of active students in all study programmes at FI MU as of 1st August 2013*:

Table 1: The number of active students in all study programmes at FI MU as of 1st August 2013

| Study programme                            | frequency* | %    |
|--|------------|------|
| B – applied informatics                    | 756        | 32%  |
| B – informatics                            | 755        | 32%  |
| B – informatics with another discipline    | 3          | 0%   |
| B – other                                  | 36         | 2%   |
| SubTotal                                   | 1550       | 65%  |
| N – applied informatics                    | 413        | 17%  |
| N – informatics                            | 274        | 11%  |
| N – teacher training for secondary schools | 1          | 0%   |
| N – other                                  | 17         | 1%   |
| SubTotal                                   | 705        | 29%  |
| Doctoral                                   | 135        | 6%   |
| Total                                      | 2390       | 100% |

<sup>\*</sup> statistics valid as of 1st August 2013

Statistics were obtained from the IS MU. Unfortunately, the question about the study area was omitted in the questionnaire, what showed up as a quite important information later. As mention above, answers were collected on-line by Google form tool<sup>2</sup>. This survey can be considered as a pre-analysis of the current interest in mentoring at FI MU<sup>3</sup> as we have no knowledge about previous surveys conducted at FI MU or at Masaryk University at all. We used no "identificator" for respondents' answers what caused that were not able to prevent multiple answers (even though multiple answers — more than one answer by a single respondent — were not expected). The randomness of the selection of respondents may be also compromised by the on-line way of questioning. Only descriptive statistics was used to process results from the survey.

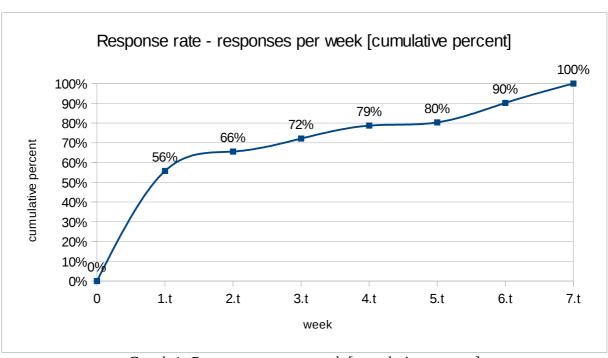
We were able to collect 61 responses in almost 53 days – what we consider as a low response rate. The small number of answers might be caused by the start of the exam period at FI MU and beginning of the summer holiday on 1<sup>st</sup> June. More that a half of answers (56%) were obtained by the end of the first week of the survey. Last five days brought even no answer at all (see Appendix).

We gained responses from 10 (16%) females and 51 (84%) males. 27 (44%) of respondents were undergraduates (bachelor study programme) and 34 (56%) were graduates (master and doctoral study programme); see Table 2: *A: Response rate per day*, Table 3: *Respondents by type/year of study*, Graph 2: *Respondents by gender*, Graph 3: *Respondents by type/year of study*.

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<sup>2</sup> The whole questionnaire is available in separate document "Mentoring programme questionnaire"

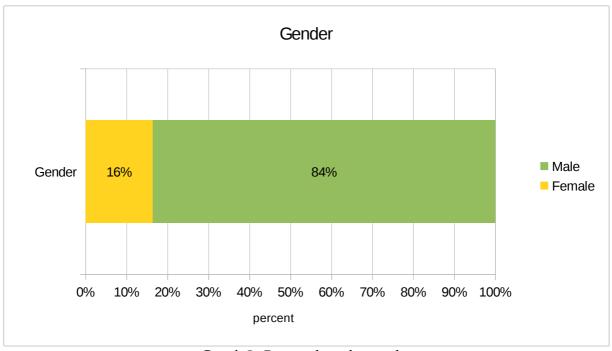
<sup>3</sup> FI MU – Faculty of Informatics of Masaryk University



Graph 1: Response rate per week [cumulative percent]

Table 2: Respondents by gender

| Gender | frequency | %    |
|--------|-----------|------|
| Female | 10        | 16%  |
| Male   | 51        | 84%  |
| Total  | 61        | 100% |

