C++ dispatching concepts comparison

Krzysztof Jusiak

Abstract

Document presents comparison between C++ dispatching concepts:

- Type safe dispatcher using meta if-else
- Type safe dispatcher using switch/case
- Type safe dispatcher using std::map
- Type safe dispatcher using boost::unordered_map
- Type safe dispatcher using raw table

Contents

0.0.1 Results from "server" [5be79db], generated Wed Oct 19 11:47:49 CEST 2011

```
Test aspects:

    compilation:
        compilation time measured by 'time' call
        only 'real' time is taken into account
        result is in seconds

    size:
        size of the binary measured by 'ls -k' call
        result is in kilobytes

    strip-size:
        size of the binary measured by 'ls -k' call after 'strip' call
        result is in kilobytes

    execution:
        execution time measured by 'time' call
        only 'real' time is taken into account
        result is in seconds

    valgrind:
        test is executed with valgrind call
        result is as A/D (S), where
        A - allocations
        D - deallocations
        S - global allocated size in bytes

    test name:
        test_NAME[_NUMBER], where NAME is test case name and NUMBER is count of event calls during the test
```

```
Environment statistics:

    generated: Wed Oct 19 11:47:49 CEST 2011
    code revision: 5be79db
    hostname: "server"
    operating system:  GNU/Linux
    processor: Intel(R) Core(TM)2 Duo CPU P8600 @ 2.40GHz
    free memory: 1229Mb
    load average: 0.79 0.59 0.48 1/307 29073
```

```
All tests summary:

    real: 19644.24s (5:27:24)
    user: 19581.76s
    sys: 50.03s
    cpu: 99%
    average memory usage: 0K
    maximum resident set size: 841136K
    number of times the process was swapped out of main memory: 0
    number of file system input: 3008
    number of file system outputs: 309400
```

```
Results are presented by using table and types of charts:

    table: contains results for each tested aspect and framework
    first type of chart: presents relative (0-100%) differences between individual framework and aspect
```

Table 1: ”server” [5be79db], g++44 -m32 -DNDEBUG -DEXPECTED EVENTS=’(2)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)(977)’ -DGIVEN EVENTS=’(2)(11)(23)(41)(59)(73)(97)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.08s	0.90s	1.16s	1.34s	1.09s
size	80K	57K	102K	117K	87K
strip-size	29K	28K	36K	40K	29K
execution	3.60s	2.53s	5.26s	5.23s	2.77s
valgrind	50/50 (1,624b)	50/50 (1,624b)	66/66 (2,032b)	68/68 (1,964b)	50/50 (5,624b)

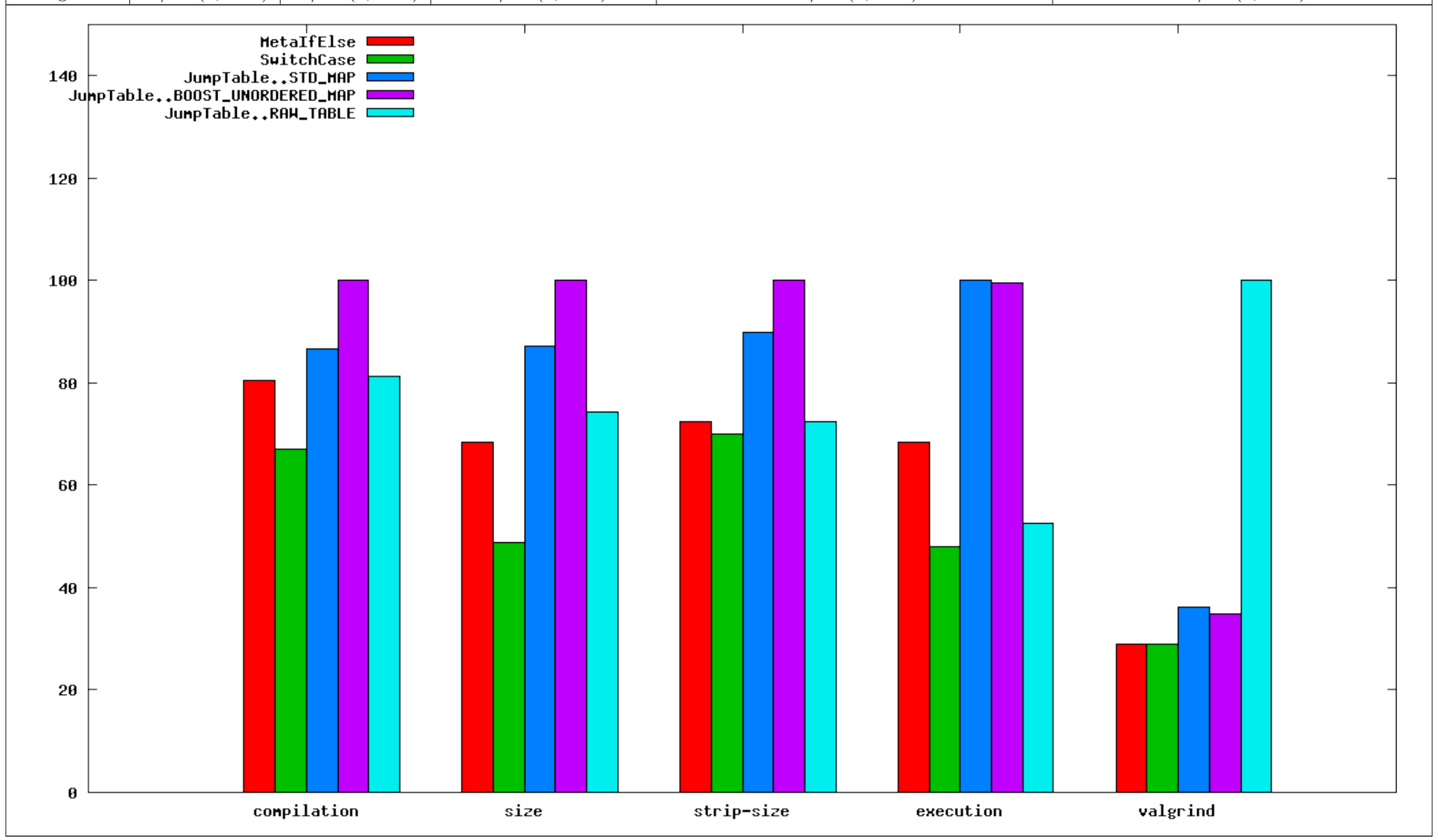


Table 3: ”server” [5be79db], g++44 -m32 -DNDEBUG -DEXPECTED EVENTS=’(2)(977)’ -DGIVEN EVENTS=’(2)(11)(997)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.01s	0.90s	1.06s	1.20s	1.12s
size	59K	52K	74K	89K	60K
strip-size	26K	25K	32K	36K	26K
execution	2.72s	2.50s	4.03s	4.20s	2.81s
valgrind	14/14 (1,192b)	14/14 (1,192b)	16/16 (1,264b)	17/17 (1,292b)	14/14 (5,192b)

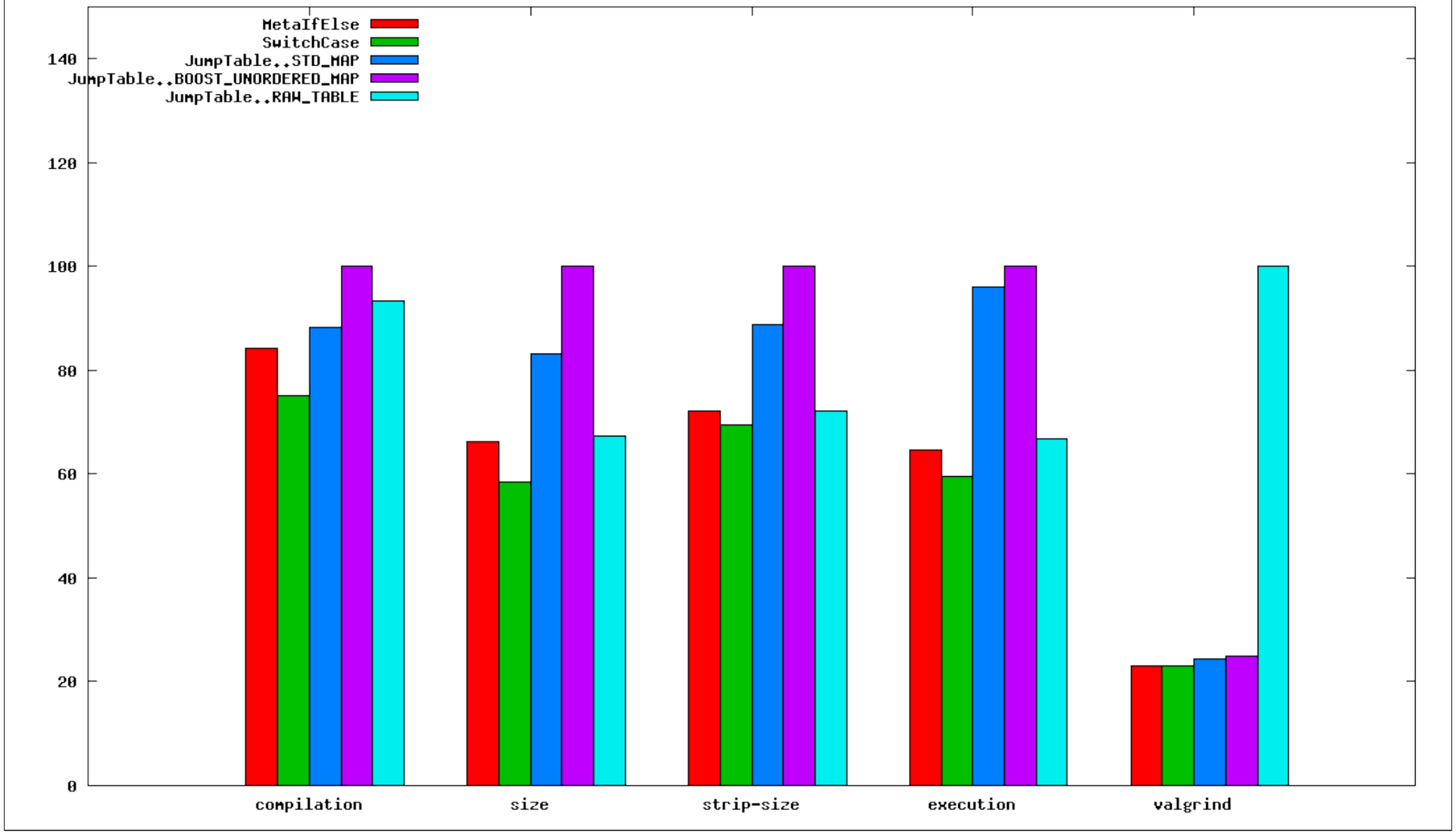


Table 5: "server" [5be79db], g++44 -m32 -DNDEBUG -DEXPECTED_EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)' -DGIVEN_EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)' dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.06s	0.85s	1.11s	1.31s	1.04s
size	71K	55K	90K	105K	75K
strip-size	28K	26K	34K	38K	28K
execution	3.13s	2.51s	5.55s	5.26s	2.84s
valgrind	30/30 (1,384b)	30/30 (1,384b)	41/41 (1,672b)	43/43 (1,664b)	30/30 (5,384b)

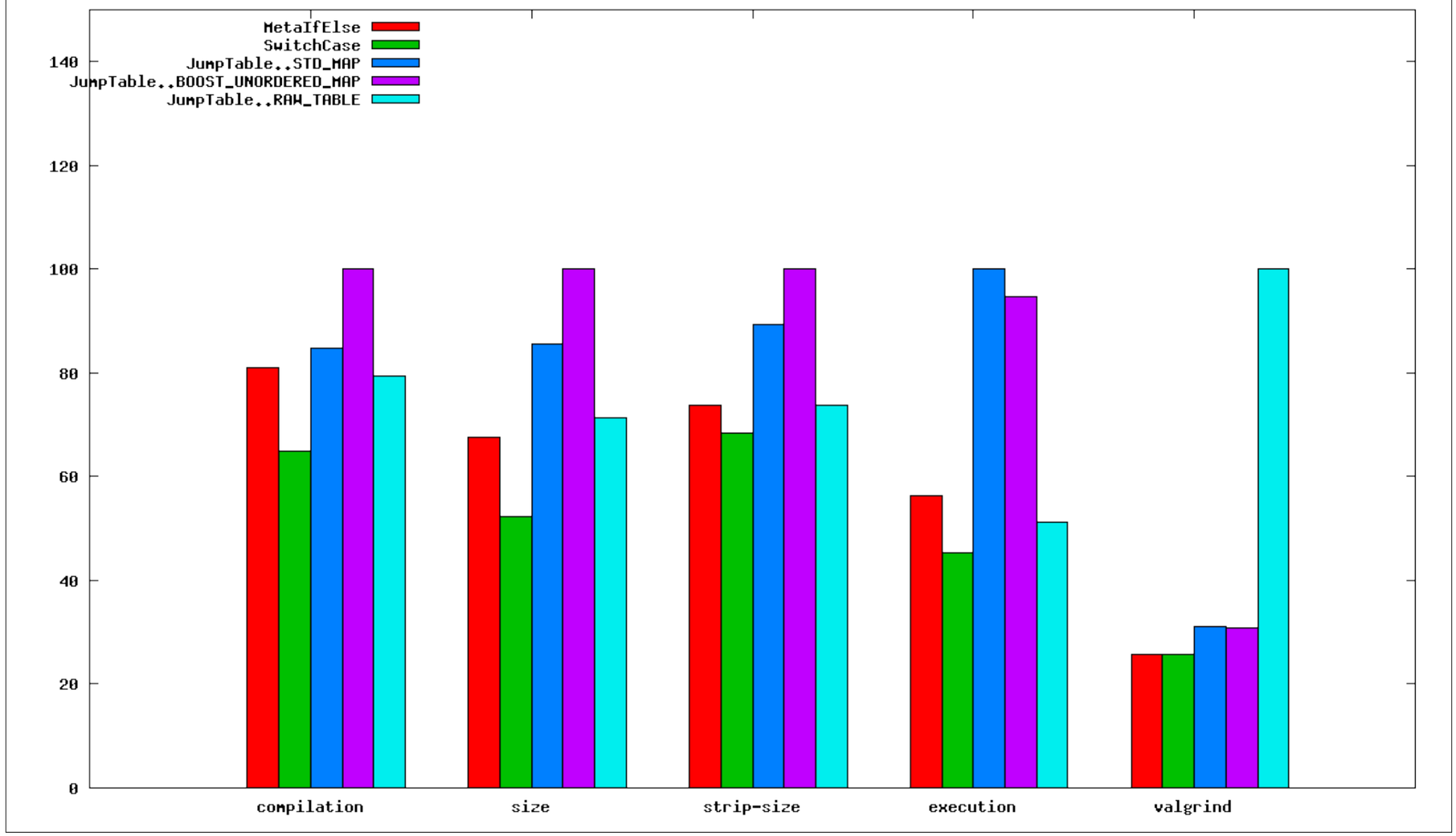


Table 7: ”server” [5be79db], g++44 -m32 -DNDEBUG -DEXPECTED EVENTS=’(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)’ -DGIVEN EVENTS=’(347)(367)(389)(419)(977)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.06s	0.89s	1.10s	1.35s	1.05s
size	71K	53K	90K	105K	75K
strip-size	28K	26K	34K	38K	28K
execution	3.43s	2.56s	4.40s	4.55s	2.67s
valgrind	18/18 (1,240b)	18/18 (1,240b)	29/29 (1,528b)	31/31 (1,520b)	18/18 (5,240b)

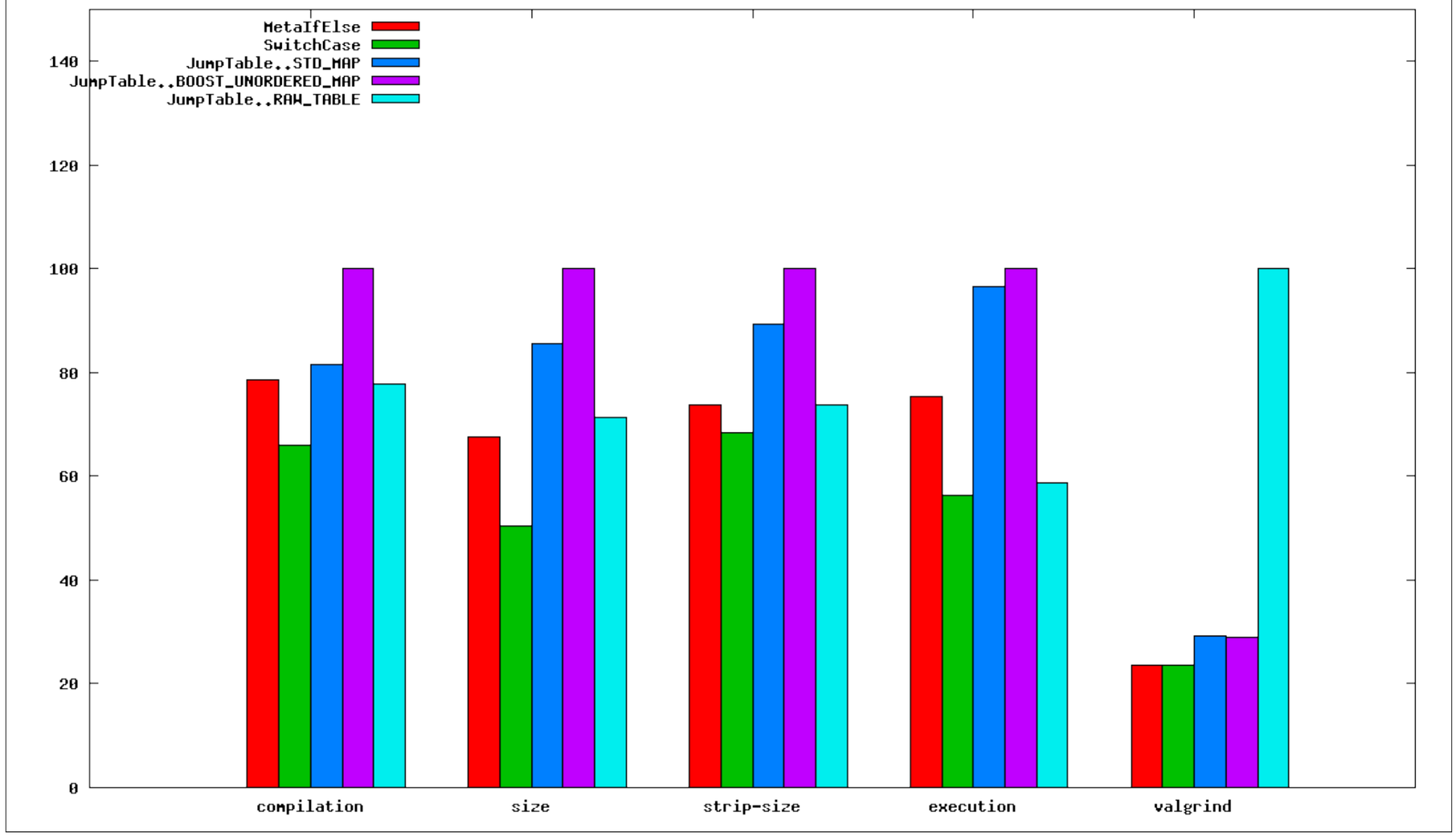


Table 9: ”server” [5be79db], g++44 -m32 -O2 -DNDEBUG -DEXPECTED EVENTS=’(2)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)(977)’ -DGIVEN EVENTS=’(2)(11)(23)(41)(59)(73)(97)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.25s	1.08s	1.40s	1.61s	1.27s
size	22K	18K	33K	32K	28K
strip-size	13K	13K	18K	17K	14K
execution	0.51s	0.48s	0.69s	0.72s	0.56s
valgrind	50/50 (1,624b)	50/50 (1,624b)	66/66 (2,032b)	68/68 (1,964b)	50/50 (5,624b)