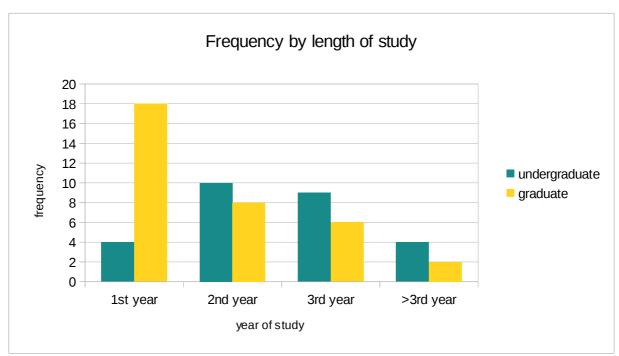


*Graph 2: Respondents by gender* 

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*Table 3: Respondents by type/year of study* 

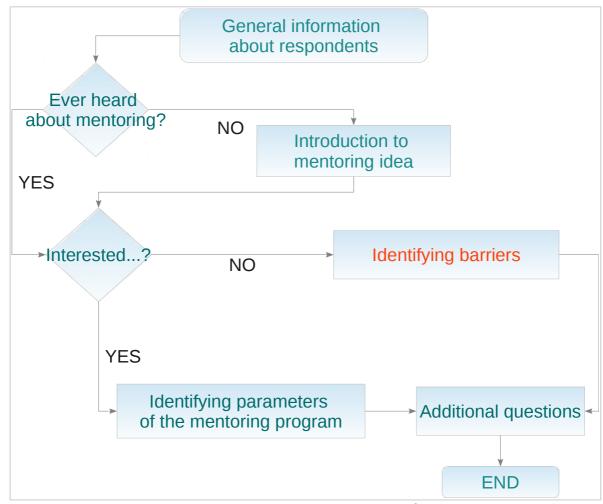
| Type/year of study | frequency | % (to Total) |
|--------------------|-----------|--------------|
| undergraduate      |           |              |
| 1st year           | 4         | 7%           |
| 2nd year           | 10        | 16%          |
| 3rd year           | 9         | 15%          |
| 4th year           | 4         | 7%           |
| SubTotal           | 27        | 44%          |
| graduate           |           |              |
| 1st year           | 18        | 30%          |
| 2nd year           | 8         | 13%          |
| 3rd year           | 6         | 10%          |
| >3rd year          | 2         | 3%           |
| SubTotal           | 34        | 56%          |
| Total              | 61        | 100%         |



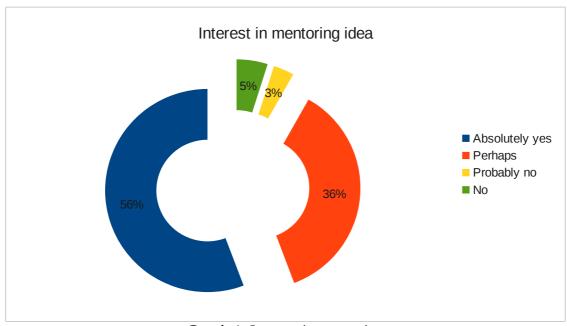
*Graph 3: Respondents by type/year of study* 

For the flow of questions in the questionnaire see Illustration 1. After providing some information about themselves, respondents were asked whether they had ever heard about mentoring. If not, short introduction to the idea of mentoring was made. Following question was about their interest in some kind of mentoring cooperation. More than a half of respondents (56%) stated that they would be "absolutely" interested in mentoring and another 36% might be "perhaps" interested. This means that 56 respondents out of 61 respondents in total like the idea of being involved in mentoring (see Table 4: *Interest in mentoring*, Graph 4: *Interest in mentoring*).

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*Illustration 1: Questionnaire queries flow* 



Graph 4: Interest in mentoring

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*Table 4: Interest in mentoring* 

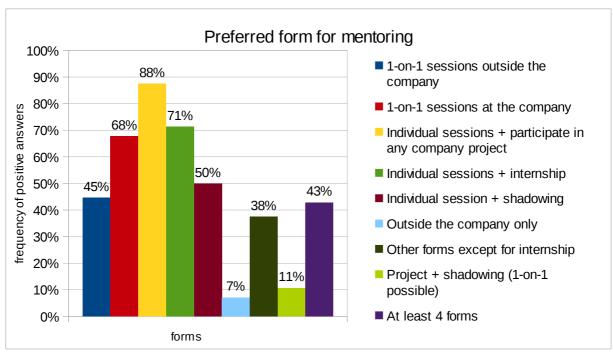
| Interest in mentoring programme |           |      |
|---------------------------------|-----------|------|
|                                 | frequency | %    |
| Absolutely yes                  | 34        | 56%  |
| Perhaps                         | 22        | 36%  |
| Probably no                     | 2         | 3%   |
| No                              | 3         | 5%   |
| Total                           | 61        | 100% |
|                                 |           |      |
| Favorable                       | 56        | 92%  |
| Unfavorable                     | 5         | 8%   |
| Total                           | 61        | 100% |