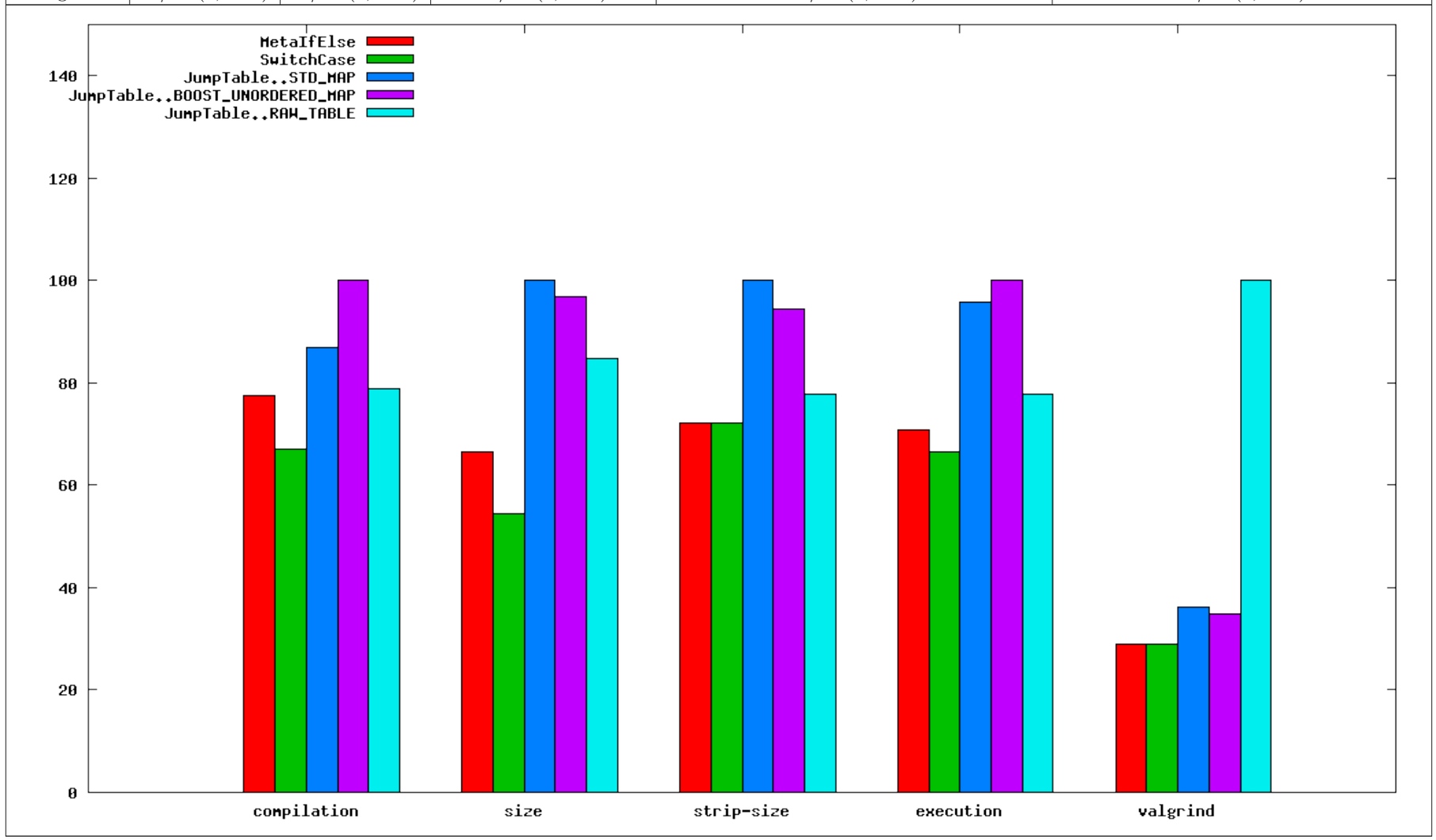


Table 11: ”server” [5be79db], g++44 -m32 -Os -DNDEBUG -DEXPECTED EVENTS=’(2)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)(977)’ -DGIVEN EVENTS=’(2)(11)(23)(41)(59)(73)(97)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.01s	0.88s	1.21s	1.40s	1.09s
size	19K	15K	29K	29K	25K
strip-size	10K	10K	12K	13K	11K
execution	0.48s	0.44s	0.93s	0.86s	0.59s
valgrind	50/50 (1,624b)	50/50 (1,624b)	66/66 (2,032b)	68/68 (1,964b)	50/50 (5,624b)

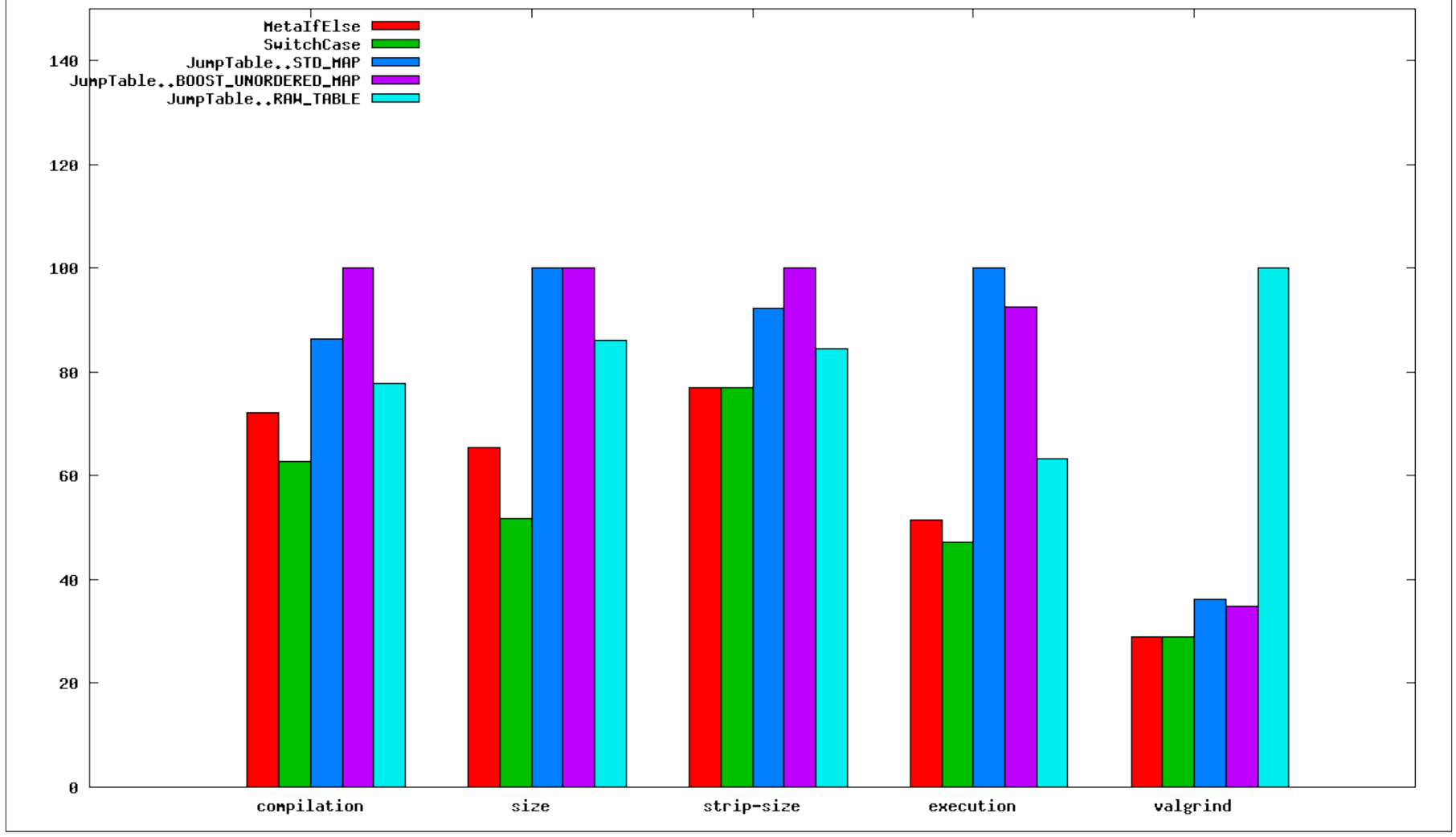


Table 13: ”server” [5be79db], g++44 -m32 -O2 -DNDEBUG -DEXPECTED EVENTS=’(2)(977)’ -DGIVEN EVENTS=’(2)(11)(997)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.09s	0.99s	1.41s	1.37s	1.03s
size	17K	16K	20K	21K	18K
strip-size	11K	10K	13K	13K	11K
execution	0.47s	0.52s	0.50s	0.49s	0.40s
valgrind	14/14 (1,192b)	14/14 (1,192b)	16/16 (1,264b)	17/17 (1,292b)	14/14 (5,192b)

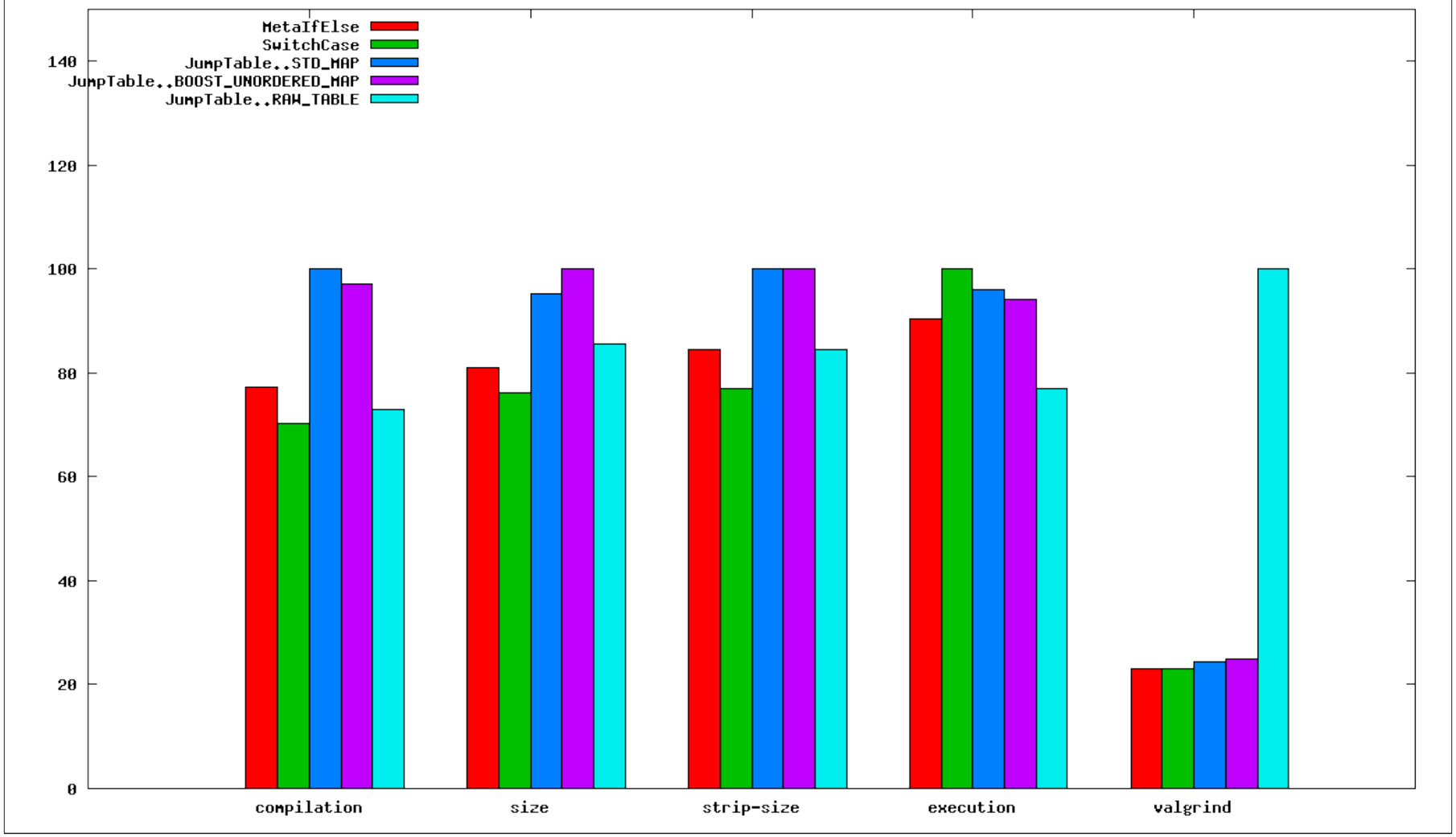


Table 15: ”server” [5be79db], g++44 -m32 -Os -DNDEBUG -DEXPECTED EVENTS=’(2)(977)’ -DGIVEN EVENTS=’(2)(11)(997)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.00s	0.89s	1.02s	1.27s	0.96s
size	16K	15K	20K	21K	17K
strip-size	9K	9K	11K	12K	10K
execution	0.44s	0.46s	0.52s	0.56s	0.53s
valgrind	14/14 (1,192b)	14/14 (1,192b)	16/16 (1,264b)	17/17 (1,292b)	14/14 (5,192b)

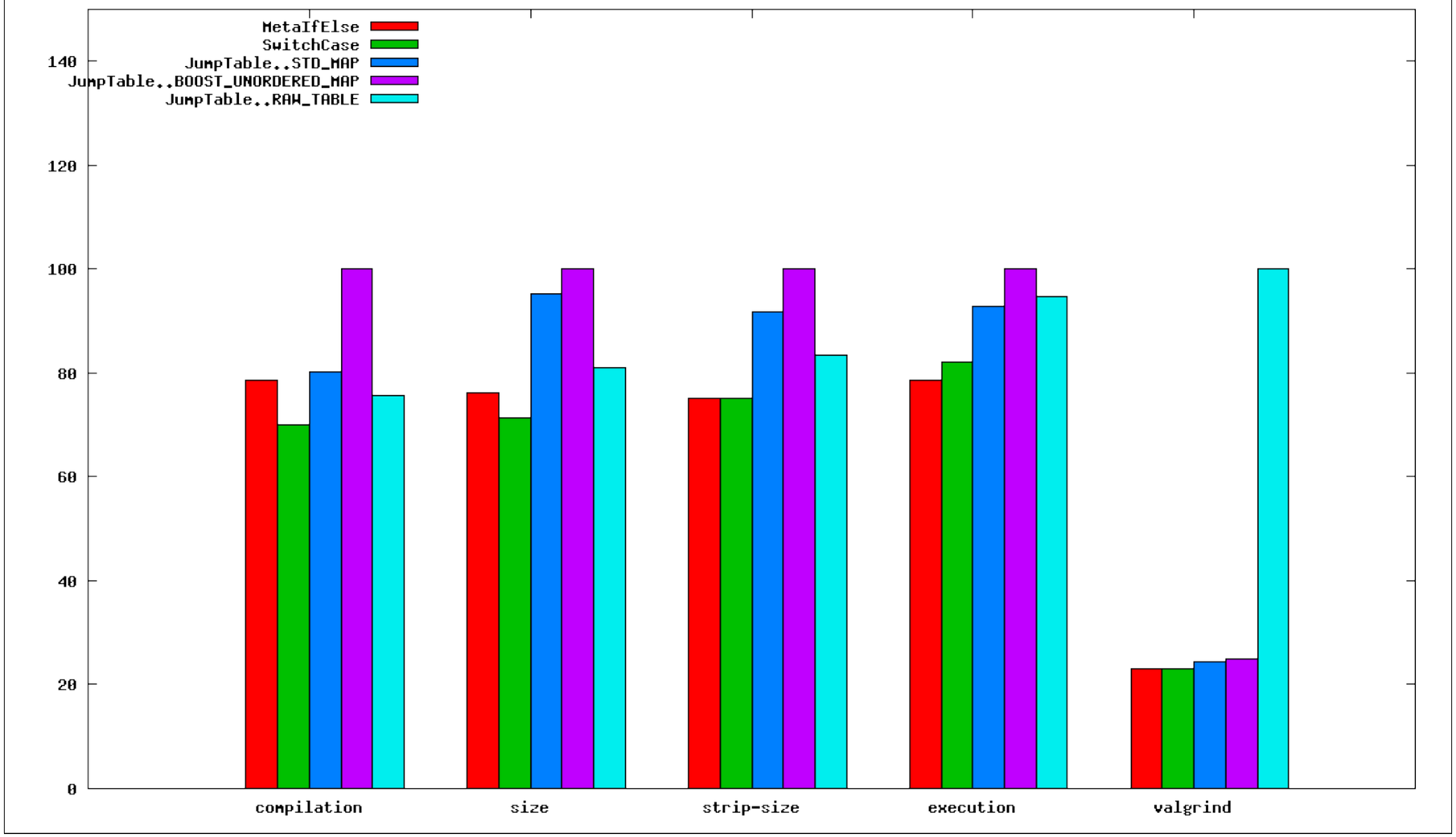


Table 17: "server" [5be79db], g++44 -m32 -Os -DNDEBUG -DEXPECTED_EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)' -DGIVEN_EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313
dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	0.98s	0.90s	1.10s	1.34s	1.00s
size	18K	15K	25K	26K	22K
strip-size	10K	9K	12K	12K	10K
execution	0.47s	0.43s	0.94s	0.89s	0.48s
valgrind	30/30 (1,384b)	30/30 (1,384b)	41/41 (1,672b)	43/43 (1,664b)	30/30 (5,384b)