### Preferred form for the mentoring programme

The question about the preferred form for mentoring offered five options for mentoring that might be combined (check-box-type question; "other" answer was possible as well). 88% of respondents liked the idea of individual sessions with mentor together with participation in some real project at the company (this could correspond with preferences for professional growth during the mentoring and also interest in events/activities that requires practical training; see later). The second favourite option was the combination of individual sessions and intenrship at the company. We think that results indicate that students are interested in more than regular ways of internship as the option "one-on-one sessions with the mentor at the company" was the third favourite option with 38 votes out of 56 (68% of respondents selected this answer) and also that there were 21 (38%) respondents who chose other offered forms of cooperation with the mentor except the internship by itself (Table 5: *Preferred form for mentoring*).

Table 5: Preferred form for mentoring

| Preferred form for mentoring [check box]                 | frequency | %   |
|--|-----------|-----|
| 1-on-1 sessions outside the company                      | 25        | 45% |
| 1-on-1 sessions at the company                           | 38        | 68% |
| Individual sessions + participate in any company project | 49        | 88% |
| Individual sessions + internship                         | 40        | 71% |
| Individual session + shadowing                           | 28        | 50% |
|  |           |     |
| Outside the company only                                 | 4         | 7%  |
| Other forms except for internship                        | 21        | 38% |
| Project + shadowing (1-on-1 possible)                    | 6         | 11% |
| At least 4 forms   | 24        | 43% |



Graph 5: Preferred form for mentoring

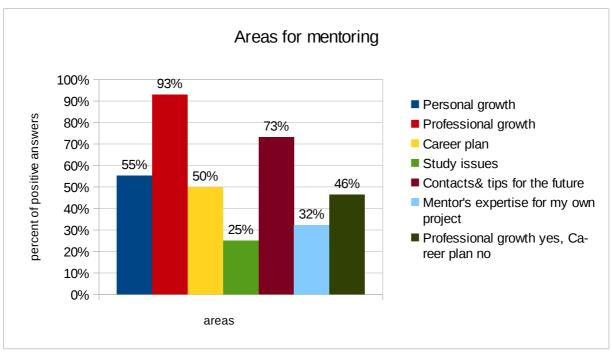
### Areas for mentoring

As mentioned before, the most favourite area for mentoring was "professional growth" that was selected by the 93% of all respondents. 73% of respondents thought that mentoring could be a good way to obtain useful contacts and tips for possible future intenrship/part-time-full-time possition at the company. More than a half of respondents would like to help with personal growth (55%) and 50% would like the mentor to help them with their career plan. We think that the desire for professional growth is emphasized by the result when 46% of respondents "said yes" to professional growth but did not selected the "career plan" option (Table 6: *Areas for mentoring*). Graph 6: *Areas for mentoring*).

*Table 6: Areas for mentoring* 

| Areas for mentoring [check box]         | frequency | %   |
|---|-----------|-----|
| Personal growth                         | 31        | 55% |
| Professional growth                     | 52        | 93% |
| Career plan                             | 28        | 50% |
| Study issues                            | 14        | 25% |
| Contacts& tips for the future           | 41        | 73% |
| Mentor's expertise for my own project   | 18        | 32% |
|   |           |     |
| Professional growth yes, Career plan no | 26        | 46% |

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*Graph 6: Areas for mentoring* 