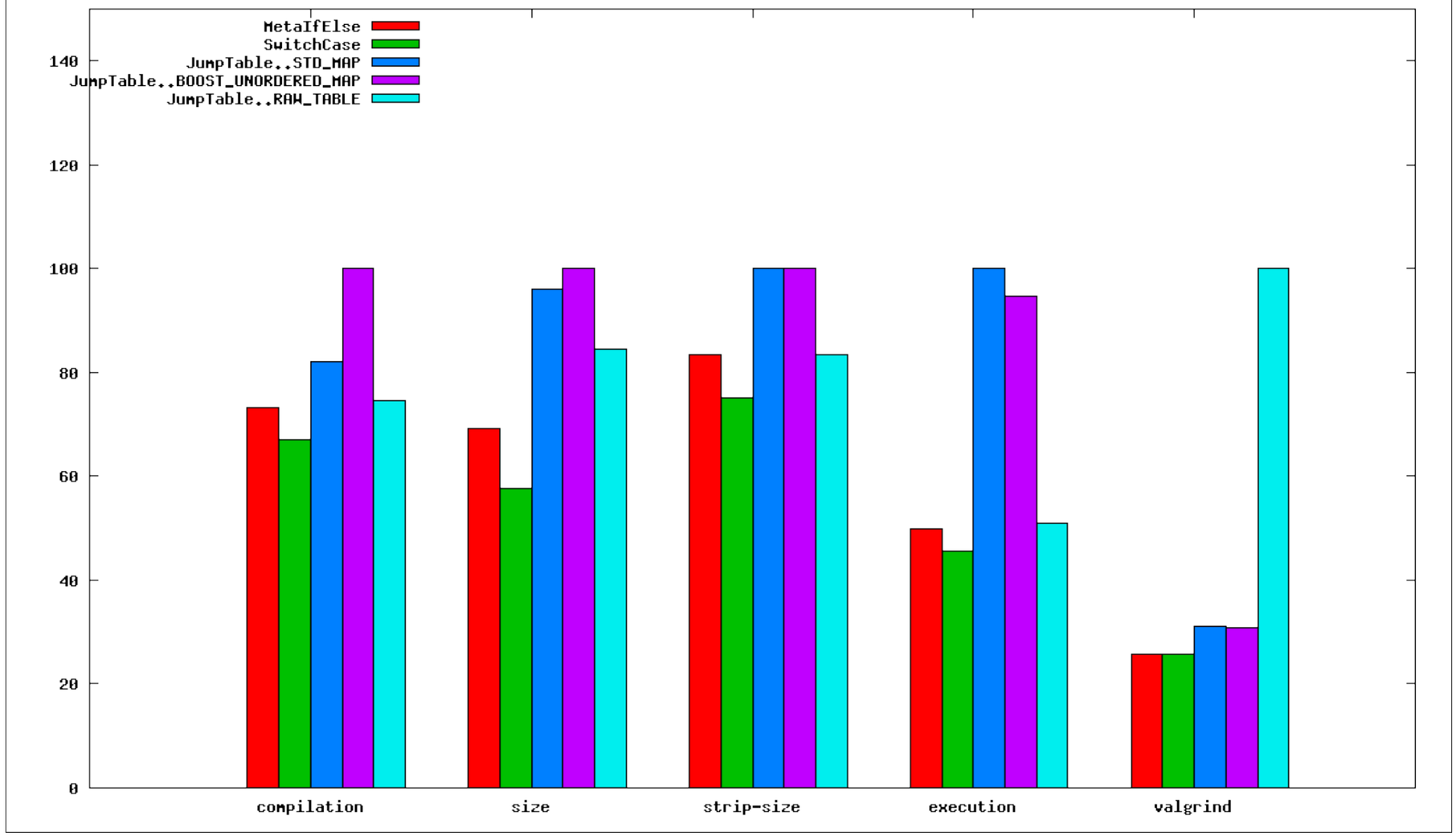


Table 19: "server" [5be79db], g++44 -m32 -O2 -DNDEBUG -DEXPECTED_EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)' -DGIVEN_EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313
dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.09s	1.07s	1.43s	1.54s	1.16s
size	20K	17K	28K	28K	23K
strip-size	12K	11K	16K	15K	12K
execution	0.42s	0.44s	0.60s	0.77s	0.48s
valgrind	30/30 (1,384b)	30/30 (1,384b)	41/41 (1,672b)	43/43 (1,664b)	30/30 (5,384b)

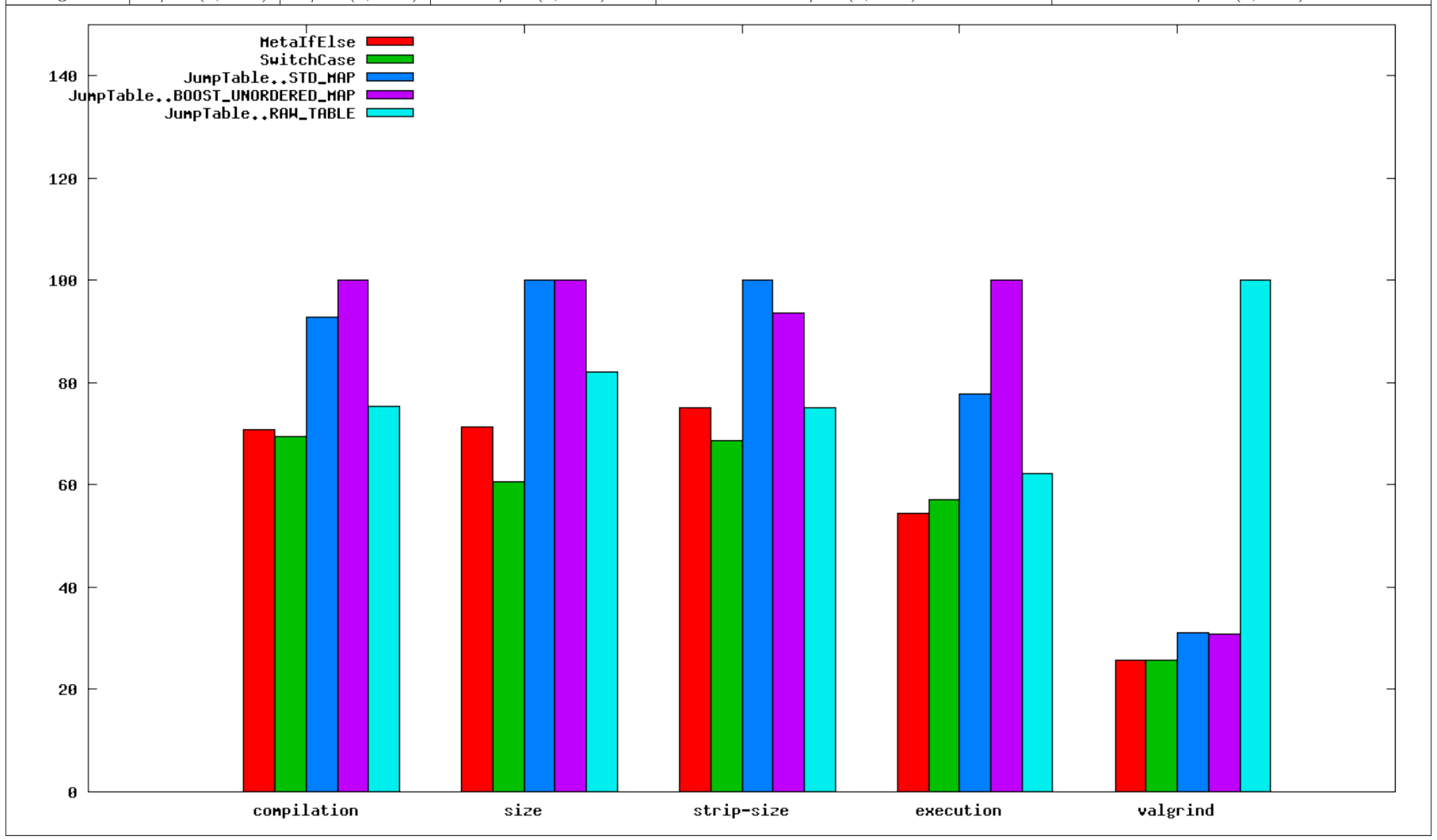


Table 21: ”server” [5be79db], g++44 -m32 -O2 -DNDEBUG -DEXPECTED EVENTS=’(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)’ -DGIVEN EVENTS=’(347)(367)(389)(419)(977)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.06s	0.98s	1.18s	1.45s	1.13s
size	19K	16K	27K	27K	23K
strip-size	11K	11K	15K	15K	12K
execution	0.52s	0.50s	0.56s	0.55s	0.55s
valgrind	18/18 (1,240b)	18/18 (1,240b)	29/29 (1,528b)	31/31 (1,520b)	18/18 (5,240b)

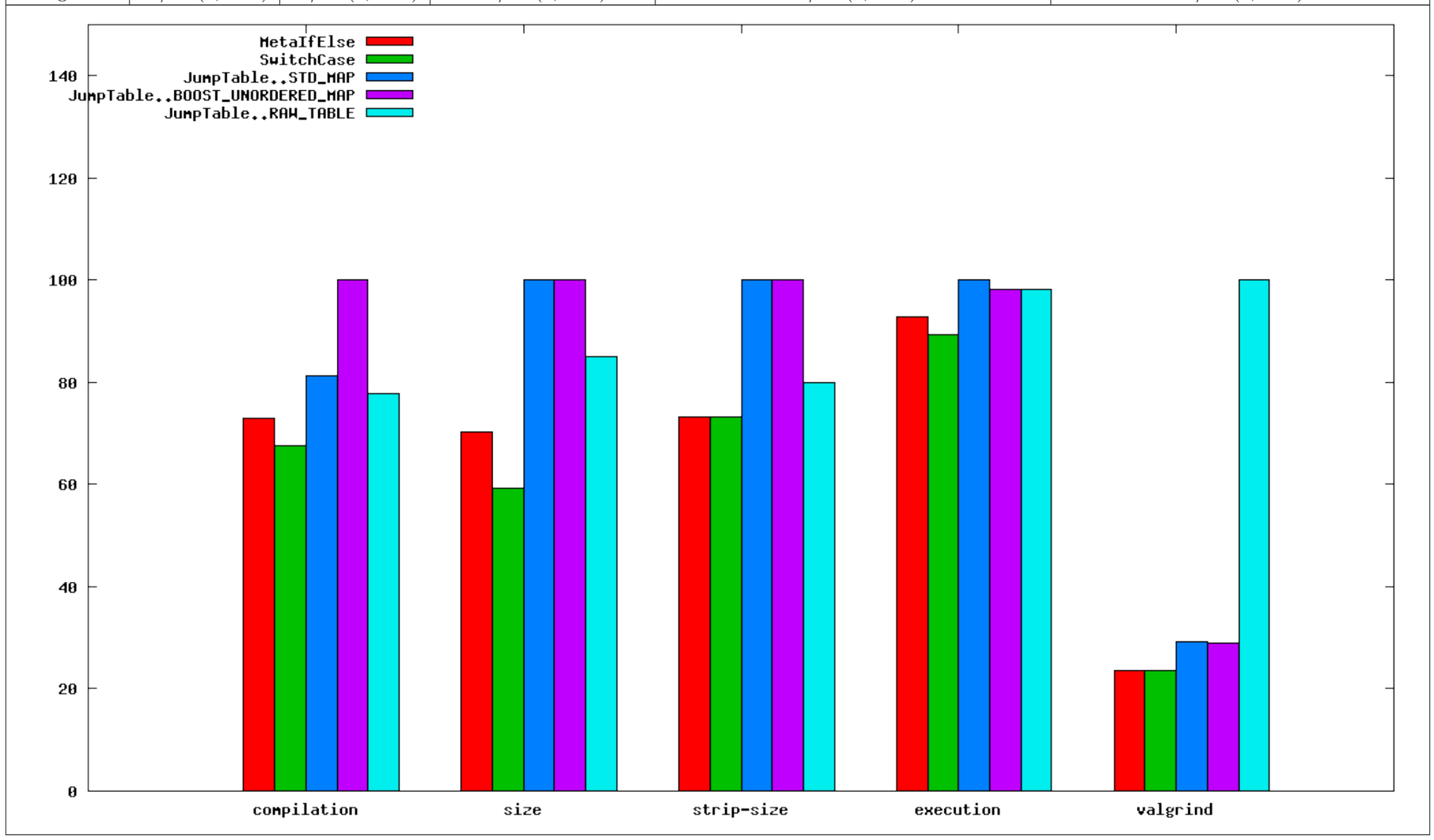


Table 23: ”server” [5be79db], g++44 -m32 -Os -DNDEBUG -DEXPECTED EVENTS=’(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)’ -DGIVEN EVENTS=’(347)(367)(389)(419)(977)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.09s	0.85s	1.08s	1.35s	1.10s
size	18K	15K	25K	26K	22K
strip-size	10K	9K	12K	12K	10K
execution	0.47s	0.41s	0.58s	0.72s	0.60s
valgrind	18/18 (1,240b)	18/18 (1,240b)	29/29 (1,528b)	31/31 (1,520b)	18/18 (5,240b)

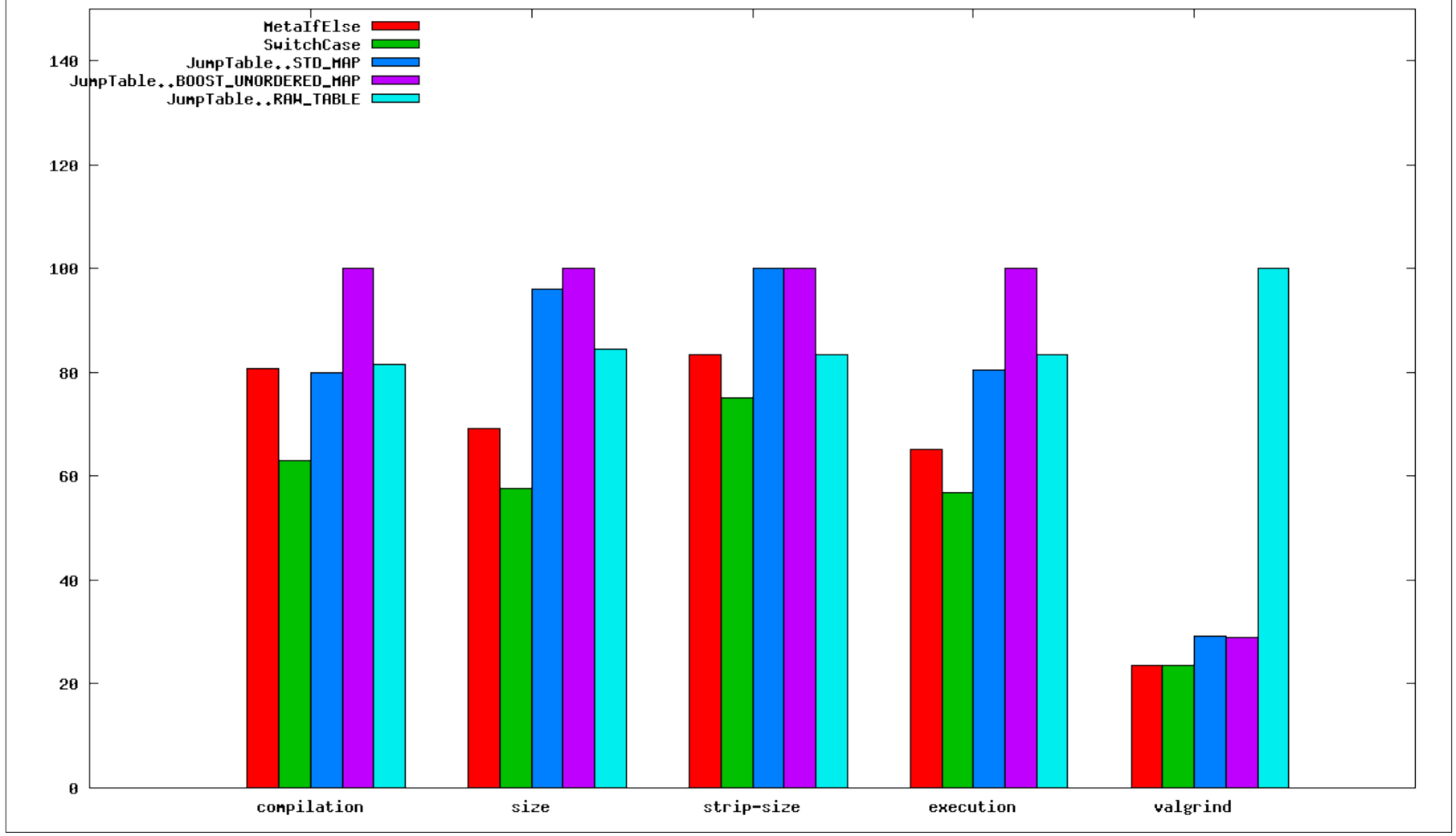


Table 25: ”server” [5be79db], g++34 -m32 -DNDEBUG -DEXPECTED EVENTS=’(2)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)(977)’ -DGIVEN EVENTS=’(2)(11)(23)(41)(59)(73)(97)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.36s	1.03s	1.42s	1.69s	1.36s
size	83K	60K	104K	119K	90K
strip-size	32K	30K	38K	43K	32K
execution	3.76s	2.77s	5.45s	5.39s	2.94s
valgrind	50/50 (1,624b)	50/50 (1,624b)	66/66 (2,032b)	68/68 (1,964b)	50/50 (5,624b)

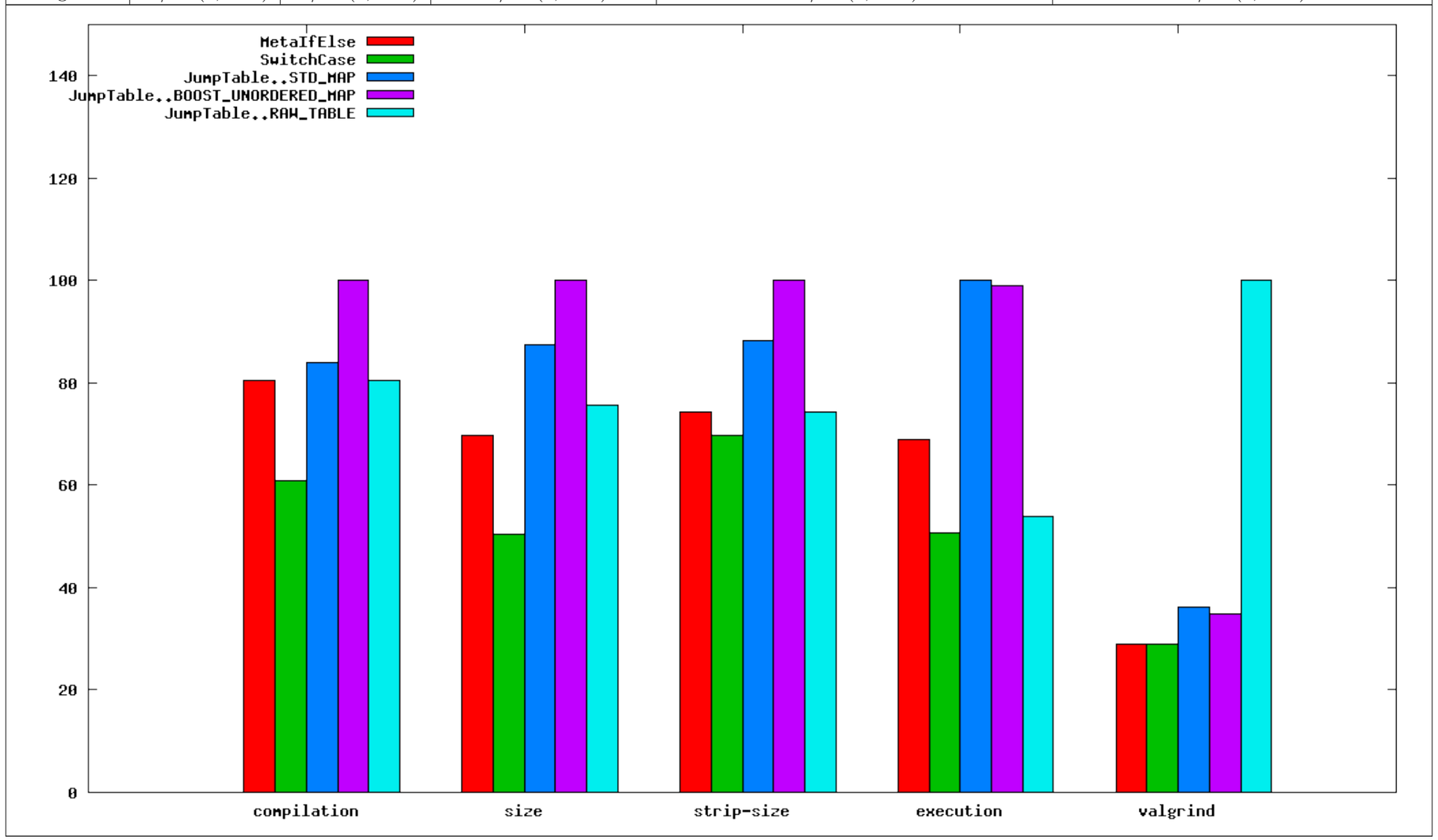


Table 27: ”server” [5be79db], g++34 -m32 -DNDEBUG -DEXPECTED EVENTS=’(2)(977)’ -DGIVEN EVENTS=’(2)(11)(997)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.26s	0.98s	1.30s	1.47s	1.26s
size	61K	55K	75K	91K	62K
strip-size	28K	27K	33K	38K	28K
execution	2.96s	2.75s	4.19s	4.34s	2.89s
valgrind	14/14 (1,192b)	14/14 (1,192b)	16/16 (1,264b)	17/17 (1,292b)	14/14 (5,192b)

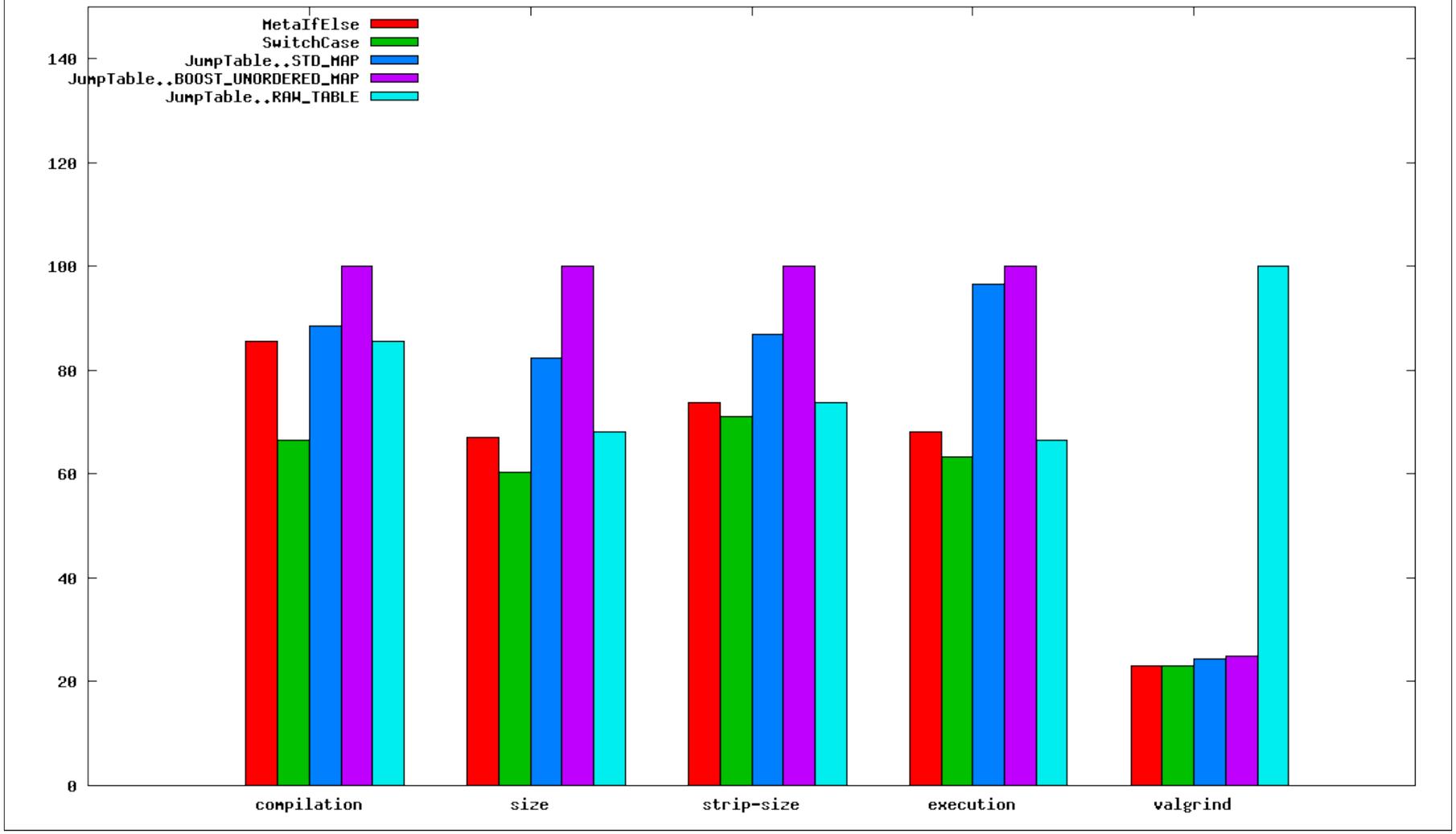


Table 29: ”server” [5be79db], g++34 -m32 -DNDEBUG -DEXPECTED_EVENTS=’(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)’ -DGIVEN_EVENTS=’(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(34
dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.33s	1.00s	1.30s	1.59s	1.33s
size	74K	57K	92K	107K	78K
strip-size	30K	29K	36K	41K	30K
execution	3.32s	2.71s	5.77s	5.48s	3.05s
valgrind	30/30 (1,384b)	30/30 (1,384b)	41/41 (1,672b)	43/43 (1,664b)	30/30 (5,384b)

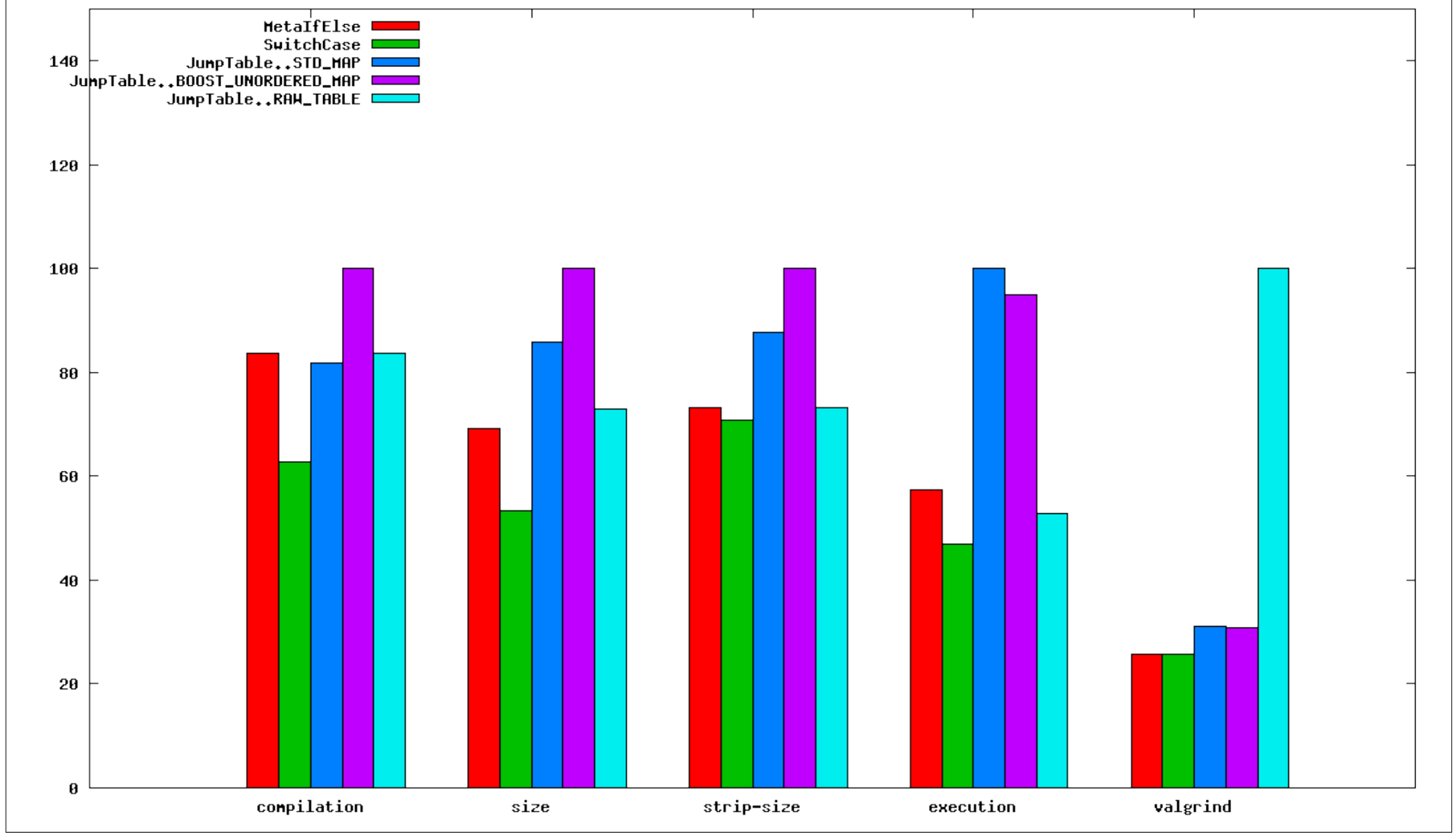


Table 31: ”server” [5be79db], g++34 -m32 -DNDEBUG -DEXPECTED EVENTS=’(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)’ -DGIVEN EVENTS=’(347)(367)(389)(419)(977)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.31s	0.96s	1.42s	1.61s	1.34s
size	74K	55K	91K	107K	78K
strip-size	30K	28K	36K	41K	30K
execution	3.70s	2.72s	4.32s	4.47s	2.86s
valgrind	18/18 (1,240b)	18/18 (1,240b)	29/29 (1,528b)	31/31 (1,520b)	18/18 (5,240b)

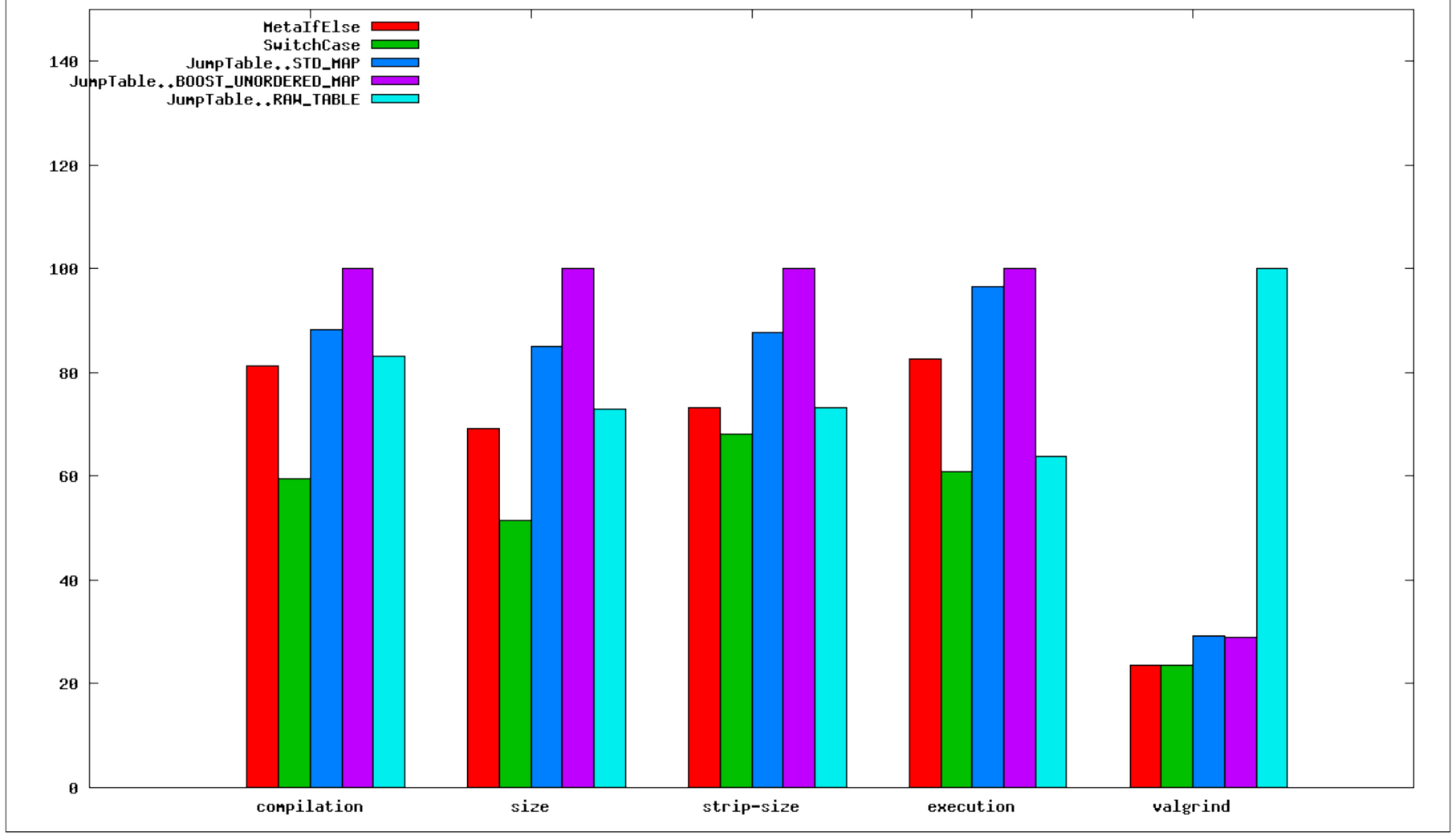


Table 33: ”server” [5be79db], g++34 -m32 -O2 -DNDEBUG -DEXPECTED EVENTS=’(2)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)(977)’ -DGIVEN EVENTS=’(2)(11)(23)(41)(59)(73)(97)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.53s	1.16s	1.64s	1.85s	1.51s
size	23K	19K	33K	34K	29K
strip-size	14K	13K	18K	19K	14K
execution	0.53s	0.47s	0.89s	0.82s	0.57s
valgrind	50/50 (1,624b)	50/50 (1,624b)	66/66 (2,032b)	68/68 (1,964b)	50/50 (5,624b)