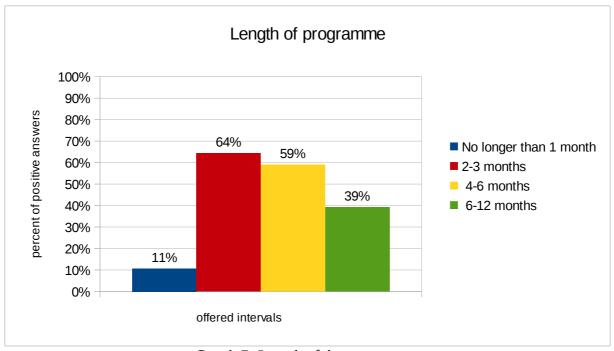
## Length of the programme

The ideal length of the programme is somewhere between 2 to 6 months as the option for "2-3 months" was the most favourite with 36 votes (64%) followed by the possibility for the mentoring programme in the length of "4-6 months" with 33 votes (59%). It seems that longer cooperation with the mentor is preferred to short-term cooperation, however few responses indicated that the length of the cooperation would depend on the project they would be involved in<sup>4</sup>; see Table 7: *Length of the programme*, Graph 7: *Length of the programme*.

*Table 7: Length of the programme* 

| Length of the programme [check box] | frequency | %   |
|-------------------------------------|-----------|-----|
| No longer than 1 month              | 6         | 11% |
| 2-3 months                          | 36        | 64% |
| 4-6 months                          | 33        | 59% |
| 6-12 months                         | 22        | 39% |
| Other                               | 3         | 5%  |

<sup>4</sup> It seems like respondents would see mentoring tightly connected to some company project



*Graph 7: Length of the programme* 

#### Additional questions

Preferred ways to involve companies are clearly "internship opportunities for students" with 47 votes (84%). Additional lectures or workshops activities placed second – they were popular among 64% of respondents (36 votes). More than a half of respondents (54%) voted for Open House events. For details see Table 8: *Other ways to reach students*, Graph 8: *Other ways to reach students*.

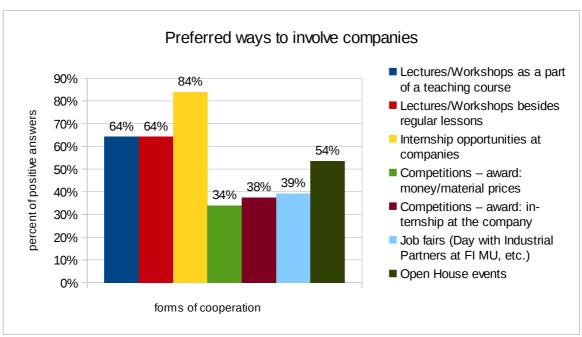
Last question aimed to map the type of events students are interested in. 89% of respondents voted for events/activities with practical training, 77% votes went to "brain teasing" events/activities and 70% of respondents (39 votes) voted also for activities "that are fun". For details see Table 9: *Type of preferred events/activities*, Graph 9: *Type of preferred events/activities*.

Table 8: Other ways to reach students

| Preferred ways to involve companies [check box]         | frequency | %   |
|---|-----------|-----|
| Lectures/Workshops as a part of a teaching course       | 36        | 64% |
| Lectures/Workshops besides regular lessons              | 36        | 64% |
| Internship opportunities at companies                   | 47        | 84% |
| Competitions – award: money/material prices             | 19        | 34% |
| Competitions – award: internship at the company         | 21        | 38% |
| Job fairs (Day with Industrial Partners at FI MU, etc.) | 22        | 39% |
| Open House events                                       | 30        | 54% |

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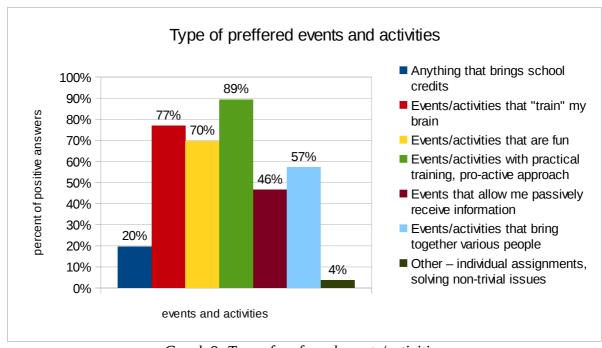
We used the term "event" largely in the questionnaire even though the "activity" term would be more suitable. This error was caused by our "anchoring" with this term during the creation of the questionnaire.