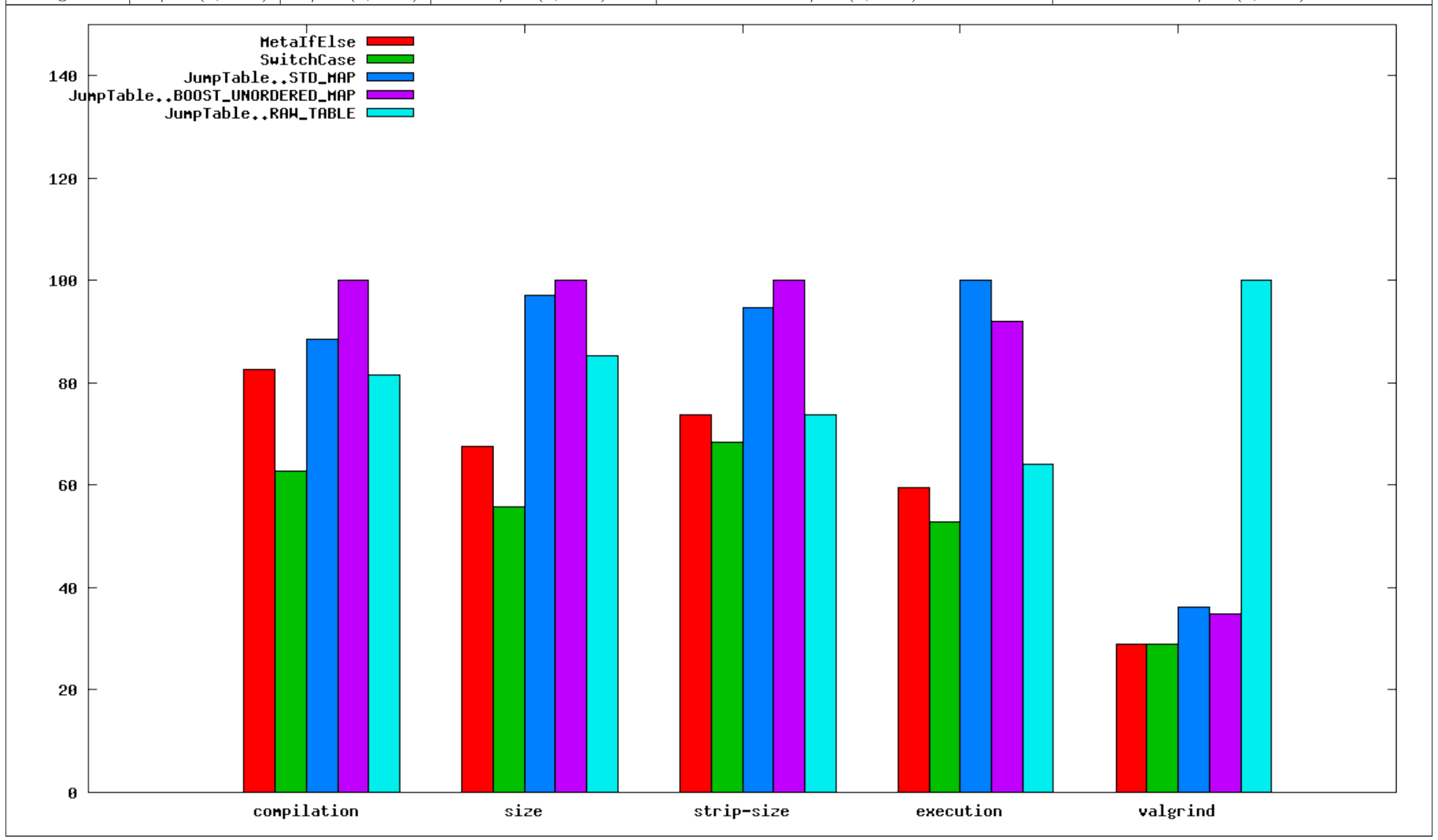


Table 35: ”server” [5be79db], g++34 -m32 -Os -DNDEBUG -DEXPECTED EVENTS=’(2)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)(977)’ -DGIVEN EVENTS=’(2)(11)(23)(41)(59)(73)(97)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.51s	1.14s	1.63s	1.85s	1.50s
size	22K	18K	32K	32K	28K
strip-size	13K	12K	17K	17K	13K
execution	0.55s	0.49s	1.02s	0.90s	0.51s
valgrind	50/50 (1,624b)	50/50 (1,624b)	66/66 (2,032b)	68/68 (1,964b)	50/50 (5,624b)

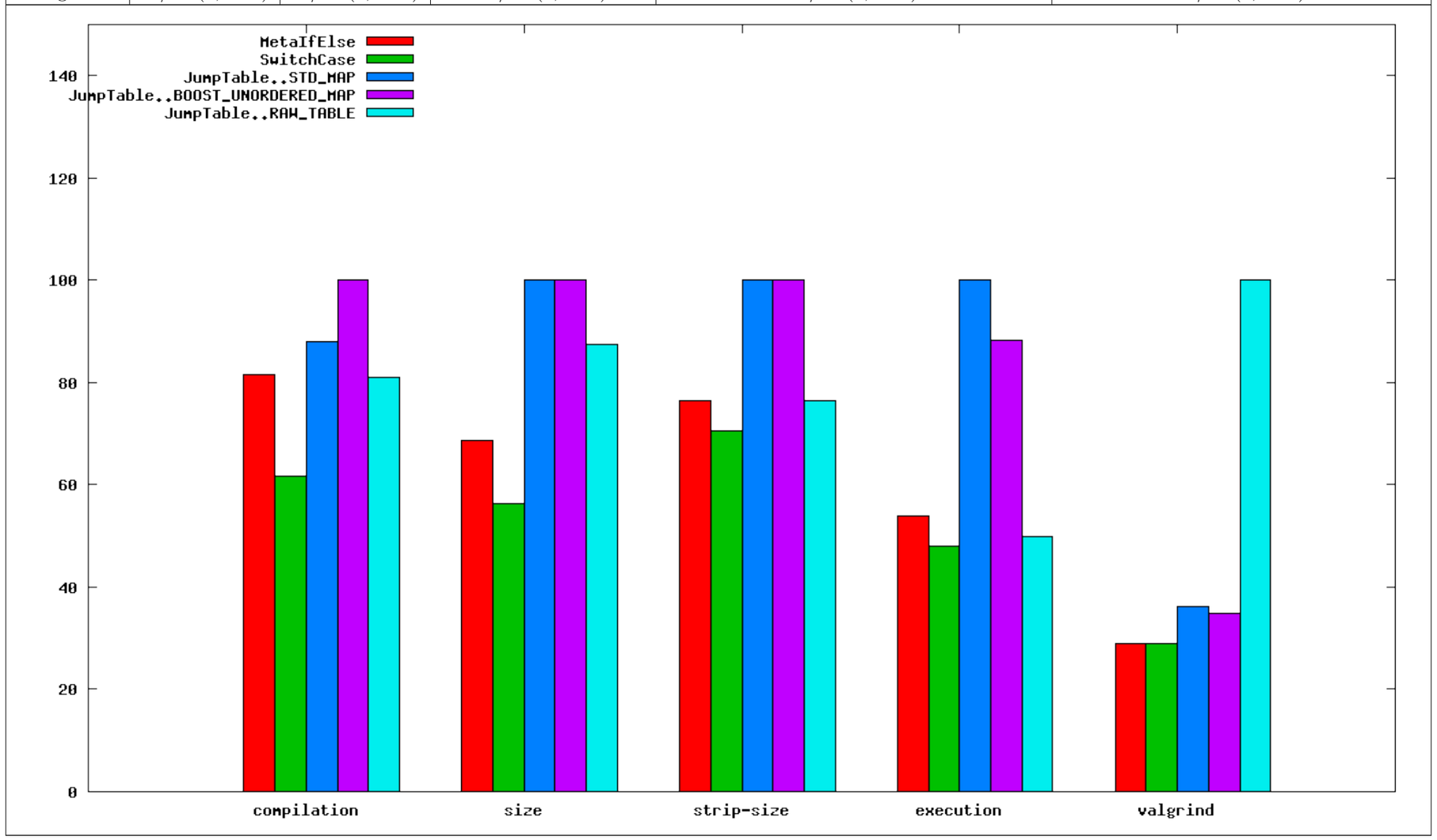


Table 37: ”server” [5be79db], g++34 -m32 -O2 -DNDEBUG -DEXPECTED EVENTS=’(2)(977)’ -DGIVEN EVENTS=’(2)(11)(997)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.35s	1.09s	1.46s	1.65s	1.36s
size	19K	18K	23K	25K	20K
strip-size	13K	12K	15K	16K	13K
execution	0.49s	0.50s	0.61s	0.67s	0.58s
valgrind	14/14 (1,192b)	14/14 (1,192b)	16/16 (1,264b)	17/17 (1,292b)	14/14 (5,192b)

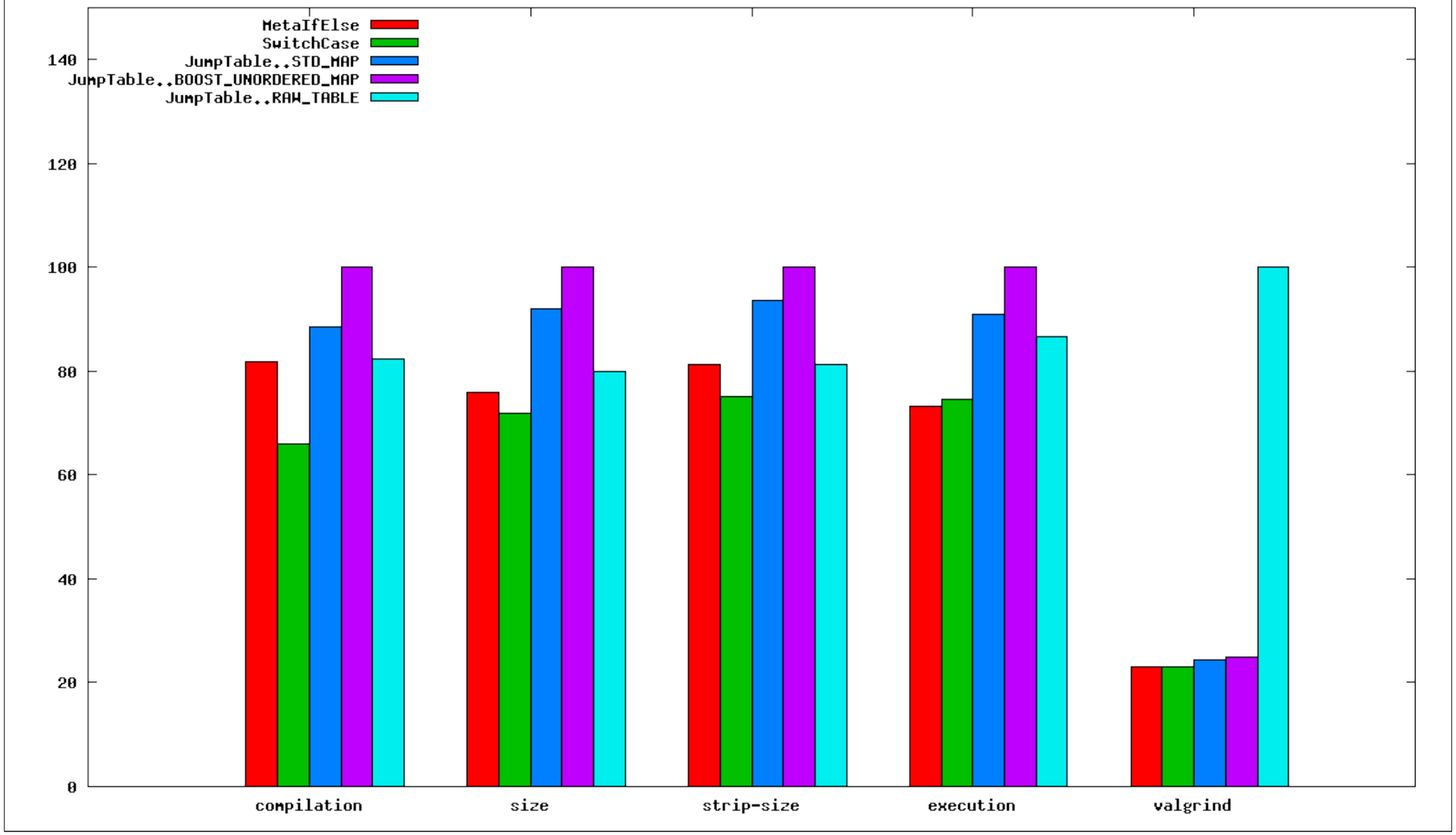


Table 39: ”server” [5be79db], g++34 -m32 -Os -DNDEBUG -DEXPECTED EVENTS=’(2)(977)’ -DGIVEN EVENTS=’(2)(11)(997)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.39s	1.09s	1.45s	1.73s	1.36s
size	18K	17K	22K	23K	19K
strip-size	12K	12K	14K	15K	12K
execution	0.49s	0.52s	0.69s	0.64s	0.55s
valgrind	14/14 (1,192b)	14/14 (1,192b)	16/16 (1,264b)	17/17 (1,292b)	14/14 (5,192b)

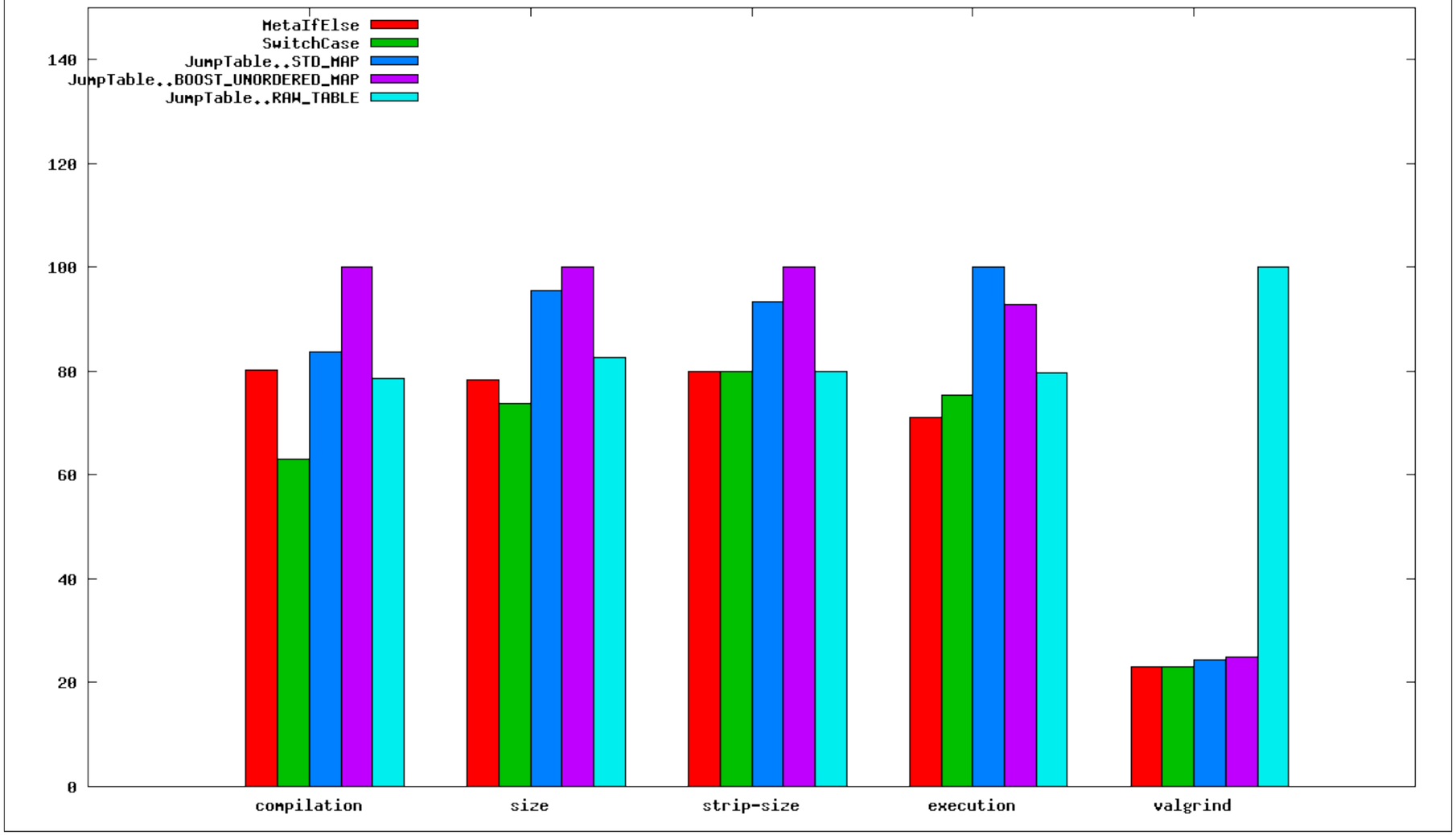


Table 41: "server" [5be79db], g++34 -m32 -O2 -DNDEBUG -DEXPECTED_EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)' -DGIVEN_EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313
dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.46s	1.24s	1.59s	1.73s	1.48s
size	21K	18K	29K	30K	25K
strip-size	14K	13K	17K	18K	14K
execution	0.42s	0.46s	0.96s	0.87s	0.54s
valgrind	30/30 (1,384b)	30/30 (1,384b)	41/41 (1,672b)	43/43 (1,664b)	30/30 (5,384b)

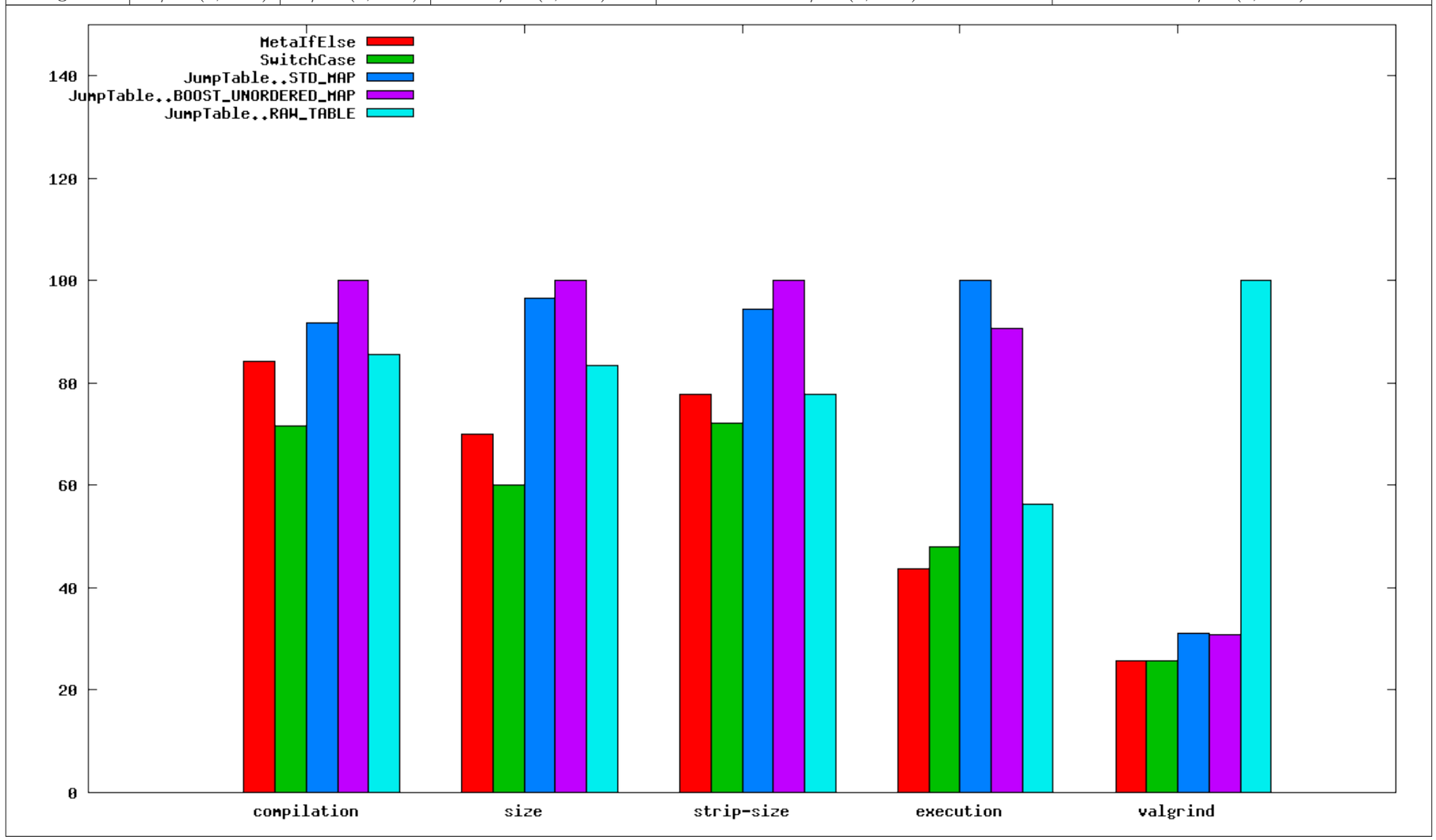


Table 43: "server" [5be79db], g++34 -m32 -Os -DNDEBUG -DEXPECTED_EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)' -DGIVEN_EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313
dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.44s	1.06s	1.56s	1.81s	1.40s
size	21K	17K	28K	29K	24K
strip-size	13K	12K	16K	16K	13K
execution	0.54s	0.46s	1.13s	0.97s	0.44s
valgrind	30/30 (1,384b)	30/30 (1,384b)	41/41 (1,672b)	43/43 (1,664b)	30/30 (5,384b)

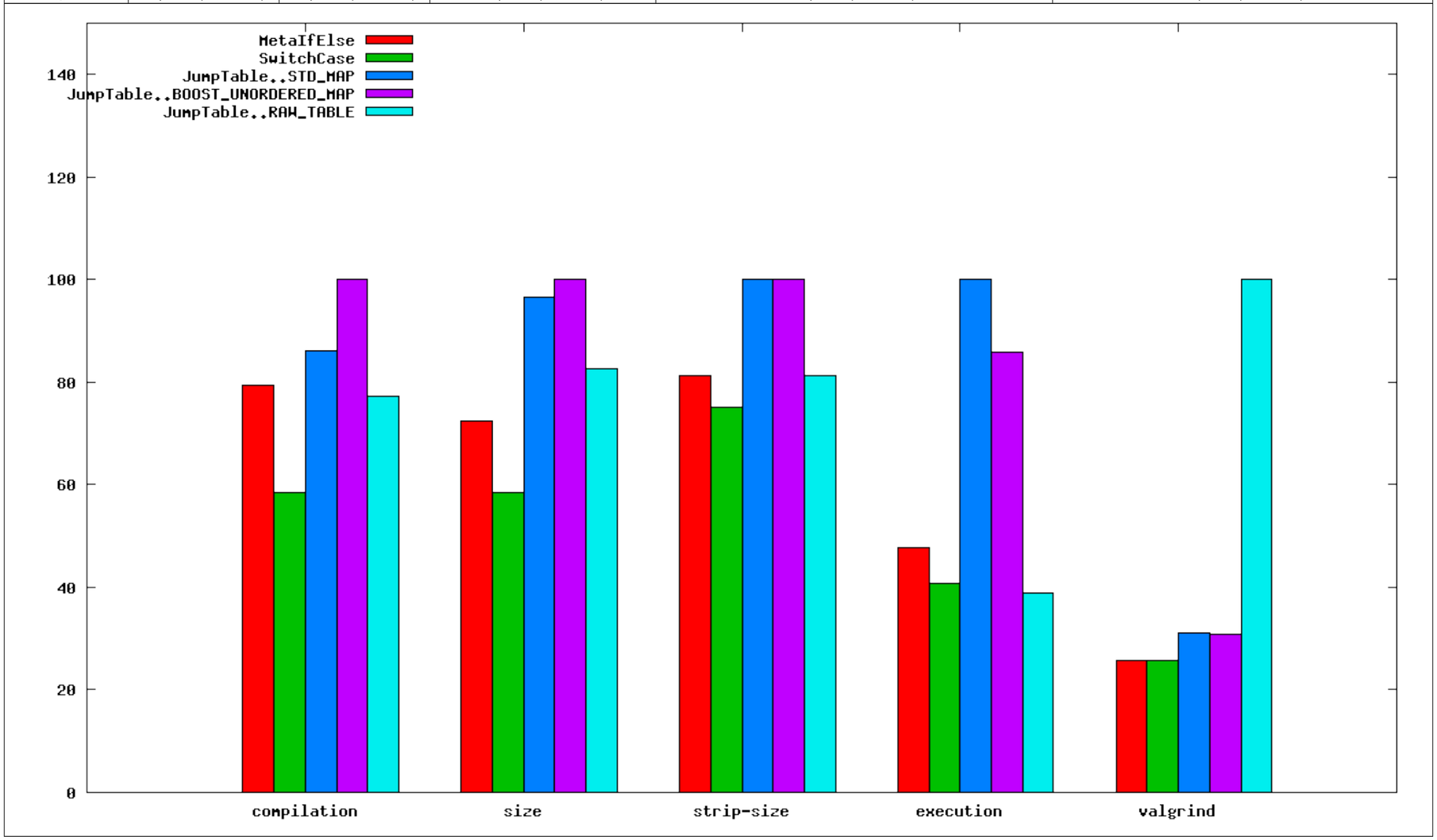


Table 45: ”server” [5be79db], g++34 -m32 -O2 -DNDEBUG -DEXPECTED EVENTS=’(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)’ -DGIVEN EVENTS=’(347)(367)(389)(419)(977)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.47s	1.10s	1.49s	1.82s	1.38s
size	21K	18K	28K	29K	24K
strip-size	13K	12K	16K	17K	13K
execution	0.52s	0.47s	0.65s	0.67s	0.56s
valgrind	18/18 (1,240b)	18/18 (1,240b)	29/29 (1,528b)	31/31 (1,520b)	18/18 (5,240b)

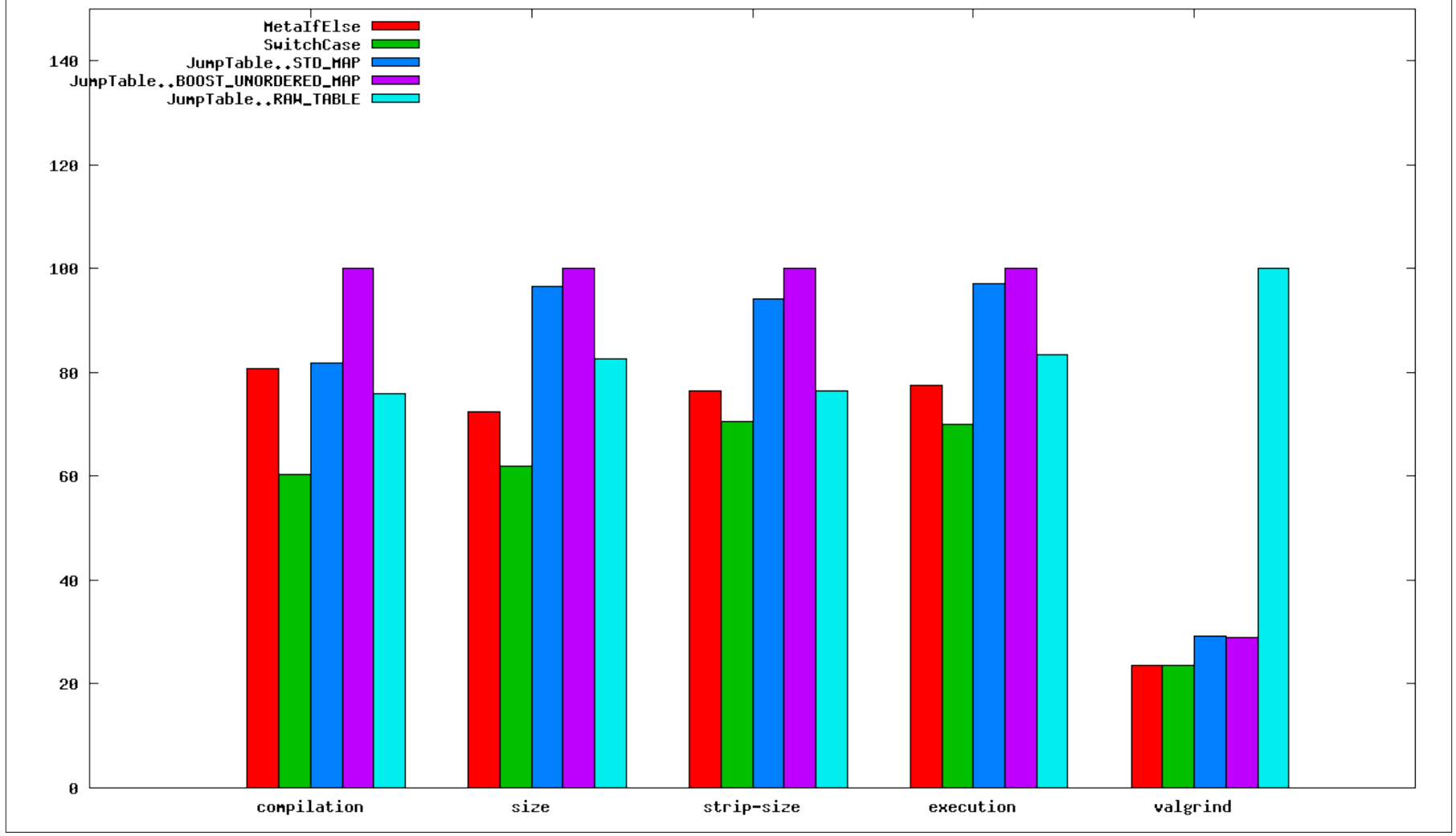


Table 47: ”server” [5be79db], g++34 -m32 -Os -DNDEBUG -DEXPECTED EVENTS=’(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)’ -DGIVEN EVENTS=’(347)(367)(389)(419)(977)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.43s	1.04s	1.53s	1.77s	1.44s
size	20K	17K	27K	28K	24K
strip-size	12K	12K	15K	16K	13K
execution	0.50s	0.51s	0.68s	0.74s	0.52s
valgrind	18/18 (1,240b)	18/18 (1,240b)	29/29 (1,528b)	31/31 (1,520b)	18/18 (5,240b)

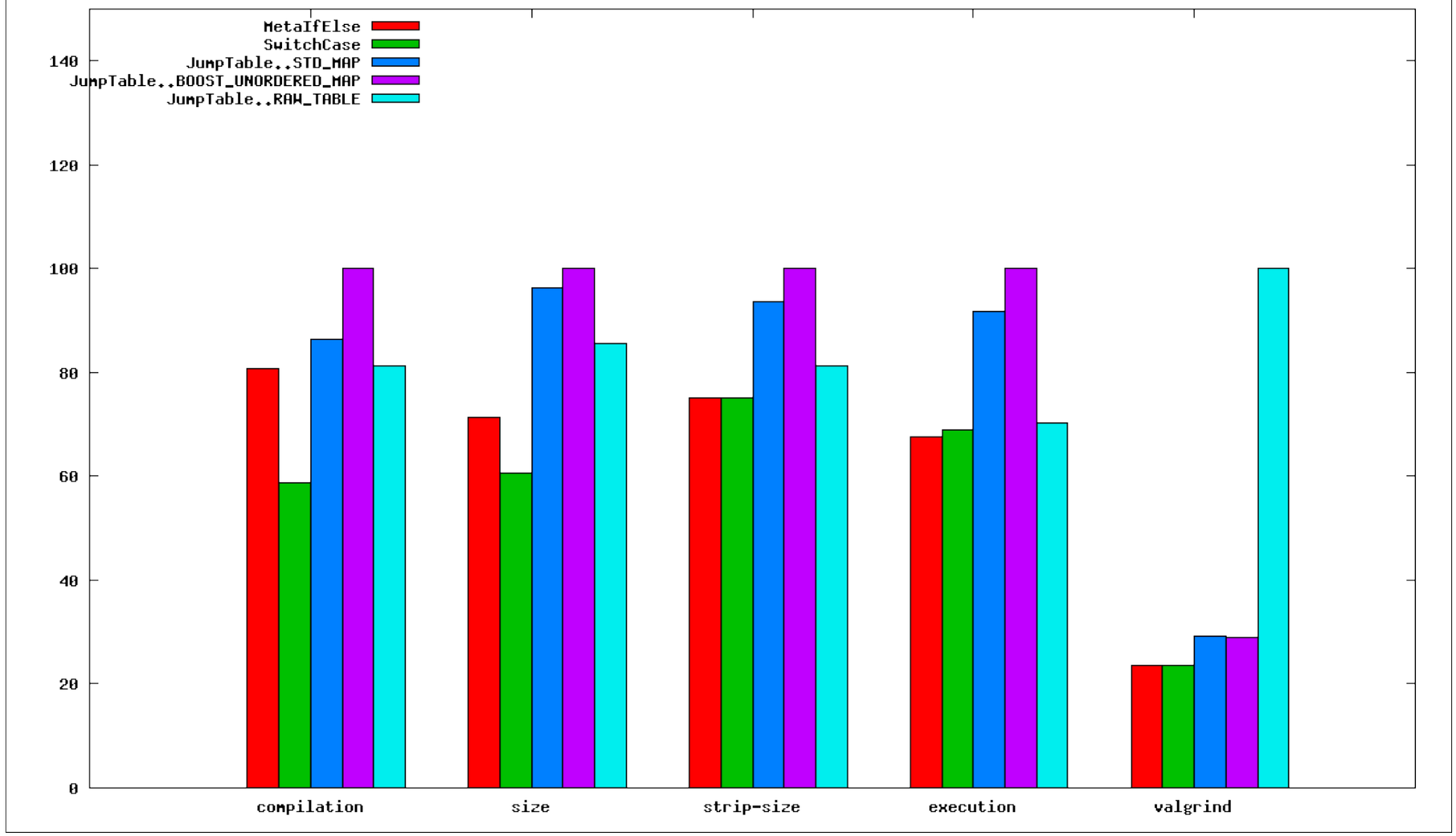


Table 49: ”server” [5be79db], g++44 -m32 -g -DEXPECTED EVENTS=’(2)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)(977)’ -DGIVEN EVENTS=’(2)(11)(23)(41)(59)(73)(97)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.24s	1.01s	1.35s	1.54s	1.22s
size	365K	249K	460K	541K	390K
strip-size	30K	28K	37K	43K	30K
execution	3.51s	2.70s	5.28s	5.14s	2.80s
valgrind	50/50 (1,624b)	50/50 (1,624b)	66/66 (2,032b)	68/68 (1,964b)	50/50 (5,624b)