*Graph 8: Other ways to reach students* 

Table 9: Type of preferred events/activities

| Type of preferred events and activities [check box]            | frequency | %   |
|--|-----------|-----|
| Anything that brings school credits                            | 11        | 20% |
| Events/activities that "train" my brain                        | 43        | 77% |
| Events/activities that are fun                                 | 39        | 70% |
| Events/activities with practical training, pro-active approach | 50        | 89% |
| Events that allow me passively receive information             | 26        | 46% |
| Events/activities that bring together various people           | 32        | 57% |
| Other – individual assignments, solving non-trivial issues     | 2         | 4%  |



Graph 9: Type of preferred events/activities

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### Supplement

As we mentioned above, 5 respondents out of 61 would be probably or absolutely not interested in mentoring programme. Nevertheless, it seems their reasons are usual and expected (considering that no other reason was mentioned in the questionnaire):

*Table 10: Internal barriers for mentoring programme* 

| Why not mentoring?               | frequency | %   |
|----------------------------------|-----------|-----|
| I don't need a mentor            | 2         | 40% |
| I don't need separated mentoring | 1         | 20% |
| I don't see any benefit in it    | 3         | 60% |

According to obtain answers from the questionnaire, we think the form of mentoring programme that is separated from any kind of regular<sup>6</sup> student-company cooperation may be successful and beneficial for students. The other challenge for us would be to create a form of mentoring programme that would bring some extra added value<sup>7</sup> for mentors as well.

As for the form of the programme – we suppose that the ideal length of the mentoring would be in interval from 2 to 6 months; the ideal form of cooperation would be to participate in some kind of the company project that is non-trivial ("brain teasing") and demanding (as for practical skills), that does not have to be the part of the internship necessarily but with intensive feedback from the mentor (1-on-1 sessions) and possibility of shadowing the mentor; mentoring should be focused on professional growth of the student (his/her technical skills and knowledge improvement).

The key issues that need to be resolved next:

- 1. source capabilities of companies
- 2. extra added value for mentors
- 3. identifying projects that could be the "mission" of mentoring

#### Additional words from some respondents:

- "This sounds really promissing, hope it is gonna work out! Please, let me know at xxx@yyy when the mentoring opportunity is ready, when it becomes;)."
- "Mentoring can offer people more than listening to useless lecturers of FI."
- "I appreciate this project :) because it could give me some "under the hood" look on how it really works outside school. Also It's a opportunity to meet new people and learn some useful thinks."

The idea of mentoring programme is possible to explore thanks to support of the project "Platform for Industrial Cooperation" [Platforma průmsylové spolupráce, CZ.1.07/2.4.00/17.0041], which is funded by European Union – European social fund in Czech Republic.

More information about the project: <a href="http://lasaris.fi.muni.cz/pps">http://lasaris.fi.muni.cz/pps</a>



<sup>6</sup> By regular we mean cooperation that is usual for companies in the South Moravian region (internships, cooperation on master/bachelor thesis, lectures given by company professionals at the ground of the faculty or participation of experts from outside the faculty in some teaching courses, etc.

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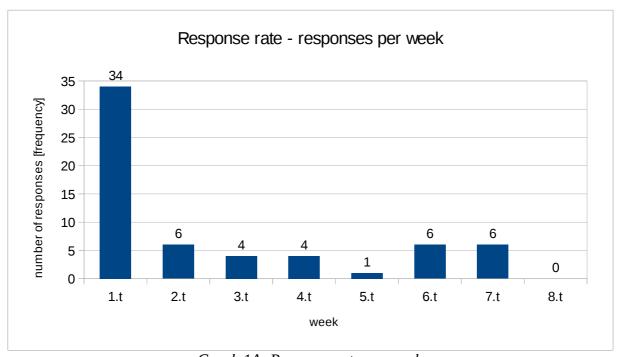
<sup>7</sup> Considering that the mentoring may be an added value only by itself

# **Appendix**

Response rate – responses obtained per week and day

*Table 1A: Response rate per week* 

| Response rate – | number of responses per week |      |            |      |  |
|-----------------|------------------------------|------|------------|------|--|
| date            | frequency                    | %    | cumulative | %    |  |
|                 | 0                            |      |            |      |  |
| 1.t             | 34                           | 56%  | 34         | 56%  |  |
| 2.t             | 6                            | 10%  | 40         | 66%  |  |
| 3.t             | 4                            | . 7% | 44         | 72%  |  |
| 4.t             | 4                            | . 7% | 48         | 79%  |  |
| 5.t             | 1                            | 2%   | 49         | 80%  |  |
| 6.t             | 6                            | 10%  | 55         | 90%  |  |
| 7.t             | 6                            | 10%  | 61         | 100% |  |
| 8.t             | 0                            | 0%   | 61         | 100% |  |
| Total           | 61                           | 100% | 61         | 100% |  |