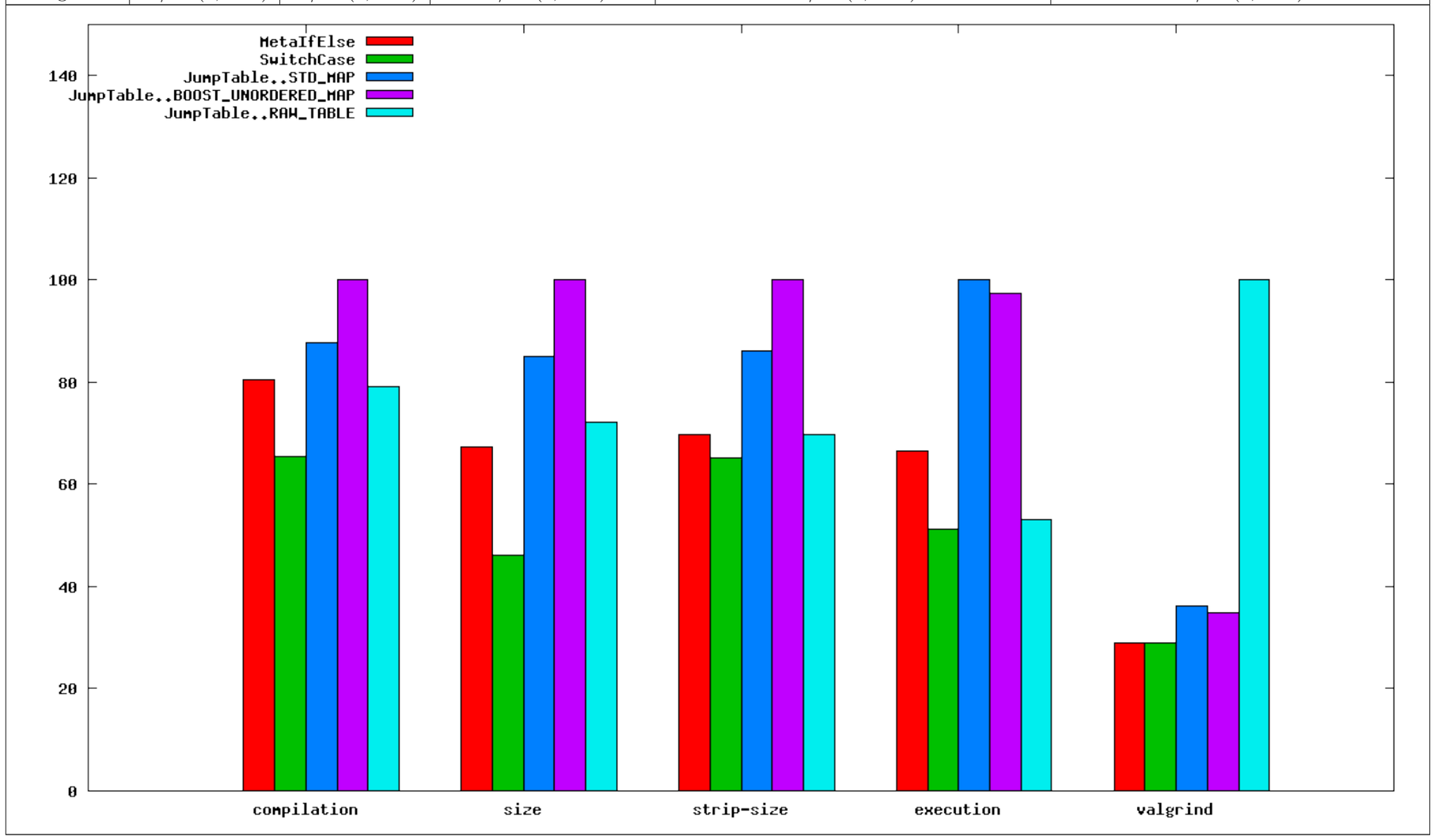


Table 51: ”server” [5be79db], g++44 -m32 -g -DEXPECTED EVENTS=’(2)(977)’ -DGIVEN EVENTS=’(2)(11)(997)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.11s	0.94s	1.20s	2.41s	1.22s
size	264K	232K	338K	419K	269K
strip-size	26K	26K	33K	39K	27K
execution	2.78s	2.60s	3.97s	4.28s	2.73s
valgrind	14/14 (1,192b)	14/14 (1,192b)	16/16 (1,264b)	17/17 (1,292b)	14/14 (5,192b)

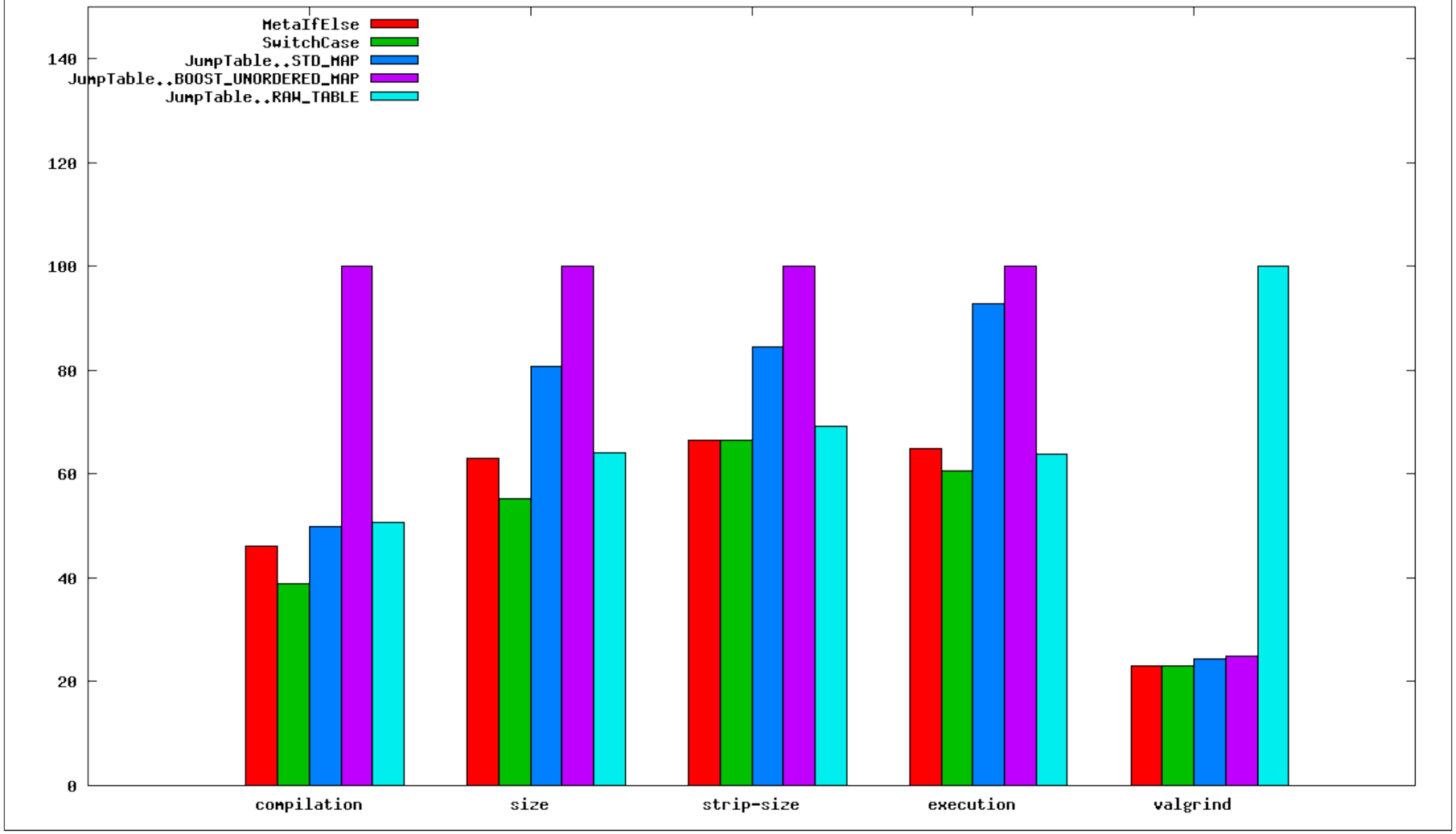


Table 53: "server" [5be79db], g++44 -m32 -g -DEXPECTED EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)' -DGIVEN EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)'/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.11s	1.03s	1.17s	1.53s	1.22s
size	321K	239K	407K	488K	337K
strip-size	29K	27K	35K	41K	29K
execution	3.06s	2.61s	5.54s	5.38s	2.83s
valgrind	30/30 (1,384b)	30/30 (1,384b)	41/41 (1,672b)	43/43 (1,664b)	30/30 (5,384b)

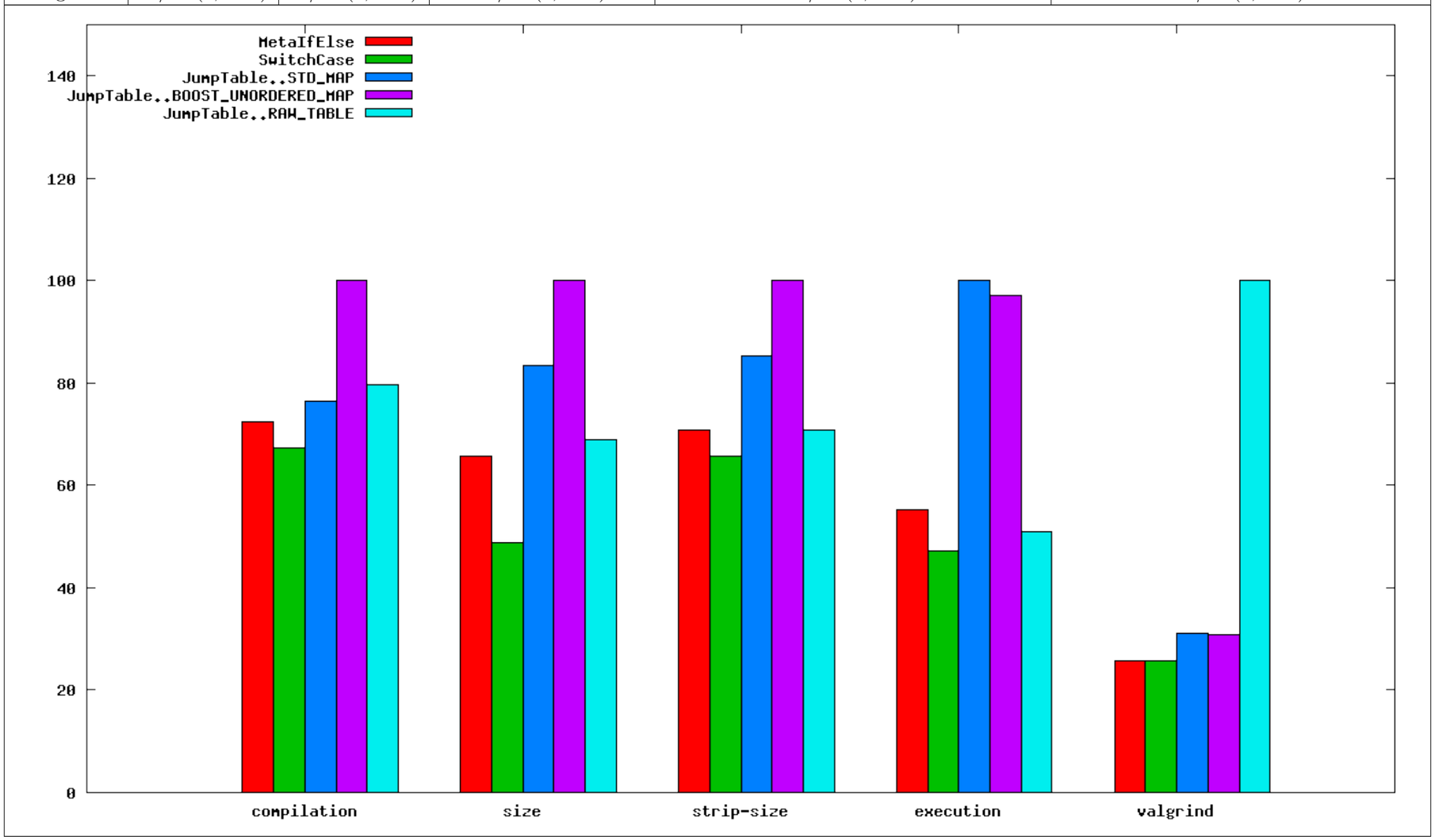


Table 55: ”server” [5be79db], g++44 -m32 -g -DEXPECTED EVENTS=’(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)’ -DGIVEN EVENTS=’(347)(367)(389)(419)(977)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.19s	0.99s	1.40s	1.50s	1.22s
size	321K	233K	407K	488K	337K
strip-size	29K	26K	35K	41K	29K
execution	3.41s	2.61s	4.44s	4.38s	2.69s
valgrind	18/18 (1,240b)	18/18 (1,240b)	29/29 (1,528b)	31/31 (1,520b)	18/18 (5,240b)

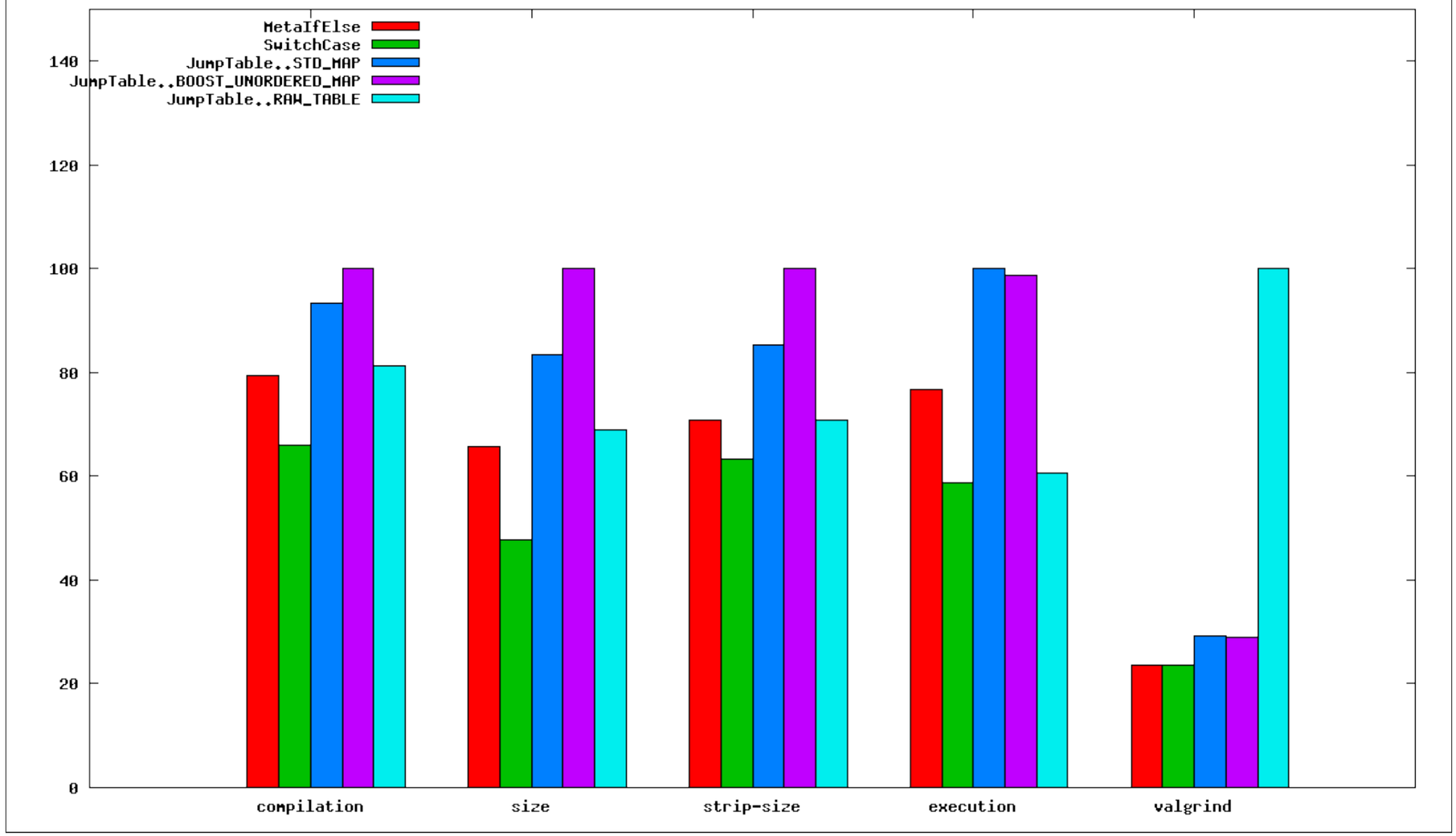


Table 57: ”server” [5be79db], g++34 -m32 -g -DEXPECTED EVENTS=’(2)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)(977)’ -DGIVEN EVENTS=’(2)(11)(23)(41)(59)(73)(97)(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)(367)(389)(419)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.70s	1.09s	1.80s	2.06s	1.71s
size	458K	286K	551K	661K	485K
strip-size	33K	31K	39K	46K	33K
execution	3.75s	2.84s	5.52s	5.30s	2.95s
valgrind	50/50 (1,624b)	50/50 (1,624b)	66/66 (2,032b)	68/68 (1,964b)	50/50 (5,624b)

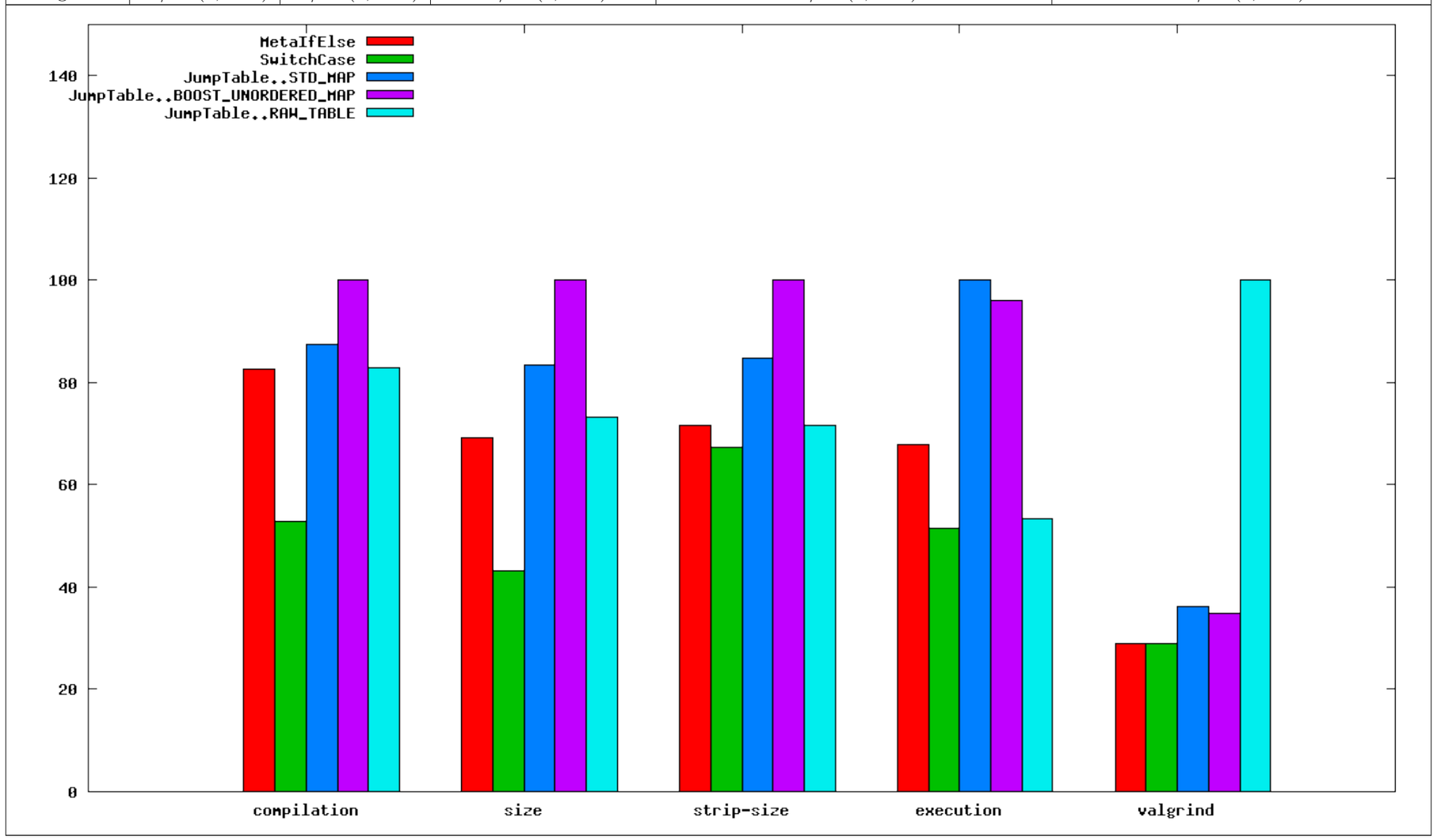


Table 59: "server" [5be79db], g++34 -m32 -g -DEXPECTED EVENTS='(2)(977)' -DGIVEN EVENTS='(2)(11)(997)'/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.49s	1.16s	1.59s	1.84s	1.47s
size	315K	267K	385K	495K	320K
strip-size	29K	28K	34K	41K	29K
execution	2.88s	2.78s	4.20s	4.28s	2.87s
valgrind	14/14 (1,192b)	14/14 (1,192b)	16/16 (1,264b)	17/17 (1,292b)	14/14 (5,192b)

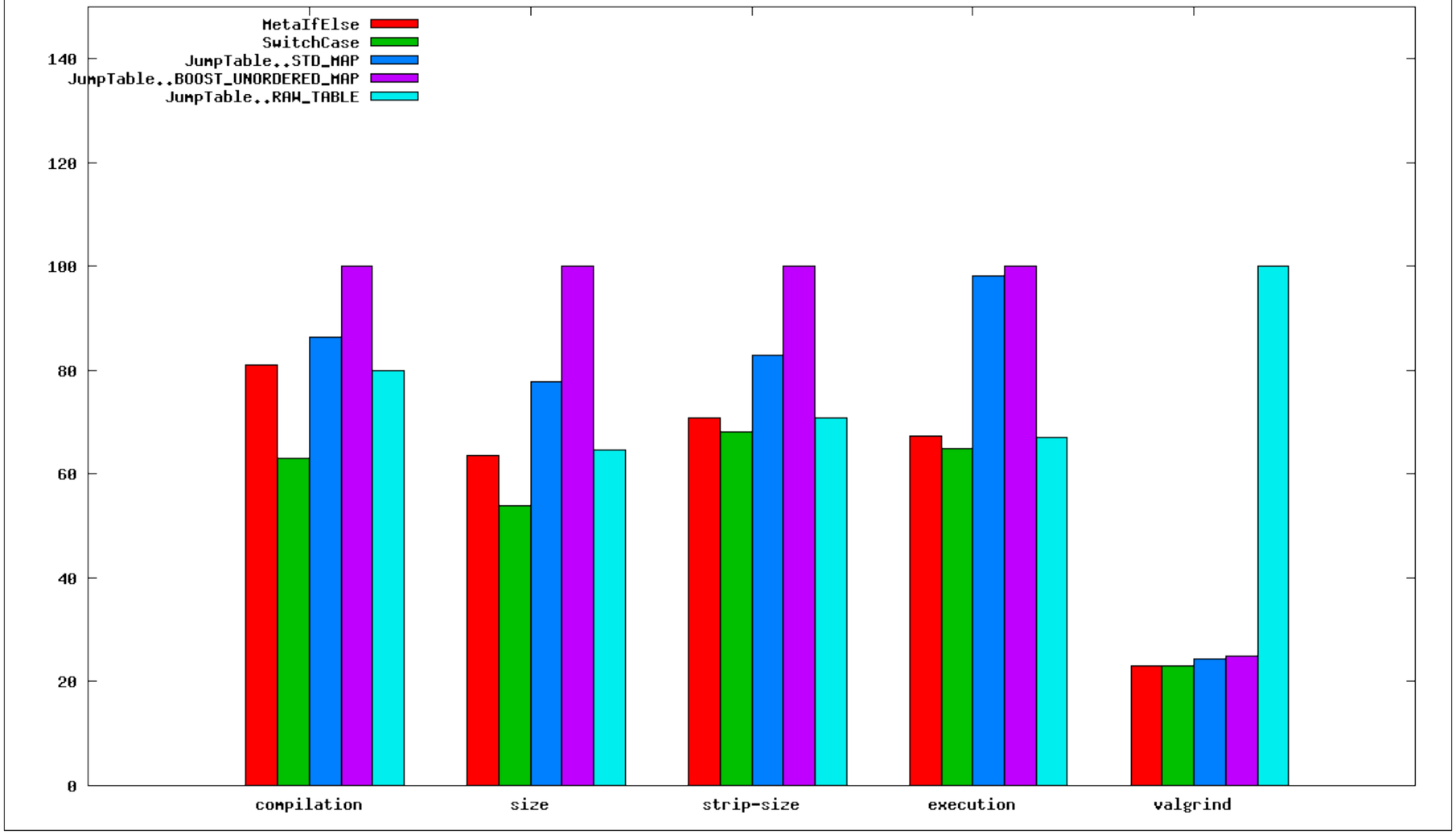


Table 61: "server" [5be79db], g++34 -m32 -g -DEXPECTED EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)' -DGIVEN EVENTS='(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)'/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.57s	1.13s	1.68s	1.96s	1.67s
size	395K	276K	478K	589K	413K
strip-size	31K	30K	37K	44K	31K
execution	3.30s	2.78s	5.72s	5.56s	3.00s
valgrind	30/30 (1,384b)	30/30 (1,384b)	41/41 (1,672b)	43/43 (1,664b)	30/30 (5,384b)

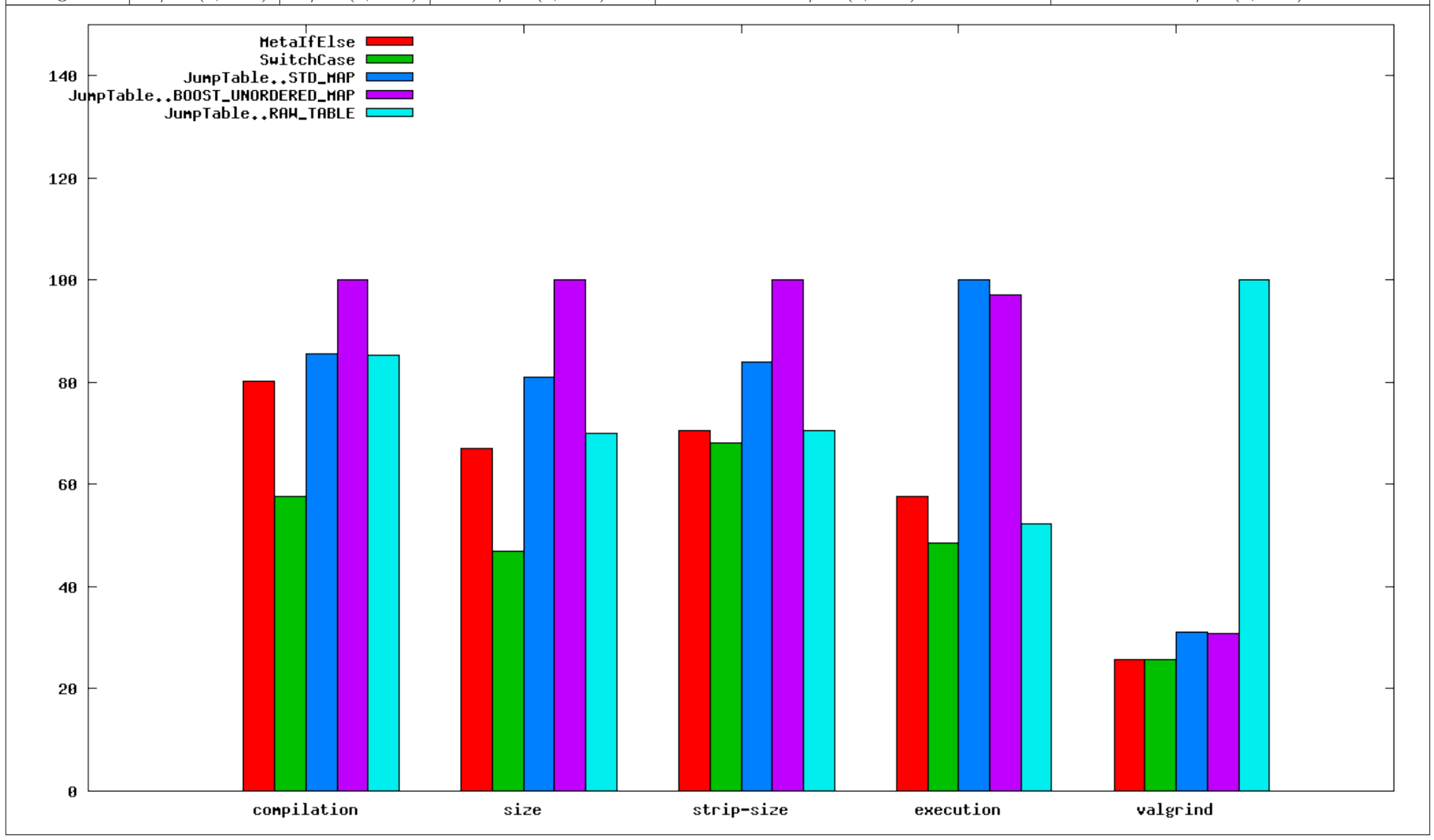
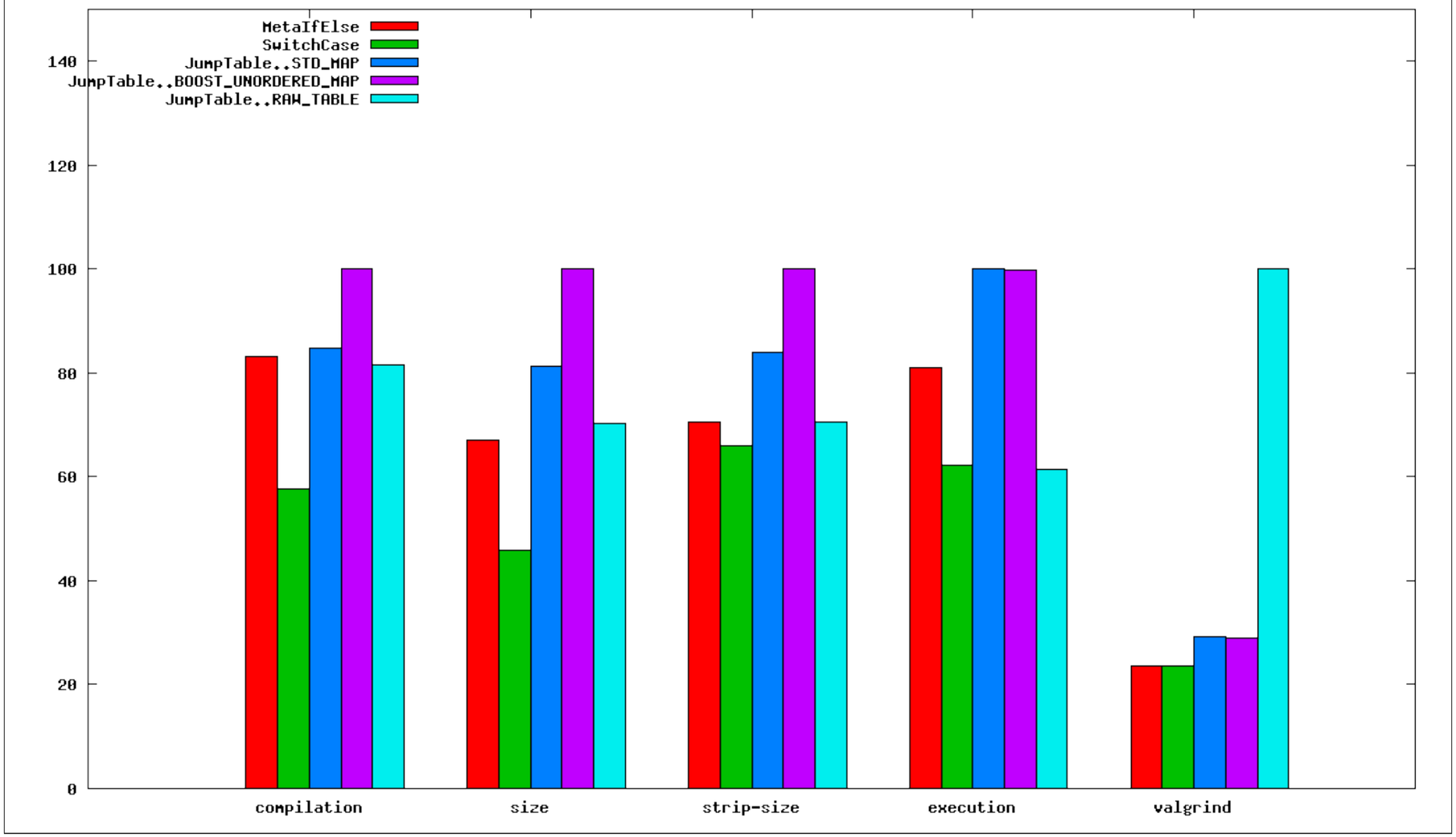


Table 63: ”server” [5be79db], g++34 -m32 -g -DEXPECTED EVENTS=’(109)(137)(157)(179)(197)(227)(241)(269)(283)(313)(347)’ -DGIVEN EVENTS=’(347)(367)(389)(419)(977)’/test dispatch 10000000

	MetaIfElse	SwitchCase	JumpTable..STD_MAP	JumpTable..BOOST_UNORDERED_MAP	JumpTable..RAW_TABLE
compilation	1.63s	1.13s	1.66s	1.96s	1.60s
size	395K	270K	478K	588K	413K
strip-size	31K	29K	37K	44K	31K
execution	3.65s	2.80s	4.50s	4.49s	2.77s
valgrind	18/18 (1,240b)	18/18 (1,240b)	29/29 (1,528b)	31/31 (1,520b)	18/18 (5,240b)



0.0.2 Revision History

Version	Date	Modified by	Status	Accepted by	Main changes
0.1	06.10.2011	Krzysztof Jusiak	-	-	Initial version