Graph 1A: Response rate per week

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*Table 2A: Response rate per day* 

| Response rate -          | number of responses per day |      |    |     |  |  |
|--------------------------|-----------------------------|------|----|-----|--|--|
| date                     | frequency % cumulative %    |      |    |     |  |  |
| 2013-05-16               | 26                          |      |    |     |  |  |
| 2013-05-17               | 3                           |      |    |     |  |  |
| 2013-05-18               | 1                           |      |    |     |  |  |
| 2013-05-19               | C                           |      |    |     |  |  |
| 2013-05-20               | 1                           |      |    | 51% |  |  |
| 2013-05-21               | 1                           |      |    |     |  |  |
|                          |                             |      |    |     |  |  |
| 2013-05-22               | 2                           |      |    |     |  |  |
| 2013-05-23               | 1                           |      |    |     |  |  |
| 2013-05-24               | 2                           |      |    | 61% |  |  |
| 2013-05-25               | 1                           |      |    |     |  |  |
| 2013-05-26               | 1                           |      |    |     |  |  |
| 2013-05-27               | 1                           |      |    | 66% |  |  |
| 2013-05-28               | C                           |      |    | 66% |  |  |
| 2013-05-29               | C                           |      |    |     |  |  |
| 2013-05-30               | C                           |      |    | 66% |  |  |
| 2013-05-31               | 1                           |      |    | 679 |  |  |
| 2013-06-01               | 1                           | 2%   | 42 | 69% |  |  |
| 2013-06-02               | C                           | 0%   | 42 | 69% |  |  |
| 2013-06-03               | 1                           | 2%   | 43 | 70% |  |  |
| 2013-06-04               | 1                           | 2%   | 44 | 72% |  |  |
| 2013-06-05               | C                           | 0%   | 44 | 72% |  |  |
| 2013-06-06               | 1                           | 2%   | 45 |     |  |  |
| 2013-06-07               | 1                           |      |    |     |  |  |
| 2013-06-08               | 2                           | -    |    |     |  |  |
| 2013-06-09               | C                           |      |    |     |  |  |
| 2013-06-10               | C                           |      |    |     |  |  |
| 2013-06-11               | C                           |      |    |     |  |  |
| 2013-06-12               | C                           |      |    |     |  |  |
| 2013-06-12               | C                           |      |    |     |  |  |
| 2013-06-13               |                             |      |    |     |  |  |
|                          |                             |      |    |     |  |  |
| 2013-06-15               | C                           |      |    |     |  |  |
| 2013-06-16               | C                           |      |    |     |  |  |
| 2013-06-17               | C                           |      |    |     |  |  |
| 2013-06-18               | 1                           |      |    |     |  |  |
| 2013-06-19               | C                           |      |    |     |  |  |
| 2013-06-20               | C                           |      |    |     |  |  |
| 2013-06-21               | 1                           |      |    |     |  |  |
| 2013-06-22               | C                           |      |    |     |  |  |
| 2013-06-23               | 1                           | . 2% | 51 | 849 |  |  |
| 2013-06-24               | _   1                       | 2%   | 52 | 85% |  |  |
| 2013-06-25               | 2                           | 3%   | 54 | 89% |  |  |
| 2013-06-26               | 1                           | 2%   | 55 | 90% |  |  |
| 2013-06-27               | 1                           | 2%   | 56 | 92% |  |  |
| 2013-06-28               | 1                           | 2%   | 57 | 93% |  |  |
| 2013-06-29               | C                           |      |    | 93% |  |  |
| 2013-06-30               | C                           |      |    | 93% |  |  |
| 2013-07-01               | 3                           |      |    |     |  |  |
| 2013-07-02               | 1                           |      |    |     |  |  |
| 2013-07-02               | C                           |      |    |     |  |  |
| 2013-07-03<br>2013-07-04 |                             |      |    |     |  |  |
| 2013-07-04<br>2013-07-05 | C                           |      |    |     |  |  |
|                          |                             |      |    |     |  |  |
| 2013-07-06               | C                           |      |    |     |  |  |
| 2013-07-07               | C                           |      |    |     |  |  |
| 2013-07-07<br>Total      | 61                          |      |    |     |  |  |